



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

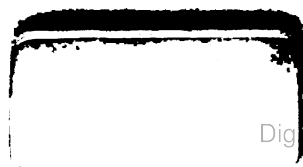
Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>



KARR

United States

UNITED STATES
COAST AND GEODETIC SURVEY

CARLILE P. PATTERSON
SUPERINTENDENT

PACIFIC COAST PILOT

COASTS AND ISLANDS
OF
ALASKA



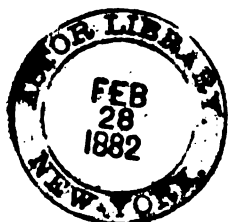
Second Series

WASHINGTON
GOVERNMENT PRINTING OFFICE
1879

PACIFIC COAST PILOT

ALASKA

METEOROLOGY



297

LETTER OF TRANSMISSION.

UNITED STATES COAST SURVEY OFFICE,
WASHINGTON, D. C., *April 25, 1878.*

DEAR SIR: Herewith I have the honor to turn in the results of an inquiry into the meteorology of Alaska and adjacent regions, forming the Meteorological Appendix to the Coast Pilot of Alaska, now in preparation.

This chapter comprises an abstract or summary of all accessible meteorological material relating to the district in question; both of that which has been published, and is widely scattered through numerous proceedings, annuals, and transactions of learned societies, buried in periodicals in the Russian and other languages, and otherwise difficult of access; and also of a very large amount of unpublished material from the archives of the United States Coast Survey, the Medical Department of the United States Army, the United States Signal Service, and numerous contributions from private sources which have been kindly placed at my service.

With the abstracts are included the fullest references to the sources from which the materials were derived, and all the data which could be obtained in relation to the conditions of observation; matters which have been obtained in many cases with great difficulty, which are not to be found brought together in any meteorological publication, and are often from private sources of information, but without which no intelligent or satisfactory discussion of the data is practicable.

A concise summary of monthly and annual means of temperature, precipitation, and pressure has been prepared for convenience and speedy reference, the details of which have been subjected to all the reductions and corrections accessible, except those which would deprive the observations of their local character, and which may be applied with little trouble by those desiring to study terrestrial meteorology.

Charts representing the monthly and annual means of temperature and pressure, graphic figures of the directions of wind at each locality, and of the annual curves of pressure, precipitation, and temperature accompany the report.

In the general tables the observations have been reduced to English standards: as degrees of Fahrenheit in the case of temperature, and inches and decimals for pressure and precipitation. The barometer, when practicable, has also been reduced to the sea-level at the freezing point.

In the tables of abstracts, in order to render them as nearly as possible comparable, *all known* corrections have been applied to the monthly and annual means, excepting, in the case of the barometer, the corrections for elastic force of aqueous vapor and for gravity. These have been omitted, as above stated, in order that the local peculiarities of each station might not be eliminated.

In the general discussion of the data, an attempt has been made rather to elucidate the general climate of the region than to investigate problems of world-wide application, for treating which last other regions afford greater facilities in the greater abundance of materials.

In the discussion of the particular stations an attempt has been made to illustrate the local peculiarities, especially as they relate to commerce, navigation, and agriculture; and especially with reference to the needs of navigators. Many particulars from Russian sources have been incorporated which, in the originals, are practically inaccessible.

My own somewhat wide experience in the region treated of has afforded the opportunity of adding a number of more or less useful notes and observations.

While the main object of this work has not been the solution of problems of terrestrial meteorology, it has happened, as is often the case, that the result of the work has been to confirm in many particulars the theoretical views so ably presented in a recent publication by Mr. Ferrel, of the Coast Survey, on the distribution of atmospheric pressure, forming part of the Appendix to the Coast Pilot of the Eastern Coast of the United States.

It may not be improper to state that the unification of the data, derived from so many different sources, has been a work of great labor and has consumed a great deal of time; indeed, the amount of investigation necessary to obtain the corrections, to discover whether such and such observations were taken in new or old style, whether corrections for temperature, height, instrumental error, &c., had been applied or not to the published record, has been astonishing when it is considered that these data ought in every case to accompany the record when published. It has not been possible in all cases to obtain all the corrections, but the deficient ones are fortunately not numerous and relatively of slight importance.

I have been most ably assisted in this work by Mr. Marcus Baker, of the United States Coast Survey, upon whom most of the labor of computation, reduction, and much of the bibliographical research has devolved.

It may be said, without doubt, that, with the publication of this report, there will be ready, for the use of the navigator or the student of general meteorology, a summary of all the meteorological data in relation to this region which have been accumulated previous to the year 1877, and in a form which will cost him the least labor to apply to it the particular mode of investigation which his studies or necessities may demand. While there may be a few isolated and unimportant omissions, none are known to exist except those mentioned in the general notes, and which have been neglected (except by giving references to them) because they were not considered of any value, or to be available for practical use. For a few peripheral stations like Hakodadi no attempt has been made to present more than a fair summary of a reasonable number of observations. Of these, however, there are but two or three.

In combining in one paper the observations and conditions of observation, unaltered except so far as to make them comparable, with the indications of the differences which exist in what are now shown to be separate meteorological areas; with such notes as may facilitate the pursuits of the trader and navigator, and a clear indication of the vacancies in the chain of observing stations, and of particular kinds of observations which have been neglected at stations once occupied, the writer feels that a work has been accomplished which, if not of the highest order, is yet not unworthy the name of a contribution to knowledge nor of the service to which he has the honor to belong.

I remain, very respectfully, yours,

WM. H. DALL,
Acting Assistant United States Coast Survey.

CARLILE P. PATTERSON,
Superintendent United States Coast Survey, Washington, D. C.

COAST PILOT OF ALASKA

APPENDIX 1

METEOROLOGY

W. H. Dall
W. H. DALL, ACTING ASSISTANT UNITED STATES COAST SURVEY.



TABLE OF CONTENTS.

GENERAL METEOROLOGICAL DISCUSSION.....	Page. 15
SYNOPTICAL TABLES:	
Atmospheric pressure.....	24
Temperature of the air.....	25
Temperature of the sea.....	26
Precipitation.....	26
Wind directions.....	27
LOCAL DISCUSSIONS:	
I. AMERICAN STATIONS:	
Burnaby Island.....	29
Fort Tongass.....	29
Fort Wrangell.....	30
Sitka.....	30
Fort Kenai.....	32
St. Paul, Kadiak.....	32
Iliuliuk, Unalashka.....	33
St. Paul Island.....	34
Möller Islands.....	36
Ikogmut.....	36
St. Michaels.....	37
Unalaklik.....	38
Port Clarence.....	39
Choris Peninsula.....	39
Point Barrow.....	39
Kolmakoff Redoubt.....	39
Nulato.....	39
Fort Yukon.....	40
Fort Franklin.....	40
II. ASIATIC STATIONS:	
Port Providence.....	41
Anadyr.....	41
Petropavlovsk.....	41
Port of Okhotsk.....	43
Port Aian.....	44
Udsk.....	44
Ala River.....	44
Nikolaieffsk.....	45
Duë Lighthouse.....	45
Kusunai.....	46
Muravieff.....	46
Hakodadi.....	47
BIBLIOGRAPHY.....	49
LOCAL TABLES:	
I. AMERICAN STATIONS:	
<i>Burnaby Island, Queen Charlotte Islands:</i>	
Notes.....	51
Temperature and precipitation.....	51
TABLE I.... Cloudiness.....	51
II.... Wind, direction of.....	51

LOCAL TABLES:

AMERICAN STATIONS continued:

Fort Tongass:

Notes	Page.
TABLE I.... Atmospheric pressure	52
II.... Temperature of the air	53
III.... Precipitation, &c	54
IV.... Winds, direction of	55
V.... Winds, force of	55

Fort Wrangell:

Notes	56
TABLE I.... Atmospheric pressure	57
II.... Temperature of the air	57
III.... Precipitation, &c	58
IV.... Cloudiness	59
V.... Winds, direction of	59
VI.... Winds, force of	60

Sitka:

Notes	60
TABLE I.... Atmospheric pressure	64
II.... Temperature of the air	65
III.... Precipitation	66
IV.... Cloudiness	66
V.... Elastic force of aqueous vapor	67
VI.... Wind, direction of	68
VII.... Wind, direction of	68
VIII.... Wind, direction of	69
IX.... Wind, force of	69
X.... Rainy and snowy days	70

Fort Kenai:

Notes	71
TABLE I.... Temperature of the air	71
II.... Cloudiness, rain, and snow	71
III.... Wind, direction of	72
IV.... Wind, force of	72

St. Paul, Kodiak:

Notes	72
TABLE I.... Atmospheric pressure and temperature	73
II.... Temperature of the air	74
III.... Precipitation	74
IV.... Wind, direction of	75
V.... Wind, direction of	75
VI.... Wind, force of	76
VII.... Wind, force of	76
VIII.... Weather	76

Iliuliuk, Unalashka:

Notes	77
TABLE I.... Atmospheric pressure	79
II.... Atmospheric pressure	80
III.... Atmospheric pressure	80
IV.... Temperature of the air	81
V.... Temperature of the air	82
VI.... Temperature of the air	82
VII.... Temperature of the air	82
VIII.... Temperature of the sea-water	83
IX.... Rain and wind observations	83
X.... Humidity	83
XI.... Wind, direction of	84
XII.... Wind, direction of	84
XIII.... Wind, direction of	84
XIV.... Wind, force of	85
XV.... Wind, force of	85
XVI.... Wind, force of	85
XVII.... Weather record	86
XVIII.... Weather record	86
XIX.... Earthquakes	87

TABLE OF CONTENTS.

11

LOCAL TABLES:

AMERICAN STATIONS *continued*:

St. Paul Island, Bering Sea:

Notes	87
TABLE I.... Atmospheric pressure	89
II.... Temperature of the air	90
III.... Temperature of the sea-water	90
IV.... Precipitation	91
V.... Cloudiness	91
VI.... Humidity	92
VII.... Wind, direction of	92
VIII.... Wind, direction of	92
IX.... Wind, force of	93
X.... Wind, prevailing, and velocity	93

Müller Islands, Bering Sea:

Notes	93
TABLE I.... Atmospheric pressure	94
II.... Temperature of the air	94
III.... Wind, direction of	94
IV.... Wind, force of	95
V.... Rainy and snowy days	95

Ikogmut Mission, Yukon River:

Notes	95
TABLE I.... Temperature of the air	96
II.... Temperature of the air	96
III.... Wind, direction of	97
IV.... Weather	97
V.... Rainy and snowy days	97
VI.... Opening and closing of navigation, Yukon River	98

St. Michaels, Norton Sound:

Notes	98
TABLE I.... Atmospheric pressure	100
II.... Atmospheric pressure	101
III.... Atmospheric pressure	101
IV.... Temperature of the air	102
V.... Temperature of the air	102
VI.... Temperature (dry and wet bulb thermometer)	102
VII.... Temperature of the air	103
VIII.... Temperature of the air	103
IX.... Temperature of sea-water	104
X.... Precipitation	104
XI.... Wind, direction of	104
XII.... Wind, direction of	105
XIII.... Wind, direction of	105
XIV.... Wind, direction of	105
XV.... Wind, force of	106
XVI.... Wind, force of	106
XVII.... Wind, force of	106
XVIII.... Wind, force of	107
XIX.... Weather	107
XX.... Auroras	108
Notes to aurora table	108
TABLE XXI.... Number of auroras	109

Unalaklik, Norton Sound:

Notes	110
TABLE I.... Atmospheric pressure	110
II.... Temperature of the air	110
III.... Weather	110

Port Clarence, Bering Strait:

Notes	111
TABLE I.... Temperature	111

Choris Peninsula, Kotzebue Sound:

Notes	111
TABLE I.... Temperature of the air	112

LOCAL TABLES:

AMERICAN STATIONS continued:

Point Barrow, Arctic Ocean:

Notes.....	112
TABLE I.... Temperature of the air.....	112

Kolmakoff Redoubt:

Notes.....	112
TABLE I.... Temperature of the air.....	113
II.... Weather.....	113

Nulato, Yukon River:

Notes.....	113
TABLE I.... Atmospheric pressure.....	114
II.... Temperature of the air.....	114
III.... Wind, direction of.....	115
IV.... Wind, force of.....	115
V.... Precipitation.....	115
VI.... Auroras.....	116

Fort Yukon:

Notes.....	116
TABLE I.... Atmospheric pressure.....	116
II.... Temperature of the air.....	117
III.... Temperature of the air.....	117

Fort Franklin, Great Bear Lake:

Notes.....	117
TABLE I.... Temperature of the air.....	118

II. ASIATIC STATIONS:

Port Providence, Plover Bay:

Notes.....	118
TABLE I.... Temperature of the air.....	119

Anadyr River-mouth, Northeastern Siberia:

Notes.....	119
TABLE I.... Atmospheric pressure.....	120
II.... Temperature of the air.....	120
III.... Wind, direction of.....	120
IV.... Wind force of.....	121
V.... Weather.....	121

Petropavlovsk, Kamchatka:

Notes.....	121
TABLE I.... Atmospheric pressure.....	123
II.... Temperature of the air.....	124
III.... Temperature of the air.....	124
IV.... Precipitation.....	125
V.... Wind, direction of.....	125
VI.... Wind, force of.....	125
VII.... Weather.....	126

Port of Okhotsk, Okhotsk Sea:

Notes.....	126
TABLE I.... Atmospheric pressure.....	128
II.... Temperature of the air.....	129
III.... Temperature of the air.....	130
IV.... Precipitation.....	130
V.... Wind, direction of.....	131
VI.... Wind, force of.....	131
VII.... Weather.....	132

Port Aian, Okhotsk Sea:

Notes.....	133
TABLE I.... Atmospheric pressure.....	135
II.... Atmospheric pressure.....	135
III.... Temperature of the air.....	136
IV.... Precipitation.....	137
V.... Wind, direction of.....	137
VI.... Wind, force of.....	137
VII.... Weather.....	138

TABLE OF CONTENTS.

13

LOCAL TABLES:

ASIATIC STATIONS continued:

Udsk Village, Udi River, Eastern Siberia:

Notes	Page.
TABLE I.... Atmospheric pressure and temperature	139
II.... Wind, direction of	140
III.... Wind, force of	140
IV.... Weather	140

Ala River, Udskaia Gulf, Okhotsk Sea:

Notes	141
TABLE I.... Atmospheric pressure and temperature	141
II.... Wind, direction of	141
III.... Wind, force of	142
IV.... Weather	142

Nikolaieffsk on the Amur River:

Notes	142
TABLE I.... Atmospheric pressure	143
II.... Atmospheric pressure	144
III.... Temperature of the air	144
IV.... Precipitation	145
V.... Cloudiness	146
VI.... Humidity	146
VII.... Wind, direction of	147
VIII.... Wind, force of	147

Dud Lighthouse, Sakhalin Island:

Notes	147
TABLE I.... Atmospheric pressure	148
II.... Temperature of the air	149
III.... Cloudiness	149
IV.... Wind, direction of	150

Kusunai, Sakhalin Island:

Notes	150
TABLE I.... Atmospheric pressure, temperature, and cloudiness	151
II.... Wind, direction of	151

Muravieff Post, Sakhalin Island:

Notes	151
TABLE I.... Temperature and cloudiness	152
II.... Wind, direction of	152

Hakodadi, Yezo Island, Japan:

Notes	153
TABLE I.... Atmospheric pressure, temperature, elasticity of vapor, humidity, and precipitation	153

MISCELLANEOUS AND SUPPLEMENTARY NOTES AND TABLES:

Meteorological observations between Cook's Inlet and Queen Charlotte Islands, by Dixon, 1786-'87	154
Meteorological observations on the Atna River, by Serebrennikoff	154
Weather observations in Aleutian Islands and Bering Sea, by the United States Coast Survey	155
Temperature of surface sea-water, Aleutian Islands and Bering Sea, by the United States Coast Survey	155
Temperature of 5-fathom sea-water, Aleutian Islands and Bering Sea, by the United States Coast Survey	156
Observations in Bering Sea, &c., by Beechey, 1826-'27	156
Supplemental notes	156
INDEX TO NAMES OF STATIONS	161
LIST OF ILLUSTRATIONS AND NOTES	162
PARTIAL LIST OF MAPS, CHARTS, AND PUBLICATIONS ON THE REGION	163
Preliminary note	165
List of Charts and Maps	167
List of Books and other publications	225

GENERAL METEOROLOGICAL DISCUSSION.

ATMOSPHERIC PRESSURE.

Tolerably complete records of the barometer have been obtained from some thirteen stations of the general region, and fragmentary reports from a much larger number, as indicated by the summaries herewith printed. This amount of material is of course insufficient for a conclusive exhibit of the conditions relating to pressure over so large a region, nor is it enough to warrant extended generalization in regard to minor details. Nevertheless it does afford us an outline of the main features expressed by the variations of the barometer in this region, and indicates clearly the area over which barometric observations are insufficient or wanting.

The English barometer, divided into inches and tenths, is the companion of the American navigator in combination, usually, with a thermometer of Fahrenheit's scale. For this and other practical reasons the metric and centesimal systems have not been adopted in reducing to a common standard the often very diverse records under consideration.

In general the result has been to confirm and supplement the "Meteorological Researches" of Mr. William Ferrel, recently published by the Coast Survey, adding materially to our knowledge of details not touched upon by, or extraneous to, that memoir.

Much time and labor has been required to discover the information necessary to reduce the observations, that they might indicate atmospheric pressure at the sea-level, the mercurial column being at 32° Fahrenheit; and in a few instances this could be only approximated. The instrumental corrections in many cases were indeterminable, especially in those cases where an aneroid barometer was made use of. The practice of omitting all reference to details of station, and character of nearly all reductions applied to summaries of observations at different stations, which is prevalent in the publications of some of the most important meteorological observatories, has created a large amount of unnecessary labor. These details had in many cases to be sought in volumes of meteorological correspondence, published at irregular intervals and difficult of access, before it could be determined in a satisfactory manner whether the summaries were "old" or "new style"; reduced to the freezing point or without temperature correction; reduced to sea-level or not; at what temperature observations were taken; what was the station of the barometer, and many other necessary particulars. A few lines in the volumes containing the records of observations would have saved days of work. No reduction has here been applied for differences in the height of the mercurial column due to differences of the earth's gravity at different latitudes, such being considered as probably falling within the limit of error or uncertainty of much of the material here collated.

The results have been platted on a sketch-map of the region indicated, and graphically delineated by means of curves for the year and its several months. It is believed that nearly all the material heretofore published in regard to Alaska and Eastern Siberia, and much never before printed, has been gathered together here. The original observations, or summaries of them, reduced to the freezing point, will be found in the accompanying tables, while the reductions employed for the means used in constructing the curves are stated, that those interested may test their accuracy if so inclined.

The local phenomena in these, as in other cases, will be found under the head of the particular locality. It remains only to summarize the general features which are the result of the investigation.

MEAN ANNUAL PRESSURE.

The most striking feature presented by the curves of mean annual pressure is that of a region of depressed barometer, extending from the Unimak Pass to Kadiak Island, over which area, so far as the material permits of generalization, a mean pressure is exerted of only 29.65 inches. This area of depression, which I shall term the Kadiak area, was first indicated by Mr. Ferrel, but from incompleteness of the data in his possession, it was located by him somewhat too far north. It would seem that at no place within the Territory of Alaska does the mean annual pressure attain 30.00 inches when the observations are reduced to the freezing point at the sea-level. Details of the approximate distribution of the annual pressure may best be obtained by an examination of the accompanying map.

ANNUAL VARIATIONS OF PRESSURE.

A glance at the profiles representing the mean height of the barometer for each month composing the year at each station is sufficient to discover that at least two, and perhaps three, distinct types of annual curve are embraced in the series.

On the Asiatic side, especially in that portion which may be termed the Okhotsk Basin, the profiles are characterized by a winter and a summer minimum, with a spring and an autumn maximum. The summer minimum is most pronounced. On the shores of America, however, these conditions appear to be reversed; a dominant maximum appearing in summer, with indications of a subsidiary winter maximum and two subequal minima in spring and autumn. Means of extremely long series, such as have been obtained at Sitka, tend to efface the winter rise, smooth out the curve, and indicate simply a winter minimum and a summer maximum.

As we pass eastward from the Okhotsk Basin the profiles show a tendency toward the American type, which appears at Petropavlovsk first by the shifting of the summer minimum from July backward to June. At the Pribiloff Islands it appears as early as May, while at Unalashka the American type is fully established.

On the northern borders of the region, as at Anadyr and St. Michaels, irregularities present themselves, which can hardly be due to the paucity of observations alone. Thus, at Anadyr, while the chief features are of the Asiatic type, there is an unexpected minimum in March, and at St. Michaels (whence we have a better series), with general features not unlike those of the Pribiloff profile, yet the summer maximum is not the most pronounced. The difficulties raised by these irregularities can only be successfully discussed when more information shall have accumulated.

MEAN MONTHLY PRESSURE OVER THE WHOLE REGION.

January.—Observations in the western Aleutians are lacking to determine definitely whether the Kadiak area of low pressure recognized as extending from Sitka to the Pribiloff group is continued without interruption westward to Petropavlovsk, or whether a separate or Kamchatka area of depression exists with a higher barometer in the intermediate region. In this month the peripheral stations, north, east, and west, all indicate a high barometer, and the transition toward the areas of depression is particularly rapid, as indicated by the crowding of the isobars.

February.—In this month the Kadiak area seems shifted to the southward, there are no strong indications of a Kamchatkan area, and high barometer at peripheral stations continues.

March.—In this month the Kadiak area seems to become more circumscribed, there is no trace of a Kamchatkan area, and the transitions are more gradual and extended.

April.—The Kadiak area is less depressed than usual; transitions are still more gradual than in March.

May.—In this month a distinct Kamchatkan area of depression, reaching 29.6 inches, is formed in the Okhotsk Sea. The Kadiak area is more extended northward, and transitions are quite gradual.

June.—The two areas of depression preserve their distinctness, that of Kadiak seeming to shift somewhat westward. A generally high barometer prevails over the region except at Sakhalin Straits.

July.—A sharp distinction is evident between the two areas of depression. A great uniformity

and relatively high barometer characterizes the American region, while the Okhotsk region is correspondingly depressed as a whole.

August.—The features of the month of July are retained in the main, while the contrasts in amount of pressure are less marked.

September.—The barometer over the whole region is generally lower, and during this month, excluding a few peripheral stations, there is a nearer approximation toward uniformity of pressure over the entire region than at any other time of the year, the average barometrical mean being not far from 29.8 inches.

October.—The uniformity of the preceding month is followed in this by the obliteration of the Kamchatka area of depression and the concentration and intensifying of the Kadiak area. The transitions westward from this center are very gradual, and northward sharp and rapid.

November.—In this month, as nearly as we can judge, the Kadiak area expands in a westerly direction until it includes the whole Aleutian region within the pressure limit of 29.6 inches, from which as a center the transitions are easy and gradual.

December.—The evidence indicates that the two areas of depression have again separated, observations in the Western Aleutians being still needed in this and the following month to confirm the propriety of the adopted curves. This is a month of generally low barometer, which is followed by a decided increase in pressure in January.

It is evident that our information in some respects is too meager to presume upon for efficient support for any hypothesis; yet the weight of evidence in regard to absolute monthly pressure seems to indicate clearly the separation of the Kamchatkan and Kadiak areas by an area of greater pressure. The difference in type of annual profile, by analogy, would tend to fortify the above supposition, which, if it only stirs up meteorologists to the point of obtaining more information, will have served at least one good purpose.*

TEMPERATURE.

The temperature records, for stations comprised in this region, are fuller and more numerous than the records of atmospheric pressure. Many notable gaps, however, remain, especially in Eastern Siberia and the western part of the Aleutian chain. The climate of the Hudson Bay Territories east from the Rocky Mountains is almost wholly unrepresented by observations. Nevertheless, I have been enabled to construct a series of isothermal charts for the year and for each month, which indicate with tolerable approximation to accuracy the distribution of temperature in this region in its general features. The course of the curves over bodies of water and areas from which no information is accessible, though necessarily hypothetical, has not been adopted without consideration. It is based upon the character and extent of the ocean currents, topography of the land, and other features known to affect the climate, to some extent, but which cannot be yet exactly limited.

Even when observations have been recorded, it does not always appear that they represent the temperature accurately, whether the cause has been an objectionable place for hanging the thermometer, error in reading, recording, reducing from one scale to another, or what not. This is the case with the observations recorded, as from Port Providence, by Dove, from manuscript records furnished by General Sabine. They conflict with my own experience at that locality and with common sense, as guided by observations in adjacent localities, to such an extent that they cannot be considered as having any value. So, too, the mean temperature of 68° F., given by Poole as from two years' observations in the Queen Charlotte Islands, seems so excessive as to be referable to a typographical error for 48°, or some such cause, since a mean annual temperature of 63° is not found on the northwest coast of America north of latitude 30° N.

The general features of the distribution of temperature in this region are much obscured in the chart showing the annual isotherms, but appear with greater clearness in the monthly charts. The chief peculiarities are: I, the contrast between inferior continental temperature-areas and the regions bordering on the sea; II, the effects produced by ocean currents in distributing tempera-

* Where are the records from the official logs of the Franklin search expeditions, which passed so many winters in the vicinity of Bering Strait, Point Barrow, &c.?

ture to the opposite shores of the North Pacific Basin; III, and lastly, by the reaction, against extremes of temperature, produced by the sea-basins as a whole, on the climate of their shores.

These peculiarities are, of course, not characteristic of this region alone, but are the product of climatic laws recognized everywhere. A few words on the results produced in this region may, however, not be superfluous.

The continental areas are marked by a high summer and low winter temperature, especially in the valleys. The Yukon Valley, particularly, appears to have a warmer summer temperature than the lands surrounding it on either side. To this are probably due the forest growths which persist here, even north of the Arctic circle, and present a density and luxuriance most unusual in high latitudes.

The shores of the Bering Sea and Okhotsk Basin possess a climate modified both by the general effect of the adjacent sea and, secondarily, by the currents, cold or warm, which prevail in these seas.

The general effect is to produce a climate cooler in summer and warmer in winter than the adjacent interior enjoys, and with this, for some unexplained reason, is found an absence of trees. The latter appear at a very short distance inland, when the coast is high, but, when it is low, they are only found at some distance from the shore.

The secondary effects, due to influence of warm and cold currents, are of considerable magnitude, and more apparent in the curves of the isothermal lines than the general tempering effect of the sea as a whole.

Among the particular currents affecting the temperature the following may be mentioned:

A warm current from the south, through the Strait of Tartary, carrying an increase of temperature above the normal, between Sakhalin and the Amur region, as far north as the Duë Lighthouse. Part of this water passes eastward through La Perouse Strait, warming the southwestern Kurils, but not displacing colder water on the southeast shores of Sakhalin, as at Muravieffsk.

The Okhotsk Sea presents a cold basin, especially refrigerated toward the Gulf of Penjinsk.

Along the coast of Eastern Siberia, from East Cape to Cape Lopatka and southwestward, a flow of cold water steadily pours from the northeast. It is probably quite narrow in Bering Strait, but spreads out as it passes southwestward, and between Kamchatka and the western end of the Aleutians occupies a width of six or seven hundred miles, consisting of a thin surface-stratum, which has in July a temperature but little over 40° F., beneath which is a thin band varying from 35° to 40° (both together not exceeding 50 fathoms in vertical extent), while beneath this to 3,700 fathoms the mass of water varies from the freezing point to 35° F.

Along the Kurils the upper strata disappear entirely under the cold flow from the Okhotsk, between the islands; and eastward they gradually increase in thickness but not in temperature at the surface.

To this immense mass of cold water is due the depression of temperature on the Asiatic, compared with the American shores, and the Arctic fauna and flora of Attu, the Commander Islands, and the Kurils. Captain Belknap's observations fail to establish within these limits any northward current of water above the (maximum) temperature of 50°, and the hypothetical warm current toward and through Bering Strait is still in need of demonstration by observation. The stratum of 40°-50° does not attain a depth of 100 fathoms until as far east as Tanaga Island. There is no doubt, however, that there is a northerly set of water having a surface summer temperature of about 40°-45°, a mean annual temperature of 40°, and which has an important effect on the climate of the eastern shores of Bering Sea. This in summer, though probably not throughout the year, forms a strong surface current northward through Bering Strait and along the American coast, plunging (on a line nearly coincident with the axis of the strait) into the Polar Sea off Point Barrow; in which direction deep water also is reported, and the inroads upon the field-ice are most extensive when the winds favor.

In winter the straits are more or less choked by ice, and it would seem as if the mollifying effects of this current or set, if it exists at all in winter, were then exhibited chiefly on the eastern shores of Bering Sea. The great Pacific Gulf Stream or Kuro-Siwo (which appears to cross the Pacific from Japan in about latitude 45° N.) sends a branch northward and westward from the vicinity of latitude 50° on the northwest coast of America, along the coast, as has long been recognized by physical geographers. This current, during part of its course at least, seems well defined, and

has been termed, in my reports to the United States Coast Survey, the Alaska Current. It is of very great consequence in modifying the climate of Southern Alaska. The great rainfall and generally mild temperatures of the shores of the Gulf of Alaska seem to be almost wholly due to the effects of the Alaska Current. Here we have the mean annual isotherm of 40° F. carried to 60° N. latitude (as on the coast of Norway the same isotherm is carried by the Gulf Stream influences to 65° N. latitude), while, on the Asiatic coasts, in the same latitude, we have an annual mean temperature 15° lower, and the isotherm of 40° F. barely touches the land north of 45° N. latitude. It is probable that westward from Unalashka the Alaska Current loses its distinctness and becomes much diffused. There is strong reason to believe that the Rat and Andreanoff Islands have a warmer climate than the Fox Islands, while the Pribiloff group and Attu are decidedly colder.

It is interesting to observe the close parallel in temperature conditions which exists between the southern coast and archipelagoes of Alaska and the coast of Norway. The highest mean temperature for the year in any part of Norway is (7° Cels.) about 44° F., and the curve of 45° is believed to take in the southwesternmost extremes of both Norway and the Alexander Archipelago. The annual isotherm of 40° F. (about 4° Cels.) in Norway, as in Southern Alaska, takes in nearly all of the most populous, habitable, and productive territory, and is (or may become) the home of a sturdy race of world-renowned fishermen.

In summing up, it is undeniable that a large part of Alaska has a hyperborean climate, tempered, however, by unfrozen seas and sheltering forests. The remainder presents, so far as temperature is concerned, conditions not more rigorous than are endured by most of Dakota and Minnesota, Northern Michigan and Wisconsin, Canada, half of New York, and two-thirds of New England. Indeed, so far as mere cold is concerned, fully one-third of the United States experiences greater cold during the winter than does Southern Alaska, but the average is made up by the greater heat of summer.

PRECIPITATION.

The South-Alaskan climate, like that of Southwestern Norway, is chiefly objectionable from its cloudiness and moisture, in regard to which, however, except from a few stations, very little exact information has been put on record. From Sitka we receive records of mean annual precipitation to the extent of 82 inches, as compared with 80 inches on the coast of Washington Territory, 112 in the English Lake district, and 90 on the southwest coast of Norway. The southernmost point in the Alexander Archipelago from which we have any records (Fort Tongass), is also the wettest, exceeding Sitka in the amount of annual precipitation by 22 inches; doubtless there are localities in the British Columbian Archipelago where the North Pacific current impinges, the maximum rainfall is reached, and the precipitation exceeds anything in Alaska.

In strange contrast with the profuse rainfall of the Columbian and Alexander Archipelagoes is the aridity, if one may use the term, of the regions about and especially northward from the Okhotsk Basin. Okhotsk itself, from a fair series of years, leads off with four and a half inches of rain and melted-snowfall, and is only paralleled by Fort Yuma in the whole United States. St. Michaels, Norton Sound, Alaska, appears to be the next driest in the region under discussion, but the other stations of the Okhotsk Basin follow immediately, together with St. Paul Island, home of the seals, which, foggy and damp though it be, has less rainfall than Washington, D. C., and but one or two inches more than Chicago. The Aleutian Islands have a moderate rainfall, some 22½ inches at Unalashka, according to Veniaminoff's estimate, but we have no series of exact observations from this part of Alaska.

As in the case of the barometer, the profiles of the rainfall at various stations naturally fall into several groups, one of which is the Asiatic, the next the American, or rather Sitkan, and the third mixed. The precipitation in the Okhotsk Basin at St. Michaels and at Hakodadi, also presumably at intervening points, is marked by a very pronounced maximum occurring in July, August, or September, with the minimum during January, February, and March.

The records of stations in the Alexander Archipelago afford profiles exhibiting a predominant maximum in autumn, immediately preceded by a minimum in June, July, or August. There is a tendency to a secondary minimum in March, but in the long series from Sitka this is almost wholly obliterated.

The profiles not included with the above show a tendency to spring and autumn maxima and a dominating summer minimum. Kadiak and Petropavlovsk show this best. St. Paul Island and Nulato exhibit no pronounced features, but seem rather intermediate. It will be observed that the maxima and minima of the profiles of pressure and rainfall exhibit no marked synchrony between the two kinds of phenomena, whether positive or negative.

The paucity of observations renders the preparation of an isohyetal chart impracticable at present.

SEA-TEMPERATURES AND CURRENTS.

The precipitation, cloudiness, and average temperature of sea-coast stations depend so largely on the absence or presence of warm or cold currents in their vicinity that no discussion of the meteorology can be even approximately complete without reference to these important factors.

It is not proposed to discuss here the general question of oceanic circulation, nor to describe in detail the currents of the North Pacific. Previous publications have sufficiently proved the existence and direction of the main streams south of the Aleutian chain. The accompanying map (Ch. XXVIII) has been prepared to show approximately the distribution of summer sea-temperatures. The observations taken at different times during the summer have been reduced to a uniform standard by applying a reduction to the original figures, such as the long series at Unalashka and St. Paul, Pribiloff Islands, would indicate as a mean difference between the monthly temperature and the mean temperature of the months from May to September. This reduction will not, of course, result in giving in every case a correct mean summer temperature for the locality of a particular observation; but, in a general way, the results are pretty satisfactory, and in no other manner could they be made comparable. A long series at any particular bay or harbor is, from the nature of things, not only difficult to obtain, but also less likely to give the real sea-temperature than observations taken in the deep water of the open sea. Large comparatively shallow sounds, bays, and harbors give higher temperatures than prevail in the sea adjacent, as they are more affected by the sun. This will explain the figures of St. Michaels, Port Clarence, Kotzebue Sound, and various harbors. Yet this warmth, whencesoever derived, is an actual factor in the climate, and affects the locality as much, while it lasts, as if it had been gathered in the China Seas and transported thither.

We are without data for the western side of Bering Sea, except a few figures from Beechey, and for the present the problems connected with the currents, cold and warm, of that vicinity are better not meddled with for want of knowledge of the facts. The temperatures recorded from the bays and sounds near Bering Strait are apparently too high to properly represent the main temperature of the adjacent sea in summer, and would seem to be due to causes already mentioned. In winter, of course, the surface-temperature for a large part of Bering Sea and vicinity is between 32° and 35° F. Lower figures have been given on one occasion by the observer on St. Paul Island, but are evidently abnormal from some cause. These have been treated as = 32°·0, whenever they reached to or below that point, as it is incredible that the surface of the sea under any normal circumstances could fall to 28°·0, or even 30°·0, F., for weeks together and remain in a fluid state.*

Disregarding small inequalities and the shoal-water figures above referred to, the result of the investigation may be summarized as follows:

The Kuro-Siwo is not marked at its approach to the American coast by well and sharply defined walls of water-temperature such as characterize the Gulf Stream of the Atlantic. Nor does it form a stream of well-defined limits in the ocean, like a river flowing in its bed. On the contrary, its characters, so far as they have been elucidated, in the northeastern part of the Pacific Ocean, are rather those of a general drift, more or less reversible or temporarily intermittent when opposed by storms, and shading off from a temperature of 65° F. by very slow degrees, with no

* Theories placing the freezing point of sea-water of ordinary density at 28° F. appear to need revision and confirmation. At Polaris Bay, in latitude 81° N., the sea-water rising through a hole in thick ice and containing numerous fragments of ice, and which, consequently, with the atmosphere many degrees below zero of Fahrenheit, could not be far from its freezing point, had a temperature of 30° F. almost without exception, and this was registered by standard instruments.

Even under the greatest pressure in the deepest portions of the ocean, a temperature of less than 30° F. is of the greatest rarity, if, indeed, it has ever been unmistakably registered in water free from ice. I have never succeeded in getting a temperature lower than 31° F. at the surface of the sea, by standard measurements, even when the air was ten degrees lower in temperature and the water full of broken ice and slush.

sudden permanent changes anywhere. Southward from Kamchatka and the Kurils the changes from 60° to 45° F. are massed in a breadth of three degrees of latitude, under the effects of the cold Kamchatka current. In the eastern region of the map the same changes are spread over fifteen degrees of latitude.

That portion of the Kuro-Siwo having a temperature of 55° F. or more approaches the coast of Northwest America in the vicinity of Vancouver Island. The precipitation is greater, and sudden meteorological disturbances are more common, between latitude 48° and 55° N. than on any other part of this coast, so far as we know. But the water near the coast is less than 55° in temperature, and may average not more than 50°.

The northern reflected arm of the Kuro-Siwo, called by the United States Coast Survey the Alaska Current, has a temperature varying from 50° to 55°, while the slack water inclosed between the Alaska Current and the Kuro-Siwo appears to average several degrees lower. There is (at least in certain seasons) a pretty well defined eddy or counter-current between the main body of the Alaska Current and that arm of it which passes through Shelikoff Strait.

The shoal waters of the eastern part of Bering Sea are several degrees higher than any part of the western portion of that sea in summer. In fact, the observations of Belknap render doubtful the very existence of any arm northward flowing from the Kuro-Siwo toward Bering Strait westward of the 190th meridian west of Greenwich. It would be premature to say that there is none, but its presence certainly requires proof.

The Pacific coast of Alaska from Umnak to Vancouver is bathed by a sea with a summer temperature varying from 48° to 55° F.; the Bering Sea coast and islands enjoy a temperature from 43° to 55° F.; while the little that we know of the coast of Asia north of La Perouse Strait would indicate that its waters have a proper summer temperature not exceeding 40°, except in shallow estuaries. The currents of warm water and exhalations of moist air borne landward by favorable winds from them make the climate of the Sitkan and Vancouver region what it is. That the mere presence of large bodies of water does not much disturb the normal latitude-temperature is made evident by the case of Okhotsk. The winds are northerly for the most part, and they come off the land; and the town, though built on a sand-bar between a lagoon and the sea, is one of the coldest and driest in the world. On the adjacent shore is the little port of Aian, some 200 miles southwest from Okhotsk. The winds coming along shore from the latter place to Aian, over 200 miles of water, actually give this port eight times as much rain per annum as Okhotsk receives.

WINDS.

In regard to winds a good deal of material has accumulated, but it is almost impracticable to free it from station-error or bias, due to the conformation of the land at each particular station. A number of the more important stations—in fact, nearly all except the islands of St. Paul and St. Michael—are so situated that the results of the most conscientious observations of the surface-currents can give but an imperfect idea of the general direction of the winds. However, a very much generalized idea may be gained from an inspection of the wind-roses and tables.

The alteration in the position of the Kadiak area of depression of the barometer indicated by our charts, when compared with those of Mr. Ferrel and Prof. Coffin, carries with it a change in the area affected by particular wind-directions relative to this center of depression. The tables of wind-directions tend to confirm the changes first indicated by those of the barometer, and these circumstances bring about a harmony between the general views of navigators in this region and the theoretical direction of the air-currents, which before was wanting.

The average opinion, as expressed by ship-masters, in regard to the winds which may be looked for between Bering Strait and San Francisco, is about as follows:

A belt of northwesterly winds separates the Alaskan area of variable winds from an area of southwest winds and calms which extend in a general way along the parallel of 30° N. latitude and northward from it. At the season when the spring or outward passage is made (March to May) the northwesters are generally feeble and the winds more or less variable. But the home passage (July to November) is made when the winds are well characterized, and these navigators assert that they strike the belt of northwesters about latitude 45° N., and, if they can get a north-

westerly breeze from the Fox Islands or Kadiak strong enough to carry them to latitude 45°, they are sure of a continuance and of making a good passage.

The region covered by this discussion is, on the whole, an area of variable winds, as is well shown by the wind-roses for stations with a long series of observations. The predominant wind-direction for each month at each station being approximated from the wind-roses and grouped under the several points of the compass, we have the following table, expressed in percentages:

Period.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Total.
Summer (April to September.).....	7	17	15	12	16	15	9	9	100
Winter (October to March).....	20	20	20	2	5	7	15	11	100
Year.....	27	37	35	14	21	22	24	20	200
Year (percentages).....	13.5	18.5	17.5	7.0	10.5	11.0	12.0	10.0	100

This shows that during the year nearly 50 per cent. of all the winds in this region blow from the average directions of north, northeast, and east. During the warm months, included under the general term of *summer* in the table, only 25 per cent. of the winds come from the average directions west, northwest and north, while from northeast and east, southwest and south, 63 per cent. of all the summer winds proceed.

In the cold months, termed *winter*, 60 per cent. of all the winds come from the north, northeast, and east; only 14 per cent. from the south, southeast, and southwest.

It is to be borne in mind, however, that by a different distribution of the stations about the areas of depression, somewhat different results might follow from the observations. A station on the eastern side of the Okhotsk Basin might afford material for considerably changing these averages. But, until such additional material has been received, the station-bias eliminated by careful observations of the upper clouds, and the length of the terms of observation augmented in certain cases, it will not be practicable to formulate the observed winds of this region in a satisfactory manner.

Of other branches of meteorology touched upon in some localities, and therefore represented in the tables, the material is so scanty as to prevent any general discussion of them. Of this sort are the Humidity, absolute and relative; Aurora Borealis, &c.

The notes on auroras at St. Michaels, which are here included, are valuable and have not hitherto been published, though presented to the National Academy in a paper read during the session at Northampton in 1869.

The limits of floating ice in the region discussed are of importance to navigators, and of still more importance in the economy of nature in these regions. Many of the most important animals and fishes are limited in their range of distribution by this indefinite but sufficient barrier.

So far as the Okhotsk Sea and the narrow channels leading to it are concerned, they may be said to be practically closed in winter by ice; such parts of them as are not actually frozen over being incumbered with drifting cakes or large fields of ice moved hither and thither by the wind.

Excepting the inclosed parts of narrow inlets or land-locked harbors, such as portions of Prince William Sound and Cook's Inlet, the shores of the North Pacific and the Gulf of Alaska are free from ice at all seasons, at least all such ice as might have any influence on navigation. Fragments of glacier ice emerge from Cross Sound, Lituya Bay, and other fjords into which glaciers empty, during the entire summer; sometimes presenting from a distance the appearance of a flock of swans on the water, and at other times so covered with mud and adhering gravel as to be readily mistaken for rocks awash. These circumstances have been alluded to by Vancouver and others, but the amount of ice is so small, it dissolves so rapidly, and is produced at such a small number of localities that, except as regards the particular channels through which it emerges, it may be said to have no influence on navigation.

Bering Sea is partially obstructed by ice in winter and partly free from it. The southern limit of the ice varies considerably with the character of the particular season and the direction of the prevailing winds. The ice extends southward along the shores of the Peninsula of Kamchatka, forming a belt sometimes 15 to 30 miles wide, which is often entirely dissipated by westerly winds, and in spring attains its greatest dimensions as the cold current from the northward brings with

it fragments of the disintegrating northern ice fields. Early in June, at latest, this barrier is dissolved.

On the east, Bristol Bay is obstructed by ice on its northern shores and extending as far south as the mouth of the Ugachik or Sulima River in ordinary winters. From thence the line of ice curves to the northward and westward, passing near the Pribiloff Islands and reaching its northern extreme near a point two hundred miles south from Cape Navarin. Thence it curves to the southward and westward along the Kamchatkan shore.

In spring, that is to say in the months of May and June, the barrier first becomes penetrable in the western portion of Bering Sea in the vicinity of Cape Navarin. The whalers push boldly into the fields of broken slushy ice and follow up the lanes of water as fast as they open. The ice all over the sea is rotten by the middle of May, and that it opens sooner at this particular point is due, in all probability, quite as much to the cold current flowing toward the south and tending to open the cracks and carry away the pieces, as to the action of the supposed arm of the Kuro-Siwo, whose action does not begin until May or June, and whose very existence remains to be fully authenticated. In the spring of 1871 the ice broke up between St. Lawrence Island and Plover Bay by the end of May, and two weeks later a vessel might have been managed anywhere in the vicinity had she been able to force her way through the drifting ice to the southward.

It may be stated without any reasonable doubt that *the ice always opens west from St. Lawrence Island before it is open east from the island*. This has been proved by simultaneous observations of different shipmasters in the Arctic fleet on several occasions.

The ice clears out from Bering Strait in the month of July, early or late according to the character of the season. The extent to which the sea north of the strait may be free from ice during August and September can never be predicted. Of late years this part of the Arctic Sea has been very open, and the loss of so many whale-ships within the last decade is largely due to the total break up and disappearance of the old pack-ice, which formerly endured from year to year, and the formation every winter of more easily fractured and movable ice. This came down on the fleet with a shift in the wind and penned the ships up in the lagoon where they had taken refuge, and over which, sand-bars and all, the gales of winter drive the pack-ice with resistless force.

Since 1870 ships have been as far east as the mouth of the Mackenzie River, and westward as far as within ten or twelve miles of Wrangell Land. I have received accounts of the penetration by one of the whale-ships as far north as $73^{\circ} 20'$ N. latitude in 1873, and that they saw no solid pack at that time, but found no whales, wherefore they returned southward. The positions taken are probably not very precise, but it is evident that the Arctic has been more open during the last ten years than for some time previous. These changes are likely to be cyclical, and the next decade may perhaps witness the reestablishment of the barriers of the pack.

In conclusion a note may be made of the rules of the insurance companies, which at one time, if not at present, held their policies good only in case the vessel insured was out of Bering Sea by the 15th of September. It is somewhat remarkable that of the numerous wrecks, accompanied by a melancholy loss of life, which have occurred between Bering Strait and San Francisco since 1868, excluding injuries received by whalers pushing into the ice, none have occurred within the limits of Bering Sea. This is not wholly due to the insurance rule, however, since the experience of the United States Coast Survey vessels has been that the weather, really trying to the vessel's strength and to the seamanship of her commander, is to be found in the vicinity of latitude 45° N. especially about the equinoctial times; and that a vessel bound for Unalashka in September passes from a region of storms into more favorable conditions as she leaves latitude 45° N. and approaches the island. Conversely in the month of April the worst weather is invariably experienced in "stormy forty-five," and it usually becomes better on approaching the islands. There would seem, therefore, to be an undue prejudice against Bering Sea in this particular. A review of the wrecks, not due to drunkenness or palpable mismanagement, indicates that those which have gone ashore have been driven on the great extent of foul ground and unsurveyed rocks and islets between Cook's Inlet and Akutan Pass outside of Bering Sea, while those whose fate is unknown may as probably have gone to their account in latitude 45° as within Alaskan waters proper.

The season of navigation for Bering Sea and the Aleutians may be approximately placed between April 10 and October 20. At other times navigation may be, and often is, practicable, but seldom advisable, and still more rarely advantageous or pleasant.

SYNOPTICAL TABLES.

MEAN ATMOSPHERIC PRESSURE.

Mean atmospheric pressure, barometer being at 32° F., reduced to sea-level and corrected for instrumental errors, as far as these are known. All *new style* (except UdsK Village?).

Place.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
Adakh								30.254					
Amchitka							30.191						
Anadyr River.	30.143	30.089	29.883	29.972	29.917	29.928				29.806	29.879	29.927	(29.881)
Atka								30.164					
Attu						30.086							
Duë Lighthouse*	29.878	29.910	29.918	29.745	29.603	29.504	29.528	29.501	29.615	29.823	29.788	29.808	29.717
Esquimalt, B. C.	29.999	29.898	29.831	29.988	30.047	29.995			29.988	29.888	30.093	30.219	(29.995)
Fort Tongass	29.675	29.778	29.846	29.826	29.836	29.960	29.964	30.018	29.966	29.857	29.644	29.742	29.843
Fort Wrangell					29.767	29.869	29.880	29.958	29.731				(29.729)
Fort Yukon								29.771					
Hakodadi, Japan	29.909	29.954	30.032	29.986	29.908	29.801	29.797	29.820	29.928	30.036	30.032	29.935	29.925
Iliuliuk	29.610	29.567	29.618	29.657	29.684	29.732	29.782	29.789	29.634	29.547	29.534	29.636	29.650
Kotzebue Sound							(29.954)		29.763	29.548			
Kusunai*	29.785	30.086	30.067	29.930	29.993	29.860					29.913	30.097	
Kyska							30.074						
Müller Islands	29.25	29.33	29.42	29.67								29.42	
New Westminster, B. C.	30.075	30.040	30.020	30.001	29.985	29.961	30.032	30.012	30.028	30.008	29.938	29.926	30.001
Nikolaieffsk	29.869	29.922	29.859	29.807	29.744	29.739	29.726	29.782	29.837	29.812	29.805	29.840	29.812
Nulato	30.063	29.986	29.854	29.788	29.781		(29.948)						29.688
Petropavlovsk	29.519	29.632	29.774	29.773	29.701	29.651	29.693	29.810	29.803	29.723	29.624	29.539	29.887
Port Aian	29.845	29.957	29.896	29.853	29.753	29.764	29.661	29.795	29.839	29.891	29.823	29.824	29.825
Portland, Oregon	30.211	30.243	30.129	30.183	30.113	30.119	30.071	30.065	30.060	30.096	30.030	30.248	30.131
Port of Okhotsk	29.854	29.923	29.902	29.846	29.799	29.772	29.725	29.796	29.850	29.816	29.760	29.710	29.813
St. Michaels	29.968	30.001	29.995	29.869	29.687	29.806	29.885	29.815	29.718	29.647	30.003	29.785	29.848
St. Paul Island	29.626	29.609	29.794	29.716	29.697	29.759	29.898	29.926	29.747	29.564	29.622	29.587	29.712
St. Paul, Kadiak	29.568	29.524	29.418	29.668	29.667	29.821	29.864	29.803	29.725	29.382	29.596	29.476	29.626
Sitka	29.604	29.670	29.684	29.763	29.814	29.845	29.903	29.840	29.767	29.650	29.572	29.610	29.727
UdsK Village*	29.54	29.46	29.60									29.57	29.60
Unalaklik	30.199									29.805	29.564	29.736	

* Height above the sea unknown, and believed to have been applied by the observer. It will not exceed +0.38 inch.

MEAN TEMPERATURE OF THE AIR.

The degrees are of Fahrenheit's scale. When no sign is affixed they are to be taken as above zero.

Place.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Spring.	Summer.	Autumn.	Winter.	Year.
Ala River (o. s.?)				28.4	47.1	61.5											
Anadyr River	-10.5	-27.9	-1.7	5.0	33.7	43.7							12.3			-20.0	12?
Choris Peninsula	-12.0	-15.5	-6.0	14.5	30.0			45.0	42.8	25.0	+1.2	+5.2	12.8		23.0	-7.4	
Duë Lighthouse	+3.8	+8.8	+18.0	30.8	42.4	52.0	60.3	61.6	53.1	40.5	+21.1	+7.9	30.4	58.0	38.2	+6.8	33.4
Fort Franklin	-22.3	-16.7	-5.4	12.3	35.1	48.0	52.1	51.1	41.0	22.5	-0.1	-10.7	14.0	50.4	21.1	-16.6	17.2
Fort Kenai						59.6	60.2										
Fort Tongass	+33.9	+36.2	+38.5	44.8	50.3	56.4	58.7	59.1	53.1	48.8	+41.0	+38.1	44.5	58.1	47.6	+36.1	46.5
Fort Wrangell	+22.6	+30.1	+30.3	42.2	48.7	55.7	58.6	57.0	52.1	46.1	+30.7	+32.2	40.4	57.1	43.0	+28.3	42.2
Fort Yukon	-26.8	-26.4	-11.2	12.7	41.2	53.5	65.7	63.1	38.7	21.6	-8.3	-18.4	14.6	56.7	17.4	-23.8	16.8
Hakodadi, Japan	+27.0	+29.4	+35.8	44.6	52.5	59.7	67.2	71.9	65.3	53.4	+42.9	+32.1	44.3	66.2	53.8	+29.5	48.5
Ikogmut	+2.3	-5.3	+2.1	23.5	33.6	48.9	51.2	48.3	43.4	27.4	+12.9	+5.7	19.7	49.5	27.9	+0.9	24.5
Iliuliuk	+29.6	+31.8	+29.3	33.2	39.2	44.9	49.1	51.9	46.7	38.7	+34.2	+30.5	33.9	48.6	39.9	+30.6	38.3
Kolmakoff Redoubt	-0.4																
Kusunai	+13.0	+12.8	+21.4	35.9	45.0	50.0	58.5	65.8	53.8	44.7	+32.3	21.8	34.1	58.1	43.6	+15.9	37.9
Möller Islands	+25.9	+17.8	+27.3	31.9								+24.5				+22.7	
Muravieff	+6.9	+10.1	+19.1	31.7	41.4	47.7	55.1	60.3	55.5	44.9	+30.6	+14.0	30.7	54.4	43.7	+10.3	34.8
New Westminster, B. C.	+34.2	+38.5	+43.5	46.4	52.2	57.6	62.8	64.2	57.9	49.1	+40.3	+34.5	35.7	47.4	61.5	+49.1	48.4
Nikolaieffsk	-11.9	-4.4	+7.8	24.7	37.8	54.8	62.7	62.4	50.9	34.4	+12.2	-8.0	23.4	60.0	32.5	-8.1	26.9
Nulato	-17.7	-7.8	+18.9	27.1	45.3	66.9?	[66.2]		[60.0]			-9.8	30.4			-11.8	
Petropavlovsk	+15.3	+16.6	+24.1	33.2	39.8	51.7	58.1	56.6	49.0	38.0	+26.5	+19.7	32.4	55.5	37.8	+17.2	35.7
Point Barrow	-18.7	-22.5	-14.7	1.1	20.1	32.2	36.5	38.4	25.9	2.2	-8.5	-13.2	2.2	35.7	6.5	-18.1	6.5
Port Aian	-7.2	+0.8	+13.5	24.9	35.4	45.4	55.0	54.0	45.5	28.3	+9.3	-3.1	24.6	51.5	27.7	-3.2	25.1
Port Clarence	-11.2	+0.7	+4.5	11.5	32.7	40.4	49.8	45.7	40.7	22.6	+0.7	+0.3	16.2	45.3	21.3	-3.4	19.8
Portland, Oregon	+40.6	+40.7	+42.2	51.6	56.5	65.6	69.5	68.1	63.0	53.2	+48.4	+39.3	50.1	67.7	54.8	+40.2	53.2
Port of Okhotsk	-11.7	-3.3	+10.1	24.3	37.3	47.3	54.6	54.2	44.3	24.2	+5.4	-9.7	23.9	52.1	24.6	-8.2	23.1
Port Providence	+20.5	+16.0	+6.2	21.5	28.4	38.0	44.4	42.8		25.5	+17.5		18.7	41.7			
St. Michaels	+3.3	+1.8	+7.5	20.7	34.5	46.6	54.7	53.4	45.5	31.9	+13.2	+6.8	20.9	51.6	30.2	+4.0	26.7
St. Paul Island	+28.5	+25.7	+25.7	23.2	34.9	41.5	46.4	48.4	45.1	38.9	+34.8	+23.4	23.9	45.4	33.6	+27.9	35.7
St. Paul, Kadiak	+28.5	+27.8	+29.9	38.3	43.5	50.3	57.0	57.0	51.7	43.1	+37.7	+32.9	37.2	54.8	44.2	+29.8	41.5
Sitka	+31.4	+32.9	+35.7	40.8	47.0	52.4	55.5	55.9	51.5	44.9	+38.1	+33.3	41.2	54.6	44.9	+32.5	43.3
Udsk (o. s.?)	-0.6	+6.3	+19.8								+1.8	-4.7				+0.3	
Unalaklik	-10.2										+8.8	+3.4					

ABSTRACT OF SEA-TEMPERATURES.

Chiefly from observations made by W. H. Dall and parties. In degrees of Fahrenheit's scale, taken with standard instruments. The values in brackets are interpolated.

Localities.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
Sitka.....	°	°	°	°	°	°	°	°	°	°	°	°	
Lituya Bay.....					48.5	53.3	56.8		52.5	49.0			
Port Mulgrave.....					47.3								
Port Etches.....					51.3								
Middleton Island.....					50.6								
Kadiak, surface-water.....						47.7							
Kadiak, at five fathoms.....						48.2			48.7				
Semidi Islands.....									50.5				
Chirikoff Island.....						48.2							
Chignik Bay.....						47.2							
Chiachi Islands.....						47.5							
Shumagin Islands, surface.....	[33.0]	[33.0]	[31.5]	37.5		44.0	45.5	52.0	53.7	47.5		[34.5]	
Shumagin Islands, at five fathoms.....				37.0		43.6	45.7	51.0	53.7	47.1			
Unalashka, surface.....	35.3	35.3	34.6	38.0	40.8	44.4	51.5	51.9	49.9	43.1	34.3	34.1	41.1
Unalashka, at five fathoms.....	38.8	35.8	36.3	38.5	39.7	40.2							39.4
Pribiloff Islands, St. Paul Island.....	37.0	35.3	33.5	33.7	34.0	40.0	45.6	48.6	47.8	43.8	41.0	36.1	39.7
Atka Island, surface.....								46.8					
Atka Island, at five fathoms.....								43.9					
Adakh Island, surface.....								45.6					
Adakh Island, at five fathoms.....								44.5					
Amchitka Island, surface.....							42.6						
Amchitka Island, at five fathoms.....							42.8						
Kyska Island, surface.....							41.9						
Kyska Island, at five fathoms.....							41.9						
Attu Island, surface.....							44.2						
Attu Island, at five fathoms.....							42.0						
Petropavlovsk, Kamchatka.....	[32.0]	[32.0]	[32.0]	[33.5]	[34.5]	38.5	55.5				[33.5]	[32.0]	
Port Möller, Aliaska Peninsula.....	[33.0]	[32.5]	[32.5]					61.2				[33.0]	
Hagemeister Island.....	[33.0]	[32.5]	[32.0]					57.3				[33.0]	
Nunivak Island.....	[33.0]	[32.5]	[32.0]				53.9					[33.5]	
St. Michaels, Norton Sound.....	[32.5]	[32.5]	[32.8]	[33.0]			56.0	56.1	49.6		[34.5]	[33.0]	
Port Clarence.....	[32.0]	[32.0]	[32.5]	[32.5]				38.9				[32.5]	
Kotzebue Sound.....	[32.0]	[32.0]	[32.5]	[32.5]			50.3	50.9	43.7	38.3		[32.5]	

MEAN PRECIPITATION.

Amounts, given in English inches, of rain and melted snow.

Locality.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
Burnaby Island.....	14.52	8.83											
Fort Kenai.....							0.35	1.06					
Fort Tongass.....	12.97	10.79	8.16	9.57	7.70	4.14	7.02	4.28	11.26	14.11	14.97	13.33	118.30
Fort Wrangell.....	3.43	2.26	1.25	5.10	3.84	3.47	3.41	3.11	8.61	8.44	7.62	10.00	60.54
Hakodadi.....	1.90	2.32	2.19	2.38	3.92	3.15	7.57	4.00	4.11	3.51	3.91	4.62	43.58
Iliuliuk.....						1.53	1.83						22.5
Nikolaieffsk.....	0.40	0.29	0.59	1.25	1.15	1.23	1.05	0.91	2.83	0.56	1.35	0.59	12.20
Nulato.....	1.70	1.35	2.22	0.53	0.00					2.00	2.20	1.25	
Petropavlovsk.....	4.40	4.50	7.65	6.90	5.00	3.14	2.08	2.52	4.80	8.43	6.23	5.40	61.05
Port Aian.....	0.52	0.38	0.37	0.54	2.06	1.96	3.86	9.01	10.33	3.93	1.27	0.53	34.76
Port of Okhotsk.....	0.14	0.13	0.25	0.32	0.20	0.42	0.90	0.81	0.71	0.39	0.14	0.12	4.53
St. Michaels.....	0.23	0.09	0.27	0.68	0.35	1.06	1.48	2.47	2.01	1.32	0.44	0.90	11.30
St. Paul Island.....	3.10	3.31	2.63	1.58	1.49	1.92	3.55	3.39	3.10	4.07	3.46	3.46	35.00
St. Paul, Kadiak.....	8.01	3.31	10.60	5.52	5.42	5.62	1.14	3.71	5.94	7.14	6.61	9.90	72.92
Sitka.....	7.35	6.45	5.29	5.17	4.13	3.62	4.19	6.96	9.66	11.83	8.65	8.39	81.69

TABLE OF APPROXIMATE PREVAILING DIRECTIONS OF WINDS.

Place.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Spring.	Summer.	Autumn.	Winter.	Year.
Anadyr River..	SW.	NW.	WNW.	NW.	WNW.	SSW.				W.	WNW.	NW.	NW.			NW.	
Duë Lighthouse	N.	N.	N.	N.	S.	S.	S.	SW.	SW.	S.	NW.	N.	S.	S.	SSW.	N.	N.&S.
Fort Kenai							S.	S.									
Fort Tongass..	NE.	E.	E.	SSE.	S.	S.	SSE.	S.	S.	SE.	E.	E.	SE.	S.	SSE.	NE.	SSE.
Fort Wrangell.	ENE	NE.	ENE.	SE.	E.	WNW.	W.	W.	ESE.	NE.	NE.	NE.	E.	W.	NE.	NE.	Var.
Ikogmut.....	N.	NE.	N.	NE.	ENE.	SW.	NE.	SSW.	ENE.	E.	NE.	E.	NE.	SW.	NE.	NE.	NE.
Iliuliuk.....	N.	SW.	S.	SW.	NNW.	SSW.	SW.	WSW.	W.	W.	W.	WNW.	SW.	SW.	W.	N.	SW.
Kusunai.....	E.	ESE.	ESE.	SE.	E.	E.	E.	E.	E.	E.	E.	W.	ESE.	E.	E.	E.&W.	E.
Muravieff.....	E.	SW.	SW.	SW.	SW.	SW.	ENE.	E.	ENE.	W.	W.	WNW.	SW.	E.	NNW.	Var.	SW.
Nikolaleffsk ..	W.	W.	W.	W&E.	E.	SE.	SE.	SE.	E&W.	W.	W.	W.	E&W.	SE.	W.	W.	W&E.
Nulato	SW.	N.	NW.	NNE.	NNW.							E.&W.	N.			Var.	
Petropavlovsk.	N.	N.	N.	NW.	NW.	NW.	NW.	NW.	NW.	NW.	NW.	NE.	NW.	NW.	NW.	NNW.	NW.
Port Aian.....	SW.	NE.	NE.	NE.	NE.	NE.	NE.	NE.	NE.	NE.	NE.	NE.	NE.	NE.	NE.	NE.	NE.
Port of Okhotsk	N.	N.	N.	N.	SE.	SE.	SE.	SE.	N.	N.	N.	N.	N.	SE.	N.	N.	N.
St. Michaels...	S.	NE.	N.	NE.	NNE.	NNE.	S.	S.	NNE.	NE.	NE.	NE.	N.	Var.	NE.	NE.	NNE.
St. Paul Island.	E.	S. & E.	W.	N&E.	N. & E.	S. & W.	SW.	S&E.	NNE.	NW.	Var.	S.	N.	S.	W.	S.	Var.
St. Paul, Kadiak	NNE	NNW.	NE.	NE.	NE.	E.	SW.	ESE.	NE.	N.	NW.	NW.	NE.	ESE.	NW.	N.	Var.
Sitka.....	ENE.	E.	E.	Var.	W.	W.	SW.	SW.	S.	E.	E.	E.	Var.	SW.	E.	E.	S.&E.

LOCAL DISCUSSIONS.

I. AMERICAN STATIONS.

BURNABY ISLAND, QUEEN CHARLOTTE ISLANDS.

The meteorological observations from this point are of slight importance and included here rather for completeness' sake than any great intrinsic value. The mean temperature cannot much exceed 48° F., for which Mr. Poole's 68° may be a typographical error. The climate is unquestionably mild and probably better than that of either Vancouver Island or Sitka; more extended and precise observations are needed to determine its exact character. The rainfall recorded for January and February, 1863, by Mr. Poole, is greater than at Sitka for the same months, but there appears to be less rain in summer at the Queen Charlotte Islands. During January and February the prevalent winds are reported from the southwest and northeast. The contour of the land at the station may have something to do with this as it is represented as quite high. The amount of cloudiness for the same period averaged 40 per cent., which is about 20 per cent. less than at Sitka for the same months.

FORT TONGASS, SOUTHERN ALASKA.

The observations from this point, though taken with a cistern barometer, are only of relative value since the reduction to sea-level is impracticable; the height of the instrument above the sea being unknown. The profile is of the Alaskan type with an August maximum and a November minimum, the difference being 0.372 inch.

The mean temperature for the year is $46^{\circ}.5$; of the seasons, beginning with spring, $44^{\circ}.5$, $58^{\circ}.1$, $47^{\circ}.6$, and $36^{\circ}.1$. The coldest month is January, the warmest August. The observed maximum reading was $92^{\circ}.0$ in July, 1870, the minimum reading $-2^{\circ}.0$ in March of the same year. In comparing it with Fort Wrangell, Fort Tongass frequently seems abnormally warm, and it is in reality as warm or warmer than some points 300 miles further south. This may be due to the reception in the open throat of Dixon Entrance of the warm waters of the Alaska current fresh from the great North Pacific Gulf Stream.

Fort Tongass is the locality of greatest known precipitation in Alaska. During the same period as that covered by the Tongass record the Sitka rain and snow fall averaged 30 per cent. less than that of the former locality. The summer months have the least rain, and from October to January inclusive about half the annual precipitation occurs. The driest month during the period was August, 1868, with only a tenth of an inch rainfall; this, however, was extraordinary, and the average lowest would seem to be anywhere from 4 to 6 inches. With the exception of one snow storm in April, 1869, no snow fell during the period between February and November; the whole number of snow storms may average about 20 a year. It would seem that about 200 days a year are either rainy or snowy, about the same as at Sitka, though the precipitation at Sitka averages much less. The winds appear to prevail chiefly from the north, south, and east, the paucity of westerly winds being a notable peculiarity, and they are indicated generally as light or not severe. Navigation is open the year round.

FORT WRANGELL, ETOLIN HARBOR, ALASKA.

The barometric observations from this point cover only about five of the summer months, giving a profile of the American type with a maximum height in August of about 29.96 inches. The range was greatest in May (1.321 inches) and smallest in August (0.548), while the average height for the whole period was nearly 29.83, the maximum 30.385, and the minimum 29.064 inches. To the values in the table a correction of +0.025 has been applied for reduction to the sea-level. The results of such a short series have, of course, only an approximate value.

Of temperatures there is a longer series, though somewhat broken, comprising more than 3 years. From this we gather that the climate is somewhat colder than that of Sitka, being for spring, 40°.4; for summer, 57°.1; for autumn, 43°.0; for winter, 28°.3; and for the whole year, 42°.2. The coldest month is January and the warmest July. The extreme readings during the period are 92°.0 in July, 1876, and -10°.0 in March, 1870. Its lower temperature is due to its greater distance from the ocean and its proximity to the snow-covered mountains of the mainland. The lowest monthly mean in the entire period is that of February, 1876 (18°.9), the highest (60°.9) July, 1875. The waters surrounding this station are open to navigation throughout the year.

The records of precipitation are exceedingly imperfect and irregular, but they seem to indicate that the total annual precipitation is less than at Sitka, and might average about 65 inches. The proportion of rainy and snowy days to the whole year is about the same as at Sitka and Tongass, but snow appears as late as April. Cloudiness prevails about equally at all seasons, the winter being perhaps slightly the most cloudy. The average relative amount of cloudiness does not differ much from that at Sitka, being between 6 and 7 tenths.

The prevalent winds are easterly or northeasterly, and it rarely blows from the southwest. Calms are frequent in summer. The average velocity cannot be determined definitely on account of the uncertainty as to which system of recording was used by the Army surgeons; as elsewhere pointed out, the heading of the blanks, copied in these tables, seems incompatible with the observations themselves.

SITKA, BARANOFF ISLAND, ALASKA TERRITORY.

Atmospheric pressure.—The magnificent series of barometrical observations from this station are well worthy of an extended discussion, which, however, would not be in place in this summary. The mean annual pressure from observations covering 488 months appears to be 29.727 inches. The profile from monthly means is of Alaskan type with a predominant July maximum of 29.903 inches and a November minimum of 29.572 inches. The figures for the seasons are for spring (March–May), 29.754; summer (June–August), 29.863; autumn (September–November), 29.663; and winter (December–February), 29.625 inches. The lowest single month-average during the period was that of January, 1858 (29.272 inches); the highest (30.107) that for June, 1845. The minimum reading during the period (28.218) occurred in 1873 and the maximum (30.696) in 1871. Excluding the years 1828–29, which are a little uncertain, the yearly mean pressure fluctuated from 29.871 (1843) to 29.615 inches (1858).

Temperatures were observed at Sitka with such thoroughness as to leave nothing to be desired in that direction except the filling up of a few gaps in a series which, as it is, comprises 45 years. The mean temperature for spring is 41°.2; for summer, 54°.6; for autumn, 44°.9; for winter, 32°.5; and for the entire year, 43°.3 F. The extremes of temperature in 45 years are 87°.8 and -4°.0. However the mercury has fallen below zero of Fahrenheit in only 4 years out of the 45, and has risen above 80° during but 7 years of that period. The coldest month is January, the warmest August; June is slightly warmer than September. The mean annual temperature has fluctuated between 41°.3 and 46°.8, showing 5°.5 range. Tables for computing the mean daily temperature at Sitka from observations at any hour, for any day of the year, have been constructed and published by H. Wild in the *Repertorium*. It will be some time, however, before this sort of thing replaces actual observations, though for assisting in the discussion of any general problems such tables may have a certain value and authority.

The great annual precipitation at Sitka has been so frequently remarked upon as to have almost passed into a by-word, and it was with some surprise that the facts were contemplated when the records showed a much larger precipitation at Fort Tongass and indications pointed to the

Queen Charlotte Islands, in British Columbia, and the region about Dixon Entrance as the most rainy part of the Northwest Coast.

The observations at Sitka, with minor interruptions, have been carried on from 1842 to 1877, comprising over 30 years. A comparison of the fluctuations of the annual means with the sunspot periods and with the records of rainfall at San Francisco failed to develop any permanent coincidences between the three curves. For a time such were apparent, but later the relations of the curves seemed absolutely opposed to such an hypothesis, and it was concluded that further light on the question of the sunspot cycles was needed before any satisfactory results could be arrived at or confidently hoped for.

This long series when reduced by weights of month-averages gives a very satisfactory curve or profile, with a single October maximum (11.83 inches) and a June minimum (3.62 inches); the transition from July to October forming almost a straight, rapidly ascending line. There is not in the whole series a single month in which no rain fell, though there are numerous instances when the amount for a month did not equal an inch. The rainiest year in the series is 1844, when 103.386 inches fell, and the driest 1872, when only 58.21 inches are recorded. The greatest amount for any one month fell in October, 1853, a total of 19.53 inches, and the least in November of the same year, when there was only 0.451 inch. Heavy rains are comparatively rare, the local type being an annoying and continuous drizzle. Coincident with these peculiarities of precipitation is the large amount of cloudiness. A clear sky being represented by 0 and complete cloudiness by 10, the average cloudiness for the year is represented by 6.84, the least monthly average being 5.7, in January, and the greatest 7.74, in August. These figures are not coincident with the months of greatest rainfall, as will be noticed.

May, 1871, was the least cloudy (3.95) and February, 1875, the most overcast (9.53) month in the series of about 9 years. It must be borne in mind, however, that the record in this as in many other meteorological particulars is that of the special locality, in an emphatic sense, since a few miles outside the heads of Sitka Sound there is much reason to believe a more favorable state of things exists, especially along the oceanic coast. The situation of the town of Sitka, in many respects, appears peculiarly unfavorable to a clear atmosphere and especially adapted for producing a relatively large amount of rain and fog.

The record of weather extends over a still longer period than that of precipitation, observations having been commenced in 1833 and continued with few breaks until 1877. From it we learn that an average of 200 days in every year are either rainy or snowy in the proportion of 166 to 34 respectively. The most favorable year of the record, 1833, gives 82 rainy and 32 snowy days, and the most unfavorable, 1856, *two hundred and fifty-eight rainy and twenty-seven snowy* days. The number of snowy days varies from 10 to 68 in different years. Snow is recorded very seldom in May and October, and from June to September seems unknown. June is on the whole the fairest month and October the most disagreeable so far as weather is concerned. In April, 1841, it rained but once and did not snow at all.

The observations for direction of wind are rather full and tolerably harmonious. From them it would appear that the beginning of the year is marked by a predominance of northerly and easterly winds with a southward tendency as the season advances, southwesterly and westerly in July and August, after which the easterly winds again predominate. Northwesterly winds are at no time numerous, perhaps owing to the fact that the locality is shielded by Kruzoff Island and the heights of Edgecumbe in that direction. Calms are particularly prevalent in July and August, light breezes in May and June. At the equinoctial periods and at intervals during the winter heavy gales are experienced. The table of the force of wind seems unsatisfactory, as it does not accord with experience and seems altogether too uniform for accuracy. It is to be regretted that we have no Russian observations on this point.

The table of elastic force of aqueous vapor does not seem to call for special comment.

One peculiarity of Sitka Sound is favorable for navigation. The winds which bring fog, rain, and storms blow out of it, and those which clear the atmosphere are favorable for entering it.

Navigation is open throughout the year. Obstruction by ice is unknown; there is a large snowfall, but it does not remain long on the lowlands, and it often happens that the lakes near the

town do not afford during the winter a sufficient supply of ice for domestic purposes during the following summer.

Notwithstanding the unfavorable climate, the result of experiments by competent persons since the American occupation has proved that potatoes, cabbages, turnips, carrots, and radishes can be successfully raised in spite of previous reports on insufficient evidence to the contrary.

FORT KENAI, COOK'S INLET, ALASKA TERRITORY.

No barometrical observations have been found from this station.

The temperatures during the months of July averaged $60^{\circ}.0$, not falling lower than 48° nor rising above $88^{\circ}.0$. The winds during that period (as might be expected from its situation) were chiefly W., SW., and S., with an average velocity of some 2 miles an hour and not exceeding 4 miles at any time, according to the Army Register during the period. The precipitation during the same time was 1.41 inches, and the average cloudiness slightly over five-tenths or 50 per cent of the sky.

If there is enough more of such climate during the season, agriculture is possible in this region. I have been informed that barley and Indian corn, planted as an experiment, matured here, and that the garrison garden was a success. Cook's Inlet has been called the garden of Alaska. We greatly need more information in regard to the meteorology of this vicinity.

ST. PAUL, KADIAK ISLAND, ALASKA TERRITORY.

Barometrical corrections being unknown, the only change from the mean of the daily readings, which has been applied in platting the curves, is $+0.02$ for height above the sea, which is probably about the truth, or, if anything, less than required. The profile is of the Alaskan type, with a dominant July maximum and subequal March and October minima.

The temperatures afford the following means: for spring, $37^{\circ}.2$; for summer, $54^{\circ}.8$; for autumn, $44^{\circ}.2$; for winter, $29^{\circ}.8$; and for the whole year, $41^{\circ}.5$ F. September is warmer than June, and if substituted for it would afford a summer mean of $55^{\circ}.2$. The coldest month is February ($27^{\circ}.8$), and the months of July and August have the same mean temperature ($57^{\circ}.0$), the warmest of the year. The extremes of temperature during the period were $75^{\circ}.0$ and $6^{\circ}.0$, and the entire season recalls with striking emphasis that of Southern Sweden and Southern and Southwestern Norway.

The precipitation at this station is quite large, equalling that at the mouth of the Columbia River. From the shortness of the period covered by the records the resulting profile is rather irregular, but in the main recalls the Sitkan type. It is marked by a dominant summer minimum (July) and two subequal maxima occurring in March and December. The total from April, 1869, to March, 1870, amounted to 78 inches, but reduced by the weighted means of the whole period embraced in the record, the annual mean would seem to be only about 73 inches. The greatest monthly precipitation occurred in March (10 inches), and the next highest (9.90 inches) in December. On the other hand, that for July averages less than an inch and a half, and in 1870 the mean precipitation for April, May, June, July, and August averaged less than 5 inches per month. There is some reason to think that 1869 was an unusually rainy year. Judging by the weather record the precipitation is greater in the same time than at most Alaskan stations, thereby affording a larger proportion of fair and sunny weather. This conclusion agrees with the general testimony of the inhabitants. The record for 1872 and 1873 shows 114 rainy and snowy days against 154 clear or half clear days, leaving 97 overcast or cloudy days on which it did not rain or snow. September is the most cloudy month, followed by May and December, yet out of 25 cloudy days in September only 8 were rainy, and there was no snow. Excepting 1 snowy day in October the Army record gives no snow from April to December. Helmken's register gives 6 snowy days for the same period. In a general way 1 day in 5 is rainy and 1 in 10 snowy out of every 100. Out of the same number 58 were cloudy, 38 wholly clear, and 4 half cloudy.

We have two wind records, one comprising a year and one (in which the calms are disregarded) 17 months' observations. They differ in details as might have been expected, and it has not been found practicable to combine them. They were taken at stations a mile or two apart. In 1869-'70 the most prevalent winds in the relative order of their frequency were N., NE., E.,

and SE., at the other station (1872-'73) they were SE., NW., and W. The latter station is somewhat better situated for observing the unmodified winds of the vicinity, and is less protected than that at which the Army record was made. The rule that northwest and southeast winds prevail more frequently than others is confirmed by experience throughout this region, and is generally considered by navigators as well established. The summer winds are generally light, those of spring and autumn heavy, and severe gales, almost unknown from April to October, occur at intervals in winter, especially in February.

It is the experience of navigators, leaving this port in the autumn, that if they can take advantage of the rise of a strong northwester it can generally be held until the vessel nears Cape Mendocino on the course for San Francisco. Sometimes, indeed, it carries the fortunate craft well in by Point Reyes before dying away. Under such circumstances the United States Coast Survey schooner Humboldt (75 tons) made the voyage from Kadiak to San Francisco in 10 days, a sailing distance of nearly 2,000 miles.

The navigation of the port is never closed, but is occasionally inconvenienced in severe winters by shore ice driven by the wind into the quieter parts of the harbor, an obstruction usually of very short duration.

ILIULIUK VILLAGE, CAPTAIN'S BAY, UNALASHKA, ALASKA TERRITORY.

Observations of the barometer at this point for 108 months have been reduced to new style by interpolation, with corrections to 32° F. for instrumental error (+0.320) and for reduction to sea-level (+0.010), and the means tabulated at the end of the table of original observations. The mean annual pressure is 29.65 inches; the profile exhibiting a curve of a slightly modified but American type with an August maximum of 29.789 inches, and February and November minima of 29.567 and 29.534 inches respectively. The whole range of the barometer at this station during the period was 2.34 inches, the observed maximum being 30.624 (in November, 1871), and the minimum 28.284 (in November, 1830). The mean heights for the seasons were: spring, 29.653; summer, 29.768; autumn, 29.572; and winter, 29.604. The actually lowest monthly mean is that of December, 1831 (29.126), but the lowest monthly average for the whole period is that for the month of November (29.534); but the actually highest monthly mean is that of December, 1828 (30.064), while the highest average monthly mean is for the month of August (29.789). The month of greatest perturbation is December (2.31 inches), and of least fluctuation July (1.07 inches). The highest annual mean is 29.806 (1832) and the lowest 29.552 (1826), an interesting instance of the variability even in annual pressure which obtains over a large part of this region.*

The temperature of this station has been the subject of a rather long series of observations. Opening to the northward it partakes of the character of the climate of Bering Sea rather than that of the adjacent Pacific, from which it is separated by numerous ridges of rather high snowy mountains. The mean annual temperature is three or four degrees lower than the surface temperatures of the sea in its vicinity, but on allowing for the fact that the sea-water does not fall below 30° or 31°, the air-temperatures follow the water-temperatures with a regularity which sufficiently indicates the close connection between them.

Reduced to new style and uniform scale, the means of all the temperature observations on record from this locality afford means for spring of 33°.9; summer, 48°.6; autumn, 39°.9; winter, 30°.6; and for the whole year, 38°.3; the mean annual temperature of the surface water in the harbor being about 41°.1, while the subsurface water, at a depth of 5 or 6 fathoms, lags behind in its changes, but appears to have a nearly similar annual mean. The warmest month is August, which has a mean air-temperature of 51°.9; the coldest, January, with 29°.6. The extremes of temperature during the entire period were +77° 0 and -0° 6 F. It is very unusual for the thermometer to reach as low as zero or above 68° F. The former has occurred when by long-continued north winds in winter floating ice from the northern part of Bering Sea has been drifted to the vicinity of Iliuliuk, but this is an exceedingly rare occurrence. A chief factor in reducing the summer temperature is the prevalence of clouds.

In regard to precipitation there are hardly any data to be found except the observations of Shayesnikoff and C. P. Fish, which give an approximate total of precipitation from January to

* Cf. Lütke's Voyage, i, pp. 247-249.

July inclusive, of 19½ inches, while Veniaminoff observes that of days on which some rain falls there are about 150 per annum, and the average amount which falls upon a rainy day is about 0.15 inch; this would put the annual rainfall at about 22.5 inches. This estimate seems hardly large enough, though it is undeniable that most of these rainy days, so called, hardly deserve the name, the atmosphere being filled with what is more like wet mist than falling rain, and quite as disagreeable, though the moisture will hardly accumulate so as to be measurable.

The largest amount of precipitation is in winter under the form of snow (which rapidly melts, except on the mountains), and at the equinoxes.

The winds are pretty evenly distributed, though, owing to the conformation of the land, this station is not favorable for accurate observations of direction of force, being surrounded in part by high mountains entirely protected in some directions, as from the northeast, and peculiarly liable to gusts and squalls from certain directions where the mountains are parted by ravines or narrow valleys. May, June, and July are marked by numerous calms, during which a light smoky fog is apt to obscure the atmosphere. The equinoctial periods are peculiarly liable to severe southeasterly or southwesterly gales. These are the strongest winds which are felt at Iliuliuk. Northwesterly winds are usually strong and steady, having a tendency to clear the sky; northeasters are very rare and the sky is invariably cleared when they occur. Southeasters bring rain and fog almost immediately; the southerly winds generally bring rain or disagreeable weather, and sometimes blow with the greatest velocity which has been noted here. The most severe gales experienced by the United States Coast Survey parties were from the southeast and south, but the traditions of the residents were to the effect that the most severe gales ever known there came from the southwest. Once in many years continued northerly winds will fill the bay in winter with fragments of drift ice from the northward, but this is a rare occurrence, and the first southerly breeze will clear it away. The small harbor is occasionally covered with skim-ice, but with this exception navigation is always open in this vicinity.

The percentages of humidity noted by Fish are rather high; they vary from 43 to 93 per cent., and averaged during June and July about 79 per cent. of saturation. The weather, so far as the occurrence of rain, snow, and fog, and the condition of surface of the sky are concerned, is not attractive. The maximum number of cloudless days observed in any one month was 6, and of fine weather, with occasional clouds, 10 days. During the stay of the Coast Survey parties in this region they found about 130 or 140 sunny or cloudy fair days during the year, the remainder being rainy, snowy, or foggy. On some of these fair days there was a high wind. They averaged annually from May to October (the working season including about 140 days) about 70 days on which the weather was favorable enough to allow of 10 or 12 hours' surveying work being accomplished.

ST. PAUL ISLAND, PRIBILOFF ISLANDS, ALASKA TERRITORY.

The barometrical observations obtained at this locality, excepting those from the United States Signal Service, are unfortunately not continuous. The resulting profile recalls that of St. Michaels in some respects. The record for November and December, 1869, seems abnormal or erroneous and has not been used in the discussions. Notwithstanding the statements in several annual reports of the Chief Signal-Officer that the height above the sea-level of this station "is unknown," it appears (by MS. information furnished the writer on his application to that officer) that the proper correction for reduction to sea-level has been made in all the reports from this station which have been printed.* The annual mean pressure would appear to be 29.712; that for spring 29.736; for summer, 29.861; for autumn, 29.644; and for winter, 29.607 inches. The barometer averages highest in August (29.926) and lowest in October (29.564). The lowest single month average (29.256) is that for January, 1870, the highest (30.184) that for November, 1875. The minimum reading during the period was 28.116 in December, 1872; the maximum (31.036) occurred in March, 1875.

The temperature of this station has the same annual mean as Petropavlovsk, but differs from it in climate much as St. Michaels does from Nikolaieffsk, by having a milder winter and a cooler summer than the Asiatic station. We have for spring a mean temperature at St. Paul Island of

* A subsequent communication from the Signal-Office, however, modifies the above to the effect that only the year, September, 1875, to August, 1876, inclusive, has been reduced to sea-level, the others being corrected for temperature and instrumental error only. The changes necessitated by this last information have been incorporated into this abstract of barometer and discussion thereof as well as the synoptical table of mean atmospheric pressure.

29°.9; for summer, 45°.4; for autumn, 39°.6; for winter, 27°.9; and for the entire year, 35°.7 F. The coldest (25°.7) weather occurs in February and March, which have the same mean temperature, the warmest (48°.4) in August; these features, as I have several times pointed out, seeming to characterize the changes in temperature at stations where the sea is an important modifying agent as compared with interior or continental stations. The latter almost invariably have their extremes in January and July, June being warmer than September. At St. Paul Island September is 3°.6 warmer than June. The extremes noted are -12°.0 (in 1873 when extraordinary northers drove the northern ice southward about the island) and +63°.0 F. But on no other occasions during the period has the mercury fallen below zero.

A valuable series of sea-temperatures was taken at this station by direction of the Chief Signal Officer United States Army, from which it would appear that the annual mean temperature at the surface is about 40°.0 and the summer maximum 50°.0 F.

Observations on the amount of precipitation give an annual average of about 35 inches. This is about the same as at Chicago and less than at New York or Boston. But the small quantities in which rain or snow falls at any one time at St. Paul Island stretch the rainy weather over a much greater relative period than it occupies at either of the above-mentioned stations. The resulting profile is quite irregular, but with more extended observations would probably show a minimum in April or May and a maximum in August or October. From what material we have it appears that the dominant maximum occurs in October (4.07 inches) and the minimum in May (1.49 inches); the monthly average from July to February is rather uniform. The annual means fluctuate considerably unless the differences arise from the different estimates of very small quantities by different observers. Including every day on which a measurable amount fell there were 284 rainy days in 1874 and 227 in 1875. In the first year snow was observed on 170 days, and in the second year on 153 days. July is the only month in which snow has not been observed, though this does not imply that a measurable amount fell during the months June to September, inclusive, though occasional flurries were observed in some years. The published summaries of weather from this station are too much condensed to admit of satisfactory discussion, and there has been no opportunity of consulting the original records.

The overcast and gloomy nature of the weather, indicated by the statistics of precipitation, is fully confirmed by the records of cloudiness, which averaged in July, 1874, over 97 per cent. of the whole sky, and in no month during the period covered by the Signal Service observations averaged less than 54 per cent. The average relative humidity, during the same period, attained over 83 per cent. of total saturation, the minimum being as high as 47 per cent. These statistics show more forcibly than any description the characteristics which have rendered the island a favorite resort for animals whose normal habitat would seem to be the sea itself, and whose temporary sojourn on the land is only rendered possible by the uniform coolness and moisture set forth by the tables. It is a remarkable testimony to the length of time during which such conditions must have existed that the habits which they render possible seem to have become firmly ingrained by hereditary influences upon the remarkable animals commonly known as fur-seal.

The prevalent directions of wind during the year seem to be northerly and southerly, but differ in the different records, and in the Signal-Service observations appear to be more uniformly distributed over the various points of the compass than the other records would indicate. In winter NW. winds are least prevalent of any; the same is true of SW. winds in summer; in autumn they are pretty uniformly distributed; while in spring northerly winds predominate. Calms seem more numerous in winter, and least so in summer, when there is generally some light wind from some direction. Southeast winds are always warm and rainy; southwest winds always colder than the southeasters, and in winter bring snow. Northeast winds are particularly dry, and northwest winds in winter increase the degree of humidity. The mean hourly velocity is least in summer, ranging from 11 to 20 miles, and greatest in winter, when it varies from 15 to 24 miles on the average, but reaches a maximum of 92 miles per hour on some occasions, while the summer maximum for the period is but 63 miles.

The winter gales, especially those from the southwest, rival those of Antarctic seas in their severity. The sea is usually open to navigation throughout the year, though at times very unfavorable for it; but on rare occasions it is obstructed by northern ice drifted by the wind, and which,

when once fast about the islands, may remain so for several months. In the winter of 1872-73 this occurred, and vessels trying to make the islands were prevented from reaching them by fields of ice, of no great thickness, but of wide extent, until about the first week in June.

The testimony of old residents and natives was to the effect that this was an extremely rare occurrence, though it had happened in 1864 that the fields of ice were even carried within sight from the highlands of Unalashka by a very long-continued series of northerly gales. It seems, however, that it is not an uncommon thing for ice to drift southward to the latitude of St. Paul Island in winter and to be visible for several days, or until a change of wind. Except in midsummer, high winds may be at any time experienced about these islands, and the gales most justly dreaded are those from the south and southeast, which are usually accompanied by thick weather, squalls, and rain; testing the best seamanship during their continuance. Since there is no harbor in the Pribiloff Group, the navigator must always be on the watch to slip his cables at the first premonitions of a storm, to seek a lee behind one of the points of the island, or to make a suitable offing. As in these seas everywhere, thunder and lightning are rarely observed and land-squalls are of frequent occurrence and great severity, though of very short duration.*

MÖLLER ISLANDS, NORTH SIDE OF ALASKA PENINSULA, BERING SEA, ALASKA.

The observations at this station, taken by the kindness of Capts. E. P. and L. Herendeen, came to hand after this paper had been completed, but in time to be incorporated while printing. They are interesting as far as they go, but, of course, have not the value of a complete series for a term of years. It is believed that these are the only observations ever taken in this vicinity. From them it appears that, during the period of observation, December, 1877, to April, 1878, inclusive, the temperature ranged from eight below zero, F., to 56°, a total range of 64° F. The mean temperature for the winter, December to February, inclusive, was 22°·7; the coldest month, and the month in which the lowest temperature was observed, being February. December was 1°·4 colder than January.

The observations for atmospheric pressure, if the barometer be wholly to be relied on, show a very remarkably low pressure, and would indicate that the locality was about the center of the Alaskan area of depression. It is possible, however, that the instrument, from some local circumstance, may have read even a little below the correction, which was obtained in San Francisco, but the full observations do not indicate any obvious source of error.

The lowest reading was 28.55 inches in December, the highest 30.25 inches in the same month. The winter mean was 29.333 inches; the mean of the whole period, 29.418; and the total range, 1.70 inches.

Northeast and southwest winds were the most prevalent, the former predominating during the winter, the latter toward spring. Gales were chiefly northerly and northeasterly, the last often blowing with a fine clear sky. Out of 149 days upon which observations were recorded, 16 were snowy, 2 rainy, 18 are especially noted as fine, and the remainder were cloudy or fair.

IKOGMUT MISSION, YUKON RIVER, ALASKA TERRITORY.

No barometrical observations were made here. The fragmentary observations for temperature have been the subject of extended remark by Dove and Wesseloffski. It would appear that the annual mean is, approximately, 24°·5; that of spring, 19°·71; summer, 49°·46; autumn, 27°·93; and winter, 0°·9, F. During this period the recorded maximum is 59°·3 and the minimum -14°·0; but the observations are of such a nature that these results cannot be considered conclusive. The absolute minimum during the period is elsewhere stated to have been -51°·25, and to have occurred on the 11th of February, 1850.

It would seem as if the distance of the station from the coast was sufficient to remove it partly from the modifying tendencies of the sea, and to give it a somewhat colder temperature than that of St. Michaels, although the latter is further northward. There are no records of precipitation,

* Notes on the wind-currents, clouds, and other meteorological phenomena of this station, conducted by C. P. Fish, Signal-Service observer, may be found in the Report of the Chief Signal-Officer for 1873, pp. 446-458.

but the weather record shows about ninety-five rainy or snowy days during the course of the year, autumn having a larger share than any other season, and summer a smaller number. July averaged the driest, with one rainy day; September, with thirteen, the most stormy; May, October, March, and November had ten or more rainy or snowy days; all the others less than ten. This is rather a favorable showing, and, indeed, the writer was informed in 1868 by the resident missionary that the garden at that station was the most successful one in the whole Yukon region.

The most prevalent wind seems to be from the northeast, especially in February, April, September, and November. In summer, and particularly in August, there is a preponderance of westerly or southerly winds. February, July, and August are the windiest months. In 1867 and 1868 the writer observed on numerous occasions quite a choppy sea raised on the broad expanse of the Lower Yukon by these strong summer breezes. January, November, and October, in this order, have the largest proportion of calms; September the fewest. They form quite an important percentage (35.7) of the whole weather of the year.

The ice breaks up in the Yukon anywhere from May 15 to June 5, and the river freezes over from the 30th of October to the 10th of November. The average dates for these changes are May 23 and November 4; but navigation is impeded about five days after the break-up in the spring by the floating ice and timber in the river.

ST. MICHAELS, NORTON SOUND, ALASKA TERRITORY.

The barometrical records for this station, though taken with care, are rather fragmentary, and results have only been attained by combining parts of different years. The irregularities of the profile, however, seem to be normal to the locality. In the Report of the Chief Signal-Officer for 1876-77, p. 74, the observations printed from this station are stated to "refer to sea-level". On inquiry, however, it was stated that the correction for height had *not* been applied to the figures published, though known to the office.* Raymond's estimate of the height of his barometer above the sea (40 feet) is too high by 10 feet. The positions occupied by various observers have not differed from one another to any great extent, and the height can in no case exceed 30 feet. The mean annual pressure at this locality would seem to be about 29.848; that for spring, 29.850; for summer, 29.835; for autumn, 29.789; and for winter, 29.918 inches. October averages lowest (29.647), November highest (30.003). The lowest single month-average is that of October, 1865 (29.588); the highest, November, 1875 (30.281). The minimum reading during the period was 28.700 (September, 1876), and the maximum 31.032 inches (November, 1875).

Observations of temperature at this station are numerous, though not consecutive, except those of the Signal Service. The annual mean appears to resemble that of Nikolaieffsk on the Asiatic side, which is some 600 miles farther south; but the summer is cooler than that of the Asiatic station and the winter less cold, a tempering directly traceable to the effect of oceanic currents. February is the coldest month ($1^{\circ}.8$) and July the warmest ($54^{\circ}.7$). For the seasons we have, for spring, a mean temperature of $20^{\circ}.9$; for summer, $51^{\circ}.6$; for autumn, $30^{\circ}.2$; winter, $4^{\circ}.0$; and for the entire year, $26^{\circ}.7$, F. The extremes of temperature noted during the period are $79^{\circ}.1$ and $-40^{\circ}.0$, though the thermometer rarely rises above 70° . The annual means, as nearly as can be determined, fluctuated during the period between $24^{\circ}.1$ and $29^{\circ}.9$, F.

By the kind assistance of Capt. Charles Riedell some observations of the temperature of the sea-water were made at intervals during the months of July, August, and September, 1872. These show the mean sea-temperature for that period to be about $54^{\circ}.0$, the maximum $62^{\circ}.0$, and the minimum $42^{\circ}.0$, F.

The precipitation for this station is known only from the observations of the Signal Service of the United States Army, and is of small extent, the resulting profile showing a decided resemblance to the type of the Okhotsk Basin. It shows apparently a February minimum (0.09 inch), though the records for this month are not as complete as could be wished, and a single August maximum (2.47 inches), with an annual mean of about 11.3 inches. There is a good deal of misty, drizzly

* A subsequent communication from the Signal Office (April 12, 1878) states that the whole of the published means for this station have been reduced to sea-level, but that the maximum and minimum readings for the period, July, 1874, to June, 1876, inclusive, have not been reduced to sea-level. The changes necessitated by this additional information in this report have been duly incorporated in the synopsis and discussion.

weather, and the fluctuations in annual precipitation are probably larger than the short and somewhat imperfect record might indicate.

The weather-records, though rather fragmentary, show an average of 100 rainy or snowy days per annum. There is a good proportion of clear and fair days among the rest, especially in winter. As a rule, there are more snowy than rainy days. July and August are recorded as destitute of snow, though in some years June and September have two or three snowy days reported. In later records rainy are not discriminated from snowy days. The observations are not sufficiently continuous and full to afford grounds for a satisfactory discussion.

Records of direction of winds are particularly full, but derived from different sources, so as to render the unification of the whole impracticable. From the Signal-Service observations, as the most satisfactory, it appears that there is a general predominance of N., NE., S., and SW. winds over all others. Northeasterly winds are particularly prevalent from October to February. During the rest of the year they are more northerly than easterly, while the winds from southern quadrants are about equal for each month except in January and July, when south winds appear more preponderant than at other times. Southeasters are not numerous at any time, but in March and September they sometimes occur with great violence, and, when long continued, produce a sensible temporary lowering of the waters of Norton Sound, a matter of much importance to navigators who may visit that shallow arm of the sea with vessels drawing more than 10 or 12 feet.

The winds in summer are usually light, in winter variable, the month of October appearing to be the most unfavorable; April also, from a comparison of the various records, seeming to have a rather large proportion of severe winds. The season of navigation is fortunately less subject to severe storms than that part of the year when the sound is frozen.

The sound is open to navigation on an average by June 10; in 1876 it was clear of ice a month earlier, but the navigation of Bering Sea outside of the sound at that time may not have been and probably was not practicable. In the winter of 1867-'68, for several weeks in January, the sound was clear of ice, carried away by easterly gales, and by continued easterly winds prevented from returning. It finally did come back, and piled up along the beaches to a height of 10 or 12 feet at some points. The earliest arrival of a vessel at St. Michaels is reported to be May 25 (in 1874), the latest June 22 (in 1876), both cases in which vessels were awaiting opportunities for coming in, while obstructed by the rotten field-ice of Bering Sea. The earliest approach to Norton Sound may usually be made by the passage west of St. Lawrence Island, which is often freed by the motions of the sea long before the other.

UNALAKLIK VILLAGE, NORTON SOUND, ALASKA TERRITORY.

The barometrical observations, extending over less than four months, taken by Mr. Westdahl, are all that have been discovered from this locality. The height of the instrument above the sea could not have varied much from 15 or 20 feet. An additive correction of +0.012 inch has been applied to the tabulated observations in using them on the charts. The mean pressure for the period is 29.799; observed maximum 31.066, and minimum 28.916, a considerable fluctuation within 97 days. An attempt to approximate to the height of Nulato from the comparison of the two, partly synchronous, series of barometric observations gave values varying from 185 feet to 54 feet, rendering it probable that the 100-foot estimate, based on observations in Raymond's Report, is not far out of the way. The character of the seacoast climate, however, differs from that of the interior (as at Nulato), and only a long series could afford a fair basis for comparison.

The series of temperature observations extend only from October 19 to January 30, during which time the extremes noted were +36°.0 and -45°.0, the mean temperature for the period being 3°.8 F. The summer temperature is similar to that at St. Michaels, but slightly warmer from being less cloudy.

During the period of observations there were 58 clear or half-clear days, 24 cloudy days, 15 snowy, and 2 rainy days. January, 1868, was notable for an unusual thaw, and for easterly winds, which, blowing with great force, drove the ice out of Norton Sound beyond the limit of vision from the shores, and under the dripping warm rain with which the region was visited nearly every day for several weeks, was seen the astonishing spectacle of Norton Sound perfectly free from ice, and

navigation to any part of it in view perfectly practicable, and all this in January, usually the coldest month of the year. The Unalaklik River dwindles as the springs freeze up, and can hardly be said to be navigable, even if not frozen, after September. It usually breaks up the ice which covers it in May or early June.

PORT CLARENCE, BERING STRAIT, ALASKA TERRITORY.

No observations with the barometer have come to hand from this station, though some were probably made on the Plover while sojourning here. The temperature observations extend over two years, and are known only through Dove's publications from MSS. furnished by General Sabine. The temperature of this station appears to be warmer than would have been anticipated, but the table shows no evident improbabilities. The mean for spring is $16^{\circ}.2$; for summer, $45^{\circ}.3$; for autumn, $21^{\circ}.3$; for winter, $-3^{\circ}.4$; for the entire year, $19^{\circ}.8$ F. The coldest month is January ($-11^{\circ}.2$), the warmest is July ($+49^{\circ}.8$); September is a fraction of a degree warmer than June; for the four summer months a mean of $44^{\circ}.0$ is recorded. Notwithstanding the high latitude of this station it is said to be infested in summer with an incalculable number of very venomous and voracious mosquitos, against whose attacks, for white men, a net is an absolute necessity. Navigation here generally opens in July and closes late in October or in November.

CHORIS PENINSULA, KOTZEBUE SOUND, ALASKA TERRITORY.

There are no barometrical observations at hand from this locality. The temperature record does not quite fill out the year, but in general is slightly higher than that of the opposite coast in the same latitude. The sound being quite shallow is filled with grounded ice for some time after the adjacent sea and straits are clear. From this cause the temperature may be a little below the normal. Of other records none have been discovered from this locality.

POINT BARROW, ARCTIC OCEAN, ALASKA TERRITORY.

Barometrical as well as meteorological observations were doubtless made on board the Plover, but no information in regard to the former has come under my notice. The temperatures of two years have been preserved to us by Dr. Simpson, and indicate a mean temperature for spring of $2^{\circ}.2$; for summer of $35^{\circ}.7$; for autumn of $6^{\circ}.5$; for winter of $-18^{\circ}.1$, and for the entire year of $6^{\circ}.5$, a truly hyperborean climate indeed. The coldest month is February ($-22^{\circ}.5$), the warmest is August ($38^{\circ}.4$); the observed maximum during the period is $52^{\circ}.0$, the minimum -45° F., these means being derived from hourly observations.

It would be to the credit of the authorities concerned if they would deliver to the world the meteorology which lies locked up, unpublished, in the logs of the Plover and other vessels of the British navy which were employed on the Franklin search expeditions. It is not easy to comprehend why this publication has not been made before this time, since there are English meteorologists.

KOLMAKOFF REDOUBT, KUSKOKWIM RIVER, ALASKA.

Observations of temperature are all we have from this locality, and these for less than two months. They are extracted from the Russian edition of Zagoskin's Travels, published by the Russian-American Company. From December 15, 1843, to February 5, 1844, the mean temperature was $-1^{\circ}.2$; the observed minimum was $-49^{\circ}.0$, and the maximum $38^{\circ}.7$ F. Of the 53 days included, 19 were clear, 18 cloudy, and 16 snowy.

The climate is believed to much resemble that of Nulato, but to be if anything a little colder, as the vicinity is hilly or mountainous, and covered with forests.

NULATO, YUKON RIVER, ALASKA TERRITORY.

From a few simultaneous observations this station has been computed to be about 100 feet above the sea (at St. Michaels), for which a correction of $+0.114$ has been applied to the tabulated means. The observations (with a standard cistern-barometer) extend over the period from December 1, 1866, to May 26, 1867, inclusive. During this time the month showing the highest average

(30.063) was January, December affording the lowest (29.688). A few observations by Raymond indicate that the barometer in July ranges about 29.948. The observed maximum in the first-mentioned period is 30.862, in January, and the minimum 28.846, in March. The mean height for the winter months was 29.912, and for the spring 29.808. The shortness of the series, however, renders it inadvisable to base any conclusions upon it.

The temperatures indicate a winter mean of $-11^{\circ}.8$; a spring mean of $30^{\circ}.4$, while a few scattered observations, by Raymond and others, point toward a summer mean of $60^{\circ}.0$ or higher. The extremes noticed during the period were $+86^{\circ}.0$ and $-56^{\circ}.0$ F. January was the coldest month and July the warmest.

There are no details of summer precipitation, though it is not very great. The amount of snow was determined with care in 1866-'67, and, assuming the usual ratio, was equal to 11.25 inches of rainfall. If we give it the same summer rainfall as St. Michaels, the annual rain and snow fall would equal about 18 inches, but it is probably less than this. The largest amount of snow for any one month fell in March. The total for the season was 9 feet $4\frac{1}{2}$ inches.

Northerly winds were prevalent at this station especially in spring. December and January had the greatest number of calms and also of high winds. May had neither calms nor gales. The summer months are free from high winds and characterized by warm, hazy weather. There were more pleasant, clear or half-clear days than cloudy ones. The ice in the Yukon breaks up usually between the 20th and 30th of May; the Nulato River, a small stream, three or four days earlier. Two or three days are required to clear the river of floating ice and timber before navigation is practicable. The river closes again about the 20th of October, but is not wholly ice-covered until January.

FORT YUKON, YUKON RIVER, ALASKA TERRITORY.

The barometric observations at this point, covering less than a month, are only valuable as being all there is. From simultaneous observations elsewhere Captain Raymond computes a value for H of 400 feet, equal to an additive correction of $+0.457$ for reduction to sea-level. So modified, the tabulated observations, during 25 days in August, show a maximum of 30.132 inches, a minimum of 29.312, and an average height of 29.771 inches.

For temperatures we have more material, including an entire year. The mean daily temperature for this period is nearly $17^{\circ}.0$ F. The coldest month is January ($-26^{\circ}.85$), and the warmest July ($65^{\circ}.75$). For the seasons the following means are given: spring, $14^{\circ}.60$; summer, $56^{\circ}.73$; autumn, $17^{\circ}.37$; winter, $-23^{\circ}.8$. The observed maximum during this period is $86^{\circ}.0$; the minimum is not stated, but the thermometer is known to fall at least 60° below zero of Fahrenheit on occasions.

Of winds there are no records, but the reports of the residents in 1867 to the writer indicated that severe winds were uncommon at any time, and that calms were very prevalent in winter and early summer.

FORT FRANKLIN, GREAT BEAR LAKE, HUDSON BAY TERRITORY.

No barometrical observations were made at this station.

The temperatures were observed by Franklin himself and can be relied on; they cover a year and 9 months, but the maxima and minima are not stated. The warmest month is July ($52^{\circ}.1$), and the coldest January ($-23^{\circ}.8$). The average temperature of the seasons is for spring, $14^{\circ}.0$; for summer, $50^{\circ}.4$; autumn, $21^{\circ}.1$; and for winter, $-16^{\circ}.6$.

If we divide the year into 6 summer and 6 winter months, as is in this latitude most natural, we have for winter an average temperature of $-5^{\circ}.5$ and for summer $+40^{\circ}.9$.

We have not noted any other observations from this station, though it is probable that others were made if not published.

II. ASIATIC STATIONS.

PORT PROVIDENCE, PLOVER BAY, EASTERN SIBERIA.

We have nothing in regard to the barometer at this locality. The observations extracted from a work by Dove, who received them in MSS. from General Sabine, exhibit peculiarities which render them unworthy of any confidence unless it be for the summer months. There has evidently been error introduced by misuse of signs, typographical errors, or errors of conversion; or else the original record was erroneous. The experience of the writer, during different visits to this locality, is sufficient to convince him that no weight can be assigned to Dove's table, which is reproduced chiefly to call attention to the subject.

ANADYR RIVER MOUTH, EASTERN SIBERIA.

The observations of barometer at this place having been made with an aneroid, whose instrumental error is unknown, the only correction applied has been (+0.02) that for reduction to sea-level, which is, in all probability, not far from the truth, though the absolute height of the instrument above the sea is not known. Only part of a year is represented, and shows too many irregularities to render any general conclusions from it well founded.

The temperature of this station is arctic. The mean annual temperature can only be approximated to and may be 12° – 15° F. The mean temperature of the spring months was $+12^{\circ}.3$; of winter, $-20^{\circ}.0$ F. The summer temperature is believed to be quite high. The coldest month was February with a mean temperature of $-27^{\circ}.9$ and a minimum reading of -62° F. There are no records of July, August, or September, but of the other months June naturally was the warmest with a mean temperature of $+43^{\circ}.7$ and a maximum reading of $+70^{\circ}$.

There are no records of rainfall or precipitation from this station; the weather record shows, however, that less than 14 per cent. of the period, October to June, was rainy or snowy, the greater portion of this occurring about the equinoxes. More than one-half of the weather was clear and less than 2 per cent. foggy; 34 per cent. being partly cloudy or wholly overcast.

The prevalent winds are northwesterly summer and winter, with those from the southeast next in number, the remainder forming an insignificant proportion of the whole. Calms were least rare in January and October; during four out of nine months there were none at all. January and October also furnished a larger percentage of gales than other months, though the severest winds blew in February and March, none of this kind being recorded from April to December.

On the Myan, a branch of the Anadyr, the ice broke up about June 1, in 1867; the freshets and freezing probably occur about the same time annually as on the Yukon River.

PETROPAVLOVSK, KAMCHATKA.

Nearly 5 years' observations of the barometer have been compiled for this locality, part of which appeared to include a large instrumental error, for which an arbitrary correction was deduced from other, corrected, observations by the graphic process. This correction as applied has brought out an harmonious result, the absolute and not the relative heights being affected by it.

The mean annual pressure so obtained is 29.687 inches. The profile is a fine example of what I have termed the Asiatic type, except that the dominant minimum occurs in winter, the average for January being 29.519, while that of June is 29.652 inches. The spring and autumn maxima are nearly equal, August having an average of 29.810 and March of 29.774 inches. The averages of the seasons are for spring, 29.749; summer, 29.718; autumn, 29.717; and winter, 29.563 inches. The lowest recorded month average is 29.326 (December, 1848), the highest 30.006 (January, 1848). The maximum and minimum readings for the period were 30.856 (January, 1848) and 28.402 (December, 1848) respectively.

The temperature of this station averages the same for the year as at the Pribiloff Islands ($37^{\circ}.5$), but the climate is very different at the two localities. The mean temperature for spring is $32^{\circ}.4$; for summer, $55^{\circ}.5$; for autumn, $37^{\circ}.8$; and for winter, $17^{\circ}.2$ F. The warmest month is July

(58°.1) and the coldest January (15°.3); the extremes of temperature during the period were +89°.4 and -17°.9 F. A good many vegetables are raised and a good many head of stock are kept in the vicinity of this station; there are also heavy forests near by. The summer is reasonably warm, the winter rather cold, while at the Pribiloffs the summer is ten degrees cooler and the winter ten degrees warmer, constituting a climate better adapted to fur-seals than human beings who might desire to till the soil.

The precipitation at this station is slightly larger than at Fort Wrangell, Alaska, and about the same as at Mobile. The resulting profile shows a dominant summer minimum in July and two subequal maxima in March and October, respectively, the latter being somewhat predominant. The annual mean varies from 45 to 71 inches during the period, the general mean precipitation being about 61 inches. The larger portion of this comes in the form of snow, and the only months in which no snow is recorded during the entire period are July and August. The greatest snow-fall appears in October, December, and March of different years, the greatest rainfall uniformly in September. The summer is not very wet, the average total of June to September, inclusive, being only 13½ inches. Compared with the Okhotsk Basin, however, the precipitation for the year is nearly double. In 1848 there was neither rain nor snow during July and August.

Notwithstanding the rather large precipitation the weather record is less unfavorable than might be expected. In general the number of clear and half-clear days equals or exceeds the number of cloudy ones, and in this lies the explanation of the comparative success of agriculture and stock-raising in this vicinity. Slight shocks of earthquake are reported during every year.

The record of winds shows, as usual in this region, a decided preponderance of northwest and southeast winds, which are particularly noticeable in summer. Southwest winds appear very rare. Southerly winds are most noticeable in May and June, northers in January and February. The predominance of northwesterners is observable throughout the year. The strongest winds occur in December, February, and March; in summer light winds are the rule. The observations were taken in old style, and from the nature of the case it has proved impracticable to reduce them to the Gregorian calendar.

The number of days of free navigation averages 177, opening about the 1st of June and closing about the 24th of November. The earliest opening during 1846, 1848, 1849, and 1850 occurred on May 1st, the latest June 5th; the earliest closing of navigation November 18th, the latest December 4th. The following notes are not without interest: Avatcha Bay includes the whole roadstead outside of Petropavlovsk Harbor; a bight at the mouth of the Avatcha River is called Avatcha Gulf. In 1848 the ice in Avatcha Bay broke away from the settlement on the 29th of April (O. S.); on the ⁸/₂₁th of May the bay was free of ice, and the first vessel from the United States arrived on the ¹¹/₂₄th of May. The ice remaining in Avatcha Gulf had disappeared by May 29th. On the 21st of November (December 4th) the harbor of Petropavlovsk and Avatcha Gulf were frozen over; ten days later the ice in the harbor was 7 inches thick, and on the ¹⁵/₂₈th December it was 13 inches thick; about nine days thereafter Avatcha Bay itself was frozen over.

In 1848, on the ⁵/₁₈th of January, a strong wind broke up all the ice in Avatcha Bay, and carried it off to sea; five days later it was again frozen over, and it was broken up again twice during the winter, the last time on the 13th of March. The first vessel arrived on the 27th of May (N. S.), and ice wholly disappeared from Avatcha Gulf by June 3d, and did not reappear there until November 22d, while Avatcha Bay was not frozen over until the ¹⁰/₂₃th December, and somewhat later was again cleared of ice by a strong wind, which process was frequently repeated during the winter, the last occasion being on the ¹/₁₄th April, 1849. On the ¹²/₂₅th of May Avatcha Gulf was freed from ice, and remained so until the night of November ⁶/₁₉, 1849; Avatcha Bay freezing over on the ⁸/₂₁th of December. In 1850 the first ship, an American whaler, arrived on the 1st of May, and the last one on the 28th of October (N. S.).

In leaving this port, or the Okhotsk Sea, for San Francisco in October, as is usually done by American fishermen and traders, it is the almost invariable experience of shipmasters that when four or five days out from port very severe gales from the northwest are encountered, and these often last for several days, affording a staunch vessel an opportunity to make a good run under almost bare poles, and severely testing the capabilities of less seaworthy craft.

PORT OF OKHOTSK, ON THE OKHOTSK SEA, EASTERN SIBERIA.

The fluctuations of mean monthly pressure at this point during the year are less than at any other point on the Okhotsk Sea from which we have observations. The profile is of the Asiatic type, and its only peculiarity is that of the early occurrence of the two maxima while the position of the summer minimum is the same as for Aian, Hakodadi, &c.

Observations for 92 months fix the reduced mean annual pressure at 29.813 inches at the level of the sea. For spring we have 29.849; for summer, 29.764; autumn, 29.809; and for winter, 29.829 inches. December is the month of average least pressure (29.710), while the lowest recorded monthly average is that of May, 1845 (29.374). The annual maximum occurs in February, which averages 29.923 inches, and this month in 1846 enjoyed a mean pressure of 30.104 inches, the highest on record. The minimum reading during the period, 28.554, occurred in December, 1844, and the maximum, 30.884, in September of the same year. The annual mean fluctuates from 29.554 (1845) to 29.904 (1850).

The temperature of Okhotsk is somewhat colder but otherwise very similar to that of Aian or Nikolaieffsk. The mean temperature of spring is $23^{\circ}.9$; of summer, $52^{\circ}.1$; of autumn, $24^{\circ}.6$; of winter, $-8^{\circ}.2$; and of the entire year, $23^{\circ}.1$ F. January is the coldest ($-11^{\circ}.7$) and July the warmest ($+54^{\circ}.6$) month; the extremes of temperature during the period were $-51^{\circ}.2$ and $+90^{\circ}.5$; the annual mean temperature fluctuating from $21^{\circ}.0$ to $24^{\circ}.6$ F. The remarkable paucity of precipitation at this station has been elsewhere alluded to, and in a warm climate it would properly be termed an arid locality. Owing to the low temperature, however, vegetation is enabled to persist under conditions which with a larger evaporation would be fatal to it. The total precipitation is $4\frac{1}{2}$ inches per annum, of which the greater part falls in July, August, and September, probably nearly all of it in the form of rain. The precipitation does not average one inch of water for any month, and during three years only four separate months are recorded as having more than an inch of precipitation, and only one of these more than 2 inches.

The winter is very dry, months occurring in the record with no measurable precipitation, and this is the more extraordinary since the town is situated on a narrow sand-bar between two bodies of water, a lagoon and the sea. There is no part of the United States, except in the vicinity of Fort Yuma, Arizona, where so little rain is recorded.

A key to the problem is furnished by the winds, which, except in summer, blow almost exclusively from the northward from over the frozen tundra and snow-clad hills of Eastern Siberia. From October to and including March there is hardly any but a northerly wind. In summer southeasterly winds bring a little moisture from the Okhotsk Sea. Northwest, westerly, and southwest winds are very rare throughout the year; westerly winds in particular are almost unknown, as are southerly winds from October to March.

It has been found impracticable to convert the wind-tables from the Old Style, in which they were originally recorded, to the Gregorian calendar.

Calms are most prevalent in May, June, and July. Strong winds occur occasionally throughout the year, but are most noticeable in March and September, and least so in December, according to the record. The weather appears to be overcast in summer and mostly clear in winter. The wholly clear days average 124 per annum, a rather large number, and there are one or two thunder-storms every summer. More or less fog is reported every summer. No snow is recorded during any June, July, or August, and but rarely in September; the largest number of snow-storms seem to occur in March.

From a record of eight years it would seem that navigation at this station is open on the average by June 5th and closes by October 17th, giving a navigable season of 134 days against a closed period of 231 days. The earliest recorded opening was on the 26th of May, the latest on the 19th of June; the earliest closing up by ice was on September 30th, and the latest on the 30th of October. The ice in a small stream flowing into the lagoon usually breaks up several weeks before the sea ice. The record shows that the average opening of the river navigation occurs on the 21st of May, and it generally closes about the 6th of November. No vessels are recorded as having arrived at the port before the 20th of June nor after the 10th of October.

PORT OF AIAN, OKHOTSK SEA, EASTERN SIBERIA.

The mean annual pressure deduced from the observations of three years and four months when reduced to the freezing point at the sea-level appears to be 29.828 inches. The profile is of the Asiatic type, with maxima in February (29.957), and October (29.891), and a July minimum (29.661). The mean barometer in spring is 29.845, in summer 29.740, in autumn 29.851, and in winter 29.875 inches. The lowest monthly average of the record is that of July, 1850 (29.619); the highest that of February of the same year (30.070); the minimum reading (29.086), occurred in January, 1848, and the maximum reading (30.758), in February of the same year. The yearly averages during the period fluctuated between 29.837 and 29.814 inches. The temperatures of the Okhotsk Basin are rather uniform among themselves, and Aian is no exception, being about midway, meteorologically and geographically, between Nikolaieffsk and Okhotsk. The mean temperature of spring is $24^{\circ}.6$; of summer, $51^{\circ}.5$; of autumn, $27^{\circ}.7$; of winter, $-3^{\circ}.2$; and of the entire year $25^{\circ}.1$ F. January is the coldest month ($-7^{\circ}.2$), and July is the warmest ($55^{\circ}.0$); the extremes recorded are $+85^{\circ}.8$ and $-34^{\circ}.4$.

From circumstances which have been referred to in the general discussion, this station enjoys the largest precipitation of any within the Okhotsk Basin, varying from 25 inches to 43 inches, and averaging about 35 inches. The largest part of this seems to come in August and September. The winter months seem to have a very light snowfall, that from December to April, inclusive, averaging less than 24 inches in all. The profile of the Okhotsk type shows a very remarkable September maximum contrasted with the February minimum. The weather record shows an equally remarkable preponderance of clear days, the cloudy and stormy days forming about one-sixth only of the whole. Thunder-storms are very rare and seem to occur only in May, June, and July. The season is more favorable to gardening than in the majority of these northern stations, and potatoes are said to have been successfully grown here.

Owing probably to the conformation of the coast and the mountains which protect it from the northwest, the winds at this station exhibit the peculiarity of being chiefly from the NE. and SW. The former predominate in spring and autumn, while in summer and winter they are nearly equally prevalent from both directions. Northeasters are particularly frequent in March and September, while winds from the NNW. and SE. are nearly unknown. This peculiarity of the climate makes of the roadstead, which opens to the southeast, a very tolerable harbor. The most severe winds occur between September and February, especially in December and February; in summer the winds appear to be generally moderate.

Navigation usually opens about June 11th (N. S.), and closes about November 30th; giving an average of 171 days of open water. The earliest opening recorded was on the 25th of May, 1849, and closed latest during the same year, on the 10th of December. In 1845 it did not open until June 18th, and in 1850 not until June 22d, closing, in 1850, on the 18th of November, the shortest season of navigation during the period.

UDSK VILLAGE, UDI RIVER, NEAR SHANTAR BAY, OKHOTSK SEA.

These observations are in similar case to those from the Ala River, with the additional uncertainty of a probably important correction for height above the sea-level. The mean temperature for the period December to March was about $5^{\circ}.0$ F., the maximum $47^{\circ}.7$, and the minimum $-36^{\circ}.6$ F. During this time there were 48 snowy days, and 5 with rain, snow, or sleet; 40 wholly clear, and 30 partly cloudy days. The prevalent winds were from W. by N. to NE., and chiefly westerly. There were no E. or SE. winds. The record is too short, however, to present much of value, and though in the last century the station was of a good deal of importance in the traffic and travel of Eastern Siberia, it has been long reduced to insignificance.

ALA RIVER MOUTH, SHANTAR BAY, OKHOTSK SEA, EASTERN SIBERIA.

The observations from this station are included for completeness' sake only. All corrections, including that of style, are unknown, and the uncorrected results tabulated do not harmonize with those known to be carefully taken and corrected, from the adjacent stations of Nikolaieffsk and Aian.

NIKOLAIEFFSK ON THE AMUR RIVER, EASTERN SIBERIA.

The mean annual profile for the barometer at this station exhibits less fluctuation than at most Siberian stations, and is of the Asiatic type. Observations during 66 months fix the mean annual pressure at 29.812 inches; for the seasons, spring, 29.803 inches; summer, 29.749 inches; autumn, 29.818 inches; and winter, 29.877 inches. The annual minimum falls in July (29.726), with maxima in February and September of 29.922 and about 29.40 inches respectively. The lowest monthly mean of the whole period is that for June, 1867 (29.565), and the highest that for February of the same year (30.077). The lowest observed barometer occurred in October, 1866 (28.937), and the highest in January of the same year (30.442). Annual means vary from 29.787 (1867), to 29.833 inches (1868), during the period. The greatest perturbations occurring in any one month fall in November (1.16 inches), and the least in July (0.498).

Rather full records of temperature are extant, from which we learn that the mean temperature for spring is $23^{\circ}.4$; for summer, $60^{\circ}.0$; for autumn, $32^{\circ}.5$; for winter, $-8^{\circ}.1$; and for the entire year $26^{\circ}.9$ F. It is nearly the same as that of St. Michaels, on the opposite coast, yet which is 600 miles farther north.

The Okhotsk Sea is essentially an arctic basin, and the climate of Nikolaieffsk is therefore a modified arctic climate. The warmest month is July ($62^{\circ}.7$), and September is cooler than June. The coldest month is January ($-11^{\circ}.9$); the extremes during the entire period, of some seven years, being $+87^{\circ}.0$ and $-44^{\circ}.5$ F.

The precipitation is better represented by records than at most of these stations, there being four years and six months consecutive observations. The annual amount of rain and melted snow averages somewhat over 12 inches; after St. Michaels and Okhotsk the driest station on our list. The profile is of the Okhotsk type, with September maximum and a February minimum. There is no place on the whole eastern and gulf coast of the United States which has so small an annual rainfall as Nikolaieffsk.

The absence of measurable rainfall is however abundantly compensated for by the humidity of the atmosphere, which exhibits during the summer from 81 to 88 per cent. of humidity relatively to saturation, and according to the (somewhat uncertain) record a still larger percentage in winter. The absolute humidities, as given in the *Annales*, are so startling as to suggest an error of statement in regard to the scale used, and I forbear to generalize upon them. With the humid atmosphere is joined a moderate amount of cloudiness, apparently about $\frac{1}{10}$ being the annual average, a singular increase in the amount being noticeable as coincident with the change in the method of recording which took place in 1871. The spring and summer seem to be the most cloudy seasons, especially April and May, though the absolute maximum during the period seems to have been furnished by the month of October. The predominance of certain winds at this station is well shown by the wind-roses. Westerly and easterly winds predominate, northerly and southerly ones are almost unknown. June, July, and August have a great predominance of southeasterly winds. April, May, and September are transition months, while the others show a striking domination by the westerly winds. August, September, and October have the largest percentage of calms; February, January, and December the smallest. As to force, hardly more than three per cent. of the observed winds exceeded the "moderate" in strength. There is only one gale reported in five years.*

Navigation closes in the Amur River, upon which this station is situated, generally in November. Vessels wintering there are surrounded by a double row of large piles driven around them into the river bed and rising several feet above the surface. This is to protect them from the ice, which breaks up in May in a freshet of considerable violence. The sea north of the river, and Sakhalin Strait, are not in a state for navigation until June.

DUË LIGHTHOUSE, SAKHALIN ISLAND, OKHOTSK SEA.

The barometrical observations at this point are inserted to show the persistency of the Asiatic type of profile over this region, and to make as complete as possible the collection of material from

*The discussion of the winds of Nikolaieffsk in Coffin's "Winds of the Globe" confuses together two stations of this name which geographically are widely separated, and belong to different wind-areas. For further information in regard to this station, see Supplementary Notes.

this vicinity; but, owing to the uncertainty in regard to the amount of reduction to sea-level (which in this case might require a large correction), the absolute heights have little weight.

This uncertainty* does not affect the temperatures, which are considerably modified by the warm influx from the Japan Sea, which gives them an annual mean of $33^{\circ}.4$ F., several degrees higher than that of the eastern shores of Sakhalin. The warmest month is August ($61^{\circ}.6$ F.); the coldest January ($3^{\circ}.8$ F.). The average of the summer is $58^{\circ}.0$ and of winter $7^{\circ}.0$; of spring and autumn, $30^{\circ}.4$ and $38^{\circ}.2$, respectively. The highest temperature which has been recorded is about $76^{\circ}.0$ (August, 1868), while the lowest ($-22^{\circ}.0$) occurred in December of the same year. The annual means appear very uniform.

There are no details in regard to the precipitation, but three years' record of cloudiness would indicate a fair proportion of sunny skies. The mean cloudiness of the year does not exceed .51 of the whole weather, January, February, April, and June being the most favored months; November and December the least so.

The winds present a decided preponderance of northerly and southerly breezes, somewhat fewer from the eastward and very few westerly, when the whole year is considered. NW., W., and SW. winds are in an extremely small minority. In winter northern winds decidedly predominate; later they are more nearly equalled in amount by the southern winds, which, in their turn, dominate in summer. In autumn the directions are more variable. November is the only month in which NW. winds equal those from other quarters. July and August afford the most calm weather; September and March the least. The percentage of calms for the year is small, not exceeding six per cent.

We have no records of force of wind from this station.

KUSUNAI,† SAKHALIN ISLAND, OKHOTSK SEA.

The observations for this point are of small importance, especially those for pressure, since the height above the sea is unknown (though stated by Fritsche to be small), and it is uncertain whether any correction for this element has been applied to the originals or not. The observations for pressure extend over eight months, and, so far as traceable, the profile presents the Asiatic type.

The temperatures are of more value. The climate of this locality is materially affected by the warm current from the Japan Sea, and to a greater extent than that of Duë Lighthouse. The observations give a mean of $34^{\circ}.1$ for spring, $58^{\circ}.1$ for summer, $43^{\circ}.6$ for autumn, $15^{\circ}.9$ for winter, and $37^{\circ}.9$ for the entire year. The warmest month is August ($65^{\circ}.8$) and the coldest February ($12^{\circ}.8$). September is warmer than June. The cloudiness averages nearly five-tenths, and is greatest in June, July, and March, and least in September and October.

The prevalent winds are from the east (29.6 per cent.) and west (18.0 per cent.). The most windy months are March and September; the least windy February and October.

MURAVIEFF POST,‡ SAKHALIN ISLAND.

No records of pressure have been procured from this station, but we have a year's temperature-observations. The station is situated at the head of a rather deep bight of the southern end of Sakhalin Island, and appears to benefit little by the warm outflow from the Japan Sea, eastward through La Perouse Strait, but a short distance southward. It is colder than Kusunai and clearer. The annual temperature-mean is $34^{\circ}.8$; the coldest month January ($6^{\circ}.9$) and the warmest August ($60^{\circ}.3$). The means for the seasons are, for spring, $30^{\circ}.7$; summer, $54^{\circ}.4$; autumn, $43^{\circ}.7$; and winter, $10^{\circ}.3$ F. But, as in some other cases, September is warmer than June, and, substituted for it, would give a summer mean of nearly $57^{\circ}.0$ F. This peculiarity indicates a climate modified

* The parallelism of the uncorrected observations with those at Nikolaieffsk is, however, so close that the writer is disposed to believe that the height-correction was applied by the original observer to the record, or else that there was an instrumental error of such a nature that it nearly neutralized the height-correction if the latter was not applied. The *Annales* are silent on the question. For other observations at Duë, see Supplementary Notes herewith and later numbers of the *Annales Cent. Phys. Obs.*

† For further information from this station, see Supplementary Notes.

‡ For further information, see Supplementary Notes.

by the sea, which last is always warmer in September than in June, while the normal for June is higher than for September universally in the northern hemisphere.

Nearly half the weather is cloudy; February and October appear to be the least, April and August the most so. There are no details of precipitation.

The most prevalent winds are from the W., E., and SW., especially from the last-mentioned direction. South winds are the least common. October, December, January, and February are the least windy months, especially January; April and May, July, and especially August, are the most windy.

We have no records of force or humidity of the atmosphere. It is probable that, from December to March, navigation in the bight upon which this post is situated is interrupted to some extent by ice, if not, indeed, entirely closed; but we have no specific advices on this point.

HAKODADI, JAPAN.

The observations tabulated from this point were collected in order to confirm the curves for the peripheral portions of the map. No attempt has been made to search for material additional to that which was easily accessible. The barometric profile is exceedingly regular and of the strictly Asiatic type. It exhibits a July minimum of 29.797 inches, a January minimum of 29.909 inches, with October and March maxima of 30.036 and 30.032 inches respectively. The mean annual pressure for the 4 years tabulated was about 29.925 inches.

The temperature appears to resemble that of New Westminster, B. C., but has a warmer spring and summer and a colder autumn and winter. The annual mean is $48^{\circ}.5$; spring, $44^{\circ}.3$; summer, $66^{\circ}.2$; autumn, $53^{\circ}.8$; and winter, $29^{\circ}.5$. January is the coldest month ($27^{\circ}.0$ F.) and August the warmest ($71^{\circ}.9$); July, August, and September have a mean temperature of $68^{\circ}.1$. These characteristics are undoubtedly connected with the influence of the Kuro-Siwo, which, in the vicinity of Yesso, seems to turn abruptly to the eastward. This is confirmed by the large percentages of actual humidity, which reaches an average for the year of 73 per cent. if 100 be taken as representing saturation. Summer naturally has the greatest absolute humidity (0.80) and winter the least, which changes are paralleled as a matter of course by degree of the elasticity of the contained aqueous vapor of the atmosphere.

The average precipitation for the year is about $43\frac{1}{2}$ inches, about the same as at Boston, New York, and Baltimore; nearly 10 inches more than at the Pribiloff Islands. July is, as usual, the most rainy month, and January the least so, but with these exceptions the precipitation is rather regularly distributed through the year, though the summer is decidedly the season of greatest precipitation. We have no record of cloudiness, and for peripheral stations like this no attempt has been made to do more than obtain a comparable series of the more important kinds of observations. Navigation at Hakodadi remains open throughout the year.

BIBLIOGRAPHY.

A LIST OF THE PRINCIPAL WORKS CONSULTED IN PREPARING THE METEOROLOGICAL TABLES OF THIS WORK TOGETHER WITH THE ABBREVIATIONS USED IN REFERRING TO THEM.

ANN. CENT. PHYS. OBS. = *Annales de l'observatoire physique central de Russie*. 1847-1875. 29 vols. 4°. *St. Petersburg*, 1850-1876. Edited 1847-1863, by A. T. KUPFFER; 1864 by L. F. KÄMTZ; 1865-1875 by H. WILD. From 1847-1861 in the French language; 1862-1869 in the French and Russian languages, and 1870-1875 in the Russian and German languages.
 — same: années 1850-1864, No. 2. *Correspondance météorologique*, 1850-1864. 4°. *St. Petersburg*, 1851-1865.

This last is referred to as KUPFFER MET. CORRESP.

ANN. MÉT. ET MAG. = *Annuaire météorologique et magnétique du corps des ingénieurs des mines ou recueil d'observations météorologiques et magnétiques faites dans l'étendue de l'empire de Russie, et publiées par ordre de sa Majesté l'empereur Nicolas I, par A. T. KUPFFER*. Années 1837-1846. 10 vols. 4°. *St. Petersburg*, 1839-1849.

COAST SURVEY REPORTS. = [Annual] *REPORTS* of the superintendent of the United States Coast Survey, showing the progress of the survey, 1852-1874. 23 vols. 4°. *Washington*, 1853-1877.

COFFIN'S WINDS OF THE GLOBE. = COFFIN (James Henry H. d.) and COFFIN (Selden Jennings, a. m.) and Woeikoff (dr. Alexander). *Smithsonian contributions to knowledge*. 268. The winds of the globe: or the laws of atmospheric circulation over the surface of the earth. 4°. *Washington*, 1875.

DOVE IN BERLIN AKAD. WISS ABHANDL. = DOVE (HEINRICH WILHELM). Über die nicht periodischen Veränderungen der temperatur-vertheilung auf der oberfläche der erde. [In ABHANDLUNGEN der königlichen akademie der wissenschaften zu Berlin; aus dem jahre 1858. 4°. *Berlin*, 1859. pp. 113-428.]

ERMAN'S ARCHIVES. = ERMAN (GEORG ADOLPH). *Archiv für wissenschaftliche kunde von Russland*. 25 vols. 8°. *Berlin*, G. Reimer, 1841-1866.

JOURN. RUSS. HYDR. DEPT. = Zapieski, &c. *Journal of the hydrographic bureau of the navy department*. 10 vols. 8°. *St. Petersburg*, 1842-1852.

KUPFFER MET. CORRESPOND. = ANN. CENT. PHYS. OBS. No. 2. q. v.

MS. MET. REG. U. S. A. = The manuscript meteorological register of the United States Army. A meteorological record is kept with standard instruments at all United States military posts, under the direction of the post surgeon, the observations being usually made by the hospital steward. This record is forwarded each month to the office of the Surgeon-General U. S. A., and the monthly means, résumés, etc., extracted and copied into folio volumes ruled and especially prepared for this purpose. This constitutes the *MS. Met. Reg. U. S. A.* to which we are indebted for material for six Alaskan stations.

SIGNAL OFFICE REPORTS. = Annual Reports of the Chief Signal-Officer; [being a part of the annual] Report of the Secretary of War. 4 vols. 8°. *Washington*, 1873-1876.

VENIAMINOFF'S JOURNAL. = VENIAMINOFF (JOHN). *Zapieski'ob.*, etc. Notes on the islands of the Unalashka district. Published at the expense of the Russian-American Company. 2 vols. 8°. *St. Petersburg*, 1840.

VESSELOFFSKI'S CLIMATE OF RUSSIA. = VESSELOFFSKI (CONSTANTIN S.) *O klimat etc.* Concerning the climate of Russia. 4°. *St. Petersburg, imp. acad. sciences*, 1857.

WILD REPERT. FÜR MET. = WILD (HEINRICH). *Die temperatur-verhältnisse des Russischen reiches*. Supplement band zum Repertorium für Meteorologie; Erster Hälfte. 4°. *St. Petersburg, kais. akad. der wissens.*, 1877.

In this work certain meteorological results are deduced for four of the stations considered in this appendix, viz.:—Nikolaieffsk on the Amur River; Petropavlovsk, Kamchatka; Port of Okhotsk, Okhotsk Sea, and Sitka, to which paper the interested reader is referred. For each one of these four stations a series of four tables is given containing the following information:—

First: Hourly mean temperature for each month of the year.

Second: The average max. and min. temperature for each month together with the times of the occurrence of the same, in addition to which are given certain time intervals, &c.

Third: A table to reduce the mean temperatures for each month derived from one observation per day, taken at any hour, to the true daily mean, and

Fourth: A table to reduce the mean temperatures derived from any one of the formulæ here annexed to the true daily mean: $\frac{1}{2} (8_a + 2_p + 10_p)$; $\frac{1}{2} (7_a + 1_p + 9_p)$; $\frac{1}{2} (7_a + 2_p + 10_p)$; $\frac{1}{2} (7_a + 2_p + 9_p)$; $\frac{1}{2} (7_a + 2_p + 2 \times 9_p)$; $\frac{1}{2} (8_a + 2_p + 2 \times 10_p)$; $\frac{1}{2} (10_a + 10_p)$; $\frac{1}{2} (9_a + 9_p)$; $\frac{1}{2} (8_a + 9_p)$.

ZAGOSKIN'S TRAVELS. = ZAGOSKIN (lieut. L.) *Peshekhodnaya*, etc. Description of travels on foot in the Russian possessions of America, 1842-1844. 2 vols. 8°. *St. Petersburg*, 1847-48.

LOCAL TABLES.

I.—AMERICAN STATIONS.

BURNABY ISLAND, QUEEN CHARLOTTE ISLANDS, B. C.

Lat. 52° 19' 30" N. Long. 131° 11' 00" W. of Gr.

Height of station above the sea is not stated, but from a topographical map made by the observer would appear to be small. Observations appear to have been taken at a log house situated on Burnaby Island, near "Blue Jay Harbor."

Observer : Francis Poole, C. E.

Sources of information : POOLE (Francis). Queen Charlotte Islands, a narrative of discovery and adventure in the North Pacific. Edited by John W. Lyndon. 8°. London, Hurst and Blackett, 1872.

THERMOMETRICAL OBSERVATIONS.

The temperatures here given are extracted from the text of the work cited, p. 300, no tables of temperature being given.

PRECIPITATION.

No tables of precipitation are given, but results only, which results are embodied here without change.

CLOUD OBSERVATIONS.

TABLE I.—Period covered by the table, January 1 to February 28, 1863. Same source as above, p. 301. Observations in tenths, whereby a cloudy day is represented by 10; a cloudless day by 0. Only the sums for the whole month are given in the original.

Mean = $\frac{1}{3} (8_a + 2_p + 8_p)$.

WINDS.

TABLE II.—*Direction of wind*: same source and period as preceding, p. 301. Direction (whether true or magnetic is not stated) originally recorded in 16 directions, N., NNE., NE., &c., but here reduced to 8 directions by calling one-half of the NNE. N. and the other half NE., &c. The number of observations is given in the original, but the results are here expressed in percentages.

Meteorological observations at Burnaby Island, Queen Charlotte Islands.

Mean temperature for the year	68° († = 48°)
Maximum observed in two years	80
Minimum observed in two years	24
Range	56
Inches.	
Mean precipitation in January	14.52
Mean precipitation in February	8.88

TABLE I.—Amount of cloudiness.

Months.	8 a. m.	2 p. m.	8 p. m.	Mean.
January, 1863	4.2	4.7	5.2	4.7
February, 1863	3.6	3.6	4.3	3.4

TABLE II.—Direction of winds.

Months.	N.	NE.	E.	SE.	S.	SW.	W.	NW.
January, 1863	3.89	20.56	8.33	3.89	3.89	30.00	14.44	15.00
February, 1863	1.79	44.64	0.60	12.50	5.95	16.07	9.52	8.93

FORT TONGASS, SOUTHERN ALASKA.

Lat. 54° 46' N. Long. 130° 30' W. of Gr.

Height of station above the level of the sea is, according to one statement, 20 feet, and according to another, 30 feet; and we are not in possession of data to determine which is erroneous.

Source of information : MS. Met. Reg. U. S. A.

BAROMETRICAL OBSERVATIONS.

TABLE I.—Period covered by these observations is two and one-third years, June 1868 to September 1870. Observing hours, 7 a. m., 2 and 9 p. m. Instrument, Green's standard barometer. Correction unknown, but doubtless small. Observations reduced to the freezing-point, but not to the sea-level. Mean = $\frac{1}{3}(7_a + 2_p + 9_p)$. The results in the synoptical table of atmospheric pressure are simply the means of the columns "All" in this table.

THERMOMETRICAL OBSERVATIONS.

TABLE II.—Same period and observing hours as above. The Max. and Min. columns are the maxima and minima observed at the hours 7, 2, and 9. The synoptical table of mean temperatures embodies the means of this table without any correction, none being necessary.

PRECIPITATION.

TABLE III.—Same period and observing hours as the preceding. The amount of precipitation in inches is the amount of rain and melted snow, — 10 inches of snow being taken equal to one inch of water. Rainy and snowy days are days upon which there fell a measurable amount of rain or snow.

WINDS.

TABLE IV.—*Direction of wind*. Period covered by this table is two years, June, 1868, to May, 1870. Observing hours, 7 a. m. and 2 and 9 p. m. Directions are true, and *from* which the wind blows. Table originally expressed in number of observations, but here converted to percentages. Whole number of observations, 2,190.

TABLE V.—*Force of wind*. Same period, observing hours, &c., as the preceding. The force was estimated and recorded upon the same scale as the preceding. Whole number of observations, 2,027.

METEOROLOGICAL OBSERVATIONS AT FORT TONGASS, ALASKA.

TABLE I.
ATMOSPHERIC PRESSURE.
[Barometrical observations reduced to 32° F.]

Date.	1868.							1869.						
	7 a. m.	2 p. m.	9 p. m.	All.	Max.	Min.	Range.	7 a. m.	2 p. m.	9 p. m.	All.	Max.	Min.	Range.
January.....								29.543	29.544	29.521	29.536	29.930	28.862	1.068
February.....								29.857	29.889	29.914	29.887	30.473	29.228	1.245
March.....								29.778	29.808	29.764	29.783	30.383	28.962	1.421
April.....								29.826	29.863	29.859	29.849	30.249	29.255	0.994
May.....								29.911	29.912	29.719	29.847	30.314	29.530	0.784
June.....	29.916	29.926	29.901	29.914	30.217	29.643	0.574	30.030	30.051	30.024	30.035	30.270	29.834	0.436
July.....	29.918	29.931	29.923	29.924	30.187	29.630	0.557	30.004	30.003	29.997	30.001	30.225	29.687	0.538
August.....	30.069	30.066	30.056	30.064	30.273	29.860	0.413	29.927	29.934	29.926	29.929	30.227	29.600	0.627
September.....	30.090	30.066	30.070	30.075	30.400	29.806	0.594	29.891	29.895	29.904	29.897	30.250	29.486	0.764
October.....	29.885	29.856	29.869	29.870	30.273	29.532	0.741	29.851	29.839	29.846	29.845	30.307	29.062	1.245
November.....	29.668	29.685	29.716	29.690	30.385	29.070	1.315	29.639	29.581	29.574	29.598	30.360	27.672	2.688
December.....	29.785	29.801	29.815	29.800	30.352	29.160	1.192	29.642	29.709	29.701	29.684	30.366	29.145	1.221
Summer.....	29.909	29.908	29.902	29.907	30.660	28.989	1.671	29.913	29.928	29.882	29.907	30.383	28.962	1.421
Winter.....	29.818	29.818	29.824	29.820	30.400	29.070	1.330	29.737	29.743	29.743	29.740	30.473	27.672	2.801
Year.....	29.864	29.863	29.863	29.863	30.660	28.989	1.671	29.825	29.836	29.812	29.823	30.473	27.672	2.801

Date.	1870.						
	7 a. m.	2 p. m.	9 p. m.	All.	Max.	Min.	Range.
January.....	29.800	29.818	29.828	29.815	30.351	29.269	1.082
February.....	29.682	29.682	29.645	29.669	30.226	29.176	1.050
March.....	29.91	29.90	29.91	29.91	30.29	29.34	0.95
April.....	29.799	29.806	29.808	29.804	30.660	29.286	1.374
May.....	29.841	29.817	29.813	29.824	30.407	28.989	1.418
June.....	29.930	29.934	29.931	29.932	30.213	29.438	0.775
July.....	29.946	29.987	29.970	29.967	30.405	29.603	0.802
August.....	30.073	30.061	30.048	30.061	30.453	29.800	0.653
September.....	29.987	29.936	29.855	29.926	30.634	29.310	1.324
October.....							
November.....							
December.....							
Summer.....							
Winter.....							
Year.....							

NOTE.—The results for summer, winter, and whole year under 1868 are made up by taking the first 5 months from 1870 and the last 7 from 1868.

TABLE II.
TEMPERATURE OBSERVATIONS.

Date.	1868.							1869.						
	7 a.m.	2 p.m.	9 p.m.	Mean.	Max.	Min.	Range.	7 a.m.	2 p.m.	9 p.m.	Mean.	Max.	Min.	Range.
January.....	0	0	0	0	0	0	0	36.7	39.3	37.5	37.8	46	29	17
February.....								35.0	40.1	35.7	36.9	45	28	17
March.....								38.6	47.0	41.7	42.4	59	25	34
April.....								42.6	52.0	44.3	46.3	60	37	23
May.....								50.0	57.3	51.6	53.0	70	38	32
June.....	52.9	61.9	55.1	56.6	75	43	32	54.4	61.6	57.2	57.8	72	48	24
July.....	55.2	59.2	56.0	56.8	64	52	12	57.4	65.0	57.5	60.0	72	53	19
August.....	55.8	65.6	56.5	59.3	75	51	24	54.0	61.0	54.9	56.6	65	47	18
September.....	48.0	58.2	50.7	52.3	67	38	29	48.9	56.9	51.3	52.4	63	39	24
October.....	46.3	52.5	47.0	48.6	58	37	21	46.4	52.7	47.9	49.0	58	38	20
November.....	38.9	41.9	40.6	40.5	48	32	16	41.2	43.2	40.4	41.6	51	33	18
December.....	36.2	38.3	36.1	36.9	46	24	22	38.4	40.2	39.2	39.3	46	25	21
Summer.....	46.6	54.3	48.2	49.7	75	— 2	77	49.5	57.3	51.2	52.7	72	25	47
Winter.....	38.7	43.4	39.8	40.7	67	6	61	41.1	45.4	42.0	42.8	63	25	38
Whole year.....	42.6	48.9	44.0	45.2	75	— 2	77	45.3	51.4	46.6	47.8	72	25	47

Date.	1870.						
	7 a.m.	2 p.m.	9 p.m.	Mean.	Max.	Min.	Range.
January.....	28.5	31.9	29.8	30.1	47	6	41
February.....	34.1	37.9	34.8	35.6	45	23	22
March.....	31.3	38.8	33.7	34.6	49	— 2	51
April.....	40.2	48.3	41.7	43.4	53	33	20
May.....	44.2	52.3	46.2	47.6	62	46	16
June.....	51.7	59.8	53.1	54.9	72	47	25
July.....	56.5	63.4	58.1	59.3	92	52	40
August.....	56.9	67.6	59.5	61.3	81	52	29
September.....	54.0	56.9	54.0	54.7	63	49	14
October.....							
November.....							
December.....							
Summer.....							
Winter.....							
Whole year.....							

NOTE.—The results for summer, winter, and whole year under 1868 are made up by taking the first 5 months from 1870 and the last 7 from 1868.

LOCAL TABLES.

55

TABLE III.
RAIN AND SNOW FALL.

Date.	1868.			1869.			1870.		
	Days.		Amount in inches.	Days.		Amount in inches.	Days.		Amount in inches.
	Rain.	Snow.		Rain.	Snow.		Rain.	Snow.	
January.....				20	6	12.00	11	5	13.94
February.....				14	7	9.98	14	13	11.61
March.....				18	0	5.75	16	0	10.58
April.....				23	1	9.87	15	0	9.28
May.....				16	0	5.30	15	0	10.10
June.....	7	0	1.81	15	0	5.99	9	0	4.63
July.....	21	0	8.45	13	0	5.75	14	0	6.85
August.....	4	0	0.09	18	0	6.56	7	0	6.19
September.....	9	0	2.78	16	0	12.51	23	0	18.50
October.....	22	0	8.68	18	0	19.54			
November.....	29	4	17.92	27	1	12.03			
December.....	17	0	10.40	23	3	16.26			
Summer.....	78	0	40.31	103	1	39.22			
Winter.....	102	22	65.33	118	17	82.32			
Whole year.....	180	22	105.64	221	18	121.54			

NOTE.—The results, under 1868, for summer, winter, and whole year are made up by taking the first 5 months from 1870 and the last 7 from 1868.

TABLE IV.
DIRECTION OF WINDS.
1868-1870.

Month.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.
January.....	13.98	27.96	13.44	19.35	12.37	1.61	0.00	1.61	9.69
February.....	12.50	19.64	16.67	22.02	13.69	2.98	2.98	1.19	8.33
March.....	17.74	14.52	15.59	21.51	15.05	2.15	1.08	3.76	8.60
April.....	12.78	3.33	13.89	23.89	26.67	2.22	5.56	0.55	11.11
May.....	10.21	9.14	11.83	18.28	22.04	1.61	10.22	1.61	15.05
June.....	7.22	11.11	1.11	17.78	37.22	6.67	2.78	4.44	11.67
July.....	5.38	0.00	1.08	29.03	40.32	7.53	2.69	8.60	5.38
August.....	3.76	1.61	3.76	24.19	49.47	7.53	2.15	4.84	2.69
September.....	12.78	3.89	11.11	13.33	40.00	4.44	2.22	10.00	2.22
October.....	15.59	12.37	8.06	29.57	19.36	6.45	0.00	3.76	4.84
November.....	14.44	18.33	18.89	20.56	15.56	3.33	1.67	2.22	5.00
December.....	22.04	10.75	13.44	19.35	16.13	3.23	1.08	9.14	4.84
Spring.....	13.58	9.00	13.77	21.23	21.25	1.99	5.62	1.97	11.59
Summer.....	5.45	4.24	1.98	23.67	42.34	7.24	2.54	5.96	6.58
Autumn.....	14.27	11.53	12.69	21.15	24.97	4.74	1.30	5.33	4.02
Winter.....	16.17	19.45	14.52	20.24	14.06	2.61	1.35	3.98	7.62
Year.....	12.37	11.00	10.69	21.60	25.71	4.16	2.69	4.34	7.44

LOCAL TABLES.

TABLE V.
FORCE OF WINDS.

Date.	N.	NE.	E.	SE.	S.	SW.	W.	NW.
January, 1869 and 1870	2.92	4.42	2.80	3.03	2.52	2.00	.....	1.66
February, 1869 and 1870	1.95	2.78	2.25	2.14	2.74	1.60	.....	2.50
March, 1869 and 1870	4.09	2.74	2.65	2.52	2.50	2.25	2.00	3.00
April, 1869 and 1870	2.13	3.33	3.00	2.95	3.03	2.50	2.80	1.00
May, 1869 and 1870	1.95	2.82	3.22	2.41	2.95	2.00	3.00	1.67
June, 1869 .....	.....	2.33	.....	2.08	1.93	2.17	2.60	1.50
July, 1869 .....	.....	.....	.....	2.25	1.58	2.00	3.00	2.27
August, 1869	1.00	3.00	2.00	2.36	1.77	1.73	1.75	1.00
September, 1869	1.66	2.16	1.43	2.19	2.21	1.66	1.00	2.33
October, 1869	2.58	3.23	2.00	3.65	3.17	.....	.....	1.83
November, 1869	2.37	4.95	3.00	2.28	1.90	2.00	2.00	1.50
December, 1869	2.66	3.60	2.09	3.73	2.50	2.00	2.00	1.00
Summer	2.92	2.82	2.89	2.53	2.27	2.04	2.75	2.19
Winter	2.49	3.83	2.29	3.04	2.40	1.83	2.10	1.83
Whole year	2.69	3.54	2.56	2.77	2.31	1.98	2.63	2.05

FORT WRANGELL, ETOLIN HARBOR, ALASKA.

Lat. 56° 16' 28" N. Long. 132° 28' 33" W. of Gr.

*Height of station above the level of the sea, in 1870, 25 feet; in 1875-'76, 35.5 feet.**Sources of information: MS. Met. Reg. U. S. A.*

BAROMETRICAL OBSERVATIONS.

TABLE I.—Period covered by this table five months, May to September, 1870. Observing hours, 7 a. m. and 2 and 9 p. m. Instrument, Green's standard barometer No. —; the same instrument that was afterwards used at Sitka, the observations at the latter place beginning with this instrument October 12, 1870. Instrumental error, if any, is doubtless very small. The observations are reduced to 32° Fahr., but *not* to sea-level. Mean = $\frac{1}{3}(7_a + 2_p + 9_p)$.

The results in the synoptical table of mean atmospheric pressure are reduced to sea-level by means of the correction + 0.025 inches.

THERMOMETRICAL OBSERVATIONS.

TABLE II.—*Temperature of the air.* Period covered by this table, three and two-thirds years, 1868–1876. Observing hours, as above. The Max. and Min. are the maxima and minima observed at the hours 7, 2, and 9. The synoptical table of mean temperatures embodies the results of this table without any change, so that the mean temperature for January depends upon 2 months' observations; for February, March, October, November, and December upon 3 months' observations; for April, June, and September upon 4 months' observations; and for May, July, and August upon 5 months' observations.

PRECIPITATION.

TABLE III.—*Rainy and snowy days and rainfall.* Same period as the preceding. Rainy or snowy days are those upon which there fell a measurable amount of rain or snow. The *amount* in inches is the amount of rain and melted snow.

CLOUD OBSERVATIONS.

TABLE IV.—*Cloudiness.* Period covered by the table is two years and eleven months; observing hours, as above. Cloudiness expressed in tenths in the originals, and expressed in the same manner here; 0 = a cloudless sky, and 10 = a sky wholly covered by clouds.

WINDS.

TABLE V.—*Direction of wind.* The period covered by these observations is about three years and eight months, and the observing hours 7 a. m., 2 and 9 p. m. The directions are supposed to be true and from which the wind blows. Observations made to eight points of the compass and expressed in number of observations, but here expressed in percentages. The results for January depend upon *two* months' observations: for February, March, June, October, November, and December upon *three* months each; and for April, May, July, August, and September upon *four* months each. Whole number of observations, 3,979.

TABLE VI.—*Force of wind.* The period covered by these observations is about three years and four months; three observations per day, viz, 7 a. m., 2 and 9 p. m. The force of the wind was estimated and recorded upon a scale of 10, as in the two preceding stations. Results for January depend upon *two* months' observations; for February, March, June, October, November, and December upon *three* months' observations; and for April, May, July, August, and September upon *four* months' observations. Whole number of observations, 3,640.

METEOROLOGICAL OBSERVATIONS AT FORT WRANGELL, ALASKA.

TABLE I.

ATMOSPHERIC PRESSURE.

Barometric observations reduced to 32° F.

Months.	7 a. m.	2 p. m.	9 p. m.	Mean.	Max.	Min.	Range.
May, 1870.....	29.751	29.749	29.725	29.742	30.360	29.039	1.321
June, 1870.....	29.853	29.837	29.843	29.844	30.150	29.378	0.772
July, 1870.....	29.857	29.846	29.863	29.855	30.304	29.583	0.721
August, 1870.....	29.936	29.927	29.937	29.933	30.210	29.662	0.548
September 1-26, 1870.....	29.709	29.704	29.705	29.706	30.129	29.233	0.896
Whole period.....	29.821	29.813	29.815	29.816	30.360	29.039	1.321

TABLE II.

TEMPERATURE OBSERVATIONS.

Date.	1868.							1869.						
	7 a. m.	2 p. m.	9 p. m.	Mean.	Max.	Min.	Range.	7 a. m.	2 p. m.	9 p. m.	Mean.	Max.	Min.	Range.
January.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0
February.....														
March.....														
April.....								40.9	52.4	40.4	44.5	69	32	37
May.....	53.8	59.9	47.3	53.7	78	36	42	47.8	57.0	48.1	51.0	75	38	37
June.....	51.3	72.7	53.8	59.3	86	38	48	52.7	60.4	54.0	55.7	80	43	37
July.....	57.3	63.9	55.0	58.7	78	48	30	53.9	62.1	57.0	57.7	75	47	28
August.....	54.1	67.3	50.4	57.3	78	48	30	54.1	64.3	52.6	57.0	80	47	33
September.....								48.4	54.5	49.2	50.7	68	38	30
October.....								42.7	48.1	44.4	45.1	58	32	26
November.....								36.8	39.6	36.5	37.6	48	28	20
December.....								35.0	37.5	35.6	36.1	42	20	22
Summer.....														
Winter.....														
Year.....														

NOTE.—The results for summer, winter, and whole year tabulated under 1870 are made up by taking the means for June and October to December from 1869, and under 1875 by taking means for the month of January from 1870.

FORT WRANGELL—TEMPERATURE OBSERVATIONS—Continued.

Date.	1870.							1875.						
	7 a. m.	2 p. m.	9 p. m.	Mean.	Max.	Min.	Range.	7 a. m.	2 p. m.	9 p. m.	Mean.	Max.	Min.	Range.
January	23.4	28.1	23.5	25.0	42	0	42	0	0	0	0	0	0	0
February	29.7	37.1	30.4	32.4	54	16	38	37.4	40.9	38.9	39.1	58	22	36
March	27.7	39.0	28.3	31.8	54	-10	64	30.2	35.8	32.4	32.8	43	11	32
April	40.2	48.8	40.2	43.1	56	34	22	38.4	44.5	40.0	40.9	54	28	26
May	44.5	50.9	45.5	47.0	61	38	23	43.6	49.5	45.0	46.0	57	40	17
June								51.9	58.2	52.0	54.0	66	45	21
July	55.8	62.0	57.3	58.4	76	52	24	59.4	65.0	58.4	60.9	82	50	32
August	55.2	66.2	60.1	60.5	75	52	23	53.4	60.2	55.8	56.5	70	46	24
September	51.5	55.3	52.1	53.0	60	48	12	50.2	56.1	52.9	53.1	72	44	28
October								45.6	51.3	47.2	48.0	67	32	35
November								19.7	26.9	21.1	22.6	45	4	41
December								21.0	23.8	22.3	22.3	43	-3	46
Summer	46.0	54.5	47.6	49.4	80	-10	90	46.1	52.2	47.3	48.5	82	11	71
Winter	36.5	41.0	37.1	38.2	60	0	60	32.9	37.8	34.3	35.0	72	-3	75
Year	41.3	47.8	42.3	43.8	80	-10	90	39.5	45.0	40.8	41.8	82	-3	85

Date.	1876.							1877.						
	7 a. m.	2 p. m.	9 p. m.	Mean.	Max.	Min.	Range.	7 a. m.	2 p. m.	9 p. m.	Mean.	Max.	Min.	Range.
January	18.5	22.2	19.4	20.1	41	-4	45	34.5	36.3	33.6	34.8	49	20	29
February	16.8	22.0	17.9	18.9	41	29	12	34.0	37.9	34.0	35.3	51	16	35
March	22.3	32.7	24.2	26.4	45	8	37	34.5	42.4	35.9	37.6	52	24	28
April	37.2	46.6	37.8	40.5	60	30	30	41.9	49.0	43.0	44.6	61	31	30
May	41.9	50.9	43.7	45.9	63	35	28	46.8	45.2	48.3	49.8	75	30	45
June	50.2	58.8	52.0	53.7	70	44	26				Post abandoned.			
July	53.3	62.4	56.2	57.3	92	42	50							
August	51.0	56.9	53.4	53.7	73	46	27							
September	46.7	56.4	51.2	51.5	73	38	35							
October	41.7	48.8	45.0	45.1	63	30	33							
November	30.5	33.8	31.0	31.8	55	17	38							
December	37.9	39.2	37.3	38.1	55	25	30							
Summer	42.6	51.4	44.5	46.2	92	8	84							
Winter	32.0	37.1	33.6	34.2	73	-4	77							
Year	37.3	44.2	39.1	40.2	92	-4	96							

TABLE III.

RAIN AND SNOW FALL.

Date.	1868.			1869.			1870.			1875.			1876.			1877.		
	Days.		Amount in inches.	Days.		Amount in inches.	Days.		Amount in inches.	Days.		Amount in inches.	Days.		Amount in inches.	Days.		Amount in inches.
	Rain.	Snow.		Rain.	Snow.		Rain.	Snow.		Rain.	Snow.		Rain.	Snow.		Rain.	Snow.	
January							11	4	3.43				8	8	?	18	3	8.71
February							10	3	2.26	13	8	?	2	17	?	13	8	12.92
March							6	1	1.25	4	13	?	6	8	?	9	0	3.54
April				19	1	7.27	14	0	2.94	14	6	?	13	3	?	13	0	2.13
May	*12	*0	(*)	22	0	5.06	14	0	2.63	25	0	?	19	0	?	13	0	3.39
June	6	0	1.90	17	0	5.04				18	0	?	17	0	?			
July	20	0	4.20	11	0	4.60	12	0	2.30	8	0	?	9	0	2.56			
August	10	0	1.00	14	0	3.50	10	0	3.05	17	0	?	20	0	4.91			
September				16	0	6.66	†24	†0	†14.02	20	0	?	14	0	5.16			
October				15	0	11.13				17	0	?	11	0	5.76			
November				11	2	3.69				3	13	?	13	5	11.55			
December				16	1	7.39				7	13	?	22	5	12.62			
Summer							†73	†1	†17.21	§86	§19	?	84	11	?			
Winter							†87	†10	†41.92	§71	§38	?	70	35	?			
Year							†160	†11	†59.13	§157	§57	?	154	46	[42.56]			

* May 11th to 31st only.

† September 1st to 26th only.

§ January supplied from 1870.

¶ The missing months supplied from 1869.

TABLE IV.
AMOUNT OF CLOUDINESS.

Date.	1869.				1870.				1875.				1876.				1877.			
	7 a. m.	2 p. m.	9 p. m.	Mean.	7 a. m.	2 p. m.	9 p. m.	Mean.	7 a. m.	2 p. m.	9 p. m.	Mean.	7 a. m.	2 p. m.	9 p. m.	Mean.	7 a. m.	2 p. m.	9 p. m.	Mean.
January					5.80	5.29	5.48	5.52					6.64	6.06	5.38	6.03	6.87	6.13	6.16	6.38
February					8.52	7.25	7.43	7.67					6.59	6.76	6.83	6.72	8.07	7.47	8.21	7.92
March					5.22	4.90	5.74	5.29					4.16	4.45	3.84	4.15	4.29	4.25	4.61	4.38
April	6.10	6.40	4.93	5.81	7.63	4.87	8.07	6.86	6.36	5.90	5.96	6.07	6.67	6.63	6.63	6.64	6.06	6.17	6.43	6.22
May					6.32	5.55	6.45	6.10	6.13	6.70	6.74	6.52	7.81	7.42	8.16	7.79	5.52	5.74	5.32	5.53
June	6.20	5.53	6.00	5.91					6.00	5.36	5.20	5.52	7.27	7.13	7.33	7.24				
July					8.22	5.74	7.87	7.28	4.93	4.09	4.19	4.40	7.39	6.68	6.68	6.92				
August					3.74	2.87	3.68	3.42	6.51	6.32	6.13	6.32	8.48	7.74	8.06	8.09				
September	6.80	6.26	6.16	6.40	10.00	8.61	9.54	9.38	8.17	7.70	8.30	8.05	6.60	5.76	6.00	6.12				
October	6.45	5.77	5.48	5.90					7.58	7.25	6.45	7.09	7.19	5.74	5.48	6.14				
November	8.33	6.66	7.30	7.42					5.73	5.60	4.90	5.41	7.73	7.00	6.53	7.09				
December	7.87	7.84	7.55	7.75					8.32	8.03	6.87	7.74	8.45	8.19	8.16	8.27				
Summer*					6.22	4.91	6.30	5.81	5.86	5.54	5.66	5.69	6.96	6.67	6.40	6.80				
Winter					7.79	6.90	7.13	7.27	7.32	6.85	6.57	6.91	7.20	6.59	6.78	6.73				
Year					7.01	5.91	6.72	6.54	6.50	6.20	6.12	6.30	7.08	6.63	6.59	6.77				

* When the year is divided into summer and winter only, in the tables, the erroneous but nearly universal European practice has been adhered to, of beginning the summer with March and the winter with September. By this means the "summer" minimum often is colder than the "winter," and the average of the real summer (given in the discussions) or warmest six months of the year is not apparent.

NOTE.—In deducing the results for summer, winter, and year under 1870 and 1875, the missing months have been supplied by taking the corresponding month from the preceding column.

TABLE V.
DIRECTION OF WINDS.

1868-1876.

Months.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.
January	11.29	30.11	28.49	7.53	8.06	0.54	2.15	11.83	.....
February	11.76	38.82	16.47	16.09	.....	5.88	1.18	9.80	.....
March	9.68	24.01	31.54	12.19	11.11	0.72	2.51	8.24	.....
April	3.91	13.69	18.44	21.79	15.36	3.07	11.45	6.98	5.31
May	3.91	9.43	26.67	17.93	14.48	2.53	5.29	6.67	13.10
June	3.89	9.72	4.72	8.33	10.00	6.94	13.61	8.06	34.72
July	1.93	4.52	10.11	19.35	8.60	3.23	23.87	11.61	16.77
August	1.51	5.59	8.60	17.42	15.70	6.67	16.77	5.16	22.58
September	6.90	4.02	21.84	19.54	9.48	3.74	13.51	10.34	10.63
October	10.75	19.71	13.62	12.90	11.47	1.08	7.89	17.20	5.38
November	14.07	21.85	14.08	2.59	17.41	3.70	1.48	11.11	13.71
December	17.92	22.58	17.20	13.26	13.98	3.58	1.08	7.17	3.23
Spring	5.83	15.71	25.55	17.30	13.65	2.11	6.42	7.30	9.20
Summer	2.44	6.61	7.81	15.03	11.43	5.61	18.08	8.28	24.69
Autumn	10.57	15.19	16.51	11.68	12.79	2.84	7.63	12.88	9.91
Winter	13.66	30.50	20.72	12.29	11.02	3.33	1.47	9.60	3.23
Year	7.06	14.70	16.81	14.93	11.66	3.70	9.85	9.17	12.12

LOCAL TABLES.

TABLE VI.
FORCE OF WINDS.
1869-1876.

Months.	N.	NE.	E.	SE.	S.	SW.	W.	NW.
January	1.24	1.36	1.60	1.93	1.93	7.00	1.50	1.18
February	1.73	2.24	1.83	2.32	.....	2.87	1.00	1.96
March	2.89	2.27	1.89	2.80	2.58	4.00	2.00	2.09
April	1.87	1.84	1.86	1.80	1.95	1.82	1.66	1.72
May	1.94	2.24	2.22	1.60	2.73	1.82	1.26	1.44
June	1.57	1.87	3.00	2.00	2.50	1.47	1.75	1.52
July	1.56	1.19	1.19	1.17	2.40	1.64	1.24	1.21
August	1.14	2.05	1.82	1.72	2.12	1.23	1.31	1.23
September	1.00	1.21	1.37	1.66	1.33	1.54	1.06	1.19
October	1.23	1.60	2.21	1.94	1.84	1.00	1.00	1.17
November	1.47	2.24	2.50	2.43	1.53	3.00	2.75	1.73
December	1.35	1.55	2.28	2.06	2.79	2.00	3.50	1.26
Year	1.58	1.80	1.98	1.95	2.15	2.45	1.67	1.47

SITKA, BABANOFF ISLAND, ALASKA TERRITORY.

Lat. 57° 03' N. Long. 135° 19' west of Gr.

Height of station above the level of the sea: This elevation although given in only one case could never have been very great, probably not exceeding 10 or 15 feet. The series of observations from March, 1842, to October, 1867, were taken upon the eastern end of the low and flat Japonski Island, at the observatory established and maintained by the Russian Government.* The observations recorded in the *MS. Met. Reg. U. S. A.* were made in front of the hospital, which, facing southeast, fronts on Eastern Harbor. The instruments hung in an open lattice-work box of the ordinary construction for the reception of meteorological instruments, and at an elevation of 13½ feet above the level of the sea.

SOURCES OF INFORMATION.

ANN. CENT. PHYS. OBS. 1847-1867.

ANN. MÉT. ET MAG. 1843-1845.

COAST SURVEY ARCHIVES. The observations of June and July, 1855, are from a MS. meteorological and tidal record kept at the observatory on Japonski Island by the Russian observers. It is the only meteorology for 1855 at this place that has been found anywhere. In the publications here cited the Sitka meteorology is entirely omitted for 1855, and no reason assigned for its omission. It is not known to us whether any observations were made here during this year in addition to those contained in this manuscript. The observations of November and December, 1867, were made by John Leeds, a C. S. tidal observer, and exist in manuscript in the Coast Survey Archives.

KUPFFER (ADOLPH T.). Observations météorologique faites à Sitka [1846]. [*In MEMOIRES de l'Acad. imp. des sciences de St. Petersburg.* 4°. *St. Petersburg*, 1850. *Série VI*, t. IV; *Sc. math. et phys. Appendice.*]

KUPFFER MET. CORRESPOND.

LÜTKÉ (THEODORE P.). Voyage autour du monde [*etc.*]. 3 vols. 8°. *Paris*, 1835, t. I, pp. 112-113, 220-222.

MS. MET. REG. U. S. A.

VESSELOFFSKY (C. S.). On the climate of Russia. 4°. *St. Petersburg*, 1857. (In the Russian language.)

WILD (HENRY). Die temperatur-verhältnisse des russischen reiches; supplementband zum Repertorium für meteorologie. 4°. *St. Petersburg, akad. der wissens.* 1877.

BAROMETRICAL OBSERVATIONS.

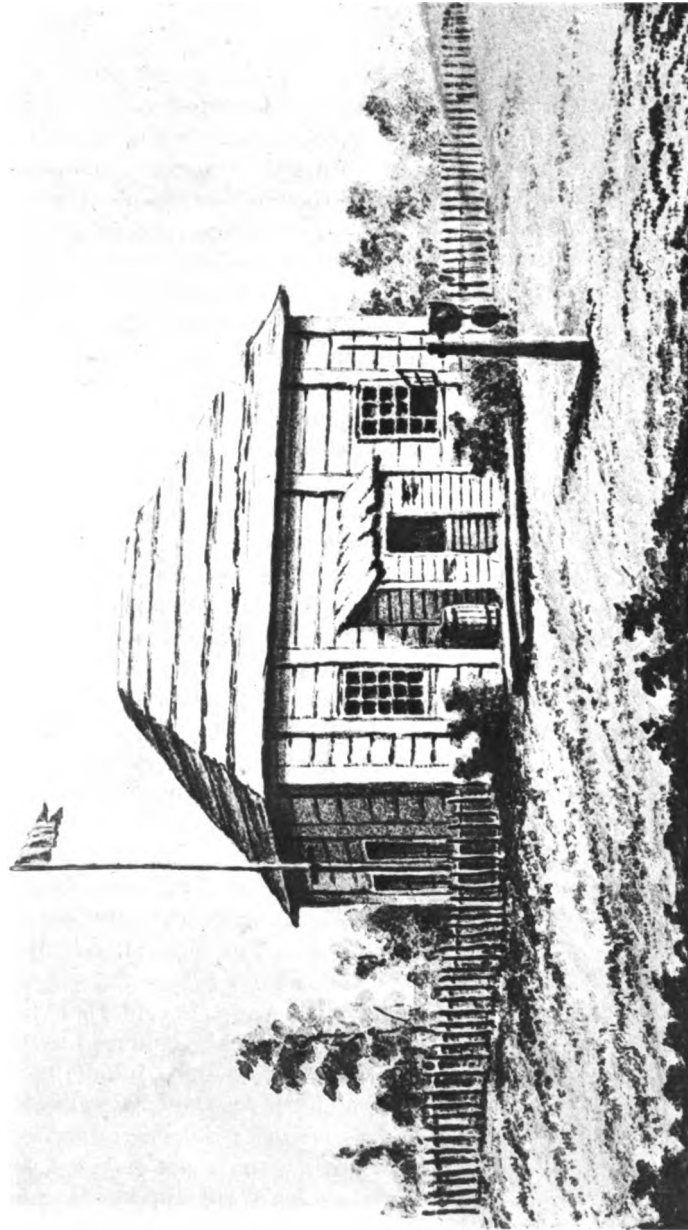
TABLE I.—*Barometer.* Period 40 years and 8 months, 1828-1876, *new style.* The observations of 1828-'29 from LÜTKÉ, Vol. I, pp. 220-221; from 1833 to February, 1842, inclusive, are from *Kupffer*,

* See frontispiece, from a drawing made on the spot in 1865.



UNITED STATES COAST SURVEY.

COAST PILOT OF ALASKA.



Heliotype Printing Co.

220 Devonshire St., Boston.

OBSERVATORY,

JAPONSKI ISLAND, SITKA HARBOR, ALASKA,

Where meteorological and magnetic observations were made from 1842 to 1867 by the Russians.

From a sketch by FREDERICK WHYMPER, in 1865.

Obsns. met. faites à Sitka; March, 1842, to December, 1845, inclusive, from *Ann. Mét. et Mag.*; 1847 to October 21, 1867, except June and July, 1855, from *Ann. Cent. Phys. Obs.*; June and July, 1855, and also November and December, 1867, from *Coast Survey Archives*; 1870 to 1876, from *MS. Met. Reg. U. S. A.*

The nature of the originals, the corrections and reductions made to them, &c., are as follows:

1828–1829. Originals expressed in English inches, and are the means of the maxima and minima observed between the hours of 8 a. m. and 9 p. m. No statement has been found in regard to the *style* of these observations; neither any mention of *instrumental error*, *temperature correction*, or *reduction to sea-level*.

The barometer of Liitké was a standard one; at all events it was adopted as such by Veniaminoff in correcting the barometrical readings at Unalashka. The observations at Sitka may have been corrected by this standard, for it is not probable they were made with it. The observations seem to be due to Baron von Wrangell, governor of the Russian American colonies, or perhaps to Mons. Khliebnikoff. Had the results differed very materially it is presumable that they would have been corrected and thus reduced to the standard. We therefore may assume a small *instrumental correction*. We do not know whether the *temperature correction* was made or not. If the barometer hung out doors we may assume the mean temperature of the year as an argument for a temperature correction, and this gives a correction of -0.039 inches, which may be taken as a measure of the uncertainty arising from lack of information concerning the temperature. The *reduction to sea-level* is small unless the barometer hung at the governor's house on the hill. If it did not hang there, but hung below, as in most of the observations at this place, the correction would be $+0.012$ to $+0.015$ inches, and would thus tend to neutralize the effect of temperature. If it hung at the governor's house, then the reduction would be considerably increased, and would be about $+0.06$ or $+0.07$ inches. No corrections have been applied for any of the sources of uncertainty, but the preceding discussion will serve to show the amount of uncertainty in the tabulated values.

In the absence of all information upon the subject, we assume these observations to be *new style*. Though the use of the new style is forbidden by law in Russia, nevertheless in meteorological work at least this is in large part disregarded. For all the meteorological observations made at Sitka from 1833 to 1867 and published by the Russian Government are *NEW STYLE*.*

1833–February, 1842, inclusive, *new style*. Meteorological observations were made at Sitka from the beginning of 1833 to the end of November, 1842, *old style*, by the priests Veniaminoff and Cygnaeus. These observations were converted to *new style* by Kupffer, by a change of 12 days, and published in full at the place above cited. Observations were begun by the Russian Government upon Japonski Island March, 1842; so that from March to November, 1842, we have a duplicate set of meteorological observations. In the present table the government observations are adopted where the two sets overlap. These observations were originally in English inches. As published by Kupffer they were reduced to 62° F. No statement concerning *instrumental corrections* or *reduction to sea-level* is made. They are probably both very small. The observing hours, from 1833 to 1835 inclusive, were 9 a. m., noon, 3 and 9 p. m., and the mean $= \frac{1}{4}(9_a + 12_m + 3_p + 9_p)$. For the remainder of the period, 1836 to February, 1842, inclusive, the same, except that the first observation of the day was made at 8 instead of at 9. The results are all here reduced to 32° F.

March, 1842–October 21, 1867, *new style*. The originals are in Russian half lines, and reduced to 62° F. They were made with standard instruments, and the *instrumental correction* is therefore zero. Concerning the *reduction to sea-level* no statement is made. The uncertainty from this source is therefore about $+0.012$ or $+0.015$ inches, *i. e.*, if the results have not been reduced to sea-level this small correction would need to be applied. No corrections are applied to the results in the

* WILD (HEINRICH). Die temperatur-verhältnisse des russischen reiches; supplementband zum Repertorium für meteorologie. 4°. St. Petersburg, kais. akad. der wissenschaften, 1877, p. 34:—

“Allerdings hat Kupffer beim Druck der vor 1842 angestellten Beobachtungen, welche nach dem alten Styl in die Original-Journale eingetragen wurden, die Annahme von 12 Tagen Differenz zwischen dem alten und dem neuen Styl gemacht.”

KUPFFER (A. T.). Correspondance météorologique [etc.] année 1850. 4°. St. Petersburg, A. Jacobson, 1851, p. [ii.]

“Pour éviter toute méprise, je remarque encore ici une fois pour toutes, que dans les observations faites en Russie, on a partout adopté le nouveau style de sorte que c'est toujours le nouveau style qui est sousentendu, si le contraire n'est pas dit expressément.”

originals to obtain the results here, but they have been converted from Russian half lines to English inches, and reduced from 62° to 32° F.

The observations from March, 1842, to March, 1849, inclusive, and 1862, were made hourly, day and night, and the means here tabulated for this period are from the formula $\frac{1}{24} (0^h + 1^h + 2^h + 3^h \dots + 23^h)$, 0 meaning noon. From June, 1849, to 1850, inclusive, the mean = $\frac{1}{8} (4_a + 12_m + 8_p)$. From 1851 to 1856, inclusive, the mean = $\frac{1}{7} (4_a + 5_a + 6_a + 7_a \dots + 7_p + 8_p)$. From 1857 to 1864, inclusive, except 1862, the mean = $\frac{1}{9} (4_a + 5_a + 6_a + 7_a \dots + 9_p + 10_p)$, and from 1865 to October, 1867, the mean = $\frac{1}{3} (6_a + 2_p + 10_p)$.

November, 1870–1876, inclusive. Originals in English inches; made with Green's standard barometer reduced to 32° F., but not to sea-level. The *reduction* for this purpose would be at 32° F. + 0.015 inches, and if applied to the tabulated values would increase the final means 0.0024 inches, which is probably smaller than the probable errors of the final means. The table had been completed and discussed before this correction was made known.

No *corrections* have been applied to any of the originals to obtain this table. The only changes have been to reduce to English inches and to the uniform temperature of 32° F. All the observations are used in deducing the final means.

THERMOMETRICAL OBSERVATIONS.

TABLE II.—*Mean temperature of the air.* Period covered by this table 44 years and 2 months, not counting the interpolated values in the parentheses. Counting these the period is 45 years and 2 months.

The sources whence this table is prepared are, for 1828–1829, *Lütke*, t. 1, pp. 220–221; 1832–1845, *Vesselloffsky*, p. 133; 1847–October 21, 1867 (except June and July, 1855), *Ann. Cent. Phys. Obs.*; November, 1867–1876, *MS. Met. Reg. U. S. A.* The sources whence Mr. Vesselloffsky drew his material are *Kupffer Mét. Correspond.* and also *Kupffer (A. T.) Mét. Obsns. faites à Sitka*, etc. These sources have been consulted to obtain the columns *max.* and *min.*

All the observations by the Russians were recorded in Reaumur degrees, *i. e.*, all the observations from 1828 to October 21, 1867, *n. s.*, were in Reaumur degrees; the remainder were recorded in Fahrenheit degrees.

All the observations, except those of 1828 and 1829 about which a doubt exists, are *new style*.

The means for 1828–29 are the means of the *max.* and *min.* observed between the hours of 8 a. m. and 9 p. m.

The means for 1832–1845 were reduced by Mr. Vesselloffsky to the true mean of the day by means of such hourly observations as were accessible to him at the time of preparing his table. The observing hours were, however, the same as those given under the barometer. The means from May, 1847, to March, 1849, and 1862, inclusive, are deduced from observations made every hour, *i. e.*, the mean = $\frac{1}{24} (0^h + 1^h + 2^h + 3^h \dots + 23^h)$, 0 meaning noon. June, 1849, to December, 1856, the mean = $\frac{1}{7} (4^h + 5^h + 6^h \dots + 20^h)$, and from 1857 to October 21, 1867, the mean = $\frac{1}{9} (4^h + 5^h + 6^h \dots + 22^h)$. The observations from November, 1867, to the end were taken at 7 a. m., 2 and 9 p. m., and the mean = $\frac{1}{3} (7_a + 2_p + 9_p)$.

In deducing the final means for the synoptical table of mean temperatures, the years 1828 and 1829 are rejected.

PRECIPITATION.

TABLE III.—*Rain and melted snow.* Period covered by the table, thirty and one-half years, 1842 to 1876, *new style*. Sources for this table: 1842–1845, *Ann. Mét. et Mag.*; 1847–October, 1867, *Ann. Cent. Phys. Obs.*; November, 1867–1877, *MS. Met. Reg. U. S. A.* The mean precipitation based upon whole years only (the non-bracketed figures of the table) is 80.976 inches, and the same, using all the observations, is 81.711 inches.

CLOUD OBSERVATIONS.

TABLE IV.—*Cloudiness.* Period, nine years and one month, 1865–1876, *new style*. Observations of 1865–1867 from the *Ann. Cent. Phys. Obs.* and those of 1870–1876 from the *MS. Met. Reg. U. S. A.* The observations, 1865–1867, were originally expressed in *fourths*, 0 equaling a cloudless sky and 4

a sky wholly covered with clouds. They are here expressed in tenths; so also are the 1870-1876 observations in tenths, they having been so originally. The results for the 1865-'67 observations are the means of observations at 6 a. m., 2 and 10 p. m., and those of 1870-1876 are the means of observations at 7 a. m., 2 and 9 p. m.

HYGROMETRICAL OBSERVATIONS.

TABLE V.—*Elastic force of aqueous vapor.* Period covered by this table, 21 years and 3 months, *new style*, 1842-1867. 1842-1844 from *Ann. Mét. et Mag.*, and 1847-1867 from *Ann. Cent. Phys. Obs.* The observing hours and means are the same as in the preceding table. In this table e'' represents, in English inches, the force of vapor existing in the air, and e that which would exist if the air was saturated.

WINDS.

TABLE VI.—*Direction of wind.* From *Kupffer*. Observations by Veniaminoff and Cygnaeus. Period, 9 years and 9 months, 1833 to 1842, *new style*. Four observations per day; at 8 a. m., noon, 3 and 9 p. m. Whether the directions are true or magnetic is not known. Results in percentages. Whole number of observations incorporated in the table, 14,060.

TABLE VII.—*Direction of wind.* From *Ann. Cent. Phys. Obs.* Period about 2 years and 10 months, being from January 1, 1865, to October 21, 1867, *new style*; 19 observations per day, being hourly observations from 4 a. m. to 10 p. m. Results in percentages; whole number of observations incorporated in the table, 19,346.

The directions are supposed to be *true*.

TABLE VIII.—*Direction of wind.* From *MS. Met. Reg. U. S. A.* Period 9 years, November 1867 to October 1876, inclusive, 3 observations per day, at 7 a. m., 2 and 9 p. m. Directions supposed to be true, though this is not stated. Results in percentages. Whole number of observations incorporated in the table, 9,861.

In the blanks furnished the observers no column was left for *calms*, and, in consequence, there are several years in which no calms are recorded, but at every observation the wind is recorded with some *direction* and *force*. The column of calms here given is therefore considered untrustworthy.

TABLE IX.—*Force of wind.* From *MS. Met. Reg. U. S. A.* Period, 8 years, 1869-1876, inclusive; 3 observations per day, at 7 a. m., 2 and 9 p. m. The force of the wind was estimated on a scale of 10, whereby 0 = a calm, and 10 a most violent hurricane, and the intervening numbers a proportional velocity.

WEATHER OBSERVATIONS.

TABLE X.—*Rainy and snowy days.* Period covered by this table 40 years, 1833-1876, *new style*. The table shows the number of days upon which there fell a measurable amount of rain or snow. Foggy days are not included. The sources are the same as those already cited, viz:—

1833-April, 1842. *Kupffer, Observations Mét. faites à Sitka.*

May, 1842-1845. *Ann. Mét. et Mag.*

1847-October, 1867. *Ann. Cent. Phys. Obs.*

November, 1867-1876. *MS. Met. Reg. U. S. A.*

This fine series of meteorological observations was brought to a close June 17, 1877, by the withdrawal of the troops from Alaska.

METEOROLOGICAL OBSERVATIONS AT SITKA, ALASKA.

TABLE I.

ATMOSPHERIC PRESSURE.

Barometrical observations reduced to 32° F. and to sea-level.

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Max.	Min.	Mean.
	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>
1828.....	29.50	29.53	29.75	29.82	29.84	29.82	29.97	29.75	29.70	29.39	29.38	29.64	30.57	28.66	29.586
1829.....	.67	.61	.77	.81	.63	.82	30.11	.65	.75	.70	.60	.69	.40	.82	.645
1833.....	29.538	29.749	29.608	29.751	29.947	29.849	29.872	29.822	29.737	29.554	29.575	29.436	30.434	28.595	.698
1834.....	.994	.768	.868	.819	.723	.955	.943	.768	.843	.553	.408	.603	.494	.444	.771
1835.....	.362	.799	.496	.781	.829	.833	.795	.....	.606	.767	.808	.514	.657	.551	.704
1836.....	.690	.844	.772	.762	.888	.893	.972	.945	.987	.770	.458	.633	.680	.524	.802
1837.....	.531	.484	.958	.801	.792	.907	.907	.918	.908	.785	.616	.510	.434	.382	.760
1838.....	.776	.910	.567	.718	.828	.893	.882	.935	.752	.734	.757	.927	.462	.735	.807
1839.....	.663	.752	.797	.701	.871	.961	.881	.774	.826	.695	.418	.425	.443	.413	.730
1840.....	.703	.454	.851	.988	.701	.904	.965	.979	.771	.713	.548	.592	.699	.498	.764
1841.....	.795	.850	.659	.952	29.720	.768	.958	.873	.864	.529	.474	.499	.677	.804	.745
1842.....	.510	.487	29.619	.652	30.051	.957	29.963	29.962	.813	.667	.942	.788	.507	.399	.785
1843.....	.475	.995	30.048	.814	.067	29.916	30.026	30.086	.775	.913	.730	.609	.776	.757	.871
1844.....	.764	.721	29.826	.926	30.058	30.031	.047	29.951	.836	.789	.606	.505	.488	.652	.839
1845.....	.517	.518	.974	.776	29.912	30.107	29.902	.851	.887	.855	.725	.660	.556	.610	.812
1846.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1847.....	.....	.....	.....	.....	30.021	29.762	.888	.943	.615	.651	.621	.536	(30.439)	(28.528)	(29.723)
1848.....	.564	.627	.650	29.872	29.794	.846	.990	29.809	.862	.681	.744	.657	.496	.554	.758
1849.....	.891	.962	.626	.....	.....	.805	.871	30.019	.810	.777	.381	.890	.601	.677	.800
1850.....	.542	.597	.669	30.016	29.901	.802	.945	29.863	.841	.539	.396	.773	.518	.554	.740
1851.....	.491	.749	.754	29.997	.958	.963	.926	.970	.963	.683	.688	.800	.571	.840	.785
1852.....	.660	.793	.808	.512	.877	.890	.832	.817	.897	.551	.654	.775	.409	.657	.756
1853.....	.299	.741	.788	.835	.848	.848	29.929	.903	.773	.518	.725	.514	.572	.628	.727
1854.....	.858	.588	.761	.600	.927	.691	30.018	.809	.757	.761	.492	.595	.590	.684	.758
1855.....	.....	.....	.....	.....	.....	.937	30.025	.....	.....	.....	.....	.....	.....	.....	.....
1856.....	.555	.742	.780	.468	.795	.766	29.842	.900	.678	.621	.629	.598	.385	.634	.698
1857.....	.697	.616	.646	.922	.739	.653	.840	.752	.661	.575	.652	.340	.348	.285	.674
1858.....	.272	.739	.344	.603	.788	.797	.898	.792	.776	.513	.475	.385	.347	.450	.615
1859.....	.571	.422	.401	.839	.763	.732	.807	.820	.646	.568	.711	.703	.470	.474	.665
1860.....	.494	.551	.530	.686	.£10	.932	.830	.764	.745	.537	.554	.716	.209	.505	.679
1861.....	.606	.419	.701	.545	.761	.765	.741	.847	.724	.630	.476	.551	.535	.458	.650
1862.....	.841	.812	.575	.765	.875	.818	.840	.816	.739	.761	.772	.530	.355	.498	.762
1863.....	.421	.618	.719	.707	.849	.869	.852	.964	.718	.724	.603	.470	.270	.602	.710
1864.....	.465	.665	.519	.806	.842	.820	.865	.903	.738	.652	.579	.602	.300	.737	.712
1865.....	.733	29.636	.537	.901	.778	.826	.922	.855	.620	.695	.370	.678	.499	.510	.713
1866.....	.547	30.025	.803	.736	.780	.774	.880	.781	.890	.611	.436	.553	.594	.679	.735
1867.....	.571	29.500	.913	.593	.802	.824	.739	.716	.745	.503	.998	.913	.269	.719	.720
1868.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1869.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1870.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.275	.597	.....	.....	.....
1871.....	.587	.418	.352	.669	.614	.783	.939	.823	.617	.558	.640	.756	.606	.660	.646
1872.....	.546	.414	.674	.705	.817	.887	.874	.788	.686	.547	.747	.591	.619	.536	.690
1873.....	.436	.575	.316	.680	.814	.726	.843	.749	.821	.774	.655	.617	.709	.218	.667
1874.....	.487	.668	.810	.748	.748	.811	.791	.831	.597	.617	.665	.587	.496	.661	.697
1875.....	.893	.778	.477	.842	.542	.771	.987	.....	.736	.585	.549	.287	.456	.534	.699
1876.....	.659	.426	.645	.647	.671	.769	.843	.752	.729	.610	.499	.695	.....	.....	.687
Means.....	29.604	29.670	29.684	29.763	29.814	29.845	29.903	29.840	29.767	29.650	29.572	29.610	30.776	28.218	29.727

TABLE II.
TEMPERATURE OBSERVATIONS.

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Max.	Min.	Mean.
1828.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1829.....	29.7	37.6	38.7	51.7	51.7	57.9	62.4	54.5	47.7	44.4	36.5	28.1	72.5	9.5	44.9
1830.....	32.6	40.4	42.7	42.1	55.1	59.0	62.4	61.2	60.1	48.9	35.4	21.9	77.0	7.2	46.8
1831.....	34.1	30.8	35.1	37.1	48.1	[52.4]†	[55.5]	[55.9]	[51.5]	42.9	42.1	36.1	.....	.....	[43.5]
1832.....	36.7	32.6	39.5	41.6	46.6	54.0	56.9	59.3	54.9	48.0	42.5	33.2	81.5	16.2	45.5
1833.....	28.5	32.8	36.3	39.9	45.1	52.6	53.8	53.2	50.5	46.5	42.5	36.8	69.1	5.0	43.2
1834.....	35.9	34.4	37.3	40.7	45.4	51.1	[55.5]	[55.9]	51.8	40.8	39.0	29.2	65.7	5.4	[43.1]
1835.....	28.6	35.6	38.9	40.5	49.1	53.7	54.5	56.6	51.7	46.8	40.0	29.7	80.1	2.3	43.8
1836.....	38.7	38.9	39.0	42.2	49.2	51.9	54.1	56.4	50.1	42.9	36.2	34.1	73.6	19.6	44.5
1837.....	32.2	34.0	33.9	38.4	47.7	53.0	56.0	56.3	50.3	45.6	40.2	39.0	72.9	12.0	43.9
1838.....	28.7	41.0	35.4	42.3	47.4	54.0	59.5	60.2	55.1	43.8	42.9	38.5	83.7	5.4	45.7
1839.....	42.1	28.3	42.4	38.5	46.2	51.2	55.4	58.0	52.1	44.3	33.8	29.3	87.8	5.0	43.5
1840.....	33.8	35.8	39.2	39.5	44.6	54.6	58.0	56.7	49.5	45.0	40.7	33.1	80.4	8.4	44.2
1841.....	34.8	34.2	31.4	39.2	43.4	52.7	54.3	53.5	50.4	43.4	38.4	38.9	74.7	12.9	42.9
1842.....	29.9	26.7	35.2	39.9	45.7	52.2	53.7	54.3	49.6	45.8	36.7	36.4	75.2	7.2	42.2
1843.....	28.4	37.7	34.1	41.1	45.8	55.6	55.9	55.3	50.2	42.8	34.6	34.8	74.7	4.1	43.0
1844.....	33.3	29.2	36.5	41.3	47.6	51.1	55.4	57.6	49.5	45.1	36.0	40.9	77.4	11.7	43.6
1845.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1846.....	[31.4]	[32.9]	[35.7]	[40.8]	47.1	51.1	53.8	56.0	49.6	43.4	34.7	34.0	67.1	17.6?	[42.5]
1847.....	26.6	29.1	32.9	38.0	46.3	52.1	57.3	53.9	51.0	43.6	40.1	30.4	76.5	3.4	41.8
1848.....	26.1	25.3	29.5	[40.8]	[47.0]	50.8	54.2	54.3	50.6	44.6	39.1	32.0	66.2	4.1	[41.2]
1849.....	21.8	34.9	27.7	38.1	45.4	48.9	54.6	55.7	49.9	44.2	39.1	36.0	72.9	3.3	41.4
1850.....	29.9	34.8	37.7	43.6	50.2	53.2	56.6	58.9	52.6	48.8	41.8	29.1	71.1	6.8	44.8
1851.....	39.7	33.9	32.1	41.9	47.4	52.0	57.4	56.8	52.7	46.4	35.6	24.3	72.9	4.1	43.3
1852.....	33.2	36.3	36.5	42.1	49.0	49.9	53.5	53.9	51.1	43.2	34.8†	19.9†	65.3	0.3	41.9
1853.....	27.9	32.7	33.6	42.4	44.7	51.0	54.8	56.2	51.8	43.0	43.2	33.5	70.5	3.6	42.9
1854.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1855.....	37.8	39.3	41.0	40.9	49.5	52.0	52.9	55.3	51.3	43.0	39.0	31.3	70.5	9.0	44.4
1856.....	29.2	29.3	37.1	43.6	48.7	52.1	54.4	55.8	50.9	45.1	41.6	37.0	72.5	8.4	43.7
1857.....	28.2	28.1	36.3	40.9	47.1	51.7	54.7	54.4	50.4	43.8	39.9	28.0	73.6	1.2	42.0
1858.....	33.1	27.6	34.6	40.5	45.0	52.6	54.4	54.1	51.3	40.1	28.8	36.3	77.2	9.0	41.5
1859.....	34.6	34.5	36.2	39.3	46.6	51.5	58.2	56.0	51.8	45.0	41.6	31.8	77.0	10.4	43.9
1860.....	31.7	37.0	37.4	41.5	47.5	54.1	56.7	56.7	54.1	44.5	34.2	23.3	74.3	6.8	43.2
1861.....	25.1	27.8	34.8	36.5	42.8	50.5	55.8	54.9	48.2	41.3	40.9	36.8	70.9	3.5	41.3
1862.....	31.9	27.3	36.0	39.7	44.8	53.2	56.7	57.0	55.5	45.5	37.4	31.2	71.1	1.2	43.0
1863.....	32.7	35.5	36.7	41.4	48.8	54.4	54.6	54.5	51.4	47.2	39.2	31.6	69.3	13.1	44.0
1864.....	34.3	33.5	32.0	39.9	45.6	52.1	54.6	54.0	50.7	43.9	38.9	32.2	71.6	5.0	42.6
1865.....	29.2	32.4	36.0	42.0	47.7	52.3	54.9	55.5	49.2	42.3	40.5	34.7	67.1	10.6	43.1
1866.....	28.1	25.9	35.6	41.8	48.3	52.2	55.2	51.8	50.5	44.1	39.9	29.3	65.5	1.8	41.9
1867.....	29.3	36.4	37.8	44.7	45.7	55.1	55.7	56.2	52.0	49.2	41.6	38.0	71.	11.	45.1
1868.....	39.6	38.3	42.5	43.8	48.8	52.9	57.1	55.7	53.0	47.8	42.5	39.5	73.	24.	46.8
1869.....	31.3	35.6	33.8	42.4	47.5	53.4	57.8	60.2	55.0	47.5	39.1	36.1	82.	1.	45.0
1870.....	28.3	34.5	36.3	39.8	46.7	49.1	53.5	53.9	50.7	46.4	32.8	31.8	72.	4.	42.0
1871.....	37.0	31.9	40.6	39.9	47.7	49.9	57.1	57.1	51.1	45.2	36.7	36.4	74.	2.	44.2
1872.....	29.2	33.6	35.9	41.6	47.3	52.4	54.6	55.0	51.8	46.6	38.6	33.9	74.	9.	43.4
1873.....	23.9	31.2	32.8	45.6	52.5	55.6	56.9	60.9	53.0	44.6	30.8	36.2	83.	4.	43.7
1874.....	26.6	38.2	31.4	39.8	46.4	52.8	56.3	56.3	54.4	51.2	27.0	27.5	78.	1.	42.3
1875.....	25.7	24.3	29.4	39.4	47.0	52.4	54.1	54.4	52.1	47.3	35.1	39.5	75.	4.	41.7
1876.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Whole period*.	31.37	32.89	35.66	40.81	47.00	52.36	55.51	55.92	51.51	44.94	38.14	33.29	87.8	4.	42.28

* Not including 1828 and 1829.

† Bracketed values are interpolated.

‡ These values are here transposed from the original order.

LOCAL TABLES.

TABLE III.
RAIN AND SNOW FALL.

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>
1842.....					7.28	3.77	5.67	8.66	6.96	12.71	7.66	14.89	[67.60]
1843.....	12.055	5.660	3.929	7.361	7.342	3.147	6.832	3.885	11.469	8.186	8.408	10.468	88.742
1844.....	11.846	10.089	11.834	8.408	7.122	2.570	5.404	11.524	6.900	14.772	6.476	6.441	103.386
1845.....	7.978	3.125	9.691	3.039	3.014	4.130	3.665	6.482	12.463	14.968	12.891	10.168	91.614
1846.....													
1847.....					2.200	2.500	2.800	3.250	10.000	8.650	6.850	8.150	[44.400]
1848.....	7.750	5.800	5.550	8.700	8.400	2.150	0.900	8.550	12.800	13.150	11.700	6.400	91.850
1849.....	1.450	7.950	4.900			2.093	4.177	9.808	14.335	11.407	5.634	3.594	[65.348]
1850.....	3.521	11.299	2.107	6.644	3.715	9.798	3.143	10.310	15.226	14.067	10.081	5.887	95.798
1851.....	8.091	7.202	5.671	4.243	1.577	5.336	4.673	2.684	2.434	13.778	8.393	8.373	72.455
1852.....	11.382	7.851	4.540	3.164	4.719	2.630	1.891	8.543	12.615	12.503	5.611	1.714	77.163
1853.....	15.028	4.255	3.610	3.100	5.079	6.161	4.124	7.181	6.735	19.527	0.451	15.883	90.934
1854.....	2.504	6.289	10.091	3.395	7.812	4.478	4.895	3.969	8.417	11.550	14.712	9.059	87.171
1855.....													
1856.....	4.438	12.564	6.598	6.701	2.793	5.080	8.114	3.071	12.727	11.140	7.777	6.511	87.514
1857.....	3.118	2.035	2.071	6.562	4.600	5.795	10.889	6.441	8.076	9.858	12.696	17.278	89.419
1858.....	8.807	4.223	8.794	4.465	1.306	3.781	5.198	5.790	7.861	9.186	14.245	8.120	81.776
1859.....	15.970	4.490	4.440	6.140	5.793	2.525	2.335	13.405	9.155	6.955	2.935	8.905	83.048
1860.....	12.970	13.800	4.400	5.595	2.220			11.753	14.545	10.145			[75.428]
1861.....	5.388	5.730	4.230	3.395	1.550	0.901	3.715	6.350	6.119	13.073	5.655	2.572	58.678
1862.....	3.589	5.818	2.275	4.152	5.448	2.392	1.504	8.144	15.922	14.561	12.012	12.489	88.306
1863.....	7.610	3.597	7.465	6.518	5.726	2.514	3.096	3.189	2.503	12.528	16.251	3.328	74.325
1864.....	7.376	9.024	4.349	9.293	4.350	1.111	9.867	3.093					[48.463]
1865.....													
1866.....	3.410	1.288	0.470	2.695	1.530	3.250	7.685	5.610	10.755	10.090	8.090	5.810	60.383
1867.....	7.270	6.645	5.425	2.585	2.885	2.415	3.260	21.845	16.500	[6.160]	14.77	3.24	93.000
1868.....	7.00	4.35	5.72	1.37	7.55	1.93	4.20	4.01	6.81	7.07	9.38	6.69	66.08
1869.....	10.14	14.80	6.30	8.99	6.87	4.99	3.20	3.84	7.62	9.50	7.12	10.84	94.21
1870.....	9.97	6.05	6.00	4.51	3.35	4.94	2.44	6.39	9.16	9.46	7.12	7.55	81.40
1871.....	3.00	3.22	4.74	4.00	1.90	6.00	2.79	13.33	7.70	14.54	5.36	3.54	70.12
1872.....	4.84	2.07	8.59	3.14	3.18	3.70	2.51	2.65	6.13	8.85	6.58	5.97	58.21
1873.....	8.40	7.96	3.87	2.83	1.67	3.27	1.54	7.64	4.09	13.98	8.02	5.77	69.04
1874.....	2.74	5.87	2.27	2.23	2.01	3.46	3.40	1.50	16.70	14.84	4.84	10.27	70.13
1875.....	3.66	7.90	5.71	12.14	1.79	3.14	2.57	4.69	10.17	14.15	5.39	11.68	82.99
1876.....	9.17	2.89	3.13	4.52	3.35	2.13	3.49	5.26	6.72	9.72	8.01	20.21	78.60
Means.....	7.349	6.455	5.292	5.168	4.133	3.616	4.193	6.964	9.665	11.830	8.653	8.393	80.976*

* Mean of the non-bracketed figures. The sum of the 12 monthly means is 81.711.

TABLE IV.
AMOUNT OF CLOUDINESS.

Date.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
1865.....	6.87	7.30	7.40	5.17	7.20	9.10	8.22	7.87	7.62	6.45	8.90	7.52	7.45
1866.....	6.25	7.05	5.25	6.45	5.92	7.17	7.70	8.25	8.30	7.02	7.87	6.17	6.95
1867.....	6.76	6.67	5.47	7.89	6.37	7.27	7.37	9.06	7.72	6.40			[7.10]
1870.....										6.61	7.65	6.79	
1871.....	3.98	5.73	6.87	5.94	3.95	6.94	4.52	7.18	5.82	8.04	5.13	4.11	5.68
1872.....	5.83	3.91	8.29	5.86	6.24	7.72	6.35	7.93	6.29	7.25	6.54	6.02	6.52
1873.....	5.38	6.27	7.28	4.65	4.62	5.43	6.76	5.62	6.72	8.19	7.15	7.28	6.28
1874.....	5.18	6.58	5.90	5.79	6.34	7.68	7.79	5.81	8.64	8.31	5.65	8.21	6.82
1875.....	5.03	9.53	6.86	8.94	8.82	7.35	7.31	9.34	8.21	7.52	4.78	7.32	7.59
1876.....	5.98	6.06	4.15	6.55	8.29	7.93	8.08	8.63	6.97	7.29	7.67	8.41	7.17
Means.....	5.70	6.57	6.39	6.36	6.42	7.40	7.12	7.74	7.36	7.31	6.81	6.87	6.84*

* Mean of the non-bracketed values is 6.81. The mean of the 12 monthly means is 6.84.

TABLE V.
ELASTIC FORCE OF AQUEOUS VAPOR.

Date.	January.		February.		March.		April.		May.		June.		July.	
	$\frac{e'}{e}$	$\frac{e''}{e}$	$\frac{e'}{e}$	$\frac{e''}{e}$	$\frac{e'}{e}$	$\frac{e''}{e}$	$\frac{e'}{e}$	$\frac{e''}{e}$	$\frac{e'}{e}$	$\frac{e''}{e}$	$\frac{e'}{e}$	$\frac{e''}{e}$	$\frac{e'}{e}$	$\frac{e''}{e}$
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
1842.....					.148	.083	.185	.078	.218	.078	.295	.076	.348	.084
1843.....	.144	.085	.115	.070	.152	.069	.194	.078	.233	.076	.290	.077	.336	.083
1844.....	.136	.079	.179	.080	.150	.074	.183	.072	.223	.074	.295	.069	.335	.077
1847.....									.241	.075	.293	.080	.339	.083
1848.....	.138	.089	.151	.090	.160	.084	.183	.080	.229	.075	.309	.080	.388	.084
1849.....	.118	.078	.123	.077	.141	.082					.302	.083	.354	.086
1850.....	.108	.085	.180	.088	.128	.078	.194	.086	.244	.082	.296	.087	.362	.086
1851.....	.155	.086	.184	.091	.186	.082	.201	.072	.275	.077	.325	.082	.378	.084
1852.....	.211	.087	.177	.086	.135	.071	.198	.075	.262	.081	.312	.082	.376	.082
1854.....	.140	.087	.171	.090	.159	.081	.205	.077	.248	.084	.302	.083	.354	.084
1855.....											.324	.081	.371	.082
1856.....	.197	.084	.212	.088	.225	.088	.209	.083	.274	.078	.311	.081	.341	.087
1857.....	.135	.080	.137	.083	.170	.077	.233	.083	.277	.081	.318	.083	.378	.091
1858.....	.146	.090	.140	.083	.184	.086	.204	.081	.255	.080	.312	.083	.368	.087
1859.....	.176	.090	.135	.086	.161	.081	.204	.082	.238	.081	.294	.077	.361	.087
1860.....	.187	.090	.180	.088	.170	.080	.191	.076	.242	.077	.312	.084	.394	.082
1861.....	.158	.086	.178	.081	.180	.081	.200	.078	.249	.076	.323	.078	.368	.082
1862.....	.123	.086	.139	.081	.148	.073	.150	.068	.203	.075	.277	.076	.347	.079
1863.....	.152	.084	.125	.080	.161	.076	.184	.076	.216	.073	.293	.073	.348	.077
1864.....	.162	.087	.174	.082	.171	.078	.188	.073	.253	.075	.301	.073	.351	.084
1865.....	.170	.082	.164	.085	.148	.081	.180	.080	.233	.082	.290	.079	.336	.083
1866.....	.154	.091	.164	.088	.156	.074	.193	.077	.246	.081	.299	.082	.348	.086
1867.....	.145	.084	.130	.084	.165	.082	.194	.077	.256	.081	.309	.084	.350	.085

Date.	August.		September.		October.		November.		December.		Year.	
	$\frac{e'}{e}$	$\frac{e''}{e}$	$\frac{e'}{e}$	$\frac{e''}{e}$	$\frac{e'}{e}$	$\frac{e''}{e}$	$\frac{e'}{e}$	$\frac{e''}{e}$	$\frac{e'}{e}$	$\frac{e''}{e}$	$\frac{e'}{e}$	$\frac{e''}{e}$
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
1842.....	.342	.085	.301	.084	.244	.089	.216	.089	.198	.083	.250	.083
1843.....	.343	.083	.286	.082	.247	.081	.188	.083	.177	.082	.225	.079
1844.....	.343	.080	.272	.075	.217	.077	.181	.077			[.251]	[.083]
1847.....	.388	.088	.293	.083	.232	.083	.174	.081	.174	.086	[.267]	[.082]
1848.....	.363	.088	.331	.091	.252	.089	.214	.087	.154	.088	.239	.085
1849.....	.369	.089	.315	.087	.265	.090	.181	.077	.143	.077	[.231]	[.083]
1850.....	.393	.090	.330	.092	.255	.089	.201	.085	.189	.089	.240	.086
1851.....	.410	.084	.335	.086	.288	.084	.228	.086	.137	.088	.260	.084
1852.....	.402	.089	.347	.089	.281	.089	.182	.086	.111	.079	.250	.083
1854.....	.379	.086	.331	.087	.241	.086	.246	.089	.184	.087	.246	.085
1855.....												
1856.....	.375	.088	.337	.090	.238	.086	.214	.089	.161	.087	.258	.086
1857.....	.374	.086	.318	.086	.266	.090	.235	.089	.198	.090	.253	.085
1858.....	.369	.089	.310	.088	.239	.084	.217	.088	.142	.089	.242	.086
1859.....	.379	.092	.342	.091	.211	.083	.135	.081	.196	.090	.236	.085
1860.....	.395	.090	.317	.084	.271	.093	.222	.085	.157	.085	.253	.085
1861.....	.382	.085	.365	.088	.257	.088	.165	.081	.112	.083	.245	.082
1862.....	.349	.082	.286	.085	.224	.085	.212	.082	.188	.085	.221	.080
1863.....	.361	.079	.339	.078	.250	.081	.196	.088	.145	.079	.231	.079
1864.....	.353	.085	.318	.084	.276	.086	.217	.089	.147	.081	.243	.081
1865.....	.344	.088	.300	.085	.229	.082	.204	.086	.169	.092	.231	.084
1866.....	.371	.088	.308	.090	.223	.084	.204	.082	.173	.086	.236	.084
1867.....	.346	.092	.314	.090	.238	.087					[.245]	[.085]

LOCAL TABLES.

TABLE VI.
DIRECTION OF WINDS.
1833-1842. N. S.

Months.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.
January	10.65	12.90	19.22	11.29	7.66	4.52	3.55	3.79	25.72
February	7.36	13.21	15.60	12.68	10.28	6.38	3.55	5.67	25.27
March	5.99	9.22	17.56	9.87	8.98	9.55	6.80	8.66	23.38
April	4.19	8.47	10.49	12.17	8.05	11.91	8.31	11.41	25.00
May	5.58	5.42	9.71	8.82	8.50	16.34	10.76	15.69	19.18
June	4.18	3.38	7.21	5.78	8.36	19.93	15.39	16.01	19.75
July	3.69	1.98	5.22	4.41	11.87	17.80	11.96	10.61	32.46
August	2.80	3.70	6.77	7.67	8.48	16.70	10.29	11.82	31.77
September	3.40	3.40	10.19	10.19	15.33	11.67	10.10	8.71	27.00
October	3.79	6.29	24.28	10.65	10.89	12.01	5.81	4.35	21.93
November	5.17	6.78	26.53	19.83	8.47	7.88	5.93	2.37	17.04
December	10.30	10.84	20.52	15.59	5.02	6.09	4.75	6.63	20.25
Spring	5.25	7.70	12.59	10.29	8.51	12.60	8.62	11.92	22.52
Summer	3.56	3.02	6.40	5.95	9.57	18.14	12.55	12.81	27.99
Autumn	4.12	5.49	20.33	13.59	11.56	10.52	7.28	5.14	21.99
Winter	9.44	12.32	18.45	13.19	7.65	5.66	3.95	5.36	23.75
Year	5.61	7.18	14.65	10.78	9.31	11.67	8.04	8.77	23.98

TABLE VII.
DIRECTION OF WINDS.
1865-1867.

Months.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.
January	3.06	26.06	16.21	18.53	2.38	5.55	2.21	1.81	24.18
February	1.88	16.17	12.72	15.60	2.44	3.95	2.32	3.51	41.41
March	3.79	19.25	12.57	10.93	2.21	8.04	4.36	3.45	35.39
April	2.52	14.15	18.91	10.22	7.92	9.51	3.41	3.05	30.30
May	1.13	4.53	10.87	6.34	12.28	16.98	9.00	6.22	32.66
June	0.94	2.17	12.17	5.97	10.31	23.59	8.43	9.19	27.23
July	1.70	3.17	6.80	3.46	11.73	20.24	10.77	7.25	34.87
August	1.08	3.80	14.19	4.82	14.01	11.35	6.30	5.96	38.48
September	1.08	3.61	21.89	8.84	6.79	12.74	5.66	5.11	34.27
October	1.63	7.29	27.67	17.90	4.23	7.62	3.25	3.39	27.02
November	1.49	8.16	22.89	28.95	2.63	2.46	4.04	2.28	27.10
December	1.87	14.97	26.02	8.33	2.47	5.87	6.29	5.10	29.08
Spring	2.48	12.62	14.06	9.15	7.47	11.54	5.61	4.26	32.81
Summer	1.24	3.06	11.04	4.74	12.04	18.34	8.50	7.45	33.59
Autumn	0.81	4.66	23.13	20.49	4.20	7.38	4.08	2.23	33.02
Winter	1.76	12.84	17.44	18.99	1.87	5.12	2.66	2.63	36.69
Year	1.87	10.23	16.33	11.13	6.92	11.12	5.58	4.78	32.05

TABLE VIII.
DIRECTION OF WINDS.
1867-1876.

Months.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.
January	35.00	19.69	20.08	6.93	1.91	2.39	7.29	5.26	1.43
February	21.56	21.83	30.06	8.24	6.93	2.35	3.53	4.18	1.31
March	19.95	16.13	29.87	11.35	9.56	2.75	6.09	3.23	1.07
April	11.11	9.01	23.46	17.78	16.54	9.01	7.28	3.83	1.98
May	5.02	8.12	23.89	17.20	26.16	7.53	7.41	2.03	2.63
June	4.32	3.21	17.78	13.21	25.31	14.32	14.57	4.07	3.21
July	3.11	1.19	7.17	9.32	32.50	16.96	21.03	5.26	3.46
August	4.32	4.20	14.99	8.87	25.42	13.79	21.94	4.08	2.40
September	9.38	6.80	22.35	17.53	14.81	8.39	15.55	2.72	2.47
October	8.48	12.66	24.73	22.58	12.30	4.06	7.53	4.66	2.99
November	18.64	23.95	22.59	12.84	5.56	6.05	4.69	5.06	0.62
December	20.55	18.99	27.12	9.56	4.66	3.34	5.97	9.08	0.72
Spring	12.03	11.09	25.74	15.44	17.45	6.43	6.93	3.03	1.89
Summer	3.92	2.87	13.31	10.47	27.74	15.02	19.18	4.47	3.02
Autumn	12.17	14.47	23.22	17.65	10.89	6.17	9.26	4.15	2.03
Winter	25.70	20.17	25.75	8.24	4.50	2.69	5.60	6.17	1.15
Year	13.43	12.10	21.95	12.96	15.19	7.59	10.28	4.46	2.03

TABLE IX.
FORCE OF WINDS.
1869-1876.

Months.	N.	NE.	E.	SE.	S.	SW.	W.	NW.
January	1.09	1.27	1.55	1.92	2.18	1.72	1.98	1.49
February	1.08	1.28	1.47	1.45	1.75	1.71	1.00	1.25
March	1.12	1.26	1.50	1.87	1.51	1.10	1.10	1.02
April	1.07	1.36	1.37	1.41	1.19	1.40	1.25	1.06
May	1.18	1.41	1.41	1.55	1.29	1.23	1.19	1.00
June	1.00	1.08	1.23	1.24	1.23	1.29	1.14	1.00
July	1.04	1.00	1.09	1.15	1.10	1.15	1.10	1.17
August	1.32	1.39	1.56	1.63	1.25	1.22	1.37	1.40
September	1.11	1.25	1.54	1.51	1.33	1.34	1.27	1.90
October	1.17	1.50	1.77	1.66	1.74	1.90	1.19	1.02
November	1.18	1.50	1.60	1.46	1.41	2.28	1.37	1.13
December	1.14	1.29	1.77	1.79	1.73	1.65	1.68	1.39
Year	1.12	1.30	1.49	1.55	1.48	1.50	1.30	1.24

TABLE X.
RAINY AND SNOWY DAYS.

Date.	Jan.		Feb.		Mar.		April.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		Year.	
	Rain.	Snow.	Rain.	Snow.	Rain.	Snow.	Rain.	Snow.	Rain.	Snow.	Rain.	Snow.	Rain.	Snow.	Rain.	Snow.	Rain.	Snow.	Rain.	Snow.	Rain.	Snow.	Rain.	Snow.	Rain.	Snow.
1833.....	12	2	6	5	13	4	3	6	4	2	6	0	6	0	8	0	11	0	3	0	3	0	7	13	82	32
1834.....	2	2	10	6	2	6	17	3	11	0	10	0	17	0	17	0	17	0	17	0	17	1	15	2	152	20
1835.....	1	5	4	3	11	10	14	5	11	1	13	0					*24	*0	18	3	22	6	9	14	127	47
1836.....	9	8	14	8	17	2	6	0	12	0	11	0	22	0	17	0	20	0	20	0	23	5	10	9	181	32
1837.....	14	2	15	1	11	0	14	0	13	0	11	0	8	0	13	0	22	0	11	0	17	4	10	3	159	10
1838.....	13	13	10	2	9	17	10	2	20	0	13	0	21	0	11	0	21	0	25	0	15	1	17	0	185	35
1839.....	7	7	16	4	12	2	16	4	8	0	13	0	13	0	6	0	14	0	15	1	19	0	14	3	153	21
1840.....	12	0	4	7	11	3	11	5	10	1	17	0	11	0	15	0	12	0	10	1	6	4	7	6	126	27
1841.....	4	3	6	1	7	6	1	0	6	0	8	0	14	0	13	0	11	0	17	0	6	2	1	3	94	15
1842.....	5	10	3	5	1	8	6	15	16	0	11	0	17	0	18	0	24	0	21	0	19	0	23	2	164	40
1843.....	5	21	10	3	8	1	17	5	16	0	14	0	19	0	11	0	23	0	18	0	22	1	21	0	184	31
1844.....	14	10	19	2	13	8	12	1	16	0	10	0	12	0	17	0	12	0	22	0	11	0	9	9	167	30
1845.....	11	6	6	5	13	5	8	0	9	0	12	0	10	0	12	0	23	0	21	0	16	1	16	2	157	19
1846.....																										
1847.....									8	0	11	0	9	0	12	0	19	0	21	0	15	5	10	12		
1848.....	8	4	4	15	8	12	9	5	12	0	13	0	4	0	18	0	15	0	24	0	22	0	4	11	141	47
1849.....	2	4	5	5	1	16					18		20	0	22	0	25	0	21	2	16	4	10	6	145	37
1850.....	2	15	18	15	6	11	14	11	23	0	22	0	12	0	22	0	23	0	27	0	24	4	18	3	211	59
1851.....	13	9	15	10	14	9	11	3	14	0	20	0	16	0	16	0	12	0	24	0	24	4	10	4	189	39
1852.....	25	2	16	9	6	7	15	6	18	0	22	0	13	0	23	0	22	0	24	0	19	6	3	8	206	38
1853†.....	30	15			21		8		17		20		20		20		18		25		3		28		225	
1854†.....	15		20		22		26		25		21		19		22		20		23		30		21		264	
1855.....																										
1856.....	21	0	23	2	17	6	24	6	21	0	21	0	23	0	23	0	28	0	26	0	19	5	12	8	258	27
1857.....	3	8	0	8	8	7	21	0	20	0	24	0	27	0	20	0	21	0	24	0	20	0	21	9	209	32
1858†.....	20		15		25		20		10		19		15		21		21		27		26		17		236	
1859.....	22	2	10	0	12	2	18	0	22	0	14	0	18	0	21	0	16	0	22	1	7	1	22	1	204	7
1860.....	18	6	14	7	4	9	8	1	9	1	14	0	6	0	18	0	13	0	12	0	16	0	5	2	137	26
1861†.....	13		10		10		8		10		5		13		13		15		22		13		12		144	
1862.....	1	11	8	5	6	10	10	4	10	1	11	0	8	0	12	0	21	0	16	0	22	0	18	5	143	36
1863.....	9	17	3	16	9	10	13	9	14	3	13	0	15	0	8	0	7	0	22	0	17	8	8	4	138	67
1864.....	13	8	10	5	7	5	10	2	13	0	6	0	21	0	9	0										
1865.....																										
1866.....	6	10	6	10	2	5	15	3	10	1	17	0	23	0	22	0	28	0	22	0	22	1	12	9	185	39
1867.....	12	7	6	14	13	3	14	2	17	0	16	0	20	0	31	0	26	0	†13	†0	18	5	6	3	192	34
1868.....	3	3	12	2	5	13	10	0	18	6	6	0	19	0	15	0	15	0	14	3	20	3	10	0	147	30
1869.....	10	7	13	7	14	1	18	1	20	0	15	0	15	0	6	0	16	0	20	0	15	1	24	0	186	27
1870.....	10	3	12	8	15	0	8	0	13	0	16	0	10	0	12	0	23	0	25	0	20	6	12	7	176	24
1871.....	4	6	5	12	4	15	10	0	6	0	15	0	12	0	22	0	21	0	23	0	10	5	5	5	137	43
1872.....	9	6	1	6	18	0	20	3	20	0	19	0	13	0	13	0	16	0	20	0	22	0	13	2	184	17
1873.....	5	12	11	5	7	15	10	2	11	0	8	0	15	0	14	0	19	0	26	0	18	2	11	6	155	42
1874.....	6	11	12	10	4	6	11	0	14	0	18	0	12	0	7	0	25	0	21	0	8	9	21	4	159	40
1875.....	5	8	22	4	9	18	20	2	14	0	16	0	13	0	27	0	20	0	21	0	2	16	6	20	175	68
1876.....	7	12	4	12	6	7	21	4	26	1	18	0	21	0	25	0	21	0	20	0	12	12	22	5	200	53
Means	8.97	7.22	9.72	6.64	8.97	7.19	12.71	3.14	14.03	0.47	14.11	0	14.92	0	16.00	0	19.05	0	19.61	0.31	16.22	3.39	12.28	5.56	165.94	33.74

* July 1-12 and Sept. 13-30.

† Rainy and snowy days not separated in these years.

‡ $\frac{1}{2}$ of the month.

FORT KENAI, COOK'S INLET, ALASKA TERRITORY.

Lat. 60° 32' N. Long. 151° 19' 15" W. of Gr.

Height of station above the level of the sea is not stated, but, from a topographical map made by United States officers stationed here, would appear to be about 80 feet.

Sources of information: MS. Met. Reg. U. S. A. Although this post was established April 17, 1869, yet these two months' observations are all the material it has been possible to obtain for the post.

THERMOMETRICAL OBSERVATIONS.

TABLE I.—*Temperature of the air.* Period covered by the table, two months, July and August, 1870. Standard thermometer. Register kept by the hospital steward of the post. Means are from the formula $\frac{1}{3}(7_a + 2_p + 9_p)$.

PRECIPITATION AND CLOUD OBSERVATIONS.

TABLE II.—Period same as preceding. Rainy days are days upon which there fell a measurable amount of rain. The cloudiness expressed in tenths in the original observations and used here without change.

WINDS.

TABLE III.—*Direction of wind.* Same period as the preceding. The originals expressed in number of observations of times the wind was blowing from any of the 8 points. Directions are *true*. In the blanks furnished the observers no column was left for calms, and in consequence the wind was at every observation assigned some direction and force. Whole number of observations, 186.

TABLE IV.—*Force of wind.* Same period as the preceding. The force of the wind was estimated at each observation upon a scale of 10, 0 equaling a calm and 10 a most violent hurricane; and the results here tabulated are the means of these estimates. Upon this scale 1 represents a velocity of about 2 miles per hour; 2, a velocity of about 4 miles per hour; 3, about 12 miles per hour; and 4, about 25 miles per hour, &c. Whole number of observations, 186.

METEOROLOGICAL OBSERVATIONS AT FORT KENAI, COOK'S INLET, ALASKA.

TABLE I.

TEMPERATURE OBSERVATIONS.

Month.	Mean.				Max.	Min.	Range.
	7 a. m.	2 p. m.	9 p. m.	Mean.			
July, 1870.....	60.2	65.0	53.6	59.6	81	49	32
August, 1870.....	60.2	65.6	54.8	60.2	88	48	40

TABLE II.

CLOUDINESS, RAIN, AND SNOW.

Month.	Amount of cloudiness.				Rain and snow.		
	7 a. m.	2 p. m.	9 p. m.	Mean.	Days.		Amount in inches.
					Rain.	Snow.	
July, 1870.....	4.45	4.32	4.69	4.49	4	0	0.35
August, 1870.....	5.90	6.45	5.84	6.06	8	0	1.06

LOCAL TABLES.

TABLE III.

DIRECTION OF WINDS.

Month.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.
July, 1870.....	8.60	2.15	2.15	4.30	37.64	13.98	21.51	9.67	0.00
August, 1870.....	21.51	3.23	2.15	0.00	33.33	11.83	17.20	10.75	0.00

TABLE IV.

FORCE OF WINDS.

Month.	N.	NE.	E.	SE.	S.	SW.	W.	NW.
July, 1870.....	2.75	2.50	1.00	2.75	3.43	1.84	1.30	2.55
August, 1870.....	1.50	2.33	2.00	.....	3.45	2.09	1.31	1.40

ST. PAUL, KADIAK ISLAND, ALASKA TERRITORY.

Lat. 57° 47' N. Long. 152° 20' W. of Gr.

Height of station above the level of the sea is not stated, but it cannot be very great, probably not more than 20 to 25 feet. This refers to the station at the ice-house on Woody Island, of which the lat. is about 57° 47' 03" N. and long. 152° 18' 48" W. of Gr., and where the observations by Helmken were made. The observations by the post surgeons in 1869 and 1870 were taken at the military post in the rear of the village of St. Paul, of which the lat. is about 57° 47' 29" N., and long. 152° 21' 40" W. of Gr., and the height not given. It is not very great, however; perhaps 50 to 75 feet.

Sources of information: MS. Met. Reg. U. S. A., also manuscript meteorological register kept by Mr. F. Helmken, agent of the American Russian Commercial Company, known as the "Ice Company." See also Lütke (Capt. F.), *Voyage autour du monde*, etc. 8°. Paris, 1835, t. I, pp. 153-154.

BAROMETRICAL AND THERMOMETRICAL OBSERVATIONS.

TABLE I.—From Helmken. Period one year, October, 1872, to September, 1873, *n. s.* Observing hours 8 a. m., 12 m., and 6 p. m. Mean = $\frac{1}{3}(8_a + 12_m + 6_p)$ for the thermometer.

Barometer: There was one observation per day, at noon. The character of the instrument is unknown and so also its error. It is also unknown whether any temperature correction has been applied. A correction, for elevation, of +0.020 inches has been applied to the means of this table to obtain the results in the synoptical table of atmospheric pressure. No barometrical observations appear to have been made during 1869-1870.

Thermometer: The character of the instrument is in this case also unknown. The max. and min. are the observed maxima and minima.

THERMOMETRICAL OBSERVATIONS.

TABLE II.—*Mean temperature of the air:* From MS. Met. Reg. U. S. A. Period one year and five months, April, 1869, to August, 1870, inclusive. Observations at 7 a. m. 2 and 9 p. m. Mean = $\frac{1}{3}(7_a + 2_p + 9_p)$. Standard thermometer. The max. and min. are supposed to have been observed and not due to maximum or minimum thermometers.

PRECIPITATION.

TABLE III.—*Rainy and snowy days and rainfall:* From MS. Met. Reg. U. S. A. Period one year and five months.

WINDS.

TABLE IV.—*Direction of wind:* From MS. Met. Reg. U. S. A. Period one year and five months, 3 observations per day, April, 1869, to August, 1870, inclusive. Recorded to 8 points of the compass, true or magnetic not stated, and no calms recorded. In the blanks furnished the Army

observers, no column was left for calms, and we find the wind at every observation recorded with some direction and force. Results here expressed in percentages. Whole number of observations, 1,554.

TABLE V.—*Direction of wind*: From Helmken. Period one year, October, 1872, to September, 1873, 3 observations per day. This table expresses in percentages the days upon which the different winds prevailed. Whether true or magnetic directions are used we are not told. The direction usually recorded to 8 points, but sometimes one of the 16 points is used. Whole number of observations in this table, 1,094.

TABLE VI.—*Force of wind*: From MS. Met. Reg. U. S. A. Period 17 months. The force was estimated upon a scale of 10, 0 equaling a calm and 10 a most violent hurricane, etc., as in the preceding table.

TABLE VII.—*Force of wind*: From Helmken. Period one year. The force was estimated. This table also is expressed in percentages, and appears much more natural than the preceding.

WEATHER OBSERVATIONS.

TABLE VIII.—*Weather record*: From Helmken. Period one year, October, 1872, to September, 1873.

There is reason for believing that much more meteorological material for this place exists in manuscript, but the foregoing is all that it has thus far been possible to secure. See also Lütke, Vol. I, pp. 153-154.

METEOROLOGICAL OBSERVATIONS AT ST. PAUL, KADIAK ISLAND.

TABLE I.

ATMOSPHERIC PRESSURE AND TEMPERATURE OBSERVATIONS.

Month.	Barometer.				Thermometer.							
	Mean.	Max.	Min.	Range.	8 a. m.	Noon.	6 p. m.	All.	Max.	Min.	Range.	
January, 1873	29.548	30.44	28.70	1.74	22.8	24.5	24.7	24.0	46	8	38	
February, 1873	.504	30.63	28.90	1.73	27.2	30.7	29.8	29.2	44	6	38	
March, 1873	.398	30.04	28.93	1.11	21.9	27.9	27.8	25.9	36	12	24	
April, 1873	.648	30.10	29.36	0.74	33.8	40.0	38.5	37.4	52	24	28	
May, 1873	.647	29.97	29.21	0.76	39.7	44.4	42.9	42.3	58	36	22	
June, 1873	.801	30.20	29.35	0.85	46.9	55.3	55.1	52.4	70	44	26	
July, 1873	.844	30.02	29.56	0.46	54.0	61.2	61.8	59.0	72	50	22	
August, 1873	.783	29.98	29.47	0.51	53.0	62.4	63.1	59.5	70	48	22	
September, 1873	.705	30.09	29.35	0.74	47.9	54.1	52.2	51.4	58	42	16	
October, 1872	.362	29.98	28.58	1.40	38.1	43.9	42.0	41.3	50	26	24	
November, 1872	.576	30.22	28.87	1.35	35.7	38.8	37.6	37.4	46	28	18	
December, 1872	.456	30.12	28.65	1.47	32.7	34.3	33.7	33.6	44	8	36	
Whole period	29.606	30.63	28.58	2.05	37.9	43.2	42.5	41.2	72	6	66	

LOCAL TABLES.

TABLE II.
TEMPERATURE OBSERVATIONS.

Month.	1869.							1870.						
	7 a. m.	2 p. m.	9 p. m.	Mean.	Max.	Min.	Range.	7 a. m.	2 p. m.	9 p. m.	Mean.	Max.	Min.	Range.
January.....								32.4	34.0	32.8	33.1	39	19	20
February.....								25.3	28.3	25.9	26.5	40	14	26
March.....								32.9	36.3	32.7	34.0	45	20	25
April.....	40.8	43.5	38.3	40.9	48	30	18	35.3	39.6	34.8	36.6	49	26	23
May.....	45.7	48.6	42.6	45.6	68	38	30	41.2	46.4	40.2	42.6	56	32	24
June.....	49.0	53.7	48.1	50.3	66	42	24	46.5	53.4	44.7	48.2	67	40	27
July.....	54.6	63.2	53.7	57.2	69	49	20	51.3	60.3	50.0	54.9	73	40	33
August.....	54.4	61.2	52.3	56.0	63	47	22	54.8	60.8	50.7	55.4	75	44	31
September.....	51.9	56.2	48.3	52.1	64	41	23							
October.....	43.8	47.8	43.5	45.0	58	30	28							
November.....	37.2	39.7	37.2	38.0	46	31	15							
December.....	31.7	33.5	31.6	32.3	40	18	22							
Summer.....	46.2	51.1	44.6	47.3	69	20	49	44.1	49.5	42.2	45.3	75	20	55
Winter.....	37.0	39.9	36.5	37.8	64	14	50							
Whole year.....	41.6	45.5	40.6	42.6	69	14	55							

NOTE.—The results for summer, winter, and whole year under 1869 are made up by taking the first three months of 1870 to fill up the break.

TABLE III.
RAIN AND SNOW FALL.

Month.	1869.			1870.		
	Days.		Amount in inches.	Days.		Amount in inches.
	Rain.	Snow.		Rain.	Snow.	
January.....				20	4	8.01
February.....				6	8	3.31
March.....				20	2	10.60
April.....	20	1	6.16	20	2	4.88
May.....	22	0	8.68	16	0	2.16
June.....	20	0	7.15	10	0	4.10
July.....	8	0	0.79?	12	0	1.49
August.....	14	0	3.89	12	0	3.53
September.....	18	0	5.94			
October.....	15	1	7.14			
November.....	19	0	6.61			
December.....	16	2	9.90			
Summer.....	104	3	37.27	90	4	26.76
Winter.....	94	15	40.91			
Whole year.....	198	18	78.18			

TABLE IV.
DIRECTION OF WINDS.
1869-1870.

Month.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.
January	40.86	30.11	3.23	10.75	0.00	8.60	4.30	2.15	.....
February	41.67	1.19	1.19	11.91	2.38	13.09	10.71	17.86	.....
March	19.35	30.11	4.30	4.30	3.22	21.51	13.98	3.23	.....
April	12.78	25.00	19.45	11.67	6.67	13.33	4.44	6.67	.....
May	6.99	27.42	22.58	15.05	9.14	3.76	6.99	8.07	.....
June	4.45	15.00	27.22	18.89	16.11	11.11	4.44	2.78	.....
July	4.30	10.75	17.21	13.98	11.29	28.49	8.07	5.91	.....
August	11.29	19.35	17.21	13.44	8.07	19.35	5.38	5.91	.....
September	14.44	13.33	15.56	11.11	15.56	10.00	8.89	11.11	.....
October	26.88	4.30	10.75	17.21	10.75	8.60	12.91	8.60	.....
November	17.78	2.22	12.22	7.78	23.33	7.78	12.22	16.67	.....
December	8.60	5.38	10.75	17.20	6.45	13.98	16.13	21.51	.....
Spring	13.04	27.54	15.40	10.33	6.34	12.86	8.51	5.98	.....
Summer	6.70	15.04	20.47	15.40	11.77	19.75	5.98	4.89	.....
Autumn	19.78	6.59	12.82	12.09	16.48	8.79	11.36	12.09	.....
Winter	30.00	12.59	5.19	13.33	2.96	11.85	10.37	13.70	.....
Year	17.31	15.48	13.52	12.78	9.41	13.33	9.04	9.13	.....

TABLE V.
DIRECTION OF WINDS.

Month.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm
January, 1873	3.33	3.33	0.00	0.00	3.34	10.00	20.00	50.00	10.00
February, 1873	3.57	3.57	0.00	10.71	10.72	10.72	7.14	32.14	21.43
March, 1873	6.45	0.00	0.00	0.00	0.00	9.68	19.36	45.16	19.35
April, 1873	6.67	13.33	10.00	16.67	3.33	6.67	13.33	23.33	6.67
May, 1873	16.13	41.94	3.23	22.58	6.45	0.00	6.45	3.22	0.00
June, 1873	0.00	40.00	0.00	46.67	0.00	3.33	0.00	0.00	10.00
July, 1873	12.90	9.68	0.00	12.90	0.00	3.23	9.68	6.45	45.16
August, 1873	9.68	19.35	0.00	6.45	3.23	6.45	22.58	9.68	22.58
September, 1873	3.33	16.67	13.33	33.33	3.33	3.34	0.00	6.67	20.00
October, 1872	9.68	9.68	0.00	38.71	3.23	6.45	16.13	12.90	3.22
November, 1872	3.33	13.33	0.00	30.00	6.67	16.67	10.00	6.67	13.33
December, 1872	3.22	16.13	3.23	9.68	9.68	3.22	9.68	29.03	16.13
Spring	9.78	18.48	4.35	13.04	3.26	5.44	13.04	23.91	8.70
Summer	7.61	22.83	0.00	21.74	1.09	4.35	10.87	5.43	26.04
Autumn	5.49	13.19	4.39	34.07	4.40	8.79	8.79	8.79	12.04
Winter	3.37	7.87	1.12	6.74	7.86	7.87	12.36	37.08	15.73
Year	6.59	15.66	2.47	18.96	4.12	6.59	11.27	18.68	15.66

LOCAL TABLES.

TABLE VI.
FORCE OF WINDS.

Month.	N.	NE.	E.	SE.	S.	SW.	W.	NW.
January, 1870	1.19	1.03	1.00	1.10	.....	1.00	1.00	1.00
February, 1870	1.00	2.00	1.00	1.00	1.50	1.09	1.78	1.13
March, 1870	1.11	1.11	1.25	1.33	1.00	1.00	1.00	1.33
April, 1869 and 1870	1.04	1.53	1.71	1.76	1.25	1.42	1.75	1.33
May, 1869 and 1870	1.31	1.57	1.19	1.25	1.35	1.00	1.54	1.27
June, 1869 and 1870	1.25	1.30	1.12	1.15	1.17	1.15	1.12	1.20
July, 1869 and 1870	1.12	1.30	1.28	1.19	1.00	1.15	1.00	1.00
August, 1869 and 1870	1.57	1.25	1.41	1.76	1.53	1.27	1.10	1.64
September, 1869	1.46	1.08	1.85	1.40	1.21	2.22	1.50	1.16
October, 1869	1.44	1.00	1.20	1.25	1.30	1.12	1.42	1.37
November, 1869	1.50	3.00	2.00	1.28	1.00	1.00	1.00	1.00
December, 1869	1.12	1.40	1.50	1.50	1.00	1.23	1.00	1.15
Summer	1.23	1.34	1.33	1.41	1.22	1.16	1.25	1.29
Winter	1.28	1.58	1.42	1.25	1.00	1.28	1.28	1.13
Whole year	1.26	1.46	1.38	1.33	1.11	1.22	1.27	1.21

TABLE VII.
FORCE OF WINDS.

Month.	Light.	Mod.	Strong.	Very strong.	Gale.
January, 1873	11.11	25.93	44.44	11.11	7.41
February, 1873	9.09	63.63	4.54	11.64	9.09
March, 1873	8.00	56.00	32.00	4.00	0.00
April, 1873	7.14	60.72	28.57	3.57	0.00
May, 1873	6.45	54.84	38.71	0.00	0.00
June, 1873	37.04	48.15	14.81	0.00	0.00
July, 1873	47.06	29.41	23.53	0.00	0.00
August, 1873	41.67	29.17	20.16	0.00	0.00
September, 1873	37.50	20.83	37.50	4.17	0.00
October, 1872	30.00	30.00	36.67	0.00	3.33
November, 1872	34.61	50.00	11.54	3.85	0.00
December, 1872	19.23	38.46	34.61	3.85	3.85
Year	23.13	42.67	28.66	3.58	1.96

TABLE VIII.
WEATHER OBSERVATIONS.

Month.	Cloudy.	Half cloudy.	Clear.	Total.	Rainy.	Snowy.
January, 1873	18	2	11	31	1	9
February, 1873	17	2	9	28	4	9
March, 1873	14	1	16	31	0	7
April, 1873	18	1	11	30	6	4
May, 1873	23	1	7	31	16	2
June, 1873	14	0	16	30	3	0
July, 1873	16	0	15	31	5	0
August, 1873	10	0	21	31	3	0
September, 1873	25	0	5	30	8	0
October, 1872	17	3	11	31	9	2
November, 1872	17	1	12	30	8	2
December, 1872	22	2	7	31	11	5
Whole period	211	13	141	365	74	40

ILIULIUK VILLAGE, CAPTAIN'S BAY, UNALASHKA, ALASKA TERRITORY.

Lat. $53^{\circ} 52'.6$ N. Long. $166^{\circ} 31'.6$ W. of Gr.

Height of station above the level of the sea is not stated in connection with the various observations, but is in all cases very small, being situated on the low sand-spit on which the village is built, and therefore somewhere between 10 and 15 feet.

Sources of information: VENIAMINOFF (JOHN). Notes on the islands of the Unalashkan district. Published at the expense of the Russian American Company. 2 vols. 8°. *St. Petersburg*, 1840. (In Russian.) See Vol. I, pp. 316–364. See also same, pp. 84–102. COAST SURVEY REPORT, 1867, pp. 302–314. SIGNAL OFFICE REPORT, 1873, pp. 459–471. SHAYESHNIKOFF (REV. INNOCENTIUS) MS. meteorological record in hand, an abstract of which may be found in Coast Survey Report, 1873, pp. 120–121. COAST SURVEY PARTY'S MS. meteorological record in hand, being the records kept by the party in charge of the author, 1871–1874.

BAROMETRICAL OBSERVATIONS.

TABLE I.—From *Veniaminoff*. Period covered by this table is eight years and ten and one-half months, 1825 to 1834, *old style*. The observing hours were about 7 a. m., 1 and $9\frac{1}{2}$ p. m. The attached thermometer was not read, at least in the earlier observations, but the observer informs us that it did not differ much from an average of $63^{\circ}.5$ (14° R.). The barometer with which these observations were made was marked Benjamin 94 XV, and was compared in 1827 with the barometer of the corvette *Seniavine*, under Captain Lütke, and found to read lower by 0.32 inches. Therefore we have as corrections to this table for instrumental error, $+0.320$; for reduction to freezing point, -0.094 ; for reduction to sea-level, $+0.010$; or a total correction of $+0.236$ inches. After applying this correction the mean results have been converted from *old style* to *new style* by interpolation, and the results thus obtained are given in the column "*Corrected figures*."

TABLE II.—From *Signal Office Report*, 1873, pp. 459–471. Period covered by this table, two months, June and July, 1872, *n. s.* Green's standard barometer, reduced to 32° F. Mean = $\frac{1}{3}(7_a + 2_p + 9_p)$. No statement is made concerning reduction to sea-level.

TABLE III.—From *Coast Survey Party's MS.* The observations extend over about one year. The observations of 1871 and 1872 with Green's standard barometer; those of 1873–'74 with an aneroid adjusted to the standard. The 1871–'72 observations are the means of 9 a. m. observations, while the results for 1873–'74 are from formula $\frac{1}{3}(6_a + 12_m + 6_p)$. The corrections for temperature and sea-level are very small and may be disregarded as the table is so fragmentary.

In the synoptical table of mean atmospheric pressure the results from Table I have alone been used; but all necessary corrections have been applied, so that the figures there given represent the mean height of barometer freed from instrumental error and reduced to the freezing point and to the sea-level. It is also expressed in *new style*.

THERMOMETRICAL OBSERVATIONS.

TABLE IV.—*Temperature of the air*. From *Veniaminoff*. Period covered by this table is six and two-thirds years, October, 1827, to May, 1834, *old style*. The originals in degrees of Reaumur, but here expressed in Fahrenheit degrees. Observing hours as in Table I, viz, about 7 a. m., 1 and $9\frac{1}{2}$ p. m. Mean = $\frac{1}{3}(7_a + 1_p + 9\frac{1}{2}_p)$.

TABLE V.—*Temperature of the air*. 1866–'67; from *Coast Survey Report*, 1867, pp. 305–312. 1873; from *Shayeshnikoff's MS.* in hand. Period covered by the table, about ten months. Observed by Father Shayeshnikoff, the resident priest, with a Fahrenheit thermometer, at the hours 8 a. m., noon, and 8 p. m. Mean = $\frac{1}{3}(8_a + 12_m + 8_p)$. The max. and min. are the maxima and minima observed at those hours.

TABLE VI.—*Temperature of the air*. From *Signal Office Report*, 1873, pp. 459–471. Standard thermometer. Period, observing hours, formula of reduction, &c., the same as for Table II. The max. and min. depend upon a max. or min. thermometer.

TABLE VII.—*Temperature of the air*. The observations from the same source, for the same period, and under the same conditions as in Table III.

TABLE VIII.—*Temperature of sea-water.* This table is from *Coast Survey Party's MS.* in hand, and embodies the results of observations made upon the vessel while engaged at this place. The temperature of the surface and of the deep water were each taken every morning, with the exception of the times when ice covered the harbor so that the latter could not be taken.

The results in the *synoptical table of mean temperatures* are based upon *all* the air-temperatures. The old-style observations of Table IV are converted by interpolation to new style, and the results are then combined with the means of Tables V, VI, and VII, the means being weighted according to the number of months. Hence the mean temperature for August and September depends upon 6 months' observations; for June, July, and October upon 7 months' observations; for April, May, November, and December upon 8 months' observations; and for January, February, and March upon 9 months' observations. Whole number of months incorporated in the abstract, 92.

The *abstract of sea-temperatures* is taken without essential change from Table VIII.

PRECIPITATION.

TABLE IX.—*Rain and wind observations.* From *Signal Office Report*, 1873, pp. 459-471. Period, two months, June and July, 1872. These observations as well as those of Tables II, VI, and X made with the standard instruments and by the methods of the United States Signal Service.

CLOUD OBSERVATIONS.

Observations of the *amount of cloudiness* are on record in the *Signal Office Report* for 1873 for the two months, June and July, 1872, but no use of them has here been made.

HYGROMETRICAL OBSERVATIONS.

TABLE X.—*Relative humidity*; expressed in percentages of saturation. From *Signal Office Report*, 1873, pp. 459-471. Same period, observing hours, methods, &c., as in Tables II, VI, and IX.

WINDS.

TABLE XI.—*Direction of wind.* From *Veniaminoff*. Period covered by the table, 7 years, *old style*, 3 observations per day, 7 a. m., 1 and 9½ p. m. The years included in it are 1825, 1826, 1829 (last six months of), 1830-1833, and 1834 (first six months of); in all 7,555 observations. Expressed originally in number of observations but here expressed in percentages. Whether true or magnetic directions are used is not stated. Recorded originally in 8 directions.

TABLE XII.—*Direction of wind.* From *Coast Survey Report*, 1867. Period, 143 days, 3 observations per day, 8 a. m., noon, and 8 p. m., being from November 1, 1866, to March 31, 1867, *n. s.*, inclusive, except 8 days. Recorded to 16 points of the compass. Here reduced to 8 points and expressed in percentages. Whether true or magnetic directions are meant is not stated.

TABLE XIII.—*Direction of wind.* From *Shayeshnikoff*. Period, 142 days, January 1 to May 22, 1873, *n. s.* The remarks under the preceding table apply to this table also, the observer in each case being Rev. Father Shayeshnikoff.

TABLE XIV.—*Force of wind.* From *Veniaminoff*. Period, six and five-sixths years, viz: 1825 (except July and December), 1826, 1829 (last six months of), 1830-1833, and 1834 (first six months of); 3 observations per day, in all 5,937 observations. The force was estimated. Results expressed in percentages. Observations *old style*.

TABLE XV.—*Force of wind.* From *Coast Survey Report*, 1867. Same period, observer, observing hours, &c., as in Table XII. Results expressed in percentages. The strength of the wind was estimated.

TABLE XVI.—*Force of wind.* From *Shayeshnikoff*. Same period, observer, observing hours, &c., as in Table XIII. Results in percentages. The strength of the wind was estimated.

WEATHER OBSERVATIONS.

TABLE XVII.—*Weather record.* From *Veniaminoff*. Period, six years and eleven months; 1825 (except December), 1826, 1829 (last six months of), 1830-1833, and 1834 (first six months of).

Old style. The first column under each heading shows the total for the period covered by the table, while the remaining three columns give the annual max., min., and mean. This table is copied.

TABLE XVIII.—Weather observations. From *Coast Survey Report*, 1867, and *Shayeschnikoff*. Same period, observer, observing hours, &c., as for Tables XV, XVI, &c. The table indicates the number of days.

EARTHQUAKES.

TABLE XIX.—*Shocks of earthquake.* This table is copied from Veniaminoff and covers a period of about seven years, *old style*. The column *all* gives the total number recorded, while the columns *max.*, *min.*, and *mean* are the annual *max.*, *min.*, and *mean*.

METEOROLOGICAL OBSERVATIONS AT ILIULIUK, UNALASHKA ISLAND.

TABLE I.

ATMOSPHERIC PRESSURE.

Barometrical observations reduced to 63° .5 F. (=14° R.).

Date. (<i>Old style.</i>)	1825.				1826.				1827.				1828.			
	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.
	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>
January	29.041	30.09	28.45	1.64	29.030	29.59	28.58	1.01	29.218	30.04	28.49	1.55	29.47	29.94	28.77	1.17
February	28.938	29.51	.42	1.09	.588	30.19	29.49	.70	.279	29.97	.49	1.48	.17	.84	.35	1.49
March .....	.958	.71	.19	1.52	.243	29.94	28.49	1.45	.320	30.01	.77	1.24	.42	30.08	.72	1.36
April	29.242	.88	.84	1.04	.219	30.02	.56	1.46	.414	.04	.70	1.34	.32	29.74	.98	.76
May .....	.416	.90	.95	.95	.498	29.92	.90	.29.02					.50	30.06	.94	1.12
June .....	.364	.79	.88	.91	.491	.89	.04	.85					.44	29.78	.96	.82
July .....	.501	.81	.98	.83	.447	.78	28.99	.79					.56	.82	29.18	.64
August .....	.400	.86	.75	1.11	.551	.85	29.21	.64					.65	30.00	.20	.80
September .....	.400	.84	.74	1.10	.100	.64	28.41	1.23					.41	29.77	28.74	1.03
October .....	.202	.87	.17	1.70	.105	.79	.15	1.64	29.23	29.85	29.01	.84	.16	.82	.45	1.37
November .....	.065	.76	.31	1.45	28.991	.70	.07	1.63	.44	30.08	28.60	1.48	.20	.85	.66	1.19
December					29.553	30.14	.56	1.58	.65	.26	.87	1.39	.83	30.38	.71	1.67
Whole period	29.299	30.09	28.17	1.92	29.318	30.19	28.07	2.12	29.373	30.26	28.49	1.77	29.43	30.38	28.35	2.03

Date.	1829.				1830.				1831.				1832.			
	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.
	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>
January	29.29	29.73	28.36	1.37	29.455	29.96	28.97	.99	29.307	30.14	28.26	1.88	29.743	30.22	29.03	1.19
February .....	.20	.69	.55	1.14	.592	30.38	.87	1.51	.107	.05	.27	1.78	.697	.25	.07	1.18
March .....	.08	.98	.51	1.47	.639	.12	.93	1.19	.309	.00	.15	1.85	.778	.11	.28	.83
April .....	.55	30.24	.44	1.80	.360	.20	.75	1.45	.581	.03	.66	1.37	.533	29.97	28.98	.99
May .....	.43	.11	.80	1.31	.505	.01	.92	1.09	.559	29.90	.90	1.00	.500	.85	29.04	.81
June .....	.55	29.80	29.05	.84	.542	29.86	.87	.99	.642	30.10	29.13	.97	.604	.80	.23	.66
July .....	.578	.78	.19	.59	.653	30.03	29.04	.99	.571	.04	.13	.91	.685	30.05	.05	1.00
August .....	.519	30.22	.09	1.13	.457	29.87	28.95	.92	.493	29.93	.02	.91	.611	29.95	.00	.95
September .....	.161	29.79	28.50	1.29	.402	30.15	.54	1.61	.176	30.06	28.95	1.11	.538	.80	28.90	.99
October .....	.521	30.05	.87	1.18	.518	.05	.94	1.11	.586	.04	.59	1.45	.536	30.01	.45	1.56
November .....	.669	.31	.57	1.74	.076	29.93	.05	1.88	.542	29.91	.21	1.70	.214	29.82	.46	1.56
December .....	.709	.23	.88	1.35	.328	.92	.47	1.45	28.892	.55	.11	1.44	.428	30.32	.64	1.68
Whole period	29.438	30.31	28.36	1.95	29.460	30.38	28.05	2.33	29.397	30.14	28.11	2.03	29.572	30.32	28.45	1.87

LOCAL TABLES.

ATMOSPHERIC PRESSURE—Continued.

Date.	1833.				1834.				Whole period.				Corrected figures.		
	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.			
January	29.030	29.59	28.40	1.19	29.579	30.26	28.90	1.36	29.317	30.26	28.26	2.00	29.610	30.494	28.494
February .....	.246	30.08	.67	1.41	.599	.39	.49	1.90	.341	.39	.27	2.12	.567	.624	.504
March .....	.302	.06	.50	1.56	.860	.26	29.17	1.09	.416	.26	.15	2.11	.618	.494	.38
April .....	.573	.11	.60	1.51	.499	29.99	28.79	1.20	.429	.24	.44	1.80	.657	.474	.67
May .....	.518	29.80	29.17	.63	.713	30.00	29.44	.56	.464	.11	.80	1.31	.684	.344	29.03
June					*.528	*29.99	*.07	*.92	.520	.10	.87	1.23	.732	.334	.10
July	29.712	30.00	29.16	.84					.585	.05	.98	1.07	.782	.284	.21
August .....	.618	.04	.11	.89					.537	.22	.75	1.47	.789	.454	28.98
September .....	.259	29.82	28.49	1.33					.307	.15	.41	1.74	.634	.384	.67
October .....	.019	.65	.51	1.14					.319	.05	.15	1.90	.547	.284	.38
November .....	.388	.63	.65	.98					.287	.31	.05	2.26	.534	.544	.28
December .....	.392	30.22	.07	2.15					.475	.38	.07	2.31	.636	.614	.30
Whole period	29.368	30.22	28.07	2.15	29.629	30.39	28.49	1.90	29.415	30.39	28.05	2.34	29.650	30.624	28.284

* ½ of June.

TABLE II.

ATMOSPHERIC PRESSURE.

Barometrical observations reduced to 32° F.

Month.	7 a. m.	2 p. m.	9 p. m.	Mean.	Max.	Min.	Range.
June, 1872	29.973	29.977	29.990	29.980	30.46	29.35	1.11
July, 1872	29.898	29.893	29.894	29.895	30.32	29.31	1.01

METEOROLOGICAL OBSERVATIONS TAKEN ON BOARD THE U. S. C. S. SCHOONERS HUMBOLDT AND YUKON, WHILE LYING IN ILIULIUK HARBOR, UNALASHKA.

TABLE III.

ATMOSPHERIC PRESSURE.

Date.	1871-'72.				1873.				1874.			
	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.
January, 1872	29.382	30.10	28.73	1.37								
February	29.465	30.06	28.90	1.16								
March 1-23	29.343	29.94	28.60	1.34								
April 23-30	29.716	29.90	29.40	0.50								
May ¹	29.637	30.06	28.95	1.11	30.210	30.48	29.95	0.53				
June ²	29.890	30.34	29.46	0.88	30.025	30.22	29.78	0.44				
July ³									29.996	30.20	29.87	0.33
August ⁴									29.921	30.24	29.38	0.86
September ⁵					29.843	30.30	29.13	1.17	29.785	30.46	28.85	1.61
October, 1871	29.433	30.06	28.63	1.43								
November	29.913	30.70	28.66	2.04								
December	29.640	30.39	28.49	1.90								
Year												

¹ May 20-31, 1873. ² June 1-16, 1872. June 1-11, 1873. ³ July 13-19, 1874. ⁴ August 25-31, 1874. ⁵ Sept. 1-25, 1873. Sept. 1-29, 1874.

TABLE IV.
TEMPERATURE OBSERVATIONS.

Month.	1827.	1828.	1829.					1830.								
	Mean.	Mean.	A. M.	Noon.	P. M.	All.	Max.	Min.	Range.	A. M.	Noon.	P. M.	All.	Max.	Min.	Range.
	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
January.....		40.3				28.6				20.4	23.8	19.8	21.3	39.9	2.7	37.2
February.....		31.8				31.1				26.1	33.0	26.1	28.4	44.4	—0.6	45.0
March.....		31.8				32.2				17.1	24.8	17.9	19.9	45.5	+0.5	45.0
April.....		36.7				33.8				36.9	40.8	34.8	37.5	50.7	29.7	21.0
May.....		41.2				41.2				39.5	42.5	37.2	40.0	55.6	32.7	22.9
June.....		46.8				46.8				45.7	46.3	42.3	44.8	56.7	40.3	16.4
July.....		50.9	49.5	53.8	47.5	50.3	65.7	43.2	22.5	50.4	53.3	47.0	50.4	71.4	42.1	29.3
August.....		56.7	47.6	51.7	46.4	48.6	64.6	38.3	26.3	53.1	56.9	50.3	53.7	77.0	43.6	33.1
September.....		45.9	45.3	48.5	43.3	47.3	56.7	30.9	25.8	42.5	45.1	42.3	43.3	50.0	28.6	21.4
October.....	35.8	38.5	37.5	40.5	37.0	38.3	54.5	26.8	27.7	35.9	38.3	36.0	36.7	46.6	24.6	22.0
November.....	36.5	31.8	33.2	36.5	32.8	34.2	54.5	18.5	36.0	28.7	31.9	28.6	29.7	43.9	14.7	29.2
December.....	35.4	25.0	28.9	31.5	27.8	29.4	46.6	14.0	32.6	24.8	27.1	23.7	25.2	42.1	7.9	34.2
Whole period.....		38.0				38.4	65.7	14.0	51.7	35.5	38.7	33.8	35.9	77.0	—0.6	77.6

Month.	1831.							1832.						
	A. M.	Noon.	P. M.	All.	Max.	Min.	Range.	A. M.	Noon.	P. M.	All.	Max.	Min.	Range.
January.....	°	°	°	°	°	°	°	°	°	°	°	°	°	°
February.....	28.2	30.4	28.1	28.9	41.0	9.5	31.5	25.2	30.3	24.3	26.1	41.0	7.2	33.8
March.....	26.8	29.4	26.1	27.4	47.7	10.6	37.1	34.0	36.9	33.2	34.8	48.9	25.2	23.7
April.....	26.8	30.9	24.5	27.4	42.6	7.2	35.4	33.9	37.8	32.3	34.7	63.5	18.5	45.0
May.....	31.7	38.2	29.8	33.2	46.2	16.2	30.0	36.3	39.3	34.4	36.7	47.7	25.9	21.8
June.....	37.2	41.0	35.6	37.9	52.2	27.5	24.7	45.3	45.5	38.6	42.6	61.2	32.7	28.5
July.....	45.0	48.1	42.0	45.0	57.9	34.2	23.7	47.2	50.4	45.4	47.6	66.9	42.1	24.8
August.....	46.6	48.2	43.8	46.2	64.6	39.4	25.2	51.4	54.5	49.0	51.7	70.2	43.2	27.0
September.....	46.6	51.3	44.4	47.5	61.2	40.3	20.9	53.6	58.4	52.5	54.8	77.0	42.1	34.9
October.....	39.9	43.1	37.9	40.3	52.2	32.0	20.2	40.1	45.5	40.1	41.9	59.0	25.9	33.1
November.....	35.1	38.7	34.4	36.0	45.5	23.0	22.5	34.1	37.6	35.1	35.6	48.9	24.1	24.8
December.....	32.0	34.6	31.8	32.8	37.9	19.6	20.3	33.5	35.2	33.7	34.1	47.7	26.4	21.3
Whole period.....	29.9	32.8	29.3	30.2	39.9	12.9	27.0	29.3	31.3	30.1	30.2	45.5	18.5	27.0
Whole period.....	35.5	38.9	33.9	36.1	64.6	7.2	57.4	38.5	41.9	37.4	39.3	77.0	7.2	69.8

Month.	1833.							1834.							Whole period.						
	A. M.	Noon.	P. M.	All.	Max.	Min.	Range.	A. M.	Noon.	P. M.	All.	Max.	Min.	Range.	A. M.	Noon.	P. M.	All.	Max.	Min.	Range.
January.....	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
February.....	29.8	33.2	29.6	31.8	40.3	18.5	21.8	29.6	32.3	30.1	30.8	39.4	16.2	23.2	26.7	30.0	26.3	30.8	41.0	2.7	38.3
March.....	32.6	35.8	32.2	33.5	42.1	18.5	23.6	31.8	36.6	30.8	33.1	45.5	20.7	24.8	30.3	34.4	29.7	31.5	48.9	-0.6	49.5
April.....	30.2	36.9	28.9	32.0	58.3	19.6	38.7	29.7	36.4	28.4	31.5	48.4	15.1	33.3	27.2	33.3	26.3	27.5	63.5	+0.5	63.0
May.....	36.8	39.3	34.4	36.8	47.7	18.5	29.2	34.2	38.3	31.5	35.3	53.4	26.4	27.0	35.1	39.2	33.4	35.9	53.4	16.2	37.2
June.....	43.2	45.2	40.6	43.0	61.2	36.5	24.7	40.6	49.3	39.0	43.0	58.3	31.3	27.0	40.8	44.7	38.2	41.3	61.2	27.5	33.7
July.....	45.7	48.2	43.2	46.2	66.9	43.2	23.7	47.5	48.2	43.2	47.5	48.2	43.2	23.7	47.5	48.2	43.2	46.2	66.9	34.2	32.7
August.....	53.9	57.5	51.1	53.4	76.3	41.8	31.5	50.4	53.5	47.8	50.4	53.5	47.8	50.5	50.4	53.5	47.8	50.5	76.3	39.4	36.9
September.....	49.8	53.8	47.0	50.2	73.6	38.1	35.5	50.3	54.4	48.1	50.3	54.4	48.1	51.9	42.2	46.0	41.4	43.9	59.0	25.9	33.1
October.....	43.3	47.9	43.4	44.9	54.5	32.0	22.5	42.2	46.0	41.4	35.5	38.9	35.4	36.7	35.5	38.9	35.4	36.7	54.9	20.1	34.8
November.....	34.7	39.2	34.3	36.1	48.9	20.1	28.8	30.7	33.9	30.6	30.7	33.9	30.6	32.4	27.9	30.3	27.4	29.0	46.6	5.0	41.6
December.....	26.3	31.4	26.3	28.0	37.2	6.1	31.1	27.9	30.3	27.4	27.9	30.3	27.4	29.0	26.7	29.0	26.1	27.3	38.7	5.0	41.6
Whole period.....	37.7	41.4	36.1	38.5	76.3	5.0	71.3	37.7	41.4	36.1	38.5	76.3	5.0	71.3	37.7	41.4	36.1	38.5	76.3	5.0	71.3

NOTE.—The leaning figures have been changed from the originals.

* See original for explanation of this apparent discrepancy.

LOCAL TABLES.

TABLE V.
TEMPERATURE OBSERVATIONS.

Month.	1866-1867.							1873.						
	8 a.m.	Noon.	8 p.m.	Mean.	Max.	Min.	Range.	8 a.m.	Noon.	8 p.m.	Mean.	Max.	Min.	Range.
January, 1867	30.6	34.4	30.6	31.9	41	19	22	26.7	29.5	26.2	27.4	45	13	32
February, 1867	31.4	36.5	31.0	33.0	52	13	39	32.0	35.8	31.0	32.9	47	14	33
March, 1867*	35.6	41.3	33.5	36.8	49	21	28	33.6	30.2	23.4	25.7	52	11	41
April								32.1	39.2	31.6	34.3	54	19	35
May†								34.0	41.2	34.5	36.6	49	28	21
November, 1866	34.2	39.3	35.0	36.2	44	26	18							
December, 1866	32.1	35.9	33.7	33.9	44	20	24							
Whole period	32.8	37.5	32.8	34.4	52	13	39	29.3	34.8	28.9	31.0	54	11	43

* Thirty days only of March, 1867; March 31 is wanting.

† Twenty-two days only.

‡ 6 a. m.

TABLE VI.
TEMPERATURE OBSERVATIONS.

Month.	7 a. m.	2 p. m.	9 p. m.	Mean.	Max.	Min.	Range.
June, 1872	46.1	49.5	44.8	46.8	61	37	24
July, 1872	48.4	51.2	47.6	49.1	71	42	29

METEOROLOGICAL OBSERVATIONS TAKEN ON BOARD THE U. S. C. S. SCHOONERS HUMBOLDT AND YUKON WHILE LYING IN ILIULIUK HARBOR, UNALASHKA.

TABLE VII.
TEMPERATURE OBSERVATIONS.

Month.	1871-'72.				1873.				1874.			
	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.
January, 1872	29.0	45	13	32	27.4	45	13	32				
February, 1872	29.2	48	13.5	34.5	33.0	47	14	33				
March, 1872 ¹	33.4	59	20	39	25.8	52	11	41				
April, 1872 ²	40.7	49	32	17	34.3	54	19	35				
May, 1872	40.6	60	32	28	38.8	57	28	29				
June, 1872 ³	47.2	62	38	24	48.7	71	39	32				
July ⁴									57.0	77	48	29
August ⁵									54.7	67	49	18
September, 1871 ⁶	49.3	51?	46?	5?	50.1	58	42	16	51.8	69	43	26
October, 1871	42.5	65	30	35								
November, 1871	38.0	54	22	32								
December, 1871	33.5	44	19	25								
Year												

¹ March 1-23, 1872.² June 1-16, 1872; June 1-11, 1873.³ August 25-31, 1874.⁴ April 23-30, 1872.⁵ July 13-19, 1874.⁶ Sept. 24-30, 1871; Sept. 1-25, 1873; Sept. 1-29, 1874.

TABLE VIII.
TEMPERATURES OF SEA-WATER.

Month and year.	Surface.		At five fathoms.	
	Days.	Temp.	Days.*	Temp.
January, 1872	1-31	35.3	1-15	38.80
February, 1872	1-29	35.3	6-25	35.85
March, 1872	1-23	34.6	10-15	36.33
April, 1872	23-30	38.0	23-30	38.56
May, 1872-'73	1-31	40.84	1-31	39.68
	21-31	39.5		
June, 1872-'73	1-16	40.16	1-5	40.16
	1-11	43.9		
July, 1874	13-19	51.5		
August, 1874	25-31	51.9		
	24-30	47.7		
September, 1871-'73-'74	1-25	46.5		
	1-29	49.95		
October, 1871	1-31	43.1		
November, 1871	1-30	34.3		
December, 1871	1-31	34.1	25-31	39.5
Year		(41.1)		(40.0?)

* Could not be taken when the harbor froze over on account of the movements of the ice.

TABLE IX.
RAIN AND WIND OBSERVATIONS.

Month.	Rain.		Wind.		
	Days.	Amount.	Prevailing direction.	Mean vel. hourly.	Max. velocity hourly.
June, 1872	14	1.53		8.33	23
July, 1872	18	1.83		8.26	19

Note from Veniaminoff, Vol. I, p. 363: "Of *rainy* days, *i. e.*, days upon which rain fell, although not for a long time, there are about 150 per year, and the average amount that falls upon a rainy day is about 0.15 inch."

This would make the annual rainfall about 22.5 inches. See also Table XVIII, (1873).

TABLE X.
RELATIVE HUMIDITY.

Month.	7 a. m.	2 p. m.	9 p. m.	Mean.	Max.	Min.	Range.
June, 1872	77.9	71.4	80.3	76.5	92	43	49
July, 1872	81.8	79.5	82.4	81.3	93	63	30

LOCAL TABLES.

TABLE XI.
DIRECTION OF WINDS.
1825-1834, *Old style.*

Month.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.
January	18.99	3.48	8.23	11.71	13.92	4.59	7.75	9.49	21.84
February	9.63	3.32	13.46	10.96	12.29	7.48	7.97	10.30	24.58
March	12.65	2.50	7.50	12.97	13.13	10.31	12.97	15.31	12.66
April	8.37	5.05	9.95	12.80	12.80	13.75	12.48	10.58	14.22
May	6.17	6.48	12.04	11.73	10.49	9.72	13.43	12.50	17.44
June	5.70	6.38	9.40	14.09	14.93	12.92	6.88	7.89	21.81
July	3.54	3.88	2.87	12.14	15.85	21.92	12.31	3.71	23.78
August	5.84	2.52	2.36	11.67	11.99	13.41	15.93	8.52	27.76
September	10.60	3.01	3.96	9.18	8.70	12.97	18.04	9.97	23.57
October	7.98	2.00	4.45	8.28	8.42	14.42	14.11	16.41	23.93
November	10.73	2.84	5.84	8.99	8.99	10.88	19.24	11.51	20.98
December	21.09	4.40	7.13	5.92	7.59	7.89	8.35	17.30	20.33
Spring	9.06	4.68	9.83	12.50	12.14	11.26	12.96	12.80	14.77
Summer	5.03	4.26	4.88	12.63	14.26	16.08	11.71	6.71	24.45
Autumn	9.77	2.62	4.75	8.82	8.70	12.76	17.13	12.63	22.83
Winter	16.57	3.73	9.61	9.53	11.27	6.65	8.02	12.36	22.25
Year	10.19	3.81	7.25	10.83	11.53	11.64	12.50	11.22	21.03

TABLE XII.
DIRECTION OF WINDS.

Month.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.
January, 1867	41.94	12.90	6.45	0.00	16.13	6.45	3.23	6.45	6.45
February, 1867	3.57	3.57	0.00	10.71	17.86	21.43	3.57	21.43	17.86
March, 1867	6.67	6.67	10.00	30.00	10.00	10.00	3.33	3.33	20.00
November, 1866	31.04	13.79	10.34	3.45	3.45	6.90	13.79	13.79	3.45
December, 1866	16.00	20.00	16.00	0.00	24.00	12.00	8.00	0.00	4.00
Winter	20.50	12.16	7.48	3.57	19.33	13.29	4.93	9.29	9.44
Whole period	20.28	11.19	8.39	9.09	13.99	11.19	6.29	9.09	10.49

TABLE XIII.
DIRECTION OF WINDS.

Month.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.
January, 1873	32.26	32.26	6.45	0.00	9.68	0.00	9.68	3.22	6.45
February, 1873	3.57	3.57	14.29	7.14	17.86	17.86	25.00	7.14	3.57
March, 1873	22.58	3.23	0.00	0.00	9.67	0.00	16.13	29.03	19.36
April, 1873	20.00	10.00	6.67	3.33	10.00	16.67	16.67	13.33	3.33
May 1-22, 1873	22.73	4.55	13.63	0.00	0.00	0.00	22.73	22.73	13.63
Spring	21.77	5.93	6.77	1.11	6.56	5.56	18.51	21.70	12.11
Whole period	20.42	11.27	7.75	2.11	9.86	7.04	17.61	14.79	9.15

TABLE XIV.
FORCE OF WINDS.
1825-1834, *Old style.*

Month.	Light.	Mod.	Fresh.	Strong.	Very strong.
January	48.66	28.25	12.16	8.45	2.48
February	50.67	25.45	14.06	8.03	1.79
March	45.95	30.09	14.41	8.29	1.26
April	45.45	30.36	17.27	6.00	0.91
May	49.82	34.25	12.09	3.84	0.00
June	66.67	22.63	8.68	1.82	0.20
July	62.14	23.16	11.80	2.90	0.00
August	56.63	30.98	10.26	1.92	0.21
September	43.83	27.87	18.08	9.79	0.43
October	43.45	28.90	16.43	9.56	1.66
November	48.35	23.76	15.91	11.15	0.83
December	42.89	22.92	16.20	14.43	3.56
Year	50.20	27.52	13.98	7.19	1.11

TABLE XV.
FORCE OF WINDS.

Month.	Light.	Mod.	Fresh.	Strong.
January, 1867	6.90	37.93	41.38	13.79
February, 1867	0.00	30.43	60.87	8.70
March, 1867	12.50	25.00	50.00	12.50
November, 1866	17.86	42.86	25.00	14.28
December, 1866	20.83	33.33	20.84	25.00
Whole period	11.72	34.38	39.06	14.84

TABLE XVI.
FORCE OF WINDS.

Month.	Light.	Mod.	Strong.	Very strong.	Gale.
January, 1873	13.79	17.24	41.38	24.14	3.45
February, 1873	3.71	22.22	40.74	33.33	0.00
March, 1873	4.00	44.00	24.00	20.00	8.00
April, 1873	20.69	17.24	51.72	10.35	0.00
May 1-22, 1873	31.58	15.79	52.63	0.00	0.00
Whole period	13.95	23.26	41.86	18.60	2.33

LOCAL TABLES.

TABLE XVII.
WEATHER OBSERVATIONS.1825-1834, *Old style.*

Month.	Cloudless days.				Clear with clouds.				Changeable.				Cloudy.			
	All.	Max.	Min.	Mean.	All.	Max.	Min.	Mean.	All.	Max.	Min.	Mean.	All.	Max.	Min.	Mean.
January	11	6	0	2	32	10	2	5	111	18	10	16	55	13	5	8
February	9	5	0	1	33	10	1	5	86	18	7	12	69	15	4	10
March	3	1	0	$\frac{1}{2}$	26	5	3	4	112	21	8	16	76	19	7	11
April	4	3	0	$\frac{1}{2}$	26	8	1	4	104	18	6	15	76	19	4	11
May	2	1	0	$\frac{1}{2}$	29	5	3	4	105	18	8	15	81	13	8	12
June	6	3	0	1	24	6	1	3	95	17	10	14	85	15	9	12
July					22	7	2	3	118	21	7	17	77	19	7	11
August	5	3	0	1	29	6	1	4	106	19	6	15	77	19	7	11
September	2	1	0	$\frac{1}{2}$	28	7	2	4	107	16	6	15	73	13	6	10
October	2	1	0	$\frac{1}{2}$	21	6	1	3	115	21	12	16	91	17	8	13
November	3	1	0	$\frac{1}{2}$	29	6	1	4	88	18	5	12	90	21	8	13
December	6	3	0	1	13	6	0	2	116	18	13	17	82	16	9	12
Whole period	53	12	3	8	312	54	33	45	1263	187	150	180	932	172	120	133

Month.	Rainy.				Snowy.				Foggy.				Thunder-storms.			
	All.	Max.	Min.	Mean.	All.	Max.	Min.	Mean.	All.	Max.	Min.	Mean.	All.	Max.	Min.	Mean.
January	58	10	4	8	118	22	9	17	15	9	0	2	0	0	0	0
February	51	14	1	7	94	23	1	13	29	9	1	4	0	0	0	0
March	51	15	3	7	134	28	11	19	10	3	0	1	2	2	0	$\frac{1}{2}$
April	91	18	5	13	96	19	7	13	16	5	0	2	2	1	0	$\frac{1}{2}$
May	106	18	12	15	31	8	1	4	49	18	1	7	1	1	0	$\frac{1}{2}$
June	83	16	10	12	4	2	0	$\frac{1}{2}$	76	16	7	11	0	0	0	0
July	75	17	7	11	0	0	0	0	75	13	9	11	1	1	0	$\frac{1}{2}$
August	113	19	14	16	2	1	0	$\frac{1}{2}$	62	13	6	9	2	2	0	$\frac{1}{2}$
September	143	24	17	20	39	12	1	5	33	11	1	5	3	1	0	$\frac{1}{2}$
October	113	20	13	17	90	20	3	13	18	3	2	2	5	2	1	1
November	84	15	2	12	126	24	11	18	9	3	0	1	1	1	0	$\frac{1}{2}$
December	47	12	1	6	132	22	16	19	6	4	0	$\frac{1}{2}$	0	0	0	0
Whole period	1015	160	120	147	866	150	92	124	398	71	44	57	17	6	0	2

The foregoing table contains the results of six years and eleven months of weather observations, viz, 1,825.

TABLE XVIII.
WEATHER OBSERVATIONS.

Date.	1866-1867.					1873.					Inches of rain.	Inches of snow.
	Clear.	Half clear.	Cloudy.	Rainy.	Snowy.	Clear.	Half clear.	Cloudy.	Rainy.	Snowy.		
January	2	12	17	5	18	0	0	31	1	17	0	66
February*	2	6	14	1	10	0	5	23	6	20	3.5	12
March†	4	3	23	13	11	0	3	28	0	24	0	42
April						0	4	26	1	13	0	6
May‡						0	2	20	0	7	0	0
November	2	10	18	9	17							
December	0	6	25	16	16							
Whole period	10	37	97	44	72	0	14	128	8	81	3.5	126

* February 8-13, inclusive, 1867, is blank in the weather record.

† 30 days only: March 31 is wanting.

‡ The observations of 1873 end May 22.

TABLE XIX.
EARTHQUAKE RECORD.
1825-1834, *Old style.*

Month.	Shocks of earthquake.			
	All.	Max.	Min.	Mean.
January	5	2	0	1
February	2	1	0	$\frac{1}{2}$
March	3	2	0	$\frac{1}{2}$
April	4	2	0	$\frac{1}{2}$
May	1	1	0	$\frac{1}{2}$
June	1	1	0	$\frac{1}{2}$
July	1	1	0	$\frac{1}{2}$
August	4	4	0	$\frac{1}{2}$
September	3	1	0	$\frac{1}{2}$
October	7	3	0	1
November	1	1	0	$\frac{1}{2}$
December	0	0	0	0
Whole period	32	7	2	5

ST. PAUL ISLAND, PRIBILOFF ISLANDS, ALASKA TERRITORY.

Lat. $57^{\circ} 07' 19''$ N. Long. $170^{\circ} 17' 52''$ W. of Gr.

Height of station above the level of the sea, 1869-1871, 40 feet, and 1872-1876, $57\frac{1}{2}$ feet. All the observations were taken in the government buildings in the village of St. Paul, on the south side of the island, those of 1870-'71 being taken at the government building near the crest of the hill, while the Signal-Service observations were taken in a small house somewhat lower down the hill and nearer the beach. The statement is made in the Signal-Office Reports of 1873-'74, p. 488, that the elevation is unknown; the statement that the elevation is $57\frac{1}{2}$ feet is based upon an official letter from the Signal Office.

Sources of information: For 1869-'70, MS. Met. Reg. U. S. A.; for 1870-'71, Coast Survey Reports, 1871; for 1872-'76, Signal-Office Reports.

BAROMETRICAL OBSERVATIONS.

TABLE I.—*Barometer.* Period covered by this table is five years and five months, November, 1869, to August, 1876. The observations of 1869 and 1870 are from the Army records, and the thermometer attached to the barometer was not read. No correction for instrumental error has been made so far as known. They are in this table, therefore, not reduced to the freezing point, or to the sea-level. The observations of 1870-'71 made by Captain Bryant, the government agent at St. Paul, were taken with a standard instrument and reduced to 32° F., but not to sea-level. The observations from September, 1872, to the close are due to the Signal Service, and are therefore made with standard instruments and reduced to 32° F. None of the Signal-Service observations at this station are reduced to sea-level *except* those from August 31, 1875, to August 31, 1876, inclusive. The observing hours for *all* the observations in this table are 7 a. m., 2 and 9 p. m., and the means accordingly $\frac{1}{3}$ ($7_a + 2_p + 9_p$).

To summarize, therefore, we have in Table I—

1869-1870: uncorrected for temperature or sea-level.

1870-1871: standard barometer at 32° F., *but not* reduced to sea-level (arg. 40).

1872-August 30, 1875, inclusive: standard barometer at 32° F., and *not* reduced to sea-level (arg. $57\frac{1}{2}$).

August 31, 1875-September, 1876: the same, except that they *are* reduced to sea-level (arg. $57\frac{1}{2}$).

In deducing the results in the synoptical table of mean atmospheric pressure, the observations of November and December, 1869, are rejected, there being evidently a gross error in them. The observations of 1870 are reduced to the freezing point, upon the assumption that the barometer had the mean temperature of the air. They are further reduced to the sea-level with the argument 40 feet, the correction for this purpose being +0.046 inches. The observations of 1870-71 are reduced to the sea-level by the use of the same correction.

THERMOMETRICAL OBSERVATIONS.

TABLE II.—*Mean temperature of the air*: Period covered by this table, sources of information for the different parts, hours of observation, &c., are the same as in Table I. The means for the hours 7, 2, and 9 are not accessible in published form. The max. and min. from the beginning up to July, 1871, are presumably the observed maxima and minima, and are after that due to a max. and min. thermometer.

TABLE III.—*Temperature of surface sea-water*: From MS. supplied by the Signal Office. Period one year and eleven months, 1874-1876. From the beginning up to April 3, 1875, the means are from the formula $\frac{1}{3}(7_a + 2_p + 9_p)$, and thereafter but one observation per day.

PRECIPITATION.

TABLE IV.—*Rainy and snowy days and amount of rain and snow fall*. Period, observing hours, sources of information, &c., as in preceding tables. From September, 1872, forward, a rain or snow fall of 0.01 inch is counted as a rainy or snowy day.

CLOUD OBSERVATIONS.

TABLE V.—*Cloudiness*. From same sources as the preceding. Period covered by the table four years and five months. Results expressed in percentages. The observations of 1869 and 1870 are stated to have been made in tenths, but this seems very doubtful. The uncertainty in the unit of measurement renders them of little value. The observations of 1870-71 were made in eighths, 0 equaling a clear sky and 8 a sky wholly covered by clouds. They are here converted to percentages. The Signal-Service observations were recorded in tenths, and are here expressed in percentages.

HYGROMETRICAL OBSERVATIONS.

TABLE VI.—*Relative humidity*. From Signal-Office Reports. Period, three years and ten months. Expressed in percentages of saturation.

WINDS.

TABLE VII.—*Direction of wind*. From Met. Register and Bryant. Period, 17 months. Each of the months except July embodies the results of two months' observations, 3 observations per day. Whether true or magnetic directions are used is not stated. Whole number of observations, 1,545, here expressed in percentages. The column of calms is doubtless too small, none being recorded in the Army Register.

TABLE VIII.—*Direction of wind*. From MS. Met. Reg. U. S. A. Period, one year and nine months; October, 1873, to June, 1875, inclusive, 3 observations per day, at 7 a. m., 2 and 9 p. m. Directions are true and from which the wind blows. Results in percentages. Whole number of observations, 1,914.

TABLE IX.—*Force of wind*. From Bryant. Period, 9 months, 3 observations per day. Results in percentages. The force was estimated, and marked on a scale of, perhaps, 10, as indicated in the blanks furnished by the Smithsonian Institution, in which—

0 = a calm.	6 = gale	= 45 miles per hour.
1 = very light breeze = 2 miles per hour.	7 = strong gale	= 60 miles per hour.
2 = gentle breeze = 4 miles per hour.	8 = violent gale	= 75 miles per hour.
3 = fresh breeze = 12 miles per hour.	9 = hurricane	= 90 miles per hour.
4 = strong wind = 25 miles per hour.	10 = most violent hurricane	= 100 miles per hour.
5 = high wind = 35 miles per hour.		

Whole number of observations, 819.

TABLE X.—*Prevailing direction and velocity of wind.* From Signal Office Reports. Period about four years. Velocity of wind expressed in statute miles per hour. Whether true or magnetic directions are meant is not stated.

In the Signal Office Report for 1873 a discussion of the meteorological features of this region is given by C. P. Fish, the observer at this station.

METEOROLOGICAL OBSERVATIONS AT ST. PAUL ISLAND, BERING SEA.

TABLE I.
ATMOSPHERIC PRESSURE.

Month.	1870-'71.				1871-'72.				1873.			
	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.
January	29.21	30.18	28.42	1.76	29.349	30.41	28.28	2.13	29.953	30.55	29.32	1.23
February	29.30	30.20	28.36	1.84	29.369	30.03	28.60	1.43	29.507	30.40	28.26	2.14
March	29.29	30.08	28.54	1.54	29.509	29.94	28.90	1.04	29.768	30.31	29.05	1.26
April	29.25	29.88	28.34	1.54	29.391	30.06	28.75	1.31	29.769	30.32	29.00	1.32
May	29.51	30.24	29.00	1.24	29.428	30.06	28.63	1.43	29.827	30.23	29.44	0.79
June	29.64	30.10	29.24	0.86	29.630	30.19	29.17	1.02	29.814	30.25	29.33	0.92
July					29.725	29.83	29.61	0.22	29.934	30.18	29.35	0.83
August									29.894	30.22	28.89	1.33
September					29.773	30.46	28.87	1.59	29.588	30.15	28.94	1.21
October					29.512	30.04	28.51	1.53	29.326	30.19	28.30	1.89
November	29.187	30.11	27.82	2.29	29.458	30.23	28.62	1.61	29.492	30.24	28.62	1.62
December	29.461	30.28	28.64	1.64	29.488	30.04	28.05	1.99	29.442	30.35	28.61	1.74
Year									29.693	30.55	28.26	2.29

Month.	1874.				1875.				1876 and 1869.			
	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.
January	29.546	30.86	28.62	2.24	29.681	30.79	28.15	2.64	29.630	30.57	28.71	1.86
February	29.734	30.64	28.83	1.81	29.411	29.91	28.76	1.15	30.045	30.62	29.39	1.23
March	29.862	30.50	28.91	1.59	29.934	30.97	28.68	2.29	30.111	30.82	29.26	1.56
April	29.702	30.18	29.20	0.98	30.035	30.59	28.90	1.69	29.856	30.31	29.04	1.27
May	29.735	30.24	28.68	1.56	29.749	30.27	29.05	1.22	29.641	30.16	28.99	1.17
June	29.672	30.04	28.90	1.14	29.711	30.35	28.91	1.44	29.799	30.19	29.21	0.98
July	29.880	30.31	29.40	0.91	29.911	30.19	29.57	0.62	29.799	30.299	29.143	1.156
August	29.917	30.25	29.37	0.88	29.789	30.27	28.84	1.43	29.907	30.296	28.970	1.326
September	29.704	30.17	29.15	1.02	29.725	30.33	29.00	1.33				
October	29.638	30.44	29.01	1.43	29.585	30.70	28.70	2.00				
November	29.548	30.60	28.73	1.87	30.184	30.87	29.50	1.37	*28.63	*29.64	*28.22	1.42
December	29.374	30.35	28.41	1.94	29.931	30.31	28.75	1.56	*28.74	*29.74	*28.12	1.62
Year	29.693	30.86	28.41	2.45	29.804	30.97	28.15	2.82				

* Due to instrumental error? Observations of 1869.

LOCAL TABLES.

TABLE II.
TEMPERATURE OBSERVATIONS.

Month.	1869.							1870-1871.							1871-1872.						
	7 a. m.	2 p. m.	9 p. m.	Mean.	Max.	Min.	Range.	7 a. m.	2 p. m.	9 p. m.	Mean.	Max.	Min.	Range.	7 a. m.	2 p. m.	9 p. m.	Mean.	Max.	Min.	Range.
January	°	°	°	°	°	°	°	29.6	32.0	29.9	30.5	40	18	22	26.7	28.5	26.4	27.2	36	8	24
February								23.7	26.8	23.5	24.7	38	5	33	18.5	20.7	16.8	18.7	34	-6	40
March								29.9	34.1	28.3	30.8	43	17	26	8.9	13.0	8.3	10.0	28	-5	33
April								31.0	36.4	30.5	32.6	49	19	30	29.0	31.9	27.0	29.3	43	10	33
May								37.4	42.4	35.1	38.3	52	25	27	33.6	37.4	31.8	34.3	54	24	30
June								44.3	49.5	40.8	44.9	63	35	28	39.9	44.2	36.8	40.3	55	32	23
July															42.9	46.8	40.8	43.5	62	37	25
August																					
September																		44.2	52	33	19
October																		36.0	45	22	23
November	34.3	35.8	34.1	34.8	40	25	16	31.1	33.5	31.8	32.1	40	22	18				34.3	41	23	18
December	30.6	32.3	30.1	31.0	40	18	22	27.5	27.4	27.0	27.3	39	7	32				26.6	36	4	32
Year																					

Month.	1873.				1874.				1875.				1876.			
	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.
January	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
February	15.7	34	-11	45	29.9	37	8	29	34.9	42	19	23	31.4	39	23	16
March	18.6	34	-12	46	33.5	40	19	21	35.3	44	21	23	16.5	36	8	44
April	12.6	35	-7	42	33.0	42	19	23	29.0	40	12	28	23.0	41	3	38
May	23.9	35	3	32	34.5	45	21	24	28.9	41	17	24	26.2	43	5	38
June	30.5	41	19	22	39.0	52	25	27	34.2	47	25	22	32.7	42	22	20
July	37.5	47	28	19	44.4	57	34	23	42.0	51	34	17	38.7	53	30	23
August	43.0	52	36	16	49.1	58	42	16	47.0	57	39	18	42.5	54	35	19
September	46.5	55	39	16	50.8	62	44	18	47.9	55	43	12	43.2	51	38	13
October	43.0	49	35	14	47.3	56	39	17	46.0	52	41	11				
November	37.8	46	31	15	40.2	48	32	16	41.7	50	33	17				
December	32.4	41	23	18	37.8	45	26	19	34.9	45	28	17				
Year	29.9	40	12	28	33.3	40	22	18	26.2	39	15	24				
Year	31.0	55	-12	67	39.4	62	8	54	37.3	57	15	42	[54]	[5]	[51]	

TABLE III.
TEMPERATURE OF SURFACE SEA-WATER.

Month.	1874.				1875.				1876.†			
	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.
January	°	°	°	°	°	°	°	°	°	°	°	°
February					38.4	41.0	36.0	5.0	33.5	35.0	32.0	3.0
March					37.7	39.0	35.0	4.0	32.0	33.0	31.0	2.0
April					34.1	38.0	32.0	6.0	30.9	33.0	29.0	4.0
May					33.7	36.0	33.0	3.0	30.0	32.0	29.0	3.0
June					35.5	39.0	33.0	6.0	32.1	33.0	31.0	2.0
July					40.0	43.0	37.0	6.0				
August	46.0	48.0	43.0	5.0	43.7	46.0	43.0	3.0				
September	49.0	50.0	48.0	2.0	46.5	48.0	45.0	3.0				
October	48.1	49.0	45.0	4.0	47.5	48.0	46.0	2.0				
November	43.3	45.0	41.0	4.0	44.4	46.0	42.0	4.0				
December	42.1	44.0	40.0	4.0	40.0	42.0	38.0	4.0				
Year	38.8	41.0	37.0	4.0	33.4	38.0	31.0	7.0				
Year	38.7*	50*	29*	21.0*	39.6	48.0	31.0	17.0				

* For eleven months, viz: January to May, 1876, and June to December, 1874.

† From some unexplained cause these figures are evidently too low. The island was surrounded by ice during that period (January-May, 1876) and the observations were taken through a crevice near the shore. The real temperatures cannot have fallen below 31.5 nor the average below 32° F. if the conditions and instrument were normal.

TABLE IV.
RAIN AND SNOW FALL.

Month.	1869.			1870.			1871.			1872.		
	Days.		Amount of rain and snow.	Days.		Amount of rain and snow.	Days.		Amount of rain and snow.	Days.		Amount of rain and snow.
	Rain.	Snow.		Rain.	Snow.		Rain.	Snow.		Rain.	Snow.	
January.....				7	15	1.00	7	4	1.11			
February.....				3	16	1.02	1	6	2.40			
March.....				6	11	0.82	?	?	4.00			
April.....				4	16	1.10	1	2	0.08			
May.....				6	4	0.88	12	1	0.98			
June.....				3	0	0.14	11	0	1.03			
July.....							10	0	1.18			
August.....												
September.....												2.89
October.....												3.08
November.....	16	7	2.40	18	5	1.93						2.38
December.....	10	12	1.70	16	6	2.30						2.89
Year.....				3]	[73]	[9.19]						[22.02]

Month.	1873.			1874.			1875.			1876.		
	Days.		Amount of rain and snow.	Days.		Amount of rain and snow.	Days.		Amount of rain and snow.	Days.		Amount of rain and snow.
	Rain.	Snow.		Rain.	Snow.		Rain.	Snow.		Rain.	Snow.	
January.....			0.96	23	24	3.23	22	18	7.75	14	24	4.54
February.....			5.88	23	20	5.23	24	13	4.27	7	16	1.04
March.....			1.21	20	26	2.97	14	28	3.38	9	22	3.39
April.....			1.77	20	25	0.84	7	25	2.79	11	18	2.89
May.....			0.60	17	15	0.58	11	26	2.15	16	31	3.73
June.....	15	9	0.50	25	2	2.91	26	4	5.38	11	3	1.56
July.....	25	0	2.65	27	0	3.81	21	0	4.75	19	0	5.29
August.....	26	0	2.61	29	1	2.62	29	0	5.73	12	0	2.61
September.....	27	2	2.64	25	2	3.01	26	0	3.86			
October.....	24	18	3.89	29	15	4.82	27	3	4.50			
November.....	18	25	3.60	26	19	9.28	15	12	0.79			
December.....	20	28	5.59	20	21	6.59	5	24	1.73			
Year.....			31.90	284	170	45.89	227	153	47.08	[99]	[114]	[25.05]

NOTE.—In the record from September, 1872, to the end of the series, a rain or snow fall of 0.01 inch is counted as a rainy or snowy day (?).

TABLE V.
AMOUNT OF CLOUDINESS.

Month.	1869.				1870.				1871.				1873.	1874.	1875.	1876.
	7 a. m.	2 p. m.	9 p. m.	Mean.	7 a. m.	2 p. m.	9 p. m.	Mean.	7 a. m.	2 p. m.	9 p. m.	Mean.	Mean.	Mean.	Mean.	Mean.
January.....					36.1	35.1	36.1	35.7	68.5	71.7	55.6	65.4	83.8	73.8	71.0	
February.....					36.1	36.1	39.7	37.3	72.2	73.6	62.0	69.4	80.5	77.5	54.3	
March.....					37.7	36.4	37.7	37.3	48.4	46.0	39.1	44.5	83.2	82.9	69.6	
April.....					38.3	37.7	40.8	38.9	78.4	81.6	65.9	75.2	83.6	71.0	77.5	
May.....					42.6	40.9	42.2	41.9	96.0	91.9	91.1	93.0	76.1	76.6	88.8	
June.....					43.3	45.7	46.3	45.1	90.0	80.9	98.4	89.7	86.9	95.1	89.0	
July.....									96.7	86.2	95.6	92.9	96.4	97.3	80.2	
August.....													95.2	82.2	92.6	
September.....													83.1	75.0	76.4	
October.....													89.9	78.0	84.1	
November.....	32.3	33.0	38.3	34.5	64.6	76.6	69.6	70.2					82.9	73.2	76.9	
December.....	32.3	31.9	35.5	33.2	71.7	83.5	62.9	72.7					82.3	71.8	72.8	
Year.....																

LOCAL TABLES.

TABLE VI.
RELATIVE HUMIDITY.

Month.	1872.			1873.			1874.			1875.			1876.		
	Mean.	Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.	Mean.	Max.	Min.
January.....				85.7	100.0	53.0	86.9	100.0	68.0	84.1	100.0	68.0	84.1	100.0	62.
February.....				86.2	100.0	49.0	87.4	100.0	68.0	87.5	100.0	68.0	80.8	100.0	57.
March.....				81.8	100.0	46.0	84.0	100.0	68.0	77.7	100.0	50.0	83.9	100.0	62.
April.....				84.3	100.0	61.0	80.4	94.0	52.0	73.0	100.0	54.0	84.8	100.0	62.
May.....				85.6	100.0	62.0	77.4	91.0	53.0	74.4	90.0	47.0	84.2	100.0	68.
June.....				87.1	100.0	67.0	80.6	100.0	56.0	82.4	100.0	58.0	83.4	100.0	62.
July.....				89.8	100.0	75.0	87.4	93.0	72.0	83.4	100.0	66.			
August.....				89.4	96.0	67.0	83.8	93.0	51.0	85.9	100.0	62.			
September.....	85.6	100.0	61.0	89.0	100.0	65.0	79.2	93.0	58.0	83.9	100.0	69.			
October.....	83.9	100.0	65.0	84.5	95.0	61.0	76.2	92.0	56.0	84.7	100.0	65.			
November.....	86.6	100.0	60.0	86.6	100.0	68.0	80.8	91.0	61.0	78.3	91.0	62.			
December.....	87.8	100.0	70.0	83.5	95	55.0	81.4	100.0	58.0	84.1	100.0	61.			
Year.....		100.0	[60.0]	86.1	100.0	46.0	82.1	100.0	51.0	81.6	100.0	47.0			

TABLE VII.
DIRECTION OF WINDS.
1869-1871.

Month.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.
January.....	12.37	32.79	13.98	8.07	1.61	3.23	2.15	15.59	10.21
February.....	20.25	18.45	2.98	7.14	1.78	5.35	3.57	36.90	3.57
March.....	26.88	16.67	4.30	8.05	5.38	5.38	1.08	27.42	4.84
April.....	14.44	21.67	14.44	10.00	5.56	2.22	1.67	25.56	4.44
May.....	18.28	15.05	4.30	12.90	12.37	13.98	5.91	8.60	8.60
June.....	8.89	28.89	2.22	8.33	5.00	10.00	7.78	23.34	5.55
July.....	13.98	10.75	5.38	10.75	16.13	12.90	4.30	9.68	16.13
August.....									
September.....									
October.....									
November.....	15.00	27.22	4.44	17.22	1.67	10.56	5.56	16.11	2.22
December.....	4.84	26.34	6.45	12.37	4.30	14.52	8.06	22.04	1.08
Spring.....	19.93	17.75	7.61	10.33	7.79	7.25	2.90	20.47	5.98
Winter.....	12.22	26.11	7.96	9.26	2.59	7.78	4.63	24.44	5.00

TABLE VIII.
DIRECTION OF WINDS.
October, 1873-June, 1875.

Month.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.
January.....	13.44	7.53	23.66	12.36	22.58	8.06	8.06	3.23	1.08
February.....	4.76	11.31	21.43	8.93	26.19	11.90	11.90	3.57	0.00
March.....	17.20	6.99	15.05	7.53	12.90	11.83	18.28	9.69	0.54
April.....	23.89	10.00	20.00	18.33	7.78	5.00	5.56	9.44	0.00
May.....	25.27	13.44	20.43	6.45	6.99	6.45	9.69	11.29	0.00
June.....	10.00	4.44	13.89	8.89	22.22	12.22	20.56	6.67	1.11
July.....	4.30	6.45	11.83	9.68	16.13	21.50	20.43	9.68	0.00
August.....	19.35	8.60	23.66	8.60	23.66	1.07	7.53	7.53	0.00
September.....	27.78	18.89	12.22	13.33	1.11	4.44	11.11	11.11	0.00
October.....	16.67	8.06	14.52	3.23	11.83	4.30	19.89	19.89	1.61
November.....	19.44	6.67	18.89	11.11	10.56	7.22	13.33	11.66	1.11
December.....	18.82	4.30	5.38	10.75	23.12	12.37	13.98	8.60	2.69
Spring, 1874-'75.....	22.10	10.14	18.48	10.69	9.24	7.79	11.23	10.15	0.18
Summer, 1874.....	11.96	6.16	19.56	9.42	20.29	10.51	15.58	6.53	0.00
Autumn, 1874.....	19.41	12.09	15.75	8.79	10.62	5.49	17.58	9.52	0.74
Winter, 1873-'74, 1874-'75.....	12.59	7.59	16.67	10.74	23.89	10.74	11.30	5.18	1.30
Year, 1874.....	15.53	10.14	14.98	10.59	15.62	9.32	14.15	8.95	0.73

TABLE IX.
FORCE OF WINDS.

Month.	0, calm.	1, very light.	2, light.	3, moderate.	4, fresh.	5, strong.	6, very strong.	7, gale.
January, 1871	20.43	43.00	6.46	8.60	5.38	10.75	3.23	2.15
February, 1871	7.14	42.86	11.90	17.86	4.76	10.71	3.57	1.19
March, 1871	9.68	58.06	18.28	12.90	1.08	0.00	0.00	0.00
April, 1871	8.89	50.00	18.89	12.22	6.67	2.22	1.11	0.00
May, 1871	17.21	69.89	10.75	2.15	0.00	0.00	0.00	0.00
June, 1871	11.11	62.22	16.67	10.00	0.00	0.00	0.00	0.00
July, 1871	16.13	78.50	5.38	0.00	0.00	0.00	0.00	0.00
November, 1870	4.44	47.78	17.78	15.56	7.78	4.44	2.22	0.00
December, 1870	2.15	35.48	16.13	13.98	11.83	8.60	10.75	1.07
Whole period	10.87	54.33	13.55	10.26	4.15	4.03	2.32	0.49

TABLE X.
OBSERVATIONS OF WINDS.

Month.	1872.			1873.			1874.			1875.			1876.		
	Prevailing wind.	Mean hourly velocity.	Max. hourly velocity.	Prevailing wind.	Mean hourly velocity.	Max. hourly velocity.	Prevailing wind.	Mean hourly velocity.	Max. hourly velocity.	Prevailing wind.	Mean hourly velocity.	Max. hourly velocity.	Prevailing wind.	Mean hourly velocity.	Max. hourly velocity.
January					24.6	43	E.	20.4	54	SE.	21.4	84	S.	20.7	68
February					23.9	82	S.	16.7	53	E.	15.5	46	NE.	22.3	83
March					20.2	88	W.	17.9	46	NW.	19.9	67	N.	18.7	63
April					26.2	53	SE.	15.3	42	N.	17.1	47	SE.	16.0	66
May					19.1	57	NE.	11.4	38	N.	17.6	74	NW.	15.8	62
June				E.	20.0	40	S & W.	15.0	59	SE.	11.0	31	SE.	12.1	35
July				S.	15.6	46	W.	14.0	36	E.	12.2	39	SW.		
August		41?		S.	16.2	62	S.	14.8	36	SW.	16.6	63	E.		
September		12.7	33	SE.	18.3	76	N.	15.4	48	SW.	15.2	58			
October		16.0	42	NW.	20.2	77	NW.	16.9	56	N.	16.0	40			
November		19.7	64	N.	18.0	61	E.	21.2	68	NE.	15.8	34			
December		21.8	53	S.	22.8	71	N.	17.9	92	N.	20.5	67			
Year					20.2	88		16.4	92		16.6	84			[83]

MÖLLER ISLANDS, BERING SEA, NORTH SIDE OF ALASKA PENINSULA.

Lat. 56° 01'.2 N. Long. 160° 47'.1 W. of Gr.

Height of station above the level of the sea. The barometer hung 12 feet above high-water mark.*Source of information.* The meteorological material for this station was furnished in MS. by Capt. E. P. Herendeen. The record was kept by Capt. L. N. Herendeen, who spent the winter of 1877-'78 with a party of walrus hunters upon the Möller Islands.

BAROMETRICAL OBSERVATIONS.

TABLE I.—Period covered by this table nearly 5 months, viz, December, 1877, to April, 1878, both inclusive. A few days only are lacking at the beginning of December. Observing hours, 8 a. m., noon, and 4 p. m., during December, 1877, and January and February, 1878; 7 a. m., noon, and 6 p. m., during March and April, 1878. Instrument a new aneroid. This barometer was compared in the autumn of 1878 with the standard instrument kept by Mr. Thomas Tennent, and found to be *low* 0ⁿ.45. The results in this table are corrected for instrumental error, but for nothing else. Hence the mean for December, January, and February is $\frac{1}{3}(8_a + 12_m + 4_p) + 0^{\text{n}}.45$, and for March and April $\frac{1}{3}(7_a + 12_m + 6_p) + 0^{\text{n}}.45$.

LOCAL TABLES.

THERMOMETRICAL OBSERVATIONS.

TABLE II.—Period, observing hours, &c., as above. Character of the instrument is unknown. The maxima and minima are observed.

WINDS.

TABLE III.—*Direction of winds.* Period as above. The table gives the number of days of prevailing direction of wind, true or magnetic not stated. The original record contains the prevailing wind for the day.

TABLE IV.—*Force of winds.* Period and manner of observing as above.

RAINY AND SNOWY DAYS.

TABLE V.—The original record notes the days upon which there fell either rain or snow. This table is made by summing the days so noted.

TABLE I.
ATMOSPHERIC PRESSURE.

Month.	8 a. m.	12 m.	4 p. m.	Mean.	Max.	Min.	Range.
	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>
December, 1877	29.41	29.46	29.38	29.42	30.25	28.55	1.70
January, 1878 .....	.25	.24	.25	.25	29.75	.65	1.10
February, 1878 .....	.32	.34	.33	.33	29.95	.75	1.20
March, 1878* .....	.42	.42	.42	.42	29.85	.95	0.90
April, 1878* .....	.64	.68	.70	.67	30.45	.95	1.50

TABLE II.
TEMPERATURE OBSERVATIONS.

Month.	8 a. m.	12 m.	4 p. m.	Mean.	Max.	Min.	Range.
	°	°	°	°	°	°	°
December, 1877	22.8	26.3	24.5	24.5	34	2	32
January, 1878	24.1	29.7	23.8	25.9	42	0	42
February, 1878	13.5	24.6	15.2	17.8	49	- 8	57
March, 1878*	21.1	36.5	24.4	27.3	56	4	52
April, 1878*	28.3	38.2	29.1	31.9	52	18	34

* Observing hours, 7 a. m., 12 m., and 6 p. m.

TABLE III.
FORCE OF WINDS.

Number of days of prevailing direction.

Month.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Var.	Total.
December, 1877	0	4	4	1	3	2	0	8	4	26
January, 1878	6	9	0	4	2	5	3	0	2	31
February, 1878	5	3	3	4	2	5	3	2	1	28
March, 1878	5	10	4	5	1	2	1	3	0	31
April, 1878	0	0	1	4	4	5	10	2	4	30
Whole period	16	26	12	18	12	19	17	15	11	146

TABLE IV.

FORCE OF WINDS.

Number of days of prevailing strength.

Month.	Light.	Mod.	Fresh.	Strong.	Gale.	No rec- ord.	Total.
December, 1877	10	2	2	4	0	13	31
January, 1878	20	1	4	1	2	3	31
February, 1878	16	2	4	0	2	4	28
March, 1878	22	1	5	0	0	3	31
April, 1878	10	1	4	10	0	5	30
Whole period	78	7	19	15	4	28	151

TABLE V.

RAINY AND SNOWY DAYS.

Month.	Snowy.	Rainy.	Total.
December, 1877	5	0	5
January, 1878	2	0	2
February, 1878	4	0	4
March, 1878	1	0	1
April, 1878	4	2	6
Whole period	16	2	18

IKOGMUT MISSION, YUKON RIVER, ALASKA TERRITORY.

Lat. 61° 47' 14" N. Long. 161° 13' 56" W. of Gr.

Height of station above the level of the sea is not known, but is believed to be somewhere between 50 and 100 feet.

Sources of information. Zagoskin (Lieut. L.). Descriptions of travels on foot in the Russian possessions of America. 1842-1844. 2 vols. 8°. *St. Petersburg*, 1847-'48, Vol. II, pp. 11-13. Vesseloffsky (C. S.). Sur le climat d'Ikogmut; in BULLETIN de l'acad. imp. des sciences de St. Petersburg. 4°. *St. Petersburg*, 1860, Vol. I, cols. 63-86.

THERMOMETRICAL OBSERVATIONS.

TABLE I.—*Temperature of the air.* From Zagoskin. Period covered by the table, 83 days, September 13 to December 4, 1843, *n. s.* Four observations per day, at 8 a. m., noon, 4 p. m., and midnight. Originally observed in degrees of Reaumur, but here expressed in Fahrenheit degrees.

TABLE II.—*Temperature of the air.* From Vesseloffsky. Period covered by the table is about two years. Observations of 1843 have been taken by Vesseloffsky from Zagoskin. The observations from September 13, 1848, to July 6, 1854, from a meteorological register kept by Père Jacques Netzvétov. These observations are all *new style*, and were registered in Reaumur degrees, but are here converted to Fahrenheit degrees. The observing hours, which are various, are shown at the head of the columns. The mean monthly temperatures resulting from these observations were obtained by Mr. Vesseloffsky by correcting the means by aid of the hourly observations at Sitka and Toronto. The results so corrected and converted to Fahrenheit degrees are incorporated in the synoptical table of mean temperatures.

WINDS.

TABLE III.—*Direction of winds.* From Vesseloffsky. Prepared from Netzvétov's observations only. Period somewhat less than two years. Observations originally recorded to 16 points of the compass, true or magnetic not stated, and these 16 directions reduced to 8 by Vesseloffsky, by call-

ing one-half of the NNE. north, and the other half northeast, &c. The number of observations as thus prepared converted to percentages. This table is *new style*, and is copied from Vesseloffsky. Whole number of observations, 1,727.

WEATHER OBSERVATIONS.

TABLE IV.—*Weather observations.* From Zagoskin. Period 83 days, September 13 to December 4, 1843, *n. s.* The weather was each day recorded as "clear", "cloudy", or "rainy or snowy", and this table embodies the results. It is here copied from Dall's *Alaska and its Resources*, p. 541.

TABLE V.—*Rainy and snowy days.* From Vesseloffsky; prepared from Netzhvétov's observations. It is *new style*.

TIMES OF OPENING AND CLOSING OF NAVIGATION IN THE YUKON RIVER.

TABLE VI.—*Dates of the breaking up of the ice and of the freezing over of the Yukon River.* From Vesseloffsky, who prepared this table from Netzhvétov's notes. The dates are all *new style*.

METEOROLOGICAL OBSERVATIONS AT IKOGMUT MISSION, ALASKA.

TABLE I.

TEMPERATURE OBSERVATIONS.

Month.	8 a. m.	Noon.	4 p. m.	Mid-night.	Mean.	Max.	Min.	Range.
September 13-30, 1843.....	44.1	50.1	49.0	37.9	45.6	62.4	27.5	34.9
October, 1843.....	35.3	40.9	40.0	34.8	37.7	52.2	20.7	31.5
November, 1843.....	18.5	22.1	22.4	16.9	19.7	44.4	-17.5	61.9
December 1-4, 1843.....	-19.3	-12.3	-12.9	-11.3	-13.9	10.1	-40.0	50.1
Whole period.....	19.6	25.2	24.6	19.6	22.3	62.4	-40.0	102.4

TABLE II.

TEMPERATURE OBSERVATIONS.

Month. (<i>new style</i>).	1843.				1848-1850.			1849.			1853-1854.				
	8 a. m.	Noon.	4 p. m.	Mid-night.	6 a. m.	Noon.	6 p. m.	6 a. m.	Noon.	6 p. m.	6 a. m.	9 a. m.	Noon.	3 p. m.	7 p. m.
January.....	0	0	0	0	-0.9	2.0	-1.4	4.9	7.9	4.0	0	0	0	0	0
February.....					-14.0	-9.8	-12.2	-0.5	7.1	1.3					
March.....								-5.9	5.2	1.3	0.2	8.9	13.8	13.9	6.8
April.....								16.5	29.7	23.1	20.1	28.2	33.6	34.6	28.3
May.....								24.0	38.8	31.1	34.0	42.3	47.1	46.7	40.5
June.....								47.2	57.6	49.4	44.4	52.9	56.8	59.3	51.8
July.....								50.0	58.9	52.0					
August.....								46.2†	53.5†	49.0†					
September.....	43.4*	50.2*	49.0*	37.9*											
October.....	35.3	40.9	40.0	34.8	23.1	29.9	27.1				15.4	18.5	24.0	24.1	19.0
November.....	18.5	22.9	21.4	17.2	14.0	17.8	15.4	9.5	14.5	10.2	3.8	5.8	10.2	9.6	5.8
December.....					2.0	5.8	2.4	9.0	12.0	8.5	4.3	4.6	7.1	6.6	5.3
Year.....															

* Last 18 days.

† First 12 days.

LOCAL TABLES.

97

TABLE III.
DIRECTION OF WINDS.
1848-1854, *New style.*

Month.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm
January	2.03	11.79	5.28	4.88	2.84	3.25	5.69	9.75	54.47
February.....	12.41	29.43	10.28	3.55	2.12	9.93	4.96	10.99	16.31
March	11.17	12.77	8.51	8.24	0.53	8.24	10.37	10.90	29.25
April	6.63	20.44	14.36	2.76	0.00	3.31	1.66	11.60	39.23
May	2.15	16.13	17.20	3.76	2.42	9.95	3.23	2.15	43.01
June	5.80	5.25	3.04	8.29	2.21	12.98	9.67	9.67	43.09
July	12.90	24.20	8.07	0.00	0.00	11.29	17.74	12.90	12.90
August	4.17	8.33	8.33	0.00	29.16	20.82	0.00	12.50	16.67
September	4.54	21.82	20.00	8.18	2.73	0.91	1.82	5.45	34.55
October	4.50	9.75	18.50	4.25	1.00	4.00	1.25	10.75	46.00
November	7.14	15.24	3.57	5.71	0.24	4.29	4.53	6.43	52.86
December	6.62	12.56	10.96	7.31	2.28	8.45	4.79	6.85	40.18
Spring	6.65	16.45	13.38	4.92	0.98	7.17	5.09	8.22	37.16
Summer.....	7.62	12.59	6.48	2.76	10.46	15.03	9.14	11.69	24.22
Autumn	5.39	15.60	14.02	6.05	1.32	3.07	2.53	7.54	44.47
Winter	7.02	17.93	8.84	5.25	2.41	7.21	5.15	9.20	36.99
Year	6.67	15.64	10.68	4.74	3.79	8.12	5.48	9.16	35.71

TABLE IV.
WEATHER OBSERVATIONS.

Month.	Clear days.	Cloudy days.	Rainy or snowy days.
September 13-30, 1843	0	11	7
October, 1843	1	15	15
November, 1843	2	24	4
December 1-4, 1843	1	1	2
Whole period.	4	51	28

TABLE V.
AVERAGE NUMBER OF RAINY OR SNOWY DAYS.
1848-1854, *New style.*

Month.	No. of days.
January.....	6.2
February.....	9.3
March	10.2
April	4.5
May	12.5
June	9.5
July	1.0
August	2.5
September	13.0
October	10.3
November	6.3
December	10.0
Spring	27.2
Summer	13.0
Autumn	29.6
Winter	25.5
Year	95.1

TABLE VI.

DATES OF THE BREAKING UP OF THE ICE AND THE
FREEZING OVER OF THE YUKON RIVER.

Year.	Ice breaks up.	River freezes over.
1845.....	.....	Nov. 9.
1846.....	May 18	Oct. 30.
1847.....	May 25	
1848.....	May 17	Nov. 10.
1849.....	June 5	
1850.....	May 17	
1852.....	May 30	
1853.....	May 15	Oct. 30.
1854.....	May 26	Nov. 5.
1855.....	May 27	
1866.....	May 21	
1867.....	May 21	
1868.....	May 28	
Means.....	May 23	Nov. 4.

ST. MICHAELS, NORTON SOUND, ALASKA TERRITORY.

Lat. $63^{\circ} 24' 00''$ N. Long. $161^{\circ} 48'$ W. of Gr.

Height of station above the level of the sea about 30 feet. The elevation of the cistern of the barometer above the sea-level for the 1865-'66 observations was 30 feet; for the 1869 observations 30 feet; for the observations from July, 1874, to September 29, 1875, 23 feet $10\frac{1}{2}$ inches, and thenceforward to the end of the series 30 feet.

Sources of information: ZAGOSKIN'S Travels; MS. meteorological register in the archives of the Smithsonian Institution, kept by HENRY M. BANNISTER; RAYMOND (CHAS. W.), Report of a reconnaissance of the Yukon River, Alaska Territory. 8°. Washington, 1871; MS. meteorological register in hand, kept by Capt. F. RIEDELL in 1872 and 1873; SIGNAL OFFICE REPORTS.

BAROMETRICAL OBSERVATIONS.

TABLE I.—*Barometer*. From *Bannister*. Period, eleven months, October, 1865, to August, 1866. Instrument, Green's standard barometer, reduced to 32° F. but not to sea-level. Observing hours, 7 a. m., 2 and 9 p. m. Mean = $\frac{1}{3} (7_a + 2_p + 9_p)$.

TABLE II.—*Barometer*. From *Raymond*. Period, 85 days, July 3 to September 25, 1869. Instrument, Green's standard barometer, No. 1613, corrected for instrumental error and reduced to 32° F. but not to sea-level. Observing hours, 9 a. m., noon, 3 and 9 p. m. Mean = $\frac{1}{4} (9_a + 12_m + 3_p + 9_p)$.

TABLE III.—*Barometer*. 1865-'66 from *Bannister*; 1869 from *Raymond*, and 1874-1877 from *Signal Office Reports*. Period, four years and two months, 1865-1877. This table embodies, in condensed form, the results of all the barometrical observations found for the station. The results for 1865-'66 and 1869 are from Tables I and II, without change. The observations of 1874-'77 are due to the Signal Service, are made with a standard instrument, and are reduced to 32° F. and also to sea-level. The mean barometer for July, 1874, to June, 1876, as published in the Report of the Chief Signal Officer for 1876, p. 76, is reduced to sea-level, but the columns max. and min. are *not* so reduced. In the present table, however, all the Signal-Service observations are reduced to sea-level. The arguments for this reduction are given above. Observing hours, 7 a. m., 2 and 9 p. m. Mean = $\frac{1}{4} (7_a + 2_p + 9_p + 9_p)$.

The results in the synoptical table are all reduced to sea-level.

THERMOMETRICAL OBSERVATIONS.

TABLE IV.—*Temperature of the air.* From *Zagoskin*. Period, about five months, July 25, 1842, to January 12, 1843, except August 14–23, 1842; *new style*. Observing hours, 8 a. m., noon, 4 p. m., and midnight. Mean = $\frac{1}{4}(8_a + 12_m + 4_p + 12_{mi})$.

TABLE V.—*Temperature of the air.* From *Bannister*. Period, *eleven* months, October, 1865, to August, 1866. Standard thermometer, three observations per day, at 7 a. m., 2 and 9 p. m. Mean = $\frac{1}{3}(7_a + 2_p + 9_p)$. The *max.* and *min.* are observed.

TABLE VI.—*Mean thermometer, wet and dry bulb.* From *Raymond*. Period, about three months. Observations, four times per day, 9 a. m., noon, 3 and 9 p. m., with Green's standard thermometer. Mean = $\frac{1}{4}(9_a + 12_m + 3_p + 9_p)$. The *max.* and *min.* are observed.

TABLE VII.—*Temperature of the air.* From *Riedell*. Period, about ten and one-half months, July 2 to September 12, 1872, and October 20, 1872, to June 17, 1873, with slight irregularities. Observations with a minimum thermometer. Observing hours somewhat irregular; usually about four observations per day were made in addition to the record of the minimum during the night. The column *max.* is observed, and the column *min.* due to the minimum thermometer. The column "*all*" is from the formula $\frac{1}{4}(8_a + 12_m + 4_p)$ except for April, May, and June, when the observing hours were 6 a. m., noon, and 8 p. m., and the corresponding mean = $\frac{1}{4}(6_a + 12_m + 8_p)$.

TABLE VIII.—*Temperature of the air.* 1842–'43 from *Zagoskin*, 1865–'66 from *Bannister*, 1869 from *Raymond*, 1872–'73 from *Riedell*, and 1874–1877 from *Signal Office Reports*. Period covered by this table is nearly five and one-half years, 1842–1877. This table embodies, in condensed form, the results of all the air temperatures found for this locality. The results from *Zagoskin* 1842–'43, from *Bannister* 1865–'66, from *Raymond* 1869, and from *Riedell* 1872–'73, are incorporated from Tables IV, V, VI, and VII, respectively, without change. The results for 1874–1877 were obtained with the standard instruments and by the methods of the Signal Service. Observing hours, 7 a. m., 2 and 9 p. m. Mean = $\frac{1}{4}(7_a + 2_p + 9_p + 9_p)$. The *max.* and *min.* are from *max.* and *min.* thermometers, except the maxima from November 22, 1876, to the end of the series, which are observed, the *max.* thermometer having been broken on the day above written.

In deducing the results for the mean temperature of the air in the synoptical table all the observations are used as they stand, except the observations of 1842–'43, which are rejected.

TABLE IX.—*Temperature of surface sea-water.* From *Riedell*. The observations from which this table has been prepared are fragmentary. The observations in July extend, irregularly and with interruptions, from the 11th to the end of the month, and comprise a total of 52 observations. Observations were made in like manner during the entire month of August, and comprise a total of 42 observations. In September observations were made during the first 8 days only, and comprise a total of 13 observations. These observations were made in connection with tidal observations.

PRECIPITATION.

TABLE X.—*Rain and melted snow fall.* From *Signal Office Reports*. Period three years.

WINDS.

TABLE XI.—*Direction of winds.* From *Bannister*. Period eleven months, October, 1865, to August, 1866, both inclusive. Three observations per day. Directions are true. Results expressed in percentages. Whole number of observations, 1,002.

TABLE XII.—*Direction of winds.* From *Raymond*. Period about three months. The table expressed in percentages; the prevailing winds for the day. Whole number of days, 84. Whether true or magnetic directions are meant is not stated.

TABLE XIII.—*Direction of winds.* From *Riedell*. Period about ten and one-half months, July, 1872, to June, 1873. Usually about four observations per day. The table expresses in percentages the daily prevailing winds. Whether true or magnetic directions are used is not stated. Whole number of days used in making up the table is 309.

TABLE XIV.—*Direction of winds.* From *Signal Service Reports*. Period three years, July, 1874, to June, 1877, inclusive. Seven observations per day. In all 7,596 observations. Directions are true and *from* which the wind was observed blowing.

TABLE XV.—*Force of winds.* From *Bannister*. Period, &c., as in Table XI. The force was estimated and recorded according to the scale at the head of the columns. Results in percentages. Whole number of observations, 824.

TABLE XVI.—*Force of winds.* From *Raymond*. Period, &c., as in Table XII. Results in percentages. The force was estimated according to the scale at the head of the columns.

TABLE XVII.—*Force of winds.* From *Riedell*. Period as in Table XIII. One observation per day for 259 days. Results in percentages. The force was estimated. The numbers at the head of the columns, 1-7, are the observer's numbers, and headings under them the interpretation which they have received.

TABLE XVIII.—*Prevailing direction and velocity.* From *Signal Office Reports*. Period covered by the table three years, July, 1874, to June, 1877. The max. velocity per hour is not published, and neither is the mean velocity after April, 1876.

WEATHER OBSERVATIONS.

TABLE XIX.—*Weather observations.* Sources and period as in Table VIII. This table embodies in condensed form the results of all the weather observations for this station. Each day of the month is set down as "*clear*," "*fair*," or "*cloudy*"; and when the sum of these three does not equal the number of days in the month it is due to a break in the record. This remark applies to the whole table except 1842-'43.

AURORAS.

TABLE XX.—*Auroras.* From *Bannister*. Period eleven months, October, 1865, to August, 1866, both inclusive. Whole number of auroras observed, 36. The directions are magnetic. To this table are appended the observer's notes.

TABLE XXI.—*Number of auroras.* Period, 3 years and eleven months; 1865 and 1866 from *Bannister*, and 1874-1877 from *Signal Service Reports*.

In addition to the material here used, the *Signal Office Report* for 1876, pp. 77-78, contains a series of miscellaneous meteorological material of importance. It comprises notes on auroras, meteors, lightning and thunder, arrival and departure of birds, &c.

METEOROLOGICAL OBSERVATIONS AT ST. MICHAELS, NORTON SOUND.

TABLE I.

ATMOSPHERIC PRESSURE.

Barometrical observations reduced to 32° F.

Month.	7 a. m.	2 p. m.	9 p. m.	Mean.	Max.	Min.	Range.
January, 1866	30.087	30.087	30.081	30.085	30.641	29.404	1.237
February, 1866	29.895	29.903	29.914	29.904	30.807	28.921	1.886
March, 1866	29.977	29.963	29.958	29.966	30.581	29.113	1.468
April, 1866	29.724	27.711	29.721	29.719	30.309	29.222	1.087
May, 1866	29.778	29.753	29.771	29.767	30.227	29.356	0.871
June, 1866	29.772	29.777	29.784	29.790	30.299	29.343	0.956
July, 1866	29.868	29.869	29.880	29.872	30.170	29.388	0.782
August, 1866	29.778	29.786	29.763	29.784	30.150	29.462	0.688
October, 1865	29.561	29.553	29.547	29.554	30.131	28.993	1.138
November, 1865	29.771	29.772	29.784	29.776	30.353	29.243	1.116
December, 1865	29.806	29.803	29.813	29.807	30.570	28.770	1.800
Whole period	29.822	29.816	29.819	29.819	30.807	28.770	2.037

TABLE II.

ATMOSPHERIC PRESSURE.

Barometrical observations reduced to 32° F.

Month.	9 a. m.	Noon.	3 p. m.	9 p. m.	All.
	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>
July, 1869	29.855	29.851	29.841	29.852	29.850
August, 1869 .....	.715	.722	.722	.711	.717
September, 1869 .....	.684	.688	.677	.671	.680
Whole period	29.754	29.756	29.750	29.753	29.753

TABLE III.

ATMOSPHERIC PRESSURE.

Barometrical observations reduced to 32° F.

Month.	1865-'69.				1866.				1874.			
	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.
January					30.085	30.641	29.404	1.237				
February					29.904	30.807	28.921	1.886				
March					29.966	30.581	29.113	1.468				
April					29.719	30.309	29.222	1.087				
May					29.767	30.227	29.356	0.871				
June					29.790	30.299	29.343	0.956				
July	29.850	30.230	29.479	0.751	29.872	30.170	29.388	0.782	29.902	30.308	29.453	0.855
August	29.717	30.262	29.387	0.875	29.784	30.150	29.462	0.688	29.964	30.462	29.402	1.060
September	29.680	29.990	29.233	0.757					29.764	30.128	29.359	0.769
October	29.554	30.131	28.993	1.138					29.639	30.338	29.053	1.285
November	29.776	30.353	29.243	1.116					29.775	30.879	29.112	1.767
December	29.807	30.570	28.770	1.800					29.583	30.607	29.042	1.565
Year					*29.809	*30.807	*28.770	*2.037				

Month.	1875.				1876.				1877.			
	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.
January	30.029	30.826	28.902	1.924	29.814	30.616	29.052	1.564	29.908	30.427	29.211	1.216
February	29.753	30.291	29.296	0.995	30.207	30.723	29.375	1.348	30.103	30.625	29.371	1.254
March	29.954	30.730	29.085	1.645	30.145	30.632	29.392	1.240	29.880	30.179	29.290	0.889
April	30.117	30.672	29.458	1.214	29.899	30.400	29.369	1.031	29.704	30.145	29.022	1.123
May	29.694	30.316	29.254	1.062	29.669	30.126	28.808	1.318	29.584	29.992	29.078	0.914
June	29.815	30.395	29.409	0.986	29.763	30.043	29.453	0.590	29.821	30.305	29.456	0.849
July	29.924	30.339	29.672	0.667	29.808	30.295	29.219	1.076				
August	29.717	30.139	29.328	0.811	29.821	30.150	29.196	0.954				
September	29.719	30.316	29.431	0.885	29.675	30.285	28.700	1.585				
October	29.694	30.617	28.896	1.721	29.665	30.323	28.722	1.601				
November	30.281	31.032	29.433	1.599	30.145	30.632	29.495	1.137				
December	29.966	30.497	29.045	1.452	29.749	30.494	28.941	1.553				
Year	29.889	31.032	28.896	2.136	29.864	30.689	28.700	1.989	†29.802	†30.852	†29.015	†1.837

* By combining 1865, 1866, and 1869.

† By combining 1874 and 1877.

TABLE IV.
TEMPERATURE OBSERVATIONS.

Month. (New style.)	8 a. m.	Noon.	4 p. m.	Mid- night.	Mean.	Max.	Min.	Range.
January 1-12, 1843.....	° - 7.1	° - 1.2	° - 6.0	° - 6.2	° - 5.1	° 28.6	° -35.5	° 64.1
July 25-31, 1842.....	56.6	60.0	59.4	52.2	57.1	67.4	47.7	19.7
August 1-13 and 24-31, 1842.....	52.6	57.8	53.9	46.8	52.8	67.4	43.8	23.6
September, 1842.....	46.0	53.9	48.9	40.9	47.4	65.2	30.9	34.3
October, 1842.....	31.3	37.1	33.5	31.2	33.2	52.2	16.2	36.0
November, 1842.....	21.0	25.4	21.3	21.7	22.3	44.4	- 2.9	47.3
December, 1842.....	- 0.6	3.0	1.1	1.6	0.7	30.9	-24.2	55.1
Whole period.....	28.5	33.7	30.3	26.9	29.8	67.4	-35.5	102.9

TABLE V.
TEMPERATURE OBSERVATIONS.

Month.	7 a. m.	2 p. m.	9 p. m.	Mean.	Max.	Min.	Range.
January, 1866.....	° - 3.1	° 2.2	° - 2.6	° - 1.2	° 32	° -35	° 67
February, 1866.....	20.7	23.9	21.6	21.8	39	- 1	40
March, 1866.....	17.4	25.6	18.6	20.5	44	-35	47.5
April, 1866.....	23.9	31.0	33.8	26.2	44	6	38
May, 1866.....	38.9	43.3	37.6	39.9	55	27	28
June, 1866.....	51.1	54.5	47.7	51.1	64	42	22
July, 1866.....	52.1	55.4	50.6	52.7	62	40	22
August, 1866.....	53.6	58.0	53.2	54.9	69	46	23
October, 1865.....	31.5	36.7	32.3	33.4	47	20	27
November, 1865.....	3.4	9.2	4.1	5.6	26	-19	45
December, 1865.....	1.0	3.7	1.1	2.0	35	-31	66
Whole period.....	26.4	31.1	26.2	27.9	69	-35	104

TABLE VI.
THERMOMETRICAL OBSERVATIONS.

Month.	Dry bulb.								Wet bulb.							
	9 a. m.	Noon.	3 p. m.	9 p. m.	All.	Max.	Min.	Range.	9 a. m.	Noon.	3 p. m.	9 p. m.	All.	Max.	Min.	Range.
July, 1869.....	° 56.9	° 59.9	° 60.9	° 54.4	° 58.0	° 78.0	° 44.5	° 33.5	° 49.5	° 51.7	° 53.1	° 47.9	° 50.5	° 60.0	° 40.4	° 19.6
August, 1869.....	56.6	60.9	60.8	55.1	58.3	79.1	45.0	34.1	51.3	54.9	55.3	50.9	53.1	66.5	42.0	24.5
September, 1869.....	50.3	53.4	52.8	49.6	51.6	60.3	44.0	16.3	45.2	47.8	47.2	44.8	46.3	53.5	39.0	14.5
Whole period.....	54.9	58.4	58.5	53.4	56.4	79.1	44.0	35.1	49.0	51.8	52.1	48.2	50.3	66.5	39.0	27.5

TABLE VII.
TEMPERATURE OBSERVATIONS.

Month.	8 a. m.	Noon.	4 p. m.	All.	Min. during night.	Max.	Min.	Range.
January, 1873.....	-11.4	-8.4	-9.7	-9.9	-15.9	31	-37.5	68.5
February, 1873.....	-2.3	+0.6	-1.6	-1.1	-7.3	31	-36.5	67.5
March, 1873.....	-6.9	-0.4	-2.1	-3.1	-15.7	29	-28	57
April, 1873.....	14.3*	25.4	21.5*	20.4	14.0	40	-22	62
May, 1873.....	28.1*	35.1	31.8*	31.6	25.3	46	8	38
June, 1873†.....	34.3*	41.8	35.6*	37.3	31.0	49	28	21
July, 1873.....	56.1	57.3	56.5	56.6	48.7	69	43	26
August, 1872.....	53.0	55.6	55.1	54.6	48.2	64	40	24
September, 1872‡.....	40.5	45.1	42.5	43.2	37.9	56	31.5	24.5
October, 1872‡.....					14.7		9	
November, 1872.....	23.1	25.6	25.8	25.0	20.2	35	2	33
December, 1872.....	8.7	13.8	13.0	12.2	7.3	38	-15	53
Whole period.....	17.9	23.1	20.7	20.6	15.6	69	-37.5	106.5

* During April, May, and June the observing hours were 6 a. m., noon, and 8 p. m.

† From June 1 to June 17 only.

‡ There is a break in the record, extending from September 13 to October 19, inclusive.

TABLE VIII.
TEMPERATURE OBSERVATIONS.

Month.	1842-1843.				1865-1866.				1869.				1872.			
	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.
January.....	-5.1	28.6	-35.5	64.1	-1.2	32	-35	67								
February.....					21.8	39	-1	40								
March.....					20.5	44	-3.5	47.5								
April.....					26.2	44	6	38								
May.....					39.9	55	27	28								
June.....					51.1	64	42	22								
July.....	57.1	67.4	47.7	19.7	52.7	62	40	22	58.0	78	44.5	33.5	56.6	69	43	26
August.....	52.8	67.4	43.8	23.6	54.9	69	46	23	58.3	79.1	45.0	34.1	54.6	64	40	24
September.....	47.4	65.2	30.9	34.3					51.6	60.3	44.0	16.3	43.2	56	31.5	24.5
October.....	33.2	52.2	16.2	36.0	33.4	47	20	27							9	
November.....	22.3	44.4	-2.9	47.3	5.6	26	-19	45					25.0	35	2	33
December.....	0.7	30.9	-24.2	55.1	2.0	35	-31	66					12.2	38	-15	53
Year.....					29.9*	69*	-35*	104*								

Month.	1873-74.				1875.				1876.				1877.			
	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.
January.....	-9.9	31	-37.5	68.5	17.1	35	-37	72	8.9	34	-28	62	1.6	41	-39	80
February.....	-1.1	31	-36.5	67.5	20.4	38	-25	63	-9.3	17	-40	57	23.8	12	-50	62
March.....	-3.1	29	-28	57	0.6	30	-36	66	7.0	34	-28.5	62.5	12.7	38	-16	54
April.....	20.4	40	-22	62	12.4	39	-23	62	15.7	41	-17	58	28.8	43	-3	46
May.....	31.6	46	8	38	30.5	42	15	27	32.9	47	7	40	37.4	57	16	41
June.....	37.3	49	28	21	44.8	64	29	35	47.4	67	32	35	52.2	70	36	34
July.....	52.7	70	38	32	55.4	70	39	31	52.7	68	39	29				
August.....	53.0	67	39	28	50.7	64	28	26	49.2	64	34	30				
September.....	42.9	56	23	33	45.5	56	30	20	44.4	59	31	28				
October.....	28.4	45	13	32	35.4	54	17	37	30.3	43	8	35				
November.....	20.3	42	1	41	8.0	24	-17	41	6.9	36	-24	60				
December.....	16.9	38	-9	47	-0.7	29	-32	61	3.4	36	-25	61				
Year.....	24.1†	70†	-37.5†	107.5†	26.7	70	-37	107	24.1	68	-40	108				

* By combining 1865, 1866, and 1869.

† By combining 1873 and 1874.

LOCAL TABLES.

TABLE IX.
SEA TEMPERATURES.

Month.	Surface sea-water.			
	Mean.	Max.	Min.	Range.
July, 1872	56.0	60.0	52.5	7.5
August, 1872	56.1	62	51	11.0
September, 1872	49.6	53	42	11.0

TABLE X.
RAIN AND SNOW FALL.

Month.	Rain and melted snow fall, in inches.			
	1874.	1875.	1876.	1877.
January		0.28	0.33	0.93
February		0.09	(*)	(*)
March		(*)	(*)	0.27
April		0.03	1.58	0.42
* May		0.31	(†)	0.39
June		0.67	1.46	1.08
July	1.18	1.45	1.81	
August	2.07	2.21	3.13	
September	0.79	2.00	3.24	
October	2.06	0.22	1.67	
November	0.78	0.20	0.33	
December	2.03	0.57	0.10	
Year		8.03	13.65	‡12.00

* Snow drifted too much to measure.

† Observer injured by an accident.

‡ By combining 1874 and 1877.

TABLE XI.
DIRECTION OF WINDS.

Month.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.
January, 1866	20.43	18.28	1.07	6.45	13.98	3.22	3.23	5.38	27.96
February, 1866	11.91	7.14	7.14	4.76	25.00	14.29	0.00	0.00	29.76
March, 1866	31.18	20.43	5.38	1.08	8.60	6.45	0.00	7.53	19.35
April, 1866	37.08	13.48	6.74	3.37	14.61	3.37	8.99	1.12	11.24
May, 1866	51.61	4.30	2.15	3.22	9.68	5.38	4.30	3.23	16.13
June, 1866	33.71	2.25	3.37	0.00	23.59	15.73	11.24	4.49	5.62
July, 1866	9.68	3.22	4.30	4.30	41.94	16.13	9.68	4.30	6.45
August, 1866	32.61	6.52	10.87	4.35	13.04	13.04	11.96	3.26	4.35
October, 1865	36.56	20.43	8.60	5.37	11.83	0.00	1.08	5.38	10.75
November, 1865	31.11	24.45	0.00	0.00	2.22	13.33	1.11	4.45	23.33
December, 1865	21.51	11.83	0.00	26.88	4.30	10.75	0.00	1.07	23.66
Whole period	28.94	12.08	4.49	5.49	15.27	9.18	4.69	3.69	16.17

TABLE XII.
DIRECTION OF WINDS.

Month.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Variable.
July, 1869.....	13.79	3.45	13.79	6.90	20.69	10.35	3.45	13.79	13.79
August, 1869.....	19.35	16.13	9.68	16.13	6.45	22.58	0.00	3.23	6.45
September, 1869.....	16.67	20.83	16.67	4.17	20.83	8.33	0.00	0.00	12.50
Whole period.....	16.67	13.09	13.10	9.52	15.48	14.29	1.19	5.95	10.71

TABLE XIII.
DIRECTION OF WINDS.

Month.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.
January, 1873.....	19.35	16.13	3.23	0.00	16.13	0.00	0.00	0.00	45.16
February, 1873.....	25.00	25.00	7.14	3.57	25.00	0.00	0.00	0.00	14.29
March, 1873.....	35.48	3.22	3.23	6.45	12.90	0.00	0.00	3.23	35.49
April, 1873.....	43.33	20.00	0.00	10.00	16.67	0.00	3.33	0.00	6.67
May, 1873.....	54.84	22.58	3.22	3.23	0.00	3.22	3.23	3.23	6.45
June, 1873*.....	35.29	0.00	5.88	0.00	35.30	5.88	11.76	5.89	0.00
July, 1872.....	17.86	14.29	21.43	14.28	10.71	14.29	3.57	0.00	3.57
August, 1872.....	13.33	10.00	6.67	0.00	40.00	13.33	6.67	6.67	3.33
September, 1872*.....	18.18	27.27	9.09	0.00	9.09	9.09	0.00	27.27	0.00
October, 1872*.....	33.33	58.33	0.00	0.00	0.00	0.00	0.00	0.00	8.33
November, 1872.....	3.45	24.14	10.34	3.45	27.59	6.89	0.00	0.00	24.14
December, 1872.....	16.13	22.26	12.90	3.23	12.90	0.00	3.23	0.00	19.35
Year.....	26.21	19.42	7.12	4.21	17.80	4.21	2.59	2.59	15.86

* For part of these months only.

TABLE XIV.
DIRECTION OF WINDS.
1874-1877.

Month.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.
January.....	11.85	22.31	7.08	6.46	26.31	6.92	2.31	6.61	10.15
February.....	17.60	33.27	6.10	2.96	8.01	0.87	1.57	8.71	20.91
March.....	25.31	14.72	8.90	1.38	6.44	11.50	7.52	12.27	11.96
April.....	17.78	23.81	5.71	3.33	11.43	15.87	4.13	13.49	4.44
May.....	20.65	22.46	5.41	3.94	10.49	16.56	6.89	12.46	1.15
June.....	23.14	19.01	6.12	11.24	8.76	15.21	6.45	8.10	1.98
July.....	16.63	12.77	5.38	12.62	25.69	9.69	4.46	10.61	2.15
August.....	16.09	19.53	6.88	8.75	17.19	12.50	7.19	9.84	2.03
September.....	15.52	18.57	6.70	12.79	14.00	12.63	9.74	6.70	3.35
October.....	19.54	31.54	6.46	5.54	16.46	3.85	3.69	10.31	2.61
November.....	15.36	31.68	6.24	9.44	10.08	8.16	2.56	4.00	12.48
December.....	11.18	28.94	3.98	6.89	14.85	11.03	3.22	11.95	7.96
Spring.....	21.30	20.24	6.71	2.85	9.41	14.59	6.18	12.74	5.97
Summer.....	18.52	17.04	6.12	10.87	17.41	12.40	6.02	9.55	2.06
Autumn.....	16.82	27.17	6.47	9.27	13.56	8.23	5.38	7.04	6.06
Winter.....	13.37	27.97	5.70	5.54	16.73	6.50	2.40	9.11	12.68
Year.....	17.51	23.12	6.25	7.15	14.27	10.43	5.00	9.60	6.67

LOCAL TABLES.

TABLE XV.

FORCE OF WINDS.

Month.	Hardly perceptible.	Just perceptible.	Gentle breeze.	Pleasant brisk gale.	Very brisk.	High wind.	Very high.	Storm or tempest.	Great storm.
January, 1866	26.87	26.87	26.86	10.45	4.48	2.98	1.49	0.00	0.00
February, 1866	10.17	11.87	30.51	15.26	3.39	18.64	5.08	1.69	3.39
March, 1866	16.22	18.92	37.84	6.76	14.86	5.40	0.00	0.00	0.00
April, 1866	5.00	17.50	42.50	12.50	5.00	11.25	5.00	1.25	0.00
May, 1866	11.69	12.99	46.75	12.99	6.50	5.19	1.30	2.60	0.00
June, 1866	17.86	5.95	52.38	9.52	5.95	8.33	0.00	0.00	0.00
July, 1866	9.19	6.90	31.03	21.84	12.64	12.64	4.60	1.15	0.00
August, 1866	11.24	20.22	43.82	11.24	8.99	3.37	1.12	0.00	0.00
October, 1865	8.96	13.43	16.42	26.87	11.94	11.94	7.46	2.98	0.00
November, 1865	10.14	15.94	27.54	11.59	11.59	21.74	1.45	0.00	0.00
December, 1865	23.94	16.90	16.90	21.13	9.86	7.04	2.82	0.00	1.41
Whole period	13.59	15.05	34.71	14.44	8.74	9.59	2.67	0.85	0.36

TABLE XVI.

FORCE OF WINDS.

Month.	0, calm.	1, very light.	2, light.	3, moderate.	4, fresh.	5, strong.	6, very strong.	7, gale.	8, violent gale.
July, 1869	0.00	3.45	10.35	34.48	31.03	10.35	10.34	0.00	0.00
August, 1869	0.00	6.45	22.58	16.13	32.26	16.13	3.23	3.22	0.00
September, 1869	0.00	8.33	16.67	41.67	16.67	8.33	8.33	0.00	0.00
Whole period	0.00	5.95	16.67	29.76	27.38	11.90	7.14	1.19	0.00

TABLE XVII.

FORCE OF WINDS.

Month.	1, very light.	2, light.	3, moderate.	4, fresh.	5, strong.	6, very strong.	7, gale.
January, 1873	11.76	47.06	17.65	5.88	17.65	0.00	0.00
February, 1873	20.83	20.83	20.83	16.67	12.50	4.17	4.17
March, 1873	35.00	30.00	15.00	5.00	15.00	0.00	0.00
April, 1873	7.14	39.29	14.29	7.14	25.00	7.14	0.00
May, 1873	50.00	28.57	14.29	3.57	3.57	0.00	0.00
June, 1873*	29.41	58.82	0.00	5.88	5.89	0.00	0.00
July, 1872	3.70	37.04	37.04	14.82	7.40	0.00	0.00
August, 1872	10.35	34.48	13.79	24.14	13.79	3.45	0.00
September, 1872*	18.18	27.27	0.00	27.27	18.18	9.09	0.00
October, 1872*	18.18	18.18	18.18	18.18	0.00	27.27	0.00
November, 1872	13.64	22.72	27.27	18.18	9.09	4.55	4.55
December, 1872	28.00	8.00	32.00	4.00	20.00	8.00	0.00
Year	20.46	30.89	18.92	11.97	12.74	4.25	0.77

* Observations incomplete.

TABLE XVIII.
WIND OBSERVATIONS.

Month.	1874.		1875.		1876.		1877.	
	Prevail- ing wind.	Mean hourly velocity.	Prevail- ing wind.	Mean hourly velocity.	Prevail- ing wind.	Mean hourly velocity.	Prevail- ing wind.	Mean hourly velocity.
January			NE.	21.2	S.	21.9	S.	
February			NE.	24.3	Calm, NE.	10.6	N.	
March			NE.	24.7	N.	15.3	NE.	
April			NE.	16.6	NE.	11.8	NE.	
May			NE.	18.5	NE.		NE.	
June			NE.	18.6	N.		N.	
July	S.	13.0	N.	19.4	S.			
August	NE.	12.1	SW.	19.9	N.			
September	NE.	13.2	NE.	17.4	S.			
October	NE.	15.9	NE.	22.2	N.			
November	NE.	17.0	NE.	11.0	N.			
December	NE.	19.1	SW.	12.9	NE.			
Year			NE.	18.9	N. to NE.			

TABLE XIX.
WEATHER OBSERVATIONS.

Month.	1842-1843.			1865-1866.					1869.					1872-1873.				
	Clear.	Cloudy.	Rainy or snowy.	Clear.	Half clear.	Cloudy.	Rainy.	Snowy.	Clear.	Half clear.	Cloudy.	Rainy.	Snowy.	Clear.	Half clear.	Cloudy.	Rainy.	Snowy.
January	4	7	1	16	6	9	0	7						20	5	6	0	4
February				4	11	13	4	6						16	8	10	0	7
March				10	13	8	1	8						20	7	4	0	3
April				5	16	9	1	10						7	8	15	0	13
May				7	11	13	4	3						2	20	9	1	5
June				5	10	15	8	0						1	2	14	3	2
July	0	1	5	0	4	27	20	0	4	7	18	11	0	1	17	10	11	0
August	1	11	10	4	15	12	7	0	0	8	23	12	0	1	6	23	15	0
September	5	21	4						1	11	12	6	0	1	2	8	5	2
October	4	15	12	4	9	18	1	13						0	2	5	0	4
November	3	22	6	13	12	5	0	6						1	13	16	4	2
December	8	14	9	12	12	7	1	11						6	14	8	1	3
Year	[25]	[91]	[47]	136	119	80	47	64	[5]	[26]	[53]	[29]	[0]	70	104	128	40	45

Month.	1874.				1875.				1876.				1877.			
	Clear.	Fair.	Cloudy.	Rainy or snowy.	Clear.	Fair.	Cloudy.	Rainy or snowy.	Clear.	Fair.	Cloudy.	Rainy or snowy.	Clear.	Fair.	Cloudy.	Rainy or snowy.
January								3	6	10	15	5	4	9	18	10
February								11	20	3	6	1	19	3	6	4
March								7	8	8	15	7	12	11	8	3
April								2	8	9	13	7	5	10	15	8
May								7	1	7	15	3	0	11	20	8
June								6	1	10	19	6	3	17	10	4
July				11				9	3	5	23	10				
August				13				14	3	9	19	15				
September				4				11	0	3	27	17				
October				9				7	1	3	27	12				
November				4	7	10	12	3	12	3	15	9				
December				8	9	8	14	2	2	8	21	8				
Year								82	65	78	216	100				

TABLE XX.

AURORAS.

No.	Date.	Hour.	Character of aurora.	Temp.	Direction of wind.	Force of wind.
1	January 15, 1866	9 p. m.	Single arch			
2	January 20, 1866	Between 8 and 9 p. m. and at midnight	Very brilliant	+10	NE.	4
3	February 4, 1866	9 p. m.	Faint	- 1		Calm.
4	February 5, 1866	"Evening"	Faint	0		Calm.
5	February 6, 1866	Between 9 and 10 p. m.	Fine display; partly obscured by clouds	+14	SW.	2
6	February 11, 1866	8 p. m. and later	Bright	14		Calm.
7	March 5, 1866	Between 8 and 9 p. m.	Moderate display	11		Calm.
8	March 6, 1866	9 p. m. and later	Brilliant display	18		Calm.
9	March 7, 1866	Between 8 and 9 p. m.	Moderate display	18	NE.	2
10	March 8, 1866	"Evening," 8 p. m.	Very fine	12		Calm.
11	March 9, 1866	"Evening," 8 p. m.	Very fine	+18	ENE.	3
12	March 12, 1866	9 p. m. and later	Moderate	- 3½	SW.	3
13	March 13, 1866	"Evening"	Faint arch		NE.	6
14	March 20, 1866	9 p. m. and later	Faint	+22	N.	5
15	March 21, 1866	9 p. m. and later	Bright	17		Calm.
16	March 22, 1866	"Evening"	Bright	15	N.	5
17	April 1, 1866	9 p. m.	Faint	6		Calm.
18	April 3, 1866	9 p. m.	Very fine	20	SW.	2
19	April 5, 1866	9 p. m.	Faint	15	N.	4
20	April 6, 1866	"Evening"	Bright and very fine	17	NE.	3
21	April 7, 1866	9 30 p. m.	Moderately bright	17		Calm.
22	April 9, 1866	9 30 p. m.	Very faint	19	N.	3
23	August 23, 1866	9 30 p. m.	Very brilliant	56	E.	3
24	October 4, 1865	9 p. m.	Fine arch and streamers	36	N.	3
25	October 5, 1865	"Evening"	Faint arch	28	N.	3
26	October 9, 1865	8 to 9 p. m.	Fine aurora	33	NE.	4
27	October 20, 1865	11 to 12 p. m.*	Aurora			
28	October 27, 1865	Between 8 and 9 p. m.	Fine aurora	31		Calm.
29	October 31, 1865	8 to 10 p. m.	Fine aurora	28	N. by E.	6
30	November 8, 1865	"Evening"	Fine aurora	3	NE.	4
31	November 11, 1865	8 to 9 p. m.	Very fine	- 1	N.	5
32	November 14, 1865	4 a. m.	Faint arch			Calm.
33	November 15, 1865	8 p. m.	Very fine	- 1		Calm.
34	November 22, 1865	Evening	Faint	- 1	N.	6
35	December 7, 1865	9 p. m.	Moderate display	-23		Calm.
36	December 28, 1865	Between 8 and 9 p. m.†		-15	SE.	3

* Reported by watchman.

† Observed by Mr. Bean.

NOTES BY H. M. BANNISTER, GIVING DESCRIPTIONS OF THE AURORAS CONTAINED IN THE FOREGOING TABLE.

No. 2. Arch from NW. to NE. or ENE. with dark segment. Arch doubling inwards in the NE. Just south of the zenith was a faint bow of light from E. to W. Its elevation was 60° or 70°; that of the northern arch was 30° or 35°. At 9 o'clock there were three distinct arches in the N., and at midnight the watchmen and others reported a very brilliant display, accompanied by a hissing noise.

No. 3. Arch from NE. to NW.; faint.

No. 4. Incomplete arch; bright only in the N. and NNE.

No. 5. Band of light from N. to E., or nearly E.; highest in the E. Above the streamers radiated nearly to the zenith, moving northward and there fading out. None appeared to the W. of N. The clouds hid the whole before 10 o'clock.

No. 7. Arch with dark segment from NE. to NW. Elevation 15° or 20°.

No. 8. Two or three incomplete arches in the N. and another faint one crossing the sky just south of the zenith. Diffuse light near the southern horizon. The whole soon faded away, and while doing so a bright red streamer appeared in the NE. which lasted for some time after the remainder had disappeared.

No. 9. Faint and ill defined arch at 8 p. m. At 9 one from NE. to NW. moderately bright.

No. 10. At 7.45 a fan-shaped light in E. which soon lengthened toward the west, passing a little beyond the zenith. This faded out as the arch reappeared in the north. The arch continued in the north, sometimes single, sometimes double. At 10 o'clock there were four in the northern sky, none complete, but all quite bright in places. Afterwards there were but two. The dark segment always appeared under the lowest arch.

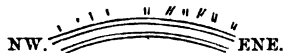
No. 11. A little before 8 o'clock one bright bow in the north and two faint ones. At 9 the arch was higher and brighter, stretching from WNW. to NE., where it broke off abruptly and streamers commenced. These were seen from NE. to E. quite bright, reaching nearly to the zenith. They moved westward over the arch, fading as they went. All had disappeared by 9.30 p. m. The dark segment appeared under the arch.

No. 12. Arch from NE. to NW. with dark segment.

No. 14. Auroral light in the N. showing between the clouds.

No. 15. Double arch from NE. to NW. Elevation 6° or 8°. Not very bright; no dark segment.

No. 16. At 7.45 a double arch NE. to NW.; the lower one not very bright, the upper one bright in places. Not darker below. At 9 o'clock the aurora appeared thus:



The streamers were very faint.

No. 17. Two faint arches with dark segment under the lower, NE. to NW. Streamers (short) at the end of the upper one.

No. 18. Arch from NE. to NW. with a few faint patches of light in the dark segment underneath. A streamer in the east, which gradually extended itself to the west across the zenith, forming there a faint corona, from which, however, no streamers descended toward the horizon in any other direction than east and west. These appeared twice exactly the same each time. There was some motion, but the whole was too faint to see it well. In fading out it commenced at the eastern end, and was visible last in the west. The arches in the north increased in number to four, all quite bright, and there finally appeared also a faint light band crossing the heavens from E. to W. just south of the zenith. The arches in the north often rose and fell and bright spots traveled over them from east to west.

No. 19. Faint arch. Sky underneath has the appearance of a cloud.

No. 20. At 9 o'clock a bright irregular arch with its highest point in the NE. stretching WNW. to NE. A few bright spots in the dark segment underneath. At 9.30 there were short streamers in the NE. and four or five broken arches in the N. At 9.45 only a double arch in the N.

No. 21. Arch from NE. to NW. Sky not darker below.

No. 22. Auroral light in the north.

No. 23. Very brilliant. The corona appeared twice. A dense stratus cloud occupied the SE. sky, but the streamers appeared as plainly against its dark surface as in the open sky.

No. 24. Striated or palisaded arch. Elevation 40°. Palisade gradually lengthened out into streamers, which appeared projected against the light clouds in the northern sky.

No. 25. Faint aurora. Simple arch. Elevation 40°.

No. 26. Clear. At first only a few streamers nearly due east. At 8.20 a bright arch from NW. to NE. Elevation about 10°. A few vague patches of light beneath it. At the same time in the southern sky another arch, faint and brightest in the SW. but in other respects exactly similar to the northern one. The southern arch soon disappeared and the northern one broke, leaving a low arch with dark segment in the north only of about half the span of the former one. The whole display ended before 9 o'clock.

No. 28. First, merely a low light arch with dark segment from NE. to NW. to WNW., always brightest to the E. of N. and also somewhat broken up in the NE. Sometimes the arch appeared double from N. to NE. presenting a forked appearance. The arch finally broke up into streamers and the whole disappeared before 9 o'clock.

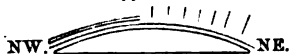
No. 29. Auroral arch which soon changed to the form of streamers, brightest in the NE., in that quarter reaching to the zenith. These moved gradually to the westward and there faded out, leaving only a few patches of light in the north. The arch reappeared at 10 p. m.

No. 30. A faint arch of the usual height and span (NE. to NW.), which gradually brightened and rose, becoming double in the center, though still single at the two ends. Changed to the form of streamers, which for a time were quite brilliant, the most so in the NE. and NNE.

No. 31. Arch with dark segment from NE. to NW., elevation 15°, doubling inwards in the NE., which soon broke up into irregular patches of light, which appeared at the same time all around the horizon. These soon changed to the form of streamers, beginning in the NE. and traveling W. and S. The streamers appeared all around the sky from SSE. to NW. and reaching to the zenith, forming the corona. Their motion was mostly westward. The whole soon faded out, leaving only diffuse light in the north, and reappeared again at 9, but less brilliantly.

No. 32. Faint arch from NW. to NE.

No. 33. First, merely the usual arch from NE. to NW. At 9 the arch had become much brighter and the segment underneath much darker. From N. to NE. also there appeared a half arch underneath the main arch. The highest point of the main arch was a little east of north. The eastern half of the upper arch soon broke up into streamers, the lower one extending itself to the westward, the whole presenting this appearance:



At this time there appeared in the southern sky a well-defined but not very brilliant arch about 40° above the horizon. The streamers appeared nearly all around the horizon, reaching to the zenith in the NE., where they were most brilliant. The southern arch soon disappeared and the streamers faded, while the arch reappeared in the NE. much the same as before.

No. 34. Between 8 and 9 o'clock I saw an arch, not very bright, with dark segment, reaching from NE. to NW. Crown N. At 9 it reappeared in the form of streamers, brightest in the north.

No. 35. At first an arch of the usual height (about 10°) from NW. to NE., not regular in outline, but somewhat waving or undulating, and doubled inwards in the NE. It extended itself to the eastward, at first horizontally, then gradually rising until it attained an elevation equal to the original arch, thus forming an arch depressed in the center, stretching from ESE. to NW., or, rather two arches, side by side and connected. It was brightest at the point of junction, which was about NNE. This bright spot afterwards traveled westward over the old arch. The sky was very black in the north before the appearance of the aurora and under all bright spots afterward. I did not notice it to be particularly darker under the fainter portions.

No. 36. Two bands of light crossing the sky from NW. to SE. on each side of the zenith.

TABLE XXI.
NUMBER OF AURORAS.

Month.	1865.	1866.	1874.	1875.	1876.	1877.	Means.
January		2		2	6	2	3.0
February		4		4	2	11	5.2
March		10		4	4	7	6.2
April		6		3	0	3	3.0
May		0		0	0	0	0.
June		0		0	0	0	0.
July		0	0	0	0		0.
August		1	0	0	0		0.2
September			2	1	2		1.7
October	6		1	4	2		3.2
November	5		4	7	7		5.7
December	2		6	9	1.		4.5
Year		[36]		34	24	36*	32.6

* 1874 and 1877 combined.

LOCAL TABLES.

UNALAKLIK VILLAGE, NORTON SOUND, ALASKA TERRITORY.

Lat. 63° 53' N. Long. 160° 35' W. of Gr.

*Height of station above the level of the sea is about 20 feet.**Source of information:* A MS. meteorological record, in the archives of the Smithsonian Institution, kept by Mr. Ferdinand Westdahl.

BAROMETRICAL OBSERVATIONS.

TABLE I.—*Barometer.* Period 97 days, October 19, 1866, to January 23, 1867. Instrument, Green's standard barometer reduced to 32° F. Observing hours, 9 a. m., 12 m., and 8 p. m. Mean = $\frac{1}{3}(9_a + 12_m + 8_p)$. In the synoptical table of mean atmospheric pressure the results are reduced to sea-level, the reduction for this being taken as + 0.012 inches.

THERMOMETRICAL OBSERVATIONS.

TABLE II.—*Temperature of the air.* Same period, observing hours, &c., as the preceding Standard thermometer.

WEATHER OBSERVATIONS.

TABLE III.—*Weather observations.* Period, source of information, &c., the same as the preceding. Results expressed in percentages.

METEOROLOGICAL OBSERVATIONS AT UNALAKLIK, ALASKA.

TABLE I.

ATMOSPHERIC PRESSURE.

Barometrical observations reduced to 32° F.

Month.	9 a.m.	12 m.	8 p.m.	Mean.	Max.	Min.	Range.
January, 1867	30.212	30.192	30.201	30.187	31.052	29.523	1.529
October 19-31, 1866	29.766	29.801	29.811	29.793	30.423	29.022	1.401
November, 1866	29.552	29.548	29.556	29.552	30.085	28.904	1.181
December, 1866	29.719	29.728	29.718	29.724	30.331	29.399	0.932
Whole period, 97 days	29.791	29.795	29.794	29.787	31.052	28.904	2.148

TABLE II.

TEMPERATURE OBSERVATIONS.

Month.	9 a.m.	12 m.	8 p.m.	Mean.	Max.	Min.	Range.
January, 1867	0	0	0	0	0	0	0
October 19-31, 1866	-11.9	-9.0	-10.3	-10.2	16	-45	61
November, 1866	16.6	23.0	18.1	19.2	36	-1	37
December, 1866	7.6	10.3	8.4	8.8	32	-28	60
Whole period, 97 days	+2.3	+5.5	+3.7	+3.8	36	-45	81

TABLE III.

WEATHER OBSERVATIONS.

Month.	Clear.	Half clear.	Cloudy.	Snowy.	Rainy.
January, 1867	47.83	17.39	17.39	17.39	0
October 19-31, 1866	50.77	23.08	15.38	15.38	15.38
November, 1866	36.67	13.33	26.67	23.33	0
December, 1866	35.49	29.03	32.26	3.23	0
Whole period	38.15	20.62	24.74	14.43	2.06

PORT CLARENCE, BERING STRAIT, ALASKA.

Lat. 65° 17' N. Long. 166° 20' W. of Gr.

Height of station above the level of the sea is very small, the observations having been taken on board H. M. S. Plover, while in winter quarters at this place.

Sources of information: Dove in Berlin Akad. Wiss. Abhand. 1858, pp. 165 and 173; also Coffin's Winds of the Globe, p. 84.

THERMOMETRICAL OBSERVATIONS.

TABLE I.—Period covered by this table is two years, viz, July 1850 to June 1852.

The table is made from hourly observations taken on board the Plover, these having been furnished in MS. to Professor Dove by General Sabine.

Means = $\frac{1}{24} (1^h + 2^h + 3^h + 4^h \dots + 23^h)$.

In Dove the results are in Reaumur degrees, and are here converted to Fahrenheit degrees.

WINDS.

A small amount of fragmentary material may be found in Coffin's Winds of the Globe, p. 84.

METEOROLOGICAL OBSERVATIONS AT PORT CLARENCE.

TABLE I.

TEMPERATURE OBSERVATIONS.

Month.	1850.	1851.	1852.	Mean.
January.....	0	0	0	0
February.....		-10.3	-12.1	-11.2
March.....		9.5	- 8.0	0.7
April.....		2.5	6.5	4.5
May.....		17.6	5.3	11.5
June.....		33.7	32.0	32.7
July.....		40.1	40.8	40.4
August.....	47.7	51.9		49.8
September.....	44.9	46.5		45.7
October.....	38.3	43.0		40.7
November.....	22.1	23.2		22.6
December.....	- 3.2	4.5		0.7
	3.4	- 2.8		0.3

CHORIS PENINSULA, KOTZEBUE SOUND, ARCTIC OCEAN.

Lat. 65° 13' 11" N. Long. 151° 46' W. of Gr.

Height of station above the level of the sea is very small, the observations having been taken on board H. M. S. Plover while lying in winter quarters.

Sources of information: Dove in Berlin Akad. Wissens. Abhand. 1858, pp. 164 and 173.

THERMOMETRICAL OBSERVATIONS.

TABLE I.—The period covered by this table is August 1849 to May 1850. This table is based upon hourly observations taken on board H. M. S. Plover, and furnished in MS. to Professor Dove by General Sabine. Mean = $\frac{1}{24} (1 + 2 + 3 + 4 \dots + 23)$.

In Dove the results are in Reaumur degrees, from which they have been converted to Fahrenheit degrees by the usual tables.

METEOROLOGICAL OBSERVATIONS AT CHORIS PENINSULA.

TABLE I.

TEMPERATURE OBSERVATIONS.

Month.	Means.	Month.	Means.
January, 1850	—12.0	August, 1849	45.0
February, 1850	—15.5	September, 1849	42.8
March, 1850	— 6.0	October, 1849	25.0
April, 1850	14.5	November, 1849	1.2
May, 1850	30.0	December, 1849	5.2

POINT BARROW, ARCTIC OCEAN, ALASKA TERRITORY.

Lat. 71° 21' 25" N. Long. 156° 16' 06" W. of Gr.

Height of station above the level of the sea is very small, the observations having been taken on board H. M. S. Plover while at or near this place.

Sources of information: British Association for the Advancement of Science; report of the Dublin meeting. 8°. London, 1857, pp. 159–184.

THERMOMETRICAL OBSERVATIONS.

TABLE I.—Period covered by this table is two years, September, 1852, to August, 1854. This table is based on hourly observations made on board H. M. S. Plover. This table is copied without change from the one prepared by John Simpson and published in the place above mentioned. Means = $\frac{1}{24} (1^h + 2^h + 3^h + 4^h \dots + 23^h)$.

METEOROLOGICAL OBSERVATIONS AT POINT BARROW, ALASKA.

TABLE I.

TEMPERATURE OBSERVATIONS.

Month.	1852–1853.				1853–1854.			
	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.
January	—23.8	+16	—43	59	—13.7	+27	—37	64
February	—17.4	+ 3	—36	39	—27.7	— 3	—45	48
March	—12.4	+24	—37	61	—17.0	+23	—42	65
April	+ 4.7	+33	—40	73	— 2.4	+26	—17	43
May	+19.3	+44	— 6	50	+20.9	+42	— 3	45
June	+31.9	+45	+17	28	+32.6	+47	+24	23
July	+35.2	+52	+26	26	+37.8	+51	+28	23
August	+37.0	+49	+31	18	+39.8	+48	+29	19
September	+28.8	+42	+12	30	+23.1	+41	— 3	44
October	+ 5.3	+27	—21	48	— 0.9	+14	—22	36
November	— 9.2	+25	—37	62	— 7.8	+22	—26	48
December	— 5.4	+28	—37	65	—21.0	+ 7	—40	47
Whole period	+ 7.8	+52	—43	95	+ 5.9	+51	—45	96

KOLMAKOFF REDOUBT, KUSKOKWIM RIVER, ALASKA TERRITORY.

Lat. 61° 34' 02" N. Long. 158° 37' 11" W. of Gr.

Height of station above the level of the sea is not known.

Source of information: Zagoskin (*Lieut. L.*) Description of travels on foot in the Russian possessions of America, 1842–1844. 2 vols. 8°. St. Petersburg, 1847–'48.

THERMOMETRICAL OBSERVATIONS.

TABLE I.—Period covered by this table 53 days, December 15, 1843, to February 5, 1844, *new style*. Recorded in degrees of Reaumur and here converted to Fahrenheit degrees. Mean = $\frac{1}{4}(4_a + \text{noon} + 4_p + \text{midnight})$.

WEATHER OBSERVATIONS.

TABLE II.—Same source, period, observer, &c., as above. The table gives the number of days.

METEOROLOGICAL OBSERVATIONS AT KOLMAKOFF REDOUBT, ALASKA.

TABLE I.

TEMPERATURE OBSERVATIONS.

Month.	8 a. m.	Noon.	4 p. m.	Mid-night.	Mean.	Max.	Min.	Range.
January, 1844	0	0	0	0	0	0	0	0
February 1-5, 1844	+ 1.0	- 0.1	- 0.1	- 1.2	- 0.4	+38.7	-49.0	87.7
December 15-31, 1843	+23.8	+26.3	+25.4	+22.9	+23.9	+34.2	+ 2.7	31.5
Whole period.....	-29.2	-26.2	-25.9	-27.7	-27.2	- 0.5	-44.5	44.0
Whole period.....	- 1.5	0.0	- 0.2	- 2.0	- 1.2	38.7	-49.0	87.7

TABLE II.

WEATHER OBSERVATIONS.

Month.	Clear days.	Cloudy days.	Snowy days.
January, 1844	8	13	10
February 1-5, 1844	0	1	4
December 15-31, 1843	11	4	2
Whole period.....	19	18	16

NULATO, YUKON RIVER, ALASKA TERRITORY.

Lat. 60° 40' 23" N. Long. 158° 13' W. of Gr.

Height of station above the level of the sea about 100 feet.

Sources of information: For the observations of 1843 Zagoskin's Travels; and for the observations of 1866-'67 the MS. meteorological journal kept by the author; see also DALL (W. H.), Alaska and its Resources. 8°. Boston, 1870, p. 342.

BAROMETRICAL OBSERVATIONS.

TABLE I.—*Barometer.* Green's standard cistern barometer. Period covered by these observations nearly 6 months, *new style*, December 1, 1866, to May 25, 1867. Observing hours, 9 a. m., 1 and 8 p. m. Mean = $\frac{1}{3}(9_a + 1_p + 8_p)$. Observations reduced to 32° F., but not to sea-level. The results in the synoptical table of mean atmospheric pressure are reduced to sea-level by applying the correction + 0.114 inches to the means in this table.

THERMOMETRICAL OBSERVATIONS.

TABLE II.—*Temperature of the air.* Period covered by this table about eleven months; 1843 from Zagoskin; 1866-'67 from the author's journal. Zagoskin's hours of observation were 8 a. m., noon, 4 p. m., and midnight, and the mean = $\frac{1}{4}(8_a + 12_m + 4_p + 12_{mt})$. The author's observing

15 C P

hours were 9 a. m., 1 and 8 p. m., and the mean = $\frac{1}{3}(9_a + 1_p + 8_p)$. Zagoskin's observations were recorded in Reaumur degrees and the others in Fahrenheit degrees, the latter with one of Green's standard thermometers. Zagoskin's observations are *old style* in the originals, but they are reduced to *new style* in the present table.

WINDS.

TABLE III.—*Direction of winds.* From the author's journal. Period covered by this table is nearly six months, December 1, 1866, to May 25, 1867. Observing hours, 9 a. m., 1 and 8 p. m. Directions true. Observations made upon the pennant at top of flag-staff, 60 feet high. Results expressed in percentages; whole number of observations, 536.

TABLE IV.—*Force of winds.* Same source and period, &c., as the preceding. The force was estimated. Results in percentages. Whole number of observations, 441.

WEATHER OBSERVATIONS AND PRECIPITATION.

TABLE V.—*Weather observations and amount of snowfall.* The 1843 observations from Zagoskin; those of 1866-'67 from the author's journal. The table shows the number of days. The amount of snowfall is expressed in inches.

AURORAS.

TABLE VI.—*Auroras.* From the author's journal. Period covered by the table is the same as in Table III. Directions are true. Whole number of auroras observed, 9.

METEOROLOGICAL OBSERVATIONS AT NULATO, ALASKA.

TABLE I.

ATMOSPHERIC PRESSURE.

Barometrical observations reduced to 32° F.

Month.	9 a. m.	1 p. m.	8 p. m.	Mean.	Max.	Min.	Range.
	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>
January, 1867	29.962	29.949	29.935	29.949	30.748	29.113	1.635
February, 1867	29.862	29.869	29.885	29.872	30.470	28.904	1.566
March, 1867	29.736	29.738	29.746	29.740	30.323	28.732	1.591
April, 1867	29.681	29.670	29.671	29.674	30.234	29.148	1.086
May 1-25, 1867	29.693	29.654	29.653	29.667	30.007	29.184	0.823
December, 1866	29.567	29.568	29.586	29.574	30.509	28.980	1.529
Whole period	29.751	29.742	29.747	29.747	30.748	28.732	2.016

TABLE II.

TEMPERATURE OBSERVATIONS.

Month.	1843.								1866-1867.							
	8 a. m.	Noon.	4 p. m.	Mid-night.	Mean.	Max.	Min.	Range.	9 a. m.	1 p. m.	8 p. m.	Mean.	Max.	Min.	Range.	
January*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
January	-30.0	-22.4	-23.5	-24.8	-25.1	-15.2	-33.2	18.0	-18.5	-16.3	-18.3	-17.7	+15	-49	64	
February	-8.1	+7.1	-0.1	-8.8	-2.6	+36.5	-40.0	76.5	-15.5	-10.4	-12.9	-12.9	25	-51	76	
March	+19.2	29.5	+25.5	+17.7	+23.0	41.0	-18.1	59.1	+11.5	+19.6	+13.5	+14.9	38	-40	78	
April	27.9	33.5	31.3	18.1	27.7	46.6	-7.4	54.0	19.2	+34.4	25.9	26.5	49	0	49	
May†	45.0	43.0	48.0	34.7	44.2	65.7	+17.5	48.2	40.9	56.1	42.3	46.4	74	+22	52	
June‡	62.7	77.2	76.4	51.3	66.9	86.0	39.9	46.1								
December									-11.2	-8.0	-10.2	-9.8	22	-56	78	
Whole period	19.7	29.0	25.3	14.7	22.3	86.0	-40.0	125.0	+3.4	+10.9	+5.8	+6.8	+74	-56	130	

* January 23-31, 1843.

† May 1-25, 1867.

‡ June 1-20, 1843.

TABLE III.

DIRECTION OF WINDS.

Month.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.
January, 1867	6.45	7.53	7.53	6.45	8.60	21.50	9.68	6.45	25.81
February, 1867	20.93	10.47	0.00	12.79	1.16	17.44	3.49	18.60	15.12
March, 1867	11.58	26.31	5.26	3.16	1.05	10.53	4.21	23.16	14.74
April, 1867	22.22	36.67	0.00	0.00	0.00	0.00	5.55	25.56	10.00
May 1-25, 1867	17.33	14.67	2.67	13.33	12.00	5.33	12.00	22.67	0.00
December, 1866	4.12	7.22	11.34	8.25	5.15	8.25	14.43	5.16	36.08
Spring	17.04	25.88	2.64	5.50	4.35	5.29	7.25	23.80	8.25
Winter	10.50	8.41	6.29	9.16	4.97	15.73	9.20	10.07	25.67

TABLE IV.

FORCE OF WINDS.

Month.	Light.	Mod.	Strong.	Gale.
January, 1867	57.69	23.08	15.38	3.85
February, 1867	54.16	16.67	29.17	0.00
March, 1867	78.57	0.00	21.43	0.00
April, 1867	82.76	6.90	10.34	0.00
May 1-25, 1867	76.00	8.00	16.00	0.00
December, 1866	50.00	16.67	33.33	0.00
Whole period	67.31	11.54	20.51	0.64

TABLE V.

WEATHER OBSERVATIONS AND SNOWFALL.

Month.	1843.			1866-'67.			
	Clear.	Cloudy.	Rainy and snowy.	Clear.	Half clear.	Cloudy.	Snow-fall.
January*	2	2	0	13	9	9	17.00
February	15	6	7	11	6	11	13.50
March	3	17	11	7	6	18	22.25
April	3	16	11	14	7	9	5.25
May†	5	17	9	8	6	11	0.00
June	1	16	3				
December				9	4	18	12.50
Whole period	29	74	41	62	38	76	70.50‡

* January 28-31, 1843. † May 1-25, 1867. ‡ Previous snowfall, 42 inches. Total for the season, 112.5 inches, or 9 feet and $4\frac{1}{2}$ inches.

TABLE VI.
AURORAS.

Month.	Hour.	Character of aurora.	Weather at time of observation.				Weather at 1 p. m. preceding the observation.				Weather at 9 a. m. following the observation.			
			Therm.	Sky.	Wind.		Therm.	Sky.	Wind.		Therm.	Sky.	Wind.	
					Direction.	Force.			Direction.	Force.			Direction.	Force.
Jan. 12, 1867.	8 p. m.	Strong	-28	Clear		Calm	-20		W.	Light	-38			o
Jan. 13, 1867.	8 p. m.	Light	-40	Clear		Calm	-36			o	-43		NW.	Light.
Feb. 4, 1867.	8 p. m.	Very light	-35	Clear		Calm	-40			o	-36			o
Feb. 11, 1867*.	8 p. m.	Strong	-24	Cloudy	W.	Strong	-14		W.	Strong	-20		NW.	Light.
March 3, 1867.	8 p. m.	Fine and strong.	15	Clear		Calm	25		SW.	Light	10			o
March 4, 1867.	8 p. m.	Light	20	Clear	SE.	Light	26		SE.	Light	3		W.	Light.
March 5, 1867.	8 p. m.	Strong and fine.	4	Clear		Calm	16		W.	Light	1		NW.	Light.
April 9, 1867.	8 p. m.	Light	32	Cloudy	N.	Light	45		N.	Light	31		NE.	Light.
Dec. 28, 1866.	8 p. m.	Strong	10	Clear		Calm	16			o	8		SW.	Light

* This aurora is described in "Alaska and its resources," pp. 59-60.

FORT YUKON, YUKON RIVER, ALASKA TERRITORY.

Lat. 66° 33' 47" N. Long. 145° 17' 47" W. of Gr.

Height of station above the level of the sea, 412 feet.

Sources of information: RICHARDSON (Sir JOHN). Arctic searching expedition; a journal of a boat voyage through Rupert's Land and the Arctic Sea [etc.]. 2 v. 8°. London, 1851. RAYMOND (Capt. CHARLES W.). Report of a reconnaissance of the Yukon River, Alaska. July to September, 1869. 8°. Washington, 1871.

BAROMETRICAL OBSERVATIONS.

TABLE I.—From Raymond's report, pp. 108-111. Period covered by this table is 25 days, viz, from August 3 to August 25, 1869, both inclusive. The daily means are made up from a varying number of single observations, varying from 1 to 13 in number and from 6.45 a. m. to 10 p. m. The mean here given is the mean of these daily means. Instrument, Green's standard barometer No. 1609. Its correction is -0.014 inch. This table contains the results corrected for the instrumental error just given and reduced to 32° F., but *not* to sea-level. The result in the synoptical table of mean atmospheric pressure is reduced to sea-level by applying the correction + 0.457 inch.

THERMOMETRICAL OBSERVATIONS.

TABLE II.—*Temperature of the air.* The period, observing hours, means, source of information, &c., the same as for the barometer. The max. and min. are the maximum and minimum observed readings.

TABLE III.—*Temperature of the air.* From Richardson's arctic searching expedition, Vol. II, pp. 251 and 253. This table is copied. The observing hours were 6 a. m. and 6 p. m. in summer, and in winter as early in the morning and as late in the evening as the thermometer could be read.

METEOROLOGICAL OBSERVATIONS AT FORT YUKON, ALASKA.

TABLE I.

ATMOSPHERIC PRESSURE.

Barometrical observations reduced to 32° F.

Month.	Mean.	Max.	Min.	Range.
August, 1869	29.314	29.675	28.857	0.818

TABLE II.
TEMPERATURE OBSERVATIONS.

Month.	Mean.	Max.	Min.	Range.
August, 1869	66.3	77	58	19

TABLE III.
TEMPERATURE OBSERVATIONS.

Month.	Daily mean.	Mean at 1 p. m.	Monthly max.
January	-26.85	27.58	17
February	-26.44	23.55	10
March	-11.16	0.94	28
April	12.66	19.43	52
May	41.24	48.81	70
June	53.49	62.00?	.....
July	65.75	74.84	76
August	59.90	70.94	86
September	38.66	52.73	69
October	21.60	9.49	50
November	-8.28	-5.40	28
December	-18.43	-5.39	22
Spring	14.60	22.71	70
Summer	56.73	69.28	86
Autumn	17.37	26.03	69
Winter	-23.80	-22.70	22
Year	14.58*	23.89	86

* So it stands in the original. The mean of the column here tabulated is, however, 16.84. The mean of the next column is 22.95.

FORT FRANKLIN, GREAT BEAR LAKE, HUDSON BAY TERRITORY.

Lat. 65° 11'.9 N. Long. 123° 12'.7 W. of Gr.

Height of station above the level of the sea is not known.

Source of information: Franklin (Sir John). Narrative of a Journey to the shores of the Polar Sea [etc.]. 4°. London, 1828. See Appendix ii, Table VI, p. xcix. See also the Narrative of a second Journey, &c.

For the winds see Coffin's Winds of the Globe, p. 86.

THERMOMETRICAL OBSERVATIONS.

TABLE I.—Period covered by this table is one and three-fourths years, 1825–1827. This table is copied from Franklin's, the arrangement only being changed.

METEOROLOGICAL OBSERVATIONS AT FORT FRANKLIN, GREAT BEAR LAKE,
HUDSON BAY TERRITORY.

TABLE I.
TEMPERATURE OBSERVATIONS.

Month.	1825-'26.	1826-'27.
	°	°
January	-23.8	-20.9
February	-12.7	-20.8
March	- 8.3	- 2.5
April	15.2	9.5
May	36.3	34.0
June	48.0	
July	52.1	
August	51.1	
September	42.9	39.1
October	20.3	24.7
November	2.8	- 3.0
December	-14.0	- 7.4
Spring ...	14.4	13.7
Summer	50.4	
Autumn	22.0	20.2
Winter	-16.8	-16.4
Year	17.5	

II.—ASIATIC STATIONS.

PORT PROVIDENCE, PLOVER BAY, EASTERN SIBERIA.

Lat. 64° 30' N. Long. 173° 06' W. of Gr.

Height of station above the level of the sea is very small, the observations having been taken on board H. M.S. Plover while lying in winter quarters at this place.

Sources of information: *Dove* in *Berlin Akad. Wiss. Abhand.*, 1858, pp. 167 and 173; also Coffin's *Winds of the Globe*, p. 93.

THERMOMETRICAL OBSERVATIONS.

TABLE I.—Period covered by the table is 10 months, viz, October 1848 to August 1849 except December, 1848.

The original observations were made hourly and recorded in the log of the Plover, presumably in Fahrenheit degrees. In *Dove* they are given in Reaumur degrees, from which they have been here converted into Fahrenheit degrees.

The means = $\frac{1}{24} (1^h + 2^h + 3^h + 4^h \dots + 23^h)$.

WINDS.

There are a few wind observations for this place in Coffin's *Winds of the Globe*, p. 93, but of so doubtful a character that they have not been used.

METEOROLOGICAL OBSERVATIONS AT PORT PROVIDENCE, E. SIBERIA.

TABLE I.
TEMPERATURE OBSERVATIONS.

Month.	Means.	Month.	Means.
	°		°
January, 1849	20.5	June, 1849	38.0
February, 1849	16.0	July, 1849	44.4
March, 1849	6.2	August, 1849	42.8
April, 1849	21.5	October, 1848	25.5
May, 1849	28.4	November, 1848	17.5

ANADYR RIVER-MOUTH, NORTHEASTERN SIBERIA.

Lat. 64° 55' N. Long. 177° 19' E. of Gr.

Height of station above the sea not stated, but cannot exceed 20 feet.*Observer*, Mr. W. D. Dixon, hospital steward of the station.

The station "was situated on a point of level land comprising about twenty acres, bounded on one side by Golden Gate Bay and on the other by Wade River."

Sources of information: BUSH (Richard James). Reindeer, Dogs, and Snowshoes; a Journal of Siberian travel and explorations made in the years 1865, 1866, and 1867. 8°. New York, Harper & Brothers, 1871.

BAROMETRICAL OBSERVATIONS.

TABLE I.—This table covers the period from October 6, 1866, to June 30, 1867, *new style*. Observations taken with an aneroid barometer; correction unknown. The mean barometer in the column "All" is deduced from the formula $\frac{1}{3}(6_a + 12_m + 6_p)$.

The results in the synoptical table of mean atmospheric pressure are deduced from this table by applying a correction of + 0.020 inch to reduce the observations to sea-level. No correction for temperature has been applied, the instrument being an aneroid.

THERMOMETRICAL OBSERVATIONS.

TABLE II.—This table covers the period October 4, 1866, to June 30, 1867, *new style*. Observations made with Fahrenheit thermometer, read to nearest whole degree. Character of instrument or its corrections not stated. Mean thermometer in the column "All" = $\frac{1}{3}(6_a + 12_m + 6_p)$.

The results in this table are incorporated in the synoptical table of mean temperatures without change.

WINDS AND WEATHER OBSERVATIONS.

TABLE III.—This table covers the period October 21, 1866, to June 30, 1867, *new style*. *Direction of winds* expressed originally in number of observations, there being two observations per day, a. m. and p. m., here expressed in percentages. Whether the directions are true or magnetic is not stated. Total number of observations, 506.TABLE IV.—*Force of winds*. Same period as preceding, and observed at the same hours and expressed in the same manner. Total number of observations, 481.TABLE V.—*Weather observations*. Period is October 22, 1866, to June 30, 1867. Observations made twice per day, a. m. and p. m. At each observation the weather was recorded in one of the six categories of the table, thus giving us the number of observations which are here expressed in percentages. Total number of observations, 502.

METEOROLOGICAL OBSERVATIONS AT THE ANADYR RIVER-MOUTH, NORTHEAST-ERN SIBERIA.

TABLE I.

ATMOSPHERIC PRESSURE.

Month.	6 a. m.	12 m.	8 p. m.	All.	Max.	Min.	Range.
	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>
January, 1867	30.073	30.145	30.151	30.123	30.88	29.32	1.56
February, 1867	30.026	30.075	30.106	30.069	30.66	28.54	2.12
March, 1867	29.833	29.884	29.874	29.863	30.50	29.24	1.26
April, 1867	29.917	29.975	29.964	29.952	30.42	29.52	0.90
May, 1867	29.883	29.913	29.896	29.897	30.17	29.35	0.82
June, 1867	29.891	29.929	29.904	29.908	30.16	29.57	0.59
October, 1866	29.777	29.792	29.790	29.786	30.14	29.09	1.05
November, 1866	29.811	29.879	29.887	29.859	30.30	29.20	1.10
December, 1866	29.851	29.930	29.941	29.907	30.19	29.36	0.83
Whole period	29.896	29.947	29.946	29.929	30.88	28.54	2.34

TABLE II.

TEMPERATURE OBSERVATIONS.

Month.	6 a. m.	12 m.	8 p. m.	All.	Max.	Min.	Range.
	°	°	°	°	°	°	°
January, 1867	-12.0	-8.5	-10.9	-10.5	26	-50	76
February, 1867	-30.8	-24.7	-28.1	-27.9	31	-62	93
March, 1867	-5.4	4.9	-4.6	-1.7	33	-50	83
April, 1867	-1.7	13.7	3.1	5.0	54	-40	94
May, 1867	28.0	40.3	32.9	33.7	59	11	48
June, 1867	39.8	48.5	43.0	43.7	70	34	36
October, 1866	12.0	17.7	14.6	14.8	34	-11	45
November, 1866	-7.8	-6.2	-8.9	-7.6	28	-30	58
December, 1866	-21.3	-21.4	-22.2	-21.6	10	-54	64
Whole period	+0.1	+7.1	+2.1	+3.1	+70	-62	132

TABLE III.

DIRECTION OF WINDS.

Month.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.
January, 1867	3.23	6.45	12.90	29.03	3.23	1.61	4.84	24.19	14.52
February, 1867	5.36	3.57	1.78	16.07	5.36	0.00	7.14	55.36	5.35
March, 1867	3.22	3.23	11.29	29.03	4.84	1.61	17.74	29.03	0.00
April, 1867	3.33	3.33	18.33	18.34	6.67	0.00	10.00	36.67	3.33
May, 1867	6.45	1.61	4.84	17.74	17.74	1.61	11.29	33.87	4.84
June, 1867	0.00	0.00	6.67	38.33	46.67	0.00	3.33	5.00	0.00
October, 1866	0.00	0.00	9.09	27.27	0.00	0.00	45.45	0.00	18.18
November, 1866	15.00	3.33	21.67	1.67	0.00	0.00	31.67	26.67	0.00
December, 1866	1.61	1.61	12.90	3.23	0.00	0.00	24.19	56.45	0.00
Spring	4.33	2.72	11.49	21.70	9.75	1.07	13.01	33.19	2.72
Winter	3.40	3.88	9.19	16.11	2.86	0.54	12.06	45.33	6.62

TABLE IV.
FORCE OF WINDS.

Month.	Very light.	Light.	Strong.	Gale.	Whole gale.
January, 1867.....	0.00	54.72	24.53	18.87	1.88
February, 1867.....	3.77	52.83	33.96	0.00	9.44
March, 1867.....	4.84	51.61	35.48	4.84	3.23
April, 1867.....	15.52	39.65	39.66	5.17	0.00
May, 1867.....	16.95	57.63	25.42	0.00	0.00
June, 1867.....	11.67	30.00	50.00	8.33	0.00
October, 1866.....	0.00	58.82	17.65	23.53	0.00
November, 1866.....	0.00	50.00	46.67	3.33	0.00
December, 1866.....	0.00	62.71	32.20	3.39	1.70
Whole period.....	6.45	50.10	35.55	6.03	1.87

TABLE V.
WEATHER OBSERVATIONS.

Month.	Clear.	Cloudy.	Overcast.	Foggy.	Rainy.	Snowy.
January, 1867.....	53.23	29.03	9.68	4.84	0	3.22
February, 1867.....	71.43	0	8.93	3.57	0	16.07
March, 1867.....	48.39	0	27.42	3.23	0	20.97
April, 1867.....	48.33	1.67	38.33	0	0	11.67
May, 1867.....	33.87	4.84	40.32	0	8.06	12.90
June, 1867.....	28.33	16.67	43.33	0	10.00	1.67
October, 1866.....	55.55	27.78	.....	.....	.....	16.67
November, 1866.....	63.33	25.00	0	0	0	11.67
December, 1866.....	61.29	17.74	11.29	1.61	0	8.06
Whole period.....	51.00	12.55	21.71	1.59	2.19	10.96

PETROPAVLOVSK, KAMCHATKA.

Lat. 53° 00'.5 N. Long. 158° 39'.3 E. of Gr.

Height of barometer above the level of the sea in 1828, about 37 feet, and from 1846–1850, 50 feet.*Sources of information* : Erman's Archives, Vol. VI, pp. 441–488; Journ. Russ. Hydr. Dept., Vols. VI and VIII–X.

BAROMETRICAL OBSERVATIONS.

TABLE I.—*Barometer*. Period covered by the table, five years: 1828, *new style*; 1846 and 1848–1850, *old style*. The 1828 observations from Erman's Arch.; the remainder from the Journ. Russ. Hydr. Dept. The observations of 1828 were made by Capt. F. E. Stanitzky, governor of Kamchatka, and furnished to Erman, who published and discussed them in the place cited. The readings were made in English inches at a uniform temperature of about 68° F. (16 R.). The error of this barometer was determined in the summer of 1829, by a series of comparisons with the standard barometer of the corvette Krotkoi, to be + 0.039 inch. The observations of 1846 and 1848–50 were made by naval officers stationed at the naval school in Petropavlovsk, and are reduced to the uniform temperature of 62° F. (13½ R.), but not to sea-level. They were recorded in English inches. The hours of observation in 1828 were 6½ a. m., noon, and 9½ p. m., and the mean = $\frac{1}{3}(6\frac{1}{2}_a + 12_m + 9\frac{1}{2}_p)$. The hours of observation in 1846 and 1848–1850 were 6 and 10 a. m. and 2, 6, and 10 p. m., except from January to August 1, 1846, when the first observation of the day was made at 7 instead of 6. Mean = $\frac{1}{3}(6_a + 10_a + 2_p + 6_p + 10_p)$.

Hence for the 1828 observations we have—

Instrumental error, determined by comparison with standard barometer of the corvette

Krotkoi, under Captain Hagemeister, in 1829.....	+0.039
Reduction to sea-level for 37 feet (about 35 Paris feet).....	+0.039
Reduction to freezing point from 68° F. (16° R.)	—0.104
Total correction and reduction.....	—0.026

This correction has been applied to obtain the values tabulated under 1828 in this table.

The results under 1846 and 1848–1850 are *old style*, reduced to 62° F., *not* reduced to sea-level, and *not* corrected for instrumental error.

Concerning the barometrical observations for 1846, a foot-note in the Journal informs us that the observations from January to August were made with a mountain barometer, and from August to the end of the year with a nautical or cistern barometer, but without correcting the scale. I have, after investigation by graphic process, assigned a probable error in excess of the truth of 0.530 inches for the second barometer from August, 1846, onward. Therefore we have for all the observations, 1846, 1848–1850—

Reduction to sea-level, 50 feet	+0.068
Reduction to freezing point, 62° F. to 32° F.	—0.089
Total reduction	—0.021

There being no known instrumental correction to the barometer from January to August, this number (—0.021 inches) will be the total correction for that period. And for the total correction from August, 1846, to 1850, we have the same correction plus the error determined by graphic process to be —0.530 inch. This gives a total correction of —0.551 inch.

In deducing the results in the synoptical table of mean atmospheric pressure, all these corrections have been applied, after which the results have been converted to *new style* by interpolation and the results combined by weights with the 1828 observations.

The abstract therefore embodies the results of five years' observations, *new style*, with corrected instruments, and reduced to the freezing point at the level of the sea.

THERMOMETRICAL OBSERVATIONS.

TABLE II.—*Temperature of the air.* From Erman's Archives. Period one year, *new style*, 1828. Observing hours 6½ a. m., noon, and 9½ p. m. Mean = $\frac{1}{3}(6\frac{1}{2}_a + 12_m + 9\frac{1}{2}_p)$. Observed in Reaumur degrees; here expressed in Fahrenheit degrees. The observations were recorded *old style*, so that the actual period covered by the observations is January 13, 1828, to January 12, 1829, *new style*. Therefore the month of January in this table takes its first twelve days from 1829 and the last nineteen from 1828.

TABLE III.—*Temperature of the air.* From the Journ. Russ. Hydr. Dept. Period nearly four years, *old style*; 1846, 1848–1850. Observing hours, for the most part, 6 a. m., 2 and 10 p. m. Mean = $\frac{1}{3}(6_a + 2_p + 10_p)$. Originally in Reaumur degrees; here in Fahrenheit degrees.*

For the results in the synoptical table of mean temperatures, the combined results of this table have been converted from *old style* to *new* by interpolation, and the results then combined by weight with Table II.

PRECIPITATION.

TABLE IV.—*Rain and snow fall.* From Journ. Russ. Hydr. Dept. Period, two years and eleven months, *old style*; 1848–1850. Expressed in inches, and expressed in the same manner in the originals. The fall of snow is presumably *not* melted. No statement concerning it appears in the record. The results in the abstract of rain and snow fall are converted to *new style* by interpolation.

WINDS.

TABLE V.—*Direction of winds.* From same source as last. Period, four years, *old style*; 1846, 1848–1850. Directions are magnetic. Recorded originally to eight points of the compass; five observations per day, 6 and 10 a. m., 2, 6, and 10 p. m. Here expressed in percentages. Whole number of observations, 7,062.

* The conversion having been carried to hundredths while tabulated only to the nearest tenth, some apparent, but not real, discrepancies appear in the means in this and some other cases.

LOCAL TABLES.

123

TABLE VI.—*Force of winds.* Same source and period as in Table IV; same observing hours as in Table V. Expressed in percentages. The force was estimated. Whole number of observations 3,568.

WEATHER OBSERVATIONS, ETC.

TABLE VII.—*Weather and earthquakes.* From the same source and for the same period as Table V.

METEOROLOGICAL OBSERVATIONS AT PETROPAVLOVSK, KAMCHATKA.

TABLE I.

ATMOSPHERIC PRESSURE.

Barometrical observations reduced to 32° F. and to sea-level.

Month.	1828, <i>New style.</i>						
	6½ a. m.	Noon.	9½ p. m.	Mean.	Max.	Min.	Range.
	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>
January	29.495	29.501	29.500	29.499	30.23	28.87	1.36
February .....	.581	.594	.570	.582	29.99	29.15	0.84
March .....	.744	.729	.721	.731	30.45	29.27	1.18
April .....	.943	.954	.973	.957	30.27	29.65	0.62
May .....	.842	.841	.849	.844	30.27	29.29	0.98
June .....	.775	.775	.767	.772	29.93	29.57	0.36
July .....	.729	.716	.722	.722	30.15	29.35	0.80
August .....	.755	.760	.753	.756	29.99	29.41	0.58
September .....	.757	.737	.748	.747	30.05	29.25	0.80
October .....	.634	.656	.643	.644	30.21	28.93	1.28
November .....	.640	.621	.640	.634	30.21	28.87	1.34
December .....	.768	.748	.758	.758	30.37	29.19	1.18
Year	29.722	29.719	29.720	.720	30.45	28.87	1.58

TABLE I—Continued.

ATMOSPHERIC PRESSURE.

Barometrical observations reduced to 62° F. (13½ R.).

Month (<i>Old style.</i>)	1846.				1848.				1849.				1850.			
	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.
	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>
January	29.39	30.03	29.11	0.92	30.56	31.41	29.48	1.93	29.88	30.44	29.78	0.66	30.05	30.60	29.60	1.00
February	29.82	30.25	29.46	0.79	30.37	30.96	29.79	1.17	30.16	30.81	29.64	1.17	30.18	30.60	29.88	0.72
March	29.64	30.02	29.06	0.96	30.50	30.94	29.89	1.05	30.42	31.39	29.10	2.29	30.39	30.98	29.58	1.40
April	29.71	29.94	29.31	0.63	30.14	30.95	29.05	1.90	30.20	30.61	29.63	0.92	30.35	30.90	29.88	1.02
May	29.76	29.97	29.34	0.63	30.30	30.95	29.66	1.29	30.25	30.89	29.74	1.15	30.07	30.40	29.47	0.93
June	29.80	29.87	29.61	0.26	30.16	30.37	29.95	0.42	30.37	30.69	30.08	0.61	*30.11			
July	29.75	29.92	29.45	0.47	30.25	30.50	29.91	0.59	30.36	30.63	29.92	0.71	30.38	30.69	29.98	0.71
August	30.43	30.71	30.16	0.55	30.28	30.72	29.80	0.92	30.42	30.64	30.09	0.55	30.44	30.79	29.99	0.80
September	30.34	30.78	29.89	0.89	30.30	30.85	29.70	1.15	30.15	30.82	29.87	0.95	30.42	30.79	29.94	0.85
October	30.38	30.87	29.69	1.18	30.07	30.63	29.50	1.13	30.27	30.77	29.37	1.40	30.36	30.90	29.54	1.36
November	29.97	30.47	29.42	1.05	30.01	30.58	29.42	1.16	30.04	30.59	29.28	1.31	30.38	30.69	29.48	1.21
December	30.05	30.61	29.17	1.44	29.88	30.43	28.95	1.48	29.98	30.62	29.19	1.43	30.07	30.48	29.68	0.80
Summer	29.85	30.71	29.06	1.65	30.27	30.95	29.05	1.90	30.34	31.39	29.10	2.29	30.32	30.98	29.47	1.51
Winter	29.99	30.87	29.11	1.76	30.19	31.41	28.95	2.46	30.13	30.82	29.19	1.63	30.34	30.90	29.48	1.42
Whole year	29.92	30.87	29.06	1.81	30.23	31.41	28.95	2.46	30.23	31.39	29.10	2.29	30.28	30.98	29.47	1.51

* Interpolated.

LOCAL TABLES.

TABLE II.
TEMPERATURE OBSERVATIONS.

Month.	6½ a. m.	Noon.	9½ p. m.	All.	Max.	Min.	Range.
January, 1828	19.3	24.2	20.9	21.6	38.7	-1.7	40.4
February, 1828	13.1	21.9	17.1	17.4	36.5	-13.0	49.5
March, 1828	18.8	26.7	20.5	22.5	36.5	0.5	36.0
April, 1828	28.6	38.1	29.2	32.7	43.2	20.7	22.5
May, 1828	36.1	45.4	35.8	39.9	54.5	27.5	27.0
June, 1828	48.6	58.8	47.4	52.4	77.0	38.7	38.3
July, 1828	53.0	66.9	54.3	58.7	79.2	45.5	33.7
August, 1828	51.0	62.3	52.5	55.7	70.2	41.0	29.2
September, 1828	43.8	57.9	47.8	50.1	65.7	29.7	36.0
October, 1828	33.5	42.2	36.4	37.5	50.0	18.5	31.5
November, 1828	21.3	28.5	23.0	24.5	41.0	9.5	31.5
December, 1828	16.2	21.2	17.1	18.4	36.5	0.5	36.0
Year	32.0	41.2	33.5	35.9	79.2	-13.0	92.2
Spring	31.0	48	Autumn	37.0	60		
Summer	55.0	46	Winter	19.0	1		

TABLE III.
TEMPERATURE OBSERVATIONS.

Month (Old style).	1846.								1848.							
	Morn.	Day.	Eve.	Night.	All.	Max.	Min.	Range.	6 a. m.	2 p. m.	10 p. m.	All.	Max.	Min.	Range.	
January.....	6.1	9.7	5.7	7.7	7.2	35.4	-15.2	50.6	17.4	25.7	19.4	21.0	41.4	- 0.6	42.0	
February.....	16.9	26.1	19.2	12.9	18.9	44.8	-11.9	56.7	17.1	31.1	21.9	23.4	51.1	-10.7	61.8	
March.....	22.5	33.1	24.8	15.6	24.1	45.5	- 6.2	51.7	26.4	43.2	28.2	32.7	62.8	6.8	56.0	
April.....	26.6	39.4	27.0	16.9	27.5	55.6	5.0	50.6	33.3	46.6	32.9	37.6	58.3	23.0	35.3	
May.....	41.9	51.3	37.2	29.3	39.9	69.6	20.3	49.3	40.3	53.6	39.6	44.6	58.3	23.0	35.3	
June.....	53.6	63.0	50.4	46.2	53.4	80.8	41.0	39.8	50.0	65.5	51.3	55.6	89.4	47.7	41.7	
July.....	60.3	69.1	56.7	52.0	59.4	87.6	44.4	43.2	53.1	65.5	54.3	57.6	88.7	50.4	38.3	
August.....	51.6	59.4	50.7	45.5	50.9	77.0	43.2	33.8	49.8	60.8	51.6	54.0	69.6	47.7	21.9	
September.....	43.0	50.9	43.9	38.7	44.1	63.5	35.4	28.1	41.4	52.2	41.0	44.8	60.1	32.0	28.1	
October.....	32.7	37.2	33.1	30.6	33.3	54.9	19.2	35.7	30.6	38.7	32.7	34.0	46.6	19.2	27.4	
November.....	23.4	27.5	24.6	23.0	24.6	42.6	6.8	35.8	21.2	28.2	19.2	22.8	35.4	7.9	27.5	
December.....	14.7	18.3	15.6	13.3	15.6	35.8	0.5	35.3	17.6	23.7	19.8	20.3	36.9	0.0	36.9	
Summer.....	42.8	52.5	41.2	34.2	42.6	87.6	- 6.2	93.8	42.1	55.8	43.0	46.8	89.4	6.8	82.6	
Winter.....	22.8	28.4	23.7	23.2	24.1	63.5	-15.2	78.7	24.3	33.1	25.7	27.7	60.1	-10.7	70.8	
Whole year.....	32.7	40.3	32.4	27.7	33.3	87.6	-15.2	102.8	33.1	44.4	34.2	37.2	89.4	-10.7	100.1	

Month (Old style).	1849.								1850.							
	6 a. m.	2 p. m.	10 p. m.	All.	Max.	Min.	Range.	6 a. m.	2 p. m.	10 p. m.	All.	Max.	Min.	Range.		
January.....	14.2	23.2	16.0	17.8	34.7	- 4.4	39.1	10.6	18.5	11.5	13.5	33.6	- 5.1	38.7		
February.....	5.7	20.5	8.6	11.5	47.1	-17.9	65.0	10.2	24.6	14.0	16.2	41.0	- 2.9	43.9		
March.....	18.9	36.9	24.6	26.8	53.8	1.2	52.6	28.6	40.3	33.3	34.0	48.9	18.0	30.9		
April.....	33.3	45.5	36.7	38.5	53.8	21.9	31.9	32.9	45.3	34.5	37.6	58.3	21.9	36.4		
May.....	39.4	54.0	41.9	45.0	61.7	32.4	29.3	38.5	49.3	39.6	42.3	60.1	27.5	32.6		
June.....	49.1	63.0	52.2	54.7	74.1	36.9	37.2				[54.0]					
July.....	57.0	70.0	56.7	61.2	81.5	51.1	30.4	54.0	65.5	54.3	57.9	71.4	50.0	21.4		
August.....	50.7	63.0	52.5	55.8	74.7	41.0	33.7	53.6	65.1	54.7	57.9	76.3	43.7	32.6		
September.....	39.6	52.7	45.0	45.7	65.7	30.9	34.8	43.5	54.7	44.8	47.5	62.8	30.9	31.9		
October.....	30.9	39.2	32.4	34.0	52.2	15.1	37.1	30.9	39.0	33.3	34.2	45.5	23.0	22.5		
November.....	20.5	27.9	21.9	23.4	35.4	11.7	23.7	20.1	26.6	21.4	22.8	33.6	11.7	21.9		
December.....	21.6	27.3	24.1	24.3	36.5	6.1	30.4	12.4	19.6	14.2	15.3	30.9	2.7	28.2		
Summer.....	41.4	55.4	44.4	47.1	81.5	1.2	80.3	41.4	53.1	43.2	45.9	76.3	18.0	58.3		
Winter.....	21.6	31.8	24.8	26.1	65.7	-17.9	83.6	21.4	30.4	23.2	25.0	62.8	- 5.1	67.9		
Whole year.....	31.5	43.5	34.7	36.5	81.5	-17.9	99.4	30.4	40.8	32.2	36.1	76.3	- 5.1	81.4		

NOTE.—The italicised figure calls attention to a mistake in the original. The original reads 30.9 instead of 62.8.

LOCAL TABLES.

125

TABLE IV.
RAIN AND SNOW FALL.

Month (Old style).	1848.		1849.		1850.	
	Snow.	Rain.	Snow.	Rain.	Snow.	Rain.
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
January	1.45		5.48		2.25	
February	9.37		1.30		5.42	
March	12.37	0.10	3.44	0.12	11.82	
April	7.66	2.76	3.18		1.51	1.00
May	3.00	0.29	0.74	1.64	6.58	1.90
June		2.77	0.12	1.29		
July				1.00		5.25
August				1.75		6.70
September		8.22		4.11	0.22	5.69
October	4.66	5.80	0.52	1.42	16.78	1.20
November	5.47		2.85		2.16	
December	0.65		16.25		2.81	
Summer	23.03	5.92	7.48	5.80	19.91	14.85
Winter	21.60	14.02	26.40	5.53	29.64	6.89
Whole year	44.63	19.94	33.88	11.33	49.55	21.74

TABLE V.
DIRECTION OF WINDS.
1848-1850, Old style.

Month.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.
January	18.02	12.18	4.71	10.06	2.60	3.41	5.19	16.40	27.43
February	15.78	16.13	7.98	10.64	3.37	4.08	3.97	14.36	23.76
March	8.35	8.84	11.79	13.09	6.71	5.07	7.20	9.98	28.97
April	7.10	12.50	7.60	10.98	7.43	6.59	5.71	15.71	26.35
May	4.56	7.30	6.75	17.15	11.86	4.38	10.95	12.23	24.82
June	2.93	8.78	5.86	18.47	19.14	3.38	7.21	10.14	24.10
July	3.95	8.57	3.62	17.30	12.19	3.13	7.25	13.51	30.48
August	1.93	6.61	4.52	15.16	10.81	2.58	7.42	20.81	30.16
September	5.02	5.35	7.61	15.88	6.97	0.97	18.80	21.56	17.83
October	7.74	7.90	10.81	10.16	2.10	1.45	16.77	21.13	21.94
November	10.45	15.26	6.63	6.14	0.83	0.83	9.95	21.72	28.19
December	10.16	21.94	6.77	5.81	1.45	3.06	6.13	12.26	32.42
Spring	6.74	9.59	8.79	13.65	8.56	5.37	7.88	12.62	26.78
Summer	2.93	7.90	4.55	16.82	13.54	2.99	7.31	15.32	28.65
Autumn	7.72	9.46	8.37	10.76	3.31	1.09	15.22	21.47	22.61
Winter	14.61	16.78	6.44	8.78	2.44	3.50	5.11	14.33	28.00
Year	8.10	10.99	7.08	12.41	6.81	3.21	8.95	16.00	26.45

TABLE VI.
FORCE OF WINDS.
1848-1850, Old style.

Month.	Light.	Mod.	Fresh.	Strong.
January	69.71	20.19	10.10	0.00
February	71.61	15.81	7.10	5.48
March	67.36	20.27	8.25	4.12
April	63.28	23.28	10.82	2.62
May	75.18	20.50	4.32	0.00
June	74.16	24.88	0.96	0.00
July	74.81	21.90	3.29	0.00
August	77.32	19.93	2.75	0.00
September	61.87	30.13	8.00	0.03
October	59.66	22.13	14.56	3.65
November	67.11	20.47	9.73	2.69
December	64.84	15.02	14.65	5.49
Summer	71.79	21.66	5.34	1.21
Winter	65.52	21.10	10.62	2.76
Year	68.41	21.36	8.19	2.04

LOCAL TABLES.

TABLE VII.
WEATHER OBSERVATIONS.

Month (Old style).	1846.								1848.							
	Number of days.				Number of observations.				Number of days.				Number of observations.			
	Clear.	Half clear.	Cloudy.	Total.	Snow.	Rain.	Fog.	Earth- quakes.	Clear.	Half clear.	Cloudy.	Total.	Snow.	Rain.	Fog.	Earth- quakes.
January	15	4	12	31	35				10	6	15	31	22			
February	10	1	17	28	24				13	4	12	29	24		4	
March	16	3	12	31	25			1	8	5	18	31	42	1	2	
April	18	5	7	30	14	1	1		7	3	20	30	22	4	1	2
May	15	3	13	31	6	5	7	2	5	7	19	31	6	4	13	1
June	7	8	15	30		12	19		5	14	11	30		12	16	2
July	10	6	15	31		14	21		5	10	16	31		12	29	1
August	3	12	16	31		17	17	1	3	13	15	31		16	12	1
September	5	15	10	30		13	12		5	11	14	30		16	9	1
October	4	12	15	31	9	19	23	1	8	13	10	31	15	5	2	1
November	4	9	17	30	30	1	4	1	10	10	10	30	23		2	
December	8	6	17	31	28	2	6		9	11	11	31	15		4	
Summer	69	37	78	184	45	41	65	4	33	52	99	184	70	49	73	7
Winter	46	47	88	181	126	35	45	2	55	55	72	182	99	21	21	2
Whole year	115	84	166	365	171	84	110	6	88	107	171	366	169	70	94	9

Month.	1849.								1850.							
	Number of days.				Number of observations.				Number of days.				Number of observations.			
	Clear.	Half clear.	Cloudy.	Total.	Snow.	Rain.	Fog.	Earth- quakes.	Clear.	Half clear.	Cloudy.	Total.	Snow.	Rain.	Fog.	Earth- quake.
January	12	9	10	31	14		2		11	9	11	31	17			
February	17	4	7	28	15				3	10	15	28	22			
March	5	11	15	31	21	2	6		3	28	31	58			4	
April	6	7	17	30	21	1	4	1	3	8	19	30	17	8	20	
May	5	7	19	31	6	11	20				17	17	6	11	5	
June	5	8	17	30	2	19	24									
July	3	9	19	31		7	45		2	6	20	28		13	86	
August	6	14	11	31		12	15		9	22	31	31		14	68	
September	5	13	12	30		16	5	1	1	10	19	30	1	23	48	1
October	6	9	16	31	8	12	6		3	6	22	31	23	2	6	
November	11	8	11	30	21		2		4	8	18	30	16		11	
December	6	5	20	31	37		4	1	8	1	22	31	14		7	
Summer	30	56	98	184	50	52	114	1	5	26	106	137	81	46	183	
Winter	57	48	76	181	95	28	19	2	30	44	108	182	93	25	72	1
Whole year	87	104	174	365	145	80	133	3	35	70	214	319	174	71	255	1

PORT OF OKHOTSK, ON THE OKHOTSK SEA, EASTERN SIBERIA.

Lat. 59° 20' 10" N. Long. 142° 40' E. of Gr.

Height of station above the level of the sea, 12 feet. The observations were taken at the naval school under the direction of various naval officers.

Sources of information: Journ. Russ. Hydr. Dept., Vols. III-X; Vesseloffsky's Climate of Russia, App. I, p. 26; Wild, Repert. für Met. Supplementband, 1877. Erste Hälfte.

BAROMETRICAL OBSERVATIONS.

TABLE I.—Barometer. From Journ. Russ. Hydr. Dept., Vols. III-X. Period covered by the table is seven years and eight months; all *old style* except 1847, which is *new style*. The observa-

tions in the original journals as well as here are reduced to a standard instrument (*i. e.*, corrected for instrumental error) and to the temperature of 62° F. (13½ R.). The observing hours for all the observations at this place have been various. For 1843 the hours are unknown—"three times per day"; 1844, unknown; 1845, 7 a. m., 2 and 8 p. m.; 1846, unknown, 4 times per day, 6 a. m. to 10 p. m.; 1848-1850, 6 and 10 a. m., 2, 6, and 10 p. m. The formula by which the means were obtained is not stated, but they are, presumably, the simple means of all the observations taken.

The results in the synoptical table of atmospheric pressure are deduced from all the observations in this table, and are reduced to *new style*, by interpolation, to *sea-level* and to the *freezing point*. The reduction to sea-level is + 0.013; to the freezing point, — 0.089. Total correction for sea-level and temperature, — 0.076 inches.

THERMOMETRICAL OBSERVATIONS.

TABLE II.—*Mean temperature of the air.* Same source, period, style, and observing hours as in Table I. Originals, with standard thermometer, expressed in Reaumur degrees. Here expressed in Fahrenheit degrees. The daily mean appears to be the simple arithmetical mean of the observations in the table.

TABLE III.—*Mean temperature of the air.* From Vesseloffsky's *Climate of Russia*, App. I, p. 26. This table embodies the results of the preceding table except 1850, *i. e.*, its period is six years and eight months. It was prepared by Mr. Vesseloffsky, and by him converted to *new style* by interpolation. It is based upon 3 observations per day.

PRECIPITATION.

TABLE IV.—*Rain and (melted ?) snow fall.* From Journ. Russ. Hydr. Dept. Period three years, *old style*. Amount in English inches. It is not known whether the breaks in 1849 are due to no precipitation or no observations.

WINDS.

TABLE V.—*Direction of winds.* From Journ. Russ. Hydr. Dept., Vols. III-X. Period seven years and eight months, May 1843 to December 1850, *old style*, except 1847. From the beginning to December, 1845, 3 observations per day, and subsequently 5 observations per day. Directions are magnetic. Observed to 8 points of the compass. Originally in number of observations of directions from which the wind blows. Here expressed in percentages. Whole number of observations, 12,033.

TABLE VI.—*Force of winds.* Same source and observing hours as the preceding. The period covered by this table is about three years and eight months, viz, May to December, 1843, 3 observations per day, and 1848 to 1850, 5 observations per day, with slight interruptions; all *old style*. The force was estimated. Results here expressed in percentages. Whole number of observations, 6,019.

WEATHER OBSERVATIONS.

TABLE VII.—*Weather observations.* Same source, period, and style as in Table I.

Meteorological observations were continued at Okhotsk beyond 1850, the date at which the present tables end, to July 12, 1852, with a break from August 12 to October 12, 1851; but these results are not accessible to us. This station has been recently reoccupied by the Russian Government as a meteorological station.

METEOROLOGICAL OBSERVATIONS AT THE PORT OF OKHOTSK.

TABLE I.

ATMOSPHERIC PRESSURE.

Barometrical observations reduced to 62° F. (13½° R.).

Old style, except 1847.

Month.	1843.				1844.				1845.				1846.			
	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
January					30.16	30.61	29.80	0.81	29.67	30.07	29.12	0.95	30.08	30.47	29.04	1.43
February					29.96	30.60	29.22	1.38	29.81	30.12	29.45	0.67	30.18	30.58	29.70	0.88
March					29.96	30.37	28.80	1.57	29.60	29.95	29.30	0.65	30.11	30.46	29.63	0.83
April					30.08	30.41	29.67	0.74	29.68	30.06	29.21	0.85	29.96	30.20	29.68	0.52
May	29.85	30.10	29.38	0.72	30.04	30.31	29.73	0.58	29.45	29.81	29.02	0.79	29.95	30.37	29.67	0.70
June	29.86	30.07	29.58	0.49	29.86	30.26	29.50	0.76	29.51	29.92	29.13	0.79	29.89	30.07	29.71	0.36
July	29.84	30.07	29.57	0.50	29.76	30.16	29.51	0.65	29.53	29.82	29.20	0.62	29.75	30.06	29.44	0.62
August	29.89	30.09	29.65	0.44	29.99	30.24	29.45	0.79	29.56	29.95	28.85	1.10	30.08	30.35	29.78	0.57
September ..	29.62	30.55	29.05	0.50	30.09	30.96	29.39	0.57	29.75	29.99	29.10	0.89	29.92	30.13	29.35	0.78
October	29.93	30.54	29.32	1.22	29.76	30.12	29.24	0.88	29.51	29.85	29.07	0.78	29.92	30.31	29.22	1.09
November ..	30.01	30.50	29.44	1.06	29.54	30.10	28.85	1.25	29.69	30.22	29.18	1.04	29.80	30.33	28.93	1.40
December ..	29.83	30.22	29.48	0.74	29.59	29.97	28.63	1.34	29.77	30.17	29.32	0.85	29.88	30.54	29.26	1.28
Summer					29.96	30.41	28.80	1.61	29.55	30.06	28.85	1.21	29.96	30.46	29.44	1.02
Winter					29.85	30.96	28.63	2.33	29.70	30.22	29.07	1.15	29.96	30.58	28.93	1.65
Whole year.	*29.85	*30.55	*29.05	*1.50	29.90	30.96	28.63	2.33	29.63	30.22	28.85	1.37	29.96	30.58	28.93	1.65

* For eight months.

Month.	1847 (New style).				1848.				1849.				1850.			
	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
January	30.10	30.29	29.66	0.63	30.25	30.84	28.94	1.90	29.79	30.03	29.34	0.69	30.06	30.34	29.44	0.90
February	29.93	30.64	29.57	1.07	30.05	30.54	29.63	0.91	29.89	30.34	29.31	1.03	30.10	30.50	29.81	0.69
March	29.96	30.44	29.48	0.96	30.06	30.48	29.30	1.18	30.03	30.84	29.21	1.63	30.02	30.27	29.51	0.76
April	29.84	30.23	29.45	0.78	29.79	30.28	29.40	0.88	29.89	30.42	29.44	0.98	29.95	30.63	29.54	1.09
May	29.94	30.16	29.73	0.43	29.94	30.24	29.60	0.64	29.99	30.45	29.53	0.92	29.87	30.10	29.46	0.64
June	30.00	30.25	29.76	0.49	29.78	30.04	29.42	0.62	29.90	30.07	29.61	0.46	29.83	30.32	29.60	0.72
July	29.74	29.96	29.54	0.42	29.81	30.17	29.35	0.82	29.88	30.01	29.61	0.40	29.92	30.37	29.65	0.72
August	29.86	30.11	29.61	0.50	29.93	30.19	29.65	0.54	30.00	30.94	29.75	1.19	29.99	30.29	29.64	0.65
September ..	30.14	30.38	29.90	0.48	29.98	30.29	29.74	0.55	29.95	30.49	29.45	1.04	29.99	30.36	29.75	0.61
October	29.71	30.11	29.31	0.80	30.00	30.27	29.55	0.72	30.05	30.45	29.04	1.41	30.03	30.28	29.54	0.74
November ..	29.80	30.41	29.19	1.22	29.91	30.16	29.23	0.93	29.81	30.19	29.23	0.96	29.91	30.34	29.34	0.90
December ..	29.44	30.19	28.69	1.50	29.73	30.27	29.23	1.04	29.85	30.54	29.22	1.32	30.08	30.40	29.75	0.65
Summer	29.99	30.44	29.45	0.99	29.88	30.48	29.30	1.18	29.95	30.94	29.21	1.73	29.93	30.63	29.46	1.17
Winter	29.91	30.64	28.69	1.95	29.98	30.84	28.94	1.90	29.89	30.54	29.04	1.50	30.03	30.50	29.34	1.16
Whole year.	29.91	30.64	28.69	1.95	29.93	30.84	28.94	1.90	29.92	30.94	29.04	1.90	29.98	30.63	29.34	1.29

NOTE.—The leaning figures are the conjectured correct values in place of manifest errors in the original journal.

LOCAL TABLES.

129

TABLE II.
TEMPERATURE OBSERVATIONS.*Old style, except 1847.*

Month.	1843.							1844.						
	Morn.	Noon.	Eve.	Daily.	Max.	Min.	Range.	Morn.	Noon.	Eve.	Daily.	Max.	Min.	Range.
January	0	0	0	0	0	0	0	0	0	0	0	0	0	0
February								-19.5	-9.2	-15.9	-14.8	25.2	-46.1	71.3
March								-20.4	2.3	-13.2	-10.5	36.9	-39.3	76.2
April								9.5	28.6	12.4	16.9	50.0	-8.5	58.5
May								30.9	42.6	26.6	33.3	59.0	13.5	45.5
June	39.7	49.6	41.0	43.4	62.4	30.3	32.1	40.1	48.0	37.8	41.9	68.4	23.0	45.4
July	49.0	56.3	48.6	51.3	68.6	37.0	31.6	52.2	57.0	49.8	52.9	75.2	41.4	33.8
August	55.8	62.0	56.7	58.2	72.5	46.0	26.5	54.5	59.0	52.5	55.4	72.5	48.2	24.3
September	50.4	63.4	53.8	55.9	71.4	34.2	37.2	51.8	56.3	51.6	53.1	65.1	41.4	23.7
October	34.3	46.8	39.3	40.2	60.7	18.0	42.7	38.1	55.4	45.0	46.2	65.7	21.9	43.8
November	16.5	24.8	19.4	20.2	41.0	-6.7	47.7	14.2	28.5	17.1	18.9	56.7	-7.4	64.1
December	-0.6	5.5	0.7	1.9	35.4	-16.4	51.8	-0.8	7.0	1.8	2.7	31.5	-23.1	54.6
Summer	-23.0	-17.5	-22.9	-21.2	0.5	-34.9	35.4	-14.1	-10.1	-12.8	-12.3	10.6	-27.6	38.2
Winter								39.9	48.6	38.5	42.3	75.2	-8.5	83.7
Whole year	*27.8	*36.4	*29.6	*31.2	*72.5	*-34.9	*107.4	19.6	30.2	21.0	23.7	75.2	-46.1	121.3

* For eight months only.

Month.	1845.							1846.						
	Morn.	Noon.	Eve.	Daily.	Max.	Min.	Range.	Morn.	Noon.	Eve.	Daily.	Max.	Min.	Range.
January	0	0	0	0	0	0	0	0	0	0	0	0	0	0
February	-16.4	-10.5	-11.4	-12.8	10.6	-51.2	61.8	-20.9	-15.0	-15.5	-17.0	19.6	-41.1	60.7
March	-5.1	10.2	-0.6	1.6	24.8	-31.4	56.2	1.4	7.2	6.3	7.2	32.0	-26.9	58.9
April	3.9	24.6	12.2	13.5	39.9	-23.6	63.5	3.2	22.1	21.0	22.1	39.9	-15.2	55.1
May	25.0	37.6	27.5	30.0	48.9	12.4	36.5	16.9	32.4	27.0	26.1	47.1	-1.1	48.2
June	39.4	48.4	41.0	42.9	60.1	24.8	35.3	35.8	45.0	40.5	39.6	54.9	25.2	29.7
July	49.3	54.5	48.4	50.7	73.6	36.9	36.7	45.3	52.2	49.1	48.4	72.5	32.0	40.5
August	52.9	58.8	53.1	54.9	69.1	43.2	25.9	52.9	61.7	60.3	59.4	78.1	47.1	31.0
September	50.2	56.3	52.0	52.9	71.4	41.0	30.4	46.2	57.0	52.7	53.1	90.5	32.0	58.5
October	33.8	43.5	39.0	38.7	55.6	21.9	33.7	33.8	42.3	38.7	38.5	56.7	19.2	37.5
November	11.5	21.0	17.8	16.7	29.3	-0.6	29.9	7.7	13.5	12.6	12.0	47.1	-19.7	66.8
December	4.8	9.3	5.7	6.6	27.0	-22.0	49.0	-9.8	-7.8	-7.8	-7.8	16.9	-26.5	43.4
Summer	-16.4	-12.1	-14.1	-14.1	9.5	-34.4	43.9	-21.1	-17.7	-19.1	-19.3	32.0	-33.7	65.7
Winter	36.7	46.6	39.0	40.8	73.6	-23.6	97.2	33.3	45.0	41.7	41.4	90.5	-15.2	105.7
Whole year	2.1	10.2	6.1	6.1	55.6	-51.2	106.8	-1.5	4.1	2.5	2.3	56.7	-41.1	97.8
	19.4	28.4	22.5	21.4	73.6	-51.2	124.8	16.0	24.6	22.1	21.9	90.5	-41.1	131.6

Month.	1847 (New style).							1848.						
	Morn.	Noon.	Eve.	Daily.	Max.	Min.	Range.	6 a. m.	2 p. m.	10 p. m.	Daily.	Max.	Min.	Range.
January	0	0	0	0	0	0	0	0	0	0	0	0	0	0
February	-9.2	-3.6	-18.4	-10.4	30.9	-29.6	60.5	-3.1	2.1	-1.5	-0.8	17.4	-20.9	38.3
March	8.2	13.4	8.3	10.0	28.6	-38.2	66.8	1.4	12.9	7.2	7.2	35.4	-34.4	69.8
April	13.0	25.2	17.6	18.6	32.0	-11.2	43.2	2.7	24.3	17.1	14.7	35.4	-14.1	49.5
May	24.9	38.2	23.2	28.8	59.0	7.9	51.1	24.3	36.0	29.3	29.9	51.6	6.1	45.5
June	38.1	47.4	39.3	41.6	57.2	32.5	24.7	35.8	50.2	40.3	42.1	61.7	28.2	33.5
July	47.5	56.9	48.7	51.0	87.1	40.4	46.7	45.3	51.8	44.8	47.3	77.0	39.2	37.8
August	56.5	60.0	55.9	57.5	70.7	45.5	25.2	50.9	59.9	51.3	54.0	71.8	44.8	27.0
September	48.9	56.3	50.8	52.0	67.4	45.5	21.9	46.8	57.0	50.0	51.3	68.0	46.6	21.4
October	35.3	45.9	37.7	39.6	61.2	30.9	30.3	36.5	44.6	40.3	40.4	56.1	18.0	38.1
November	16.0	18.5	15.1	16.5	29.7	-5.1	34.8	12.4	21.6	15.8	16.7	33.1	3.9	29.2
December	-1.3	6.6	3.8	3.0	24.1	-19.7	43.8	-1.5	2.3	-2.2	-0.4	22.5	-23.1	45.6
Summer	-13.5	-10.0	-14.5	-12.7	11.7	-27.0	38.7	-25.4	-20.0	-23.1	-22.8	3.9	-44.5	48.4
Winter	34.1	47.3	39.2	41.6	87.1	-11.2	98.3	34.2	46.6	38.7	39.6	77.0	-14.1	91.1
Whole year	5.9	11.8	5.3	7.7	61.2	-38.2	99.4	3.4	10.6	6.1	6.8	56.1	-44.5	100.6
	22.0	29.6	22.3	24.6	87.1	-38.2	125.3	18.9	28.6	22.5	23.2	77.0	-44.5	121.5

TABLE II.—TEMPERATURE OBSERVATIONS—Continued.

Month.	1849.							1850.						
	6 a. m.	2 p. m.	10 p. m.	Daily.	Max.	Min.	Range.	6 a. m.	2 p. m.	10 p. m.	Daily.	Max.	Min.	Range.
January	0	0	0	0	0	0	0	0	0	0	0	0	0	0
February	-7.8	0.3	-5.8	-4.4	12.9	-17.5	30.4	-18.6	-13.7	-18.2	-16.8	10.6	-35.5	46.1
March	-18.2	-2.2	-9.4	-9.8	15.1	-35.5	50.6	-9.6	4.5	-1.7	-2.2	21.2	-24.2	45.4
April	2.3	19.6	11.7	11.3	39.2	-22.0	61.2	7.0	19.2	11.5	12.6	29.7	-13.4	43.1
May	19.6	42.1	25.7	29.1	57.9	-5.1	63.0	22.3	34.7	25.5	27.5	42.1	7.9	34.2
June	39.0	45.3	38.1	40.8	66.2	26.4	39.8	34.7	46.2	33.8	38.2	63.5	23.0	40.5
July	50.0	57.4	49.1	52.2	71.4	34.2	37.2	52.2	60.8	51.6	54.9	69.6	39.2	30.4
August	56.5	62.6	59.2	59.4	72.9	48.9	24.0	58.8	66.4	58.8	61.2	76.3	45.5	30.8
September	52.7	58.5	54.3	55.2	68.4	38.7	29.7	50.9	57.6	50.9	53.1	75.9	40.3	35.6
October	30.9	42.6	38.3	37.2	52.2	21.4	30.3	35.1	43.0	5.6	37.8	56.7	14.0	42.7
November	11.7	17.4	13.3	14.2	23.7	3.3	27.0	3.4	10.2	6.8	6.8	39.9	-19.1	59.0
December	-7.6	-2.4	-6.2	-5.3	18.5	-27.6	46.1	-8.5	-3.5	-6.0	-6.0	16.9	-21.3	38.2
Whole year	0.0	+3.4	+0.5	+1.4	28.6	-28.7	57.3	-17.5	-12.8	-16.4	-15.5	10.2	-37.1	47.3
Summer	36.7	47.5	39.6	41.2	72.9	-22.0	94.9	37.6	47.5	38.7	41.2	76.3	-13.4	81.7
Winter	1.6	9.9	5.2	5.4	52.2	-35.5	87.7	-2.6	4.6	0.0	0.7	56.7	-37.1	93.8
Whole year	19.2	28.8	22.5	23.4	72.9	-35.5	108.4	17.6	26.0	19.4	21.0	76.3	-37.1	113.4

NOTE.—The italicised figures call attention to supposed mistakes in the original. The values here given in *italics* are the conjecturally correct values.

TABLE III.
TEMPERATURE OBSERVATIONS.1843-1849, *New style.*

Period.	Mean temp.	Period.	Mean temp.
January	-11.74	October	+24.20
February	-3.30	November	5.40
March	+10.13	December	-9.71
April	24.30		
May	37.31	Spring	+23.92
June	47.32	Summer	52.06
July	54.61	Autumn	24.64
August	54.25	Winter	-8.25
September	44.30	Year	+23.09

TABLE IV.
RAIN AND SNOW FALL.

Month. <i>Old style.</i>	1848.			1849.			1850.		
	Rain.	Snow.	Total.	Rain.	Snow.	Total.	Rain.	Snow.	Total.
	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>
January	0.00	0.41	0.41				0.00	0.06	0.06
February	0.00	0.29	0.29	0.03	0.03	0.06	0.00	0.00	0.00
March	0.00	0.56	0.56	0.23	0.23	0.46	0.00	0.23	0.23
April	0.00	0.47	0.47	0.01	0.01	0.02	0.00	0.44	0.44
May	0.09	0.16	0.25				0.00	0.10	0.10
June	1.02	0.00	1.02				0.83	0.00	0.83
July	2.57	0.00	2.57				0.69	0.00	0.69
August	0.13	0.00	0.13	0.13	0.13	0.26	1.64	0.00	1.64
September	1.28	0.00	1.28				1.00	0.00	1.00
October	0.00	0.07	0.07	0.03	0.07	0.10	0.00	0.28	0.28
November	0.00	0.33	0.33	0.10	0.10	0.20	0.00	0.00	0.00
December	0.00	0.10	0.10	0.12	0.12	0.24	0.00	0.08	0.08
Year	5.09	2.39	7.48				4.16	1.19	5.35

TABLE V.
DIRECTION OF WINDS.
1843-1850, *Old style.*

Month.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.
January	76.40	11.39	3.10	0.83	0.21	0.41	0.00	7.45	0.21
February	70.75	13.87	3.70	3.12	0.69	0.11	0.81	6.47	0.46
March	53.24	12.84	8.56	7.41	2.82	1.25	0.94	10.44	2.50
April	36.88	10.97	6.56	14.95	6.77	6.13	2.69	11.51	3.55
May	10.63	8.81	7.76	28.06	13.99	12.26	3.07	8.91	6.51
June	5.13	2.47	10.07	38.27	17.38	13.01	2.85	5.32	5.51
July	7.37	1.34	15.12	38.76	15.88	9.19	2.30	5.65	4.40
August	16.37	5.65	14.91	24.56	12.08	10.62	1.85	10.04	3.90
September	39.51	6.21	12.12	14.05	5.09	6.52	1.22	12.53	2.75
October	60.26	11.36	5.40	2.20	0.64	0.27	2.93	16.85	0.00
November	73.08	16.89	1.87	1.08	0.29	0.00	0.20	6.48	0.10
December	79.70	13.29	0.57	0.00	0.09	0.00	0.38	5.60	0.38
Spring	33.58	10.87	7.63	16.81	7.86	6.55	2.23	10.29	4.19
Summer	9.62	3.15	13.37*	33.86	15.11	10.94	2.33	7.00	4.60
Autumn	57.62	11.49	6.46	5.78	2.01	2.26	1.45	11.95	0.98
Winter	75.62	12.85	2.46	1.32	0.33	0.17	0.40	6.51	0.35
Year	43.57	9.49	7.53	14.72	6.46	5.08	1.63	8.96	2.56

TABLE VI.
FORCE OF WINDS.
1843-1850, *Old style.*

Month.	Light.	Moderate.	Fresh.	Strong.
January	90.73	4.96	3.02	1.29
February	95.02	3.08	1.42	0.47
March	80.98	10.83	6.41	1.77
April	87.59	7.35	4.60	0.46
May	86.02	12.01	1.77	0.20
June	84.92	11.42	3.47	0.19
July	86.48	10.48	2.47	0.57
August	87.64	10.84	0.76	0.76
September	83.24	11.75	5.01	0.00
October	80.03	17.81	1.98	0.18
November	72.83	24.03	2.77	0.37
December	88.99	8.85	2.16	0.00
Year	85.13	11.43	2.94	0.50

TABLE VII.
WEATHER OBSERVATIONS.

Old style, except 1847.

Month.	1843.								1844.							
	Number of days.				Number of observations.				Number of days.				Number of observations.			
	Clear.	Half clear.	Cloudy.	Total.	Snow.	Rain.	Fog.	Thunder.	Clear.	Half clear.	Cloudy.	Total.	Snow.	Rain.	Fog.	Thunder.
January									9	11	11	31	11	0	0	0
February									6	12	11	29	10	0	0	0
March									6	4	21	31	22	0	0	0
April									7	7	16	30	9	0	2	0
May	5	13	13	31	3	2	0	0	7	3	21	31	6	10	4	0
June	1	3	26	30	0	3	14	3	3	7	20	30	0	0	3	1
July	0	5	26	31	0	14	14	1	4	5	22	31	0	16	9	0
August	4	16	11	31	0	13	3	0	0	11	20	31	0	8	2	0
September	5	9	16	30	6	11	0	1	11	8	11	30	2	3	0	0
October	7	8	16	31	14	10	0	0	6	7	18	31	19	1	0	0
November	8	13	9	30	15	0	0	0	7	7	16	30	15	0	0	0
December	17	13	1	31	0	0	0	0	11	10	10	31	3	0	0	0
Summer									27	37	120	184	37	34	20	1
Winter									50	55	77	182	60	4	0	0
Whole year	47	80	118	245	38	53	31	5	77	92	197	366	97	38	20	1

Month.	1845.								1846.							
	Number of days.				Number of observations.				Number of days.				Number of observations.			
	Clear.	Half clear.	Cloudy.	Total.	Snow.	Rain.	Fog.	Thunder.	Clear.	Half clear.	Cloudy.	Total.	Snow.	Rain.	Fog.	Thunder.
January	17	1	13	31	12	0	1	0	12	1	8	21	13	0	0	0
February	22	0	6	28	6	0	0	0	10	5	13	28	18	0	0	0
March	23	0	8	31	16	0	2	0	7	6	18	31	13	0	1	0
April	11	1	18	30	16	0	1	0	5	6	19	30	10	0	21	0
May	12	1	18	31	4	10	3	0	1	7	23	31	11	3	10	0
June	11	2	17	30	0	9	4	0	0	6	24	30	0	12	45	0
July	7	7	17	31	0	7	6	1	10	5	16	31	0	11	17	0
August	2	6	23	31	0	18	4	0	6	8	17	31	0	10	2	0
September	8	4	18	30	1	0	1	0	12	2	16	30	4	25	0	1
October	7	11	13	31	7	0	0	0	11	2	18	31	22	8	0	0
November	10	9	11	30	18	0	0	0	23	2	5	30	13	0	0	0
December	15	8	8	31	7	0	0	0	27	0	4	31	4	0	0	0
Summer	66	17	101	184	36	44	20	1	29	38	117	184	34	36	96	0
Winter	79	33	69	181	51	0	2	0	95	12	64	171	74	33	0	1
Whole year	145	50	170	365	87	44	22	1	124	50	181	355	108	69	96	1

TABLE VII.—WEATHER OBSERVATIONS—Continued.

Month.	1847 (<i>New style</i>).								1848.							
	Number of days.				Number of observations.				Number of days.				Number of observations.			
	Clear.	Half clear.	Cloudy.	Total.	Snow.	Rain.	Fog.	Thunder.	Clear.	Half clear.	Cloudy.	Total.	Snow.	Rain.	Fog.	Thunder.
January.....	14	9	8	31	16	0	0	0	9	6	16	31	36	0	0	0
February.....	12	8	8	28	16	0	0	0	8	6	15	29	26	0	1	0
March.....	19	4	8	31	7	0	0	0	12	4	15	31	36	0	0	0
April.....	10	12	8	30	3	0	1	0	7	6	17	30	33	0	2	0
May.....	8	7	16	31	4	6	6	0	4	9	18	31	8	1	18	0
June.....	5	4	21	30	0	3	12	0	4	6	20	30	0	15	18	1
July.....	0	7	24	31	0	27	7	0	2	10	19	31	0	26	3	1
August.....	2	11	18	31	0	16	3	1	8	8	15	31	0	21	1	0
September.....	4	12	14	30	0	16	4	0	2	15	13	30	0	22	1	0
October.....	9	6	16	31	32	0	0	0	19	2	10	31	5	0	0	0
November.....	7	7	16	30	19	0	0	0	15	5	10	30	21	0	0	0
December.....	10	12	9	31	10	0	0	0	19	7	5	31	10	0	0	0
Summer.....	44	45	95	184	14	52	29	1	37	43	104	184	77	63	42	2
Winter.....	56	54	71	181	93	16	4	0	72	41	69	182	98	22	2	0
Whole year.....	100	99	166	365	107	68	33	1	109	84	173	366	175	85	44	2

Month.	1849.								1850.							
	Number of days.				Number of observations.				Number of days.				Number of observations.			
	Clear.	Half clear.	Cloudy.	Total.	Snow.	Rain.	Fog.	Thunder.	Clear.	Half clear.	Cloudy.	Total.	Snow.	Rain.	Fog.	Thunder.
January.....	20	8	3	31	0	0	0	0	23	3	5	31	6	0	0	0
February.....	11	8	9	28	6	0	0	0	20	4	4	28	3	0	0	0
March.....	10	9	12	31	19	0	1	0	11	3	17	31	38	0	0	0
April.....	14	7	9	30	5	0	1	0	7	6	17	30	15	0	0	0
May.....	6	7	18	31	19	2	2	0	6	4	21	31	18	0	4	0
June.....	9	4	17	30	0	4	13	0	7	11	12	30	0	10	3	1
July.....	4	8	19	31	0	11	4	0	12	8	11	31	0	7	2	1
August.....	7	11	13	31	0	20	2	1	6	5	20	31	0	20	6	0
September.....	20	3	7	30	0	1	0	0	3	6	21	30	1	7	0	0
October.....	19	4	8	31	12	4	0	0	10	7	14	31	5	2	0	0
November.....	18	4	8	30	21	0	0	0	20	6	4	30	1	0	0	0
December.....	8	3	20	31	30	0	0	0	22	5	4	31	2	0	0	0
Summer.....	50	46	88	184	43	37	23	1	49	37	98	184	71	37	15	2
Winter.....	96	30	55	181	69	5	0	0	98	31	52	181	18	9	0	0
Whole year.....	146	76	143	365	112	42	23	1	147	68	150	365	89	46	15	2

PORT OF AIAN, OKHOTSK SEA, EASTERN SIBERIA.

Lat. $56^{\circ} 27' 27''$ N. Long. $138^{\circ} 11' 3''$ E. of Gr.*Height of station above the level of the sea:* 40–50 feet.

Sources of information: Journ. Russ. Hydr. Dept., vols. IV, V, VII–X; Ann. Cent. Phys. Obs. 1847; Vesseloffsky's Climate of Russia, Part II, p. 225. See also TILING (Henry) Brief (den 10 October, 1850) aus Ajan am Ochotskischen meere an Herrn Coll.-Rath Dr. Deeters in Riga; in BUHSE (F. A.) and GOTTFRIEDT (M. R.) Correspondenzblatt des naturforschenden vereins zu Riga. 8°. Riga, 1851. Vierter jahrgang, 1850–51, No. 9, pp. 134–139.

BAROMETRICAL OBSERVATIONS.

TABLE I.—*Barometer.* From Journ. Russ. Hydr. Dept. Period three years, *new style*, 1848–1850. Three observations per day, at 7 a. m., 2 and 9 p. m. Originals in English inches reduced to 62° F. Only the mean values are published in the Journal. The adopted reduction to sea-level is +0.048; reduction to freezing point, 62° to 32° F., –0.089. Total correction, –0.041 inch.

The column “Corrected means” embodies the results of Tables I and II, and its period is therefore three years and four months. The means from January to August, inclusive = $\frac{1}{3} (B_{1848} + B_{1849} + B_{1850}) - 0.041$, and from September to December mean = $\frac{1}{3} (B_{1847} + B_{1848} + B_{1849} + B_{1850}) - 0.041$, the readings from September 1847 to August 1849 being carried to thousandths.

TABLE II.—*Barometer.* From Ann. Cent. Phys. Obs. Period two years, *new style*, September 1847 to August 1849. Observations reduced to 62° F. but not to sea-level. Observing hours, 7 a. m., 2 and 9 p. m. Mean = $\frac{1}{3} (7_a + 2_p + 9_p)$. This is only a fuller abstract of the observations contained in Table I, with the addition of four months in 1847. Observations were continued at this place after 1850—probably to September 1851, but are not accessible to us.

THERMOMETRICAL OBSERVATIONS.

TABLE III.—*Mean temperature of the air.* From Journ. Russ. Hydr. Dept., vols. IV, V, and VIII–X. Period covered by the table, about five years and four months, 1843–1850. The observations from 1843 to 1845, both inclusive, are *old style*; the others, viz, 1848–1850, are *new style*. The observing hours for the *old style* observations are not given, but for the *new style* observations they are 7 a. m., 2 and 9 p. m., and the corresponding mean is $\frac{1}{3} (7_a + 2_p + 9_p)$. Originally expressed in Reaumur degrees; here expressed in Fahrenheit degrees.

PRECIPITATION.

TABLE IV.—*Rain and melted snow fall.* Period three years and ten months, *new style* (?). From Vesseloffsky's Climate of Russia, App. II, p. 225. Results expressed in English inches.

WINDS.

TABLE V.—*Direction of winds.* From Ann. Cent. Phys. Obs. 1847. Period two years, *new style*, September 1847 to August 1849, inclusive; three observations per day, recorded to eight points of the compass. Directions are probably magnetic. In the Russ. Hydr. Journ. they are stated to be “by compass.” Whole number of observations, 2,190. Results in percentages.

TABLE VI.—*Force of winds.* Same period, observing hours, &c., as the preceding. The force of the wind was estimated. Whole number of observations, 1,623. Results in percentages.

WEATHER OBSERVATIONS.

TABLE VII.—*Weather observations.* From Journal Russ. Hydr. Dept. Period, style, observing hours, &c., as in Table III.

METEOROLOGICAL OBSERVATIONS TAKEN AT PORT AIAN, OKHOTSK SEA.

TABLE I.

ATMOSPHERIC PRESSURE.

Barometrical observations reduced to 62° F.

Month (<i>New style</i>).	1848.	1849.	1850.	All.*
	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>
January	30.05	29.70	29.90	29.845
February	29.99	29.92	30.07	.957
March	30.06	29.94	29.91	.929
April	29.86	29.92	29.89	.853
May	29.80	29.88	29.70	.753
June	29.79	29.77	29.86	.765
July	29.70	29.74	29.66	.661
August	29.77	29.92	29.82	.795
September	29.87	29.91	29.90	.839
October	29.97	29.97	29.87	.891
November	29.76	29.84	29.95	.823
December	29.88	29.79	29.99	.824
Summer	29.83	29.86	29.81	29.793
Winter	29.92	29.86	29.94	29.863
Whole year	29.87	29.86	29.87	29.828

* Corrected means.

TABLE II.

ATMOSPHERIC PRESSURE.

Barometrical observations reduced to 62° F.

Month (<i>New style</i>).	1847 and 1849.							1848.						
	7 a. m.	2 p. m.	9 p. m.	Mean.	Max.	Min.	Range.	7 a. m.	2 p. m.	9 p. m.	Mean.	Max.	Min.	Range.
	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>
January	29.695	29.687	29.715	29.699	30.270	29.307	0.963	30.046	30.046	30.076	30.058	30.603	29.086	1.517
February	29.926	29.909	29.937	29.924	30.362	29.570	0.792	30.009	29.984	30.006	30.000	30.758	29.605	1.153
March	29.944	29.925	29.955	29.941	30.553	29.583	0.970	30.065	30.043	30.070	30.059	30.581	29.262	1.319
April	29.926	29.905	29.942	29.925	30.514	29.311	1.203	29.873	29.851	29.880	29.868	30.340	29.431	0.909
May	29.881	29.867	29.886	29.878	30.263	29.409	0.854	29.801	29.797	29.814	29.804	30.144	29.529	0.615
June	29.772	29.764	29.762	29.766	30.127	29.433	0.594	29.810	29.779	29.783	29.791	30.268	29.360	0.908
July	29.749	29.737	29.748	29.745	30.072	29.314	0.758	29.712	29.692	29.699	29.701	30.177	29.186	0.991
August	29.919	29.907	29.921	29.916	30.348	29.691	0.657	29.770	29.759	29.787	29.772	30.098	29.397	0.701
September	29.850	29.819	29.853	29.841	30.194	29.490	0.704	29.877	29.859	29.873	29.870	30.184	29.459	0.725
October	29.924	29.897	29.927	29.916	30.197	29.386	0.811	29.977	29.957	29.983	29.972	30.413	29.271	1.142
November	29.909	29.895	29.913	29.906	30.297	29.541	0.754	29.768	29.742	29.770	29.760	30.158	29.237	0.921
December	29.802	29.785	29.806	29.798	30.478	29.115	1.363	29.887	29.876	29.886	29.883	30.250	29.260	0.990
Year	29.858	29.841	29.864	29.855	30.553	29.115	1.438	29.883	29.865	29.886	29.878	30.758	29.086	1.672

NOTE.—In the columns headed "1847 and 1849" the numbers *below* the dividing line belong to the year 1847 and those *above* it to 1849.

TABLE III.
TEMPERATURE OBSERVATIONS.

Month.	1843 (<i>Old style</i>).							1844 (<i>Old style</i>).						
	Morn.	Noon.	Eve.	Daily.	Max.	Min.	Range.	Morn.	Noon.	Eve.	Daily.	Max.	Min.	Range.
January	°	°	°	°	°	°	°	-10.1	+0.9	-6.7	-5.3	21.9	-34.4	56.3
February	°	°	°	°	°	°	°	-11.4	3.6	-6.7	-4.9	19.2	-28.7	47.9
March	°	°	°	°	°	°	°	12.0	25.2	16.9	18.0	33.6	-10.1	43.7
April	°	°	°	°	°	°	°	23.7	34.9	28.4	29.1	47.7	1.2	46.5
May*	°	°	°	°	°	°	°	35.1	39.4	35.4	36.7	51.1	28.2	22.9
June†	48.4	53.6	46.8	49.5	69.1	35.4	33.7	°	°	°	°	°	°	°
July‡	59.2	66.9	57.6	61.2	83.1	51.1	32.0	°	°	°	°	°	°	°
August	48.4	58.1	43.9	50.2	64.6	36.5	28.1	51.3	56.1	49.1	52.2	64.6	42.1	22.5
September	32.0	47.3	37.6	39.0	59.0	16.2	42.8	40.8	53.1	40.5	44.8	64.6	27.5	37.1
October	20.7	31.8	25.2	25.9	41.0	1.6	39.4	16.5	28.2	16.0	20.3	51.1	-6.2	57.3
November	6.6	13.5	9.5	9.7	30.4	-17.5	47.9	-1.5	4.1	-1.7	0.3	27.5	-18.6	46.1
December	-6.0	0.5	-3.8	-3.1	21.9	-25.4	47.3	-14.6	-7.6	-14.8	-12.3	7.2	-28.7	35.9
Summer	°	°	°	°	°	°	°	38.3	45.9	39.0	41.2	83.1	-10.1	93.2
Winter	°	°	°	°	°	°	°	73.2	13.8	4.5	7.2	64.6	-34.4	99.0
Whole year	30.0	38.7	31.1	33.1	83.1	-25.4	108.5	20.7	29.7	21.9	24.1	83.1	-34.4	117.5

Month.	1845 (<i>Old style</i>).							1848 (<i>New style</i>).						
	Morn.	Noon.	Eve.	Daily.	Max.	Min.	Range.	7 a. m.	2 p. m.	9 p. m.	Daily.	Max.	Min.	Range.
January	-16.1	-1.5	-14.6	-10.7	8.4	-33.2	41.6	-7.6	-2.4	-7.4	-6.0	19.8	-29.6	49.4
February	-7.8	11.1	-5.6	-0.8	25.2	-24.2	49.4	5.0	14.4	7.9	8.8	26.4	-17.3	43.7
March	10.4	29.1	9.9	16.5	45.5	-17.5	63.0	9.7	22.1	11.7	14.0	32.0	-8.5	40.5
April	28.4	39.0	26.1	31.3	55.6	12.9	42.7	23.0	31.0	22.1	24.6	47.4	0.5	40.9
May	40.8	47.5	36.7	41.7	72.5	29.3	43.2	36.5	40.5	32.4	35.4	55.8	15.6	40.2
June	48.4	56.1	46.8	50.4	78.1	36.5	41.6	48.0	51.8	44.6	47.3	85.8	25.9	59.9
July	53.8	61.5	51.6	55.6	81.5	44.4	37.1	57.6	59.0	52.0	55.2	85.3	34.7	50.6
August	54.3	57.0	51.3	54.3	78.1	43.2	34.9	53.4	56.5	48.9	50.9	70.2	36.9	33.3
September	39.2	46.6	38.7	41.7	59.0	28.6	30.4	45.7	52.0	44.8	46.8	62.8	32.2	30.6
October	12.9	24.3	13.8	16.9	42.1	2.7	39.4	24.8	34.0	25.9	27.7	45.7	5.0	40.7
November	3.4	10.6	5.0	6.3	25.2	-16.4	41.6	7.0	12.6	7.7	11.3	32.0	-13.0	45.0
December	-6.0	2.3	-5.8	-3.1	14.0	-22.0	36.0	-0.8	3.0	-0.6	0.3	26.6	-19.7	46.3
Summer	39.4	48.4	37.2	39.4	81.5	-17.5	99.0	38.1	43.5	35.1	37.8	85.8	-8.5	94.3
Winter	4.3	15.6	5.2	8.4	59.0	-33.2	92.2	12.4	18.9	13.1	14.9	62.8	-29.6	92.4
Whole year	21.9	32.0	21.2	25.0	81.5	-33.2	114.7	25.2	31.3	24.1	26.4	85.8	-29.6	115.4

Month.	1849 (<i>New style</i>).							1850 (<i>New style</i>).						
	7 a. m.	2 p. m.	9 p. m.	Daily.	Max.	Min.	Range.	7 a. m.	2 p. m.	9 p. m.	Daily.	Max.	Min.	Range.
January	-7.6	-2.2	-5.8	-5.3	18.5	-32.3	50.8	-10.1	-5.3	-8.5	-9.4	20.7	-29.2	49.9
February	0.0	9.5	-0.4	2.3	22.1	-22.4	44.5	3.4	12.0	3.4	3.6	27.7	-15.2	42.9
March	12.6	23.0	14.0	16.0	39.4	-5.8	45.2	17.1	26.6	16.7	17.6	36.7	-4.7	41.4
April	25.0	30.9	20.7	24.3	43.7	-6.9	50.6	25.0	30.9	21.9	23.4	42.1	-7.4	49.5
May	37.4	40.5	33.3	36.0	66.0	22.3	43.7	36.9	38.7	31.5	33.8	57.9	18.7	39.2
June	45.5	48.2	41.4	44.1	72.9	28.6	44.3	46.4	48.9	40.3	42.8	66.6	27.9	38.7
July	57.0	57.9	51.1	54.3	77.9	38.1	39.8	58.1	59.0	50.4	53.4	82.2	35.1	47.1
August	55.8	59.4	53.8	55.6	71.8	42.3	29.5	54.5	57.2	51.6	53.1	77.2	39.4	37.8
September	42.1	50.0	41.4	43.7	58.5	25.2	33.3	46.4	52.2	45.9	46.6	56.7	24.6	32.1
October	30.6	38.5	30.6	32.7	55.6	9.9	45.7	22.8	29.5	23.2	23.4	52.5	2.7	49.8
November	11.7	18.0	12.0	13.5	32.9	-8.0	40.9	0.5	5.7	0.9	0.9	23.0	-17.0	40.0
December	-8.0	-4.4	-9.4	-8.3	9.7	-26.5	36.2	-5.8	7.2	-5.6	-3.5	17.4	-22.9	40.3
Summer	39.0	43.2	35.6	38.3	77.9	-5.8	83.7	39.6	43.5	35.4	37.4	82.2	-7.4	89.6
Winter	11.5	18.3	11.5	13.1	58.5	-32.3	90.8	9.5	16.9	9.9	10.4	56.7	-29.2	85.9
Whole year	25.2	30.9	23.7	25.9	77.9	-32.3	110.8	24.6	30.2	22.8	23.9	82.2	-29.2	111.4

* Observations made from 1st to 28th only.

‡ Observations made from 19th to end of month.

† Observations made from 1st to 26th only.

§ Seven months by interpolating for June and July.

* In making up these results the observations of June and July, 1843, have been used to supply the omission.

LOCAL TABLES.

137

TABLE IV.
RAIN AND SNOW FALL.

Month (<i>New style</i>).	1847.	1848.	1849.	1850.	1851.
	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>
January		0.50	0.00	1.10	0.48
February		1.09	0.13	0.02	0.28
March		0.59	0.50	0.25	0.16
April		0.76	0.04	0.64	0.73
May		1.27	2.07	3.90	1.01
June		1.58	1.87	3.36	1.04
July		7.40	3.01	1.18	
August		4.84	9.00	13.18	
September	11.44	11.27	5.82	12.79	
October	3.63	4.88	1.22	5.98	
November	3.02	0.55	1.13	0.39	
December	0.30	1.75	0.09	0.00	
Year		36.48	24.88	42.79	

TABLE V.
DIRECTION OF WINDS.
1847-1849, *New style*.

Month.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.
January	8.60	10.21	1.61	10.22	15.59	25.27	3.76	1.61	23.12
February	9.36	20.47	7.02	4.09	7.02	9.35	6.44	3.51	32.75
March	8.60	31.18	1.61	0.54	9.14	10.22	0.54	2.69	35.48
April	9.44	26.67	3.89	1.11	12.22	11.11	1.11	2.78	31.67
May	10.21	33.33	1.61	1.61	10.22	15.05	1.08	2.15	24.73
June	5.00	34.44	2.78	0.00	4.44	28.33	5.00	0.56	19.44
July	2.69	32.26	8.60	1.61	3.76	22.58	3.23	1.08	24.19
August	5.46	26.77	7.65	0.00	3.82	26.78	3.28	0.55	25.68
September	0.56	46.11	5.56	0.56	1.66	18.33	2.78	0.56	23.89
October	10.21	20.43	4.30	2.15	8.07	16.13	3.76	1.61	33.33
November	11.11	20.00	4.44	3.89	8.89	15.56	11.67	5.00	19.44
December	6.45	26.88	2.15	6.45	10.22	25.81	1.61	4.84	15.59
Spring	9.42	30.43	2.35	1.09	10.51	12.14	0.91	2.54	30.62
Summer	4.37	31.15	6.38	0.55	4.01	25.86	3.82	0.73	23.13
Autumn	7.33	28.75	4.76	2.20	6.23	16.67	6.04	2.38	25.64
Winter	8.10	19.15	3.50	7.00	11.05	20.44	3.87	3.32	23.57
Year	7.31	27.40	4.25	2.69	7.94	18.77	3.65	2.24	25.75

TABLE VI.
FORCE OF WINDS.
1847-1849, *New style*.

Month.	Very light.	Light.	Mod.	Strong.	Very strong.
January	4.89	42.66	41.96	10.49	0.00
February	5.22	44.35	36.52	13.91	0.00
March	4.17	56.67	30.83	8.33	0.00
April	1.63	56.10	39.84	2.44	0.00
May	4.29	49.28	38.57	7.86	0.00
June	5.52	53.10	40.00	1.38	0.00
July	8.51	32.62	55.32	3.55	0.00
August	8.82	66.18	24.26	0.74	0.00
September	8.03	43.80	37.96	9.48	0.73
October	9.68	45.97	43.55	0.80	0.00
November	2.07	39.31	46.21	11.72	0.69
December	2.55	43.95	38.22	15.29	0.00
Year	5.41	47.60	39.61	7.26	0.12

TABLE VII.
WEATHER OBSERVATIONS.

Month.	1843 (<i>Old style</i>).								1844 (<i>Old style</i>).							
	Number of days.					Number of observations.			Number of days.					Number of observations.		
	Clear.	Half clear.	Cloudy.	Foggy.	Total.	Snow.	Rain.	Thunder.	Clear.	Half clear.	Cloudy.	Foggy.	Total.	Snow.	Rain.	Thunder.
January									16	5	10	0	31	9	0	0
February									18	4	7	0	29	2	0	0
March									9	7	15	0	31	23	0	0
April									9	8	11	2	30	8	0	0
May									4	4	18	1	27	23	19	2
June	2	4	16	8	30	1	14	1								
July	4	3	11	7	*25	0	12	0								
August	3	4	6	0	*13	1	6	0	3	3	23	2	31	0	23	0
September	9	7	14	0	30	2	5	0	10	3	17	0	30	0	16	0
October	9	7	15	0	31	10	0	0	16	4	11	0	31	7	0	0
November	13	4	13	0	30	14	0	0	14	6	10	0	30	15	0	0
December	21	6	4	0	31	0	0	0	19	5	7	0	31	4	0	0
Summer									25	22	67	5	119	54	42	2
Winter									93	27	62	0	182	37	16	0
Whole year	†61	†35	†79	†15	190	†28	†37	†1	118	49	129	5	301	91	58	2

* There is a break in the record from July 26 to August 19.

† For 190 days only.

Month.	1845 (<i>Old style</i>).								1848 (<i>New style</i>).							
	Number of days.					Number of observations.										
	Clear.	Half clear.	Cloudy.	Foggy.	Total.	Snow.	Rain.	Thunder.	Clear.	Clear, with clouds.	Cloudy.	Foggy.	Rainy.	Snowy.	Snow-storm.	Total.
January	17	6	8	0	31	8	0	0	18	3	6	0	0	2	2	31
February	10	10	8	0	28	5	0	0	17	3	4	0	0	3	2	29
March	9	9	13	0	31	14	0	0	18	8	3	0	0	2	0	31
April	7	6	16	1	30	30	0	0	15	7	7	0	0	1	0	30
May	7	8	12	4	31	5	8	0	16	7	6	1	0	1	0	31
June	0	10	14	6	30	0	16	2	16	5	5	2	2	0	0	30
July	2	5	18	6	31	0	15	2	16	2	5	6	2	0	0	31
August	6	3	14	2	25	0	17	0	17	5	5	2	2	0	0	31
September	5	3	22	0	30	1	25	0	15	3	4	2	6	0	0	30
October	16	2	13	0	31	12	0	0	20	4	5	0	1	1	0	31
November	13	1	16	0	30	6	0	0	24	2	3	0	0	1	0	30
December	23	0	8	0	31	4	0	0	22	2	3	0	0	3	1	31
Summer	31	41	87	19	178	49	56	4	98	34	31	11	6	4	0	184
Winter	84	22	75	0	181	36	25	0	116	17	25	2	7	10	5	182
Whole year	115	63	162	19	359	85	81	4	214	51	56	13	13	14	5	366

TABLE VII.—WEATHER OBSERVATIONS—Continued.

Month.	1849 (<i>New style</i>).								1850 (<i>New style</i>).							
	Clear.	Half clear.	Cloudy.	Foggy.	Rainy.	Snowy.	Snow-storm.	Total.	Clear.	Half clear.	Cloudy.	Foggy.	Rainy.	Snowy.	Snow-storm.	Total.
January	27	2	1	0	0	0	1	31	24	1	4	0	0	2	0	31
February	21	4	1	0	0	1	1	28	23	4	1	0	0	0	0	28
March	20	3	5	1	0	1	1	31	17	6	5	0	0	2	1	31
April	23	3	4	0	0	0	0	30	16	6	5	0	0	3	0	30
May	12	2	14	1	1	1	0	31	11	7	8	1	1	3	0	31
June	11	4	8	4	2	1	0	30	13	7	3	3	2	2	0	30
July	14	5	4	6	2	0	0	31	13	5	3	9	1	0	0	31
August	9	4	8	5	5	0	0	31	9	4	6	4	8	0	0	31
September...	18	3	6	1	2	0	0	30	8	6	7	2	7	0	0	30
October	18	4	6	0	1	1	1	31	18	5	3	0	2	2	1	31
November...	19	4	5	0	0	2	0	30	19	4	6	0	0	1	0	30
December...	25	3	1	0	0	1	1	31	26	4	1	0	0	0	0	31
Summer	89	21	43	17	10	3	1	184	79	35	30	17	12	10	1	184
Winter	128	20	20	1	3	5	4	181	118	24	22	2	9	5	1	181
Whole year...	217	41	63	18	13	8	5	365	197	59	52	19	21	15	2	365

UDSK VILLAGE, UDI RIVER, EASTERN SIBERIA.

Lat. 54° 29' 29" N. Long. 134° 36' 53" E. of Gr.

*Height of station above the level of the sea is not known.**Source of information :* Journ. Russ. Hydr. Dept., vol. IV, p. 78, table 2.

BAROMETRICAL AND THERMOMETRICAL OBSERVATIONS.

TABLE I.—*Barometer*. Period 5 months, November 1829 to March 1830, inclusive. Supposed to be *old style*. All corrections are unknown. Three observations per day. *Thermometer*: Same period, &c., as for the barometer. Observing hours and formula of reduction not given. Three observations per day.

WINDS.

TABLE II.—*Direction of winds*. Period observing hours and source same as the preceding. Whether the directions are true or magnetic is not stated, but they are presumably magnetic. Observed to 8 points of the compass. Here expressed in percentages. Whole number of observations, 435.

TABLE III.—*Force of winds*. Period, source, &c., as above. The force was estimated; results are in percentages; whole number of observations, 407.

WEATHER OBSERVATIONS.

TABLE IV.—*Weather observations*. Period, source, &c., as above.

The character of the instruments for the observations is not stated, but they were doubtless good ones, having been furnished by the Russian Government to Lieut. P. T. Kozmin for his exploring tour.

METEOROLOGICAL OBSERVATIONS AT UDSK VILLAGE, EASTERN SIBERIA.

TABLE I.

ATMOSPHERIC PRESSURE AND TEMPERATURE OBSERVATIONS.

Month (<i>Old style</i> ?).	No. of days.	Barometer.				Thermometer.							
		Mean.	Max.	Min.	Range.	Morning.	Noon.	Evening.	Mean.	Max.	Min.	Range.	
		<i>Inches.</i>	<i>inches.</i>	<i>Inches.</i>	<i>Inches.</i>	°	°	°	°	°	°	°	
January, 1830	30	29.54	30.15	28.85	1.30	— 5.1	2.5	0.5	— 0.6	23.0	— 36.6	59.6	
February, 1830	27	29.46	30.00	29.10	0.90	— 0.4	11.7	8.8	6.3	41.0	— 19.7	60.7	
March, 1830	31	29.60	29.90	29.40	0.50	17.8	24.3	17.4	19.8	47.7	6.1	41.6	
November, 1829	26	29.57	30.20	29.05	1.15	0.9	2.3	2.1	1.8	14.0	— 13.0	27.0	
December, 1829	31	29.50	30.00	29.10	0.90	— 6.2	— 3.5	— 5.1	— 4.7	14.0	— 24.2	38.2	

TABLE II.

DIRECTION OF WINDS.

Month (<i>Old Style</i> ?).	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.
January, 1830	13.33	7.78	.....	.....	.....	5.55	43.33	24.44	5.56
February, 1830	14.81	7.41	.....	.....	.....	.....	41.98	32.10	3.70
March, 1830	10.75	31.18	8.60	.....	.....	.....	38.71	2.15	8.60
November, 1829 .....	.....	3.85	10.26	.....	.....	10.26	52.56	7.69	15.38
December, 1829	1.07	.....	1.08	.....	.....	4.30	74.19	19.36	.....

TABLE III.

FORCE OF WINDS.

Month (<i>Old style</i> ?).	Strong.	Fresh.	Moderate.	Light.
January, 1830	2.35	4.71	43.53	49.41
February, 1830	11.54	11.54	30.77	46.15
March, 1830	14.12	12.94	43.53	29.41
November, 1829	6.06	10.61	27.27	56.06
December, 1829	19.35	11.83	45.16	23.66

TABLE IV.

WEATHER OBSERVATIONS.

Month (<i>Old style</i> ?).	Number of days.				Number of times.				
	Clear.	Some- what cloudy.	Cloudy.	Over- cast.	Snow.	Rain.	Fog.	Sleet.	Snow- storms.
January, 1830	8	4	15	3	15	2	1	2	5
February, 1830	10	4	11	2	5	.....	.....	.....	5
March, 1830	5	13	13	.....	4	.....	.....	.....	5
November, 1829	11	8	7	.....	5	.....	.....	.....	4
December, 1829	6	8	17	.....	19	.....	.....	.....	25

ALA RIVER, UDSKAIA GULF, OKHOTSK SEA.

Lat. 54° 32' 58" N. Long. 135° 58' 15" E. of Gr.

Height of station above the sea unknown, appearing from a good topographical map to be ten or fifteen feet or less.

Observer: Klimoffsky, "an accurate and conscientious sailor, recommended by Kozmin."

Sources of information: Journ. Russ. Hydr. Dept., vol. IV, p. 78, t. 2. The originals are in the archives of the department.

BAROMETRICAL AND THERMOMETRICAL OBSERVATIONS.

TABLE I.—The character of the instruments and the corrections are unknown. The observations were taken under the direction of the Russian American Company with instruments furnished from the central government observatory, and such observations have usually been found good. The barometrical observations have been copied; the thermometer, originally in degrees of Reaumur's scale, has been converted into that of Fahrenheit by the usual formula. The observations are supposed to be old style, but this is not stated.

WIND AND WEATHER OBSERVATIONS.

TABLE II.—*Direction of winds.* Originally expressed in number of observations, but has been reduced to percentages. It is not stated whether the directions are true or by compass. The whole number of observations was 243.

TABLE III.—*Force of winds.* The above remarks apply to this table also. Whole number of observations, 222.

TABLE IV.—*Weather observations.*

METEOROLOGICAL OBSERVATIONS AT THE MOUTH OF THE ALA RIVER, EASTERN SIBERIA.

TABLE I.

ATMOSPHERIC PRESSURE AND TEMPERATURE OBSERVATIONS.

Month. 1831 (<i>Old style ?</i>).	No. of days.	Barometer.				Thermometer.							
		Mean.	Max.	Min.	Range.	Morn- ing.	Noon.	Even- ing.	Mean.	Max.	Min.	Range.	
		<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	°	°	°	°	°	°	°	
April	22	29.47	29.78	29.05	0.73	28.4	35.6	28.4	28.4*	45.5	11.7	33.8	
May	31					42.3	53.6	45.5	47.1	79.2	29.7	49.5	
June	28					57.6	68.0	58.5	61.5	83.7	40.3	43.4	

* There is manifestly some error here, but the figures do not indicate where it is.

NOTE.—The leaning figures call attention to supposed errors in the original for which corrections are here substituted.

TABLE II.

DIRECTION OF WINDS.

1831, Old style?

Month.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.
April	42.42	18.18	13.64				15.15	9.09	1.52
May	9.68	30.11	30.11	1.07		7.52	10.75	3.23	7.52
June		5.95	61.90			16.67			15.48

LOCAL TABLES.

TABLE III.
FORCE OF WINDS.

Month.	Strong.	Fresh.	Moderate.	Light.
April	15.38	24.62	21.54	38.46
May	11.63	16.28	37.21	34.88
June		5.63	33.80	60.56

TABLE IV.
WEATHER OBSERVATIONS.

Month. 1831 (<i>Old style?</i>).	Number of days.				Number of times.				
	Clear.	Some- what cloudy.	Cloudy.	Over- cast.	Snow.	Rain.	Fog.	Sleet.	Snow- storms.
April	6	2	10	4	11			2	6
May	5	5	13	4	3	6	20		
June	9	10	9			9	16		

NIKOLAIEFFSK, ON THE AMUR RIVER, EASTERN SIBERIA.

Lat. 53° 08' 20" N. Long. 140° 43' 3" E. of Gr.

Height of station above the level of the sea. During the observations of 1866 to 1869, both inclusive, the altitude of the cistern of the barometer above the sea-level was 102 feet, and during the observations of 1872 and 1873 the altitude of the same was 54 feet.

Sources of information: Ann. Cent. Phys. Obs., 1866-'69; 1871-'74. See also *Supplementary Notes* herewith.

BAROMETRICAL OBSERVATIONS.

TABLE I.—*Barometer.* Period covered by this table is five and one-half years, 1866–1873, *new style*. The observing hours in 1866 were 6 a. m., 2 and 10 p. m.; in 1867-'69, 7 a. m., 2 and 9 p. m.; and in 1872-'73, 7 a. m., 1 and 9 p. m., and the daily means for these three sets are $\frac{1}{3}(6_a + 2_p + 10_p)$, $\frac{1}{3}(7_a + 2_p + 9_p)$, and $\frac{1}{3}(7_a + 1_p + 9_p)$, respectively. The observations of 1866-'69 in this table are reduced to 62° F. (13½ R.), while those of 1872-'73 are reduced to 32° F. They are not reduced to sea-level. These observations were made with standard instruments, those of 1866–1869 being expressed in Russian half lines, and those of 1872-'73 were reduced from Russian half lines to millimeters. They are all expressed here in English inches.

TABLE II.—*Corrected barometer.* This table embodies the results of the preceding, with all the corrections and reductions applied. It gives mean results reduced to the freezing point and to the sea-level. The reduction to the freezing point from 62° F. is –0.087 inches. The reduction to sea-level for the observations of 1863–1869 is +0.119, and for the observations of 1872-'73 is +0.063. This makes the total correction to mean results for the months January to July, inclusive, +0.042, and from August to December +0.038 inch.

THERMOMETRICAL OBSERVATIONS.

TABLE III.—*Mean temperature of the air.* Period covered by this table is six and three-fourths years, *new style*. The observing hours and formulæ for the means for the years 1866–1869 and 1872–1873 are the same as under Table I. The observing hours in 1874 were 7 a. m., 1 and 9 p. m. Only the 7 a. m. observations for 1871 are published in the work consulted. Observations with standard instruments; 1866-'69 expressed in the originals in Reaumur degrees; those of 1871–1874 in Celsius degrees. They are here expressed in Fahrenheit degrees. The max. and min. are not due to a maximum or minimum thermometer.

PRECIPITATION.

TABLE IV.—*Rain and snow fall.* This table gives the total fall, by months, of rain and snow for four and one-half years, *new style*, expressed in English inches.

CLOUD OBSERVATIONS.

TABLE V.—*Cloudiness.* Period covered by this table six and three-fourths years, *new style*. Observing hours as in preceding tables. The observations of 1866–1869 recorded in *fourths*, the remainder in *tenths*; all here expressed in tenths, 0 equaling a cloudless sky and 10 a sky wholly covered by clouds. The amount of cloudiness determined by estimate.

HYGROMETRICAL OBSERVATIONS.

TABLE VI.—*Humidity.* The period covered by this table is four and one-half years, *new style*. The observing hours, &c., are, in general, like the preceding tables. The observations during the cold months of 1867, 1872, and 1873 are omitted by reason of the uncertainty in the correction to the thermometers below 90.5 F. (— 10° R.). The relative humidity is expressed in percentages of saturation, and the absolute in millimeters. In the originals the absolute humidity is expressed in Russian lines during 1866–'69, and in millimeters thereafter.

WINDS.

TABLE VII.—*Direction of winds.* Period covered by this table six years, *new style*; 1866–1869, 1871 and 1872; 3 observations per day, except *one* observation in October, 1872. Recorded originally in eight directions; true or magnetic not stated, but presumably true. Whole number of observations, 6,575; results in percentages.

TABLE VIII.—*Force of winds.* Period five years, *new style*; 1866–1869 and 1871; 3 observations per day. Strength of wind was estimated. Results in percentages. Whole number of observations, 4,623.

METEOROLOGICAL OBSERVATIONS AT NIKOLAIEFFSK, ON THE AMUR RIVER, EASTERN SIBERIA.

TABLE I.

ATMOSPHERIC PRESSURE.

Month.	1866.				1867.				1868.			
	Mean, 6, 2, 10.	Max.	Min.	Range.	Mean, 7, 2, 9.	Max.	Min.	Range.	Mean, 7, 2, 9.	Max.	Min.	Range.
	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>
January	29.858	30.410	29.380	1.030	29.880	30.215	29.490	0.725	29.840	30.210	29.145	1.065
February .....	.877	.325	.410	0.915	30.045	.380	.540	0.840	.977	.280	.515	0.765
March .....	.819	.265	.230	1.035	29.674	.180	.095	1.085	.910	.250	.580	0.670
April .....	.790	.160	.195	0.965	.678	.310	.115	1.195	.684	.025	.255	0.770
May .....	.784	.360	.175	1.185	.680	30.110	.245	0.865	.711	30.060	.395	0.665
June .....	.782	30.050	.570	0.480	.533	29.750	.315	0.435	.646	29.815	.345	0.470
July .....	.641	29.925	.435	0.490	.715	.990	.510	0.480	.753	29.990	.470	0.520
August .....	.750	30.070	.375	0.695	.652	29.955	.290	0.665	.781	30.050	.290	0.760
September .....	.883	.260	29.240	1.020	.728	30.200	.355	0.845	.802	.055	.280	0.775
October .....	.772	.155	28.905	1.250	.858	.205	.440	0.765	.751	.080	.390	0.690
November .....	.714	.135	29.070	1.065	.751	.280	.055	1.225	.848	.250	.405	0.845
December .....	.841	.120	.370	0.750	.857	.335	.350	0.985	.913	.145	.290	0.855
Summer	29.761	30.360	29.175	1.185	29.655	30.310	29.095	1.215	29.747	30.250	29.255	0.995
Winter	29.824	30.410	28.905	1.505	29.853	30.380	29.055	1.325	29.855	30.280	29.145	1.135
Year	29.793	30.410	28.905	1.505	29.754	30.380	29.055	1.325	29.801	30.280	29.145	1.135

LOCAL TABLES.

TABLE I.—ATMOSPHERIC PRESSURE—Continued.

Month.	1869.				1872.				1873.			
	Mean, 7, 2, 9.	Max.	Min.	Range.	Mean, 7, 1, 9.	Max.	Min.	Range.	Mean, 7, 1, 9.	Max.	Min.	Range.
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
January	29.865	30.180	29.505	0.675	29.664	29.989	29.327	0.662	29.855	30.032	29.008	1.024
February .....	.813	.385	.395	0.990	.772	30.075	.520	0.555	.792	29.989	.138	0.851
March .....	.922	.330	.550	0.780	.784	29.997	.501	0.496	.792	30.032	.292	0.740
April .....	.852	30.390	.095	1.295	.845	30.083	.556	0.527	.741	30.040	.233	0.807
May .....	.569	29.970	.095	0.875	.764	29.989	.477	0.512	.701	29.985	.304	0.681
June .....	.768	30.115	.440	0.675	.702	.961	.477	0.484	.749	.930	.430	0.500
July .....	.720	29.915	.490	0.425	.612	.827	.249	0.578				
August .....	.872	30.085	.605	0.480	.643	.800	.445	0.355				
September .....	.735	.015	.250	0.765	.798	.977	.205	0.772				
October .....	.802	.265	.040	1.225	.685	.945	.249	0.696				
November .....	.761	.150	.145	1.005	.763	29.985	.323	0.662				
December .....	.783	.165	.120	1.045	.716	30.032	.182	0.850				
Summer	29.784	30.390	29.095	1.295	29.725	30.083	29.242	0.834				
Winter .....	.793	30.385	29.040	1.345	29.733	30.075	29.182	0.893				
Year .....	.788	30.390	29.040	1.350	29.729	30.083	29.182	0.901				

TABLE II.

ATMOSPHERIC PRESSURE, CORRECTED.

Barometrical observations reduced to sea-level and to 32° F. from preceding table.

Month.	Bar.	Month.	Bar.	Season.	Bar.	Year.	Bar.	Max.	Min.
	Inches.		Inches.		Inches.		Inches.	Inches.	Inches.
January	29.869	July	29.726	Spring	29.803	1866	29.825	30.442	28.937
February .....	.922	August .....	.782	Summer .....	.749	1867 .....	.787	.412	29.087
March .....	.859	September .....	.837	Autumn .....	.818	1868 .....	.833	.312	29.177
April .....	.807	October .....	.812	Winter .....	.884	1869 .....	.820	.422	29.072
May .....	.744	November .....	.805			1872 .....	.792	.146	29.245
June .....	.739	December .....	.860	Year	29.814	All	29.811	30.442	28.937

TABLE III.

TEMPERATURE OBSERVATIONS.

Month.	1866.								1867.							
	9 a.m.	2 p.m.	10 p.m.	Mean.	Max.	Min.	Range.		7 a.m.	2 p.m.	9 p.m.	Mean.	Max.	Min.	Range.	
January	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
February	-14.6	-7.5	-11.9	-11.4	5.0	-38.9	43.9	-22.2	-15.1	-19.2	-18.6	-0.8	-41.3	40.5		
March	-9.7	2.3	-4.7	-4.0	19.2	-31.0	50.2	-16.6	-2.4	-9.6	-9.6	13.5	-35.5	49.0		
April	0.5	14.8	7.7	7.7	32.0	-31.0	63.0	1.6	16.2	5.9	7.4	35.4	-26.5	61.9		
May	20.3	32.7	24.8	25.9	43.2	-9.6	52.8	13.1	27.1	16.6	18.3	45.5	-10.7	56.2		
June	36.9	46.6	37.6	40.4	57.9	30.6	27.3	33.7	40.3	33.6	35.3	49.3	25.2	20.1		
July	55.6	62.9	54.7	57.7	75.9	44.4	31.5	46.2	52.3	45.1	47.2	68.4	32.0	36.4		
August	64.5	71.8	64.5	66.9	84.2	56.1	28.1	57.3	65.2	57.3	59.3	81.9	46.6	35.3		
September	58.0	64.3	57.5	59.9	72.9	44.4	28.5	63.1	71.0	63.5	65.3	81.3	55.4	25.9		
October	47.9	57.4	48.3	51.2	63.0	32.0	31.0	48.3	57.1	48.0	50.3	68.0	32.2	35.8		
November	31.1	41.6	32.3	35.0	65.1	8.6	56.5	30.6	42.8	32.9	34.8	59.9	9.9	50.0		
December	14.7	20.6	17.0	17.5	36.0	0.0	36.0	13.8	21.2	14.5	16.0	34.7	-8.5	43.2		
Year	-4.3	1.2	-2.0	-1.7	18.5	-29.2	47.7	-8.3	-1.1	-7.5	-6.1	26.6	-33.2	59.8		
Summer	39.3	48.8	41.1	43.1	84.2	-31.0	115.2	35.8	45.3	37.0	38.8	81.9	-26.5	108.4		
Winter	10.8	19.3	13.2	14.4	65.1	-38.9	104.0	7.6	17.1	9.8	11.1	68.0	-41.3	109.3		
Year	25.1	34.1	27.2	28.8	84.2	-38.9	123.1	21.7	31.2	23.4	24.9	81.9	-41.3	123.2		

TABLE III.—TEMPERATURE OBSERVATIONS—Continued.

Month.	1868.							1869.						
	7 a. m.	2 p. m.	9 p. m.	Mean.	Max.	Min.	Range.	7 a. m.	2 p. m.	9 p. m.	Mean.	Max.	Min.	Range.
January	0	0	0	0	0	0	0	0	0	0	0	0	0	0
February	-15.4	-5.1	-11.1	-10.7	15.8	-29.6	45.4	-18.7	-7.9	-14.7	-14.0	9.5	-28.7	38.2
March	-9.0	4.5	-3.3	-2.8	21.6	-26.0	47.6	-6.8	7.2	-2.6	-1.2	23.0	-33.7	56.7
April	-1.1	14.6	6.0	6.4	26.8	-25.8	52.6	-2.7	14.4	4.1	5.0	29.1	-20.9	50.0
May	23.4	34.1	26.1	27.4	49.3	3.0	46.3	18.4	30.5	22.0	23.2	47.7	2.3	45.4
June	37.3	45.8	36.6	39.0	69.3	24.6	44.7	31.5	38.6	32.4	33.7	52.7	19.2	33.5
July	49.5	56.7	49.8	51.4	70.7	33.1	37.6	52.0	60.0	53.0	54.5	72.5	35.6	36.9
August	60.6	68.6	60.0	62.3	78.3	50.4	27.9	60.7	68.4	61.4	63.0	77.7	52.2	25.5
September	59.9	67.0	59.9	61.7	75.0	50.4	24.6	56.2	64.8	57.7	59.1	74.5	47.3	27.2
October	45.9	56.2	44.7	47.8	72.0	29.3	42.7	46.6	57.9	48.6	50.4	65.3	30.9	34.4
November	30.8	42.7	32.8	34.8	69.8	9.9	59.9	35.5	42.5	37.1	38.1	64.8	16.7	48.1
December	5.8	13.1	7.1	8.3	37.4	-13.4	50.8	7.9	15.8	10.6	11.2	42.3	-21.1	63.4
Year	-13.3	-4.6	-10.5	-9.7	10.4	-28.5	38.9	-15.6	-9.1	-14.5	-13.4	21.6	-40.0	61.6
Summer	38.3	47.8	39.7	41.4	78.3	-25.8	104.1	36.0	46.1	38.4	39.7	77.7	-20.9	98.6
Winter	7.5	17.8	9.9	11.3	72.0	-29.6	101.6	8.2	17.7	10.7	11.8	65.3	-40.0	105.3
Year	22.9	32.8	24.8	26.3	78.3	-29.6	107.9	22.1	31.9	24.6	25.8	77.7	-40.0	117.3

Month.	1871.				1872.				1873.			
	7 a. m.	Max.	Min.	Range.	7, 1, 9, mean.	Max.	Min.	Range.	7 a. m.	1 p. m.	9 p. m.	Mean.
January	0	0	0	0	0	0	0	0	0	0	0	0
February	-18.6	1.6	-40.4	42.0	-12.5	13.6	-31.0	44.6	-7.8	0.5	-4.5	-4.0
March	-17.3	1.2	-31.0	32.2	-3.3	17.6	-26.5	44.1	-11.7	1.9	-7.1	-5.6
April	-0.6	21.4	-23.1	44.5	8.7	31.8	-12.5	44.3	5.0	20.1	9.3	11.5
May	19.6	32.0	-2.9	34.9	26.0	51.3	-2.4	53.7	22.1	36.1	24.3	27.5
June	33.7	42.1	27.1	15.0	38.6	54.5	29.3	25.2	36.9	46.2	36.3	39.7
July	47.5	59.0	33.6	25.4	62.2	80.6	45.9	34.7	54.0	61.3	52.3	55.9
August	63.2	75.9	47.7	28.2	62.2	87.6	47.7	39.9				
September	59.9	77.0	44.8	32.2	66.1	83.1	50.7	32.4				
October	47.0	56.1	34.5	21.6	55.0	75.4	35.8	39.6				
November	30.5	51.3	5.0	46.3	33.6	55.6	14.5	41.1	27.5	35.4	28.2	30.4
December	14.1	35.8	-7.4	43.2	8.5	38.3	-13.9	52.2	7.3	19.2	9.1	11.8
Year	-8.1	27.1	-25.4	52.5	-8.3	24.4	-31.4	55.8	-11.9	-3.3	-11.6	-8.9
Summer	37.2	77.0	-23.1	100.1	44.0	87.6	-12.5	100.1				
Winter	7.9	56.1	-40.4	96.5	12.2	75.4	-31.4	106.8				
Year	22.6	77.0	-40.4	117.4	28.1	87.6	-31.4	119.0				

Month.	1874.			1875.			1876.		
	7 a. m.	1 p. m.	9 p. m.	Mean.	Max.	Min.	7 a. m.	1 p. m.	9 p. m.
January	0	0	0	0	0	0	0	0	0
February	0	0	0	0	0	0	0	0	0
March	0	0	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0	0	0
June	0	0	0	0	0	0	0	0	0
July	0	0	0	0	0	0	0	0	0
August	0	0	0	0	0	0	0	0	0
September	0	0	0	0	0	0	0	0	0
October	0	0	0	0	0	0	0	0	0
November	0	0	0	0	0	0	0	0	0
December	0	0	0	0	0	0	0	0	0
Year	0	0	0	0	0	0	0	0	0

TABLE IV.
RAIN AND SNOW FALL.

Month.	1866.			1867.			1868.			1869.			1873.
	Rain.	Snow.	Total.	Rain.	Snow.	Total.	Rain.	Snow.	Total.	Rain.	Snow.	Total.	Total.
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
January	0.000	0.000	0.000	0.000	1.112	1.112	0.000	0.805	0.805	0.000	0.075	0.075	0.000
February	0.000	0.025	0.025	0.000	0.006	0.006	0.000	1.028	1.028	0.000	0.312	0.312	0.059
March	0.000	0.400	0.400	0.000	1.718	1.718	0.000	0.477	0.477	0.000	0.163	0.163	0.197
April	0.140	0.000	0.140	0.100	4.700	4.800	0.605	0.260	0.865	0.000	0.300	0.300	0.126
May	0.200	0.000	0.200	0.550	0.275	0.825	1.420	0.000	1.420	0.900	1.650	2.550	0.749
June	0.725	0.000	0.725	2.220	0.225	2.445	0.875	0.000	0.875	1.706	0.000	1.706	0.394
July	1.388	0.000	1.388	0.241	0.000	0.241	1.430	0.000	1.430	1.125	0.000	1.125	
August	1.876	0.000	1.876	0.948	0.000	0.948	0.600	0.000	0.600	0.200	0.000	0.200	
September	1.988	0.000	1.988	4.475	0.000	4.475	2.660	0.000	2.660	2.200	0.000	2.200	
October	0.150	0.100	0.250	0.050	0.075	0.125	0.525	0.000	0.525	1.200	0.150	1.350	
November	0.000	0.700	0.700	0.200	1.413	1.613	0.460	0.750	1.210	0.000	1.875	1.875	
December	0.000	0.175	0.175	0.000	0.300	0.300	0.615	1.245	1.860	0.000	0.025	0.025	
Summer	4.329	0.400	4.729	4.059	6.918	10.977	4.930	0.737	5.667	3.931	2.113	6.044	
Winter	2.138	1.000	3.138	4.725	2.906	7.631	4.260	3.828	8.088	3.400	2.437	5.837	
Year	6.467	1.400	7.867	8.784	9.824	18.608	9.190	4.565	13.755	7.331	4.550	11.881	[1.525]

LOCAL TABLES.

TABLE V.
AMOUNT OF CLOUDINESS.

Month.	1866.				1867.				1868.			
	6 a. m.	2 p. m.	10 p. m.	Mean.	7 a. m.	2 p. m.	9 p. m.	Mean.	7 a. m.	2 p. m.	9 p. m.	Mean.
January.....	3.07	3.07	3.22	3.12	2.25	1.62	1.45	1.77	2.10	1.92	2.57	2.20
February.....	3.30	3.85	4.02	3.72	1.77	2.32	2.67	2.26	2.25	2.57	2.57	2.47
March.....	5.57	4.85	4.67	5.03	4.00	3.70	3.70	3.80	3.37	2.90	4.20	3.49
April.....	3.07	2.57	2.75	2.80	3.67	4.67	4.17	4.17	4.17	4.00	3.32	3.83
May.....	5.07	3.37	4.20	4.22	5.47	5.22	4.27	4.99	5.32	5.00	4.85	5.06
June.....	3.50	3.00	3.82	3.44	5.00	5.42	4.57	5.00	5.42	5.07	4.67	5.06
July.....	3.22	2.82	3.47	3.17	3.55	3.70	3.30	3.52	3.70	2.90	3.80	3.47
August.....	5.72	4.92	4.85	5.17	3.87	3.62	4.35	3.95	5.15	4.35	4.85	4.78
September.....	4.67	3.92	4.17	4.26	5.50	4.82	4.25	4.86	4.82	4.32	3.82	4.32
October.....	3.30	4.35	3.87	3.84	2.50	2.57	2.25	2.44	3.27	2.90	3.07	3.08
November.....	4.82	4.42	5.17	4.81	4.75	4.57	4.17	4.50	3.67	4.32	3.67	3.89
December.....	2.65	3.37	2.57	2.87	2.35	2.17	2.25	2.26	2.90	2.25	2.75	2.63
Summer.....	4.36	3.59	3.96	3.97	4.26	4.39	4.06	4.24	4.52	4.04	4.28	4.28
Winter.....	3.63	3.83	3.84	3.77	3.19	3.01	2.84	3.01	3.17	3.05	3.07	3.10
Year.....	4.00	3.71	3.90	3.87	3.72	3.70	3.45	3.63	3.84	3.54	3.68	3.69

Month.	1869.				1871.				1872.	1873.			
	7 a. m.	2 p. m.	9 p. m.	Mean.	7 a. m.	1 p. m.	9 p. m.	Mean.	Mean.	7 a. m.	1 p. m.	9 p. m.	Mean.
January.....	2.57	2.10	2.42	2.37	4.64	4.35	3.97	4.32	7.5	6.87	6.97	6.52	6.78
February.....	3.22	3.40	2.15	2.92	3.50	4.18	3.36	3.68	5.4	5.21	5.79	3.93	4.98
March.....	2.75	3.22	3.37	3.12	4.03	4.48	3.00	3.84	6.7	6.97	6.39	5.45	6.27
April.....	4.32	4.25	3.92	4.17	6.70	6.27	6.07	6.34	5.4	4.73	5.60	5.97	5.43
May.....	5.65	5.25	5.15	5.35	6.84	6.65	6.26	6.58	4.9	7.29	7.13	6.74	7.05
June.....	3.82	2.67	3.50	4.17	5.70	5.60	5.60	5.63	5.5	4.80	4.67	4.57	4.68
July.....	3.42	3.42	3.97	3.61	5.61	5.13	5.32	5.35	6.3	1874.			
August.....	6.55	3.45	4.30	4.77	6.10	5.97	5.48	5.85	4.2				
September.....	5.32	4.50	4.17	4.67	5.93	6.47	5.60	6.00	6.2	8.6	7.9	7.7	8.1
October.....	4.92	5.57	6.05	5.52	5.97	5.68	5.23	5.62	4.9	5.6	5.5	3.0	4.7
November.....	3.17	3.50	3.50	3.39	6.23	6.47	6.13	6.28	7.9	3.3	4.5	2.3	3.4
December.....	2.42	1.77	2.42	2.21	5.00	4.35	3.68	4.34	7.6				
Summer.....	4.42	3.71	4.03	4.20	5.83	5.68	5.29	5.60	5.5				
Winter.....	3.60	3.47	3.45	3.51	5.21	5.25	4.66	5.04	6.6				
Year.....	4.01	3.59	3.74	3.86	5.52	5.47	4.97	5.32	6.0				

TABLE VI.
HUMIDITY.

Month.	1866.		1867.		1868.		1869.		1872.		1873.		All.	
	Relative.	Absolute.	Relative.	Absolute.	Relative.	Absolute.	Relative.	Absolute.	Relative.	Absolute.	Relative.	Absolute.	Relative.	Absolute.
January.....	0.87	0.68	.....	.....	0.96	2.29	0.75	0.56	.....	.....	.....	.....	0.86	1.18
February.....	0.81	0.91	.....	.....	0.96	2.03	0.91	1.19	.....	.....	.....	.....	0.89	1.38
March.....	0.85	1.68	.....	.....	0.86	3.00	0.93	1.63	.....	.....	0.71	1.9	0.84	2.05
April.....	0.91	3.68	0.98	3.58	0.74	4.06	0.97	3.45	0.70	2.79	0.84	3.6	0.86	3.53
May.....	0.97	6.22	1.00	5.38	0.64	6.31	1.00	5.10	0.83	5.05	0.87	5.5	0.88	5.59
June.....	0.86	10.11	0.99	8.56	0.67	8.20	0.93	10.34	0.77	10.94	0.84	9.8	0.84	9.66
July.....	0.87	14.17	0.80	10.24	0.70	11.05	0.86	12.50	0.83	11.87	.....	.....	0.81	11.47
August.....	0.93	11.94	0.80	12.47	0.71	10.64	0.84	10.64	0.84	13.76	.....	.....	0.82	11.89
September.....	0.91	8.66	0.88	8.38	0.77	7.80	0.87	8.18	0.83	9.34	.....	.....	0.85	8.47
October.....	0.91	4.88	0.79	4.39	0.80	6.31	0.89	5.46	0.77	3.95	.....	.....	0.83	5.00
November.....	0.86	2.39	.....	.....	0.92	3.53	0.87	1.98	.....	.....	.....	.....	0.88	2.63
December.....	0.81	1.07	.....	.....	0.93	3.20	0.81	0.63	.....	.....	.....	.....	0.85	1.63
Summer.....	0.90	7.97	.....	.....	0.72	7.21	0.92	7.28	.....	.....	.....	.....	0.84	7.45
Winter.....	0.86	3.10	.....	.....	0.89	4.19	0.85	3.00	.....	.....	.....	.....	0.86	3.38
Year.....	0.88	5.53	.....	.....	0.80	5.70	0.89	5.14	.....	.....	.....	.....	0.85	5.41

NOTE.—There seems to be some uncertainty in these results, and, as there are so few stations from which we have humidity observations, these results are left in millimeters, that being the unit to which they were originally converted.

LOCAL TABLES.

147

TABLE VII.
DIRECTION OF WINDS.

1866-1872.

Month.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.
January.....	0.18	1.43	3.76	0.36	0.00	2.51	58.60	25.81	7.35
February.....	1.06	2.94	5.10	5.20	0.40	2.35	51.17	29.60	6.28
March.....	3.94	4.84	18.10	3.58	0.72	6.81	34.05	15.41	12.54
April.....	3.33	7.22	25.00	11.67	0.56	3.70	24.63	9.44	14.45
May.....	2.87	10.75	30.29	20.43	0.90	5.73	10.04	5.91	13.08
June.....	2.78	6.30	27.04	36.48	1.67	2.96	6.11	3.52	13.15
July.....	1.25	2.33	26.35	41.22	1.79	2.69	6.63	3.94	13.80
August.....	1.08	6.27	16.67	36.02	0.90	2.15	8.78	5.73	22.40
September.....	1.30	4.63	15.19	13.70	0.37	6.85	17.78	9.81	30.37
October.....	1.26	3.77	8.44	3.23	0.18	9.51	36.62	11.49	25.49
November.....	1.85	6.67	6.11	1.48	0.37	4.82	56.48	11.11	11.11
December.....	1.61	1.25	2.51	0.18	0.18	2.69	56.45	26.88	8.25
Spring.....	3.38	7.60	24.46	11.89	0.73	5.41	22.91	10.25	13.36
Summer.....	1.70	4.97	23.35	37.91	1.45	2.60	7.17	4.40	16.45
Autumn.....	1.47	5.02	9.91	6.14	0.31	7.06	36.96	10.80	22.32
Winter.....	1.25	1.87	3.79	0.25	0.19	2.52	55.41	27.43	7.29
Year.....	1.95	4.86	15.42	14.12	0.67	4.42	30.51	13.16	14.89

TABLE VIII.
FORCE OF WINDS.
1866-1871.

Month	Very light.	Light.	Mod.	Strong.	Very strong.	Gale.
January.....	79.58	12.99	5.10	2.09	0.23	0.00
February.....	77.86	16.03	4.07	2.04	0.00	0.00
March.....	76.19	18.80	4.26	0.50	0.25	0.00
April.....	82.01	12.17	3.97	1.85	0.00	0.00
May.....	64.47	27.16	7.36	1.01	0.00	0.00
June.....	73.33	21.03	4.87	0.77	0.00	0.00
July.....	67.76	18.39	10.58	3.27	0.00	0.00
August.....	64.17	21.67	9.17	4.17	0.83	0.00
September.....	62.66	21.43	7.79	7.47	0.65	0.00
October.....	70.54	15.77	7.14	5.66	0.89	0.00
November.....	70.40	17.16	8.21	2.99	1.00	0.25
December.....	78.16	12.64	5.98	2.53	0.69	0.00
Summer.....	71.35	19.89	6.69	1.90	0.17	0.00
Winter.....	73.84	15.71	6.29	3.56	0.56	0.04
Year.....	72.59	17.80	6.49	2.73	0.37	0.02

DUE LIGHTHOUSE, SAKHALIN ISLAND, OKHOTSK SEA.

Lat. 50° 50' 00" N. Long. 142° 06' 35" E. of Gr.

Height of station above the level of the sea cannot be exactly determined. The light in the lighthouse is 374 feet above the level of the sea, and 39.7 feet above the ground at its base. The quarters of the lighthouse service at this post are near the light-tower, but whether up or down the slope on which the lighthouse is built we do not know. Perhaps 300 to 350 feet might be taken as the limits within which the height of the station will be found. The correction for height will be about +0.38 inch at most and may have been applied by the observer (cf. p. 46, footnote.)

Sources of information: Ann. Cent. Phys. Obs. 1866, pp. 401-408; 1868, pp. 263-270; 1874, pp. 474-475; 1875, pp. 484-485.

BAROMETRICAL OBSERVATIONS.

TABLE I.—Period covered by the table, one year, viz, 1874, *new style*.

The readings were made in *English inches* and reduced to the freezing point, after which they were converted into *millimeters*. In the present table they have been converted back again from *millimeters* to *English inches*, and hence the present table represents the *barometer in English inches at 32° F.*

The reduction to sea-level has not been made here, the data for this purpose being wanting. The means are from the formula $\frac{1}{3} (7_a + 1_p + 9_p)$.

No use has been made of the barometrical observations of 1866 and 1868.

THERMOMETRICAL OBSERVATIONS.

TABLE II.—Period covered by this table three and one-half years, 1866–1875, *new style*.

The observations of 1866 and 1868 were made and published in degrees of Reaumur's thermometer, while those of 1874 and 1875 were made in Reaumur degrees but converted into Celsius degrees for publication in the *Annales*. In the present table they have all been converted into Fahrenheit degrees. The means are from the formula $\frac{1}{3} (6_a + 2_p + 10_p)$ for 1866 and 1868, and from the formula $\frac{1}{3} (7_a + 1_p + 9_p)$ for 1874 and 1875, while the max. and min. are maxima and minima observed at the hours 6, 2, and 10, or 7, 1, and 9.

The results in the synoptical table of mean temperatures are means of the column of means in this table.

CLOUD OBSERVATIONS.

TABLE III.—*Cloudiness*. Period covered by cloud observations, three years, 1866–1874, *new style*. The observations of 1866 and 1868 expressed in the originals in fourths; those of 1874 in tenths. In the present table they are *all* in tenths, 0 equaling a cloudless sky, 10 a sky completely covered with clouds, and intervening numbers a proportional degree of cloudiness. The means are from the same formulæ as the thermometric means.

WINDS.

TABLE IV.—*Direction of winds*. Period covered by this table three and one-half years, 1866, 1868, January 1874 to June 1875, *new style*. In the original expressed in number of observations, but here expressed in percentages. The year at the foot of the table depends upon the three full years only, 1866, 1868, and 1874, embodying 3,247 observations. The whole number of observations in the table is 3,790. The directions are *true* and *from* which the wind was observed blowing.

METEOROLOGICAL OBSERVATIONS AT DUÈ LIGHTHOUSE, SAKHALIN ISLAND.

TABLE I.

ATMOSPHERIC PRESSURE.

Barometrical observations reduced to 32° F.

Month.	Mean.	Max.	Min.	Range.
	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>
January, 1874	29.878	30.280	29.560	0.720
February, 1874	29.910	30.268	29.532	0.736
March, 1874	29.918	30.217	29.532	0.685
April, 1874	29.745	30.020	29.461	0.559
May, 1874	29.603	29.981	29.272	0.709
June, 1874	29.504	29.670	29.170	0.500
July, 1874	29.528	29.670	29.252	0.418
August, 1874	29.501	29.690	29.371	0.319
September, 1874	29.615	29.812	29.312	0.500
October, 1874	29.823	30.111	29.272	0.839
November, 1874	29.788	30.052	29.292	0.760
December, 1874	29.808	30.288	29.493	0.795
Year	29.717	30.288	29.170	1.118

TABLE II.
TEMPERATURE OBSERVATIONS.

Month.	1866.							1868.						
	6 a. m.	2 p. m.	10 p. m.	Mean.	Max.	Min.	Range.	6 a. m.	2 p. m.	10 p. m.	Mean.	Max.	Min.	Range.
January.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0
February.....	-1.4	4.8	-0.7	0.1	21.4	-16.4	37.8	0.4	6.2	1.7	2.7	28.6	-14.6	43.2
March.....	4.0	11.9	4.5	6.8	29.7	-11.9	41.6	4.1	10.0	6.5	7.9	31.3	-10.1	41.4
April.....	12.5	21.5	14.8	16.3	32.0	-7.4	39.4	11.3	20.8	13.5	15.2	32.0	-1.7	33.7
May.....	27.0	35.7	29.0	30.6	47.7	9.5	38.2	29.4	36.9	31.2	32.5	44.4	15.6	28.8
June.....	37.1	46.9	38.7	40.9	61.2	19.2	42.0	41.7	47.1	42.5	43.8	61.9	25.2	36.7
July.....	49.0	56.9	48.5	51.5	65.7	36.5	29.2	47.7	54.7	48.4	50.3	68.0	33.6	34.4
August.....	59.3	66.4	58.4	61.3	74.7	50.7	24.0	58.0	64.8	56.6	59.8	72.5	45.5	27.0
September.....	57.3	64.7	57.4	59.8	74.1	47.7	26.4	60.2	68.2	60.2	62.9	75.9	50.7	25.2
October.....	49.0	58.2	50.2	52.5	66.4	41.0	25.4	47.7	58.3	49.0	51.7	68.7	36.5	32.2
November.....	38.8	43.5	38.5	40.3	61.2	20.1	41.1	40.4	43.0	38.9	40.8	61.9	25.2	36.7
December.....	20.4	23.4	21.4	21.7	36.5	8.8	27.7	19.1	21.7	18.6	19.8	50.0	4.3	45.7
Year.....	8.0	12.7	9.4	10.0	29.7	-13.0	42.7	3.3	6.9	4.1	4.8	25.2	-22.0	47.2

Month.	1874.							1875.						
	7 a. m.	1 p. m.	9 p. m.	Mean.	Max.	Min.	Range.	7 a. m.	1 p. m.	9 p. m.	Mean.	Max.	Min.	Range.
January.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0
February.....	4.8	10.4	7.2	7.5	19.6	-8.5	28.1	2.3	6.8	5.7	5.0	29.3	-24.2	54.0
March.....	8.6	17.4	10.8	12.4	32.0	-2.9	34.9	5.5	10.9	7.9	8.2	26.8	-8.5	35.3
April.....	14.5	23.4	17.2	18.3	37.6	2.8	34.7	18.5	25.7	21.9	22.1	39.0	0.5	38.5
May.....	27.7	34.5	28.2	30.0	45.5	14.0	31.5	26.8	33.8	29.3	30.0	41.0	7.3	33.7
June.....	42.4	47.1	43.5	44.4	63.5	26.4	37.1	38.5	44.1	39.4	40.6	56.7	36.5	20.2
July.....	53.1	57.4	52.0	54.1	66.4	42.1	24.3	50.0	54.5	51.3	52.0	68.4	38.7	29.7
August.....	58.6	64.2	56.7	59.9	72.5	48.4	24.1							
September.....	61.0	65.7	59.5	62.1	72.5	52.2	20.3							
October.....	53.1	59.2	52.9	55.0	68.0	47.7	20.3							
November.....	38.5	44.4	38.8	40.5	56.7	21.9	34.7							
December.....	20.5	24.1	20.8	21.7	38.7	0.3	38.3							
Year.....	8.1	10.2	8.1	8.8	27.5	-15.9	43.4							

TABLE III.
AMOUNT OF CLOUDINESS.

Month.	1866.				1868.				1874.			
	6 a. m.	2 p. m.	10 p. m.	Mean.	6 a. m.	2 p. m.	10 p. m.	Mean.	7 a. m.	1 p. m.	9 p. m.	Mean.
January.....	3.1	2.6	2.1	2.6	4.4	5.2	4.5	4.7	6.4	4.4	3.0	4.6
February.....	5.3	5.3	4.5	5.0	4.4	5.2	4.5	4.7	3.8	2.8	3.1	3.2
March.....	5.8	5.3	5.0	5.4	4.8	4.5	3.5	4.3	4.9	4.2	4.5	4.5
April.....	3.8	4.2	3.3	3.8	4.4	4.7	4.2	4.4	5.0	5.6	5.2	5.3
May.....	5.0	4.5	5.3	4.9	5.6	5.1	5.5	5.4	6.5	5.8	7.1	6.5
June.....	4.0	2.6	3.2	3.2	6.2	5.4	5.2	5.6	6.2	4.1	5.8	5.4
July.....	4.6	3.5	4.0	4.0	4.2	4.1	3.9	4.1	5.5	6.0	6.3	5.9
August.....	5.5	5.0	5.5	5.3	5.4	3.9	4.6	4.6	6.3	6.7	7.2	6.7
September.....	5.2	5.3	4.5	5.0	5.7	4.5	4.9	5.0	5.5	4.3	5.0	4.9
October.....	5.1	5.1	4.7	5.0	4.7	4.0	3.3	4.0	7.2	7.0	8.6	7.6
November.....	5.8	5.9	6.0	5.9	5.4	5.7	5.8	5.7	5.7	5.7	6.3	5.9
December.....	5.1	5.5	4.3	5.0	5.3	5.0	4.6	5.0	7.3	7.4	8.1	7.6
Year.....	4.9	4.6	4.4	4.6	5.0	4.8	4.5	4.8	5.9	5.3	5.8	5.7

TABLE IV.
DIRECTION OF WINDS.

1866-1875.

Month.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.
January.....	31.25	7.74	14.28	11.61	10.72	2.38	2.38	10.71	8.93
February.....	40.06	16.03	13.06	7.11	10.38	1.78	1.19	7.42	4.97
March.....	30.18	9.43	11.59	15.09	21.02	2.97	2.97	4.85	1.89
April.....	24.17	7.78	11.38	15.28	26.40	4.44	3.05	2.78	4.72
May.....	15.63	4.05	11.05	16.44	35.31	4.31	4.31	4.05	4.85
June.....	14.17	3.07	12.22	15.28	42.76	5.28	1.39	2.22	3.61
July.....	8.60	3.59	8.96	17.56	37.63	8.96	4.30	1.08	9.32
August.....	15.47	2.88	11.15	28.42	24.10	3.24	1.80	1.44	11.51
September.....	12.96	7.41	9.63	28.89	26.67	4.07	4.44	3.33	2.59
October.....	17.92	9.32	10.39	11.47	27.60	6.09	6.81	8.24	2.15
November.....	18.15	5.93	15.93	8.89	13.70	3.33	10.37	19.63	4.07
December.....	33.69	11.83	7.53	8.24	6.81	2.15	6.45	18.28	5.02
Spring.....	23.32	7.08	11.34	15.61	27.59	3.90	3.45	3.90	3.81
Summer.....	12.87	3.16	10.90	19.96	35.55	5.78	2.40	1.64	7.74
Autumn.....	16.36	7.58	11.95	16.36	22.70	4.53	7.21	10.38	2.94
Winter.....	35.08	11.88	11.87	9.03	9.45	2.10	3.15	11.76	5.67
Year.....	20.54	7.02	9.86	16.39	24.36	4.31	4.28	7.45	5.79

KUSUNAI, SAKHALIN ISLAND, OKHOTSK SEA.

Lat. 47° 59' N. Long. 142° 20' E. of Gr.

Height of station above the level of the sea is not given, but is known to be small.*Source of information*: Ann. Cent. Phys. Obs., 1867, pp. 357-358.

BAROMETRICAL, THERMOMETRICAL, AND CLOUD OBSERVATIONS.

TABLE I.—Period covered by the table is one year lacking 6 days, July 13, 1867, to July 6, 1868, *new style*. For the months July and August, 1867, the means are from the formula $\frac{1}{3}$ (a. m. + m. + p. m.); while for the remaining months the observing hours are stated and the means computed from the formula $\frac{1}{3}$ ($6_a + 2_p + 10_p$).

Barometer. Recorded in Russian half lines and here converted to English inches. It has been assumed that the barometrical readings have been reduced to 62° F. (13 $\frac{1}{2}$ R.), and in the present table they are reduced to 32° F. on this hypothesis, the correction for this purpose being -0.09.

Thermometer. Recorded in Reaumur degrees; here expressed in Fahrenheit degrees. The observer, Depreradovich, remarks that the thermometer was not sufficiently protected against the rays of the sun, especially in summer, in such a way that the a. m. readings are too great.

Cloudiness. Recorded in fourths; here expressed in tenths, 0 equaling a clear sky and 10 a sky completely overcast.

WINDS.

TABLE II.—*Direction of winds.* Same period, observing hours, &c., as above. Whether true or magnetic directions are meant is not stated. Originally expressed in number of observations. Here expressed in percentages. Whole number of observations, 1,016.

METEOROLOGICAL OBSERVATIONS AT KUSUNAI, SAKHALIN ISLAND.

TABLE I.

ATMOSPHERIC PRESSURE, TEMPERATURE, AND CLOUDINESS.

Month.	Barometer at 32° F.	Thermom- eter.	Cloudiness.
	<i>Inches.</i>	<i>°</i>	<i>Tenths.</i>
January, 1868.....	29.696	13.0	4.800
February, 1868.....	29.996	12.8	5.125
March, 1868.....	29.977	21.4	6.150
April, 1868.....	29.840	35.9	3.950
May, 1868.....	29.903	45.0	5.300
June, 1868.....	29.770	50.0	7.125
July, 1867 and 1868.....		58.5	6.325
August, 1867.....		65.8	3.700
September, 1867.....		53.8	2.500
October, 1867.....		44.7	2.675
November, 1867.....	29.823	32.3	5.400
December, 1867.....	30.007	21.8	5.175
Year		37.9	4.850

TABLE II.

DIRECTION OF WINDS.

Month.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.
January, 1868.....	5.95	1.19	25.00	13.10	1.19	0.00	20.24	19.05	14.29
February, 1868.....	5.00	3.75	27.50	18.75	0.00	1.25	12.50	5.00	26.25
March, 1868.....	3.41	1.14	31.82	21.58	0.00	1.14	26.14	9.09	5.68
April, 1868.....	0.00	1.12	12.36	29.22	6.74	3.37	20.23	4.49	22.47
May, 1868.....	1.30	2.60	25.97	6.49	12.99	11.69	20.78	6.49	11.69
June, 1868.....	0.00	1.12	23.59	10.11	3.37	15.73	20.23	2.25	23.60
July, 1867 and 1868.....	2.94	4.41	38.24	10.29	1.47	5.88	10.29	8.82	17.65
August, 1867.....	1.12	2.37	34.83	13.48	5.62	23.60	3.37	1.12	13.48
September, 1867.....	5.75	0.00	55.17	0.00	1.15	8.05	20.69	6.90	2.30
October, 1867.....	0.00	0.00	36.91	5.95	5.95	7.14	8.33	11.90	23.81
November, 1867.....	5.55	0.00	25.56	7.78	4.44	8.89	22.22	11.11	14.44
December, 1867.....	5.49	0.00	20.88	9.89	5.49	4.40	28.57	6.59	18.68
Year	3.05	1.48	29.62	12.30	4.03	7.68	18.01	7.68	16.14

MURAVIEFF POST, LA PEROUSE STRAIT, SAKHALIN ISLAND.

Lat. 46° 48' N. Long. 142° 30' E. of Gr.

Height of station above the level of the sea is not given, but is known to be small.*Source of information:* Ann. Cent. Phys. Obs., 1868, Suppl., pp. 25-26.

BAROMETRICAL OBSERVATIONS.

No barometrical observations are published for this place in the work consulted.

THERMOMETRICAL AND CLOUD OBSERVATIONS.

TABLE I.—*Temperature of the air.* Period covered by this table is one year, *new style*, July 13, 1868, to July 12, 1869. The observing hours were 6 a. m., 2 and 10 p. m., except from September 22 to October 16, when they were 6 a. m., 2 and 6 p. m. Hence the means are from the formula $\frac{1}{2}(6_a + 2_p + 10_p)$, except from September 22 to October 16, when they are from the formula $\frac{1}{2}(6_a + 6_p)$. The observations were made with a Reaumur thermometer, but the results are here expressed in

Fahrenheit degrees. It was the same observer,—Depreradovich—and probably the same instruments which made these observations that were used to make the Kusunai observations in 1867 and 1868.

Cloudiness. The remarks under temperature apply also to the cloudiness. Cloudiness was estimated in fourths, and is here expressed in tenths.

WINDS.

TABLE II.—*Direction of winds.* Period and observing hours as in Table I. Whether true or magnetic directions are meant is not stated, but they are presumably true. Originally expressed in number of observations, recorded to eight points of the compass. Here expressed in percentages. Whole number of observations, 1,065.

METEOROLOGICAL OBSERVATIONS AT MURAVIEFF POST, SAKHALIN ISLAND.

TABLE I.

TEMPERATURE AND CLOUDINESS.

Month.	Temperature.	Cloudiness.
January, 1869	6.9	4.00
February, 1869	10.1	3.10
March, 1869	19.1	5.05
April, 1869	31.7	6.55
May, 1869	41.4	4.70
June, 1869	47.7	4.60
July, 1868 and 1869	55.1	5.65
August, 1868	60.3	6.77
September, 1868	55.5	4.82
October, 1868	44.9	2.97
November, 1868	30.6	5.07
December, 1868	14.0	4.95
Year	34.8	4.85

TABLE II.

DIRECTION OF WINDS.

1868-1869.

Month.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm.
January	5.38	1.08	13.98	4.30	4.30	6.45	9.68	3.23	51.61
February	3.57	0.00	13.10	4.76	0.00	17.86	7.14	5.95	47.62
March	12.22	2.22	7.78	7.78	1.11	16.67	7.78	3.33	41.11
April	8.89	1.11	10.00	7.78	1.11	28.89	5.55	3.33	33.33
May	0.00	6.45	8.60	3.23	0.00	41.94	4.30	0.00	35.48
June	2.25	6.74	8.99	13.48	0.00	15.73	8.99	0.00	43.82
July	4.40	14.29	24.47	1.10	0.00	12.09	3.30	2.20	35.16
August	6.52	8.70	32.61	8.70	3.26	2.17	8.70	1.09	28.26
September	2.56	11.54	12.82	7.69	6.41	15.38	5.13	0.00	38.46
October	1.16	4.65	3.49	6.98	0.00	9.30	16.28	9.30	48.84
November	1.16	1.16	2.33	6.98	1.16	8.14	31.40	10.47	37.21
December	2.15	2.15	7.53	4.30	1.08	8.60	13.98	12.90	47.31
Year	4.22	4.98	12.49	6.38	1.50	15.31	10.14	4.32	40.66

HAKODADI, YESO ISLAND, JAPAN.

Lat. 41° 47' N. Long. 140° 45' E. of Gr.

Height of station above the level of the sea, January 1, 1859, to March 31, 1860, 30 feet, and from April 1, 1860, to May 31, 1863, 150 feet.

Source of information: Kupffer's Met. Correspond., 1863, p. xxxiv. See also Coffin's Winds of the Globe, p. 374.

MISCELLANEOUS METEOROLOGICAL OBSERVATIONS.

TABLE I.—The period covered by this table is four and one-third years, January, 1859, to April, 1863, inclusive, *n. s.* The observing hours were 7 a. m. and 2 and 9 p. m., and all the means have been deduced from the formula $\frac{1}{3}(7_a + 2_p + 9_p)$.

a. Barometer. The barometrical observations have been reduced from Russian half lines to English inches, and from 62° F. (13½° R.) to 32° F., the correction for this purpose being — 0.089 inch. They have also been reduced to the level of the sea, with the arguments 30 and 150 respectively, weighted according to the length of time that observations were made at these two heights respectively. The reduction to sea-level from January to March, inclusive, is + 0.109 inch, and from April to December, inclusive, + 0.160 inch.

b. Thermometer. The atmospheric temperature was recorded in Reaumur degrees, but is here converted to Fahrenheit degrees.

c. Elasticity of aqueous vapor. This is expressed in English lines.

d. Relative humidity. Expressed in percentages of saturation.

e. Precipitation. The amount of rain and melted snow is expressed in English inches.

METEOROLOGICAL OBSERVATIONS AT HAKODADI, JAPAN.

TABLE I.

MISCELLANEOUS METEOROLOGICAL OBSERVATIONS.

1859-1863.

Month.	Barometer at 32° F.	Thermom- eter.	Elasticity of vapor.	Humidity.	Rain and snow fall.
	<i>Inches.</i>	<i>°</i>			<i>Inches.</i>
January	29.909	27.0	1.10	0.70	1.898
February	29.954	29.4	1.21	0.71	2.321
March	30.032	35.8	1.52	0.70	2.195
April	29.986	44.6	2.14	0.71	2.380
May	29.908	52.5	2.99	0.75	3.916
June ..	29.801	59.7	4.28	0.80	3.150
July	29.797	67.2	5.50	0.82	7.574
August	29.820	71.9	6.42	0.80	3.996
September	29.928	65.3	5.04	0.76	4.112
October ..	30.036	53.4	3.05	0.71	3.513
November	30.032	42.9	2.00	0.69	3.907
December	29.935	32.1	1.42	0.72	4.616
Spring	29.975	44.3	2.21	0.72	8.491
Summer	29.806	66.2	5.40	0.80	14.720
Autumn	29.988	53.8	3.36	0.72	11.532
Winter ..	29.933	29.5	1.24	0.71	8.835
Year	29.925	48.5	3.05	0.73	43.578

MISCELLANEOUS AND SUPPLEMENTARY NOTES AND TABLES.

METEOROLOGICAL OBSERVATIONS ALONG THE COAST OF ALASKA, BETWEEN COOK'S INLET AND QUEEN CHARLOTTE ISLANDS.

[Extracted from Dixon's Voyage, Appendix No. II, pp. 13-27.]

On the evening of July 19, 1786, Capt. George Dixon, of the snow Queen Charlotte, came to anchor in Cook's Inlet; he remained there till August 13, 1786. During his stay (twenty-five days) the thermometer was observed each day at noon, and the mean of these observations is $58^{\circ}.5$ F.

On the 13th of August, 1786, he sailed from Cook's Inlet for Prince William Sound and cruised along the coast to the eastward and southward. During this time the thermometer was observed each day at noon, and the mean of these observations from August 13 to August 31, inclusive, being nineteen days, is $55^{\circ}.2$ F.; the highest observed reading 59° F., and the lowest observed reading 52° F. During this period he was between latitude $58^{\circ} 13'$ N. and $59^{\circ} 48'$ N.

During September he was sailing down the northwest coast, and was wholly between the parallels of $58^{\circ} 54'$ N. and $47^{\circ} 53'$ N. The mean of the thermometer at noon during this month, September, 1786, is $54^{\circ}.6$ F.; the highest observed reading is 62° F., and the lowest observed reading is $50^{\circ}.5$ F.

In the following year (April 25, 1787) Captain Dixon anchored in Prince William Sound. He remained there twenty days (April 25 to May 14, 1787). The mean of the thermometer during this period is stated to have been 54° F.; but this looks like a mistake.

From May 24 to June 4, 1787, Captain Dixon was at anchor in Port Mulgrave. Mean height of thermometer during this period (twelve days) was 46° F.

June 4, 1787, Captain Dixon sailed from Port Mulgrave, and arrived in Sitka Sound June 12. Mean height of the thermometer during this period (nine days) was 45° F.; the highest observed reading was 49° F., and the lowest observed reading was 42° F.

June 12, 1787, to June 22, 1787, Captain Dixon was at anchor in Sitka Sound. Mean height of the thermometer between these times (June 23 and June 30—8 days) was $49^{\circ}.2$ F.; the highest observed reading was 50° F., and the lowest observed reading was 47° F. During this time he was between latitude $56^{\circ} 48'$ N. and latitude $55^{\circ} 12'$ N.

During the whole month of July, 1787, Captain Dixon cruised on the coast between latitude $54^{\circ} 22'$ N. and latitude $51^{\circ} 46'$ N. Mean height of thermometer at noon for July, 1787, was $52^{\circ}.8$ F.; the highest observed reading $58^{\circ}.5$ F., and the lowest observed reading 49.5° F.

ATNA RIVER.

[From ZAPISKI Hydr. Dept., etc. (Journal of the Russian Hydrographic Office), Vol. X, 1852, p. 171, seq.]

In the spring of 1848 (May 16) Ensign Rufus Serebrennikoff, a creole, started up the Atna or Copper River, from the trading post situated in latitude $61^{\circ} 28' 39''$.

About noon of the 17th he passed the mouth of the Chechitno River, and on the evening of the 18th reached a settlement containing twelve souls.

On this day, the 18th of May, 1848, he gives us the reading of the thermometer and also the reading for several succeeding days. The readings are as follows:

May 18.....	$54^{\circ}.5$	May 22.....	$54^{\circ}.5$
19.....	68°	23.....	$65^{\circ}.75$
20.....	$63^{\circ}.5$		
21.....	$45^{\circ}.5$	Mean.....	$58^{\circ}.6$

On May 28 the observed latitude was $62^{\circ} 08' 11''$ N., and on the 29th the thermometer was broken.

METEOROLOGICAL OBSERVATIONS TAKEN ON BOARD THE U. S. C. S. SCHOONERS
HUMBOLDT AND YUKON, IN NORTH PACIFIC, ALEUTIAN ISLANDS AND
BERING SEA.

WEATHER OBSERVATIONS.

Arranged from C. S. Reports for 1872-1874.

1871-1874.

Month.	1871-'72.			1873.			1874.		
	Clear.	Cloudy.	Rainy, snowy, or foggy.	Clear.	Cloudy.	Rainy, snowy, or foggy.	Clear.	Cloudy.	Rainy or foggy.
January	1	6	24	1	16	14			
February	2	4.5	22.5	5	5	18			
March	5	4.5	12.5	4	4	23			
April	2	9	19	3	13	14			
May	1	11	19	3	13	10	12.5	10	8.5
June	0	17	13	6	10	14	8.5	14	7.5
July	2	11.5	17.5	3	3	25	7.5	13	10.5
August	4	10.75	16.25	4	7	20	9	8	14
September	3	9.5	7.5	3	16	11	0	9	21
October	3.5	5.5	22	4	4	10			
November	5	11	14						
December	4	5	22						
Year	32.5	105.25	209.25						

TEMPERATURE OF SURFACE SEA-WATER.

Arranged from C. S. Reports for 1872-1874.

1871-1874.

Month.	1871-'72.				1873.				1874.			
	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.
January	0	0	0	0	0	0	0	0	0	0	0	0
February	35.4	37	32	5								
March	35.3	39	32	7								
April	34.6	37	32	5								
May	37.6	38	37	1								
June	40.8	44	39	5	38.8	43	36	7	48.5	55	43	12
July	44.0	44	44	0	42.2	48	39	9	48.0	54	42	12
August	46.0	49	44	5	42.2	46	42	5	49.1	55	45	10
September	50.5	54	49	5	46.3	51	42	9	54.2	62	48	14
October	48.9	54	46	8	46.5	48	44	4	50.0	55	46	9
November	43.0	48	40	8	47.3	49	45	4				
December	34.3	39	32	7								
Year	34.0	38	31	7								
Year	40.4	54	31	23								

NOTE.—Observations at sea made every four hours; in port at 6 a. m. and p. m. and noon. Some of the above months are incomplete. The last three months for 1871-'72 belong to 1871, the others to 1872.

TEMPERATURE OF SEA-WATER FIVE FATHOMS BELOW THE SURFACE.

Arranged from C. S. Reports for 1872-1874.

1871-1873.

Month.	1871-'72.				1873.			
	Mean.	Max.	Min.	Range.	Mean.	Max.	Min.	Range.
January.....	39.8	41	37	4	40.9	42	40	2
February.....	36.8	39	33	6	41.1	45	38	7
March.....	37.3	38	37	1	42.2	43	41	2
April.....	38.5	40	37	3	43.8	45	42	3
May.....	40.6	41	40	1	44.3	45	44	1
June.....	43.5	45	41	4	47.1	48	46.5	1.5
July.....	46.9	48	45	3				
August.....	49.9	54	48	6				
September.....								
October.....								
November.....								
December, 1871.....	40.4	41	39	2				
Year.....								

METEOROLOGICAL OBSERVATIONS AT PETROPAVLOVSK, KOTZEBUE SOUND, AND PORT CLARENCE.

[From Beechey's Voyage to the Pacific Ocean; Appendix, Table VII, p. 721.]

Month.	Situation.	Barometer.	Temperature of the air.			Mean temperature of the surface of the sea.	Humidity of the atmosphere.					Prevailing wind.
			Max.	Min.	Mean.		Dew point.	Degree of dryness on ther. scale.	Degree of moisture on hyg. scale.	Elasticity of vapor.	Weight of vapor in a cubic foot of air.	
1826.		Inches.	°	°	°	°	°	°	°	°	Grains.	
June 28 to July 5 ..	Avatcha Bay	28.728	70	46	52.3	38.5	51.5	4.5	.856	.421	5.195	} Westerly.
July 20 to 31	Kotzebue Sound.	.954	64	40	53.6	50.3	50.2	2.8	.989	.408	4.865	
September 1 to 30 ..	....do .....	.763	70	36	46.6	46.9	43.0	7.1	.787	.318	3.607	} Variable.
October 1 to 14 .....	....do .....	.548	47	27	37.3	40.6	33.7	7.0	.899	.231	2.696	
1827.												
July 4 to 19	Petropavlovsk		74	48	55.1	55.5	52.8	2.3	.921	.444	4.091	SSE.
August 5 to 18	Kotzebue Sound.		60	48	51.1	50.9	51.2	1.1	1.025	.419	4.734	ENE.
September 1 to 5 ..	Port Clarence		50	29	27.3	38.9	29.2	3.2	.892	.199	2.339	S. and WNW.
September 6 to 30 ..	Kotzebue Sound.		50	26	39.3	40.6	39.6	2.6	.946	.282	3.099	Variable.
October 1 to 6 .....	....do		39	23	30.8	36.0	27.0	2.0	.938	.182	2.154	NW., NE.

SUPPLEMENTAL NOTE.

As this work goes to press there has been received a copy of SCHRENCK (Leopold von), *Reisen und Forschungen im Amur-Lande, &c.* 4°. St. Petersburg, 1876. Band IV, erste Lieferung, containing *Meteorologische beobachtungen im Amur-Lande und resultate aus desselben.*

This book contains a part of the material made use of in the foregoing discussion, and in addition some meteorological material that had been nowhere met with in the preparation of this report.

New material, *i. e.*, material not made use of in the foregoing discussion, is found in it for the following places: 1. Constantinovsk (Barracouta Bay); 2. Duë Lighthouse; 3. Kusunai; 4. Mariinsk; 5. Muravieff (Aniwa Bay); 6. Nikolaieffsk. These places will be considered in the order here written.

1. **CONSTANTINOVSK.** This place, *Konstantinovscher Posten (Kaiserhafen, Bai Hadshi)*, is situated on the shore of *Barracouta Bay* of English authorities, in latitude $49^{\circ} 01' 5''$ N., and longitude $140^{\circ} 19' 5''$ E. of Gr. and at an unknown elevation above the sea.

Meteorological observations were made at this place from June 13, 1855, to February 13, 1856, *new style*, and from December 13, 1857, to April 12, 1858, *new style*; in all twelve months' observations.

From June 13, 1855, to February 13, 1856, observations were made of temperature, direction and force of wind, state of sky, together with notes on rainfall, &c. The observing hours were 8_a, 12_m, and 4_p.

From December 13, 1857, to April 12, 1858, observations were made of pressure, temperature, direction and force of wind, and state of the sky. The observing hours were 6_a, 2_p, and 10_p.

2. **DUË.** This place is doubtless the same as that called Duë Lighthouse in the *ANNALES DE L'OBSERVATOIRE*, &c. It is situated in a narrow ravine on the west coast of Sakhalin Island, in latitude $50^{\circ} 50'$ N., and longitude $142^{\circ} 26'$ E. of Gr. (The old value was $142^{\circ} 06' 35''$.)

Meteorological observations were made at this place for a period of two years and two months (October 2, 1863, to December 31, 1865, *new style*) by naval officers stationed here, and in the usual manner of the Russian hydrographic department. These observations are published *in extenso* except the barometer. The observing hours were 6_a, 2_p, and 10_p.

The height of the station above the sea-level was as follows: October, 1863, to February 12, 1865, 52 feet; February 13, 1865, to April 1, 1865, 340 feet; April 2, 1865, to June 22, 1865, 70 feet; June 22, 1865, the barometer was broken.

The observations taken with this barometer are not published, but the *mean barometer* at Duë depending upon "2 years'" observations is given and incorporated here in the synoptical table at the end of this note.

The journal contains observations of temperature, direction and force of wind, and state of the atmosphere, each observed three times per day, added to which are notes on rain and snow fall, movements of the ice, &c.

3. **KUSUNAI.** This Russian post lies immediately adjacent to the sea-coast, on Sakhalin Island, in latitude 48° N., longitude $142^{\circ} 20'$ E. of Gr. It is but slightly elevated above the sea.

Observations of temperature of the air, direction and force of wind, and state of the atmosphere were made three times per day (7_a, 2_p, and 9_p) by Lieutenant Margasoff, from September 18, 1860, to June 29, 1861.

The barometer was observed at the same hours, place, and by the same observer, from November 15, 1860, to June 29, 1861.

These observations are published *in extenso*, and include the usual notes on precipitation, movements of ice, &c.

4. **MARIINSK.** This place, on the right bank of the lower Amur, is situated about 90 miles to the southward of Nikolaieffsk, in latitude $51^{\circ} 42' 18''$ N. and longitude $140^{\circ} 11' 31'' 5''$ E. of Gr. It is about 30 miles distant from the nearest sea-coast.

The observations at this place were made principally by Mr. Maximowicz, with standard instruments; and extend with interruptions from November 15, 1854, to July 19, 1856. The journal of these observations is published in full, and covers 77 quarto pages.

Observations of the barometer, thermometer, direction and force of the wind, humidity, and cloudiness were made at every third hour day and night, *i. e.*, at noon, 3_p, 6_p, 9_p, midnight, 3_a, 6_a, and 9_a; in addition to these, the same kind of observations were recorded every hour on the 21st of each month.

The journal contains many notes on various phenomena, but the precipitation observations are wanting.

5. **MURAVIEFF (ANIWA BAY).** This post, built on a small hill immediately adjacent to the sea-coast, is situated in latitude $46^{\circ} 39' 15''$ N. and longitude $142^{\circ} 52'$ E. of Gr.

Observations of the thermometer and direction and force of wind were made at this post from October 13, 1853, to June 10, 1854.

The observations were usually made 3 times per day, but part of the time 4 times per day. The hours are given as 6 to 8 a. m., noon, 6 to 8 p. m., and from 10 to 1 at night.

6. NIKOLAIEFFSK ON THE AMUR. This town, which was only a post in 1854, lies on the left (north) bank of the Amur River, about 25 miles from its mouth, in latitude $53^{\circ} 08' 19''$ N. and longitude $140^{\circ} 42' 58''.5$ E. of Gr.

Meteorological observations were made at this place by Schrenck from September 22, 1854, to September 13, 1856, and by Dr. Pfeiffer, under the direction of the central physical observatory, from October 13, 1856, to the spring of 1865; the series continues to December 16, 1865.

Schrenck's observations were made 8 times per day, viz, 6_a, 7_a, 9_a, 12_m, 2_p, 3_p, 9_p, and 10_p; and the journal contains the record of barometer, thermometer—3 of them—direction and force of the wind, and condition of the atmosphere, together with the usual notes on rainbows, poorgas, movement of ice, &c.

The series from June 13, 1858, to December 16, 1865, contains the record of thermometer, direction and force of wind, and state of atmosphere observed 3 times per day. The hours of observation were 6_a, 2_p, and 10_p during 1858 and 1859, and 7_a, 2_p, and 9_p from 1860 to 1865.

The barometer was observed from January 9, 1860, to December 16, 1865, with some interruptions.

No observations of the amount of precipitation were made in the Amur region prior to 1866; at that date observations were begun at Nikolaieffsk.

In addition to the foregoing, the volume contains observations for several places which lie outside the field covered by the present discussion.

The observations here referred to were reduced and discussed by Dr. W. Köppen and Dr. H. Fritsche, apparently in 1873, who incorporated with this material such additional material as had been received throwing light on the climatology of the Amur region.

The final synoptical tables deduced by them are for atmospheric pressure, atmospheric temperature, direction of winds, and cloudiness.

The pressure, temperature, and cloudiness tables are appended.

Table I.—ATMOSPHERIC PRESSURE. The results in this table are in English inches, having been converted from millimeters, and the dates are *new* style. The results are all reduced to 32° F., but not to sea-level, with the single exception of Nikolaieffsk. The authors of the discussion say that this reduction is of little importance for any place except Duë, as the places lie immediately adjacent to the sea. For the reduction to sea-level at Duë they suggest the empirical correction of 0.43 inches (11^{mm}), whereas 0.38 inches has been adopted in this report from independent information.

Constantinovsk; each result depends upon one month's observations; means = $\frac{1}{3}$ (6_a + 2_p + 10_p); "instrumental correction about + 0.05 inches, which correction is not applied." Period, December, 1857, to March, 1858.

Duë; these results are stated to depend on 2 years' observations, but no further information is given and no barometrical observations at Duë are published, although it is stated that such observations were made.

Kusunai; each result depends upon one month's observations; means = $\frac{1}{3}$ (7_a + 2_p + 9_p). Period, December, 1860, to June, 1861.

Mariinsk; concerning the elaborate series of barometrical observations at this place (taken 8 times per day) the authors say that "they show throughout an abnormal relation, in that they make the pressure there greater in summer than in winter," and consequently they are "rejected."

Nikolaieffsk; these results depend upon 11 years' observations, viz, 1856, 1857, 1860-'63, 1865-'68, and 1872. All except those of 1856 and 1857 appear to be derived from the formula mean = $\frac{1}{3}$ (7_a + 2_p + 9_p); the results for 1856 and 1857 appear to depend upon the formula mean = $\frac{1}{3}$ (1_a + 2_p + 10_p). The results are all reduced to the level of the sea.

Table II.—ATMOSPHERIC TEMPERATURE. This table contains the mean atmospheric temperature. The means of the observations as recorded have been compared with the Nikolaieffsk means,

and thus a series of corrections obtained to reduce the means derived from any formula to the true mean of the day. The table is taken from Köppen and Fritzsche's discussion without change, except the conversion from Reaumur to Fahrenheit scale.

Constantinovsk; results depend on observations previously referred to and no other.

Duë; results depend on 4 years' observations, viz, 1864, 1865, 1866, and 1868, the material for 1866 and 1868 being taken from the Annals of the central physical observatory.

Kusunai; results depend on 2 years' observations, viz, those referred to in 1860 and 1861, with which are incorporated observations from August, 1867, to July, 1868, from the Annalen.

Mariinsk; results depend upon the series of observations cited and no others, about 18 months in all.

Muravieff; results depend on observations already cited and no others.

Nikolaieffsk; results depend upon 11 years' observations, 1856-1863 and 1865-1872.

Table III.—CLOUDINESS. In this table average cloudiness expressed in percentages, whereby 100 = a sky wholly clouded over and 0 a cloudless sky. The results depend upon the same periods as the results in Table II, except at Muravieff and Nikolaieffsk.

At *Muravieff* the results depend upon the observations already cited combined with one year, August, 1868-July, 1869, from the Annalen.

At *Nikolaieffsk* the results depend upon 14 years' observations, viz, 1857-1872.

Tables of direction of winds, together with a brief discussion of precipitation and humidity, is also found in the work, to which the reader, desirous of further information, is respectfully referred.

TABLE I.
ATMOSPHERIC PRESSURE.

Mean barometer reduced to 32° F., but *not* reduced to the sea-level except in the case of Nikolaieffsk.

Place.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>
Constantinovsk	29.83	29.85	29.80									29.93	
Duë	26.53	29.48	29.44	29.36	29.37	29.38	29.37	29.38	29.46	29.50	29.41	29.48	29.43
Kusunai	29.78	30.02	30.03	29.92	29.81	29.72						29.88	29.9
Mariinsk													
Nikolaieffsk	29.89	29.92	29.89	29.79	29.74	29.66	29.66	29.69	29.81	29.82	29.83	29.84	29.79

TABLE II.
ATMOSPHERIC TEMPERATURE.

Place.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Constantinovsk	- 2.9	- 3.1	3.9				62.6	62.4	53.6	36.9	15.3	+ 9.0	
Duë	+ 5.2	+ 7.0	17.8	32.9	42.1	51.6	58.5	61.9	53.1	41.0	22.6	+ 7.5	33.4
Kusunai	+ 8.4	+ 9.9	20.7	34.2	43.5	50.7	58.8	66.4	54.3	43.7	28.8	+15.8	36.3
Mariinsk	- 6.5	- 0.8	12.0	31.1	44.1	59.4	66.9	66.0	55.4	40.5	19.2	+ 0.9	32.3
Muravieff	+13.8	+12.9	24.8	38.7	44.4						32.7	+18.5	
Nikolaieffsk	- 12.1	- 6.5	6.3	25.5	38.5	53.8	61.2	60.3	49.8	34.9	13.5	- 4.7	26.7

TABLE III.
CLOUDINESS.

0 = a clear sky, .50 = a sky half covered with clouds, and 1.00 = a sky wholly obscured by clouds.

Place.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
Constantinovsk .....	.28	.25	.32				.51	.60	.52	.46	.23	.45	
Duë .....	.54	.49	.51	.51	.57	.53	.51	.58	.51	.58	.68	.55	.55
Kusunai .....	.59	.55	.51	.44	.55	.71	.67	.58	.53	.53	.69	.67	.58
Mariinsk .....	.76	.35	.36	.61	.43	.48	.51	.42	.50	.57	.28	.46	.48
Muravieff .....	.40	.31	.50	.65	.47	.46	.56	.68	.48	.30	.51	.50	.48
Nikolaieffsk .....	.37	.37	.42	.56	.61	.58	.59	.63	.54	.59	.56	.48	.52

OKHOTSK AND BERING SEAS.—During the printing of the preceding, a copy of *Sobranie nabliudenii*, etc. (Collection of observations taken during hydrographic explorations in the Pacific Ocean, 1874–77) 4°, 112 pp., pl. and maps, St. Petersburg, 1878, has been received through the kindness of the author, Lieut. M. L. Onatzevich, Russ. Navy. Beside matters extraneous to the present discussion, it includes (pp. 1–24) meteorological observations taken by the schooner *Vostok* while cruising in the Okhotsk Sea in 1875. The observations comprise atmospheric pressure, temperature, winds, weather (taken generally four times a day), and currents determined once a day. A similar record is given for the cruises of the clipper *Vsadnik* in Bering Sea and Strait, 1876, generally with five observations a day. Temperatures of the air and surface of the sea are illustrated by profiles. In general, the conclusions arrived at by Lieutenant Onatzevich, from independent observations in previously unexplored portions of this region, supplement the observations of the U. S. Coast Survey, and confirm the views set forth in the general discussion in this paper, particularly in regard to the currents, while a great deal of new light is thrown upon the whole subject. Observations made during these explorations indicate for the position of Port Providence that the value in latitude of $64^{\circ} 22'$ N. and in longitude of $173^{\circ} 23'$ W. of Gr. is more exact than that here accepted, on page 118 preceding.

KUSUNAI.—A few additional observations from this locality have been discovered in the Bulletin of the Siberian section of the Imperial Russian Geographical Society, I, nos. 2 and 3, pp. 24–5, 1870, in a paper by Dr. Dobrotvorsky. The observations are of temperature, here converted from Réaumur to Fahrenheit degrees, and of the weather. There are six days missing from the record, which otherwise covers the year 1858. Days which were clear or cloudy-fair were noted; the remainder were rainy or snowy. The clear days formed 28.9 per cent. and the cloudy days 29.7 per cent. of all the weather. The maximum temperature for the year was $77^{\circ}.0$ F.; the minimum, minus $31^{\circ}.0$ F.; the mean temperatures for the seasons were, spring $37^{\circ}.9$, summer $58^{\circ}.5$, autumn $35^{\circ}.6$, and winter $14^{\circ}.5$ F. The mean temperature for the year was $36^{\circ}.05$ F.

METEOROLOGICAL OBSERVATIONS AT KUSUNAI, 1858.

Month.	Clear days.	Cloudy days.	Temperature.	Month.	Clear days.	Cloudy days.	Temperature.
January.....	7	5	$14^{\circ}.2$	July.....	6	5	$62^{\circ}.4$
February.....	14	5	$14^{\circ}.3$	August.....	6	11	$58^{\circ}.7$
March.....	12	6	$27^{\circ}.3$	September.....	18	6	$49^{\circ}.9$
April.....	14	11	$40^{\circ}.3$	October.....	12	5	$35^{\circ}.1$
May.....	5	15	$46^{\circ}.1$	November.....	2	9	$21^{\circ}.8$
June.....	2	21	$54^{\circ}.5$	December.....	6	8	$8^{\circ}.1$

ACKNOWLEDGMENT.—It remains only, in closing this part of the work, to acknowledge courtesies received from the authorities in charge of the library of the Surgeon-General of the Army, Mr. A. R. Spofford, of the Congressional Library, and Mr. Theo. F. Dwight, librarian of the State Department, and especially from Prof. Cleveland Abbe, of the U. S. Signal Service, to whose personal services and valuable counsel we are deeply indebted. For observations made especially at our solicitation, we owe thanks to Capts. F. Riedell, E. P. and L. N. Herendeen, and to the Rev. Innocentius Shayesnikoff; and for valuable suggestions to Mr. William Ferrel and Asst. C. A. Schott of the U. S. Coast Survey. Those who have undertaken similar work will not consider it superfluous that we also express our thanks to the proof-readers of the Government Printing Office, whose vigilance has very greatly diminished the labor of seeing this paper, and especially the tables, through the press.

INDEX TO NAMES OF PLACES.

	Page.		Page.
Adakh	24, 26	Kolmakoff Redoubt.....	25, 39, 112, 113
Aian	24-27, 44, 134-137	Konstantinovscher Posten	157
Ala River	25, 44, 141-142	Kotzebue Sound	24, 26, 39, 111, 156
Aleutian Islands.....	155	Kuskokwim River	39, 112
Alaska Peninsula	36, 93	Kusunai	24, 25, 27, 46, 150, 151
Amchitka Island	24, 26	Kyska	24, 26
Amur River	45, 142, 143, 158	La Perouse Strait.....	151
Anadyr River	24, 25, 27, 41, 119-121	Lituya Bay.....	26
Aniwa Bay.....	157	Middleton Island	26
Arctic Ocean	39, 111	Möller Islands.....	24, 25, 36, 93-95
Atka Island	24, 26	Muravieff	25, 27, 46, 151, 152, 157, 159
Atna River	154	New Westminster, B. C	24, 25
Attu Island	24, 26	Nikolaieffsk on the Amur	24-27, 45, 142-147, 157-159
Avatcha Bay	156	North Pacific	155
Baranoff Island	30, 60	Norton Sound	37, 38, 98, 100, 110
Barracouta Bay	157	Nulato	24-27, 39, 113, 116
Bering Sea	36, 89, 93, 155	Nunivak Island	26
Bering Strait	39, 111	Okhotsk Sea	43-46, 126, 134, 147, 150
Burnaby Islands.....	26, 29, 51	Petropavlovsk	24-27, 41, 121-126, 156
Captain's Bay	33, 77	Plover Bay.....	41, 118
Chechitno River	154	Point Barrow	25, 39, 112
Chiachi Islands.....	26	Polaris Bay	20
Chignik Bay	26	Port Aian	24-27, 44, 134-139
Chirikoff Island	26	Port Clarence	25, 26, 39, 111, 156
Choris Peninsula	25, 39, 111, 112	Port Etches	26
Constantinovsk	157, 159	Portland, Oregon	24, 25
Cook's Inlet	32, 71, 154	Port Möller	26
Copper River	154	Port Mulgrave	26, 154
Duë Lighthouse	24, 25, 27, 45, 147-150, 157-159	Port of Okhotsk.....	24-27, 43, 126-133
Eastern Siberia.....	41, 43-45, 119, 126, 134, 139, 141-143	Port Providence	25, 41, 118, 119
Esquimalt.....	24	Pribiloff Islands.....	26, 34, 87
Etolin Harbor	30, 56	Prince William Sound	154
Fort Franklin	40, 117, 118	Queen Charlotte Islands	29, 51, 154
Fort Kenai	25-27, 32, 71, 72	St. Michaels	24-27, 37, 98-109
Fort Tongass	24, 25-27, 29, 52-56	St. Paul Island	24-27, 34, 87-93
Fort Wrangell.	24-27, 30, 56-60	St. Paul, Kadiak.....	24-27, 32, 72-76
Fort Yukon.....	24, 25, 40, 116, 117	Sakhalin Island	45, 46, 147, 148, 150-152
Golden Gate Bay	119	Semidi Islands	26
Great Bear Lake.....	40, 117, 118	Shantar Bay	44
Hadshi Bay	157	Shumagin Islands	26
Hagemeister Island	26	Sitka	24-27, 30, 60-70, 154
Hakodadi	24-23, 46, 153	Udi River	44, 139
Hudson Bay Territory	40, 117, 118	Udsk	24, 25, 44, 139, 140
Ikognut	25, 27, 36, 95-98	Udskaiia Gulf.....	141
Iliuliuk	24-27, 33, 77-87	Unalaklik	24, 25, 38, 110
Japan	46, 153	Unalashka	26, 33, 77, 79, 80, 82
Kadiak	26, 32, 72, 73	Wade River	119
Kaiserhafen	157	Yeso Island	153
Kamchatka	41, 121, 123	Yukon River	36, 39, 40, 95, 113, 116

LIST OF ILLUSTRATIONS.

I.—CHARTS.

Atmospheric pressure; monthly isobars	I-XII	Temperatures; annual isotherms	XXVI
annual isobars	XXV	Faunal regions	XXVII
Temperatures; monthly isotherms.....	XIII-XXIV	Tree-limits, sea temperatures and currents	XXVIII

II.—WIND ROSES.

	Plate.		Plate.
<i>A. American stations :</i>		<i>B. Asiatic stations :</i>	
Fort Tongass.....	I	Anadyr River	VI
Fort Wrangell.....	I	Petropavlovsk.....	VI
Sitka	II	Port of Okhotsk.....	VII
St. Paul, Kadiak	III	Port Aian	VII
St. Paul Island	III	Nikolaieffsk	VIII
Fort Kenai	IV	Duë Lighthouse	VIII
Iliuliuk	IV		
Ikogmut	V		
St. Michael's	V		
Nulato	VI		

It is hardly necessary to observe that the top of the plate is taken as north, the bottom south, the right hand east, and the left hand west; while the lines on each rose indicate the cardinal and intermediate points of the compass, the winds being taken as blowing toward the center of each rose.

III.—PROFILES.

	Plate.		Plate.
Atmospheric pressure.....	IX	Precipitation	XI-XII
Temperature	X-XI		

NOTE.—On the original chart, fearing that the names might become illegible in process of reduction, a numeral in large print was affixed to the following stations: 1, Hakodadi; 2, Muravieff; 3, Kusunai; 4, Duë Lighthouse; 5, Nikolaieffsk; 6, Fort Aian; 7, Port of Okhotsk; 8, Petropavlovsk; 9, Anadyr River, Bush's Station; 10, Port Providence; 11, Port Clarence; 12, Point Barrow; 13, Fort Yukon; 14, Nulato; 15, St. Michael's; 16, Ikogmut; 17, Kolmakoff Redoubt; 18, St. Paul Island; 19, Unalashka; 20, St. Paul, Kadiak; 21, Sitka; 22, Fort Wrangell; 23, Fort Tongas; 24, New Westminster; 25, Portland, Oregon. As it has turned out the names are sufficiently legible, and the only use of the numbers is to call attention more easily to the locality of some of the stations. Udsak, Ala River, Unalaklik, Choris Peninsula, Fort Kenai, Möller Islands, and Burnaby Islands are not distinguished on the chart by a numeral, for want of space, but their names or a + indicate their respective locations. The lowest monthly mean in the areas of low atmospheric pressure is sometimes printed in full on the charts when its value differs widely from that of the isobar by which the area is circumscribed. A few observations in isolated localities have been inserted in the same way.

PARTIAL LIST
OF
CHARTS, MAPS, AND PUBLICATIONS
RELATING TO
ALASKA AND THE ADJACENT REGION,
FROM
PUGET SOUND AND HAKODADI TO THE ARCTIC OCEAN, BETWEEN THE ROCKY
AND THE STANOVoi MOUNTAINS.

PRELIMINARY NOTE.

The lists which follow are the natural outgrowth of the work attendant upon the careful examination of all accessible literature for meteorological and hydrographical as well as geographical information in regard to the region. This examination became necessary in preparing the Coast Pilot of Alaska, now in progress. When maps, charts, or printed information bearing upon a particular locality were found, it was necessary to keep a record, so that it could be readily referred to afterward when the special locality came under consideration. The list is thus a working list, slightly amplified for completeness' sake.

The search has been rather for such maps and books as would afford information than for rare editions or curious antiques. All such have been included when found, but no special search has been made for them.

In regard to the maps and charts, it may be said that there is no existing list of them for this region except the catalogues of those who publish charts, and which include only one series of publications, as those of the British Admiralty, for instance. In the present list an attempt has been made to give the title of each chart [in parentheses], or at least so much of it as would be sufficient to identify the chart among others of a similar character, to indicate its source, authority and date, and to add such notes as might be of service to those who might take the list as a guide. The amount of Russian type at command being exceedingly small, it became necessary to transliterate the Russian map-titles or omit them, and it was thought the former horn of the dilemma was the least objectionable, although open to the criticism that no transliteration can ever be quite consistent or satisfactory.

The transliteration adopted is, as nearly as may be, phonetic, the vowels being all separately pronounced without exception, and having the continental values (*e*, as in *bey*; *a*, as in *bah*; *i*, as in *seen*; *o*, as in *low*; *u*, as in *blue*; *ch*, always, as in *church*; *kh*, as in German *ch*; *g*, always hard; Russian *z*, as *oh* English; the third letter of the Russian alphabet, *B*, as *r*, *w*, or *f* English, according to its phonetic value in the word transliterated) in most cases, and unaccented Russian *o* as *a*. The heads under which the charts are arranged are more congruous than would at first sight appear from the titles, though it is probable that no universally satisfactory system of sub-heads could be devised.

In regard to the list of books, pamphlets, special papers, and publications, it may be said that while only the title of a Partial List is claimed for it, it nevertheless contains not only more than three times as many titles as are found in any existing bibliography, but at least one-third more than exist in *all known bibliographies* put together.

No attempt has been made to follow up the multifarious editions of such works as Cook's Voyages after giving the title and collation of the original or first English edition. If editions in any way peculiar presented themselves they were included, but there was no time spent in hunting for them. Especially important papers devoted wholly to the region or its productions have been, to a certain extent, included, but not those which related only incidentally or partially to the region, as this course would have immensely enlarged the list without proportionally increasing its usefulness. A large part of the recent history and exploration of Alaska being only on record in the newspapers, references to some of the more important articles of this nature in a few of the more prominent journals have been included. It is believed that the record of bills, executive documents, &c., published by the United States is particularly full and valuable to the future student or historian. No attempt has been made to exhaust the literature of countries adjacent to

Alaska or of the Franklin expeditions, though many titles relating to both have been inserted. While the endeavor has been to have each title bibliographically complete and properly prepared, it has happened that references have been found to works apparently of importance but not accessible. These more or less imperfect references have, however, been preserved as indications for other bibliographers, if possessing little other value. A number of these titles were completed through personal search in European libraries by one of the compilers or at his individual expense, in order that the list might be as creditable as possible, but there still remains a residue which requires the above explanation. It is to be hoped that the printing of this list may stimulate lovers of *Americana* to explore a field until now almost wholly neglected, and which may yield still more abundant material to the student possessed of means and leisure. As a side issue to other more directly practical work, it is hoped that this list may still prove an acceptable contribution to American bibliography.

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA AND THE ADJACENT REGIONS.

BY W. H. DALL AND MARCUS BAKER.

[* , map; ss., subsketch on a larger map or chart; P. O. S., Pacific Ocean Series; when not otherwise indicated, the publication is a chart, properly speaking.]

Title, etc.	Authority.	Number.	Date.
Acherk Harbor, Sannakh Island.			
(Acherk gavani na NW. storn. ostrova Sannakh) Tebenkoff's Atlas.....	Tebenkoff.....	XXIV, ss.	1849
(Sketch of Acherk Harbor, Sannakh Id., 1875.) From Russian authorities; Harbor Charts of Alaska.....	U. S. C. S.....	(16), ss.	1875
Adakh Island and vicinity. See also Islands, Bay of.			
(Karta ostrova Andreanoffskih zapadnih.) Tebenkoff's Atlas.....	Tebenkoff.....	XXVIII.	1849
Afognak Island; southern part of.			
(Iuzhnaia chast ostrova Afognaka.) Report of the R. Am. Co. for 1848.....	R. Am. Co.....	ss.	1849
Aian, Port of, Okhotsk Sea.			
(Plan zalifa Aian.) Zapiski Rus. Hydr. Dept., IV, <i>ad fin.</i> St. Petersburg.....	Rus. Hydr. Dept.....		1846
(Same.) Hist. Russ. Am. Co. by Tikhmenieff, II, <i>ad fin.</i>	Tikhmenieff.....		1846
(Port Aian, Okhotsk Sea).....	Brit. Adm.....	2388.	1849-68
Akutan Pass. See Unalga Pass.			
Alaska Territory; general charts and maps.			
(Chart of the NW. coast of America and NE. coast of Asia explored in 1778 and 1779 by Captain Cook, and further explored in 1788 and 1789 * *.) Meares' Voy., p. I; his track-chart covering the region from the Strait of Fuca to Attu Island.....	J. Meares.....		1790
(Karte des Gränze districts in den besitzungen der Aleutischen und der Hudson's-Bay Compagnie.) Erman's Arch., VI, <i>ad fin.</i>	Zagoskin.....	(*)	1848
(Ethnographische skizzen ueber völker, etc.) Holmberg's Distribution of the Indian tribes, etc., 1855, <i>ad fin.</i>	Holmberg.....	(*)	1855
Map of distribution of the Indian tribes and Eskimo. Tikhmenieff Hist. Rus. Am. Co., Vol. II, <i>ad fin.</i>	Tikhmenieff.....	(*)	1863
(Map of Russian America or Alaska Territory, compiled from Russian charts and surveys of W. U. Tel. Ex., Col. C. S. Bulkley, engr.-in-chief, * * *, 1867.) Very large; colored and lithographed in San Francisco, Cal., by Britton & Rey. Several subsketches and charts.....	Britton & Rey.....	(*)	1867
General map by Colton, colored, with isotherms by Lorin Blodgett. (Northwestern America, showing the territory ceded by Russia to the United States.) Compiled at U. S. C. S. Office for Dept. of State, Washington; colored.....	Colton, G. W. & C. B.	(*)	1867
	U. S. C. S.....	(*)	1867

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Alaska Territory ; general charts and maps—Continued.			
Queen Charlotte Islands to Anadyr Gulf. Tracing on vellum by Kadin, MSS. in C. S. archives	W. U. Tel. Ex	(*)	n. d.
(Map of Stickeen River and Cassiar Mines.) In Mining and Scientific Press, San Francisco, April 18, 1874. Small black wood-cut made and first used in same paper.....	Press.....	(*)	1868
(Nordwest Amerika mit dem von Russland an die vereinigten Staaten cedirten Territorium Alaska * * * von A. Petermann.) In Peterm. Mittheilungen, Band XV, Heft X, taf. 19, 1869, colored. (Alaska and adjoining territory, 1869.) Large, plain, new data by W. H. Dall.....	Petermann.....	19*	1869
(Same.) Colored	U. S. C. S.....	20*	1869
(Alaska and adjoining territory.) In Alaska and its Resources, by W. H. Dall ; small, plain. Boston, 1870	U. S. C. S.....	(*)	1869
(Arctic Sea, Behring Strait, Sheet III.) Queen Charlotte Ids. to Wrangell Land.....	Brit. Adm.....	2172.	1853-72
General map, no title nor date, photographic copy from MSS. in C. S. archives.....	U. S. C. S.....	(*)	(1869)
Copy of same with notes in MS. by an officer of the U. S. C. S., in C. S. archives.....	U. S. C. S.....	(*)	(1869)
(Native races of the Pacific States. Hyperborean group.) Bancroft's Native Races of the Pacific States, I, 1874, p. 34. Ethnological map	Bancroft.....	(*)	1874
(Same. Columbian group.) Bancroft, l. c., p. 150	Bancroft.....	(*)	1874
(Map showing the distribution of the tribes of Alaska and adjoining territory, compiled from the latest authorities by W. H. Dall, U. S. Coast Survey, 1875.) Large ; corrected to 1875. In Contr. to Am. Ethn., Powell, vol. i in pocket, colored. (Julius Bien, New York.) Government Printing Office, 1877.....	W. H. Dall.....	(*)	1875
(Same.) With only the most unimportant differences, plain. (N. Peters, Washington.) In Rep. Com. on Indian Affairs.....	W. H. Dall.....	(*)	1875
(Alaska and adjoining region.) Plain ; unpublished ; Stanovoi Mountains to Mackenzie Basin ; polyconic proj., n. d. ; large ...	U. S. C. S.....	(*)	(1878)
(Alaska and adjoining region.) Plain ; like last, with station numbers added ; not published in this state ; small ; 4 on one sheet ; for platting meteorology etc.....	U. S. C. S.....	(*)	(1879)
Alaska, Gulf of.			
(A chart of the NW. coast of America, with the tracks of the King George and Queen Charlotte, in 1786 and 1787.) Shores from Cape Edgumbe to Cape Greville ; in Portlock's Voyages, etc. ; p. 1. (Merlatorskaia karta vostochnakho okeana mezhdur ostrovami Baranovim i Kadiakskom.) From the Rus. Hydr. Office, C. Ommaney to Kadiak	N. Portlock.....		1787.
(Karta severo zapadnakho berega Ameriki k' zapadu i vostoku ot zalifa Iakutat.) Lituya Bay to Laida Reef ; Tebenk. Atlas	Rus. Hydr. Dept ...	P. O. S. 9, 1378.	1847
Alert Bay, Vancouver Id.) G. H. Richards, R. N.....	Tebenkoff.....	VII.	1849
Aleutian Islands. See also Fox Islands.	Brit. Adm.....	2067.	1860-7
(Part of the Aleutian Ids. little known, from a manuscript chart in the archives of Ochotsk, communicated to Mr. Lesseps.) General map of the islands in La Perouse's Atlas, 1788	La Perouse.....	ss, 69.	1798

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Aleutian Islands —Continued.			
(Extrait d'une carte manuscrite des archives d'Ochotsk communiquéé à M. Lesseps en 1788.) Same as preceding, in L'Institute, Mém. Sci. Mor. et Polit. V, p. 42, 1804.....	J. N. A. Buache		1804
(Karta ostrovoff Aleutskih, 1826, List 2.) Eastern sheet, Shishaldin to Chugul Id. Krusenstern's Atlas. Rus. ed.	Krusenstern	19.	1826
(Karta ostrovoff Aleutskih, G ^{nu} Vitse Admirala G. A. Sarichevu katori perwii opisal sii ostrova, 1826, List 1 ¹ .) Western sheet of preceding chart, Great Sitkin Id. to Attu Id., dedicated to Sarycheff	Krusenstern	18.	1826
(Carte des Isles Aléutiennes dédiée à M. le Vice Admiral de Sarytscheff, 1827.) Krusenstern's Atlas, French ed., No. 18, "corrected to 1835," but in no respect changed from the Rus. ed. of 1826 except lettering	Krusenstern	18.	1827
(Carte des Isles Aléutiennes. Feuille II, 1827.) Companion sheet to the preceding and like it, differing only in lettering from List 2 ¹ of the Rus. ed	Krusenstern	19.	
(Merkatorskaia karta vostochnakho okeana i Beringova moria s' polu-ostrovom Aliaskoiu i Aleutskimi ostrovami, etc.) Eastern sheet of the Admiralty series, perhaps the best chart of the region as a whole; Chirikoff Id. to Atka Id.	Rus. Hydr. Dept ...	P. O. S. 8, 1379.	1847
(Merk., etc.—s' Aleutskimi i Komandorskimi ostrovami.) Same as preceding, western sheet (less good). Atka to Bering Id.	Rus. Hydr. Dept ...	P. O. S. 7, 1400.	1848
(Karta ostrovoff Lisih zapadnih ispravlennia kolonialnimi morehodtsami. Novo Arkhangelsk, 1849.) Eastern; Unimak Pass to Seguan, from Tebenkoff's Atlas	Tebenkoff	XXVI.	1849
(Karta ostrovoff Krisih, etc) Same; western; Gareloi Id. to Buldir	Tebenkoff	XXIX.	1849
(Aleutian Archipelago, Sheet No. 2, etc) Eastern; Umnak to Tanaga; from U. S. North Pacific Surv. Exp. in charge of Lieut. John Rodgers, U. S. N., 1855	U. S. Hydr. Off	8.	(1868)
Same (Sheet No. 1). Western; Tanaga to Attu Id., 1855	U. S. Hydr. Off	55.	(1868?)
(Itinéraire aux îles Aléoutiennes [d'Ounalashka à Kadiak], par A. Pinart, 1872.) Pinart in Bull. Soc. de Geogr., Paris, Dec., 1873, p. 580	Pinart	(*)	1873
(Sketch of the Aleutian Islands to illustrate Appendix No. 11, 1873.) By W. H. Dall, from Rep. U. S. Coast Survey for 1873, published in 1876; general chart west from Unimak Pass	U. S. C. S.	17.	1876
Second edition of same (1876)	U. S. C. S.	17.	1876
(Kartenscizze der Aleuten [als Erläuterung zu dem aufsatz von W. H. Dall], 1878.) In Deutsche Geogr. Bl., jahrg. II, Heft I, Bremen, 1878, <i>ad fin.</i> Reduced, etc., from the preceding	M. Lindeman	I.	1878
Alexander Archipelago.			
(Entwurf der Neuesten Entdeckungen an der nordwest küste von America, etc., von G. Forster, 1791.) In Forster, Reisen * * Meares und * * Douglas, etc., Berlin, 1796, 4to., <i>ad fin.</i>	Forster	(*)	1796

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Alexander Archipelago —Continued.			
(A chart, showing part of the coast of Northwest America, with the tracks of his majesty's sloop Discovery and armed tender Chatham, commanded by George Vancouver, esq., and prepared under his immediate inspection by Lieut. Joseph Baker * *.) South part; Fitzhugh Sound to Frederick Sound; from Vancouver's Atlas to his Voyage	Vancouver	7.	1798
(Same title as preceding.) North part; Cape Ommaney to Point Riou, from the same source as preceding	Vancouver	12.	1798
(Chart of the coast from Behring's Bay to Sea Otter Bay, with the different settlements of the natives.) Lisiansky's Voyage, p. 221, 1814.	Lisiansky		1814
(Merkatorskaia karta vostochnakho okeana s' sievero-zapadnim beregom Ameriki i pridegaiustchim k'nemu Koloshenskim arkhipelagom, etc., 1848.) General chart of; north end Vancouver Id. to Lituya Bay.....	Rus Hydr. Dept ...	1396.	1848
(Karta sievernih prolifoff NW. berega Ameriki s' opisi Vankuvera ispravlien kolioni morekhod, Novo Arkhangelsk, 1849.) North part; Cape Ommaney to Cape Fairweather. From Tebenkoff's Atlas	Tebenkoff	VIII.	1849
(Karta prolifoff NW. berega Ameriki ot shiroti, 54° do 56° s' opisi Vankuvera, etc.) Same source as preceding; middle part; Cape Knox to Cape Ommaney	Tebenkoff	IX.	1849
(— shiroti, 51° do 54°, etc.) Same; southern part; Cape Scott to Cape Knox.....	Tebenkoff	X.	1849
(Merkatorskaia karta iuzhnoi polovini Koloshenskakho archipelaga, etc.) Middle part; Banks Id. to Stikine River	Rus. Hydr. Dept ...	No. 10, sh. d. 1493.	1853
(Merk. karta sievernoi polovini, etc.) Like preceding, but north part; Coronation Id. to Chilkah River.....	Rus. Hydr. Dept ...	No. 10, sh. c. 1494.	1853
(Map of Russian America from Cordova Bay to Cross Sound) A phot. print from drawing on transparent cloth, made by R. Homfray, C. E., Victoria, V. Id., Sept., 1867, for the use of the W. U. Tel. Exp. [in archives U. S. C. S.].....	Homfray.....	(*)	(1867)
(Cordova Bay to Cross Sound, including the Koloshensk Archipelago, chiefly from Vancouver's survey in 1792, corrected from a Russian chart published in 1853).....	Brit. Adm.....	2431.	1865
(Port Simpson to Cross Sound, etc.) Same, with fly-leaf attached, showing survey of Portland Canal. Revised edition of preceding.	Brit. Adm.....	2431.	1869
(Southeast coast of Alaska. Alexander Archipelago * * * corrected from surveys by Commander R. W. Meade, jr., etc) Important corrections, but poorly executed chart, in photolithography. Later copies of this chart have a fly-leaf attached, containing Pender's Survey of Portland Canal.....	U. S. Hydr. Off	225.	1869
Alaska Peninsula.			
(Karta polu-ostrova Aliaski i zalifa Bristola.) Krusenstern's Atlas, Rus. ed., 1826.....	Krusenstern.....	20.	1826
(Carte de la Presqu' isle d'Aliaska et de la Baie de Bristol, 1827.) Krusenstern's Atlas, French ed., 1827, "corrected to 1835" (?)	Krusenstern.....	20.	1827
(No title.) Western part. Litké, Hydr., p. 278	Litké		1835

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Alaska Peninsula —Continued.			
(Karta chasti vostochnakho berega polu-ostrova Aliaski * *.) From obs. by Vasilieff in 1831-32. In Lütke's <i>Partie hydr.</i> , p. 286, 1835. Eastern part, SE. shore especially	Vasilieff.....	.....	1835
(Merkatorskaia karta vostochnakho okeana i Beringova moria s' pol ostrovom Aliaskiu i Aleutskimi ostrovami.) With eastern Aleutians. Rus. Ministry of Marine, 1847.....	Rus. Hydr. Dept....	P. O. S. 8, 1379.	1847
(Karta iukho zapad. chasti pol-ostrova Aliaski, etc.) From Chignik Bay to Tigalda Id.; Tebenkoff's Atlas. New Archangel, 1849. Photograph, probably from a tracing of preceding, made for the W. U. Tel. Co., with English lettering, n. d. [in U. S. C. S. archives].	Tebenkoff.....	XXIV.	1849
(?)	(?)	57.	(1867?)
Alpha Bay , Brit. Columbia, by D. Pender, R. N.....	Brit. Adm.....	1901, ss.	1868-72
Althorp, Port, and entrance to Cross Sound.			
(Entrance to Cross Sound).....	Vancouver	12, ss.	1798
(Karta whoda v' Port Althorp ch' res prolif Kresta nazvannie Anglichainani Kross Zund, etc.) From the preceding chart of Vancouver. One of the old, undated Russian series.....	Old Rus	XVIII.	.....
(Whod v' prolif Lohtianoi.) In Atlas	Tebenkoff.....	VIII, ss.	1849
(Entrance to Cross Sound, from Vancouver's Survey.) In U. S. C. S. Atlas of Harbor Charts of Alaska	U. S. C. S.....	3.	1869
Altuya. See <i>Lituya</i> .			
Amakhtonsk Bay, Tausk Bay, Okhotsk Sea. (Plan Amakhtonskakho zalifa v' Tauskoi gubi s'opisi ofitseroff shkuni Vostok 1875 goda.) Plan of the bay			
.....	Rus. Hydr. Dept....	.....	1876
America: (with reference to this region, early discoveries, etc.)			
(Nova totius Americæ descriptio, auct. F. de Wit, 1660.) In "Maps": a very large and interesting collection of 124 old maps, now in the Library of Congress, formed by a collector in the XVIIth Century, with <i>MSS. table of contents</i> . 1 vol., imp. folio.	F. de Wit	* 5.	1660
(Amerique, autrement nouveau monde, et Indes occidentales par P. Du Val d'Abbeville, geographe ordinaire du Roy, a Paris chez l'Auteur. Avec priuill. du Roy pour vingt ans. 1655.) In prec.	D'Abbeville	123 *.	1655
Amur River, (Amoor, Amour, etc.)			
Entrance to the. MSS. Russian map without title, date, or sponsor. In U. S. C. S. arch., No. 226.....	(?) .....	.....	(?)
(Karta riei Amura) Rep. Rus. Am. Co., 1854-5-6; cf. Morsk. Sbornik, t. XXVIII (iii), p. 314, by Peshturoff & Raevesky ...	P. & R.....	(*)	1855
(Nagliadnaia karta techeniia riei Amura ot Ust-v' trielochnakho karaula do ustia.) Viestnik Imp. Rus. Geogr. Soc., St. Petersburg, 1855, XV, p. 254	Imp. R. G. S.....	(*)	1855
(Skizze vom untern Amürlande nebst umgebungen.) In Geogr. Mitth. Mai, 1856. Gotha	Petermann	10 *.	1856
(Physikalisches karte des Amurstromes nach den neusten Russischen berichten.) In Geogr. Mitth., 1857, Heft. VII, Aug. Gotha	Petermann	14 *.	1857
(Karta riei Amura) In Morskoi Sbornik (iii) XXIII, p. 314, Apr. 1857 .....	.....	(*)	1857
(Karte der gegend zwischen den Amur und der de Castries Bay.) Erman, Arch., Vol. XIX, 1860, <i>ad fin.</i> ; colored. This contains the coast from Port Aian to Aniwa Bay and the interior.....	.....	III *.	1857

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Amur River, etc.—Continued.			
(Map of the Amur and adjacent districts, to illustrate notes by MM. Peshurof, Shenurin, Vesilief, Radde, Usultzof, Pargachefski, etc.) In Journ. Roy. Geogr. Soc. London, vol. XXVIII, p. 376, 1858.	Arrowsmith	(*)	1858
(Karta ustia Amura.) From the Viestnik of the Imp. Rus. Geogr. Soc., vol. XXV, 1859			1859
(The entrance to the river Amour.) In Tronson's Personal Narrative, etc. 8vo. London, 1859	Tronson		1859
(Karte der Amurmündung.) Erman, Arch., vol. XIX, 1860, <i>ad fin.</i>	Romanow	2 *.	1860
(Atlas ustia riei Amura, etc.) Atlas of the mouth of the Amur River, compiled from surveys in the years 1855-63; in four sheets	Rus. Hydr. Dept.	1-4.	1864
(Merkatorskaia karta limana R. Amur i chasti Tatarskakh pro-lifa, etc.) Chart of the river mouth and coasts of the Gulf of Tar-tary, from surveys by the Russian vessels Baikal, Pallada, and Vostok, from 1849-54.	Rus. Hydr. Dept.		1864
(Karte des Amur-limanes und der Mamia Rinsô's-strasse mit ange-be der Stromungen und Tiefen, 1867.) Map of the region, in Schrenck's Reisen * * * in Amurland, II, pl. XXX, <i>ad fin.</i>	L. v. Schrenck	XXX.	1867
(Karta Khronometricheskih reisoff v'Okhotskom i Japonskom moria sovertennih leitenantom Staritskim, s' 1866 po 1871 god.) Prog-ress sketch of chronometrical longitude determinations by Lieut. Staritsky in the Japan and Okhotsk seas about the Amur River. In Morskoi Sbornik, 1873, CXXIV, No. 1, p. 66. St. Petersburg.	Staritsky	(*)	1872
(Karta Khronometricheskih reisof, s'vemki i promiera s'sievernoi chasti Japonskakho moria 1866-70 g.) Progress sketch of astro-nomical work (chronometric longitudes) about the Amur region in 1866-70, by Lieut. Staritsky. Morskoi Sbornik, 1873, CXXIV, No. 1, p. 66. St. Petersburg.	Staritsky	(*)	1872
Anadyr River and gulf, Eastern Siberia.			
(W'hod k'ustiu riei Anadir, etc.) Entrance to the river, surveyed by officers of the Rus. Am. Co. in 1847.	Rus. Hydr. Dept.	P. O. S. 5, 1427, ss.	1849
(Karta w'hoda k'ustiu riei Anadir, etc.) Chart of the mouth of the Anadyr, from obs. by officers of the Rus. Am. Co., 1847. In Morskoi S'bornik, II, p. 198, 1849.	Rus. Am. Co.	(*)	1849
(Karta Anadirskakho limana v' Beringovom mori, etc.) Chart of the vicinity of the Anadyr mouth, from observations of the W. U. Tel. Exp. under Bulkley in 1865, and other (Russian) sources in 1875. Photolithograph; no number	Rus. Hydr. Dept.		1876
Anchor Cove , Skidegate Inlet, from obs. by Staff-Comm. D. Pender, R. N.	Brit. Adm.	48, ss.	1872
Andreanofsky Islands. See Aleutians, Atka , etc.			
Angeles, Puerto de nostra Sen. de los. See Boundary Charts , (Eliza).			
Anian, Strait of. See also Bering Strait.			
(Perspectiva que hace la tierra del estrecho de Anian.) In Mal-donado's Viaggio del mare atlantico al pacifico, etc., Milan, 1811. 4to, <i>ad fin.</i> ; two sheets—1, del norte, and 2, del sur.	Maldonado	IV *.	1811
(Planta del estrecho de Anian.) From the same source as the preceding.	Maldonado	V *.	1811

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Archangel Gabriel Bay. (Karta chasti berega mezhdū muisami Thaddeia i Navarinim.) Chart of the coast between Capes Thaddeus and Navarin (including Arch. Gabriel Bay) by officers of the Vsadnik clipper, 1876..	Rus. Hydr. Dept....	I, ss.	1877
(Karta chasti Beringova moria ot muisa Thaddeia do muisa Navarin po semki leitenanta Onatsevicha, 1876 g.) In Onatzevich's Sobranie, etc. St. Petersburg, 4to, 1878, p. 76.....	Onatzevich		1878
Arctic Coast (of Asia). See also Siberia. (Track chart of Shalauoff's voyage.) North coast of Siberia; Coxe's Rus. Disc., 1780, p. 263.....	W. Coxe.....	(*)	1780
(Karta sievernakhō lotovitakhō okeana ot ustia riki Iani do Beringova prolifa, etc.) Chart of the Arctic Ocean, from the mouth of the Yana River to Bering Strait. Compiled from obs. made in 1821-23.	Rus. Hydr. Dept.....		1874
(Karta sievernakhō lotovitakhō v' granitsah Russiskoi imperie sostavlena na osnovanii ruskikh hidrograficheskikh isledovanie s' 1734 po 1871 god.) Chart showing the progress of Russian discovery along the shores of the Arctic Ocean from 1734 to 1871; partly colored photolithograph of large size	Rus. Hydr. Dept.....		1874
Arctic Coast of America and Eastern Siberia. (An outline to show the connected discoveries of Capts. Ross, Parry, and Franklin in the years 1818, '19, '20, and '21.) Discovery chart of Ross, Parry, and Franklin, Cape Farewell to Bering Strait; Franklin's Journey to the Polar Sea, <i>ad fin.</i>	Franklin		1823
(Chart of part of the Northwest coast of America from Point Rodney to Point Barrow, by Capt. F. W. Beechey, etc.) 1826-27. Several editions	Brit. Adm.....	593.	1827-55
(Comparative chart of ancient and modern navigators.) Covers Bering Strait to Greenland, Ross, 2nd voy., I, p. xxv.....	Sir J. Ross.....	(*)	1835
(Map of the Arctic coast of America from Return Reef to Point Barrow, etc.) Thos. Simpson's Narrative; also, Journ. Roy. Geogr. Soc. Lond., VIII, 1838, p. 224.....	Dease & Simpson ...	(*)	1837
(Discoveries of Messrs. Dease and Simpson in 1838-9.) Coronation Gulf to Boat River. Journ. Roy. Geogr. Soc. London, X, p. 274, 1841.	Dease & Simpson ...	(*)	1841
(Same.) Thos. Simpson's Narrative, <i>ad fin.</i>	Dease & Simpson ...	(*)	1843
(Northern coasts of America.) In Tytler's Historical view, etc. New York, 1842, <i>ad in.</i>		(*)	1842
(Point Barrow to Cape Kruzenstern, Sheet I).....	Brit. Adm.....	1711.	1845-49
(Merkatorskaia karta chasti sievernakhō poliarnakhō moria, etc.) Morskoi Sbornik, III, p. 330, 1850; covers Greenland to Bering Strait. Also, l. c., IV, p. 384, Oct., 1850	Rus. Hydr. Dept ...	(*)	1850
(Shores of the American Continent.) Shillinglaw's Narrative of Discovery, <i>ad in.</i>	Shillinglaw.....	(*)	1851
(Chart illustrating Lieut. Hooper's Narrative, showing the country of the Tuski and the progress of the Boat Expedition.) Hooper's Tents of the Tuski, 1853, p. 418.....	Hooper	(*)	1853
Chart showing discoveries of Ross, Richardson, etc., by Inglefield (<i>ubi?</i>)	Inglefield		1853
(Merkatorskaia karta lotovitakhō moria, etc.) Region about Bering Strait	Rus. Hydr. Dept....	P. O. S. 13, 1495.	1854

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Arctic Coast of America and Eastern Siberia—Continued.			
(Sketch of the shores of Arctic America to illustrate the discovery of the Northwest Passage.) Journ. Roy. Geogr. Soc. of London, XXIV, p. 244, 1854.	Roy. Geog. Soc.	(*)	1854
(Sketch of the Arctic shores of America to illustrate the search for Sir John Franklin, etc.) Journ. Roy. Geogr. Soc. London, XXV, p. 206, 1855.	Roy. Geog. Soc.	(*)	1855
(Behring's Sea and Arctic Ocean, from surveys of the U. S. North Pacific Exploring Expedition in 1855, etc.) One of the best charts of the region; the last edition fresher than any other chart of this vicinity.	U. S. Hydr. Office.	68.	1855-68
(Mackenzie River to Behring Strait, from the observations of Beechey, Franklin, etc.)	Brit. Adm.	2435.	1856
(Karta sievernih beregof Ameriki i chasti Azii.) McClure's discoveries exhibited, Morskoi Sbornik, III, XL, p. 256, Mar., 1859; after Arrowsmith's chart.	Arrowsmith.	(*)	1859
(Karta der Nordwestlichsten theils von Nord America.) Geogr. Mitth. t. 3, 1859.	Petermann.	3.	1859
(The Arctic shores of America and part of Asia: * * * Drawn from official documents by John Arrowsmith.) Discovery chart, colored, with tracks of various navigators; in two halves, of which the eastern has a subtitle, though they seem to have been made to fit together.	Arrowsmith.	(*)	1859
(Merkatorskaia karta lotovitakho okeana ot muisa Vostochnakho do muisa Sievernakho s' putem klipera Vsadnik v' 1876 godu.) Chart of the Icy Sea from Cape East to Cape North, with track of the Vsadnik clipper in 1876. In Onatzevich's Sobranie, etc., 4to, St. Petersburg, 1878, p. 32. (Hydr. Dept.)	Onatzevich.		1878
Armstrong, Port. See Conclusion, Port.			
Asia, NE. coast of. See also Siberia and Arctic shores of Asia.			
(A map of the NE. parts of Asia and NW. parts of America, * * * from a Japanese Map of the World, etc.) In Jeffrey's transl. of Müller's Voyages from Asia to America, p. 75, 1764.	G. F. Müller.	(*)	1764
(Chart of Synd's voyage toward Chukotskoi Noss.) Cox, Rus. disc., p. 224, 1780.	Coxe.		1780
With the Japanese Islands, in Broughton's Voyages.	Broughton.		1804
(Chart of the North coast of Asia and of the sea to the north of Bering's Strait.) Burney's Chron. Hist. of NE. Voyages, etc.	Jas. Burney.	(*)	1819
(Outline map of Northeastern Asia, and the Asiatic Islands of the Northern Pacific Ocean, drawn from the latest accessible authorities.) In A. H. Palmer's Memoir, geogr. polit., etc. Washington, 1848, <i>ad fin</i>	Palmer.	(*)	1848
(Merkatorskaia karta Beringova Moria s' sievero-vostochnim beregom Asii, mezhdum muisami Oliutorskim i Chukotskim, etc.) Coast between Oliutorsk and Chukotski Capes, after Liitké and others.	Rus. Hydr. Dept.	P. O. S. 5, 1427.	1849
Atka Island; with others adjacent; Aleutians.			
(Côte meridionale de l'île d'Atkha.) In Liitké, Voy. Sén. Partie Hydrogr., p. 329.	Liitké.		1835

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Atka Island ; with others adjacent; Aleutians—Continued.			
(Karta ostrovoff Atka i Amlia) From obs. by Chernoff in 1832 and Ingenström in 1829	Rus. Hydr. Dept.	P. O. S. 7, 1400, ss.	1848
(Karta ostrovoff Andreianofskih vostochnih, etc.) From Tebenkoff's Atlas; includes Amlia, Seguan, etc.	Tebenkoff.	XXVII.	1849
(Same.) With Amlia, etc., in Tikhmenieff, Hist. Rus. Am. Co., II, <i>ad fin.</i>	Tikhmenieff		1863
Attu Island. See Aleutian Islands, Chichagoff Harbor, and Massacre Harbor.			
Augusta, Port, Vancouver Island.) From obs. by Capt. S. H. Richards, R. N.	Brit. Adm.	585.	1860-61
Auroras. See Circumpolar Charts (Loomis).			
Avatcha Bay, Kamchatka.			
(Plan of the Bay of Awatska on the east coast of Kamtschatka.)			
Cook's Voy., III, p. 184. Made by Bligh?	Capt. J. King.	89.	1784
(Awatska Bay, by Capt. F. Beechey, F. R. S.)	Brit. Adm.	1040.	1827
Same as preceding, but including outer bays and views.	Brit. Adm.	1041.	1827-66
(Plan de la baie d'Avatscha), by Du Petit Thouars	French Adm.	1030.	1844
(Zalif Avacha s' karti kapitana Bichi.) Avatcha, after Beechey's plan	Tebenkoff	XXXII, ss.	1849
(Karta Avachinskoi gubi i Petropavlovskakho porta.) Morsk. Sborn., St. Petersburg, Dec., 1854, t. XIII, No. 12, p. 206.	Rus. Hydr. Dept.		1854
(Bay of Avatcha and approaches by the U. S. ship Vincennes, Lieut. John Rodgers, * * * July, 1855.) U. S. North Pacific Expl. Exped.	U. S. Hydr. Off.	54.	(1855)
(Avachinskaia guba s' opisi kapitana Bichi na fregatie Blossom, 1827.) Avatcha, after Beechey's plan	Rus. Hydr. Dept.	P. O. S. 2a, 1453, ss.	1851-62
Avatcha and Manila, coast between. See Manilla.			
Banks, Port, or Whale Bay, Baranoff Island.			
(Sketch by compass of Port Banks * * * 1787.) Dixon's Voy., p. 193	Geo. Dixon		1787
(Iakornia miesta v' bukhti Kitovoi [Por Benski].) Anchorage in Whale Bay. Teb. Atlas, 1849	Tebenkoff	VIII, ss.	1849
(Whale Bay, from Tebenkoff's Atlas.) Coast Survey Atlas of Harbor Charts	Tebenkoff	3.	1869
Barclay Sound, Vancouver Island). From observations by Richards, R. N.	Brit. Adm.	592.	1861-74
Barrow, Point, and vicinity, Arctic Ocean. (Barrow Point and Port Moore, by Thomas Hull, master, H. M. S. Plover * * * * 1853.) Chart on large scale	Brit. Adm.	2164.	1853
Bay of Islands: See Islands, Bay of.			
Bazan, Port, Prince of Wales Archipelago, Alaska.			
(Gavan Bazan * * * ocherk Zarembo.) Bazan Harbor, from a sketch by Zarembo	Tebenkoff	IX, ss.	1849
(Port Bazan, from Tebenkoff's Atlas.) U. S. Coast Survey Atlas of Harbor Charts	Tebenkoff	I	1869
Beaver Creek, Loughborough Inlet.) G. H. Richards, R. N.	Brit. Adm.	580.	1860-70
Beaver Harbor, Vancouver Id.)	Brit. Adm.	2153.	1852
Another edition	Brit. Adm.	2067.	1860-67

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Becher and Pedder Bays , Vancouver Id.) From obs. by H Kellett, R. N.	Brit. Adm.	1906.	1846-72
Plan on Imray's chart of NW. America.	Imray & Son	ss.	1853
Bela Kula Anchorage , Burke Channel.) D. Pender, R. N.	British Adm.	1462, ss.	1872
Bering and Chirikoff. (Puti Beringa i Chirikova, 1741 goda.) Track chart of their voyage in Zapiski. Rus. Hydr. Dept. IX, p. 190, 1851	Rus. Hydr. Dept.	III.	1851
Bering Bay , <i>See Kalak Island, Disenchantment Bay, and Mulgave, Port.</i>			
Bering Island. <i>See also Commander Islands.</i> (Plan bukhti na zapadnoi storonie ostrova Beringa s' karti Ingenstroma.) Anchorage at Bering Id. from obs. by Ingenström	Rus. Hydr. Dept.	P. O. S. 7, 1400, ss.	1848
(Iakornoe miesta u ostrova Beringova opisi Chernova) Anchorage, Bering Id., after Chernoff.	Tebenkoff	XXVI, ss.	1848
North end of. (No title)	Rus. Hydr. Dept.	1400, ss.	1848
Bering Sea. <i>See also Arctic Coast.</i> (A map of the new Northern Archipelago, discovered by the Russians in the seas of Kamtschatka and Anadir.) Staehlin's Rus. Account, p. iii	J. v. Staehlin	(*)	1774
(Carte der entdeckungen zwischen Sibirien und America bis auf das jahr 1780.) Nord. Beitr. Bd. I, 2 ^{tes} st., p. 249	P. S. Pallas	IV.	1781
(Kamtschatskisches Meer), and Aleutian Ids., with tracks of Lehrling, Polutoff, and Bragin. [No title.] N. Nord. Beitr. Band III, <i>ad fin</i>	Pallas	III.	1782
Northern part of, with Arctic Ocean. [No title.] N. N. Beitr. IV, <i>ad fin</i>	Pallas	I.	1783
(Chart of Norton Sound and of Bherings Strait made by the East Cape of Asia and the west point of America.) Northern part of Bering Sea with the straits; in Cook's Voy., II, p. 467; made in 1778	Capt. Cook	53.	(1784)
(A map comprehending Bhering's Straits with the adjoining coasts of Asia and America.) In Trusler's The Habitable World, V, p. 98, London, 1787	John Trusler	(*)	1789
(Chart of the Russian and English Discoveries in the North Pacific Ocean.) In Burney's Chron. Hist. of NE. Voyages, 1819	J. Burney	(*)	1819
(Karta chasti sievero-vostochnoi Asii i sievero-zapadnoi Ameriki: etc.) Chart issued by Imp. Rus. Acad. Sci., prepared by Vishneff, and comprehending the Bering Strait and north Bering Sea region	V. Vishneff		1818
(Carte générale de la mer de Behring, 1828.) Voy. Séniavine, t. II. (No title.) Map showing the earlier explorations of the eastern shores of Bering Sea, including the mouth of the Yukon River. Baer and Helmersen, Beitr. z. Kenntn. Rus. Reiches, I, 1839, p. 332	Lil'tk6		1828
(Merkatorskaia karta lotovitakho i Beringova morei: etc.) Chart of the Icy and Bering Seas	Baer and Helmersen	(*)	1839
(Behring's Sea and Arctic Ocean: etc.) <i>See under head of Arctic Coast</i>	Rus. Hydr. Dept.	P. O. S. 6, 1455.	1852
	U. S. Hydr. Off. ..	68.	1855-68

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Bering Sea, etc.—Continued.			
Eastern side of Bering Sea, Akutan Island to Port Clarence. Tikhmenieff, Hist. Rus. Am. Co., II, <i>ad fin</i>	Tikmenieff		1863
Bering Strait. <i>See also Arctic Coast, Bering Sea, Str. of Anian, Siberia, etc.</i>			
(Mondo Nuevo.) In L'Isole piv Famose del Mondo descritte da Thomaso Porcacci da Castiglione, arretino e intagliate da Girolamo Porro, Padovano (etc.). In Padova MDCXX appresso Paoto el Francesco Galignani Fratelli. (Sm. fol.; engr. title; 10 prel. l.; 211 pp.; maps and cuts. Another edition in Lib. Congr. is dated MDLXXVI, and contains 13 l. unpagged, 202 pages; corresponding, so far as the quoted maps are concerned, to the above cited edition.) On pp. 161 and 193 are small maps of the world, indicating, under the name of "Streto de Anian," a passage between Asia and America, having much the form of Bering Strait, but placed in about the latitude of Newfoundland. Copies are in the Library of Congress and the private library of Prof. A. Nordenskjöld in Stockholm, Sweden. (W. H. Dall)...	Porcacci	(*)	1576-1620
(Carte du detroit qui sépare l'Asie de l'Amerique).....	Billings		1802
(Disegni degli stretti di Labrador [d'Hudson] ed Anian [di Behring] copiati de varj Geografi.) In Maldonado's Viaggio dal mare, 4to, Milano, 1811, <i>ad fin</i>	Maldonado	2*	1811
(Carte du Detroit de Behring sur le projection de Mercator.) In Nouv. Ann. des Voy., XIII, p. 132, 1822.....	Kotzebue		1822
And Alaskan coast to Point Barrow. Beechey's Voy., p. 328.....	Beechey		1830
(Karta Beringova pralifa: etc.) Tebenkoff's Atlas.....	Tebenkoff	1.	1849
Native map of. In Hooper, Tents of the Tuski, p. 162.....	Hooper	(*)	1853
(Arctic Sea, Behring Strait, Sheet III, 1853). Third sheet of Arctic Sea.....	Brit. Adm.....	2172.	1853-74
Blakeney, Port, Morris Bay and adjacent channels, Milbank Sound.)			
D. Pender, R. N	Brit. Adm.....	1462, ss.	1872
Blizhni Islands. <i>See Aleutian Islands.</i>			
Blunden Harbor, Queen Charlotte Sound.) From obs. by D. Pender, R. N	Brit. Adm.....	571.	1863
Bogosloff Island, Bering Sea.			
Plan ostrova Joanna Bokhoslova.) Krusenstern's Atlas, Rus. ed, 1826, on sheet 2, Aleutians.....	Krusenstern.....	19, ss.	1826
Plan de l'isle Joann Bogosloff.) Krusenstern's Atlas, French ed, 1827	Krusenstern.....	19, ss.	1827
Boundary, U. S. Northwestern, maps relating to. <i>See also Oregon and Stikine River.</i>			
Map (no title) showing boundary between the U. S. and Brit Am. In Parliamentary Papers, 1819, vol. 18.....	Parliament	1*	1819
(Carte générale des états-unis pour servir a l'histoire de la Louisiane, 1829.) In Barbé-Marbois, Hist. de Louisiane (etc.). 8vo. Paris, 1829, p. 476. This map shows the territory acquired by the "Florida Purchase" and the "Louisiana Purchase," and is of interest in connection with the early discussions bearing on the "Oregon Question." <i>See also North America; Rep. of Com. on Hudson's Bay, etc.</i>	Barbé-Marbois.....	(*)	1829

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Boundary, U. S. Northwestern—Continued.			
Map (no title) of the Oregon Boundary. In Falconer's Oregon Question, New York, 1845. Also, Wilkes' Hist. of Oregon, New York, 1845.	(?)	(*)	1845
(North America.) In Twiss, The Oregon Question examined; 1846, <i>ad fin.</i>	T. Twiss.	(*)	1846
(Map showing the line of boundary between the U. S. and British possessions: etc.) Congressional Papers on the San Juan difficulty, U. S. Senate, XL Congr., 2d sess., Ex. Doc. 29. Taken from C. S. chart	U. S. C. S.		1868
Plano del Estrecho de Fuca * * * en el año de 1790. Levantado por su primer piloto, D ⁿ . Gonzalo Lopez de Haro.) In Papers relating to the Treaty of Washington, vol. V, Berlin Arbitration, Dept. of State, Washington, 1872, <i>ad fin.</i>	Haro.	J.	1872
NOTE.—The following maps and charts relating to the discussion of the boundary question are to be found in the same volume:			
(Map of De Haro., 1790.) Reduced copy of the preceding, l. c., p. 17.	Haro.	A.	1872
(Carta que comprende los interiores y veril de la costa desde los 48° de latitud N. hasta los 50° examinados escrupulosamente por el teniente de Navio de la R ^a Armada D ⁿ . Fran ^{co} . Eliza, etc.) 1791, vol. V, l. c., <i>ad fin.</i> With subsketches as follows:			
{ Puerto Clayocuat.			
{ Puerto de nostra Senora de los Angeles.			
{ Bahia de Buena Esperanza.			
{ Puerto de la Santa Cruz de Nuka.			
{ Puerto de San Rafael.	Eliza.	K.	1872
(Map of Eliza, 1791.) A reduced and somewhat altered version of the preceding, l. c., p. 17.	Eliza.	B.	1872
(Carta esférica de los reconocimientos hechos en 1792 * * * para examinar la entrada de Juan de Fuca * * * Goletas Sutil y Mexicana * * * año de 1795); l. c., <i>ad fin.</i> No. 1 of Galiano and Valdez's charts.	Gal. & Valdez.	L.	1872
(Carta esférica de los reconocimientos hechos en la Costa N. O. de America en 1791 y 1792, por las goletas Sutil y Mexicana, y otros buques de Su Magestad.) From the Atlas of Alcala-Galiano, Madrid, 1802, No. 2; l. c., <i>ad fin.</i> The first of the charts accompanying the British case.	Gal. & Valdez.	I.	1872
Map of the Sutil y Mexicana, 1792 [published in 1802], l. c. p. 17. Reduced version of the preceding chart (No. 2) from Galiano's Atlas.	Gal. & Valdez.	D.	1872
(A chart showing part of the coast of Northwest America, etc.) l. c. <i>ad fin.</i> , forming the second chart of the British Case, and being a poor <i>fac simile</i> of Vancouver's chart No. 5, published at London in 1798.	Vancouver.	II.	1872
(Map of Vancouver, 1798.) l. c. p. 15. A very considerably reduced copy, from the same source as the preceding chart.	Vancouver.	C.	1872
(Map of Duflot de Mofras, 1844), l. c. p. 15; a much reduced copy of the original.	Duflot de Mofras.	E.	1872

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Boundary, U. S. Northwestern—Continued.			
(Map of Wilkes, 1845), l. c. p. 11. Same region.....	Wilkes	F*.	1872
(Map of W. Sturgis, 1845), l. c. p. 9.....	W. Sturgis	G*.	1872
(No title.) Map showing the relative position of the Hudson Bay Co.'s posts Fort Langley, Nesqually, and Victoria, with reference to the navigable channels. l. c. p. 126. No date, no authority .....	.....	(*)	1872
(Haro and Rosario Straits, surveyed by Capt. G. H. Richards, etc.), l. c. <i>ad fin.</i> , being chart 3 of the British Case. A poor reproduction of Br. Adm. Ch. 2689.....	Brit. Adm.	III.	1872
(Strait of Juan de Fuca, surveyed by Capt. Henry Kellett, R. N., 1847, etc.), l. c. <i>ad fin.</i> , being chart iv of the British Case, and a poor reproduction of Brit. Adm. Ch. 1911	Brit. Adm.	IV.	1872
(Map of Oregon and Upper California, from the surveys of John Charles Frémont and other authorities; drawn by Charles Preuss, etc.) l. c. <i>ad fin.</i> , being chart v and last of the British Case.	Preuss.	V.	1872
(Washington Sound and its approaches, Washington Territory, etc.), <i>ad fin.</i> From the U. S. Coast Survey Chart, 1866.....	U. S. C. S.	H.	1872
(Same) With colored lines indicating the various boundaries in question, l. c. <i>ad fin.</i>	U. S. C. S.	O.	1872
(Map of North America, showing the possessions claimed by France in 1756.) In David Mills' Report on the Boundaries of the Province of Ontario, 8vo, Toronto, 1873.....	Mills	8*.	1873
Bristol Bay, Bering Sea. (Karta zaliva Bristol, etc.) In Tebenkoff's Atlas	Tebenkoff	IV.	1849
British America, including Hudson Bay Territory.			
From Cape Cod to Bering Strait; colored. Mackenzie's Voy., p. 1, 1801.....	Mackenzie	(*)	1801
Fort Chippewyan to Pacific Ocean. Same source as preceding, p. 120. This is Mackenzie's track chart	Mackenzie	(*)	1801
(A map of America between latitudes 40 and 70 north and longitudes 80 and 150 west, exhibiting the principal trading stations of the Northwest Company.) In Notice resp. the Boundary, etc., 8vo, London, 1817	Anon	(*)	1817
With plan of north coast, in Thos. Simpson's Narrative, 1843.....	Dease & Simpson ...	(*)	1843
Northern part. In Life of Thos. Simpson, 1845.....	Alex. Simpson	(*)	1845
(Map of the British possessions in North America, exhibiting the recent discoveries, geographical and nautical.) In Martin's Hudsons Bay Territories, p. 1, 1849	Martin	(*)	1849
(Map of British North America, to illustrate a paper on the means of communication with the Pacific Ocean.) Journ. Roy. Geogr. Soc. London, XXII, p. 174, 1852	M. H. Synge.....	(*)	1852
Map embodying all information on the Hudson Bay Territory to date; Chesapeake to Bering Strait; colored	Arrowsmith	(*)	1859
(General map of British North America, showing the route of Lord Milton and Dr. Cheadle in 1862-3.) In Milton (Fitzwilliam) and Cheadle's Northwest Passage, etc., 1865, <i>ad fin.</i>	Fitzwilliam.....	(*)	1865
(The western portion of British North America, showing the route followed by Lord Milton and Dr. Cheadle, from the Saskatchewan to British Columbia, in 1863-4.) Same source as preceding.....	Fitzwilliam.....	(*)	1865

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
British America, including Hudson Bay Territory—Continued.			
(Map of British America from Lake Superior to the Rocky Mountains, etc.) Butler's Great Lone Land. London, 8vo, 1873, showing the author's track.....	W. F. Butler.....	(*)	1873
(Part of British America, etc.) In Butler's Wild North Land; Montreal, 1874, p. 1. Extends from Lake Winnipeg to Cape Spencer.....	W. F. Butler.....	(*)	1874
(Carte du Bassin du Mackenzie dressé de 1862 à 1873 par E. Petitot; etc.) In Bull. de la Société de Géogr. Paris, Juillet, 1875. Chiefly derived from dead reckoning.....	E. Petitot.....	(*)	1875
British Columbia. See also Canada, Dominion of; Canadian Pacific Railways; Northwest Coast of America.			
(Karte von British Columbia [früher New-Caledonia] Vancouver Island und dem Nordliche theil von Washington territorium.) Geogr. Mitth. 1858, Heft XII, December.....	A. Petermann.....	20*.	1858
(Map of British Columbia and Vancouver Id.) In Hazlitt's Brit. Col. & Vanc. Id. London, 1858, 10mo.....	Hazlitt.....	(*)	1858
(Map of the country from Lake Superior to the Pacific Ocean, showing the western boundary of Canada and the eastern boundary of British Columbia.) In Hind's Narrative, vol. II, p. 223. London, 1860.....	H. Youle Hind.....	(*)	1860
(Part of British Columbia, to illustrate the papers of Mr. Justice Begbie, Comdr. Mayne, R. N., Lieut. Palmer, R. E., and Mr. Downie.) Journ. Roy. Geogr. Soc. Lond. XXXI, p. 213, 1861. Shows the gold fields.....	Roy. Geogr. Soc.....	(*)	1861
(Outline map of part of British Columbia [etc.], from the general map prepared by the Royal Engineers, 1863.) Journ. Roy. Geogr. Soc. Lond., 1864, XXXIV, p. 171. Shows the gold fields.....	Royal Engineers.....	(*)	1864
(Map of British Columbia, reduced from the original map by Mr. Alfred Waddington.) Journ. Roy. Geogr. Soc. of London, XXXVIII, 1868, p. 119.....	Waddington.....	(*)	1868
(Kamloops to New Westminster.) In Grant's Ocean to Ocean; London, 1873, p. 297, 8vo This is S. Fleming's track chart.....	Grant.....	46*.	1873
(Chart of the coast of British Columbia north of latitude 51°, chiefly from Capt ⁿ Vancouver's Surveys in 1792 and 1793. To accompany Report of the Engineer in Chief Canadian Pacific Railway, dated Jan. 1874).....	S. Fleming.....	16.	1874
(Map of British Columbia, compiled from the map of the province recently prepared under the direction of Hon. J. W. Trutch, etc.) In Walker and Miles' New Standard Atlas of the Dominion of Canada Montreal and Toronto, 1875, pp. 100-101; fol.....	Walker & Miles.....	(*)	1875
(Outline map of British Columbia.) Quart. Journ. Geol. London, Feb. 1878, XXXIV, pl. v, illustrating paper by G. M. Dawson.....	G. M. Dawson.....	V.	1878
Map of British Columbia. Prepared under the direction of the Hon. J. W. Trutch. (Not seen.) MSS. ?.....	Trutch.....	(*)	187—
Broughton and Johnstone Straits.) G. H. Richards, R. N.....	Brit. Adm.....	581.	1860-72
Brown and Edge Passages.) By D. Pender, R. N.....	Brit. Adm.....	2453.	1872
Buccaneer Bay, Malaspina Strait, Thormanby Islands.) B. C.....	Brit. Adm.....	579.	1860-65

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Bucarelli, Puerto del Baylio.			
1. (Plan of the entrance of the Port of Bucarelli, on the Northwest coast of America * * * , discovered in 1775 by the Spanish schooner <i>La Señora</i> , commanded by D. Juan F ^{co} de la Quadra and D. Franc ^o . Ant ^o . Maurelle, and more amply explored in the expedition of 1779 by the same officers and others of the Spanish navy.) In <i>La Perouse's Atlas</i> , where it is given from a Spanish MSS. chart which he obtained from the Spaniards.....	Quadra	26.	1798
2. (Karta w' hoda v' gavan Bukareli nahodiastcheisia na ostrovi Bobrovom pri sievero-zapadnom beregi Ameriki. S' karti Laperusa.) Russian rendering of the preceding chart published by <i>La Perouse</i>	Old Russ	XXI.	n. d.
3. (W' hod ot iuga v' zalif Bukarelli * * * s' karti Laperusa.) In <i>Tebenkoff's Atlas</i> ; also derived from No. 1 above cited.....	Tebenkoff	IX, ss.	1849
(Bucarelli Bay, from a Russian chart.) U. S. C. S. <i>Atlas of Harbor Charts of Alaska</i> , reduced from No. 2 above cited.....	U. S. C. S.	I.	1869
Buena Esperanza, Bahía de. See Boundary Charts (Eliza).			
Bull Harbor, Goletas Channel.	Brit. Adm.	2067.	1860-67
Burrard Inlet, etc. (Chart showing the relative positions of Burrard Inlet, Nanaimo, Alberni, Esquimalt and other points, British Columbia.) In <i>Fleming's Report on Surveys, etc.</i> , p. 74, Ottawa, 1877.....	S. Fleming	3.	1877
Bute Inlet, etc. (Chart showing the relative positions of Bute Inlet, the Valdes Islands, Nodales Channel, Quatsino, and other points, British Columbia.) In <i>Fleming's Report on Surveys, etc.</i> , p. 72, Ottawa, 1877.....	S. Fleming	2.	1877
Cameleon Harbor, Nodales Channel. By G. H. Richards, R. N.	Brit. Adm.	580.	1860-70
Canada, Dominion of. See also British America.			
(A map of Canada and the north part of Louisiana, with the adjacent countries, by Thos. Jefferys, geographer to his majesty.) In <i>Müller's Voyages from Asia to America</i> , 2d ed., p. 1.....	Jefferys	(*)	1762
(A map of northwest part of Canada * * *); from Lake Erie to Mt. St. Elias; geological. In <i>Rep. of sel. com. on the Hudson's Bay Co.</i> , colored.....	Arrowsmith	(*)	1857
Canadian Pacific Railway maps.			
(Chart [on Mercator's projection] showing the relative geographical position of the British islands and British America, with the shortest great lines of communication between the continents of America and Europe.) In <i>Sandford Fleming's Rep. on the Intercolonial R. W.</i> , etc.....	Fleming	(*)	1865
(Map of Canada and part of the United States, compiled from the latest authorities, 1874.) In <i>Manitoba and Northw. Terr.</i> , etc. Information for emigrants; issued by Dominion Dept. of Agriculture, Ottawa, Canada. Same map in other pamphlets from same source.....	Dom. Dept. Agr	(*)	1874
(Map from the Pacific Ocean across the Rocky Mountain zone, to accompany report on the exploratory survey Canadian Pacific Railway, January, 1874.....	Fleming	8*.	1874

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Canada Pacific Railway maps —Continued.			
(Map of British Columbia, showing a proposed Peace River route for the Canada Pacific R. R.) Horetzky's Canada on the Pacific, 8vo, Montreal, 1874, p. 1.....	Horetzky	(*)	1874
(Map of the country to be traversed by the Canadian Pacific Railway, to accompany progress report on exploratory surveys, 1877.) In Fleming's Rep. on Surveys, etc., Ottawa, 1877, p. 1.....	Fleming	I*.	1877
(Map referred to in Report on the Canadian Pacific Railway, dated 26th April, 1878, shewing various projected lines.) In Fleming's C. P. R., etc., Reports and Documents, 8vo, Ottawa, 1878, p. 101.....	Fleming	(*)	1878
Canaveral, Port; Principe Channel. B. C. D. Pender, R. N.:....	Brit. Adm.....	2189, ss.	1872
Captains Harbor (or Bay), Unalashka Island.			
(Plan Kapitanskoi gavani nahodiascheisia na sievernoi storonie ostrova Unalashki, s' predmiestiami vostochnim i zapadnim, s' iakornim miestom i selenia Iliuliuk * * * s' dielana s' karti letenanta Kotsebu.) Excellent chart, from observations by Kotzebue	Old Russ.....	XV.	n. d.
(Plan Kapitanskoi gavani na sievernoi storonie ostrova Unalashki.) Krusenstern's Atlas, 1826, Rus. edition	Krusenstern.....	19, ss.	1826
(Plan de la baie du Capitaine sur la côte septentrionale de l'isle Ounalashka.) Krusenstern's Atlas, French ed., 1827.....	Krusenstern.....	19, ss.	1827
(Gavan Kapitanskaia na N. storonie ostrova Unalashki, etc., s' karti Kotsebu.) Stated to be derived from Kotzebue, but much less accurate than the original above cited, as is often the case in Tebenkoff's Atlas	Tebenkoff.....	XXV, ss.	1849
(Captain's Harbour, Ounalashka Id.) Subsketch on Britton & Rey's large map of Russian Am., apparently derived from Tebenkoff.....	Britton & Rey	ss.	1867
(Illiouliouk and Captain's Harbors, Unalaska Island, 1869.) Sketch compiled by G. Davidson, with additions of new matter. The position of the headlands is inaccurate. U. S. C. Survey Atlas of Harbor Charts of Alaska.....	U. S. C. S	7.	1869
(Chart of Captain's Bay and vicinity, Unalashka Island, Alaska, 1875.) Chiefly from new surveys by W. H. Dall and party, and representing the latest information	U. S. C. S		1875
Cariboo District, British Columbia.			
(Reconnaissance sketch of part of Cariboo by Lt. H. S. Palmer, R. E.) In Journ. Roy. Geogr. Soc. London, 1864, XXXIV, p. 171.....	Palmer	(*)	1864
Carter Bay, Finlayson Channel British Columbia. D. Pender, R. N.	Brit. Adm.....	1901.	1868-72
Cassiar District, British Columbia.			
(Cassiar District.) In Brit. Col., Rep. of Minister of Mines, etc., 1875. 8vo. Victoria, V. I., 1876.....	A. C. Elliott.....	(*)	1876
Chalmers, Port, Prince William Sound.			
(Sketch of part of the west side of Montague Id., * * * by Nathaniel Portlock, 1787.) In Portlock's Voyage, p. 215.....	N. Portlock		1789
(A survey of Port Chalmers.) In Vancouver's Atlas	Vancouver	11, ss.	1798

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Chalmers, Port; Prince William Sound—Continued.			
(Port Chalmers pri sievero-zapadnih beregah Ameriki, etc.) Apparently derived from Vancouver	Old Russ		(n. d.)
(Karta Porta Chalmer nahodiat-chakhosia na sievero-zapadnoi storonie ostrova Tsukli * * * s' karti Vankuvera).....	Old Russ	XVIII.	(n. d.)
(Port Chalmers, from Vancouver's Survey.) C. S. Atlas of Harbor Charts of Alaska.....	U. S. C. S.	4.	1869
Chamisso Islands, Kotzebue Sound, Alaska.			
Plan of the anchorage of Chamisso, Kotzebue Sound.) Beechey's Voyage, p. 328.....	Beechey	ss.	1830
(Plan of the anchorage at Chamisso, Kotzebue Sound).....	Brit. Adm.	593, ss.	1827-55
(Iakornoe miesto i ostrova Shamisso v' sund Kotsebu).....	Rus. Hydr. Dept.	P. O. S. 6, 1455, ss.	1852
Chatham, Port; Cook's Inlet, Alaska.			
(A survey of Port Chatham.) In Vancouver's Atlas	Vancouver	10, ss.	1798
(Port Chatam pri sievero-zapadnik beregah Ameriki * * *)... Karta Porta Chatam nahodiat-chakhosia pri whodie v' Kenaiskuiu gubu, na beregu, sievero-zapadnoi Ameriki * * * s' Karti G. Vankuvera.) Chart of Port Chatham, after Vancouver †	Old Russ	XVII.	(n. d.)
(Port Chatam * * * s' karti Vankuvera) Derived from Vancouver. Tebenkoff's Atlas	Tebenkoff	V, ss.	1849
(Port Chatham, from Vancouver's Survey.) C. S. Atlas of Harb. Charts of Alaska	U. S. C. S.	4.	1869
Cheerful, Cape; Unalashka Island.			
(Vesoloffskoe ribnoe ozero na ostrova Unalashka) Fishing station at a lagoon near Cape Cheerful. MS. tracing on vellum, probably by Archimandritoff. U. S. C. S. archives.....	[Archimandritoff]		(n. d.)
Chernofsky Bay or Harbor, Unalashka.			
(Plan Chernofskakho zalifa nahodiat-chakhosia pri zw. okonechnosti ostrova Unalashki * * * s'dielan s'opisi Flota Kapitana Saricheva proizvedennoi s' 1792 ^m godu.) Plan from obs. by Sarycheff in 1792	Sarycheff.....	XV.	(n. d.)
(Chernofsky Bay, Unalaska Id., from Capt. Saricheff's survey.) U. S. C. S. Atlas of Harbor Charts of Alaska	U. S. C. S.	6.	1869
Chesloknu Bay, Chugachik Bay, Cook's Inlet.			
(Cheslock-noo Bay * *.) Tracing on vellum, author unknown, in U. S. C. S. archives			
Chiachi Islands, S. side Aliaska Pena.			
(Sketch of anchorage, Chiachi Ids., Aliaska Peninsula, Alaska, 1875.) From observations by Dall and party in 1874.....	U. S. C. S.	(25.)	1875
Chichagoff Harbor, Attu Island, Aleutians.			
(Plan du Port de Tchitchagoff dans la partie NE. de l'île d' Attou, dressé par M ^r . Etolin, officier de marine, 1827.) In Lütke, Voy. S ⁿ . partie Hydr., p. 341.....	Lütke		1835
(Plan vostochnoi chasti ostrova Attu.) Plan of the east end of the island, including the harbor; small.....	Rus. Hydr. Dept.	P. O. S. 7, 1400, ss.	1848

† It may be noted that of the charts here called "Old Russ." there are two series: one without serial numbers and apparently used in single sheets; the others serially numbered. These charts, there is reason to believe, were compiled by Sarycheff, and published at first in single sheets at different times, as completed. Later the plates seem to have been collected, the titles changed, serial numbers added, and the whole combined into an atlas, called Sarycheff's Atlas, which we have not been able to consult since this list was in hand, but of which we believe a copy exists in San Francisco, which has not been subjected to collation.

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Chichagoff Harbor, etc. —Continued.			
(Gavan Chichagova na sievero-vostochnoi storonie ostrova Attu. Opisi Etolina.) The harbor, from Etolin's survey. Tebenkoff's Atlas	Tebenkoff	XXX, ss.	1848
(Harbor of Tschitschagoff, by the U. S. Sch. Fenimore Cooper, * * * U. S. North Pacific Surveying Expedition, Lieut. John Rodgers commanding, July 1855.) Best chart of the harbor....	U. S. Hydr. Off.	55, ss.	1855
(Chichagoff Harbor, Attou Island, from a survey by the U. S. North Pacific Surveying Expedition.) U. S. C. S. Atlas of Harbor Charts of Alaska	U. S. C. S.	8.	1869
Chignik Bay, Alaska Peninsula.			
(Sketch of anchorage, Chignik Bay, Alaska Peninsula, 1875.) From obs. by W. H. Dall and party, 1874. Alaska Harbor Ch.	U. S. C. S.	[24.]	1875
(Sketch of Chignik Bay, Alaska Peninsula. Corrected from Russian authorities.) Small sketch with the last, by Dall	U. S. C. S.	[24], ss.	1875
Chilkat River, Alaska.			
(Uste riek! Chilkat v'n:daiustchei v' kanal Lina * * * s' karti G. Lindenberga, 1838 goda.) Mouth of the river, from Lindenberga's (MS.?) chart of 1838	Rus. Hydr. Dept.	P. O. S. 10, 1396, ss.	1848
(Mouth of the Chilkat River.) Photograph from vellum tracing by Homfray, of the preceding, with English lettering, made for W. U. T. Co.'s Exp. U. S. C. S. archives	Homfray	ss.	1867
[For details of upper part of the river, from Indian reports, etc., see U. S. C. S. general Alaska map of 1869.]			
China and Tartary (including Kamchatka).			
(Chart of discoveries made in 1787, in the seas of China and Tartary, by the Boussole and Astrolabe, from their leaving Manilla to their arrival at Kamtschatka, Sheet II.) La Perouse's Atlas ...	La Perouse	46.	1798
Chiniak Bay, Kadiak Archipelago.			
(Karta zalifa Chiniatskakho nahodiast-chakhosia pri ostrof Kadiak * * * sostavlena s'opisi uchinennoi v' 1808, 1809 i 1810 th godah, bivshimi tam morskimi ofitserami.) Chiniak Bay, including St. Paul Harbor, etc., from the outer Spruce Cape to Ugak Id. Another edition of the preceding chart, in Golofnin's Puteshestvie, etc., vol. II, <i>ad fin</i>	Old Russ	XVI.	(n. d.)
(Plan Chiniatskakho zalif.) Krusenstern's Atlas, Russian ed., 1826.	Golofnin		1822
(Carte de la Baie Tschiniatskoy.) Krusenstern's Atlas, French ed., 1827. "Corrected to 1835"	Krusenstern	17, ss.	1826
(Zalif Chiniakskii.) Chiniak Bay; small sketch in Rep. Rus. Am. Co. for 1848 (colored)	Krusenstern	17, ss.	1827
	R. Am. Co	ss.	1849
Chiniak Bay, Kadiak; Harbor in.			
(Karta zalifa na ostrof Dolgom nahodiast-chemsia pri zalife Chiniatskom u ostrova Kadiaka.) Chart of a harbor without a name on Long Island, in Chiniak Bay	Old Russ		n. d.
Chiniak Cape, Kadiak.			
(Muis Chiniakskii.) Sketch in Report of the Rus. Am. Co. for 1848 (colored)	R. Am. Co	ss.	1849
Chirikoff Island, Anchorage at.			
(Sketch of southwest anchorage, Chirikoff Id., Alaska, 1875.) From obs. by W. H. Dall and party, 1874. Harbor charts of Alaska ..	U. S. C. S.	[22.]	1875

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Chugach Gulf , or Prince William Sound. (A chart shewing part of the coast of NW. America, with the tracks of his Majesty's sloop Discovery and armed tender Chatham, commanded by George Vancouver, Esq ^r ., and prepared under his immediate inspection by Lieut. Joseph Baker, " " ".) Comprises from Pye's Island to Point Riou. Vancouver's Atlas....	Vancouver	II.	1798
(Karta Chugatskoi gubi, etc.) Tebenkoff's Atlas, comprising the gulf and Alaskan coast, from long. 143° W. to long. 150° W. Gr..	Tebenkoff	VI.	1849
Chugachik Bay, Cook's Inlet. (<i>See also Coal Bay.</i>) MS. copy of Kadin's MS. chart of this bay, made by W. B. Hyde, U. S. C. S. archives	M. Kadin		1867
Circumpolar Charts and Maps. (A new and improved map of the countries situated about the North Pole, etc.) In Forster's History of Voyages, etc., <i>ad in</i> ..	J. R. Forster	(*)	1783
(A map of the country thirty degrees around the North Pole.) In John Trusler's Habitable World. 8vo. London, vol. I, <i>ad in</i> ..	J. Trusler	(*)	1788
(No title.) Circumpolar map, with the track of the voyage in Maldonado's Viaggio del mare. 4to. Milano, 1811, <i>ad fin</i>	Maldonado	III*	1811
(Mappa delle terre e de'mare circonpolari al nord per servire alla relazione del viaggio di Lorenzo Ferrer Maldonado nel 1588.) From the same source as the preceding	Maldonado	I*.	1811
(No title.) In Barrow's Chronological History of Voyages into the Arctic Regions, p. 1. 8vo. Lond., 1818	J. Barrow	(*)	1818
(Map of the countries around the North Pole, etc.) In Barrington's Possibility of Approaching the Pole discussed: etc., 1818.	Barrington	(*)	1818
Chart (no title.) In O'Reilly's Greenland, etc. 4to. London, 1818.	O'Reilly		1818
(No title.) Showing the distribution of the Walrus, by K. E. von Baer in Mém. Imp. Acad. des Sciences de St. Petersbourg, 4 ^o , St. Petersbourg 1838; VI ^{me} sér.; Sci. Nat. vol. ii, p. 236	K. E. von Baer	I.	1838
(Same.) In Shillinglaw's Narrative of Arctic Discovery, etc.	Shillinglaw	(*)	1851
(Polar chart to illustrate A. Petermann's Papers on the Arctic Regions.) From J. Mangles' Papers and Dispatches, etc. 2d ed. (probably also in 1st ed., not seen). 8vo. London, 1852, p. 67. <i>Contains isothermal lines</i>	Mangles	(*)	1852
(Polar chart, illustrating A. Petermann's paper on the opening into the Polar Sea between Spitzbergen and Novaia Zemlaia) In report of the committee appointed to inquire into the Arctic Search Expeditions, etc.; folio, London, 1852, p. 142, entitled <i>Arctic Expeditions</i> ; colored		(*)	1852
(Circumpolar chart, illustrating Kane's paper on access to an open polar sea. Projected from Petermann; Berghaus " " ".) By Dr. Kane in the Bull. Am. Geogr. and Statistical Soc., I, 1852, p. 80	E. K. Kane	(*)	1852
Map, by J. N. Colton & Co., New York; colored; separate issue	Colton & Co.	(*)	1855
(Chart of the North Polar Sea.) Chart, lat. + 50° to + 90° N. Numerous editions, each containing additions and corrections ...	Brit. Adm.	260.	1856-73
(Chart showing the distribution of auroras in the northern hemisphere, by Prof. Elias Loomis, 1860.) In Smithsonian Report, 1865, p. 216	Loomis	(*)	1865

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Circumpolar Charts and Maps—Continued.			
(Map of the North Polar regions to illustrate the paper on the origin and migrations of the Greenland Esquimaux, by C. R. Markham.) In Journ. Roy. Geogr. Soc. Lond. XXXV, p. 87, 1865.	Roy. Geogr. Soc.	(*)	1865
(Karte der arktischen und antarktischen regionen zur übersicht des geographischen standpunktes im J. 1865, der meerströmungen, etc.) Geogr. Mitth., Mai, 1865, Heft 4, colored	Petermann	5*.	1865
(Karte der arktischen und antarktischen regionen zur übersicht der entdeckungs geschichte.) Geogr. Mitth. XIV, Mai, 1868, t. 12	Petermann	12*.	1868
(The Arctic Regions.) Copied from Petermann, and published in Report on the Resources of Iceland and Greenland, compiled by Benjamin Mills Peirce, Washington, Government Printing Office, 1868. 8vo. 72 pp.; 2 maps; issued by the State Department, and a rather rare document	Petermann	(*)	1868
(No title.) Circumpolar chart, to illustrate an address by Dr. I. I. Hayes on Arctic Exploration, delivered Nov. 12, 1868, before the Am. Geogr. Society. Journ. Am. Geogr. and Statistical Soc. II, part 2, p. 1, 1870; colored	Am. Geogr. Soc.	(*)	1870
(Circumpolar map exhibiting the inter-oceanic circulation, etc.) In Bent's Thermometric Gateways to the Pole, etc.; frontispiece	Silas Bent	(*)	1872
(Chart of the North Polar Sea.) A photolithographic copy of the Admiralty chart upon which the lands toward the north are colored according to the nation by which they were explored. It has no date, but was issued about 1875, to serve as a campaign document for the projects of Arctic research, then before Parliament. England's color lying to the south of most of the later discoveries at that date, the representation on this map served as a patriotic stimulus	(?)		(c. 1875)
(Stanford's map of the countries round the North Pole.) London, Stanford; separate issue in folding case, colored. Comprises all north of lat. 50° N	E. Stanford	(*)	1875
(Map of the North Polar or Arctic Regions, showing the Northwest Passage.) In Whymper's Heroes of the Arctic, London, [1875], 12°, <i>ad fin.</i>	Whymper	(*)	[1875]
(Region Arctique. Atlas Universelle par Vivien de Saint Martin * * * Hachette et cie, 1876.) This map has a supplementary transparent slip showing the Nares' Exp. discoveries	St. Martin	(*)	1876
(The Arctic Regions.) In Geogr. Magazine. 4to. London, 1877, p. 5	C. R. Markham	(*)	1877
(North Polar Chart, including the Arctic Seas from the Gulf of Yenisei on the west to Lancaster and Smith Sounds on the east, with Behring Strait and the Pacific O. to the 50th parallel)	Brit. Adm.	278.	1877
(Le pole arctique, 1869.) In Trafford's Amphiorama, etc. 8vo. Lausanne, 1877, <i>ad fin.</i> The production of a seer who observed Point Barrow as a greatly elevated rocky peak, visible above the horizon before any other land near it! Before this prophet delivers himself again, he should read a few works on the Arctic regions	Trafford	(*)	1877

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Circumpolar Charts and Maps —Continued.			
(Map of the Polar Regions, etc.) In The Graphic newspaper, London, Aug. 10, 1878	(Petermann)	(*)	1878
(The countries round the North Pole.) Allan Young in his Two Voy. of the Pandora, 8vo, London, 1879; in pocket	Allan Young	(*)	1879
Clarence, Port; Bering Strait.			
(Plan of Port Clarence and Grantley Harbour. By Capt. F. W. Beechey, R. N.) With a subsidiary sketch of the anchorage on a larger scale. Several editions	Brit. Adm.	593, ss.	1830-55
(Port Klarens i gavan Grantlei * * * s' opisi Kapitan Bichi s' 1826 i 1827 godah.) Derived from Beechey's Chart	Rus. Hydr. Dept.	P. O. S. 6, 1455, ss.	1852
Clayoquat. See Boundary Charts (Eliza).			
Cloak Bay and Cox Strait; Queen Charlotte Islands.			
(Esquisse de Cloak Bay et Détroit de Cox * * * par le Cap. Prosper Chanal.) Marchand's Voyage autour du Monde, t. IV. (Sketch of Cloak Bay and Cox's Strait, in latitude 54° 10' N.; Queen Charlotte's Islands on the Northwest coast of America, constructed in 1791 by Captain Pros. Chanal.) In English edition of Marchand's Voyages	Chanal	IX.	1791
.....	Chanal	V.	1791
Clyoquot. See Boundary Charts (Eliza).			
Coal Bay, Cook's Inlet. See also Chugachik Bay.			
(Plan of Graham's Harbor and Coal Bay.) Portlock's Voyage, p. 102	Portlock		1789
Coal Harbor, Unga Island, Shumagins.			
Vellum tracing of Russian MSS. by Kadin. C. S. archives	Kadin		1865
(Coal Harbor, Oun a Id.) Subsketch on Britton & Rey's large Map of Russian America, from a reconnaissance by the W. U. Tel. Exp. in 1865	W. U. Tel. Ex	ss.	1867
(Coal Harbor, Unga Island, from a survey by the W. U. Tel. Ex.) Coast Survey Atlas of Harbor Charts of Alaska	W. U. Tel. Ex	6.	1869
(Coal Harbor, Zachareffskaia Bay, Alaska, surveyed by W. H. Dall, Acting Assist., 1872.) Harbor Charts of Alaska	U. S. C. S.	12.	1872
Coghlan Anchorage, Grenville Island, British Columbia.) By D. Pender, R. N.			
.....	Brit. Adm.	2189, ss.	1872
Columbia River, Oregon.			
(Entrance of Columbia River.) Vancouver's Atlas	Vancouver	5, ss.	1798
Entrance of the Columbia River, from obs. by the U. S. Exploring Expedition. (Not seen)	U. S. Exp. Exp		1841
(A sketch of the Columbia River and adjacent country.) In Lee and Frost's Ten Years in Oregon. 12mo. New York, 1844, p. 1.	Lee & Frost	(*)	1844
(Map of the Columbia to illustrate Ross's adventures.) In Ross's Adventures of the first settlers, etc. 12mo. London, 1849, p. 1.	A. Ross	(*)	1849
Chart by Belcher. Not seen	Belcher	(?)	(?)
(Merkatorskaia karta w' hoda v' rieku Kolumbiu sniata s' karti G. Belchera * * * 1850.) Russian chart derived from that of Belcher	Rus. Hydr. Dept.	P. O. S. 106, 1441.	1850
Plan of mouth of the Columbia River on chart of NW. American coast. London, 1853	Imray & Son	ss.	1853
(Columbia River, Sheet No. 1)	U. S. C. S.	640.	1875
(Columbia River, Sheet No. 2)	U. S. C. S.	641.	1875

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Columbian Archipelago, British Columbia. (Cape Caution to Port Simpson, including Hecate Strait and part of Queen Charlotte Islands) From observations by D. Pender and other officers of the Royal Navy. There are two editions, of which the later (1871) is much improved and greatly corrected and changed	Brit. Adm.	1923, A.	1867-71
Southern half; forming the complementary part of the preceding..	Brit. Adm.	1923, B.	1867-71
Commander Islands, Bering Sea. See also Bering Island and Copper Island. (Karta ostrovoff Komandorskih i-pravlennaia koloniialnimi morehodst-chami, Novo Arkangelsk, 1848.) Tebenkoff's Atlas.	Tebenkoff	XXXI.	1848
Comparative chart of the ancient and modern navigators.) Bering Strait to Greenland. In Ross' 2d Voy., I, p. xxv, 1835. (See also Track charts)	Sir J. Ross.	(*)	1835
Conclusion, Port; Baranoff Island, Alaska. (A survey of Port Conclusion.) Vancouver's Atlas	Vancouver	12, ss.	1798
(Zalif Konkliuzhion * * * pri sievero-zapadnih beregah Ameriki, na iuzhnom muisie ostr. Sitki * * *.) Sarycheff? ..	Old Russ		(n. d.)
(Plan zalifa Konkliuzion * * * s' karti Vankuvera) Derived from the chart of Vancouver	Old Russ	XX.	(n. d.)
(Port Konkliuzion * * * s'kart Vankuvera.) Tebenkoff's Atlas.	Tebenkoff	IX, ss.	1849
(Port Conclusion, from Vancouver's Survey.) Coast Survey Atlas of Harbor Charts of Alaska	U. S. C. S.	I.	1869
Constance Cove, Vancouver Island.) G. H. Richards, R. N.	Brit. Adm.	572.	1858-73
Constantine Harbor, Amchitka Island, Aleutians. (Gavan Konstantina na O ¹⁶ Amchitkie * * * opisi Klinkofstroma.) From observations by Klinkofström. Tebenkoff's Atlas	Tebenkoff	XXIX, ss.	1849
(Constantine Harbor, Amchitka Island, from Tebenkoff's Atlas.) C. S. Atlas of Harbor Charts of Alaska	U. S. C. S.	8.	1869
(Sketch of Constantine Harbor, Amchitka Island, Aleutians, 1875.) From a survey by W. H. Dall and party in 1873. Harbor Charts of Alaska	U. S. C. S.	[28.]	1875
Constantine Harbor, Okhotsk Sea. (Plan Konstantinofskoi gavana s'opisi proizvedennoi na brig Okhotsk pod nachalstvom Kap. Leit. Poplonskakho.) From Zapiski Hydr. Dept., St. Petersburg, vol. VI, p. 95. 1848. Plan of the harbor, by Capt. Lieut. Poplonski, of the brig Okhotsk, in 1847.	Rus. Hydr. Dept.	IV.	1848
Cook's Inlet and adjacent coast. (Chart of Cook's River, in the N. W. part of America.) Cook's Voyages, vol. II, p. 353. Includes from Cape Suckling to Cape Greville	Capt. Cook	44.	1784
(A chart showing part of the coast of Northwest America, etc.) Vancouver's Atlas	Vancouver	10.	1798
(Karta Kenaiskakho zalifa ispravlennaia koloniialnimi morehodst-chami Novo Arkhangelsk, 1849.) Tebenkoff's Atlas	Tebenkoff	V.	1849
(Kenaiskii zalif.) In Tikhmenieff's Hist. Rus. Am. Co., II, <i>ad fin.</i>	Tikhmenieff		1863
Copper (Miednie) Island, Commander Islands. (Karte der Kupferinsel nach dem Sibirischen Anzeiger XVIII, 1822, Heft IV.) From Grewingk's Beitr. zur Kenntn., etc., p. 166.	Grewingk	(*)	1822

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Copper Island, etc. —Continued.			
(Plan de l'île du Cuivre.) Lütke's Voy. Sén. part. Hydr., p. 348, 1835	Lütke		1835
(Plan d'une Baie sur la Côte N. de l'île de Cuivre (Iles Aléoutiennes) Dressé par Mr. Ingeström.) Lütke, Voy. Sén. part. Hydr., p. 347, 1835.....	Lütke		1835
(Plan bukhti na N. storonie ostrova Miednakho * * * s'karti Ingenstroma.) Plan of harbor at the north side of Copper Island, by Ingenström	Rus. Hydr. Dept.....	P. O. S. 7, 1400, ss.	1848
(Gavan na O. Miednom * * * opisi Klinkofstroma.) Tebenkoff's Atlas. Harbor on Copper Island, from observations of Klinkofstrom	Tebenkoff.....	XXXI, ss.	1848
Coppermine River, Hudson Bay Territory. <i>This is not the Copper (Miednie) or Atna River of Alaska.</i>			
(A map exhibiting Mr. Hearne's tracks in his two journeys for the discovery of the Coppermine River, etc.) In Hearne's Journey, etc. London, 1795, 4to, fronting title.....	Hearne	(*)	1795
Cox, Port; or Clayoquot; Vancouver Island.			
(A sketch of Port Cox, in the district of Wiscananish.) Meares' Voyages, p. 143. A port near Nootka	Meares		1790
Cox Strait. See Cloak Bay.			
Cross Harbor, Kruzoff Island, near Sitka.			
(Gavan Krestofskaia.) Tebenkoff's Atlas	Tebenkoff	VIII, ss.	1849
(Cross Harbor, from Tebenkoff's Atlas.) Coast Survey Atlas of Harbor Charts	U. S. C. S.	3.	1869
Cross Sound or Icy Strait. See Althorp, Port.			
Cullen Harbor, Queen Charlotte Sound.) D. Pender, R. N....	Brit. Adm	571.	1863
Current Charts. See also Amur River (Schrenck).			
(Carte des courants généraux dans l'océan pacifique.) In Annales Hydrogr., t. VI, 1851, p. 335.....	Kerhallet		1852
(Karte der arktischen und antarktischen regionen zur übersicht der geographischen standpunktes im J. 1865 der meer strömungen.) Geogr. Mitth., IV, 1865	Petermann	5*.	1865
(Map of the world * * * showing the principal surface currents of the ocean, and thermometric gateways to the North Pole, illustrating address of Silas Bent.) Colored. Pph., St. Louis, 1869	Silas Bent.....	(*)	1869
Currents of Pacific Ocean; rough sketch. San Francisco	H. Davis	(*)	1872
(No title.) Currents of Pacific Ocean, in Davis' Record of Japanese vessels driven, etc., in Am. Antiquarian Soc. Proc., 8vo, Worcester, Mass., 1872, and also in separate copies.....	H. Davis	(*)	1872
Cypress Harbor, Queen Charlotte Sound.) D. Pender, R. N.	Brit. Adm.....	571.	1863
Deep (Glubokoe) Lake, salmon fishery. MSS. tracing of survey of the locality of the Redoubt salmon fishery, by George Davidson, U. S. C. S. In Coast Survey archives.....	Davidson		1867
De Fuca, De Fonte, De Fuentes, etc. See Fuca.			
Delaroff Harbor, Unga Island, Shumagins.			
(Acherk Ungenskoi gavani.) Sketch of the harbor.....	Rus. Hydr. Dept....	P. O. S. 8, 1379, ss.	1847
(Acherk gavani Delarova na O'ua Ungie * * *.) Sketch of the harbor, Tebenkoff's Atlas.....	Tebenkoff.....	XXIV, ss.	1849

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Delaroff Harbor —Continued. (Delaroff Harbor, Unga Island, from Tebenkoff's Atlas.) U. S. C. S. Atlas of Harbor Charts of Alaska	U. S. C. S.	6.	1869
Discovery, Port, Puget Sound. (Port Discovery.) Vancouver's Atlas	Vancouver	5, ss.	1798
Disenchantment Bay, Yakutat. (Plano del Puerto del Desengaño trabajado de orden del Reyén, 1791.) In Atlas to Galiano's Voyage, published by the Spanish Government	(Malespina)	9.	1802
Distribution of Indian Tribes. See Alaska; Washington Territory , etc.			
Drew Harbor, Valdes Island. G. H. Richards, R. N.	Brit. Adm.	580.	1860-70
Duncan Bay. British Columbia. G. H. Richards, R. N.	Brit. Adm.	364.	1862-72
Copy of preceding	U. S. Hydr. Off.	259.	1870
Eagle Harbor, Nagai Island, Shumagins. (Sketch of Eagle Harbor, Nagai Island, Shumagins, 1875), from obs. by W. H. Dall and party in 1872. C. S. Harbor Charts of Alaska.	U. S. C. S.	(15.)	1875
Effingham, Port, Berkley Sound. (A plan of Port Effingham, in Berkley's Sound.) Meares' Voy., p. 102	Meares		1790
English Bay (Graham Harbor), Cook's Inlet. (Plan of Graham's Harbor and Coal Bay * * .*) Portlock's Voy., p. 102	Portlock		1789
Anonymous tracing from a MS. map of "English Bay"			
(English Bay, from the maps of the Captain Archimandritoff * * .) MS. tracing in C. S. archives with the preceding	Archimandritoff		
Eschschol's Bay, Kotzebue Sound. Beechey's Voy., p. 169 ..	Beechey		1839
Esperanza and Nuchatlitz Inlets. G. H. Richards, R. N.	Brit. Adm.	589.	1832
Esquimalt Harbor, Vancouver Island)	Brit. Adm.	1901.	1847
Same..... Same	Imray & Son	ss.	1853
Same..... Same. G. H. Richards, R. N.	Brit. Adm.	1897a.	1860-73
Same, with Victoria. G. H. Richards, R. N.	Brit. Adm.	576.	1862-74
Etches, Port; Prince William Sound; (Nuchek). (Sketch of Port Etches, situated 5 leagues NNE. of Cape Hinchbrook; together with a sketch of Brooks Harbour, by Nathaniel Portlock, 1787.) Portlock's Voyage, p. 226.	Portlock		1789
(Zalifa Nuchek pri ostrovie Hatagalukie, nahodiast-chakhosia v' Chugatskoi gubie; * * * * sochinena s' opisi uchinennoi s' 1790.) Nuchek Bay (Port Etches) from observations made in 1790; by Sarycheff?	Old Rus		(n. d.)
(Karta sievero zapadnoi chasti ostrova H'tagaluka i gubi Nuchek * * * s' karti Kapitana Saricheva.) Probably derived from the preceding	(Sarycheff)	XVII.	(n. d.)
(Port Etches surveyed by Capt. Sir Edward Belcher, R. N., C. B., 1837)	Brit. Adm.	1737.	1846
(Zalif Nuchek i Konstantinofskaja gavan na ostrovie H'tagalukie s' opisi sturmana Chernova 1830 goda.) From observations by Chernoff	Rus. Hydr. Dept.	P. O. S. 9, 1378, ss.	1847
(Zalif Nuchek * * * s' karti Chernova i Belchera.) Tebenkoff's Atlas	Tebenkoff	VI, ss.	1849

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Etches, Port, etc. —Continued.			
Same as preceding, in Tikhmenieff's Hist. Rus. Am. Co., vol. II, <i>ad fin.</i>	Tikhmenieff		1863
(Port Etches, from Belcher's and Chernoff's surveys.) Coast Survey Atlas of Harbor Charts of Alaska. A reproduction of Tebenkoff, with English lettering.....	U. S. C. S.....	4.	1869
Ethnographic Charts. See Alaska and Washington Territory.			
Etolin, Anchorage at Cape ; Bering Sea. (Sketch of anchorage at Cape Etolin, Nunivak Island, Bering Sea, 1875.) From obs. by W. H. Dall and party, 1874. Harbor charts of Alaska.....	U. S. C. S.....	[31.]	1875
Etolin Harbor, Wrangell Island, Alaska. (Gavan Etolin na ostrovie Vrangelia * * * s' karti Kapitana Zarembo, 1834 goda.) From Zarembo's chart of 1834	Rus. Hyd. Dept P. O. S. 10, 1396, ss.		1848
(Bay of Etholine); Homfray's photographic chart, prepared for the W. U. T. l. Exp	Homfray.....	47, ss.	1867
(Bay of Etholine); derived in part from obs. by the U. S. Navy ..	U. S. Hydr. Off	225, ss.	1869
(Etoline Harbor, Wrangel Island * * *.) From obs. by G. Davidson and party. C. S. Harbor Charts of Alaska.....	U. S. C. S.....	[17.]	1869
Falmouth Harbor, Nagai, Shumagin Ids. (Sketch of Falmouth Harbor, Nagai Island, Shumagins, 1875.) From obs. by W. H. Dall and party in 1872. Harbor Charts of Alaska.....	U. S. C. S.....	[15.]	1875
Fitzhugh and Smith Sounds); approaches to. From obs. by D. Pender, R. N	Brit. Adm.....	2448	1872
Fitzhugh and Milbank Sounds); anchorages adjacent to. D. Pender, R. N.....	Brit. Adm.....	1462.	1872
See also Belakula ; Blakeney, Port ; Klemtoo Passage, Nowish Cove, and Welcome Harbor.			
Fonte. See Fuca.			
Forward Harbor); British Columbia. Richards	Brit. Adm.....	630, ss.	1860
Fox Islands. See also Unalashka. Track chart of Krenitzin and Levasheff's Voyage to the Fox Islands in 1768 and 1769. See Cox's Russian Discoveries, p. 205.....	W. Cox.....		1780
Français, Port des. See Lituya.			
Freshwater Bay, Chatham Strait. (Freshwater Bay.) R. W. Meade, jr., U. S. N., comd'g. U. S. S. Saginaw	U. S. Hydr. Off.....	225, ss.	1869
Friendly Cove, Nutka Sound, Vancouver Id. (Sketch of Friendly Cove in Nootka Sound, taken by Mr. Wedgeborough.) Meares' Voy., p. 108.....	Meares		1790
(Plano de la cala de los Amigos. Situada en la parte ocidental de la entrada de Nutka, Año 1791.) Atlas to Alcalá-Galiano's Voyages.	(Malespina)	7.	1802
(Plan zalif Nutka.) Plan of Nutka.....	Old Rus	XXI, ss.	(n. d.)
(Same.) G. H. Richards, R. N	Brit. Adm.....	1916, ss.	1862-66
Fuca, Straits of. (Fonte, Fuentes, De Fuca, etc.) See also Boundary Charts. (A general map of the discoveries of Admiral De Fonte and other navigators, Spanish, English and Russian, in quest of a passage to the South Sea, by Mr. De Lisle, Sept'r, 1752.) In Müller's Voyages from Asia to America, etc., p. 74.....	Müller.....	75*.	1764

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Fuca, Straits of, etc.—Continued.			
Map published by Dalrymple (not seen).....	C. Duncan	(*)	1790
(Carta de los reconocimientos hechos en 1792 en la costa Norweste de América y entrada del canal de Juan de Fuca con vistas).....	Span. Adm.		1795
(—— idem de la salida del mismo canal de Juan de Fuca con vistas)	Span. Adm.		1795
(Karta proliwa Juanna de Fuka i gavaní dekuvert, lezhastchei pri sievero-zapadnoi Amerikie, * * * s' karti G. Vankuvera.) Chart of Fuca Straits, derived from the observations of Vancouver	Old Rus	XXI.	(n. d.)
(Carte de l'Amerique du Nord-Ouest pour l'intelligence des decouvertes de l'Amiral de Fuente, par J. N. De Lisle, 1752.) In Marchand's Voyage, vol. IV, <i>ad fin</i>	Fleurieu	(*)	1800
(Strait of Juan de Fuca, surveyed by Capt. Henry Kellett, R. N., 1847. Haro and Rosario Straits, by Capt. G. H. Richards, R. N., 1858. Admiralty Inlet and Puget Sound, by the U. S. Exploring Expedition, 1841. * * *).....	Brit. Adm.	1911.	1847-74
(Juan de Fuca Strait.) From obs. by G. H. Richards, R. N.	Brit. Adm.	577.	1862-70
Map of; in Geogr. Mitth., 1873, t. IV.....	Petermann	IV*.	1873
(Juan de Fuca Strait to the Pacific Ocean.) In Rev. G. M. Grant's Ocean to Ocean. 8vo. London, 1873. p. 323. This is Sanf. Fleming's track chart.....	Grant.....	56*.	1873
Fuente or Fuentes. See Fuca.			
Fur-seal Islands. See Pribiloff Islands.			
Geological Map of Northeastern Asia. (Geognostische skizze von Nord Asien.) Erman's Archives, vol. II, <i>ad fin</i>	A. Erman	(*)	1842
Geological Profile of Kamchatka. (Durchschnitt der Westseite von Kamtschatka von der küste bis zum Mittel-Gebirge * *.) Erman's Archives, vol. XXII, <i>ad fin</i>	P. Herter	(*)	1863
Geological Map of Alaska, etc. (Karte zur abhandlung über die geogn. u. orogr. beschaffenheit der NW. Küste Amerikas * * * vom C. Grewingk, 1849.) Grewingk's Beitr. z. Kenntn. u.s.w., <i>ad fin</i>	Grewingk	II*.	1849
Georgia, Gulf of. See also Boundary Charts. (Georgia Strait, Sheet 1; Georgia Strait to the NE. point of Texada Island). G. H. Richards, R. N., and others	Brit. Adm.	579	1869-72
(— Sheet 2. NE. point of Texada Id to Johnstone Strait.) Continuation of the preceding. G. H. Richards, R. N.	Brit. Adm.	580.	1869-70
(Straits of Georgia and part of Vancouver Island.) Fleming's track chart in Grant's Ocean to Ocean 8vo. London, 1873, p. 323	Grant	52.	1873
Glasenapp Harbor Kayne Id., Bering Strait. From obs. by the U. S. N. Pac. Expl. Exp.	U. S. Hydr. Off.	57, ss.	1855-73
Goldfields. See Cariboo; Stikine; British Columbia; Cassiar.			
Goldstream Harbor , Fitzhugh Sound.) D. Pender, R. N.	Brit. Adm.	1901.	1868-72
Goletas Channel. (Goletas Channel, with passages leading into Queen Charlotte Sound * * *).....	Brit. Adm.	555.	1863-71
(Goletas Channel to Quatsino Sound * * *).....	Brit. Adm.	582.	1860-71

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Gorge Harbor , Cortes Island) G. H. Richards, R. N.	Brit. Adm.	580.	1860-70
Gowlland Harbor and Quathiaski Cove.) G. H. Richards, R. N.	Brit. Adm.	2067.	1860-67
Graham Harbor. See English Bay.			
Grantley Harbor, Port Clarence, Bering Strait. (Port Klarens i gavan Grantlei * * * s' opisi kapitani Bi- chi s' 1826 i 1827 godah) From Beechey's Survey	Rus. Hydr. Dept ...	1455, ss.	1852
(Plan of Port Clarence and Grantley Harbour, by Capt F. W. Beechey, R. N.) A subsketch to the subsketch; shows the anchorage on a larger scale	Brit. Adm.	593, ss.	1830-55
Graves, Port; Gambier Island, Howe Sound) Brit. Col. G. H. Richards, R. N.	Brit. Adm.	585.	1860-64
Gray's Harbor) Washington Territory. Vancouver's Atlas	Vancouver	5, ss.	1798
(Plan gavaní Grai nahodiast-cheisia na beregu sievero-zapadnoi Ameriki * * * s' karti G. Vankuvera)	Old Rus	XXI.	(n. d.)
Great Circle Track , San Francisco to Hakodadi, Japan. No title; on C. S. first Alaska map.	U. S. C. S.	(12) ss *	1867
Griffin Bay , Haro Archipelago.) G. H. Richards, R. N.	Brit. Adm.	611.	1858
Gulf of Alaska. See Alaska, Gulf of.			
Halibut Island. See Sannakh.			
Haro Strait. See Boundary Charts and Fuca Strait.			
Haro and Rosario Straits. By G. H. Richards, R. N.	Brit. Adm.	2689.	1859-74
Harvey, Port; Johnstone Strait). By G. H. Richards, R. N.	Brit. Adm.	634.	1860
Helena Bay, Chichagoff Island. See Ilina Bay.			
Highfield, Point , anchorage at; Wrangell Id. (Anchorage off Point Highfield, by F. O. Simpson, master H. M. S. Devastation, 1862)	Brit. Adm.	2431, ss.	1853-69
(Anchorage off Point Highfield, from British Admiralty Chart No. 2431) C. S. Atlas of Harbor Charts of Alaska	U. S. C. S.	3.	1869
Holmes Bay, Princess Royal Island.) D. Pender, R. N.	Brit. Adm.	1901.	1868-72
Hoochinoo. See Koots-na-hoo.			
Humboldt Harbor. See Popoff Strait.			
Igak Bay , SE. coast of Kadiak Id. (Zalif Igakski.) Rep. of Rus. Am. Co. for 1848; from obs. by officers of the Co	R. Am. Co.	ss.	1849
Ilina Bay, Chichagoff Island, Alaska. (Karta zaliva Ilina, nahodiast-chagosia na ostrovie Iakobie pri os- trovie Sitkhi * * * s' karti shturmana Ilina.) From the chart of Mate Ilina	Old Rus	XVIII.	n. d.
Iliuliuk Harbor, Unalashka. See also Captain's Harbor. (Illiuliouk and Captain's Harbors, Unalaska Island, 1869.) G. Davidson	U. S. C. S.	7.	1864
(Chart of Iliuliuk Harbor, Unalashka, 1875.) From obs. by W. H. Dall and party, 1871-4. Harbor Charts of Alaska	U. S. C. S.	(27.)	1875
Island Harbor, Barclay Sound, Brit. Col. (Island Harbour, 1861.) G. H. Richards, R. N.	Brit. Adm.	584, ss.	1861-74
Islands, Bay of; Adakh Island, Aleutians. (Sketch of anchorage, Bay of Islands, Adakh Id., Aleutians, 1875.) From obs. by W. H. Dall and party, 1872 Harbor Charts of Alaska	U. S. C. S.	(28.)	1875

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Isogonic lines, charts of.			
North Pacific and Bering Sea. (Pacific Ocean, Sheet 2, Behring Strait to 30° N. lat.)	Brit. Adm.	2460.	56
Pacific Ocean, with sea-temperatures. Petermann's Geogr. Mitth., Mar. 2, 1857.....	Petermann	1*.	1857
(A chart of magnetic curves of equal variation between the lat. 60° N. and lat. 55° S. From the Admiralty Chart.) For the world, for 1860	E. & G. W. Blunt.....		1860
(Curves of equal magnetic variation.) F. J. O. Evans, R. N.	Brit. Adm.	2598.	1871
Same as preceding, brought up to the "latest English publication." In Spanish	Span. Adm.	71.	1871
(N. Pacific, eastern part)	Brit. Adm.	787.	1877
(Northwest Pacific Ocean, etc.)	Brit. Adm.	2459.	1877
Isothermal lines, charts of.			
(Map of the northern hemisphere within the 40th degree of latitude, drawn by Henry Kiepert, L. L. D., Berlin. The isothermal lines for January, July, and the whole year by H. W. Dove.) Zeitschr. für allg. Erdkunde Neue Folge, Bd. I, Berlin, 1856, taf. I. Also cf. taf. I, in Klimatologische Beitr.	H. W. Dove.....	1*.	1856
(Das westliche Nord-America zwischen dem 42 an 55 breiten-grade.) Freisach in K. K. geogr. gesellsch. Wien, 8vo., VIII, 1864, p. 204. Contains isotherms	Freisach	II*.	1864
(Alaska Territory, etc.) General colored map by Colton, with isothermal lines by L. Blodgett.....	Colton.....	(*)	1867
(Isothermal lines of Alaska) Printed for private distribution?....	L. Blodgett.....	(*)	1869
[Cf. also Alaska Coast Pilot, Ed. II, App. 1, charts I-XXVI, Isotherms and Isobars, for each month and the year].....	W. H. Dall	I-XXVI*.	1879
I-youkeen Cove , from a sketch by G. Davidson * * *.) Harbor Charts of Alaska.....	U. S. C. S.	(18.)	1869
Japan and Okhotsk Seas. See also Okhotsk Sea and Amur River.			
(Track chart of northern cruise of H. M. S. Barracouta, in 1854-55-56, by S. W. R. Freeman.) In Tronson's Personal Narrative, etc. 8vo. London, 1859, p. 1	Freeman		1859
Japanese Wrecks. See Pacific Ocean and Current Charts (Davis).			
Johnstone and Broughton Straits ; Vancouver Id.	Brit. Adm.	581.	1860-72
Juan de Fuca. See Fuca.			
Kadiak Island and vicinity. See also Chiniak Bay.			
(Island of Cadiak, with its environs.) Lisiansky's Voy., p. 169, 1814. English edition	Lisiansky	(*)	1805
(Karta ostrova Kadiaka i praliva Shelekhova.) Krusenstern's Atlas, Rus. ed., 1826	Krusenstern.....	17.	1826
(Carte de l'Archipel des Isles Kodiack et du Détroit de Chelighoff * * 1827.) Krusenstern's Atlas, French ed., 1827, "corrected to 1835" (?) Dedicated to the memory of Bering	Krusenstern.....	17.	1827
(Vostochnaia chast proliva Kupreanova mezhdou ostrovami Kadiakom i Afognakom s' opisi Shturm. Murasheva 1839-40 god * * *.) East part of Kuprianoff Strait, between Kadiak and Afognak Islands, after Murasheff	Rus. Hydr. Dept.	P. O. S. 9, 1378, ss.	1847

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Kadiak Island and vicinity—Continued.			
(Merkatorskaia karta proliva Kupreanova nahodiast-chakhosia mezhdu ostrovami Kadiakom i Afognakom * * *.) Portion of Kuprianoff Strait, etc., from Long Island to Cape Malinoff, from the same sources as the preceding	Rus. Hydr. Dept.....	P. O. S. 9, (1425.)	1849
(Karta ostrovoff Kadiaka ispravlennaia kolonialnimi morehodtsami Novo Arkhangelsk 1849.) Chart of Kadiak and part of Aliaska Peninsula. Tebenkoff's Atlas	Tebenkoff.....	XXII.	1849
(Karta sievero-vostochnoi storonie ostrova Kadiaka, etc.) Chart of the east end of Kadiak. From Tebenkoff's Atlas	Tebenkoff.....	XXIII.	1849
(Merkatorskaia karta Kadiakho Archipelaga * * * 1849.) Mercatorial chart of the Kadiak Archipelago, compiled by the Russian American Co. from the latest information. In Rep. of the Rus. Am. Co for 1848; St. Petersburg, 1849; colored.....	Rus. Am. Co		1849
Same as preceding, uncolored, in Hist. Rus. Am. Co., Vol. II, <i>ad fin</i>	Tikhmenieff		1863
MSS. reproductions by photography of several of the preceding, made for the W. U. Tel. Exp., with English lettering; are in the archives of the U. S. C. S.			
(Kodiak Island, Alaska, from Russian authorities, 1869) A very unsuccessful attempt at a reproduction of Tebenkoff's Chart XXII, with transliterated names, by photolithographing a very bad drawing	U. S. Hydr. Office		1869
Kaiak Island, Comptroller Bay.			
(Ostroff Kaiak, nazvannii Beringom v' 1741 godu ostrovom Sv. Ilii.) Kaiak Island, named St. Elias by Bering in 1741, Zap. Hydr. Dept., IX, 1851, p. 191, t. IX. A reproduction, to illustrate a paper by Sokoloff, of a remarkable chart drawn by Master Hitroff, or Khitroff, who accompanied Bering; representing the bay where Bering anchored, showing beyond question that it was west from Kayak, or Kaiak, Id., in Comptroller Bay	Khitroff.....	IX.	1851
Kaigahnee Harbor, Cordova Bay.			
(Gavan Kaigan v' arhipelagie Prints Vallieskakho * * * s' karti Kapitana Etolina 1833 goda.) From observations by Etolin in 1833.....	Rus. Hydr. Dept ...	P. O. S. 1396, ss.	1848
(Kaigane muis * * * s' karti Etolina.) Tebenkoff's Atlas ..	Tebenkoff.....	IX, ss.	1849
(Caigan Harbor.) Homfray's photographic chart for the W. U. Tel. Exp.; in U. S. C. S. archives. From Rus. Hyd., 1396.....	Homfray.....	ss.	1867
(Kaigan Harbor from Tebenkoff's Atlas.) C. S. Atlas of Harbor Charts of Alaska	U. S. C. S.	I.	1869
Kaknu River, Cook's Inlet, Alaska.			
(Ustie riki Kaknu v' Kenaiskom zalif s' karti Shturmana Chernova 1830 g.) Entrance of the Kaknu River, from obs. of Mate Chernoff, in 1830.....	Rus. Hydr. Dept....	P. O. S. 9, 1378, ss.	1847
(W' hod v' riku Kaknu * * * s' karti Chernova.) Tebenkoff's Atlas; same as preceding.....	Tebenkoff.....	V, ss	1849
Kamohatka.			
(Karte von der lage von Kamtschatka.) In Krasheninikoff's Hist. of Kam., p. 1.....	Krasheninikoff.....	A*.	1766

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Kamchatka —Continued.			
(Route de M. de Lesseps * * * dans la presqu'île de Kamtschatka et le long du golfe du Pengina depuis le port de St. Pierre et St. Paul jusque Yamsk.) Lesseps' Journal, Vol. I, p. I, 1790	Lesseps	(*)	1790
(Carte de la route de M. de Lesseps, consul de France, depuis Avatscha ou le port de St. Pierre et St. Paul, au Kamtschatka jusqu'à Paris, en 1787 et 1788.) Same source as preceding, Vol. II, p. I, 1790	Lesseps	(*)	1790
(No title.) Kamchatka and Kurile Ids., with tracks of Gore, Clarke, and La Perouse. "Sheet 3" of what?	Arrowsmith	3.	1793
With Bering and Okhotsk Seas in Bergh's Chron. Hist., etc., <i>ad fin.</i>	Bergh		1823
(Karta Kamchatskakho berega mezhdu shirotami 51° 30' i 54° 45', sostavlena iz raznih kart. Novo Arkhangelsk, 1849.) Tebenkoff's Atlas	Tebenkoff	XXXII.	1849
(Merkatorskaia karta vostochnakho okeana i Kamchatskakho berega mezhdu muisami Shipunskim i Poverotnim, s' Avachinskoiu gubiu. * * *.) Chart of Kamchatka between the Capes Poverotnoi and Shipunski, being the entrance to the Bay of Avatcha	Rus. Hydr. Dept.	P. O. S. 2a, 1453.	1851-62
(Puhti Shpanberga i Walona 1738-1739 godoff.) Spanberg and Walton's track. Zap. Hydr. Dept. St. Petersburg, IV, p. 190, 1851. Track chart about southern part of Kamchatka	Rus. Hydr. Dept.	IV.	1851
(Merkatorskaia karta vostochnakho okeana i Beringova moria s' polu-ostrovom Kamchatkoiu. Sostavlena * * *.) Chart of the Peninsula from Cape Lopatka to Cape Olutorsk	Rus. Hydr. Dept.	P. O. S. 4, 1454.	1851-62
(Polu-ostrov Kamchatka s' karti hidrogr. depart.) The peninsula from the charts of the Hydr. Dept. in the Zap. Hyd. Dept., X, p. 124, 1851	Rus. Hydr. Dept.	II.	1851
(Karta k' st. istoricheskii ocherk sobitii v' Kamchatkie i Okhotskom kraie.) A. S. Sgibneff in Morskoi Sbornik, April, 1869, vol. ci, No. 4, p. 142	Rus. Hydr. Dept.		1869
(Sketch map showing route of Rich ^d J. Bush during his travels and explorations in Northeastern Asia.) Track chart of Bush in his "Reindeer, Dogs and Snowshoes", <i>ad fin.</i>	R. J. Bush	(*)	1871
Karluk, Afognak Island, Kadiak group. (Prolif Shelikova.) Rep. Rus. Am. Co. for 1848, <i>ad fin.</i>	R. Am. Co.	ss.*	1849
Kah-sitz-nah Bay, Chugachik Bay, Cook's Inlet. Vellum tracing in C. S. archives	(?)		(n. d.)
Kenai Bay. See Cook's Inlet.			
Kenai, Fort. (Military reservation of Fort Kenay, Alaska, surveyed in pursuance of post order No. 24, dated Fort Kenay, Alaska, Sept. 5th, 1869.) MS. of Lieut. E. de Meulen, U. S. A. Copy in archives of the War Dept., Washington, D. C.	De Meulen	(*)	1869
Kiluluk Bay. See Kulliliak Bay.			
Kiriloff Bay, Amchitka Island, Aleutians. (Plan zalifa Kirilovskakho nahodiastch. na NO. storonie ostrova Amchitka * * * s' karti G. Ingenstroma.) From a survey by Ingenström	Rus. Hydr. Dept.	P. O. S. 7, 1400, ss.	1848

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Kirilloff Bay, Amchitka Island, Aleutians—Continued.			
(Plan d'un port sur la côte NE. de l'île d'Amchitka.) Lütke's Voy. Sén. partie Hydr., p. 338, 1835	Lütke .....	.....	1835
(Kirilloff Bay, Amchitka Island, from Ingenström's survey.) U. S. C. S. Atlas of Harbor Charts of Alaska. The character of this bay, which is of no value to navigation, is not well indicated by the charts of it	U. S. C. S.	8.	1869
Klaskino and Klaskish Inlets and anchorages, Vancouver Island.)			
D. Pender, R. N.	Brit. Adm.	590.	1862
Klemtoo Passage and anchorage.) D. Pender, R. N.	Brit. Adm.	1462, ss.	1872
Klokacheff. See Salisbury Sound.			
Klewnuggit Inlet, Grenville Channel) British Columbia. G. H. Richards, R. N.	Brit. Adm.	2189, ss.	1872
Kochek. See Middleton Island.			
Kodiak. See Kodiak.			
Koots-na-hoo Rapids, etc.			
(Koots-noo Rapids, from a sketch by G. Davidson.) Harbor Charts of Alaska	U. S. C. S.	[17.]	1869
(Plan of Kootznahoo Roads and Koteosok Harbor.) From obs. by R. W. Meade, jr., U. S. N.	U. S. Hydr. Office ..	225, ss.	1869
Korovinaki Bay; Atka Island, Aleutians.			
(Karta zalifa Korovinskakho, nahodiaschakhosia na sievero-zapadnoi storonie ostrova Atkhi * * *)	Old Rus .....	.....	(n. d.)
(Zalif Korovinskoi * * *) Tebenk. Atlas	Tebenkoff	XXVII, ss.	1849
(Korovinsky Bay, Atka Island, from Tebenkoff's Atlas.) C. S. s of Harbor Charts	U. S. C. S.	8.	1869
Kotzebue Sound. See also Eschscholtz Bay; Chamisso Islands; and Arctic Coast.			
(Kotzebue's Sound * * *) Kotzeb. Voy., II, p. 1.	O. v. Kotzebue .....	.....	1821
Krestoff, Port. See Cross Harbor.			
Kukak Bay, Aliaska Peninsula.			
(Zalif Kukak na vostochnom beregu polu-ostrova Aliaski s' opisi shturmana Vasilieva 2 ^o 1831 * * *) From obs. by Vasilieff, junior, 1831	Rus. Hydr. Dept.	P. O. S. 9, 1378, ss.	1847
(Kukak Bay, surveyed by Mate Vasilieff.) U. S. C. S. Atlas of Harbor Charts of Alaska	U. S. C. S.	4.	1869
Kulliliak Bay, Unalashka Island, Aleutians.			
(Plan zalifa Kulliliaka legashchakho na 2 ^{oi} storonie ostrova Unalashki * * * s'dielan s' opisi proizvedennoi flota kapitanom Sarichevim v' 1792 godu.) Plan from obs. by Sarycheff in 1792 (Sar. Atlas ?)	Old Russ	XV.	n. d.
(Kiluluk Bay, Unalaska Island, from Capt. Saricheff's survey.) U. S. C. S. Atlas of Harbor Charts of Alaska	U. S. C. S.	6.	1869
Kuprianoff Harbor, Aliaska Peninsula.			
(Plan gavani Kupreianova * * * s' opisi Voronkovskakho, 1837.) Plan by Woronkoffsky	Rus. Hydr. Dept.	P. O. S. 8, 1379, ss.	1847
Kuprianoff Strait. See Kodiak.			
Kuril Islands.			
(Karte von der Kurilischen Inseln.) Krasheninikoff's Hist. of Kamch., p. 31.	Krasheninikoff	B*.	1766

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Kuril Islands —Continued.			
(Plan of the Kurile Islands and lands little known, situate in their vicinity, from a manuscript Chart in the Archives of Ochotsk communicated to Mr. Lesseps in 1788.) La Perouse's Atlas.....	Lesseps.....	69.	1798
(Plan des Isles Kuriles d'après un manuscrit des archives d'Ochotsk communiqué à M. Lesseps en 1788.) Same as preceding, but in L'Institut de France, Mém. Sci. Mor. et Polit., V, p. 42..	J. N. Buache.....	II.	1804
(Karta ostrovoff Kurilskih.) Krusenstern's Atlas, Rus. ed.....	Krusenstern.....	24.	1826
(Carte des Isles Kouriles.) Krusenstern's Atlas, French ed., 1827, dedicated to Golofnin.....	Krusenstern.....	24.	1827
(Karta ostrovoff Kurilskih sievernih, ispravlennaia kolonialnimi morekhodtsami, Novo Arkhangelsk 1849.) Tebenkoff's Atlas. Northern part.....	Tebenkoff.....	XXXIII.	1849
(Karta ostrovoff Kurilskih iuzhni, etc.) Tebenkoff's Atlas; southern part of the chain including Iturup.....	Tebenkoff.....	XXXIV.	1849
(Gavan Ottomai * * *.) Ottomai Harbor, Paramushir Island, First Kuril Strait.....	Tebenkoff.....	XXXIII, ss.	1849
(Gavan na O. Urup.) Harbor on Urup Island. Kurils, lat. 46° N.	Tebenkoff.....	XXXIV, ss.	1849
(Puti Spanberga i Waltona, 1738–39 godoff.) Track of Spanberg and Walton in 1738, with the islands as first surveyed by them. Zap. Hydr. Dep., IX, p. 191, 1851. A. Sokoloff.....	Rus. Hydr. Dept.....	IV.	1851
(Nipon to Kamchatka.) From Krusenstern's Atlas.....	Brit. Adm.....	2405.	1849–73
(Little Kuril Strait).....	Brit. Adm.....	2405, ss.	1849–73
Kwathiaski Cove. See Quathiaski Cove.			
Kynumpt Harbor, Seaforth Channel. D. Pender, R. N.....	Brit. Adm.....	1901.	1868–72
Kyska Harbor, Kyska Island, Aleutians.			
(Chart of Kyska Harbor, Great Kyska Island, Aleutian Islands, 1875.) From obs. by W. H. Dall and party, 1874.....	U. S. C. S.....	(29.)	1875
Kyuquot Sound, W. side Vancouver Island. G. H. Richards, R. N.....	Brit. Adm.....	717.	1863
Lama Passage and Seaforth Channel. D. Pender, R. N.....	Brit. Adm.....	2449.	1872
Latouche Island and anchorages.			
(Karta prolifa v' Chugatskuiu gubu mezhdu Amerikanskim beregom i ostrovom H' likahlik; s' pokazaniem udobnih iakornih miest, sochinena s' opisi uchinennoi v' 1790 godu * * *.) Anchorage on the west side of the island.....	Old Rus.....		(n. d.)
Liesnoi. See Woody.			
Lindenberg Harbor, Peril Strait, Alaska.			
(Lindenberg Harbor from a sketch by G. Davidson.) Harbor Charts of Alaska.....	U. S. C. S.....	(18.)	1869
Lituya Bay, or Port des Français, Alaska.			
(Plan of Port des Français on the northwest coast of America * * * discovered July, 1786, by the Boussole and Astrolabe.) La Perouse's Atlas, 1798.....	La Perouse.....	19.	1798
(Karta zalifa Altuya na beregu sievero zapadnoi Ameriki * * * s' karti La Peruza.) Same, after La Perouse. Sarycheff's Atlas?.....	Old Rus.....	XVIII.	n. d.
(Karta w'hoda v' zalif L'tuya * * * s' karti Laperuza.) Tebenkoff's Atlas, from La Perouse.....	Tebenkoff.....	VII, ss.	1849

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Lituya Bay, or Port des Français, Alaska—Continued.			
(Altuya Bay from La Perouse's survey.) U. S. C. S. Atlas of Harbor Charts of Alaska, 1869.....	U. S. C. S.	4.	1869
(Sketch of Lituya Bay, Alaska, 1875.) From observations by W. H. Dall and party, and from La Perouse. Harbor charts of Alaska	U. S. C. S.	(20.)	1875
(Sketch of entrance to Lituya Bay, Alaska, 1875.) From observations by W. H. Dall and party in 1874. Harbor Charts of Alaska.	U. S. C. S.	(20.)	1875
Lowe Inlet, Grenville Channel.) D. Pender, R. N.	Brit. Adm.	2189, ss.	1872
Lütke Harbor, St. Lawrence Bay, Bering Strait.			
(St. Lawrence Bay, showing Lütke's Harbor, by the U. S. ship Vincennes, Lieut. John Rodgers, Sept. 1855.) From obs. by the U. S. N. Pac. Expl. Exp.	U. S. Hydr. Off.	60.	1855
Mackenzie River. See also Track Charts (Mackenzie).			
(A map of Mackenzie's track from Fort Chippewyan to the North Sea in 1789.) Mackenzie's Voyage from Montreal to the Frozen and Pacific Oceans; 4to, London, 1801, p. 1.....	Mackenzie	(*)	1801
(Carte du Bassin du Mackenzie dressé de 1862-1873 par E. Petitot, missionnaire oblat de Marie I.) Bull. Soc. de Geogr. Paris, Juillet, 1875. Covers region from Great Slave Lake to the mouth of the Mackenzie. The modifications introduced do not rest on astronomical observations	Petitot.	(*)	1875
McLaughlin Bay, Lama Passage) British Columbia, from obs. by D. Pender, R. N.	Brit. Adm.	1901.	1868-72
McLeod Harbor, Prince William Sound.			
(Sketch of McLeod's Harbour, on the west side of Montague I., by Nathaniel Portlock, 1787.) Portlock's Voyage, p. 206.....	Portlock		1789
Manilla to Avatcha Bay.			
(Chart of discoveries made in 1787, in the seas of China and Tartary, between Manilla and Avatcha, by the Boussole and Astrolabe.) La Perouse's Atlas	La Perouse.	39.	1798
Mary; Port, west coast Kruzoff Island, Alaska.			
(V'zalife Shelikhova ili Port Meri nebolshoi zalifets udobnii dlia iakornoi stoiarki, opisannii Leitenant Rikordom i shturman Khliebnikovim v' 1810 * * *.) A small cove in Port Mary, convenient for anchorage, from observations by Ricord and Khliebnikoff in 1810.....	Rus. Hydr. Dept.	P. O. S. 9, 1378, ss.	1847
Massacre Harbor, Attu Island, Aleutians.			
(Plan gavanii Ubiennoi na SO. storonie O. Attu * * *.) Plan of the Harbor in Krusenstern's Atlas. Rus. ed., 1826.....	Krusenstern	18, ss.	1826
(Plan de la baie du Massacre sur la côte SE. de l'isle Attou.) Krusenstern's Atlas, French ed., 1827	Krusenstern	18, ss.	1827
(Plan vostochnoi chastii ostrova Attu.) Plan of the eastern shore of Attu Island.....	Rus. Hydr. Dept.	P. O. S. 7, 1400, ss.	1848
Meares, Port; NW. coast of America.			
(A view of Port Meares.) Meares' Voyages, p. 329.....	J. Meares	(*)	1790
Menzies Bay, Discovery Passage) British Columbia. From obs. by G. H. Richards, R. N.	Brit. Adm.	580, ss.	1860-70
Metla-katla Bay, British Columbia.			
(Metla katla Bay.) Copied from British Admiralty Chart No. 364.	U. S. Hydr. Off.	259.	1870

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Metla-katla Bay, British Columbia—Continued. (Duncan Bay and Metlah-catlah Bay, surveyed by Capt. G. H. Richards, R. N., etc.) Corrected to 1872.....	Brit. Adm.....	364	1862-72
Middleton Island, Gulf of Alaska; (Ochek or Kochek.) (Sketch of Middleton Island, Alaska, 1875.) From obs. by W. H. Dall and party in 1874. Harbor charts of Alaska.....	U. S. C. S.....	(16.)	1875
Möller, Port; north side of Aliaska Peninsula. (Sketch of Port Möller, north side Aliaska Peninsula, Bering Sea, 1875.) From obs. by W. H. Dall and party in 1874. Harbor Charts of Alaska.....	U. S. C. S.....	(30.)	1875
Moore, Port; and Point Barrow, Arctic Ocean. (Barrow Point and Port Moore, by Thomas Hull * * *.).....	Brit. Adm.....	2164.	1853
Mountain Ranges of Western N. America. (Gebirgsverbreitung in der westlichen Haelfte Nord Amerika's von C. Grewingk.) Grewingk's Beitr. <i>ad fin.</i> St. Petersburg, 1850.	Grewingk.....	I.	1850
Mulgrave, Port; Yakutat Bay, Alaska, and vicinity. (Sketch by compass of Port Mulgrave * * * 1787.) Dixon's Voy., p. 171, 1788.....	Dixon.....		1788
(Gavan Beringova zalifa pri sievero-zapadnih beregah Ameriki.) Probably from Sarycheff's Atlas, about 1802, representing Rurik Harbor, opposite Port Mulgrave, in Yakutat Bay. No number, date, or author.....	Old Russ.....		
(Plan del puerto de Mulgrave trabajado à bordo de las corvetas Descubierta y Atrevida, de la Marina Real, Año 1791.) Galiano's Atlas.....	Malespina.....	8.	1802
(Plan du Port Mulgrave.) Atlas to de Mofras' Voy., No. 22. Absolute copy of preceding chart by Malespina.....	De Mofras.....	22.	1844
(Gavan Riurika v'zalif Iakutat s'opisi leitenanta Khromchenko 1823 * * *.) Rurik Harbor from obs. by Khromchenko in 1823, situated opposite Port Mulgrave, in Yakutat Bay.....	Rus. Hydr. Dept....	P. O. S. 9, 1378, ss.	1847
(Karta iakornih miest zalifa Iakutat, etc.) Tebenkoff's Atlas. Anchorages in Yakutat Bay.....	Tebenkoff.....	VII, ss.	1849
(Plan of Port Mulgrave.) Britton and Rey's large wall map of Alaska.....	Brit. and Rey.....	ss.	1867
(Port Mulgrave, from Russian charts.) U. S. C. S. Atlas of Harbor Charts of Alaska.....	U. S. C. S.....	4	1869
(Port Mulgrave, Yakutat Bay, Alaska, 1875.) From obs. by W. H. Dall and party in 1874, with a subsketch of the bay included. Harbor charts of Alaska.....	U. S. C. S.....	(21.)	1875
Namu Harbor, Fitzhugh Sound.) D. Pender, R. N.....	Brit. Adm.....	1901.	1868-72
Nanaimo Harbor, British Columbia. (Nanaimo Harbor, etc.) G. H. Richards, R. N.....	Brit. Adm.....	573.	1862-65
(Nanaimo Harbor and Departure Bay, etc.) G. H. Richards, R. N.....	Brit. Adm.....	2512.	1859-66
Nanoose Harbor) British Columbia. G. H. Richards, R. N.....	Brit. Adm.....	585.	1860-64
Narrow Strait, Kodiak Island, Alaska. (Uzinkakho prolifchika Uz Kost.) Tebenkoff's Atlas. Near St Paul.....	Tebenkoff.....	XXIII, ss.	1849
Nasparti and Ou-ou-kinah Inlets;) British Columbia. G. H. Richards, R. N.....	Brit. Adm.....	716.	1863
Nase Bay, etc.) From obs. by D. Pender, R. N.....	Brit. Adm.....	2190.	1872

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Nass River, British Columbia. (Sketch of the Nass River, etc.).....	Brit. Adm.....	2190, ss.	1872
Naval Reserve, Vancouver Island.) G. H. Richards, R. N.....	Brit. Adm.....	572 a.	1863-64
Nazan Bay, Atka Island, Aleutians. (Zalif Nazan * * *.) Tebenkoff's Atlas.....	Tebenkoff.....	XXVII, ss.	1849
(Bay of Nazan, etc.) U. S. N. Pac. Ex. Exp.....	U. S. Hydr. Office ..	8, ss.	1868
(Nazan Bay, Atha Island, from Tebenkoff's Atlas.) C. S. Atlas of Harbor Charts of Alaska.....	U. S. C. S.....	8.	1869
Nearer Islands. See Aleutian Islands.			
Neville, Port); British Columbia. G. H. Richards, R. N.....	Brit. Adm.....	630.	1860
New Northern Archipelago. See Aleutian Islands.			
New World. (Mapa del Nuevo Mundo.) In Muñoz Historia del Nuevo Mundo, 1793, p. 1, 8vo. Madrid.....	J. B. Muñoz.....	(*)	1793
Nimkish River, entrance to. G. H. Richards, R. N.....	Brit. Adm.....	2067.	1860-67
Nootka Sound, Vancouver Island, Brit. Col. (A sketch of Nootka Sound * * * 1778.) Cook's Voy., II, p. 278.....	Capt. Cook.....	37.	1784
(Karta zunda i zalifa Nutki etc. s' karti G ^{na} Kuka.) Derived from Cook.....	Old Russ.....	XXI.	n. d.
(Nootka Sound, etc.) Compiled from Cook, Vancouver, and a Spanish MSS., with a plan of Friendly Cove by Belcher.....	Brit. Adm.....	1916.	1849
(Nootka Sound * * *.) On large chart of "NW. Coast of America" by Imray.....	Imray & Son.....	ss.	1853
(Nootka Sound * * *.) G. H. Richards, R. N.....	Brit. Adm.....	1916 ² .	1862-66
Norfolk Sound. See Sitka.			
North America. (Maps and charts relating in some especial par- ticular to the NW. region of the continent.) (A map of America between Latitudes 40° and 70° North and longi- tudes 80° and 150° West, exhibiting the principal trading sta- tions of the North-West Company.) Notice resp. the boundary, etc., <i>ad in</i>		(*)	1817
(Carte d'une partie de l'océan arctique et de l'Amérique septentrio- nale, pour expliquer d'après les relations de Maldonado, de l'Amiral de Fonte, du Capitaine Bernarda et les découvertes récentes, etc.) Nouvelles Annales des Voyages, XI, 1821, <i>ad in</i> ..	Lapie.....	(*)	1821
(North America, etc.) Showing the disputed boundaries; Falcon- er's Discovery of the Mississippi, etc., 1844, <i>ad in</i>	Falconer.....	(*)	1844
(North coast of America. Sheet 1. Pt. Barrow to Cape Krusen- stern, etc.) From obs. by Sir John Franklin, Dease & Simpson.	Brit. Adm.....	1711.	1845-49
(Aboriginal map of North America, denoting the boundaries and locations of various Indian tribes.) Report of select committee on the Hudson's Bay Company, 1857.....	Arrowsmith.....	(*)	1857
(North America, etc.) Chesapeake Bay to Bering Strait. From rep. select com. on the Hudson's Bay Company, 1857.....	Arrowsmith.....	(*)	1857
Russian, British, and American possessions in 1866. Harper's Mag., xxxv, p. 206.....	Harper Bros.....	(*)	1867
Northeastern Asia. See Asia, Siberia, and Arctic Shores of Asia.			

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Northeast Harbor, Shumagin Islands, Alaska.			
(Sketch of Northeast Harbor, Shumagin Is., Alaska, 1875) From obs. by W. H. Dall and party, 1874.....	U. S. C. S	(15.)	1875
North Pacific Ocean.			
(To the right honorable the lords commissioners for executing the office of Lord High Admiral of Great Britain this chart of the Northwest Coast of America, with the tracks of the King George and Queen Charlotte in 1786 and 1787, is inscribed by their lordships' most obedient and devoted servant George Dixon.) In Dixon's Voy., p. iii, London, Dec. 24, 1788. Covers the region from Berkeley Sound to the Shumagin Islands	Dixon		1788
(A chart of the Northwest Coast of America, with the tracks of the King George and Queen Charlotte in 1786 and 1787 by N. Portlock * * * *.) Portlock's Voy., p. 1, 1789	Portlock		1789
(Chart of the world on Mercator's projection exhibiting all the new discoveries * * * with the tracks of the most distinguished navigators * * * * by A. Arrowsmith, geographer.) This chart is in six sheets, none having subtitles, the above title (and more) appearing on the first sheet. Tracks of Cook, Bering, etc., are shown on the Northern Pacific sheet; equator to lat. 80° N.....	Arrowsmith	(1.)	1790
(A chart of the Northern Pacific Ocean, containing the NE. coast of Asia and NW. coast of America explored in 1778 and 1779 by Captain Cook and further explored in 1788 and 1789, by John Meares.) In Meares' Voy., p. 1, covering from 10° S. to 75° N. Lat., with tracks of Meares and Douglas.....	Meares		1790
(Carte réduite de la partie du Grand Océan, comprise entre le Japon et la Californie. Dressée d'après les observations de Cook, La Perouse et autres navigateurs modernes avec un plan de cette même partie extrait de la Mappemonde Japonaise rapportée par Kaempfer.) Buache in L'Institut de France, Mém. Mor. et Pol., 4to, 1798, t. 1, p. 492. Includes part of Bering Sea and Arctic Ocean	Buache	(*)	1798
(Chart of the coasts of America and Asia from California to Macao, according to the discoveries made in 1786 and 1787 by the Boussole and Astrolabe.) La Pérouse's Atlas, Engl. ed.....	La Pérouse	15.	1798
(A chart showing part of the coast of N. W. America, with the tracks of his Majestys sloop Discovery and armed tender Chatham, commanded by George Vancouver, esq., etc.) Vancouver's Voy. Atlas, 1798, covering region from San Francisco to Kadiak Island.	Vancouver	14.	1798
(No title.) Sheet 2 of Arrowsmith's Chart of the World, 1790....	Arrowsmith	(2.)	1790
(North part of the Great Ocean, etc.) Krusenstern's Voy., p. ix, 1811	Krusenstern		1811
(Carte de l'Océan Pacifique.) Acapulco to Bering Strait. De Mofras' Atlas	De Mofras	2.	1844
(Karta lotovitakho moria i vostochnakho okeana. Sostavlena s' noviemih opisei, etc.) Outline chart with Bering Sea and the Pacific Ocean	Rus. Hydr. Dept....	1345.	1844
(Karta vostochnakho okean, 1851.) In Zapiski Hydr. Dept., IX, p. 190. Chart of the Northern Pacific on a small scale.....	Rus. Hydr. Dept....	II.	1851

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
North Pacific Ocean—Continued.			
(Track chart of the North Pacific Surveying Expedition, John Rodgers, U. S. N., commanding, 1854-1856) n. d.	U. S. Hydr. Office		
General outline chart taking in Bering Sea to Arctic Ocean, Vancouver Id. to Central Siberia. Tikhmenieff's Hist. Rus. Am. Co., II, <i>ad fin.</i>	Tikhmenieff		1861
(Carta esférica del océano Pacífico [Hoja II] que comprende el estrecho de Behring. Direccion de hidrografia, Madrid, 1864.) Yakutat Bay to Copper Island; equator to Arctic circle	Span. Adm.	467.	1864
(North Pacific.) General sailing chart from equator to lat. $67\frac{1}{2}^{\circ}$ N. between the shores of the Pacific	Imray & Son		1869
(North Pacific Ocean, Sheet 1. * *.) Includes the region from Kamchatka to the Chusan Islands	Brit. Adm.	2459.	1859-74
Same. New ed.	Brit. Adm.	2459.	1877
(Same. Sheet 2.) Bering Strait to lat. 30° N	Brit. Adm.	2460.	1859-72
(Same. Sheet 3.) Cook's Inlet to the Gulf of California	Brit. Adm.	2461.	1859-74
(Same. Sheet I.) Eastern part, including from the Galapagos Islands to Mt. St. Elias	U. S. Hydr. Office ..	11.	1869-74
(Same. Sheet II.) Middle part. Equator to Bering Strait	U. S. Hydr. Office ..	10.	1872-74
(Same. Sheet III.) Western part. Sumatra to Cape Lopatka, Kamchatka	U. S. Hydr. Office ..	12.	1868-74
(Same * Eastern part * *.) Cape Corrientes, Mexico, to Kadiak Island. F. J. Evans, R. N.	Brit. Adm.	787.	1877
(Explorations dans la Sibérie orientale l'Amerique Russe et les régions polaires.) Sachot's La Sibérie Orientale, Paris, 8vo, 1875, p. 368.	O. Sachot	(*)	1875
Northwest Coast of America.			
(Partie Nord-Ouest de l'Amerique.) Robert and Vaugondy's Atlas Universel, Paris, 1757	Vaugondy	102.	1757
(Nouvelle carte des decouvertes fait par des vaisseaux Russiens aux côtes inconnues de l'Amerique septentrionale avec les pais adjacents. A St. Petersburg à l'academie Impériale des Sciences, 1758.) In Müller's Voy. et Decouvertes, etc.	G. F. Müller		1758
(Carte des terres aux environs du Japon ou du Nord-Est de l'Asie et du Nord-Ouest de l'Amerique. Extraite d'une carte Japonnoise de l'univers apportée en Europe par Kaempfer, etc.) Mém. de l'Acad. Roy. des Inscr. et Belle-Lettres, t. 28, p. 502, Paris, 1761	de Guignes	I*.	1761
(Cartes des terres nouvellement connues au nord de la mer du sud, tant du côté de l'Asie que de côté de l'Amerique, etc. Avec la route des Chinois en Amériques vers l'an 458 de J. C.) Same source and place as preceding. One of a series of maps by different authors, illustrating what afterward proved to be a forged Chinese narrative of early migration to America (Fu Sang) ..	de Guignes	II*.	1761
(A map of the discoveries made by the Russians on the Northwest Coast of America. Published by the Royal Academy of Sciences at St. Petersburg.) Jefferys' edition of Müller's Voy. from Asia to America, p. I., 1764	Jefferys	(*)	1764

† NOTE.—There are probably many charts of this description issued by various private persons, not important for geographical researches and which are not in this list, and have not been especially sought for.

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Northwest Coast of America—Continued.			
(Carte de la partie septentrionale et occidentale de l'Amerique d'apres les relations les plus recentes, dressées en 1764 par M. * * *.) S. Engel's Mémoires et Obs., etc	S. Engel	(*)	1764
(Carte de la partie septentrionale et orientale de l'Asie, qui comprend le Grande Tartarie, le Kamschatka et Iesso avec la mer glaciale et ses côtes, dressée en 1764 par M. * * *.) Engel's Mém. et Obs., p. 1	S. Engel	(*)	1764
(Carte de comparaison des plans systematiques de MM. Engel et de Vaugondy, sur le nord-est de l'Asie et le nord-ouest de l'Amerique avec le plan des cartes modernes.) Buache's Mém. sur les pays de l'Asie, etc., <i>ad fin</i>	J. N. Buache	(*)	1775
(No title.) San Blas to Bucareli Bay; in Pallas' N. Nord. Beitr., Bd. III, <i>ad fin.</i> , 1782	Pallas	II.	1782
(Northwest Coast of America.) Atlas to Cook's Voyages, London, 1874	Jas. Cook	36.	1784
(Carta geografica de la costa occidental de la California que se descubrio en los años 1769 y 1775 por Don Francisco de Bodega y Quadra y Don Jose Canizares desde los 17 hasta los 58 grados.) Small map engraved by Manuel Villavicencio at Mexico in 1788.	Villavicencio	(*)	1788
(A chart of the interior part of North America demonstrating the very great probability of an inland navigation from Hudson Bay to the west coast) Meares' Voy., p. xl	Meares		1790
(Fragment de la carte reduite d'une partie de l'Amerique septentrionale. Par le Cap. John Meares.) Fleurieu's Voy. autour du monde, etc., IV, <i>ad in</i>	Fleurieu		1791
(Karte des nordens von America, zur beurtheilung der wahrscheinlichkeit einer Nordwestlichen durch-fahrt, 1791.) Forster's edition of Meares' Voyage, p. 2	Forster		1796
(Chart of the Pacific Ocean, drawn from a great number of printed and MS. journals, by A. Arrowsmith, geographer [etc.] London, 1798.) Guadalupe Island, California, to Cape Caution, British Columbia	Arrowsmith	(I.)	1798
(No title.) Covering the portion from Cape Caution to Attu Island, with tracks of Cook and Vancouver. Second sheet of preceding chart, intended to be joined on	Arrowsmith	(2.)	1798
(Chart of part of the northwest coast of America explored by the Boussole and Astrolabe, laid down conformably to the situation of the Boussole every day at noon as determined astronomically by Mr. Dagelet.) Covers Monterey, Cal., to Mt. St. Elias. La Pérouse, atlas to the English edition	La Pérouse	16.	1798
(Chart of the northwest coast of America, explored by the Boussole and Astrolabe in 1786, 1st sheet.) Same, covering coast from Queen Charlotte Ids. to Mt. St. Elias. Same source as preceding chart	La Pérouse	17.	1798
(Same, 2d sheet.) Same, southward from Queen Charlotte Ids. Same source as the two preceding charts	La Pérouse	29.	1798
(Carta esferica de los reconocimientos hechos en la costa N. O. de America en 1791 y 1792 por las goletas Sutil y Mexicana, etc.) Covering Washington Territory and Vancouver Island. Alcalá-Galiano's Atlas to the Voy. of the Sutil, etc.	Ma'espina	2.	1802

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Northwest Coast of America—Continued.			
(Continuacion de las costa N. O. de América por las buques de S. M. en varias campañas desde 1774 á 1792.) Atlas to Alcala-Galiano's Voy., covering coast from Dixon Entrance to Unalashka. (Carte de la côte Nord-Est de la mer du Sud—par M. de Laborde.) This is a folio map, reproducing the coast lines of Cook, La Perouse, Dixon, and Meares, separately, and one compiled from them, with an attempted reconciliation of differences. No date, but probably about 1800–1810. In the collection of the Royal Geogr. Soc. of London.....	Galiano	3.	1802
(Map of the western and middle portions of North America, to illustrate the history of California, Oregon, and the other countries on the Northwest coast of America, by Robert Greenhow.) In Hist. of Oregon and Cal. by Greenhow, p. 1.....	Laborde		
(No title.) NW. coast from San Francisco to Mt. St. Elias, in Nicolay's Oregon Territory. London, 18mo, 1846, p. 102.....	Greenhow	(*)	1845
(Queen Charlotte's Id. to Cape Mendocino).....	Nicolay	(*)	1846
(Côte nord-ouest de l'Amérique, etc.) Covers Queen Charlotte Ids. to California	Imray & Son		1853
Cape Fairweather to Lake Nicaragua.....	French Adm.....	1979.	1862
(North West Coast of America. Sheet No. 1. Cape Flattery to Dixon Entrance)	Span. Adm.....	470.	1863
(Same. Sheet No. 2. Dixon Entrance to Cape St. Elias).....	U. S. C. S.....	700.	1870
(Same. Sheet No. 3. Icy Bay to Seven Islands).....	U. S. C. S.....	701.	1870
	U. S. C. S.....	702.	1870
Northwest Harbor, Shumagin Islands, Alaska.			
(Sketch of Northwest and Yukon Harbors, Shumagin Is., Alaska, 1875.) From observations by W. H. Dall and party in 1874 ..	U. S. C. S	(16.)	1875
Norton Sound, Alaska Territory.			
(Plan de l'anse Tebenkoff (Baie de Norton) * * * 1833.) Lütke, Voy. Sén. partie Hydr., p. 261. Anchorages in the south part of Norton Sound.....	Lütke		1835
(Karta zalifa Norton ispravlennaia kolonialnimi morehoditsami Novo Arkhangelsk 1849.) Tebenkoff's Atlas, Norton Sound...	Tebenkoff	III.	1849
(Karta chasti zalifa Norton i zalifa Tebienkova s' opisi Rossiiskakho skipera Arkhimandritova, 1864.) Chart of Norton Sound and Tebenkoff Cove, St. Michael's. Photograph from Archimandritoff's MSS. chart for use of W. U. Tel. Exp. in 1865; U. S. C. S. Archives.....	Archimandritoff.....	58.	1864–7
(Northwestern America from Port Clarence to mouth of the Kwichpak River, compiled from Russian charts and surveys of the W. U. Tel. Exp., etc.) MSS. in archives	M. Kadin		(1867)?
Nowish Cove, Finlayson Channel.) D. Pender, R. N.	Brit. Adm.....	1462, ss.	1872
Nuchek. See Port Etches.			
Nunivak Island, Bering Sea.			
(Karta ocherka NW. berega Ameriki okola ostrova Nunivak sostavlennaiia kolonialnimi morekhoditsami Novo Arkhangelsk, 1849.) Chart of Nunivak Island and vicinity. Tebenkoff's Atlas.	Tebenkoff	III.	1849
(Sketch of anchorage at Cape Etolin, Nunivak Island, Bering Sea, 1875.) From obs. by W. H. Dall and party in 1874. Harbor Charts of Alaska.....	U. S. C. S	(31.)	1875

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Ochek. See Middleton Island.			
Ogden Channel, British Columbia. (Ogden Channel with anchorages between Cape Caution and Port Simpson.) From observations by Dan'l Pender, R. N.	Brit. Adm.	1901.	1868-72
Okhotsk Sea. See also Eastern Siberia and Kamchatka. (Chart showing the track of the author's cruise.) In Whittingham's Notes, 12mo, London, 1856, p. 1	Whittingham		1856
(Okhotsk.) Geological map and section in the vicinity of Okhotsk Port. Erman's Archives, XXII, p. 534, 1863	P. Herter	VIII*.	1863
(Karte Japanischen und Ochotskischen meeres mit angabe der Strömungen, 1867.) Okhotsk and Japan Seas, Schrenck's Reisen in Amurl., Bd. II, Lief. III, pl. xxix, 1867	Schrenck	XXIX*.	1867
(Sea of Okhotsk from Russian charts of 1849-51)	Brit. Adm.	2388.	1868
Olga Strait or Gulf. See Salisbury Sound.			
Oliutorsk Cape, Kamchatka, Bering Sea. (Karta chasti Beringova moria i muisa Oliutorskakho. Sniata K. F. Sh. podporuchikom Maksimovim na kliperie <i>Vsadnik</i> v' 1876 godu.) Chart of the shore of Bering Sea near Cape Oliutorsk, from obs. by Col. Maximoff, of the clipper <i>Vsadnik</i> , in 1876. Photolith	Rus. Hydr. Dept ...	I.	1877
Oliutorsk Bay. (Merkatorskaia karta Oliutorskoi Gubi sostavlennaiia po opisi lei tenanta Onatsevicha v' 1876 godu.) Chart of Oliutorsk Bay made in 1876; in Onatsevich, <i>Sobranie</i> etc., St. Petersburg, 1878, 4to, p. 76	Onatsevich		1878
Oregon Territory; The. (See also Boundary maps.) (Map of Oregon.) In Kelley's <i>A Geographical Sketch of Oregon</i> , Boston, 1830, 8vo, p. 1.	H. J. Kelley	(*)	1830
(Map of Oregon Territory, 1838.) In Parker's <i>Journal of an exploring tour</i> , etc.	S. Parker	(*)	1838
(Map of the Oregon Territory.) In <i>The Oregon Question examined</i> , etc., by Travers Twiss, 8vo, London, 1846, p. 1	T. Twiss	(*)	1846
(Map of the United States Territory of Oregon), etc. In Robertson's <i>Oregon, our right and title</i> , etc., 1846	Robertson	(*)	1846
Otter Cove, Discovery Passage), British Col.	Brit. Adm.	580, ss.	1862-67
Otter Sound, N. W. Coast of America. (A view of Otter Sound.) Meares' <i>Voy.</i> , p. 327	J. Meares		1790
Ottomai Harbor. See Kuril Islands.			
Ouiak Bay, Alaska. (Ouiak Bay and River, surveyed by Capt. Archimandritoff, R. A. Co., 1860.) MSS. in U. S. C. S. Archives	Archimandritoff		1860
Oyster and Telegraph Harbors), Vancouver Island. From obs. by G. H. Richards, R. N.	Brit. Adm.	714.	1859-66
Pacific Ocean, Maps and charts of, having some special relation to the region of Alaska and adjacent Territories. See also North Pacific Ocean. (Pacific Ocean with track, etc.) Ellis' narrative of Cook's Voyage, vol. 1, <i>ad in</i>	Ellis		1783
(Reduced chart of the Pacific Ocean from one published in 9 sheets by A. Arrowsmith.) Includes lat. 60° S. to 60° N.	Arrowsmith		1798

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Pacific Ocean, Maps and charts of, etc.—Continued.			
(Chart of the great Pacific Ocean or South Sea to illustrate the voyage of Discovery made by the Boussole and Astrolabe in the years 1785-6-7-8.) Track chart, La Pérouse's Atlas, fol., 1798, English edition.....	La Pérouse.....	3.	1798
Track chart in Langsdorff's Voy., p. 1.....	Langsdorff.....		1814
(Carte de l'Océan Pacifique, etc.) In Atlas of Duflot de Mofras' Expl. de l'Oregon.....	De Mofras.....	2.	1844
(Pacific Ocean, etc.).....	Brit. Adm.....	2683.	1858-74
(Outline map of the North Pacific Ocean, showing the distribution of disabled Japanese Junks, etc.) Proc. Cal. Acad. Sci., San Francisco, 1876, 8vo, <i>ad fin.</i> Illustrating C. Walcott Brooks' Early Migrations, etc.....	C. W. Brooks.....	(*)	1876
Pedder Bay. See Beecher and Pedder Bays.			
Peel River, British Columbia.			
(Sketch map of Peel River.) Journal Roy. Geogr. Soc. of London, XV, 1845, <i>ad fin.</i>	A. K. Isbester.....	8*.	1845
Pender Harbor, Strait of Georgia), N. shore. G. H. Richards, R. N.	Brit. Adm.....	585.	1860-64
Petropavlovsk, Kamchatka. See also Avatcha.			
(Plan of the harbour off St. Peter and St. Paul. Surveyed by William Bligh, master of the Resolution.) Cook's Voy., III, p. 184.	W. Bligh.....	69, ss.	1784
(Petropaulski Harbour.) After Beechey's obs.....	Beechey.....	1040, ss.	1833
(Port Petropavlovsk.) Tebenkoff's Atlas.....	Tebenkoff.....	XXXII, ss.	1849
(Petropavlovskaya gavan.) From imperial surveys in 1849 and the U. S. Expl. Exp.....	Rus. Hydr. Dept...	P. O. S. 2a, 1453.	1851-62
Phipps, anchorage at Cape. See Port Mulgrave.			
Plover Bay, Eastern Siberia. See also Slavianska Harbor.			
(Plover Bay, Eastern Siberia, Asia.) From obs. by C. M. Scammon, W. H. Dall, and others. U. S. C. S. Atlas of Harbor Charts of Alaska.....	U. S. C. S.....	9.	1869
(Plan bukhti Provideniia * * * Maksimovim na kliperie "Vsadnik" v' 1876 godu.) Plan of Port Providence or Plover Bay, from obs. by Col. Maximoff, of the clipper Vsadnik, in 1876. Photolithograph.....	Rus. Hydr. Dept...	II.	1877
(Plan reida Plover nahodistchagosa v' bukhti Provideniia * * * 1876.) Plan of Plover Anchorage, Port Providence. Same source as the preceding chart.....	Rus. Hydr. Dept...	II, ss.	1877
(Plan iuzhnoi chasti bukhti Provideniia po instrumentalnoi semkie i trianguliashi leitenanta Onatsevicha v' 1876 g.) Plan of the southern part of Port Providence, from surveys by Lieut. Onatsevich; in Sobranie etc., St. Petersburg, 1878, 4to, p. 76..	Onatsevich.....		1878
(Karta berega Chukotskakho polu-ostrova ot bukhti Provideniia do muisa Chaplina * * *.) Chart of the vicinity of Plover Bay from Table Point to Point Chaplin, from obs. of the clipper Vsadnik in 1876. Onatsevich in Sobranie etc., 4to, St. Petersburg, 1878, p. 76.....	Onatsevich.....		1878
(Die Plover Bai.) Petermann's Mittheilungen, Bd. 25, IV, p. 139, 1879. A cut in text, derived from Dall's chart of 1869 and other authorities; scale 1:450,000.....	Hassenstein.....		1879

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Plumper Cove. <i>See Shoal Channel.</i>			
Popoff Strait, Shumagin Islands, Alaska. (Popoff Strait and Humboldt Harbor, Alaska, 1872.) From obs. by W. H. Dall and party in 1872. Harbor Charts of Alaska	U. S. C. S.	II.	1872
Port des Français. <i>See Lituya.</i>			
Portlock Harbor, NW. coast of America. (Sketch of Portlock's & Goulding's harbours on the northwest coast of America.) Portlock's Voy., p. 258, 1789	Portlock		1789
Pribiloff Islands, Bering Sea. <i>See also St. George and St. Paul Islands.</i> (Karta ostrovoff Pribilova ispravlennai kolonialnimi morehod- tsami. Novo Arkhangelsk, 1849.) Tebenkoff's Atlas	Tebenkoff	XXI.	1849
Manuscript chart embodying a later survey of Archimandritoff; unpublished, in C. S. archives	Archimandritoff		1864
(Chart of the Pribiloff Islands, Bering Sea, Alaska, 1875.) From obs. by W. H. Dall and party in 1874. On this chart the islands are for the first time correctly located	U. S. C. S.	(32.)	1875
Prideaux Haven, Desolation Sound), British Columbia. G. H. Richards, R. N.	Brit. Adm.	580, ss.	1860-70
Prince William Sound. <i>See Chugach Gulf.</i>			
Protection: Port, Prince of Wales Island, Alaska. (A Survey of Port Protection.) Vancouver's Atlas	Vancouver	12, ss.	1798
(Plan zalifa Proteksion * * * * na ostrovie Bobrovom * * * * s' karti G. Vankuvera.) Plan of same from Van- couver's obs.	Old Rus	XX.	(n. d.)
(Port Protection from Vancouver's survey.) C. S. Atlas of Har- bor Charts of Alaska	U. S. C. S.	3.	1869
Providence; Port, or Bay. <i>See Plover Bay.</i>			
Pyramid Island Harbor); mouth of the Chilkah River. From obs. by R. W. Meade, jr., U. S. N.	U. S. Hydr. Office ..	225, ss.	1869
Qwlawdzeet Anchorage, Brown Passage); Brit. Col. From obs. by D. Pender, R. N.	Brit. Adm.	2453, ss.	1872
Quathiaski Cove and Gowlland Harbor); Valdes Island, Brit. Col. G. H. Richards, R. N.	Brit. Adm.	2067, ss.	1860-67
Quatsino to Esperanza, including Kyuquot Sound.) G. H. Richards, R. N.	Brit. Adm.	583.	1863
Quatsino Sound.) From obs. by G. H. Richards, R. N.	Brit. Adm.	570.	1862
Queen Charlotte Islands, British Columbia. <i>See also Skidegate Inlet.</i> In the MSS. log of Capt. Ingraham (one of the discoverers of the Columbia River and the first explorer of the eastern shore of the Queen Charlotte Ids., named by Gray the Wash- ington Ids.) are numerous charts of different ports and of the whole group under the name of the Washington Islands. These were never published, but contain many details and are beautifully drawn. This interesting document of the last cen- tury rests in the archives of the State Department at Wash- ington	Ingraham		1790

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Queen Charlotte Islands —Continued.			
(Carte réduite d'une partie de la côte occidentale d'une des isles de Queen Charlotte. Levée en 1791 par le Capitaine Prosper Chanal.) Fleurieu's Marchand's Voy., French ed., t. IV, 1800. Same chart copied with English lettering in the English ed. of the following year	Fleurieu	X.	1800
(Karta prolivoff NW. berega Ameriki ot shiroti 51° do 54° 3' opisi Vankuvera * * *.) Tebenkoff's Atlas. Includes the adjacent parts of the mainland	Tebenkoff	X.	1849
(America, N. W. Coast. Plans of Ports, &c., in Queen Charlotte Island.) Surveys by the Virago, etc., 1852-3, with corrections in later editions from new information	Brit. Adm.	2168.	1856-64
(Vancouver Island to Cordova Bay, etc.) Includes coast adjacent. Early editions of this chart exceedingly imperfect and noted as unreliable on later editions	Brit. Adm.	2430.	1860-68
(Queen Charlotte Islands.) Poole's Q. C. Ids., 8vo. London, 1872, p. 95, woodcut on small scale	F. Poole	(*)	1872
(Queen Charlotte Copper Mines.) Poole. l. c., p. 163	F. Poole	(*)	1872
(Map showing the localities of fossils collected by Mr. James Richardson in 1872 from the Queen Charlotte Ids.) Geological Survey of Canada, 1876	Geol. Sur. Can.	(*)	1876
Queen's Cove, Esperanza Inlet.) G. H. Richards, R. N.	Brit. Adm.	589, ss.	1862
Rafael. See San Rafael.			
Raft Cove, Vancouver Island, B. C.			
(A sketch of Raft Cove taken by Mr. Funter of the Northwest American.) Meares' Voy., p. 372, 1790	Meares .....	.....	1790
Rat Islands. See Alentian Islands.			
Refuge Bay, Edge Passage.) British Columbia. From obs. by D. Pender, R. N., etc	Brit. Adm.	2453, ss.	1872
Roohe Harbor, Haro Strait.) G. H. Richards, R. N.	Brit. Adm.	602.	1857-69
Rosario Strait. See Haro Strait; Fuca Strait and Boundary Charts.			
Rose Island. See Middleton Island.			
Rurik Harbor. See Mulgrave, Port.			
Russian Empire.			
(General map of the Russian Empire.) Cox's Russian Disc., 1780, p. 1. Same map in several editions	Wm. Cox	(*)	1780
(A map of the Russian dominions from the last survey of Dr. Pallas.) In Trusler's The Habitable World, etc. 8vo. London, 1787, ii, <i>ad in</i>	Trusler	(*)	1788
(Map of the Russian Empire, compiled to accompany Mr. Hill's travels.) In Hill's Travels in Siberia. 8vo. London, 1854. Vol. I, p. 1	S. S. Hill	(*)	1854
(Central Asia, from the Caspian Sea to the Pacific Ocean, including the regions between Cashmere and Pekin, on the South, and Siberia on the North; to accompany the travels of T. W. Atkinson, Esq.) Atkinson's Travels in the Amoor Region, 1860, p. 554	Atkinson	(*)	1860
Safety Cove, Fitzhugh Sound.) British Columbia. From observations by D. Pender, R. N.	Brit. Adm.	1901.	1868-72

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Saghalien, Saghalin, etc. See Sakhalin.			
Saint Elias, Mount, and vicinity. (Mount St. Elias and Coast Range to Cape Spencer, 1874. To accompany Report of W. H. Dall, etc.) Separate issue of Dall's Report on Mt. St. Elias, issued in July, 1875; and afterward appearing in the U. S. C. Survey Report for 1875, p. 160 (Sketch of the St. Elias Alpine Region, Alaska, 1875.) From observations by W. H. Dall and party in 1874. Harbor Charts of Alaska	U. S. C. S.	22.	1875
Saint George Island, Pribiloff Group, Bering Sea. (O. Sv. Georgia.) One of a series derived from Tebenkoff and the Rus. Hyd. Dep. Tikhmenieff's Hist. Rus. Am. Co., II, <i>ad fin</i>	U. S. C. S.	(19.)	1875
(St. George's Island [Prybilov Islands] Bering Sea, A. Ty.) Elliott's Report on the Prybilov group, 4to, illustrated edition, at beginning. Photograph from drawing; shows seal rookeries	Tikhmenieff	ss.	1863
(MSS.) vellum tracing, by Elliott, in the archives of U. S. Coast Survey	H. W. Elliott	(*)	1873
(Sketch of St. George Island, Pribiloff Is., Bering Sea, 1875.) From observations by W. H. Dall and party, 1874. Harbor Charts of Alaska	H. W. Elliott	(*)	1874
Saint Lawrence Bay, Bering Strait, E. S. (St. Lawrence Bay, showing Lutke's Harbor, by the U. S. S. Vincennes * * * Lieut. John Rodgers.) U. S. N. Pacific Expl. Exp., 1855	U. S. C. S.	(33.)	1875
(Plan zalifa Sv. Lavrentiia nahodiast-chagosia v' Beringovom Pro-livie v' glasomiernoi somki michmana s'kalovskakho proisveden-noi na kliperie Vsadnik v' 1876 godu.) From observations made by the clipper Vsadnik, 1876	U. S. Hydr. Office ..	60	1855
Saint Lawrence Island, Bering Sea. (Karta ostrova Sv. Lavrentiia ispravlennaia kolonialnimi more-hodtsami Novo Arkhangelsk, 1849.) Chart of the island; Te-benkoff's Atlas	Rus. Hydr. Dep	I, ss.	1877
MSS. chart from observations by Lieut. W. Maynard, U. S. N., and others, in 1874, derived largely from Tebenkoff, but with important additions and corrections. U. S. C. S. Archives (? also of Navy Dept.)	Tebenkoff	XIX.	1849
Saint Mathew Island, Bering Sea. (Karta prostanstva k'iugu ot O'va. Sv. Matveiia do O'va. Sv. Pavla ispravlennaia kolonialnimi morehodtsami, Novo Arkhangelsk, 1848.) Chart of the region from the south of St. Mathew to St. Paul Island. Tebenkoff's Atlas	Maynard		1874
(Sketch of St. Mathew and adjoining islands. From observations by Lieut. Washburn Maynard, U. S. N., etc.); assisted by Capt. Baker and H. W. Elliott, in 1874, on the U. S. S. Reliance. U. S. C. Survey Harbor Charts of Alaska	Tebenkoff	XX.	1848
Saint Patrick Bay, British Columbia. (A plan of Sea Otter Harbour and St. Patrick's Bay, taken by Capt. James Hanna.) Meares' Voy., p. 329	U. S. C. S.	(35.)	1875
	Meares		1790

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Saint Paul Harbor, Kadiak Island, Alaska. See also Chinik Bay.			
(Karta Pavlofskoi gavani nahodiasht-chaisia na ostrovie Kadiakie v' Chiniatskom zalife * * * .)	Old Russ		(n. d.)
(Plan Pavlofskoi gavani i pri onoi nahodiasht-chemusia Rossisko Amerikanskoi Kompanii seleniiu na ostrovie Kadiakie.) Plan of the harbor	Old Russ	XVI, ss.	(1802?)
(Harbour of St. Paul, 1805.) Lisiansky's Voy., English ed., p. 144, 1814; colored	Lisiansky		1805
(Gav. S. Pavla * * * s' opis. Shturm. I. F. Vasilieva.) St. Paul Harbor, from obs. by Vasilieff; Tebenkoff's Atlas	Tebenkoff	XXIII, ss.	1849
(St. Paul's Harbour.) On Britton and Rey's large map of Alaska. San Francisco, Cal., 1867	Brit. & Rey	(ss.)	1867
(St. Paul Harbor, Kadiak Island, 1869.) From Russian authorities and obs. by G. Davidson in 1869. U. S. C. S. Atlas of Harbor Charts of Alaska, 1869; MSS. of same in C. S. archives.	U. S. C. S.	5.	1869
Saint Paul Island, Pribiloff Group, Bering Sea. See also Saint Mathew.			
(No title.) In Lütke, partie hydrogr., p. 350; rough sketch, etched. (O. Sv. Pavla), derived from Tebenkoff and the Rus. Hydr. Dept. in Tikhmenieff, Hist. Rus. Am. Co., II, <i>ad fin.</i> No number....	Lütke		1835
(St. Paul's Island, Pribiloff Group, Bering Sea, A. Ty., showing the position and area of the fur-seal rookeries. Surveyed May, 1872; drawn April, 1873, by Henry W. Elliott.) Photograph from colored map; in Elliott's quarto illustrated Report, Washington, 1873, at the beginning. A copy of the original drawing in the U. S. C. S. archives; a compass sketch, with small claims to accuracy	Tikhmenieff		1863
(Sketch of St. Paul Island, Pribiloff Is., Bering Sea, 1875); from obs. by W. H. Dall and party in 1874. Harbor Charts of Alaska.	Elliott	(*)	1873
	U. S. C. S.	(34.)	1875
Sakhalin Island, Japan Sea. See also Amur River.			
(Karta polu-ostrova Sakhalina.) Krusenstern's Atlas, Rus. ed., 1826.	Krusenstern	25.	1826
(Carte de la Presqu' isle de Saghalin * * * 1827.) Krusenstern's Atlas, French ed., "corrected to 1835" (?). This chart is dedicated to the officers of the ship Nadeshda	Krusenstern	25.	1827
(The island of Saghalin, from Russian authorities, to accompany a paper by Col. Veniukof. Journal Roy. Geogr. Soc. of London, 1872, XLII, p. 373	Roy. Geogr. Soc.	(*)	1872
Salisbury Sound, Alexander Archipelago, Alaska.			
(W'hod v' prolif S. Olgi.) Tebenkoff's Atlas. Appears under the name of Olga Strait erroneously	Tebenkoff	VIII, ss.	1849
(Olga Gulf, from Tebenkoff's Atlas.) U. S. C. S. Atlas of Harbor Charts of Alaska	U. S. C. S.	3.	1869
Salmon Weirs. See Deep Lake and Cape Cheerful.			
Samganuda Harbor, Unalashka, Aleutians.			
(Sketch of the harbour of Samganooda on the island Oonalaska.) Cook's Voy., II, p. 424, 1784	Capt. Cook	55.	1784
(Karta zalifa Samganuda nahodiasht-chagosia na sievero-vostochnoi storonie ostrova Unalashki.) Chart of Samganuda Bay, Unalashka Id	Old Russ		(n. d.)

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Samganuda Harbor, Unalashka, Aleutians—Continued. (Same, s' karti Kapitana Saricheva.) Same, from Sarycheff's chart.	Old Russ	XVII.	(n. d.)
Sanborn Harbor, Shumagin Islands, Alaska. (Sanborn Harbor, Nagai Island, Alaska, surveyed by W. H. Dall, act'g assist., 1872.) Harbor Charts of Alaska; shows also Porpoise Harbor.....	U. S. C. S.....	10.	1872
San Juan, Port; Vancouver Island, British Columbia. (Port San Juan * * *.) On Imray and Son's large chart; derived from Wood?.....	Imray & Son.....	(ss.)	1853
(Port San Juan * * *.) J. Wood, R. N.....	Brit. Adm.....	1910.	1847-64
Sannakh Island, Alaska Territory. See also Acherk Harbor. (Sketch of Sannakh Island and reefs, Alaska, 1875.) From observations by W. H. Dall and party, 1874. Harbor Charts of Alaska; approximate only. (See also Tebenkoff, ch. XXIV, and Rus. Hydr. Dept., ch. 1379, as well as Campbell's Voyage, 1815, for data on Sannakh).....	U. S. C. S.....	(16.)	1875
San Rafael, Puerto de. See Boundary Charts.			
Santa Cruz de Nuca, Puerto de. See Boundary Charts.			
Schooner Retreat, Fitzhugh Sound), British Columbia; from obs. by D. Pender, R. N.....	Brit. Adm.....	1901.	1868-72
Seal Islands. See Pribiloff Ida.			
Sea-Otter Harbor. See St. Patrick Bay.			
Security Bay), Kuiu Island, Alexander Archipelago, Alaska, by R. W. Meade, jr, U. S. N.....	U. S. Hydr. Office...	225, ss.	1869
Semidi Islands, Alaska Territory. (Sketch of Semidi Islands, Chirikoff Island and Lighthouse Rocks, Alaska, 1875.) From obs. by W. H. Dall and party in June, 1874. Harbor Charts of Alaska. First survey of these islands.....	U. S. C. S.....	(23.)	1875
Seniavine Strait, Bering Strait, E. S. (Prolif Seniavina.) P. O. S 5, subsketch.....	Rus. Hydr. Dept....	1427, ss.	1849
(The Straits of Seniavine, Behring's Straits.) U. S. N. Pac. Expl. Exp., Lieut. John Rodgers, U. S. N., commanding, 1855.....	U. S. Hydr. Office...	57.	1855-73
Seymour Narrows, Discovery Passage), British Columbia; from obs. by G. H. Richards, R. N., and others.....	Brit. Adm.....	538.	1864-67
Shoal Channel and Plumper Cove, Howe Sound), British Columbia; from obs. by G. H. Richards, R. N.....	Brit. Adm.....	585.	1860-64
Shucartie Bay, Vancouver Island.) G. H. Richards, R. N.....	Brit. Adm.....	2067.	1860-67
Shumagin Islands, Alaska Territory. (Sketch of the Shumagin Islands, Alaska, 1872.) From obs. by W. H. Dall and party in 1872. Harbor Charts of Alaska; issued in 1873.....	U. S. C. S.....	13.	1872
(Sketch of the Shumagin Islands, Alaska, 1875.) From obs. by W. H. Dall and party, 1872-4. Harbor Charts of Alaska. (Cf. also Tebenkoff, XXIV, and Rus. Hydr., 1379).....	U. S. C. S.....	(14.)	1875
Siberia, northern and eastern parts. See also Asia and Arctic Coast of America and Eastern Siberia. (Chart of Shalaurof's Voyage.) Along the Northern Siberian shores. Coxé Russian Disc., p. 263, 1780.....	Wm. Coxé		1780
(Chart of Synd's voyage toward Tschukotskoi Noss.) Coxé's Rus. Disc., p. 223, 1780. Track chart of Synd's voyage.....	Wm. Coxé		1780

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Siberia, northern and eastern parts, etc.—Continued.			
(Siberia.) General map of the whole region. Forster's Northern Voyages, p. 1, 1786.....	Forster	(*)	1786
(Chart of the north coast of Asia and of the sea to the north of Bering's Strait.) Burney's Chron. Hist. Voy., p. 1, 1819.....	Burney	(*)	1819
(Chart showing the route of Major Paulutzki round and through the country of the Tchuktschi. To correspond with the memoir of Capt. Dundas Cochrane to the Royal Society.) In Cochrane's Narrative. 8vo. Edinburgh, 1829, 2nd ed., Vol. II, p. 1.....	Cochrane	(*)	1829
(Karta vostochnoi Rossii.) Eastern part. Zapiski Hydr. Dept., IX, p. 190, 1851	Rus. Hydr. Dept....	I.	1851
(Karta Asiatskoi Rossii s' pokazaniem obzora topograficheskikh rabot proizvedennih po 1860 goda.) Chart showing the progress of the topographical work in Asiatic Russia. Published in the Cat. of trigonometrical and astronomical points, etc., by the Russian War Dept. 4to. St. Petersburg, 1863, <i>ad fin.</i> Colored	Rus. War Dept....	(*)	1863
(Karta Asiatskoi Rossii s' pokazaniem obzora astronomicheskikh rabot, etc.) Same, showing the progress of the astronomical work. Same source as preceding. Colored	Rus. War Dept....	(*)	1863
(Map to illustrate Kennan's tour in Siberia * * *.) Kennan's Tent Life in Siberia. 8vo. New York, 1870, <i>ad fin.</i>	Kennan.....	(*)	1870
(Special karte von Nord-Siberien zwischen Lena und Bering strasse, in 2 Blatt.) Chart compiled and drawn by B. Hassenstein, scale 1 : 3,000,000, showing Wrangell Land as far as known, the tracks of all explorers, and much more valuable information; illustrating a paper on the "Nord Küste Sibiriens" by Lindeman, in Petermann Mitth., Heft. V, 1879, Tafeln 9-10....	Hassenstein	9-10.	1879
Simeonoff Harbor, Shumagin Islands, Alaska.			
(Sketch of Simeonoff Harbor, Simeonoff I., Shumagins, 1875.) From obs. by W. H. Dall and party in 1872. Harbor Charts of Alaska.....	U. S. C. S.....	(15.)	1875
Port Simpson, British Columbia.			
(Port Simpson.) Inskip, Gordon & Knox, R. N.....	Brit. Adm.....	2426.	1856
(Port Simpson and adjacent anchorages.) D. Pender, R. N.....	Brit. Adm.....	2426.	1868
(Same.) By same. (Corrected and improved edition)	Brit. Adm.....	2426.	1872
Sitka, Baranoff Island, Alaska.			
(Sketch by compass of Norfolk Sound * * * 1787.) Dixon's Voy., p. 184, 1788	G. Dixon		1788
(Plan de la Baie de Tchinkltané, le baya de Guadalupa des Espagnols en 1775 et Norfolk Bay des Anglais en 1787, levée en 1791 par le Capitaine Prosper Chanal.) Marchand's Voy., tom. IV, <i>ad fin.</i>	Fleurieu	VIII.	1791
(Karta zalifa Sitki nahodiasht-chagosia u sievero-zapadnakho berega Ameriki s' oznacheniem w'hoda k' glavnomu Rossiisko Amerikanskoi Kompanii seleniiu imenuemomu Novo Arkhangelsk * * * sostavlena s' opisi uchinennoi v' 1809 godu, Morskimi ofitserami.) Chart of the Bay of Sitka from the entrance to the settlement of the R. Am. Co. at New Archangel...	Old Russ	XIX.	1820?

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Sitka, Baranoff Island, Alaska—Continued.			
(Same) Another edition of the preceding chart is to be found in Golovin's <i>Putechestvie vokrug svieta</i> , etc. 2 v. 8vo. St. Petersburg, 1822; Vol. II, <i>ad fin</i>	Golovin.....	.....	1822
(Plan du port de Novo Arkhangelsk dans l'île Sitkha * * *.) Lütke's <i>Voy. aut. du Monde</i> , II, <i>ad fin.</i> , 1835.....	Lütke.....	.....	1835
(Plan du port de la Nouvelle Archangel dans l'île de Sitka capitale des établissements de l'Amérique Russe.) Copied from the preceding plan of Lütke. Atlas to De Mofras' <i>Voyage</i> , 1845....	De Mofras.....	21.	1845
(Karta w'hodof k' Novo-Arkhangelskomu portu ch'rez zundi Sitkhu, Klokacheva i prolif Pogibshii. Sostavlena s' opisei Shturmanoff Vasilieva 1° v' 1809 i Vasilieva 2° v' 1833 * * * * 1848.) Chart showing the entrances to New Archangel, Sitka Sound, Salisbury Sound, and Peril Straits, by Vasilieff (senior) in 1809 and Vasilieff (junior) in 1833. The best chart of this part of Alaska.....	Rus. Hydr. Dept....	P. O. S. 10, 1397.	1848
(Die Insel Edgacumb mit einem Theile Sitka's und der Tschitschagow Insel.) Grewingk's <i>Beiträg</i> , u. s. w., p. 16, 1850.....	Grewingk.....	(*)	1850
(Karta zalifa Sitkha, port Novo-Arkhangelsk * * * s' karti Shtur. I. F. Vasilieva.) Chart of Sitka Bay, after Vasilieff; Tebenkoff's Atlas.....	Tebenkoff.....	XXXVIII.	1850
(Karta farvateroff k' portu Novo-Arkhangelsk sochinena na kompass. S' karti Kotsebu * * * * 1850.) Chart of the entrances to the inner harbor of Sitka. Tebenkoff's Atlas.....	Tebenkoff.....	XXXVIII, ss.	1850
(Merkatorskaia karta zapadnakho berega ostrova Sitkhi ot musia Ommeni do zunda Klokacheva. Sostavlena Rossiskoiu Amerikanskoiu Kompanieiu po noviishim sviedeniiam, 1850.) Chart of the western shore of Sitka (Baranoff) Island from Cape Ommaney to Salisbury Sound. Compiled by the Rus. Am. Co. from the latest data; colored. Rep. R. A. Co. for 1849. 8vo. St. Petersburg.....	R. Am. Co.....	.....	1850
(Sitka or New Archangel, from a Russian plan by Capt ⁿ Yassilieff, 1850).....	Brit. Adm.....	2348.	1850-63
(Sitka Sound [the Norfolk Sound of Vancouver], from the Russian chart of 1848.) With additions from English sources, nearly all of which are erroneous; otherwise the same as Rus. Hydr. Chart 1397, which is decidedly preferable.....	Brit. Adm.....	2337.	1854-65
(W'hodi v' Novo-Arkhangelsk.) Entrance to Sitka. Tikhmenieff's <i>Hist. R. Am. Co.</i> , II, <i>ad fin</i>	Tikhmenieff.....	.....	1863
(Sitka and its approaches, from Russian and British authorities.) Subsketch on general Alaska map, 1867.....	U. S. C. S.....	ss*.	1867
(Plan of Sitka Harbour.) On Britton and Rey's large Alaska wall map. San Francisco, 1867.....	Britton & Rey.....	.....	1867
(Sitka Harbor, Alaska, 1869.) With additions by G. Davidson. U. S. C. S. Atlas of Harbor Charts.....	U. S. C. S.....	2.	1869
(MS.) embodying corrections of Brit. Adm. Chart 2337, from obs. by W. H. Dall and party, 1874, in U. S. C. S. archives, with report.....	U. S. C. S.....	.....	1874

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Skidegate Inlet , Queen Charlotte Islands.) D. Pender, R. N.....	Brit. Adm.....	48.	1872
Slavianka Harbor , Plover Bay, E. S. (Plan gavaní Slavianka, nahodiast-cheisia bukhtie Plover * * * * kliperie Vsadnik v' 1876 godu.) Plan of Slavianka Harbor in Plover Bay, from explorations by the Rus. clipper Vsadnik in 1876	Rus. Hydr. Dept....	II, ss.	1877
Sooke Inlet , Vancouver Island.) D. Pender, R. N.....	Brit. Adm.....	1907.	1864
Spanberg. See Kamchatka .			
Spaskia, Port ; Chichagoff Island, Alaska. (Plan Spaskoi gavaní nahodiast-cheisia na sievero-vostochnom beregú ostrova Iakobii * * * s' karti Shturmanskakho uchenika Bubnova.) Chart of Spaskia Harbor, on the NE. coast of Chichagoff Island, by Instructor-in-Navigation Bub- noff.....	Old Rus	XX.	(n. d.)
(Port Spaskia, surveyed by Mate Bunoff.) U. S. C. S. Atlas of Harbor Charts of Alaska, 1869.....	U. S. C. S.....	3.	1869
Spruce (Ielowie) Island , Chiniak Bay , Kadiak . (Ostroff Ielowii.) Rep. R. Am. Co. 1848, <i>ad fin.</i> ; colored.....	R. Am. Co	ss.	1849
(Same.) Hist. R. Am. Co., II, <i>ad fin</i>	Tikhmenieff		1863
Squirrel Cove , Cortez Island), British Columbia. G. H. Rich- ards, R. N.....	Brit. Adm.....	580.	1860-70
Stakhin. See Stikine .			
Stephens Port , Principe Island), British Columbia. D. Pender, R. N.....	Brit. Adm.....	2189, ss.	1872
Stewart, Port , Alaska. (A survey of Port Stewart.) Vancouver's Atlas, 1798.....	Vancouver	7, ss.	1798
(Plan zalifa Stewart * * * s' karti G. Vankuvera.) Copied from the preceding	Old Russ	XX.	(n. d.)
(Port Stewart, from Vancouver's survey.) U. S. C. S. Atlas of Harbor Charts of Alaska.....	U. S. C. S.....	I.	1869
Stikine River , Alaska Territory. (Plan ríeki Stakhin. S' opisi 1863 goda, proisvedennoi s' kor- veta Rinda, etc.) Plan of the Stikine River, from observa- tions by Butirkin and Kadin, officers of the corvette Rynda, in 1863	Rus. Hydr. Dept....		1867
(Plan ustia ríeki Stakhin, etc.) Plan of the mouth of the Stikine River, a subsketch on preceding chart.....	Rus. Hydr. Dept....	ss.	1867
(Sketch map of the Stickeen River, from the mouth to the Little Cañon.) Blake's Notes on the Geogr. and Geol. Rus. Am., Congr. Papers, H. Ex. Doc. 177, part 2, XL Congr., 2d Sess., 1868	W. P. Blake.....	(*)	1868
(The Stickeen River, from survey in 1863 and information obtained by William P. Blake * * * 1868.) Subsketch on preced- ing chart	W. P. Blake.....	* ss.	1868
(Stakeen and Cassiar Mines.) Cut in San Fran. Mining and Sci. Press, April 18th, 1874. White-on-black woodcut.....	Ewer.....	(*)	1874
(Cassiar District.) Includes nearly the whole length of the river, in Rep. of Minister of Mines, etc., 1875. Victoria, V. I., 1876; colored.....	A. C. Elliott.....	(*)	1876

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Stikine River, Alaska Territory—Continued.			
(Plan of the Stachine [or Stickeen] River. Scale, 8,000 feet = 1 inch. This is the plan referred to in my report dated 30th June, 1877. [Signed] Jos. Hunter.) This shows the provisional boundary line adopted without prejudice until the true line shall have been determined, and with the following charts relating to the Stikine River is to be found in a report on the Boundary Question in Canadian Parliament; <i>Sessional Papers</i> , Vth Sess., 3d Parl. Dominion of Canada. 8vo, (Ottawa) Session 1878, No. 125. This map at p. 150, l. c., colored.....	Dominion Lands Off.	(*)	1878
(Tracing of part of "Alaska," shewing "Stakeen River," from U. S. Coast Survey of 1869.) Sess. papers, 125, l. c. p. 28; colored.	Dominion Lands Off.	(*)	1878
(Tracing shewing part of Alaska, including the mouth of the Stachine River, from the Admiralty charts.) Sess. papers, l. c. p. 30; colored.....	Dominion Lands Off.	(*)	1878
(No title.) Lower part of Stikine River, sketched by Chief Justice Begbie, l. c. p. 103.....	Dominion Lands Off.	(*)	1878
(No title.) Another version of the above, l. c. p. 135.....	Dominion Lands Off.	(*)	1878
(No title. "Official, H. Clay Wood, assistant adjutant general.") Map showing the boundary line, as established by the language of the treaty of purchase of Alaska, but still unsurveyed. In Morris, Report on Alaska, Senate Ex. Doc. No. 59, 1879.....	U. S. A.....	(*)	1879
Stockdale Harbor, Prince William Sound, Alaska.			
(Sketch of part of the west side of Montague Island * * * * by Nathaniel Portlock, 1787.) Portlock's Voy., p. 215, 1789....	Portlock		1789
Suquash Anchorage, Queen Charlotte Sound, B. C.			
(Suquash Anchorage, 1869).....	Brit. Adm.....	581, ss.	1872
Sviechnikoff Bay, Amliia Island, Aleutians.			
(Ocherk zal. Sviechnikova na S. storonie ostrova Amlic.) Tebenkoff's Atlas	Tebenkoff	XXVII, ss.	1849
(Suchikova Bay, Amliya Island, from Tebenkoff's Atlas.) U. S. C. S. Atlas of Harbor Charts of Alaska.....	U. S. C. S.....	8.	1869
Sydney Inlet to Natinat, including Clayoquot and Barclay Sounds.)			
G. H. Richards, R. N.....	Brit. Adm.....	584.	1861-74
Taku Harbor, Stephens Passage, Alaska.			
(Takou Harbor.) R. W. Meade, jr., U. S. N.....	U. S. Hydr. Off.....	225, ss.	1869
Takush Harbor, Smith Sound, British Columbia.			
(Takush Harbour, Smith Sound.) From obs. by D. Pender, R.N., etc.	Brit. Adm.....	2448, ss.	1872
Tamgas Harbor, Gravina Islands, Alaska.			
(Gavan Tamgaz na ostrovie Gravinna * * * s' karti Kapitana Etolina 1833 goda.) From obs. by Etolin.....	Rus. Hy 'r. Dept.....	P. O. S. 10, 1396, ss.	1848
(Gavan Tamgas * * * s' karti Etolina.) Tebenkoff's Atlas..	Tebenkoff	IX, ss.	1849
(Tomgas Harbor, from Tebenkoff's Atlas.) U. S. C. S. Atlas of Harbor Charts of Alaska, 1869.....	U. S. C. S.....	I.	1869
Tartary, Straits of. See also Amur River.			
(Merkatorskaia karta Tatarskakho proliva sostavlena s' opisei ofits-eroff Amurskoi expeditzii i Shkuni Vostok, 1853.) Mercator chart of the straits by the officers of the Amur Expedition, on the schooner Vostok in 1853. Morsk. Sbornik, 1858, May, XXXV [iii], p. 46. Track chart of the schooner Vostok (Orient).....	Morsk. Sbornik		1858

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Tartary, Straits of, etc.—Continued.			
(Karta k' plavaniiu parakhoda korveta "Amerika" v. 1857 godu.) Track of the steam corvette America, in 1857, through the Straits of Tartary, on a voyage from Pekin to Nikolaieffsk. Morsk. Sborn. 1858, XXXIV, No. 3 (iii), p. 51	Rus. Hydr. Dept.....		1858
Tohinkitáné, Baie de. See Sitka.			
Tebenkov Bay or Cove. See Norton Sound.			
Telegraph Routes.			
Proposed W. U. Tel. Route from New Westminster to Fort Stager, B. C. Sheet I. Large vellum tracing MSS. in archives Smithso- nian Inst	W. U. Tel. Co., G. H. Mumford, supt. }	(*)	1867
Same. Sheet 2. Proposed W. U. Tel. Route from Fort Stager, B. C., to Techo Lake and Sitka. Sketch of explorations and pro- posed route. Vellum tracing in Smithsonian archives			
(Proposed W. U. Tel. Route from San Francisco to St. Peters- berg.) Kennan's Tent Life in Siberia, p. 1	G. Kennan	(*)	1870
Three Bishops Bay, Kodiak Island, Alaska.			
(Karta w'hoda s' iuzhnoi storonie mezhdú Kadiaka i ostrova Sik- halidakh, v' gavan Trokh Sviatilei * * * * v' 1790 godu Flota-kapitanom Sarichevim.) A chart of the bay, from obs. by Sarycheff in 1790. Old Russian chart; no date or number	Old Russ		(n. d.)
(Karta gavani Trokh Sviatilei.) Plan of the harbor in detail. Subsketch on same sheet as preceding chart	Old Russ	ss.	(n. d.)
(Karta w'hoda k' gavani Trokh Sviatilei, nahodiast-cheisia na iugovostochnoi chasti ostrova Kadiaka, * * * * s' karti Kapitana Saricheva.) Like preceding, but belonging to the numbered series. (Sarycheff's Atlas?)	Old Russ	XVII.	(n. d.)
(Karta gavani Trokh Sviatilei, etc.) Plan of the harbor. Sub- sketch on preceding chart of the bay and vicinity	Old Russ	XVII, ss.	(n. d.)
(Prolif Sakhlidokskii.) Part of Sitkhalidakh Strait in the vicinity of Three Bishops Bay. Rep. Rus. Am. Co., 1848; colored; <i>ad fin.</i>	R. Am. Co	ss.	1849
Tides of the Pacific Ocean.			
(Karta sievernakho velikakho okeana.) Chart of the North Pacific Ocean, showing co-tidal lines. Zap. Hydr. Dept., St. Peters- burg, Vol. II, p. 355	Rus. Hydr. Dept....	III.	1844
Tongas. See Tongass and Tamgas.			
Tongass Harbor, Alaska.			
(Passages to Fort Tongas.) Showing harbor and fort. From obs. by G. Davidson and party. Atlas of Harbor Charts of Alaska... Tracy Harbor, Queen Charlotte Islands.) From obs. by D. Pender, R. N.	U. S. C. S.	[18.]	1869
	Brit. Adm.	571.	1863
Track charts of navigators and explorers.			
Atkinson. See Russian Empire, Atkinson.			
Back. (Sketch of North America, showing the proposed route of Capt. Back.) Journ. Roy. Geogr. Soc. Lond., III, 1833, <i>ad fin.</i>	Roy. Geogr. Soc	(*)	1833
Barracouta. See Japan and Okhotsk Seas, Freeman.			
Beechey. Chart of the world, with the track of H. M. S. Bloss- som, Capt. Beechey. Beechey's Voy., p. 1, 1830	Beechey		1830

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Track charts of navigators and explorers —Continued.			
Belcher. Chart of the world, showing the track of H. M. S. Sulphur, Capt. Sir Ed. Belcher. Belcher's Narrative, Vol. I, 1843.	Belcher		1843
Bering and Chirikoff. See Bering and Chirikoff, also Kaiak Island.			
Bush. See Kamchatka, Bush.			
Butler. See British America, Butler.			
Campbell. (Track of the Eclipse's Long Boat from Sannack to Kodiak, 1807.) Campbell's Voy., p. 1, 1816	Campbell		1816
Chinese discoveries. See Northwest Coast of America, De Guignes.			
Clerke. See Kamchatka, Arrowsmith.			
Collinson. See Arctic Coast of America, Roy. Geogr. Soc.			
Cook. See North Pacific, Arrowsmith and Buache; Northwest Coast of America, Arrowsmith; Pacific Ocean, Ellis; Track charts, Spanish Admiralty.			
(Chart showing the Tracks of the ships employed in Capt. Cook's last voyage to the Pacific Ocean in the years 1776, 1777, 1778, 1779.) In Ledyard's Journal, etc. 12°. Hartford, Conn., 1783, <i>ad in</i>	Ledyard	(*)	1783
Cook. Track chart of voyages round the world. Cook's Voy., I, <i>ad in</i>	Capt. Cook		1784
(Voyages de Cook 1768–1779.) Track chart of Cook's Voyages up to the date of his death, in Bull. Soc. de Géogr. Paris, Mai 1879, p. 540	Soc. de Géogr		1879
Dall. See Aleutian Islands, Lindeman.			
Dease and Simpson. See Arctic Coast of America, Dease and Simpson.			
Dixon. See North Pacific, Dixon.			
Douglas; with Meares.			
Duflot de Mofras. See Pacific Ocean, De Mofras.			
Ellis. See Track charts, Cook.			
Fleming. See British Columbia, Grant.			
Fleurieu. Marchand's Voy. Aut. du Monde, t. IV, 1790–2. Track chart of the world, showing the course of the Solide	Fleurieu	I.	1792
Gore. See Kamchatka, Arrowsmith.			
Hearne. See Coppermine River, Hearne.			
Hill. See Russian Empire, Hill.			
Horetzky. See Can. Pacific Railway, Horetzky.			
Krenitzin and Levasheff. See Fox Islands, W. Cox.			
Langsdorff. See Pacific Ocean, Langsdorff.			
La Pérouse. See Kamchatka, Arrowsmith; North Pacific, Buache; and Pacific Ocean, La Pérouse.			
La Pérouse. Track chart of the world, showing the course of the Boussole and Astrolabe. La Pérouse, Atlas, pl. I, 1798	La Pérouse	I.	1798
Lehring, Polutoff, and Brazilin. See Bering Sea, Pallas.			
Lesseps. See Kamchatka, Lesseps.			
Lisiansky. (Chart of the world, showing the track of the Neva in the years 1803, 4, 5, 6.) Lisiansky's Voy. around the World, p. 1, 1814; colored	Lisiansky		1814

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Track charts of navigators and explorers—Continued.			
Lütke. See Bering Sea, Lütke.			
Lütke. (Mappe Monde pour l'intelligence du voyage autour du Monde de la corvette Sèniavine, 1826-29.) Track chart of the world, showing the course of the Sèniavine. Lütke's Voy., t. I, <i>ad fin</i>	Lütke		1835
McClure. See Arctic Coast of America, Roy. Geogr. Soc., and Track charts, Spanish Admiralty.			
Mackenzie. See British America, Mackenzie; also Mackenzie River.			
Mackenzie. (A map of Mackenzie's track from Fort Chipewyan to the Pacific Ocean in 1793.) Mackenzie's Voy., etc. 4to. London, 1801, <i>ad in</i>	Mackenzie	(*)	1801
(A map of America between the latitudes 40 and 70 and longitudes 45 and 180 west, exhibiting Mackenzie's track from Montreal to Fort Chipewyan and from thence to the North Sea in 1789 and to the West Pacific Ocean in 1793.) Mackenzie's Voyage. 4to. London, 1801, p. 121	Mackenzie	(*)	1801
Malaspina. See Track charts, Spanish Adm.			
Maldonado. See Circumpolar chart, Maldonado.			
Marohand. See Track charts, Fleuriu.			
Meares. See North Pacific, Meares; and Alaska, Meares.			
Milton and Cheadle. See British America, Fitzwilliam.			
Nordenskjöld. (The Northeast Passage. Map showing the route followed by the Vega through the Arctic Seas and also the precise point at which the Nordenskjöld Expedition passed the winter.) N. Y. Herald, May 28, 1879. Covers Iceland to Bering Strait north of Siberia, etc. Woodcut in text		(*)	1879
(The arctic circle. Map illustrating previous expeditions to the North Pole via Behring Strait, the voyage of Nordenskjöld and the highest points reached by explorers since 1728.) N. Y. Herald, July 9, 1879, p. 3, large woodcut, of circumpolar region with various tracks.....		(*)	1879
North Pacific Exploring Expedition. See North Pacific, U. S. Hydr. Office.			
Paulutski. See Siberia, Cochrane.			
Petitot. See British America, Petitot.			
Pinart. See Aleutian Islands, Pinart.			
Pinart. (Voyages à la côte Nordouest d'Amerique par A. Pinart.) Bull. Soc. Géogr., Paris, Dec., 1873; colored.....	Pinart	ss.*	1873
Portlock. See Alaska, Gulf of; and North Pacific, Portlock.			
Alex. Ross. See Columbia River, Ross.			
Sir J. Ross. See Arctic Coast of America, Ross.			
Shalauoff. See Siberia, Cox.			
Sir G. Simpson. Chart of the world, showing track of the voyage. In Simpson's Journey, etc., I, p. 1, 1847	G. Simpson	(*)	1847
Thos. Simpson. See Dease and Simpson.			
Spanberg and Walton. See Kamchatka and Kuril Islands, Rus. Hydr. Dept.			

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Track charts of navigators and explorers—Continued.			
Spanish Admiralty. (Carta esférica del globo terraqueo construida en la direccion de hidrografia con presencia de los trabajos mas modernos * * * Madrid año de 1857.) Large wall map, with tracks of many exploring expeditions	Span. Adm.	(*)	1857
Synd. See Asia, NE. coast of; and Siberia, Coxe.			
U. S. Exploring Expedition. (Chart of the world, showing the tracks of the U. S. Exploring Expedition in 1838, 39, 40, 41, and 42.) In Wilkes' Synopsis of the Cruise, etc. Washington, 1842.	Wilkes	(*)	1842
Vancouver. See North Pacific Ocean, Vancouver; Track charts, Spanish Adm.; and NW. Coast of America, Arrowsmith.			
Vsadnik. See Wrangell Land, Hassenstein.			
Vostok. See Tartary, Straits of; Morsk. Sbornik.			
Whittingham. See Okhotsk and Japan Seas, Whittingham.			
Wilkes. See U. S. Exploring Expedition, above.			
Wrangell. (Map of the northeast part of Siberia, to illustrate the narrative of the Expedition to the Polar Sea in 1820, 21, 22, and 23, commanded by Ferdinand von Wrangell.) Wrangell's narrative of an expedition to the Polar Sea. In pocket	Wrangell	(*)	1840
Zagoskin. See Yukon River, Zagoskin.			
Tribune Bay, Hornby Island.) G. H. Richards, R. N.	Brit. Adm.	580.	1860-70
Tucker Bay, Lasqueti Island.) G. H. Richards, R. N.	Brit. Adm.	579.	1860-65
Ublenoi Bay. See Massacre Bay or Harbor.			
Uchucklesit and Refuge Cove, Sydney Inlet.) G. H. Richards, R. N.	Brit. Adm. †	584.	1863-66
Udagakh Strait, between Unalashka and Spirkin Islands, Aleutians. (Plan prolifa Udagakha * * * s' diek'n s' opisi Flota Kapitana Saricheva, proisvedennoi v' 1792 godu)	Old Russ	XV.	(n. d.)
Umnak Island, Aleutians. (Ostrov Umnak s' opisi proisvedennoi v' 1849 godu, vol. shturman Kuritsinim.) Tebenkoff's Atlas	Tebenkoff	XXVI, ss.	1849
Unalashka Island, Aleutians. See also Captain's Bay and Iliuliuk. (Karta Aleutskakho ostrova Unalashki, s' zalivami, * * * s' opisi i sochineniia Flota Kapitana Saricheva v' 1792 godu.) Chart of the east end of Unalashka with the bays and anchorages after Sarycheff's obs. in 1792	Old Russ	XIV.	(n. d.)
(Karta ostrovoff Lisih vostochnih ispravlennaia kolonialnimi morehodtsami, etc.) Tebenkoff's Atlas. Shows Unalashka in full (best chart of the island) and adjacent islands from Umnak to Unimak, with the Passes	Tebenkoff	XXV.	1849
(Ova. Unalashka. Outline chart of Unalashka Island. Tikhmenieff's Hist. Russ. Am. Co., Vol. II, <i>ad fin.</i> , 1863)	Tikhmenieff		1863
Unalga Pass, Aleutians. See also Unalashka. (Detroit d'Ounalga tiré de la carte de Mr. Tebenkoff.) Lüttké, Voy. Sén. partie Hydr., p. 299, 1835	Lüttké		1835
Unga Island, Shumagina, Alaska. (Karta prolifoff smezhnykh ostrovu Ungie s' opisi Voronkofska-kho 1837.) Chart by Voronkoffsky of Unga and adjacent islands	Rus. Hydr. Dept.	P. O. S. 8, 1379, ss.	1847

† Note.—This is not Chart 584 of the Catalogue of Charts of the British Admiralty. This chart is not to be found in the catalogue. The number is on the chart itself, however.

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Unga Island, Shumagina. Alaska—Continued.			
(O. Ungie.) Tikhmenieff's Hist. Rus. Am. Co., II, <i>ad fin.</i>	Tikhmenieff .....	.....	1863
In Pinart, La Caverne d'Aknañh, etc. Fol. Paris, 1875, woodcut.	Pinart	(*)	1875
Urup Island. See Kuril Islands.			
Vancouver Island. See also Boundary Charts, British Columbia, and NW. Coast of America.			
(Karta ostrova Kwadra i Vankuvera, s'opisi Vankuvera * * * * 1849). Tebenkoff's Atlas. Cape Flattery to Scott Islands.....	Tebenkoff	XI.	1849
(Sketch to illustrate report of a canoe expedition along the east coast of Vancouver Island, 1854.) Journ. Roy. Geogr. Soc. London, XXII, p. 248	Roy. Geog. Soc	(*)	1854
(Map of Vancouver Island with the adjacent coast, to illustrate a description of the island, by Lt. Col. W. C. Grant, 1856.) Journ. Roy. Geogr. Soc., l. c., 1857, XXVII, p. 269.....	Roy. Geog. Soc	(*)	1857
(Sketch of the country between Albernie Canal and Nanaimo; showing the line of road proposed by Commander Mayne, 1861.) Journ. Roy. Geogr. Soc., l. c., XXXII, p. 529, 1862.....	Roy. Geog. Soc	(*)	1862
Sketch map of Vancouver Island and British Columbia, 1862.) Rattray's Vanc. Id. and Brit. Col., 1862, p. 1.....	Rattray	(*)	1862
(Esperanza to Clayoquot, etc.) From obs. by G. H. Richards, R. N.....	Brit. Adm.....	569.	1862-71
(Map of Vancouver Island to illustrate the paper of Dr. C. Forbes, R. N.) Journ. Roy. Geog. Soc. London, 1864, Vol. XXXIV, p. 154.....	Roy. Geog. Soc.....	(*)	1864
(Map of Vancouver Island and part of British Columbia, to accompany the paper by R. Brown, Esq)	Roy. Geog. Soc.....	(*)	1869
(Original karte von Vancouver Insel zur übersicht der aufnahmen und forschungen im innern durch die officialen expeditionen unter dem befehl von Robert Brown, 1863-1866.) Geogr. Mitth., 1869, Vol. XV, p. 44.....	Petermann	1*.	1869
(Straits of Fuca to Fitzhugh Sound.) G. H. Richards, R. N.....	Brit. Adm.....	1917.	1859-74
Victoria, Vancouver Island, British Columbia.			
(Victoria Harbour, etc.) G. H. Richards, R. N.....	Brit. Adm.....	1897.	1847
(Same.) Subsketch on large general chart.....	Imray & Son	ss.	1853
(Esquimalt & Victoria Harbours, etc.) Surveyed by Capt. G. H. Richards, R. N.....	Brit. Adm.....	576.	1861-65
(Victoria Harbour, etc.) G. H. Richards, R.N.....	Brit. Adm.....	1897b.	1860-74
Waddington Harbor at head of Bute Inlet,) Brit. Columbia. G. H. Richards, R. N.....	Brit. Adm.....	580.	1860-70
Walsh Cove, Vancouver Island,) G. H. Richards, R. N.....	Brit. Adm.....	580.	1860-70
Washington Islands. See Queen Charlotte Islands.			
Washington Sound. See Boundary Charts, H.			
Washington Territory, U. S.			
(Map showing the distribution of the Indian tribes of Washington Territory, compiled from the latest authorities, to illustrate a paper by the late George Gibbs, by W. H. Dall, United States Coast Survey, 1876.) Colored. Contr. N. Am. Ethn., Vol. I, U. S. Survey of the Rocky Mt. Region, Major J. W. Powell in charge.	W. H. Dall	(*)	1876
Welcome Harbor, Fitzhugh Sound), British Columbia. D. Pen-der, R. N.....	Brit. Adm.....	1462, ss.	1872

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Whale Bay. See Banks, Port.			
Winds, Chart of. (Carte de vents généraux de l'Océan Pacifique.) Kerhallet in Annales Hydrogr., t. VI, p. 307.....	Kerhallet	VI.	1852
Wotwodaki Harbor, Admiralty Id., Alaska. (Gavan Woewodskakho na ostrovie Admiralteistva * * * s' karti Kapitana Zarembo 1838 goda.) From obs. by Capt. Zarembo	Rus. Hydr. Dept ...	P. O. S. 10, 1396, ss.	1848
(Bay of Woervodsky.) W. U. Tel. phot. chart, 1867. Prepared by Homfray	Homfray	ss.	1867
Woody (Liesnoi) Island, Chiniak Bay, Kadiak. (Ostroff Liesnoi.) Rep. Rus. Am. Co. for 1848, <i>ad fin.</i> , colored ..	R. Am. Co	ss.	1849
(Same.) Tikhmenieff's Hist. Rus. Am. Co., Vol. II, 1863, <i>ad fin.</i> ..	Tikhmenieff		1863
World, The. (Chart of the World on Mercator's Projection, constructed by Hermann Berghaus, Gotha, Justus Perthes.) Ed. I, 1863; ed. VIII, 1875. The best general chart of the world in existence, and particularly full in details of the Arctic regions and NW. America, to date of publication. Colored, with ocean currents, limits of ice, etc. Folding wall map, or rolled	Berghaus	Ed. VIII.	1875
Wrangell, Port, Aliaska Peninsula. Plan du Port de Wrangell sur la Côte NE. d' Aliaska.) Lütke Voy. Séniavine, Partie Hydr., p. 286, 1835. From obs. by Vasilieff, in 1831-32	Lütke	ss.	1835
(Plan gavaní Wrangelia na NO. beregu Aliaski * * * s' opisi Vasilieva 2 ^o , 1832.) Plan of the harbor of Wrangell, etc., probably another version of the preceding chart in Lütke's Voy. by Vasilieff, jr	Rus. Hydr. Dept....	P. O. S. 8, 1379, ss.	1847
(Port Wrangel, surveyed by Mate Vasilieff.) U. S. C. S. Atlas of Harbor Charts of Alaska, 1869.....	U. S. C. S.	6.	1869
Wrangell Strait, Alexander Archipelago, Alaska. (Merkatorskaia karta prolifa Wrangelia v' sievernih Koloshenskih prolivah. Sniata s' karti G. Lindenterga i gravinovana v' hidro- graficheskom departamentie morskakho ministerstva 1850.) From obs. by Lindenberg. Chart on large scale.....	Rus. Hydr. Dept....	P. O. S. 106, 1441.	1850
(No title.) Vellum tracing, from Russian sources, of a survey differing from Lindenberg's in many particulars. MSS. in C. S. archives			
(Plan of Wrangel Straits.) From obs. by R. W. Meade, jr., U. S. N., etc	U. S. Hyd. Office...	222, ss.	1869
Wrangell Land, Arctic Ocean. (Behring's Sea and Arctic Ocean, etc.), with additions to July, 1868. From obs. by Capt. Long and others. This is the first chart containing any authentic data for the new lands reported by natives to Wrangell in 1822-4, and first actually observed by Long	U. S. Hyd. Office...	68.	1868
(Wrangel Land und übersicht der entdeckungs geschichte im eis- meer nördl. der Bering Strasse 1648-1867.) Geogr. Mitth. Vol. XV, 1869, p. 44, t. 2, colored	Petermann	2.	1869

PARTIAL LIST OF CHARTS AND MAPS RELATING TO ALASKA, &c.—Continued.

Title, etc.	Authority.	Number.	Date.
Wrangell Land, Arctic Ocean—Continued.			
(Arctic Sea. Behring Strait, Sheet iii, 1853.) Corrected to July, 1872, and filled up, so far as Wrangell Land is concerned, with imaginary shorelines and topography as well as an entirely new and English set of names. The land to the north of that discovered by Long is called Kellett Land, but all the names given by the American explorer as well as any mention of his agency in the discovery are carefully omitted	Brit. Adm.....	2172.	1872
(Karta sievernakho lohtovitakho okeana * * * 1874.) From obs. and reports by Wrangell and others. The obs. of Long are not incorporated, but the name given by him to the land he discovered is adopted	Rus. Hydr. Dept.....	.....	1874
(Die fahrt des Russischen klippers Wssadnik, Lieutenant Onatze-witsch, Aug., 1876, und Übersicht der bisherigen arktischen Forschungen Nordwestlich der Bering Strasse.) Petermann's Mitth., 25 Bd., 1879, IV, Mar. 31, 1879. Colored map, with topogr. and soundings of previous explorers, as well as Onatze-witsch. See also <i>Siberia</i> , Hassenstein.....	Hassenstein	8.	1879
Yakutat. See Mulgrave.			
Yukon River, Northwest America. See also Alaska Maps.			
(Title not accessible.) The Yukon River, under the name of Kwikh-pahk', is represented during a part of its course by Zagos-kin in Travels on Foot, etc., 1847	Zagoskin	(*)	1847
(Merkatorskaia generalnaia karta chasti Rossiskih bladienii v' Amerikie. Sostavlena Leitenantom Zagoskinim v' expeditzii, 1842, 1843, i 1844 godah.) In Zagoskin's Peshahodnia Opis, etc. (extracted from the Morskoi Sbornik), II, <i>ad fin.</i> , 1848. Map of a large part of Alaska by Zagoskin, of which the essen-tial part is the course of the Lower Yukon, laid down from his own observations.....	Zagoskin.....	(*)	1847-48
(Merkatorskaia karta chasti sievero-zapadnakho berega Ameriki. Sostavlennaiia Leitenantom Zagoskinim v' expeditzii iegho 1842, 43 i 44 godah.) Mercator's chart of part of the northwest coast of America, compiled by Lieut. Zagoskin, etc. Journ. Imp. Geogr. Soc. St. Petersburg, I, 1849, p. 211.....	Zagoskin .....	.....	1849
(Map of the Yukon or Kwich-pak River.) Journ. Roy. Geogr. Soc. London, 1868, Vol. XXXVIII, p. 219. Map, by Arrow-smith, to illustrate a paper by Whymper	Arrowsmith	(*)	1868
(Same map.) Whymper's Travels on the Yukon and in Alaska, etc	Arrowsmith	(*)	1868
(The Yukon River, Alaska, from Fort Yukon to the sea, etc.) From obs. by Capt. C. W. Raymond, C. E., and Mr. J. J. Major, in 1869, published by the War Dept. U. S., in 1871 (<i>not</i> with the Ex. Doc. commonly known as "Raymond's Re-port on the Yukon River," which has no map); colored map ...	U. S. War Dept.....	(*)	1871
(Map, showing the distribution of the native tribes of Alaska, etc.) Compiled from the latest authorities, in 1875, by W. H. Dall. (See Alaska Territory, Dall.) This map embodies the most recent data in regard to the Yukon River, etc	W. H. Dall.....	(*)	1875
Zakhareffakala Bay. See Coal Harbor and Unga Island.			



PARTIAL LIST OF BOOKS, PAMPHLETS, PAPERS IN SERIAL JOURNALS, AND OTHER PUBLICATIONS ON ALASKA AND ADJACENT REGIONS.

BY W. H. DALL AND MARCUS BAKER.

[L. C.—Library of Congress. B. M.—Library of the British Museum, London, England. B. P. L.—Boston Public Library.]

Abaza (Sergius Saivich). Русско-Американскій телеграфъ. [The Russo-American telegraph.]

[In ST. PETERBURGSKIIA VIEDOMOSTI, (St. Peterburg News), 1867, No. 54.]

Note.—Mr. Abaza commanded the Siberian explorations for the purposes of the international telegraph in 1865-66.

Abramoff (Nikolai Alexieïevich). Историческая записки о Чукотскомъ народѣ, (etc.) [Historical notes concerning the Chukchees who inhabit the shores of the Arctic ocean.]

[In VIESTNIK, etc. (Messenger of the imperial Russian geographical society.) 8°. St. Peterburg, 1856. Vol. 18, [v], pp. 19-25]

— Documents historiques relatifs aux Tchouktchis.

[In EXTRAITS des publications de la société impériale géographique de Russie en 1856 et 1857. 8°. St. Pétersbourg, F. Bésobrasoff & co. 1859. pp. 42-43.]

Adams (surgeon Edward). Notes on the birds of Michaelaski, [St. Michael's], Norton sound.

[In THE IBIS. 8°. London, 1878. Fourth ser., vol. ii, No. 8, Oct., pp. 420-442.]

Note.—An annotated list of 49 species, including one, *Cyanecula svecica* (Linn.), new to the North American fauna, obtained by E. Adams, surgeon R. N., of H. M. S. Enterprise, capt. Collinson, employed on the Franklin Search expedition in 1850.

Adelung (Johann Christoph). Geschichte der schiffahrten und versuche welche zur entdeckung des nord ostlichen weges nach Japan und China von verschiedenen nationen unternommen worden. Zum behufe der erdbeschreibung und naturgeschichte dieser gegenden, (etc.) Vorrede 8 pp. mit holzschn., 740 pp. xviii tfl. und karte. 4°. Halle, Johann Justinus Gebauer, 1768. B. M.

— Natürliche und bürgerliche geschichte von Californien nebst einer neuen charte dieses landes und der benachbarten meere aus dem englischen übersetzt und herausgegeben von Johan Christoph Adelung. 2 v. 4°. 1 chart. Lemgo, 1769. B. M.

— Mithridates oder allgemeine sprachenkunde mit dem Vater unser als sprachprobe in bey nahe fünfhundert sprachen und mundarten. 4 vols. 8°. Berlin, Voss, 1806-17.

For the languages of Northeastern Asia, see Part I, pp. 533-567.

For the languages of Northwestern America, see Part III, Section III, pp. 213-238, 425-468.

Afanaseff (D . . . M . . .). Амурскій край и его значеніе. [The Amur region and its features.]

[In MORSKOI SBORNIK. 8°. St. Peterburg, 1863. Vol. lxx, No. 11, (iii), pp. 1-86.]

— Россійско-Американскія владѣнія. [Russian American government.]

[In MORSKOI SBORNIK. St. Peterburg, 1864. Feb., vol. lxx, [v], pp. 31-42; Mar., vol. lxxi, [v], pp. 1-24.]

Note.—This is a review of TIKHMEIEFF, q. r.

— Николаевскъ на Амурѣ. [Nikolaieffsk on the Amur.]

[In MORSKOI SBORNIK. St. Peterburg, 1864. Dec., vol. lxxv, [iii], pp. 89-147.]

Ainsworth (William Francis, *f. s. a.*) Analysis of a narrative of a voyage to the Pacific and Beer-ing's strait, to cooperate with the polar expeditions; performed in his Majesty's ship Blossom, under the command of captain F. W. Beechey, R. N., F. R. S., &c., in 1825-8.

[In JOURNAL of the royal geographical society of London. 8°. London, J. Murray, 1833. Vol. i, 1831, pp. 19-22.]

Ajax (Wreck of the whaleship). Perte du baleinier l'Ajux (*capt. Letellier*) sur un haut fond dans le S. de l'île Saint-Laurent.

[In DÉPÔT GÉNÉRAL DE LA MARINE. Annales hydrographiques. 8°. Paris, P. Dupont, 1852. Tome vii, p. 19.]

Alaska. Das bisher russ. Amerika.

[In MAGAZIN für die literatur des auslandes. 4°. Berlin, J. Lehmann, 1867. No. 38, p. —.] *Not seen.*

—— Штатъ Аляска, (etc.) [Alaska, formerly Russian America.]

[In VSEMIERNII TRUD, 1869, No. 7, pp. 91-126.]

Note.—This is a review of WHYMPER (F.) Travels and adventures, etc. 8°. London, 1869.

—— Свѣдѣнія о бывшей Русской Америкѣ. [Information concerning the late Russian America.]

[In ISVIESTIA imp. Russ. geogr. society. 8°. St. Petersburg, 1869. Vol. v, No. 4, pp. 158-165.]

Alaska, (pseudonym). Walrus shooting. By Alaska. [H. W. Elliott?]

[In the AMERICAN SPORTSMAN. 8°. New York, 1875. January 30.]

Alaska (The) Appeal. A semi-monthly newspaper established March 6th, 1879, in San Francisco by Ivan Petroff, 917 Vallejo street.

Vol. i, No. i, 8 pp. 8°. San Francisco, March 6, 1879.

Alaska Bulletin. A semi-monthly newspaper. 1 vol. sm. fol. Sitka, Wm. E. Jones & Fred. C. Pratz, 1875.

Jan. 5, 1875, vol. i, No. i, to Apr. 5, 1875, No. 7. † More published.

Note.—Followed by the SITKA POST. See SITKA POST.

Alaska Coal Company. PROSPECTUS of the Alaska Coal Company. Incorporated September 21st, 1871, under the laws of the state of California; for the purpose of coal mining, and trading in the territory of Alaska, and transporting coal to market, and selling the same at wholesale and retail. 18 pp. 1 pl. 8°. San Francisco, women's co-operative printing union, 1871.

Alaska Commercial Company. Copy of lease from the United States to the Alaska Commercial Company of the right to take fur-seals in Alaska. Delivered August 31, 1870.

[In CONGRESSIONAL PAPERS, H. of R.—44th Cong. 1st sess.—Ex. Doc. No. 83, pp. 21-22, 191-192.]

—— Miscellaneous correspondence.

[In same, pp. 23-29, 32, 45-48, 51-52, 59, 67, 72-73, 77-82, 88-89, 92, 106, 111-113, 121-122, 183-186, 200-201.]

—— Is the trade of Alaska territory to be wrested from general competition of the merchants of the Pacific coast by a monopoly! Extraordinary developments! in regard to the ALASKA COMMERCIAL COMPANY. 8 pp. 4°. San Francisco, Nov. 11, 1871.

—— The Alaska Commercial Company. Its history and its operations, etc.

[In the WEEKLY BULLETIN. fol. San Francisco, 1877. August 30.]

Note.—Several circulars and pamphlets privately printed by this company are in existence, but copies are not at hand and the titles can not be given.

Alaska Herald. A semi-monthly newspaper established March 1, 1868, in San Francisco by Agapius Honcharenko, 611 Clay st. (room 8). Each number consists of 8 pages, of which one or more pages are in the Russian language. On May 9, 1872, Mr. A. A. Stickney became editor.

Vol. i, Mar. 1, 1868, No. 1, to Feb. 15, 1869, No. 27.

Vol. ii, Mar. 1, 1869, No. 28, to Feb. 19, 1870, No. 51.

Vol. iii, Mar. 1, 1870, No. 52, to Feb. 18, 1871, No. 75.

Vol. iv, Mar. 1, 1871, No. 76, to Feb. 15, 1872, No. 99.

Vol. v, Mar. 1, 1872, No. 100, to Apr. 24, 1873, No. 127.

Vol. vi, May 9, 1873, No. 128, to Apr. 28, 1874, No. 151.

Vol. vii, May 13, 1874, No. 152, to Apr. 15, 1875, No. 174.

Vol. viii, May 1, 1875, No. 175, to Mar. 20, 1876, No. 196. *Last issue.*

Note.—This is believed to be the first newspaper published in the United States in the Russian language.

Alaska Times. *A weekly newspaper.* William Sumner Dodge proprietor. 3 vols. fol. *Sitka, A. Terr'y, T. G. Murphy*, 1868-1870.

Vol. 1, May, 1868, to May, 1869. 52 numbers.

Vol. 2, May 6, 1869, to Apr. 22, 1870.

Vol. 3, Apr. 29, 1870, to [July 2, 1870, No. 10 (whole number 62 from May, 1869)].

Note.—It is not known when this paper ceased to appear.

Alaska Tribune. *A semi-monthly newspaper.* 1 vol. fol. *San Francisco, Cal., John F. Hughes*, 412 Pine st. Apr. 1 to June 15, 1873.

Note.—Only four numbers appeared.

Aleutian Islands. Перечень путешествія (etc.), на судиѣ Св. Михаила. [Summary of voyages undertaken to the islands lying between Asia and America in the ship St. Michael.]

[In MIESIATSESLOVAM, (St. Peterburg Almanac), 1783. Also in SOBRANIE, (etc.), (Collection of articles selected from the Almanacs), St. Peterburg, 1785-93, [10 vols.], v. 9.]

— Острова Курильскіе и Алеутскіе, (etc.) [The Kurile and Aleutian islands. From the journal of Zarifëisky.]

[In IRKUTSKIIA GUB. VIEDOMOSTI, (Irkutsk official gazette), 1834, Nos. 34, 35, 36, and 37.]

Note.—This journal covers a period of 40 years. Ethnographical details from an article by G. I. Vlasoff.

Aleutian Islands (Explorations of the).

[In MARKHAM (C. R.) Geographical magazine. 4°. London, Trübner & co. 1874. Vol. i, No. iii, June, p. 121.]

Note.—Brief notice of Dall's explorations in 1873.

Aleutian primer. Алеутскій букварь. [anon.] 16 l. 8°. *Moscow, synodical press*, 1846. L. C.

Aleuts and Koloshians. Алеуты и Колыши. [anon.]

[In VOSKRESSNII DOSUG, (Sunday Leisure), 1864, No. 105.]

— Демьянчикова былъ, (etc.) [Demianchikoff affairs. From the recollections of an old sailor, M. L.]

[In PETERBURGSKII KOMMISSIONER, (St. Peterburg Commissioner), 1867, Nos. 47, 48, and 49.]

Note.—This article contains information about the Aleuts and Koloshians.

Almanacs (St. Peterburg). See CALENDARS and SOBRANIE SOCHINENIE.

Alta California. See DAILY ALTA CALIFORNIA.

American Antiquarian Society. Archaeologia americana. Transactions and collections. 6 v. 8°. *Worcester and Boston, for the society*, 1820-1874. L. C.

American Geographical and Statistical Society. Bulletin. — vols. 8°. *New York, for the society*, 1852-1878.

Vol. ii, 1857, pp. 203-213. The Japanese gulf stream; by *S. Bent*, q. v.

No. i, [session 1874-5], p. 8. Letter from W. H. Dall to A. S. Southworth on surveys in Alaska.

— *Journal.* — vols. 8°. *New York, for the society*, 1859-74.

Vol. i, 1859, pp. 3-10. Northwest America; an address by *hon. Isaac I. Sterens*.

pp. 33-40. Orography of the western portion of the continent of North America; by *Thos. Antisell*, m. d.

pp. 113-114. Explorations of the Rocky mountains in the British possessions.

p. 121. Russian America. Revenue exhibit for 1854 and 1855.

pp. 179-180. Expedition from St. Paul to British Columbia.

pp. 199-200. British Columbia. The founding of Queensborough.

pp. 247-252. The expedition in search for sir John Franklin. From *McClintock*.

Vol. ii, part 2, 1870, pp. lxxxiii-cxxvi. Theories for reaching the north pole, etc.; by *C. P. Daly*, q. v.

pp. 31-40. On the best routes for reaching the north pole; by *S. Bent*, q. v.

Vol. iii, 1873, pp. 134-157. Physical geography of the north-western boundary of the U. S., (continued in vol. iv, pp. 298-392); by *G. Gibbs*, q. v.

pp. 158-192. The Yukon river region, Alaska; by *Charles T. Raymond*, q. v.

pp. 283-299. Journey through eastern Mantchooria and Korea; by *Walton Grinnell*.

Vol. iv, 1874, pp. 393-415. North-western North America: its resources and its inhabitants; by *J. T. Rothrock*, q. v.

Vol. v, 1874, pp. 225-236. Causes of mild temperature of our interior and westerly northern latitudes; by *gen. W. M. Roberts*.

pp. 243-245. Explorations in the Aleutian islands; by *W. H. Dall*, q. v.

American Journal of Science and Arts. By Benj. Silliman and others. 8°. *New York and New Haven*, 1819-1878.

3d series, vol. xi, (whole No. 111), Apr., 1876, Mt. St. Elias and Harbors of Alaska, pp. 242-243.

American Russian Commercial Company. The Alaska fur-seal bill. 12 pp. 8°. *San Francisco*, 1869.

Amérique russe.

[In EYRIÈS (J. B.) ET MALTE-BRUN (C.) NOUVELLES ANNALES DES VOYAGES. 8°. *Paris, Gide fils*, 1822. Vol. xiv, p. 144.]

Note.—Brief note concerning the work of Vasilieff.

[In *same*, 1825, vol. xxv, pp. 279-280.]

Note.—Brief note on the boundary 54° 40'.

Amoretti (Charles). Lettera sul viaggio di Maldonado. 8°. *Padova*, 1814. *Not seen*.

See also MALDONADO.

Amos (Andrew). Report of trials in the courts of Canada relative to the destruction of the earl of Selkirk's settlement on the Red river, with observations. xxx, 1 l. 388, iv, pp. 1 map. 8°. *London, J. Murray*, 1820.

Amur River. [anon.] История рѣки Амуре, (etc.) [History of the Amur river, compiled from published sources. With a map of the Amur river.] 1 map, 148 pp. 8°. *St. Petersburg*, 1859.

Note.—Reviewed in MORSKOI SBORNIK. 8°. *St. Petersburg*, 1859, Apr., vol. xl, [v], pp. 50-51.

Anadyr River. Устье рѣки Анадыри. [Mouth of the Anadyr river.]

[In MORSKOI SBORNIK. (Naval Collections.) 8°. *St. Petersburg*, 1848. Vol. i, p. 284.]

Note.—This is a brief note giving the geographical position of the mouth of the river.

—— Извлечение изъ журнала описи рѣки Анадырь, (etc.) [Extracts from journals kept by the command of the director-general of the Russian American Company, giving description of the Anadyr river.]

[In MORSKOI SBORNIK. (Naval Collections.) 8°. *St. Petersburg*, 1849. Vol. ii, pp. 198-202, with map.]

Anderson (Alexander Caulfield). Notes on north-western America.

[In CANADIAN NATURALIST and quarterly journal of science. 8°. *Montreal, Dawson brothers*, 1876. New series, vol. viii, No. 3, pp. 135-156.]

—— Some remarks upon the freezing of streams in North America, in connexion with the supposed congelation of their sources in high latitudes.

[In JOURNAL of the royal geographical society of London. 8°. *London, J. Murray*, 1845. Vol. xv, pp. 367-371.]

—— Notes on the Indian tribes of British North America, and the northwest coast. Communicated to George Gibbs, esq., and read before the New York Historical Society, November 1862.

[In HISTORICAL MAGAZINE. 4°. *New York*, 1863. Vol. vii, No. 3, March, pp. 73-81.]

Anjou (lieut. —). For exploration of Anjou islands by lieut. Anjou, see SOKOLOFF (A.) Descrip. tion of the shores of the Arctic ocean, etc.

[In ZAPISKI, (etc.) (JOURNAL of the hydrographic bureau of the navy department.) 8°. *St. Petersburg*, 1849. Vol. vii, pp. 117-212.]

Annalen der erd-, völker- und staatenkunde, etc. See HERTHA.

Annales de l'observatoire physique central de Russie, 1847-1875. 29 vols. 4°. *St. Pétersbourg*, 1850-1876. L. C.

Edited, 1847-1863, by A. T. Kupffer; 1864, by L. F. Kämtz; 1865-1875, by H. Wild. From 1847 to 1861 in the French language; 1862-1869 in the French and Russian languages; and 1870-1875 in the Russian and German languages.

Note.—Contains Sitka meteorology and magnetism; also meteorology for Aian, Nikolaieffsk, etc.

—— *same*: années 1850-1864, No. 2. Correspondance météorologique, 1850-1864. 4°. *St. Pétersbourg*, 1851-1865. L. C.

—— *same*: supplément; années 1849-1862. Compte rendu annuel, 1850-1864. 4°. *St. Pétersbourg*, 1851-1865. L. C.

Annales hydrographiques recueil d'avis, instructions, documents et mémoires relatifs à l'hydrographie et à la navigation, publié par le dépôt général de la marine. 15 vols. 8°. *Paris, P. Dupont*, 1849-1858.

See vol. ii, pp. 162-172, 398-417. Expéditions arctiques, [etc.] *Franklin et Ross*.

vol. ii, pp. 394-397. Découverte de deux îles dans la mer d'Okhotsk par M. *Poplonsky*.

vol. iii, pp. 115-139, 324-336. Expéditions arctiques, [etc.] Rapports du M. *Kellett* et du M. *Moore*.

vol. iv, pp. 213-236. Expéditions arctiques, [etc.] Rapports du M. *Rae* et du M. *Pullen*.

vol. vii, p. 19. Perte de baleinier l'*Ajax*, [etc.]

vol. xiv, pp. 314-332. Instructions sur le détroit de La Pérouse, la golfe de Tartarie, les îles Kuriles et la mer d'Okhotsk.

vol. xv, pp. 240-246. Renseignements hydrographiques sur côte est du Japon et de baie d'Avatcha.

Annuaire météorologique et magnétique du corps des ingénieurs des mines, ou recueil d'observations météorologiques et magnétiques faites dans l'étendue de l'empire de Russie, et publiées par ordre de sa Majesté l'empereur Nicolas I, par A. T. Kupffer. Années 1837-1846. 10 v. 4°. *St. Pétersbourg*, 1839-1849.

Note.—Contains Sitka meteorology and magnetism.

Antidote ou examen du mauvais livre superbement imprimé, intit. *Voyage en Sibérie*, etc. 8°. *Amsterdam*, 1771.

Note.—"Attributed to the empress Catherine II and to counselor Schuvaloff."

See also CHIAPPÉ D'AUTEROCHÉ.

Antidote (The), or an enquiry into the merits of a book, entitled A journey into Siberia. Translated into english by a lady. 8°. *London*, 1772.

Anti-Monopoly Association. Resolutions of the *Anti-Monopoly Association* of the Pacific coast. 1 l. fol. *San Francisco*, Dec. 7, 1874.

—— *The same.* With 229 signers "and 500 others." 4 pp. 4°. *San Francisco*, Dec. 7, 1874.

See also BENDEL (B.)

Archives. Archiv für wissenschaftliche Kunde von Russland. Her. von A. Erman. 8°. *Berlin*, G. Reimer, 1841-1866. 25 vols. See also ERMAN (Georg Adolph).

See Duflot de Mofras,

Erman,

Freimann,

Hofmann,

Journal of the Int. Dept.,

Kashevaroff,

Lenz,

Lowe,

Morskoi Sbornik,

Schott,

Sievernaia Pchela,

Vasilieff (M. N.),

Zagoskin.

Arctic Expeditions. Report of the committee appointed by the lords commissioners of the admiralty to inquire into and report on the recent Arctic expeditions in search of sir John Franklin, together with the minutes of evidence taken before the committee, and papers connected with the subject. Presented to both houses of parliament by command of Her Majesty. lix, 1 l. unpag. 199 pp. 2 maps. fol. *London*, 1852.

—— Additional papers relative to the Arctic expedition under the orders of captain Austin and Mr. William Penny. iv, 368 pp. 14 maps. fol. *London*, 1852. With the preceding.

—— Arctic expedition. Further correspondence and proceedings connected with the Arctic expedition. 216 pp. 3 maps. fol. *London*, 1852. With the preceding.

Arctic Manual. See ROYAL SOCIETY.

Arctic (The) world illustrated: its plants, animals and natural phenomena, with a history of Arctic discovery from the earliest voyagers to the last British polar expedition, 1875-76. 147 pl. 4°. *London*, T. Nelson & sons, 1877.

Argonaut. An authentic statement of all the facts relative to Nootka sound; its discovery, history, settlement, trade, and the probable advantages to be derived from it. In an address to the King. 26 pp. 8°. *London*, Debrett, 1790.

—— A continuation of an authentic statement, etc. With observations on a libel which has been traced to a foreign ambassador. 34 pp. 8°. *London*, Fores, 1790.

Note.—Both reviewed in MONTHLY REVIEW. 8°. *London*, R. Griffiths, 1790. Vol. lxxxiii, (n. s. vol. ii), August, p. 458.

Astorian. See WEEKLY (The) ASTORIAN.

Atahualpa (Voyage of the ship). Extracts from a journal kept on board the ship *Atahualpa*, bound on a voyage from Boston to the NW. coast and Sandwich islands.

[In *COLLECTIONS* of the Massachusetts historical society for the year 1804. 8°. *Boston, Hall & Hiller*, 1804. First series, vol. ix, pp. 242-245.]

Note.—During this voyage was made the discovery of the mouth of the Stikine river.

Athenæum (The). London literary and critical journal. [Weekly.] Jan. 2, 1828, to 1879.

Nov. 6, 1869, No. 2193, p. 597, Notice of Dall's report on the Yukon river as given in *Petermann's Mittheilungen*, Heft x, 1869.

Dec. 25, 1869, No. 2200, p. 87, Criticism on Dall by Whymper and others.

Atkinson (Thomas Witlam, *f. r. g. s.*) Travels in the regions of the upper and lower Amoor and the Russian acquisitions on the confines of India and China, [etc.] xiii, 570 pp. 1 map, 1 pl. col'd. 8°. *London, Hurst & Blackett*, 1860. L. C.

Atlantic Monthly. See BONE.

Ausland (Das). Ueberschau der neuesten forschungen auf dem gebiete der natur-, erd- und völkerkunde. [Weekly.] 1846-1879. fol. *Augsburg, J. G. Cotta*, 1846-79.

1846, xix, p. 1265. *Not seen*.

1857, xxx, p. 479. *Not seen*.

1867, xl, p. 1056. *Not seen*.

1868, xli, p. 406. Notice of Whymper's travels.

1869, xlii, pp. 97-102, 125-131. Whymper's travels reviewed; with map of the Yukon river.

1870, xliii, p. 94. Notice of capt. Raymond's explorations on the Yukon; from a New York paper.

1872, xlv, p. 504. Notice of formation of Alaskan coal company.

1874, xlvii, p. 480. Notice of C. S. work by Dall; from *Nature*.

Back (capt. George, *r. n.*) Account of the route to be pursued by the Arctic land expedition in search of captain Ross.

[In *JOURNAL* of the royal geographical society of London. 8°. *London, J. Murray*, 1838. Vol. iii, 1833, pp. 64-71.]

— An account of the route and appearances of the country through which the Arctic land expedition passed, from Great Slave lake to the Polar sea.

[In *same*: vol. vi, 1836, pp. 1-11.]

See also vol. ii, 1832, pp. 336-339; vol. v, 1835, pp. 405-409.

— Discovery of the North-West passage. By commander R. M'Clure, of H. M. S. Investigator, (*gold medallist*).

[In *JOURNAL* of the royal geographical society of London. 8°. *London, J. Murray*, 1854. Vol. xxiv, pp. 240-245.]

— Account of the proceedings of H. M. S. Enterprise from Behring Strait to Cambridge bay. By capt. R. Collinson.

[In *JOURNAL* of the royal geographical society of London. 8°. *London, J. Murray*, 1855. Vol. xxv, pp. 194-206.]

Baer (dr. Karl Ernst von). Anatomische und zoologische untersuchungen über das walross (*Trichechus rosomarus*) und vergleichung dieses thiers mit andern see-säugethieren. (Gelesen den 6 Nov. 1835.)

[In *MÉMOIRES* de l'académie impériale des sciences de Saint-Petersbourg. 4°. *St.-Petersb., imp. acad. des sc.* 1838. VI^{me} série, Sciences naturelles, tome ii, Zoologie et physiologie, pp. 97-236.]

Note.—Contains a circumpolar map showing the distribution of the walrus and sea-cow.

— Untersuchungen über die ehemalige verbreitung und die gänzliche vertilgung der von Steller beobachteten nordischen seekuh (*Rytina* Ill.). (Gelesen den 26 Januar 1838.)

[In *MÉMOIRES* de l'académie impériale des sciences de Saint-Petersbourg. 4°. *St.-Petersb., imp. acad. des sc.* 1840. VI^{me} série, Sciences naturelles, tome iii, pp. 53-80.]

— On the ground ice or frozen soil of Siberia.

[In *JOURNAL* of the royal geographical society of London. 8°. *London, J. Murray*, 1838. Vol. viii, pp. 210-213, 401-406.]

— Statistische und ethnographische nachrichten über die Russischen besitzungen an der nord-westküste von Amerika. xxvii, 1 l. 332 pp. 1 tab. 1 map. 8°. *St. Petersburg, akad. der wissenschaften*, 1839.

Note.—This is vol. i of BAER and HELMERSEN, Beiträge u. s. w.

Baer (*dr. Karl Ernst von*)—continued.

— Sur le climat de Sitkha et des possessions russes de la côte nord-ouest de l'Amérique.

[In BULLETIN SCIENTIFIQUE de l'acad. imp. des sciences de St.-Petersbourg. 4°. St.-Petersbourg, 1839. Vol. v, pp. 129-153.]

— Новѣйшія извѣстія объ экспедиціи Г. Фонтъ-Миддендорфъ. [Latest news from the expedition of Herr von Middendorff.]

[In SANKTPETERBURGSKIIA VIEDOMOSTI, (The St. Petersburg Gazette), 1844, pp. 20-22.]

— Берингъ и Чириковъ. [Bering and Chirikoff.]

[In RUSSKI INVALID, (Russian Invalid), 1849, Nos. 121-123. (Taken from the St. Petersburg Times, 1849, Nos. 114-116.)]

— Das neuentdeckte Wrangells-land. [Von der censure gestattet, Dorpat, den 18. Mai 1868.] 1 p. l. 35 pp. 12°. Dorpat, W. Gläser, 1868.

— and **Helmersen** (Gregor von). Beiträge zur kenntniss des Russischen reichs und der angränzenden länder Asiens. Auf kosten der kaiserlichen akad. der wissenschaften herausgegeben von K. E. von Baer und Gr. v. Helmersen. 8°. St. Petersburg, 1839-1868. Vols. i-xxvi.

See vol. i, 1839; vol. ix, abth. i, 1845; abth. ii, 1855; vol. xvi, 1872.

Baird (Spencer Fullerton). On additions to the bird-fauna of North America, made by the scientific corps of the Russo-American telegraph expedition.

[In TRANSACTIONS of the Chicago academy of sciences. 4°. Chicago, published by the academy, 1869. Vol. i, part ii, pp. 311-325, pl. xxvii-xxxiv.]

Balbi (Adrien). Atlas ethnographique du globe, ou classification des peuples anciens et modernes d'après leurs langues; avec environ 700 vocabulaires des principaux idiomes connus. fol. Paris, 1826.

— Introduction à l'atlas ethnographique du globe. Tome premier. cxliii, 416 pp. 8°. Paris, Rey & Gravier, 1826.

Baltimore American and Commercial Advertiser. fol. Baltimore, 1874-1878. A daily newspaper.

Dec. 21, 1874. Value of Alaska to the United States.

Dec. 6, 1875. Our Russian purchase.

Feb. 21, 1876. Alaska seal fur company.

Baltimore Gazette. fol. Baltimore, 1877. A daily newspaper.

Apr. 11, 1877. Prof. Taylor starts for Mt. St. Elias.

Bancroft (Hubert Howe). The native races of the Pacific states of North America. 5 vols. 8°. Maps and plates. San Francisco, author, 1874-1875.

CONTENTS.

Vol. 1. Wild tribes. 1874.

Vol. 4. Antiquities. 1875.

Vol. 2. Civilized nations. 1875.

Vol. 5. Primitive history. 1875.

Vol. 3. Myths and languages. 1875.

Banks (Nathaniel Prentiss). See CONGRESSIONAL PAPERS—II. of R.—40th Cong. 2d sess.—Report No. 37.

Bannister (Henry Martyn, *m. d.*) The Esquimaux dog.

[In the AMERICAN NATURALIST. 8°. Salem, Mass., Peabody academy of science, 1870. Vol. iii, No. 10, December, 1869, pp. 522-530.]

See also DALL and BANNISTER.

Baranoff. Биографія А. А. Баранова, (etc.) [Biography of A. A. Baranoff, first director-general of the Russian-American colonies.]

[In RUSSKI INVALID, etc. (The Russian Invalid or military gazette.) 4°. St. Peterburg, 1848. Nos. 143, 144.]

— Жизнеописание Александра Андреевича Баранова. [Biography of Alexander Andreëvich Baranoff.] 8°. St. Peterburg, 1835.

[Title from the Sobelevsky catalogue, p. 5.]

Barbé-Marbois (François, *marquis de*). Histoire de la Louisiane et de la cession de cette colonie aux États-Unis, précédé d'un discours sur le gouvernement des États-Unis. 2 p. l. 476 pp. 1 map. 8°. Paris, F. Didot, 1829.

— The same. The history of Louisiana, particularly of the cession of that colony to the United States of America. With an essay on the constitution and government of the United States. Translated from the French, [by William B. Lawrence]. xviii, 456 pp. 8°. Philadelphia, Carey & Lea, 1830.

Barrington (Daines). *Miscellanies*. viii, 558 pp. 4°. *London, J. Nichols, 1781.*

Note.—Contains an account of early Spanish voyages to the NW. coast of America, especially to Port Bucareli.

Barrow (*sir John*). A chronological history of voyages into the arctic regions; undertaken chiefly for the purpose of discovering a north east, north-west, or polar passage between the Atlantic and the Pacific, from the earliest periods of Scandinavian navigation to the departure of the expeditions under Ross and Buchan. 3 p. l. 379, 48 pp. 1 map. 8°. *London, J. Murray, 1818.* [*Éd. française*. 2 v. 8°. *Paris, 1819.*]

— A letter to the Geographical society concerning a north-west passage.

[*In JOURNAL of the royal geographical society of London*. 8°. *London, J. Murray, 1836*. Vol. vi, pp. 34–37.]

Bartoshevich (*mate* —). Новоярхангельскъ (Ситка) изъ записокъ о плаваніи по тихому океану, 1864 года. [New Archangel—Sitka—from the journal of a voyage to the Pacific ocean, 1864.]

[*In MORSKOI SBORNIK*. 8°. *St. Petersburg, 1866*. April, vol. lxxxiii, [iii], pp. 31–43.]

Basargin (*lieut. Vladimir*). Извлечение изъ рапорта командующаго корветомъ “Рида” лейтенанта Басаргина. [Extract from the report of lieut. Basargin, commanding the corvette Rynda.]

[*In MORSKOI SBORNIK*. *St. Petersburg, 1863*. Sept., vol. lxviii, [ii], pp. 27–34. *See also same, 1864, May, vol. lxxii, [ii], pp. 7–8.*]

Baude (J . . . J . . .). Le passage du Nord.

[*In REVUE des deux mondes*. 8°. *Paris, 1853*. Nov., xxiii^e année, 2^e série de la nouvelle période, tome iv, pp. 834–835.]

Baylies (Francis). Exploration of the northwest coast. Report No. 35, H. of R., 19th Cong., 1st sess., Jan. 16, 1826. (Reports, vol. 1.) 26 pp. 8°. [*Washington, Gales & Seaton, 1826.*]

— Northwest coast of America. Report No. 213, H. of R., 19th Cong., 1st sess., May 15, 1826. (Reports, vol. 2.) 22 pp. 8°. [*Washington, Gales & Seaton, 1826.*]

Bayly (William). The original astronomical observations made in the course of a voyage to the northern Pacific ocean for the discovery of a northeast or northwest passage: wherein the northwest coast of America and northeast coast of Asia were explored. In H. M. ships Resolution and Discovery, 1776–1780, by *capt. James Cook, f. r. s.* and *lieut. James King*. 6 p. l. 351 pp. 4°. *London, Elmsly, Mount and Page, 1782*. B. M.

Beaman (Charles Cotesworth, jr.) Our new northwest.

[*In HARPER'S new monthly magazine*. 8°. *New York, Harper & brothers, 1867*. Vol. xxxv, No. 206, July, 1867, pp. 170–185.]

Beaufort (*capt. Francis, r. n.*) A letter to the royal geographical society of London concerning a north-west passage.

[*In JOURNAL of royal geographical society of London*. 8°. *London, J. Murray, 1836*. Vol. vi, pp. 46–47.]

Becher (*capt. Alexander Bridport, r. n.*) Navigation of the Pacific ocean, illustrated by charts, being a brief account of the winds, weather and currents prevailing therein throughout the year, [etc.] viii, 132 pp. 2 maps. 8°. *London, J. D. Potter, 1860.*

Beechey (*capt. Frederic William, r. n.*). Narrative of a voyage to the Pacific and Beering's strait, to co-operate with the polar expeditions, performed in H. M. S. Blossom, in the years 1825–28. 2 parts. xxiii, 392 pp.; viii, 393–742 pp. 3 maps, 23 pl. 4°. *London, H. Colburn & R. Bentley, 1831.*

— *The same*. 8°. *Philadelphia, 1832.*

— Путешествіе капитана Бичея въ Южный океанъ, etc., 1825. [Voyage of capt. Beechey to the Pacific ocean and Bering strait. Concerning the mutiny of the Bounty, 1825.]

[*In SANKT-PETERBURGSKIIA VIEDOMOSTI*, (The St. Petersburg Gazette), 1831, Nos. 102 and 111.]

— The zoölogy of the voyage in H. M. S. Blossom. By J. Richardson, in 1825–28. With coloured plates by Sowerby. viii, 180 pp. 50 col'd pl. 4°. *London, H. G. Bohn, 1839.*

— A voyage of discovery towards the north pole, performed in H. M. S. Dorothea and Trent, under the command of captain David Buchan, *r. n.*, in the year 1818. ix, 351 pp. 1 map, 3 pl. 8°. *London, R. Bentley, 1843.*

Begbie (Matthew B . . .). Journey into the interior of British Columbia.

[*In JOURNAL of the royal geographical society of London*. 8°. *London, J. Murray, 1861*. Vol. xxxi, pp. 237–248.]

Belcher (*sir* Edward). Narrative of a voyage round the world, performed in H. M. S. Sulphur, during the years 1836-42, including details of the naval operations in China, in 1840-41. 2 v. xxii, 387 pp. 3 maps, 8 pl.; viii, 47 pp. 10 pl. 8°. London, H. Colburn, 1843.

Note.—For Belcher's magnetic observations on the NW. coast, etc., see SABINE (*lt. col.* Edward, *f. r. s.*)

Belknap (Jeremy). Letter to doctor Kippis (Andrew), relative to an error in his life of capt. Cook, with several testimonies in evidence.

[In COLLECTIONS of the Massachusetts historical society for the year 1795. 8°. Boston, S. Hall, 1795. First series, vol. iv, pp. 79-85.]

Bell (*capt.* William H., *c. s. u. s. a.*). The quiddities of an Alaskan trip. 34 l. inc. 61 pl. obl. 8°. Portland, Oregon, G. A. Steele & co., 1873. L. C.

Bell (W . . . H . . .). The Stickeen river and its glaciers.

[In SCRIBNER'S MONTHLY, an illustrated magazine for the people conducted by J. G. Holland. 8°. New York, Scribner & Co., 1879. April, vol. xvii, No. 6, pp. 805-815.]

Bellin (Jacques-Nicolas). Remarques sur la carte de l'Amérique septentrionale, entre le 28° et le 72° degré de latitude, avec une description géographique de ces parties. 131 pp. 4°. Paris, Didot, 1755.

Bellingshausen (*capt.* Thaddeus Thaddeavich). Выписка изъ донесеній и писемъ кап. Белинграу-зена, 8 Апр. 1820. [Extract from the report and from a letter of capt. Bellingshausen, Apr. 8, 1820.]

[In SIN OTECHESTVA, *St. Peterburg*, 1821, 17. (A continuation in *The Russian Invalid*, 1821, 196.)]

— Дальнѣйшія свѣденія о плаваніи отряда, (etc.) [Old news of the voyage of the detachment, composed of the sloops Orient and Peace, under the command of capt. Bellingshausen.]

[In RUSSKI INVALID. (*The Russian Invalid.*) *St. Peterburg*, 1821, 196. Beginning in SIN OTECHESTVA (*The Son of the Fatherland*), 1821, 17.]

— Двукратныя изысканія въ Южномъ ледовитомъ океанѣ и плаваніе вокругъ свѣта въ продолженіи 1819-21, (etc.) [Two discoveries in the Antarctic ocean and a voyage round the world during the years 1819-1821. Performed in the sloops Vostok (*Orient*) and Mier (*Peace*) under the command of capt. Bellingshausen.] vi, 397, 396 pp., 4°; atlas, 64 pl., fol. *St. Peterburg*, 1831.

See also SIEMONOFF (I.)

— Некрологи. [anon.] [Obituaries. Admiral Thaddeus Thaddeavich Bellingshausen.]

[In MORSKOI SBORNIK. (*Naval Collections.*) 8°. *St. Peterburg*, 1853. July, vol. x, pp. 26-32.]

Bendel (Bernhard). Aus Alaska. Von Sitka nach dem Chilcat-fluss, 1868.

[In WESER ZEITUNG, wochen-ausgabe, 10 Oktober 1872.]

— The Alexander archipelago.

[In PROCEEDINGS of the AGASSIZ INSTITUTE, SACRAMENTO, California. 8°. No. 2, pp. 25-35. Read February 4, 1873. Also in the DAILY RECORD newspaper. fol. Sacramento, Cal., 1873. February 15.]

— [anon.] A history of the wrongs of Alaska. An appeal to the people and press of America. Printed by order of the Anti-Monopoly Association of the Pacific coast, February, 1875. 43 pp. 8°. San Francisco, 1875.

— The same.

[In CONGRESSIONAL PAPERS, Senate—44th Cong. 1st sess.—Ex. Doc. No. 12, pp. 13-33. Also in same, H. of R.—44th Cong. 1st sess.—Ex. Doc. No. 83, pp. 152-171.]

Benjowsky (Moricz Agoston, *graf* von). Memoirs and travels. Consisting of his military operations in Poland; his exile into Kamschatka; his escape and voyage through the northern Pacific ocean, touching at Japan and Formosa, to Canton, in China; with an account of the French settlement he was appointed to form upon the island of Madagascar. Translated from [his] original manuscript by William Nicolson. 2 v. 12 pp. 1 l. xxxiii, 422 pp. 9 pl. 2 maps; 2 p. l. 399 pp. 11 pl. 4°. London, G. G. J. & S. Robinson, 1790. (See also BERGH.)

— The same. Mémoires et voyages. 2 v. 8°. London, 1790.

— Любопытный актъ къ біографіи Бенювскаго. 1773. [Curious document toward the biography of Benjowsky. A letter to prince Vazemsky, commandant of Kamchatka, March, 1773.]

[In RUSSKI INVALID, (*The Russian Invalid.*) *St. Peterburg*, 1842, 5-6.]

Benjowsky (Moricz Agoston, *graf* von)—continued.

—— Reisen durch Sibirien und Kamtschatka über Japan und China nach Europa, (etc.) Aus dem Englischen von J. R. Forster. 8°. *Berlin*, 1790.

—— Voyages et mémoires, contenant ses opérations militaires en Pologne. 2 v. sm. 8°. *Paris*, 1791. *Not seen.*

—— Gedenkschriften en reizen (in Polen, Kamschatka, enz.) Naar het Engelsch. 4 vols. 8°. *Haarlem*, 1793. *Not seen.*

Bent (*lieut.* Silas, *u. s. n.*) The Japanese gulf stream.

[In AMERICAN geographical and statistical society, *Bulletin* of the, for 1856. 8°. *New York*, 1857. Vol. ii, pp. 203-213.]

—— The Japan current—Kuro-Siwo, or gulf stream of the north Pacific ocean.

[In MERCANTILE (The) marine magazine and record of the royal naval reserve. 8°. *London*, *Imray & son*, 1868. June, vol. xv, pp. 161-168.]

—— An address delivered before the St. Louis historical society, December 10, 1868, and repeated by request before the Mercantile library association, January 21, 1869, upon the THERMOMETRIC GATEWAYS TO THE POLE, surface currents of the ocean, and the influence of the latter upon the climate of the world. 29 pp. 1 map. 8°. *Saint Louis*, *R. P. Studley & co.* 1869.

—— A letter to Charles P. Daly, president of the American geographical and statistical society, upon the routes to be pursued by expeditions to the north pole.

[In JOURNAL of the American geographical and statistical society. 8°. *New York*, 1870. Vol. ii, part 2, pp. 31-40.]

—— An address delivered before the St. Louis mercantile library association January 6th, 1872, upon the THERMAL PATHS TO THE POLE, (etc.) 40 pp. 2 maps. 8°. *St. Louis*, *R. P. Studley & co.* 1872.

Bergh (*dr.* Rudolph). On the nudibranchiate gasteropod mollusca of the north Pacific ocean, with especial reference to those of Alaska. Part I.

[In PROCEEDINGS of the Philadelphia academy of natural sciences. 8°. *Philadelphia*, *the academy*, 1879; pp. 71-132, pl. i-viii, (June) 1879. See also DALL, Scientific results of the exploration of Alaska, art. V.]

Bergh (Vasili Nikolaievich). Описание несчастнаго кораблекрушенія фрегата Р. А. К. Невы, (etc.) [Description of the unfortunate shipwreck of the Russian American company's frigate Neva, which occurred near the shores of New Archangel.] 46 pp. 8°. *St. Peterburg*, 1817. *Not seen.*

—— Путешествіе кап. командора Беринга и кап. Чирикова, (etc.) [Voyage of capt. commander Bering and capt. Chirikoff to the northwest coast of America. Second expedition.]

[In BLAKHONAMIERENNIL. (Good Intentions.) *St. Peterburg*, 1818. ii, 6.]

—— Плаваніе купца Шалаурова. [Voyage of the merchant Shalauroff.]

[In SIN OTECHESTVA. *St. Peterburg*, 1819. 42 and 43.]

—— (Remarks on this article by Sarycheff.) *Same.* 46 and 47.

—— (Defense.) *Same*; 1820. 4.

—— (Reply.) *Same*; 1820. 9.

—— (Rejoinder.) *Same*; 1820. 20.

—— Путешествіе лейтенанта Синда. [Voyage of lieut. Synd.]

[In SIN OTECHESTVA. *St. Peterburg*, 1819. 43.]

—— Путешествіе капитана Биллингса, (etc.) [Voyage of capt. Billings to the Arctic ocean.]

[In SIN OTECHESTVA. *St. Peterburg*, 1820. 4 and 5.]

—— Побѣгъ графа Бенювскаго, (etc.) [Escape of count Benjowsky from Kamchatka to France.]

[In SIN OTECHESTVA. *St. Peterburg*, 1821. 27 and 28.]

—— Хронологическая исторія всѣхъ путешествій въ сѣверныя полярныя страны. [Chronological history of all voyages to the north polar regions.] 12 pl. 2 maps. 8°. *St. Peterburg*, 1821.

Note.—Title from the Sobolewski catalogue; book not seen.

—— Записки канцеляриста Рюмина, (etc.) [Journal of chancellor Riumin, concerning his adventures with Benjowsky.]

[In SIEVERNI ARKHIV. (The Northern Archives.) *St. Peterburg*, 1822. i, 5 and 6; ii, 7.]—(Published separately.)

Bergh (Vasili Nikolaievich)—continued.

— Открытие Алеутских острововъ. [Discovery of the Aleutian islands.]

[In SIN OTECHESTVA. *St. Peterburg*, 1823. 21-26.]

— Открытие козакомъ Москвитинимъ Восточнаго океана. [Discovery of the Pacific ocean by a Muscovite cossack.]

[In SIN OTECHESTVA. *St. Peterburg*, 1823. 35.]

— Бідографическое свѣденіе о капитанѣ-командорѣ Витусѣ Берингѣ. [Biographical sketch of capt. commander Vitus Bering.]

[In SIEVERNI ARKHIV. (Northern Archives.) *St. Peterburg*, 1823. vi, 8.]

— Вѣдомость мѣхамъ, вывезеннымъ частными Росс. Америк. компаніями. [List of furs, exported in part by the Russ. Am. company.]

[In RUSSKI INVALID. (The Russian Invalid.) *St. Peterburg*, 1823. 261.]

— Хронологическая исторія открытія Алеутскихъ острововъ, (etc.) [Chronological history of the discovery of the Aleutian islands, or the advance of Russian trade. With an historical account of the fur trade.] 1 p. l. iii, 169 pp. 1 l. 4 tab. 1 map. 12°. *St. Peterburg, N. Grech*, 1823.

Note.—Reviewed in EYRIÈS (J. B.) et MALTE-BRUN (C.) *Nouvelles annales des voyages*. 8°. *Paris, Gide*, 182-. Vol. 29, pp. 121-

— Первое морское путешествіе Россіянъ, (etc.) [First Russian sea-voyages undertaken for settling this geographical problem, Are Asia and America united? and performed in 1727-1729, under the command of captain—of the first rank—Vitus Bering.] 1 p. l. iv, 126 pp. 1 map. 8°. *St. Peterburg, imp. acad. sci.* 1823. B. M.

— Жизнеописанія первыхъ Россійскихъ адмираловъ, (etc.) [Biographies of the first Russian admirals or an attempt at the history of the Russian navy.] 4 vols. 354, 391, 291 and 126 pp. with 40 fac-simile signatures. 8°. *St. Peterburg, v' morskoi typografii*, 1831-1836. B. M.

Berghaus (H . . .) and **Hoffmann** (K . . . F . . .), editors. See HERTHA, zeitschrift, etc.

Bergmann (B . . .). Nomadische streifereien unter den Kalmüken in 1802. Maps. 4 parts. 4°. *Riga*, 1804.

— De Kalmukkenn; hunne zeden, gewoonten, gebruiken, enz. 8°. *Leeuwarden*, 1815.

— Same. 8°. *Amsterdam*, 1820.

Note.—The last appeared anonymously. Neither has been accessible to the compilers.

— Voyage chez les Kalmuks, trad. de l'allemand par Moris. Maps. 8°. *Chatillon*, 1825.

Bering (Ivan Ivanovich, otherwise Vitus). See BERGH, KHLIEBNIKOFF, SOKOLOFF, K. L., and KOCH (N. A.)

Note.—Bering's real name and rank was capt.-commander IVAN IVANOVICH BERING (officially his name was VITUS), according to Sokoloff in the official Zapiski hydr. dept. ix, p. 208.

— Донесеніе фл. кап. Беринга объ экспедиціи его, (etc.) [Report of capt. Bering on his expedition to eastern Siberia.]

[In ZAPISKI voenno-topograficheskakho depo, etc. *St. Peterburg*, 1847. Vol. x, pp. 67-79.]

Note.—This article contains, first, Bering's instructions; and, second, A list of positions and distances.

— [anon.] Назначеніе первой Беринговой экспедиціи. [The destination of Bering's first expedition.]

[In ZAPISKI HYDR. DEPART. (Journal of the hydrographic department.) 8°. *St. Peterburg*, 1851. Vol. ix, pp. 642-644.]

— [anon. A. II.] Первая Камчатская экспедиція Беринга 1725-29. [Bering's first Kamchatka expedition 1725-29.]

[In OTECHESTVENNIA ZAPISKI. (Journal of the Fatherland.) *St. Peterburg*, 1851. 3.]

— Экспедиція Беринга, (etc.) 1734. [Bering's expedition (in an article about bishop Innocent Nerunovich) 1734.]

[In IRKUTSKIIA EPARKH. VIEDOMOSTI. *Irkutsk*, 1864, 32.]

— Памятникъ капитану Берингу, въ Петропавловскѣ, (etc.) [Monument to captain Bering in Petropavlovsk—with description.]

[In MOSKOVSKAIA GAZETA. (Moscow Gazette.) *Moscow*, 1867. No. 13.]

Bering (Ivan Ivanovich, *otherwise* Vitus) and **Chirikoff** (Alexie).

For an account of Bering and Chirikoff's first voyage, etc., see COLORADO WEEKLY TRANSCRIPT, [Golden, Col.] Dec. 23d, 1868, an account translated from the French of RECUEIL des naufrages, Paris, 1825, by E. L. Berthoud.

Bible. Aleutian-Unalashka dialect. New Testament. *Gospels.* Господа нашего Иисуса Христа евангелие, (etc.) [The gospel of our lord Jesus Christ written by the apostle Matthew. Translated from the Russian into the Unalashkan dialect of the Aleutian language by rev. John Veniaminoff in 1828, and revised in 1836; and with explanatory notes by rev. Jacob Netzvietoff, to adapt it for the use of those speaking only the Atkan dialect.] 3 l. unp. 237, 21 pp. 8°. (! Moscow, synodical press, about 1840!)

Note.—Almost wholly in the modified cyrillic alphabet.

See also GREEK CHURCH.

— Aleutian-Kadiak dialect. New Testament. *Gospels.* [Gospel of St. Matthew translated into the Aleutian Kadiak language by Elias Tishnoff.] 1 p. l. 260 pp. 1 l. unp. 8°. *St. Petersburg, synodical press, 1848.*

Note.—Mostly in the modified cyrillic characters.

Billing (rev. R . . . C . . .), editor. See MISSIONARY LEAVES.

Billings (commodore Joseph).

See BERGH (V. N.)

SARYCHEFF (G. A.)

SAUER (M.)

Bingham (H . . .). The introduction of the gospel among the aborigines of North America, west of the Rocky mountains.

[In HAWAIIAN SPECTATOR. 8°. Honolulu, for the proprietors, 1838. Vol. i, No. 3, July, pp. 320-333; also in No. 4, October, pp. 361-389.]

Black (lieut. James). Notes on the Russian American trading posts. Washington, department of state, Oct. 16th, 1867. *Not seen.*

— Russian American trading posts. B. M.

[In MERCANTILE (The) marine magazine and record of the royal naval reserve. 8°. London, Imray & son, 1867. Dec., vol. xiv, pp. 353-358.]

Note.—This last article is taken from the preceding ones.

Blake (Theodore Augustus, a. b.) Topographical and geological features of the northwest coast of America.

[In SILLIMAN (B.) and DANA (J. D.) American journal of science and arts. 8°. New Haven, editors, 1868. Second series. Vol. xlv, No. 134, March, pp. 242-247.]

— Explorations in Aliaska.

[In MERCANTILE (The) marine magazine and record of the royal naval reserve. 8°. London, Imray & son, 1868. March, pp. 73-75.]

Note.—This article is condensed from a paper read before the California academy of sciences.

— Notes on Alaska.

[In CALIFORNIA academy of natural sciences, *Proceedings of*; 1868-1872. 8°. San Francisco, published by the academy, 1873. Vol. iv, pp. 13-15.]

— General topographical and geological features of the northwestern coast of America, from the straits of Juan de Fuca to the parallel of sixty degrees north latitude.

[In COAST SURVEY; REPORT of the superintendent showing the progress of the survey during the year 1867. 4°. Washington, 1869. Appendix E to appendix No. 18, pp. 281-290.]

— *The same.*

[In CONGRESSIONAL PAPERS, H. of R.—40th Cong. 2d sess.—Ex. Doc. No. 177, pp. 315-325.]

Blake (William Phipps.) The glaciers of Alaska, Russian America.

[In SILLIMAN (B.) and DANA (J. D.) American journal of science and arts. 8°. New Haven, by the editors, 1867. Second series, vol. xlv, No. 130, July, pp. 96-101.]

— Notice of fossil elephant's teeth from the northwest coast.

[In CALIFORNIA academy of natural sciences, *Proceedings of*; 1863-1867. 8°. San Francisco, published by the academy, 1868. Vol. iii, p. 325.]

Blake (William Phipps)—continued.

— Notes upon the geography and geology of Russian America and the Stickeen river from observations made in 1863.

[In CONGRESSIONAL PAPERS, H. of R.—40th Cong. 2d sess.—Ex. Doc. No. 177, part 2. 19 pp. 8°. Washington, 1868.]

— Описание рѣки Стахинъ. [Description of the Stikine river.]

"From a California newspaper."

[In MORSKOI SBORNIK. St. Petersburg, 1865. May, vol. lxxviii, [iii], pp. 95–110.]

Blakhonamierennii Zhurnal. Благонамѣренный ежемѣсячный Журналъ, (etc.) [Benevolent monthly Journal, published by A. Izmailoff.] 31 vols. 8°. St. Petersburg, 1818–1825.

Blashke (Eduard L. . ., m. d.) Topographia medica portus novi-archangelscensis, sedis principalis coloniarum rossicarum in septentrionali America. 2 p. l. 86 pp. 3 tab. 1 pl. 2 maps. 8°. Petropoli, typis K. Wienhoberi et fil. 1842.

Note.—The name is rendered Blashke in Russian and Blaschke in German.

— Einige bemerkungen über das reisen in baidarken und über die Aleuten der Fuchsinselfn.

[In MONATSBERICHTE über die verhandlungen der gesellschaft für erdkunde zu Berlin. 8°. Berlin, Nicolai, 1845. Bd. ii, neue folge, ste. 94–105.]

— Нѣсколко замѣчаній о плаваніи въ байдаркахъ и о лисевскихъ Алеутахъ. [Some remarks on a voyage in bidarkas and concerning the Aleuts of the Fox islands.]

[In MORSKOI SBORNIK. 8°. St. Petersburg, 1848. Vol. i, pp. 115–124, 160–165.]

Blerzy (H. . .). Le territoire d'Alaska et les colonies du nord-ouest de l'Amérique.

[In REVUE des deux mondes. 8°. Paris, 1869. 15 Juin, tome lxxxi, pp. 997–1020.]

Blodget (Lorin). Climatology of the United States, and of the temperate latitudes of the North American continent. 536 pp. 12 pl. 8°. Philadelphia, J. B. Lippincott & co. 1857.

— Alaska—what is it worth?

[In LIPPINCOTT'S magazine. 8°. Philadelphia, J. B. Lippincott, 1868. Vol. i, February, pp. 185–191. With an isothermal map.]

Bogosloff. See HISTORICAL JOURNAL. О новоявившемся вулканическомъ островѣ.—1807., Богословъ, (etc.) [Concerning the newly risen volcanic island, 1807. Bogosloff, Aleutian group.]

[In ISTORICHESKI ZHURNAL. (The Historical Journal.) St. Petersburg, 1818. iii, 227.]

Belduc (rev. J . . . B . . . Z . . .). Mission de la Colombie. Lettre et journal. 95 pp. 8°. Quebec, 1843. Not seen.

— Extrait d'une lettre de M. Bolduc, missionnaire apostolique. Cowlitz, Orégon, 15 février 1844.

[In NOUVELLES annales des voyages. 8°. Paris, A. Bertrand, 1845. T. 108 de la collection, v^e série, tome 4, pp. 363–372.]

Bone (J . . . H . . . A . . .). Russian America.

[In ATLANTIC monthly. 8°. Boston, Ticknor & Fields, 1867. June, vol. xix, pp. 731–750.]

— Letter to Hon. William H. Seward concerning the foregoing article.

[In CONGRESSIONAL PAPERS, H. of R.—40th Cong. 2d sess.—Ex. Doc. No. 177, p. 51.]

Bongard (Heinrich Gustav). Observations sur la végétation de l'île de Sitcha. Avec 6 planch. lith. (Lu le 4 Mai 1831.)

[In MÉMOIRES de l'académie impériale des sciences de St.-Petersbourg. 4°. St.-Petersbourg, acad. imp. des sci. 1833. vime série, Sciences math. phys. et naturelles, tome ii, pp. 119–177.]

Reviewed in ANNALES des sciences naturelles rédigées * * pour la botanique par MM. Ad. Brongniart et Guillemin. 8°. Paris, Crochard, 1835. Série ii, tome iii—Botanique,—pp. 236–238.

Boshniak (lieut. N. . .). Занятіе части острова Сахалина, (etc.) [The occupied part of Sakhalin island and winter establishment at Imperial Harbor (straits of Tartary).]

[In MORSKOI SBORNIK. 8°. St. Petersburg, 1859. Vol. xliii, No. 10, (iii), pp. 391–413.]

Boston Daily Advertiser. fol. Boston, 1869–1879. A daily newspaper.

Oct. 4, 1869. Letter from prof. A. Hall.

Oct. 16, 1869. Gen. G. H. Thomas's report.

Oct. 16, 1869. Criticism on same by W. H. Dall.

Nov. 20, 1869. Miscellany.

May 28, 1870. Note about capt. Bryant.

June 18, 1870. Dall's Alaska reviewed. See the supplement.

Mar. 17, 1870. Resources of Alaska.

Boston Daily Advertiser—continued.

- June 6, 1870. Note on Coast Survey expedition.
 July 15, 1875. Elliott's report reviewed by W. H. Dall.
 July 18, 1875. Reply to same by H. W. Elliott.
 July 20, 1875. Reply by Dall.
 Sept. 10, 1875. Icelanders going to Alaska.
 Apr. 19, 1879. On capt. Brown's report.

Boston Evening Transcript. fol. *Boston*, 1875. *A daily newspaper.*

- Sept. 15, 1875. Discovery of a silver mine in Alaska.

Boston Herald. fol. *Boston*, 1876. *A daily newspaper.*

- Jan. 20, 1876. General Howard's report on Alaska.

Boundary. See NOTICE.

—— See AMÉRIQUE RUSSE.

Boundary (Northwestern). О мѣховой торговлѣ въ Сѣверной Америкѣ, и спорахъ за границы между Англичанами и Сѣверо-Американцами. [Concerning the fur trade in North America, and the boundary dispute between the English and North-Americans.]

- [In SIEVERNAIA PCHELA. (Northern Bee.) 1838. 95 and 96.]

—— Misunderstandings with England and the United States of North America.—Definitive settlement of the boundaries of Russian possessions in North America.

- [In CONGRESSIONAL PAPERS, H. of R.—40th Cong. 2d sess.—Ex. Doc. No. 177, pp. 112–113.]

Bourgoing (Jean François). Relation d'un voyage récent des Espagnols sur les côtes nord-ouest de l'Amérique septentrionale. 3 vols. 8°. *Paris*, 1789. *Not seen.*

—— Relation d'un voyage récent des Espagnols sur les côtes nord-ouest de l'Amérique septentrionale.

- [In ARCHIVES LITTÉRAIRES DE L'EUROPE, ou mélanges de littérature, d'histoire et de philosophie par Suard, Morellet, Ségur aîné, Pastoret, Garat, de Gérando, Vanderbourg, etc. 17 vols. 8°. *Paris et Tubingue*, 1804–1818. See xvii, No. 4, 1804, pp. 78–79.]

Note.—These archives were published under the title GAZETTE LITTÉRAIRE. *Not seen.*

Brady (rev. John G. . .). See ROCKY MOUNTAIN PRESBYTERIAN.**Brandt (Johann Friedrich).** List of zoological specimens from Russian America presented to the academy by gov. Kuprianoff.

- [In BULLETIN scientifique publié par l'académie impériale des sciences de St.-Petersbourg et rédigé par son secrétaire perpétuel. 4°. *St.-Petersbourg*, 1842. Vol. ix, cols. 281–282.]

British Columbia, Province of. MINISTER OF MINES. Annual Reports 1874–1875; being accounts of mining operations for gold, coal, etc., in the province of British Columbia. 2 vols. 8°. *Victoria, government printing office*, 1875–1876.**Brooke (John, asst. surg. u. s. a.)** Sitka, Alaska.

- [In CIRCULAR No. 8, war department, surgeon general's office, Washington, May 1, 1875. A report upon the hygiene of the United States army, with descriptions of military posts. (By John S. Billings, asst. surg. u. s. a.) lix, 567 pp. 1 map, 9 pl. 4°. *Washington, government printing office*, 1875. pp. 478–483.]

Note.—Contains meteorological report, Sitka, July, 1871, to June, 1874; temperature, mean, max., and min.; rainfall; sicklist—2 deaths in four years—and general description of town and barracks.

Brooks (Charles Wolcott). Early migrations. Japanese wrecks stranded and picked up adrift in the north Pacific ocean, ethnologically considered. 24 pp. 1 map. 8°. *San Francisco, reprinted from the proceedings of the California academy of sciences*, 1876.

—— Japanese wrecks.

- [In SAN FRANCISCO EVENING BULLETIN, daily ed. fol. *San Francisco*, 1875, Tuesday, Mar. 2.]

Broughton (William Robert). A voyage of discovery to the north Pacific ocean; performed by H. M. sloop Providence, and her tender, in the year 1795–98. xx, 394 pp. 3 charts, 6 pl. 4°. *London, T. Cadell & W. Davies*, 1804.—— *The same.* Voyage de découvertes dans la partie septentrionale de l'océan Pacifique fait pendant les années 1795–1798; dans lequel il a parcouru et visité la côte d'Asie, depuis le 35° degré nord, jusqu'au 52°; les côtes nord, est, et sud du Japon, etc. Traduit de l'anglais par J. B. B. E[yriès]. 2 v. 3 p. l. xxxii, 244 pp. 1 l. 1 map; 2 p. l. 342 pp. 1 map. 8°. *Paris, Dentu*, 1807.

- Brown (John, f. r. g. s.)** The northwest passage, and the plans for the search of sir John Franklin. xii, 463 pp. 1 pl. 2 maps. 8°. *London, E. Stanford, 1858.*
- Brown (Robert, f. r. g. s.)** On the formation of fiords, cañons, benches, prairies, and intermittent rivers.
[In JOURNAL of the royal geographical society of London. 8°. *London, J. Murray, 1869.* Vol. xxxix, pp. 121-131.]
- Synopsis of the birds of Vancouver island.
[In IBIS (The), a quarterly journal of ornithology; edited by A. Newton. 8°. *London, J. Van Voorst, 1868.* New series, vol. iv, pp. 414-428.]
- Bryant (capt. Charles).** Report as special agent of the treasury department.
See CONGRESSIONAL PAPERS, Sénate.—41st Cong. 2d sess.—Ex. Doc. No. 32, pp. 1-25. H. of R.—41st Cong. 3d sess.—Ex. Doc. No. 122, pp. 2-4. H. of R.—42d Cong. 2d sess.—Ex. Doc. No. 20, pp. 2-9. H. of R.—44th Cong. 1st sess.—Ex. Doc. No. 83, pp. 38-40; 50-51; 53-54; 56-57; 59-67, 71, 81, 85-89, 92-103, 105-106, 110, 123, 125-129, 131-134, 138-139, 172-181.
- Remarks before the Boston board of trade.
[In the BOSTON DAILY ADVERTISER. fol. *Boston, 1869.* Nov. —.]
- Meteorological register, St. Paul island, Alaska territory, 1870-71.
[In COAST SURVEY; REPORT of the superintendent showing the progress of the survey during the year 1871. 4°. *Washington, 1874.* Appendix No. 7, pp. 100-108.]
- Buache de la Neuville (Jean Nicolas).** Mémoire sur les pays de l'Asie et de l'Amérique situés au nord de la mer du sud. 22 pp. 1 map. 4°. *Paris, J. N. Buache, 1775.*
- Observations sur l'existence de quelques isles peu connues, situées dans la partie du grand océan comprise entre le Japon et la Californie. 1796.
[In MÉMOIRES de l'institut national des sciences et arts. 4°. *Paris, an vi [1798].* Sci. morales et politiques, tome i, pp. 475-492.]
- Mémoire sur des découvertes à faire dans le grand océan, an vii [1799].
[In same: An ix [1801]. Sci. morales et polit., tome iii, pp. 264-321.]
- Mémoire sur les terres découvertes par La Pérouse à la côte de Tartarie et au nord de Japon.
[In same: An. xii [1804]. Sci. morales et politiques, tome v, pp. 1-42.]
- Buchanan (James, british consul for New York).** Sketches of the history, manners, and customs of the North American Indians. xi, 372 pp. 8°. *London, Black, Young & Young, 1824.*
- Bulkley (Charles S. . .).** The Russo-American Telegraph. A letter, dated at San Francisco Dec. 18, 1865, to Col. Palmer, secretary of the Western Union Telegraph Co. giving details of work accomplished.
[In the NEW YORK TIMES. fol. *New York, 1866.* Vol. xv, No. 4480, Feb. 4, p. 3, columns 2-3. Reprinted from the ROCHESTER UNION.]
- Bureau of Navigation.** Directory for Behring's sea and coast of Alaska, arranged from the directory of the Pacific ocean by A. G. Findlay. 193 pp. 8°. *Washington, government printing office, 1869.*
- † — Instructions pour naviguer sur les côtes de l'île Reine-Charlotte et d'Alaska, dans les îles Aléoutiennes, la mer de Behring &c. Trad. de l'Américain par le vicomte de la Tour du Pin. 374 pp. 8°. *Paris, dépôt de la marine, 1872.* Not seen.
- Burney (admiral James, r. n.)** A chronological history of the discoveries in the south sea, or Pacific ocean, from its earliest discovery to 1764. 5 vols. 4°. *London, G. & W. Nicol, 1803-17.*
- A memoir on the geography of the north-eastern part of Asia, and on the question whether Asia and America are contiguous, or are separated by the sea. 1817.
[In PHIL. TRANS. of the royal soc. 4°. *London, 1818.* Part i, pp. 9-23.]
- A chronological history of north-eastern voyages of discovery; and of the early eastern navigations of the Russians. viii, 310 pp. 3 maps. 8°. *London, Payne & Foss, 1819.*
- Büsching (Anton Friedrich).** Magazin für die neue historie und geographie. 22 vols. 4°. *Hamburg, 1767-88.*
- Contains articles by PALLAS (P. S.)—
Nachrichten von den Russischen entdeckungen im meer zwischen Asien und Amerika. Vol. xvi, pp. 235-286.
Nachrichten von dem anführer Jemeljan Pugatschew (=Emilian Pugacheff). Vol. —, pp. —.
Beschreibung des königreichs Sibirien. Vol. —, pp. —.

Buschmann (Johann Carl Eduard). Die völker und sprachen Neu-Mexico's und der west-seite des britischen Nord-Amerika's. 209-414 pp. 4°. *Berlin, buchdruckerei der königl. academie der wissenschaften*, 1858.

—— Die völker und sprachen Neu-Mexico's und der westseite des britischen Nordamerika's.

[In ABHANDLUNGEN der königlichen akademie der wissenschaften zu Berlin. 4°. *Berlin*, 1858. pp. 209-414.]

—— Die Pima-sprache und die sprache der Koloschen.

[In ABHANDLUNGEN der königl. ak. der wiss. zu Berlin aus dem jahre 1856. 4°. *Berlin*, 1857. pp. 321-432.]

—— Die spuren der aztekischen sprache im nördlichen Mexico und höheren amerikanischen norden. Zugleich eine musterung der völker und sprachen des nördlichen Mexico's und der westseite Nord-Amerika's von Guadalaxara an bis zum Eismeer. xii, 819 pp. 4°. *Berlin, kais. akad. der wissenschaften*, 1859.

Note.—This is ABHANDLUNGEN der königlichen akademie der wissenschaften zu Berlin; aus dem jahre 1854. Zweiter supplement-band.

Bush (Richard James). Reindeer, dogs, and snowshoes: a journal of Siberian travel and explorations made in the years 1865, 1866, and 1867. 529 pp. 1 map. 8°. *New York, Harper and brothers*, 1871.

Butkovsky (Iakoff). Отвѣтъ на замѣчаніе правленія Россійско-Американской компаніи. [Reply to the remarks of the director of the Russian American Company.]

[In MORSKOI SBOBNIK. 8°. *St. Petersburg*, 1860. Aug., vol. xlviii, [iv], pp. 87-91.]

—— Сахалинъ и его значеніе. [Sakhalin and its importance.]

[In MORSKOI SBOBNIK. 8°. *St. Petersburg*, 1874. Vol. cxli, No. 4, [ii], pp. 131-139.]

Butler (capt. W . . . F . . . , f. r. g. s.) The great lone land: a narrative of travel and adventure in the north-west of America. xi, 386 pp. 1 map. 6 pl. 8°. *London, S. Low, Marston, Low, & Searle*, 1873.

—— The wild north land: being the story of a winter journey, with dogs, across northern North America. xi, 358 pp. 16 pl. 1 map. 8°. *Montreal, Dawson brothers*, 1874.

Buynitzky (Stephen Nestor). Letter to the secretary of the Treasury [George S. Boutwell] dated at Washington, D. C., December 30, 1870, concerning the fur seal islands.

[In CONGRESSIONAL PAPERS, H. of R.—41st Cong. 3d sess.—Ex. Doc. No. 122, pp. 5-7; also in same—44th Cong. 1st sess.—Ex. Doc. No. 83, pp. 41-44; 55-56.]

Note.—There is also a pamphlet, privately printed by the Alaska Com. Co., on the Aleutian language, but of which the author has not now a copy, and which is not accessible to the compilers of this list.

Caamaño (don Jacinto). Expedicion de la corbeta Aranzazu al mando del teniente de navío D. Jacinto Caamaño á comprobar la relacion de Fonte.

[In COLECCION de documentos inéditos para la historia de España por Salvá (D. Miguel) y Baranda (D. Pedro Sainz de). 8°. *Madrid*, 1849. Tomo xv, pp. 323-363.]

Cadet (. . .). Précis des voyages entrepris pour se rendre par le nord dans les Indes, et des lois physiques à consulter pour le succès des navigations ultérieures. — pp. carte. 1 v. 8°. *Paris*, 1818. *Not seen*.

Calendars (Collection from). See SOBRANIE SOCHINENIE, etc.

California. Извѣстія о Калифорніи. [News about California.]

[In ST. PETERBURGSKIA VIEDOMOSTI, (The St. Petersburg Gazette), 1741, 24-34.]

Calwer Missionsblatt. 47 v. gr. 4°. *Tübingen, Red. Gundert*, 1827-74. A bimonthly missionary paper; with illustrations.

See 1850 et seq. for writings by Veniaminoff.

See also 1844 and 1849.

Note.—This publication not seen by the compilers.

Campbell (Archibald, of Glasgow). A voyage round the world, from 1806 to 1812; in which Japan, Kamschatka, the Aleutian islands, and the Sandwich islands, were visited. 288 pp. 1 map. 8°. *Edinburgh, A. Constable & co*. 1816.

[Reviewed in the QUARTERLY REVIEW. 8°. *London, J. Murray*, 1817. Vol. xvi, pp. 69-85.]

Campbell (capt. Joseph B . . . , u. s. a.) Letter concerning the importation of breech-loading rifles into Alaska.

[In CONGRESSIONAL PAPERS, H. of R.—44th Cong. 1st sess.—Ex. Doc. No. 83, pp. 135-136.]

- Canada.** DEPARTMENT OF MARINE AND FISHERIES. Reports on the meteorological, magnetic and other observations of the dominion of Canada for the calendar year ended 31st December, 1876. 8°. *Ottawa, McLean, Roger & co.* 1877.
- **Parliament of.** Sessional Papers, No. 125. Return (125) to an address of the House of Commons, dated 21st February, 1878;—For copy of the Report, with the accompanying map, of the engineer (Joseph Hunter) employed last year in determining the probable boundary line between British Columbia and Alaska, (etc.)
- [In SESSIONAL PAPERS. Fifth session of the third parliament of the dominion of Canada, session 1878. 8°. Volume 11, No. 125, 171 pp. 2 maps.]
- Canisius (Theodor).** Der ueberland-telegraf von den vereinigten-staaten Nord-Amerikas nach dem asiatischen Russland. Read April 25, 1865.
- [In KAIS.-KÖNIG. geographischen gesellschaft, *Mittheilungen der*; für Jahrg. 1865. 8°. *Wien, the society*, 1865. ix, pp. 76-82.]
- Capital (The).** fol. *Washington*, 1871-1876. *A daily newspaper.*
- Dec. 3, 1871. The Alaska Commercial Co.
Sunday, Jan. 30, 1876. On Howard's report.
Feb. 27, 1876. Alaska fisheries.
- Carpenter (Philip Pearsall).** SMITHSONIAN MISCELLANEOUS COLLECTIONS. 252. The mollusks of western North America; embracing the second report made to the British association on this subject, with other papers. xii, 325, 13-121 pp. 8°. *Washington, Smithsonian institution*, 1872.
- Carr (John A. . .).** Letter, dated at Portland, Oregon, January 25, 1875, to hon. E. P. Smith, commissioner of Indian affairs, concerning the Indians at Fort Wrangell.
- [In NEW YORK EVENING POST—semi-weekly ed. fol. 1875. Friday, Feb. 12. Also in NEW YORK TRIBUNE—semi-weekly ed. fol. 1875. Tuesday, Feb. 16.]
- Castel (le r. p. Louis Bertrand, S. J.)** Réponse à M. d'Anville, sur le pays de Kamtschatka et de Yeço. 12°. *Paris*, 1737.
- Lettre de d'Anville au père Castel, au sujet des pays de Kamtschatka et de Yaço et réponse du père Castel. 46 pp. 1 map. 12°. (*Paris*), 1737.
- Dissertation sur la célèbre terre de Kamtschatka et sur celle de Yeço, (etc.)
- [In MÉMOIRES pour l'histoire des sciences et des beaux-arts. 16°. *Paris*, 1737. July, pp. 1156-1226.]
- Central Physical Observatory.** See ANNALES DE, (etc.)
- Cevallos (don Ciriaco).** See CIRIACO CEVALLOS (*capt. don*).
- Note.*—Don Ciriaco Cevallos was the associate of the great and unfortunate Malaspina in his explorations of the N. W. coast in 1791, he commanding one of the two vessels *Descubierta* and *Atrevida* and Malaspina the other. Each of these officers composed a memoir on Maldonado's voyage. Malaspina's is published in SALVÁ (D. MIGUEL) Y BARANDA (D. PEDRO SAINZ DE) *Colecion de documentos inéditos para la historia de España*. 8°. *Madrid*, 1849. Tomo xv, pp. 228-250.
- The memoir of Cevallos is inaccessible to the compilers of this list. It is said to have been published at Madrid or Cadiz in 1798.
- Chamisso (dr. Louis Charles Adelbert von).** Bemerkungen und ansichten auf einer entdeckungs-reise 1815-1818 auf dem schiffe Rurick unter dem befehle des lieutenants Otto von Kotzebue. 240 pp. 1 l. 13 pl. 2 maps. 4°. *Weimar*, 1821.
- Cetaceorum maris Kamtschatici imagines, ab Aleutis e ligno fictas, adumbravit recensuitque Adelbertus de Chamisso, *dr.*
- [In NOVA ACTA physico-medica academiae Cæsareæ Leopoldino-Carolinæ naturæ curiosorum. 4°. *Bonn*, 1824. Vol. xii, part i, pp. 249-262, 873, pl. xvi-xx.]
- Reviewed in BULLETIN des sciences naturelles et de géologie. Deuxième section du bulletin universel des sciences et de l'industrie publié sous la direction de M. le baron de FÉRUSAC. 8°. *Paris*, 1824. Tome iii, pp. 70-75.
- Chappé d'Auteroche (J. . .).** Voyage en Sibérie. 3 vols. sm. fol. Atlas, fol. *Paris*, 1768.
- Note.*—"Vol. ii contains the description of Kamtschatka by Krashennnikoff." See also ANTIDOTE.
- *Same.* 2 vols. 8°. *Amsterdam*, 1770.
- Reize naar Siberiën op bevel des Kon. v. Vrankrijk ondernomen in 1761. Uit het Fransch. 2 vols. 8°. *Deventer*, 1771.

Chateaubriand (—). О путешествіи Александра Маккензія по Сѣверной Америкѣ. [Concerning Alexander Mackenzie's voyage in North America.]

[In VIESTNIK EVROPI. (The European messenger.) *St. Petersburg*, 1819. cviii.] Harvard College Library.

Chavanne (dr. Josef), **Karpf** (dr. Alois) and **Le Monnier** (Franz ritter von). Die literatur über die polar-regionen der erde. xvi and 335 pp. 8°. *Wien, herausgegeben von der k. k. geographischen gesellschaft in Wien, verlag der gesellschaft, in commission bei Ed. Hölzel*, 1878.

Note.—This well-intentioned but slipshod compilation, for it cannot be called a bibliography in the librarian's sense of the word, has furnished but few titles (mostly newspaper clippings) to our list, which was nearly complete when this came to hand. It is a good illustration of the unsystematic and undigested erudition for which Vienna is beginning to be noted.

Chicago Daily Tribune. fol. *Chicago*, 1877. *A daily newspaper*.

June 13, 1877. Taylor's explorations.

Chichagoff (Vasili Iakob). [anon.] Разныя свѣденія, относящіяся къ экспедиціи Чичагова. [Various (10) pieces of information relating to Chichagoff's expedition.]

[In ZAPISKI HYDR. DEPART. (Journal of the hydrographic department.) 8°. *St. Petersburg*, 1848. Vol. vi, pp. 100-141. 1851, vol. ix, pp. 108-147. See SOKOLOFF, MILLER, and KRUSENSTERN.]

Chinook Jargon (A complete dictionary of the). English-Chinook and Chinook-English. To which is added numerous conversations, (etc.) 3d ed. 24 pp. 24°. *Portland, Oregon, S. J. McCormick*, 1862. *Not seen*.

Chirikoff (capt. Alexie Illich). Herrn v. Tschitschagow Russisch-kayserlichen admirals reise nach dem Eismeer. 1 p. l. 104 pp. 8°. *St. Petersburg, J. Z. Logan*, 1793.

Chlebnikoff. See KHLIEBNIKOFF.

Choris (Louis). Voyage pittoresque autour du monde, avec des portraits de sauvages d'Amérique, d'Asie, d'Afrique, et des îles du Grand océan. Accompagné de descriptions par M. le baron Cuvier, et M. A. de Chamisso, et d'observations sur les crânes humains, par M. Gall. 2 p. l. vi, [143] pp. 105 pl. fol. *Paris, F. Didot*, 1822.

— [anon.] Извѣстіе, сообщенное Мальбрюномъ, о путешествіи Г. Хориса, (etc.) [Extract, communicated by Malte-Brun, concerning the voyage of Choris around the world, in the brig Rurik, under the command of Kotzebue.]

[In SIEVERNI ARKHIV (Northern Archives), 1822. iii, 17.]

Chukchee-land. Карта Чукотской земли, составленная Плениснеромъ въ 1763 году. [(Concerning) a map of Chukchee-land, compiled by Plenisher in 1763.]

[In ZAPISKI HYDR. DEPART. (Journal of the hydrographic department.) 8°. *St. Petersburg*, 1852. Vol. x, pp. 119-123.]

Chukchees. Замѣчанія о Чукчахъ. [Remarks on the Chukchees.]

[In ZHURNAL MINIST. VNUTRENNIKH DEL, (Journal of the interior department), 1835, xvi, 5.]

— Чукчи и земля ихъ съ открытія этого края до настоящаго времени. [The Chukchees and their country, with discoveries on their borders down to the present time.]

[In same; 1851, 6.]

— О торговыхъ сношеніяхъ между туземца сѣверовосточнаго берега Азіи и сѣверозападной Америки. [Concerning the commercial relations between the natives of the northeastern shores of Asia and northwestern shores of America.]

[In same; 1851, 7.]

See also SHISHMAREFF.

Church (The) **Missionary Intelligencer and Record**. [Monthly.] 3 vols. 8°. *London, Seeley, Jackson & Halliday*, 1876-1878.

1878, vol. 3, No. 8, pp. 490-492. A journey to Metlakahtla, by the bishop of Athabasca.

Note.—This number (No. 8, vol. 3) is the only one consulted; other articles are doubtless to be found scattered through the series, which is not accessible to the compilers.

Church (The) **Missionary Record**. Extracted from the Church Missionary Intelligencer & Record. [Monthly.] 8°. *London, Seeley, Jackson & Halliday*, 1876-1878.

(Cf. preceding note.)

Chwostow. See KHWOSTOFF.

- Cincinnati Commercial.** fol. *Cincinnati*, 1877. *A daily newspaper.*
Jan. 19, 1877. Railroads to Europe via Alaska. (See LYNCH.)
- Cincinnati Daily Enquirer.** fol. *Cincinnati*, 1875. *A daily newspaper.*
Oct. 13, 1875. Letter from T. E. H. concerning Alaska.
- Circumnavigation—by Russians.** See IVASHINTSOFF. Первое путешествие Россiанъ около свѣта.
[First Russian voyage around the world. From (†) the Wilna Journal.]
[In VIESTNIK EVROPI, *St. Petersburg*, 1806, xxx, 22.] Harvard College Library.
- О первомъ путешествiи Русскихъ кругомъ свѣта. [Concerning the first Russian voyage around the world.]
[In STATISTICHESKI ZHURNAL, *St. Petersburg*, 1806, i, 2.]
- Русскiя кругосвѣтныя путешествiя. [Russian voyages around the world. R. Ch . . .]
[In MORSKOI SVORNIK. (Naval Collections.) 8°. *St. Petersburg*, 1849. Vol. ii, pp. 202–205. Also in same, 1852, Nov., vol. viii, pp. 415–416.]
- Начало нашихъ кругосвѣтныхъ плаванiй. [Our first voyages around the world.]
[In ZAPISKI, etc. JOURNAL of the hydrographic bureau of the navy department. 8°. *St. Petersburg*, 1849. Vol. vii, pp. 501–507.]
- Ciriaco Cevallos (capt. don).** See CEVALLOS. Memorias sobre los viajes apocrifos de Maldonado. 8°. *Madrid*, 1798.
Note.—Said to contain information concerning the voyages of Malaspina and Espinosa; the book not accessible to the compilers.
- Clark (Samuel Fessenden).** Report on the hydroids collected on the coast of Alaska and the Aleutian islands, by W. H. Dall U. S. coast survey, and party, from 1871 to 1874 inclusive.
[In PROCEEDINGS of the academy of natural sciences of Philadelphia for Oct.–Dec. 1876. 8°. *Philadelphia*, academy of natural sciences, 1877. Part iii, pp. 209–238, pl. 7–16.]
- Claver (Th . . .).** Каталогъ. (etc.) Catalog der meteorologischen beobachtungen im Russischen reich. viii, 36 pp. large 4°. *St. Petersburg*, imp. acad. sciences, 1872.
[In WILD (dr. Heinrich). Repertorium für meteorologie. 4°. *St. Petersburg*, imp. acad. sciences, 1872. Band ii, heft 2.]
- Cleveland (Richard J . . .).** A narrative of voyages and commercial enterprises. 2 vols. xvi, 249 pp.; viii, 240 pp. 8°. *Cambridge*, John Owen, 1842.
- Coast Survey.** [Annual] REPORTS of the superintendent of the United States coast survey showing the progress of the survey, 1852–1874. 23 vols. 4°. *Washington*, government printing office, 1853–1877.
- Harbors in Alaska. 1 p. l. 9 charts. sm. fol. [*Washington*], 1869.
- Coast pilot of Alaska. See DALL (Wm. H.) and DAVIDSON (George).
- Cochrane (capt. John Dundas, r. n.)** Narrative of a pedestrian journey through Russia and Siberian Tartary, to Kamtschatka, in 1820–23. xii, 415 pp. 8°. *Philadelphia*, H. C. Carey & I. Lea, 1824.
- The same. 2 vols. xxxiv, 326 pp. 1 pl.; 262 pp. 1 map, 1 pl. 8°. *Edinburgh*, Constable & co. 1829.
- Fuszreise durch Ruzsland und die Sibirische Tartarei und von der Chinesischen gränze nach d. Eismeer und Kamtschatka. Aus d. Engl. 8°. *Weimar*, 1825. Not seen.
- Reize te voet door het Russische rijk en Siberië voorafgegaan door eene beschouwing van het karakter en de zeden der Russen door R. Lyall. 2 dln. 8°. *Delft*, 1826. Not seen.
- Coffin (James Henry, ll. d.) and Coffin (Selden Jennings, a. m.) and Woeikoff (dr. Alexander.)** Smithsonian contributions to knowledge, 268. The winds of the globe: or the laws of atmospheric circulation over the surface of the earth. xxv, 756 pp. 26 pl. large 4°. *Washington city*, published by the Smithsonian institution, 1875.
- Coinde (Jean Paul).** Notice sur la faune ornithologique de l'île de Saint Paul suivi de l'énumération de quelques espèces d'insectes (coléoptères) des Aléoutiennes et du Kamtschatka.
[In REVUE et Magasin de zoologie. 8°. *Paris*, 1860. 2^e série, tome xii, pp. 396–405.] Not seen.

Collections of the Massachusetts historical society.

See ATAHUALPA. (Stikine river discovered.)

BELKNAP.

INGRAHAM.

KIPPIS.

KOTZEBUE.

MAGEE.

ROBERTS and MAGEE.

Collins (*maj.* Perry McDonough). A voyage down the Amoor: with a land journey through Siberia, and incidental notices of Manchooria, Kamschatka, and Japan [in 1856]. 2 p. l. 390 pp. 4 pl. 12°. *New York, D. Appleton & co.* 1860.

—— Overland explorations in Siberia, northern Asia, and the Amoor river country. New ed. with appendix. 12°. *New York, D. Appleton & co.* 1864.

—— Letter to hon. Wm. H. Seward containing geographical and other information respecting Russian America.

[In CONGRESSIONAL PAPERS, H. of R.—40th Cong. 2d sess.—Ex. Doc. No. 177, pp. 25-28.]

Colnett (J. . .). Extracts from the journal of a voyage to the north-west side of America.

[In NAUTICAL Magazine and naval chronicle. 8°. *London, Simpkin, Marshall & co.* 1849. February, pp. 80-86.]

Colonies russes de la côte nord-ouest d'Amérique.

[In EYRIÈS (J. B.) et MALTE-BRUN (C.) *Nouvelles annales des voyages.* 8°. *Paris, Gide fils*, 1828. 2^e série, t. vii—tome 37 de la collection—pp. 229-231.]

Colorado Weekly Transcript. fol. *Golden, Col.* 1868. A weekly newspaper.

Dec. 23, 1868. On Bering's first voyage. See *BERING and CHIRIKOFF.*

Colton's Journal of Geography. Alaska.

[In COLTON'S JOURNAL OF GEOGRAPHY. 8°. *New York, G. W. & C. B. Colton & co.* 1867. Oct. No. 1, pp. 3-7.]

Colyer (Vincent). Report of the hon. Vincent Colyer, United States special Indian commissioner, on the Indian tribes and their surroundings in Alaska territory, from personal observation and inspection in 1869.

[In DEPARTMENT OF THE INTERIOR. REPORT of the board of Indian commissioners, appointed by the president, [etc.] being results obtained from personal observation and inspection of the Indian tribes of Kansas, Indian territory, New Mexico, Arizona, and Alaska. 8°. *Washington, government printing office*, 1870. pp. 81-166.]

See CONGRESSIONAL PAPERS, H. of R.—41st Cong. 2d sess.—Ex. Doc. No. 144.

Conant (Charles T. . .). Letter to Charles Bryant, treasury agent St. Paul island Alaska, concerning the killing of fur-bearing animals.

[In DAILY EVENING BULLETIN. fol. *San Francisco*, 1877. Monday, Mar. 12.]

Congressional Globe: containing the debates and proceedings of the second session, fortieth congress, (etc.) 5 parts. 4°. *Washington, Globe office*, 1868.

Dec. 7, 1867. Resolution to refer part of the president's message to committee on appropriations. (By Mr. Butler.) p. 73.

Dec. 9, 1867. Resolution—by Mr. Butler—discussed. pp. 92-95.

Dec. 11, 1867. Purchase of Russian America, etc., discussed by Messrs. Washburn, Broomall, etc. pp. 135-139.

Dec. 16, 1867. Resolution that the house will decide when to purchase territory. (By Mr. Wood.) p. 213.

Dec. 19, 1867. Resolution calling for all correspondence with reference to Russian America. (By Mr. Washburn.) p. 286.

Jan. 10, 1868. Resolution calling for information concerning suffering soldiers in Alaska. (By Mr. Butler.) p. 443.

Jan. 22, 1868. The same—adopted. pp. 687-688.

Mar. 14, 1868. Purchase of Alaska discussed in the house by Mr. Higby and others. pp. 1870-75.

Mar. 17, 1868. Bill (S. No. 447) for temporary government of Alaska; introduced. (By Mr. Williams.) p. 1911.

Mar. 21, 1868. Speech by Mr. Paine against the ratification of the treaty for the purchase of Alaska. p. 2059.

Apr. 14, 1868. Resolution calling for information in regard to applications for fishing privileges. (By Mr. Conness.) p. 2297.

May 18, 1868. Bill (H. R. No. 1096) making an appropriation to purchase Alaska reported to house. (By Mr. Banks.) p. 2528.

May 18, 1868. Resolutions concerning the purchase of Alaska; referred to committee on foreign affairs. (By Mr. Loughridge.) pp. 2533-4.

May 25, 1868. Memorial from American geographical society asking for survey of Alaska. (By Mr. Sumner.) p. 2556.

June 10, 1868. Resolution to print 8,000 extra copies of Ex. Doc. No. 177. (By Mr. Lafin.) p. 3034.

June 27, 1868. Purchase of Russian America discussed by Messrs. Banks, Washburn, and others. p. 3556.

June 30, 1868. The same. pp. 3620-8.

July 1, 1868. The same. pp. 3658-70.

Congressional Globe—continued.

- July 7, 1868. *The same.* pp. 3804-14.
 July 9, 1868. Purchase of Russian America discussed. pp. 3883-4.
 July 10, 1868. Messrs. Orth, Blair, and Cullom permitted to print Alaskan speeches in the Globe. p. 3943.
 July 13, 1868. Mr. Stevens permitted to print Alaskan speech in the Globe. p. 4003.
 July 14, 1868. Bill (H. R. No. 1096) reported to senate as passed by the house. p. 4031.
 July 14, 1868. Bill (H. R. No. 1096) for purchase of Alaska discussed and *passed*. pp. 4052-5
 July 15, 1868. Bill (S. No. 619) to extend the U. S. navigation laws, &c., over Alaska; introduced. (By Mr. Chandler.) pp. 4070-1.
 July 15, 1868. Resolution concerning extending the U. S. land laws, &c., over Alaska. (By Mr. Julian.) p. 4081.
 July 16, 1868. Bill (S. No. 619) reported back with amendments, (by Mr. Chandler,) discussed, and *passed*. pp. 4093-5.
 July 16, 1868. Bill (S. No. 619) reported to house as passed by the senate. p. 4133.
 July 17, 1868. Bill (H. R. No. 1096) reported to senate. (By Mr. Sumner.) p. 4145.
 July 17, 1868. Bill (H. R. No. 1096) considered in the senate and passed. p. 4159.
 July 18, 1868. Bill (H. R. No. 1096) reported to house as passed by the senate. p. 4216.
 July 22, 1868. Bill (H. R. No. 1096)—conferees on—appointed by the senate. p. 4321.
 July 22, 1868. Bill (H. R. No. 1096)—conferees on—appointed by the house. pp. 4340-1.
 July 22, 1868. Bill (H. R. No. 1096)—senate agree to a conference. p. 4345.
 July 23, 1868. Bill (H. R. No. 1096)—report of conference committee agreed to by the house. pp. 4392-4.
 July 24, 1868. Bill (H. R. No. 1096)—reported to senate that the house accepts the report of the conferees. p. 4400.
 July 24, 1868. Bill (H. R. No. 1096)—senate adopts report of the conference committee. p. 4404.
 July 25, 1868. Bill (H. R. No. 1096) signed by the speaker and vice president. p. 4450.
 July 25, 1868. Bill (S. No. 619) reported to senate as having passed the house with amendments. p. 4454.
 July 25, 1868. Bill (S. No. 619)—conference asked for by the senate. p. 4459.
 July 25, 1868. Bill (H. R. No. 1096) reported by the committee on enrolled bills and signed. p. 4478.
 July 25, 1868. Bill (S. No. 619) considered by the house and passed. pp. 4485, 4487-8.
 July 25, 1868. Bill (S. No. 619)—house amendment disagreed to by senate and conferees appointed. p. 4493.
 July 25, 1868. Bill (H. R. No. 1096) signed by the president. p. 4498.
 July 25, 1868. Bill (S. No. 619)—senate recedes from its disagreement to house amendments. p. 4500.
 July 27, 1868. Bill (S. No. 619)—house agrees to a conference on. p. 4501.
 July 27, 1868. Bill (S. No. 619)—Mr. Morgan placed upon the conference committee in place of Mr. Morrill. p. 4506.
 July 27, 1868. Bill (S. No. 619)—senate recedes from its disagreement to house amendments. p. 4507.
 July 27, 1868. Bill (S. No. 619) signed by speaker and vice president. p. 4517.
 July 27, 1868. Bill (S. No. 619) signed by the president. p. 4518.
 Purchase of Alaska—speeches on by Messrs.—
 Banks (Nathaniel Prentiss). Appendix, pp. 385-392.
 Boyer (Benjamin M. . .). Appendix, pp. 406-414.
 Butler (Benjamin Franklin). Appendix, pp. 400-403.
 Cullom (Shelby M. . .). Appendix, pp. 473-474.
 Delano (Columbus). Appendix, pp. 452-455.
 Maynard (Horace). Appendix, pp. 403-406.
 Miller (George F. . .). Appendix, pp. 466-467.
 Orth (Godlove S. . .). Appendix, pp. 429-432.
 Paine (Halbert E. . .). Appendix, pp. 305-311.
 Price (Hiram). Appendix, pp. 380-382.
 Pruyn (John V. . . L. . .). Appendix, pp. 382-335.
 Shellabarger (Samuel). Appendix, pp. 377-379.
 Stevens (Thaddeus). Appendix, pp. 421-422.
 Washburn (Cadwallader C. . .). Appendix, pp. 392-400.
 Williams (Thomas). Appendix, pp. 485-493.

—: containing the debates and proceedings of the *third session, fortieth congress, (etc.)* 3 parts.

40. *Washington, Globe office, 1869.*

- Dec. 14, 1868. Resolution to investigate alleged corruption in the Alaska purchase. (By Mr. Wood.) p. 75.
 Dec. 14, 1868. Resolution calling for all information connected with the fur interests. (By Mr. Patterson.) p. 77.
 Dec. 16, 1868. Bill (S. No. 695) to provide temporary government for Alaska. (By Mr. Cole.) p. 100.
 Dec. 18, 1868. Resolution concerning the legislation needed to protect the fur seal. (By Mr. Starkweather) p. 152.
 Jan. 5, 1869. Bill (S. No. 735) to prevent the extermination of fur-bearing animals. (By Mr. Cole.) p. 171.
 Jan. 11, 1869. Bill (H. R. No. 1603) to regulate the fur seal trade in the Prybiloff ids. (By Mr. Eliot.) p. 280.
 Jan. 12, 1869. Bill (H. R. No. 1670) to provide temporary government for Alaska. (By Mr. Ashley.) p. 313.
 Jan. 13, 1869. Bill (H. R. No. 1681) to provide temporary government for Alaska, reported (by Mr. Ashley) and discussed. pp. 340-343.

Congressional Globe—continued.

- Jan. 18, 1869. *Bill* (H. R. No. 1688) to regulate fur-seal trade on Prybiloff ids. (By *Mr. Eliot*.) p. 422.
 Jan. 19, 1869. *Resolution* asking for information concerning Alaskan fisheries. (By *Mr. Wilson*.) p. 440.
 Feb. 5, 1869. *Bill* (S. No. 735) reported with an amendment. (By *Mr. Corbett*.) p. 897.
 Feb. 6, 1869. *Bill* (H. R. No. 1885) to protect the fur seal trade in the Pribyloff ids. (By *Mr. Eliot*.) p. 957.
 Feb. 23, 1869. *Bill* (S. No. 735) discussed and *passed*. pp. 1496-99.
 Feb. 24, 1869. *Bill* (S. No. 735) reported to house as having passed the Senate. p. 1539.
 Feb. 26, 1869. *Joint resolution* (S. No. 116)—committee discharged from consideration of. (By *Mr. Pomeroy*.) p. 1620.
 Feb. 27, 1869. *Report* concerning corruption in the purchase of Alaska. (By *Mr. Hurlburd*.) p. 1697.
 Mar. 1, 1869. Motion *not* to print preceding report entered. (By *Mr. Ela*.) p. 1758.
 Mar. 2, 1869. *Bill* (S. No. 980) to protect the fur seal. (By *Mr. Chandler*.) p. 1771.
 Mar. 2, 1869. *Joint resolution* (S. No. 239) discussed and *passed*. pp. 1787-88.
 Mar. 2, 1869. *Joint resolution* (S. No. 239) reported to house as having passed the senate. p. 1826.
 Mar. 3, 1869. *Joint resolution* (S. No. 239) discussed and passed by the house. p. 1898.
 Mar. 3, 1869. *Joint resolution* (S. No. 239) signed by the speaker. p. 1900.
 Mar. 3, 1869. *Joint resolution* (S. No. 239) reported to senate as having passed the house. p. 1866.
 Mar. 3, 1869. *Joint resolution* (S. No. 239) signed by the vice president. p. 1867.

—: containing the debates and proceedings of the *first session, forty-first congress, (etc.)* 1
 vol. 4^o. Washington, Globe office, 1869.

- Mar. 6, 1869. *Bill* (S. No. 32) to prevent extermination of fur-bearing animals in Alaska. (By *Mr. Ferry*.) p. 24.
 Mar. 9, 1869. *Bill* (S. No. 32) considered and passed in senate. pp. 33-34.
 Mar. 12, 1869. *Bill* (S. No. 32) reported to house as having passed the senate. p. 60.
 Mar. 15, 1869. *Bill* (H. R. No. 91) to prevent extermination of fur-bearing animals in Alaska. (By *Mr. Ferry*.) p. 73.
 Mar. 15, 1869. *Bill* (S. No. 32) considered and referred to house *committee on commerce*. p. 80.
 Mar. 15, 1869. *Bill* (H. R. No. 107) to provide temporary government for Alaska. (By *Mr. Johnson*.) p. 74.
 Mar. 19, 1869. *Bill* (H. R. No. 146) to protect the fur seal trade in Alaska. (By *Mr. Johnson*.) p. 164.
 Mar. 23, 1869. *Resolution* in relation to mail service to Alaska. (By *Mr. Williams*.) p. 206.
 Mar. 29, 1869. *Bill* (H. R. No. 305) to prevent the extermination of fur-bearing animals in Alaska. (By *Mr. Sargent*.) p. 335.
 Mar. 29, 1869. *Bill* (H. R. No. 306) to provide a temporary government for Alaska. (By *Mr. Sargent*.) p. 335.
 Apr. 2, 1869. *Resolution* not to print testimony in the Alaska case. (By *Mr. Calk*.) pp. 467, 477, 478.
 Apr. 6, 1869. *Bill* (S. No. 264) passed to second reading. (By *Mr. Trumbull*.) p. 573.
 Apr. 7, 1869. *Bill* (S. No. 32) reported back with an amendment (by *Mr. Dixon*) and recommitted. p. 587.
 Apr. 8, 1869. *Bill* (S. No. 32), motion to reconsider the recommitment. (By *Mr. Dixon*.) p. 637.
 Apr. 9, 1869. *Bill* (S. No. 32) considered and tabled. pp. 697-9.

—: containing the debates and proceedings of the *second session, forty-first congress, (etc.)* 7
 parts. 4^o. Washington, Globe office, 1870.

- Dec. 7, 1869. *Resolution* for printing 500 copies of gen. G. H. Thomas's report. (By *Mr. Cullom*.) p. 23.
 Dec. 15, 1869. *Resolution* calling for report of H. H. McIntyre. (By *Mr. Ferriss*.) p. 152.
 Dec. 20, 1869. *Resolution* calling for reports of capt. Bryant and H. H. McIntyre. (By *Mr. Sumner*.) p. 238.
 Jan. 17, 1870. *Resolution* calling for statement of revenue and customs receipts. (By *Mr. Willard*.) p. 534.
 Feb. 9, 1870. *Resolution* calling for part of Vincent Colyer's report pertaining to the fur-seal fisheries. (By *Mr. Banks*.) p. 1161.
 Feb. 9, 1870. *Resolution* calling for Frank N. Wicker's report upon the fur-seal fisheries. (By *Mr. Banks*.) p. 1161.
 Feb. 14, 1870. *Resolution* calling for report of gen. Jeff. C. Davis. (By *Mr. Kerr*.) p. 1269.
 Feb. 21, 1870. *Bill* (S. No. 576) introduced (by *Mr. Howard*) and referred to *committee on territories*. p. 1444.
 Feb. 21, 1870. *Bill* (H. R. No. 1319) introduced (by *Mr. Garfield*) and referred to *committee on territories*. pp. 1459-60.
 Feb. 23, 1870. *Bill* (S. No. 576) reported with amendments. (By *Mr. Howard*.) p. 1498.
 Mar. 8, 1870. *Bill* (S. No. 32) reported with amendments. (By *Mr. Starkweather*.) p. 1765.
 Mar. 14, 1870. *Resolution* calling for V. Colyer's report upon the Indian village of Wrangell. (By *Mr. Wilson*.) p. 1922.
 Mar. 14, 1870. *Resolution* calling for V. Colyer's report of bombardment of Indian village at Wrangell. (By *Mr. Wilson*.) p. 1922.
 Mar. 17, 1870. *Resolution* to consider the expediency of extending the U. S. land laws over Alaska. (By *Mr. Julian*.) p. 2027.
 Mar. 25, 1870. The same resolution (by *Mr. Julian*), *adopted*. p. 2213.
 Mar. 30, 1870. *Bill* (H. R. No. 1657) for same purpose; reported (by *Mr. Julian*), and recommitted. p. 2290.
 Mar. 31, 1870. *Bill* (H. R. No. 1657), recommitment of, reconsidered. (By *Mr. Julian*.) p. 2330.

Congressional Globe—continued.

- Apr. 25, 1870. *Bill* (S. No. 576) passed over. p. 2954.
 Apr. 25, 1870. *Bill* (S. No. 32) discussed in the house. pp. 2969-70.
 Apr. 26, 1870. *Bill* (H. R. No. 1884) introduced (by *Mr. Dawes*), and referred to *committee on commerce*. p. 2992.
 Apr. 27, 1870. Correction of the journal concerning fur-bearing animals. (By *Mr. Dawes*.) p. 3030.
 May 11, 1870. Letter from the secretary (Ex. Doc. 255) presented and referred to *committee on appropriations*. p. 3374.
 May 16, 1870. *Bill* (H. R. No. 2036) introduced (by *Mr. Washburn*), and referred to *committee on commerce*. p. 3494.
 June 10, 1870. *Bill* (S. No. 576) passed over. p. 4309.
 June 28, 1870. *Bill* (S. No. 32) reported with an amendment (by *Mr. Dixon*), discussed and *passed*. pp. 4944-46.
 June 29, 1870. *Bill* (S. No. 32) reported to senate as having passed the house. p. 4978.
 June 30, 1870. *Bill* (S. No. 32), acceptance of house amendment to, reported to the house. p. 5025.
 June 30, 1870. *Bill* (S. No. 32), house amendment to, discussed in senate and *adopted*. pp. 5027-33.
 June 30, 1870. *Bill* (S. No. 32) signed by speaker and vice president. p. 5044.
 July 1, 1870. *Bill* (S. No. 32) signed by the president. p. 5076.
 July 2, 1870. Alaska seal fisheries. Speech of Aaron A. Sargent. Appendix, pp. 558-559.
 July 4, 1870. Permission to print; given to Mr. Sargent. p. 5144.
 July 8, 1870. Remarks by Mr. Dawes on the survey of the Aleutian islands. p. 5348.

—: containing the debates and proceedings of the *third session, forty-first congress, (etc.)* 3 parts. 4^o. *Washington, Globe office, 1871.*

- Dec. 12, 1870. *Bill* (S. No. 576) called up and passed over. p. 59.
 Feb. 4, 1871. *Bill* (H. R. No. 2944) reported (by *Mr. Cullom*), and discussed. pp. 972-4.
 Feb. 6, 1871. *Bill* (H. R. No. 2944) reported to the senate as passed. p. 978.
 Feb. 6, 1871. *Amendments to Bill* (H. R. No. 1657) presented. (By *Mr. Sargent*.) p. 997.
 Feb. 7, 1871. *Bill* (H. R. No. 2944) referred to *committee on territories* in the senate. p. 1011.
 Feb. 11, 1871. *Bill* (H. R. No. 1657) discussed and *passed*. pp. 1154-6.
 Feb. 13, 1871. *Bill* (H. R. No. 1657) reported to the senate as passed. p. 1162.
 Feb. 13, 1871. *Bill* (H. R. No. 1657) referred to *committee on territories* in the senate. p. 1193.
 Feb. 17, 1871. *Bill* (H. R. No. 2944) reported adversely (by *Mr. Nye*), and indefinitely postponed. p. 1330.
 Mar. 3, 1871. *Bill* (H. R. No. 2944) reported by committee. p. 2004.

—: containing the debates and proceedings of the *second session, forty-second congress, (etc.)* 6 parts. 4^o. *Washington, Globe office, 1872.*

- Feb. 5, 1872. *Bill* (H. R. No. 1342) referred to senate *committee on commerce*. p. 817.
 Feb. 5, 1872. *Bill* (H. R. No. 1342) discussed in house and *passed*. p. 831.
 Feb. 19, 1872. *Bill* (S. No. 660) introduced by Mr. Chandler; referred to *committee on commerce*. p. 1112.
 Feb. 26, 1872. *Bill* (H. R. No. 1342) reported without amendment. (By *Mr. Chandler*.) p. 1207.
 Feb. 29, 1872. *Bill* (H. R. No. 1342) discussed in senate and *passed*. p. 1284.
 Feb. 29, 1872. *Bill* (H. R. No. 1342) reported to house as passed by the senate. p. 1307.
 Mar. 1, 1872. *Bill* (S. No. 735) reported from *committee on commerce*. (By *Mr. Chandler*.) p. 1316.
 Mar. 1, 1872. *Bill* (H. R. No. 1342) reported as enrolled and signed. p. 1345.
 Mar. 2, 1872. *Bill* (H. R. No. 1342) reported to senate and signed by the vice-president. p. 1353.
 Mar. 11, 1872. *Bill* (H. R. No. 1342) signed by the president. p. 1582.
 Mar. 20, 1872. *Bill* (S. No. 843) to provide for punishment of offenses committed in Alaska. (By *Mr. Trumbull*.) p. 1820.
 Mar. 25, 1872. *Bill* (S. No. 735) considered and *passed*. p. 1943.
 Mar. 26, 1872. *Bill* (S. No. 735) reported to house as having passed the senate. p. 1981.
 Apr. 1, 1872. *Bill* (H. R. No. 2174) giving secretary of the interior jurisdiction over Alaska Indians. (By *Mr. Coghlan*.) p. 2074.
 Apr. 12, 1872. *Bill* (S. No. 965) giving secretary of the interior jurisdiction over Alaska Indians. (By *Mr. Cole*.) p. 2385.
 May 1, 1872. *Act* (S. No. 965) reported to the house as passed by the senate. p. 2949.
 May 1, 1872. *Bill* (S. No. 965) discussed, amended, and passed by the senate. p. 2957.
 May 2, 1872. *Bill* (S. No. 965) referred to house *committee on Indian affairs*. p. 2994.
 May 2, 1872. *Bill* (H. R. No. 2174) reported adversely in the house and tabled. p. 2997.
 May 31, 1872. *Bill* (S. No. 735) considered and referred to *committee on commerce*. p. 4097.
Note.—For continuation of congressional proceedings see CONGRESSIONAL RECORD (The).

Congressional Papers. House of Representatives.—17th Cong. 1st sess.—Ex. Doc. No. 112. Message from the president of the United States, transmitting the information required by a resolution of the house of representatives of the 16th of February last, in relation to claims set up by foreign governments to territory of the United States upon the Pacific ocean, north of the forty second degree of latitude, &c., &c. April 17th, 1822. 38 pp. 1 map. 8^o. *Washington, Gales & Seaton, 1822, vol. 8.*

Congressional Papers—continued.

- House of Representatives.—18th Cong. 2d sess.—Ex. Doc. No. 57. Message from the president of the United States [Monroe] transmitting a copy of the convention between the United States and the emperor of Russia, concluded at St. Petersburg on the 5th of April last. Jan. 21, 1825. 8 pp. 8°. *Washington, Gales & Seaton, 1825, vol. 3.*
- House of Representatives.—19th Cong. 1st sess.—Ex. Doc. No. 65. **BOUNDARY ON THE PACIFIC OCEAN.** Message from the president of the United States [J. Q. Adams] transmitting the correspondence with the British government, in relation to the boundary of the United States on the Pacific ocean. Jan. 31, 1826. 26 pp. 8°. *Washington, Gales & Seaton, 1826, vol. 4.*
- House of Representatives.—19th Cong. 1st sess.—Report No. 35. **EXPLORATION OF THE NORTHWEST COAST.** Jan. 16, 1826. 26 pp. 8°. *Washington, Gales & Seaton, 1826, vol. 1. See BAYLIES (Francis).*
- House of Representatives.—19th Cong. 1st sess.—Report No. 213. **NORTHWEST COAST OF AMERICA.** May 15, 1826. 22 pp. 8°. *Washington, Gales & Seaton, 1826, vol. 2. See BAYLIES (Francis).*
- House of Representatives.—20th Cong. 1st sess.—State Dept. Doc. No. 218. **NORTHERN AND NORTHWESTERN BOUNDARY LINE.** Letter from the secretary of state [H. Clay] transmitting a copy of the maps and report of commissioners under the treaty of Ghent. For ascertaining the northern and northwestern boundary between the U. States and Great Britain. March 18, 1828. 4 pp. 8°. *Washington, Gales & Seaton, 1828, vol. 5.*
See also LAWS of the United States of America. 7 vols. 8°. Washington, W. A. Davis, 1827. Vol. vii, pp. 619-627; 644-645.
- House of Representatives.—36th Cong. 1st sess.—Ex. Doc. No. 77. **ISLAND OF SAN JUAN.** Letter from the secretary of state [Lewis Cass] transmitting a report relative to the occupation of San Juan. April 26, 1860. Laid upon the table and ordered to be printed. 16 pp. 8°. [*Washington, public printer, 1860.*]
- House of Representatives.—40th Cong. 2d sess.—AN ACT No. 1096. Making an appropriation of money to carry into effect the treaty with Russia of March 30th, 1867. In the senate of the United States, July 14, 1868. Referred to the *committee on foreign relations.* 2 pp. 1 l. Large 8°. [*Washington, government printing office, 1868.*]
- House of Representatives.—40th Cong. 2d sess.—Ex. Doc. No. 80. **LANDS IN ALASKA.** Letter from the secretary of the interior [O. H. Browning] relative to the survey of lands in the peninsula of Kenay, Alaska. Jan. 7, 1868. Referred to the *committee on public lands.* 2 pp. 8°. [*Washington, government printing office, 1868.*]
- House of Representatives.—40th Cong. 2d sess.—Ex. Doc. No. 117. **SUFFERING SOLDIERS IN ALASKA.** Letter from the secretary of war [E. M. Stanton] in answer to a resolution of the house of representatives of the 22d instant, relative to alleged suffering of United States soldiers in Alaska. Jan. 27, 1868. Referred to the *committee on military affairs.* 4 pp. 8°. [*Washington, government printing office, 1868.*]
- House of Representatives.—40th Cong. 2d sess.—Ex. Doc. No. 125. **ALASKA.** Message from the president of the United States, [A. Johnson] in relation to the transfer of territory from Russia to the United States. January 28, 1868. Referred to the *committee on appropriations.* 14 pp. 8°. [*Washington, government printing office, 1868.*]
- House of Representatives.—40th Cong. 2d sess.—Ex. Doc. No. 177. **RUSSIAN AMERICA.** Message from the president of the United States [A. Johnson] in answer to a resolution of the House of 19th of December last, transmitting correspondence in relation to Russian America. Feb. 19, 1868. Referred to *committee on foreign affairs.* 361 pp. 8°. [*Washington, government printing office, 1868.*]

CONTENTS.

[Report of the hon. William H. Seward, secretary of state, on Alaska, accompanying the president's message replying to resolution of the house of representatives of the 19th of December, 1867.]

First.—List of [75] papers accompanying the report of the secretary of state of 17th February, 1868, on Alaska. pp. 2-3.

Congressional Papers—continued.

Second.—Notes informally submitted to the chairman of the committee in the senate, with the *Alaska treaty*, by the secretary of state. pp. 3-10.

Third.—Diplomatic correspondence. pp. 10-25.

Fourth.—Miscellaneous correspondence. pp. 25-189.

Report of the hon. Hugh McCulloch, secretary of the treasury, on Alaska, accompanying the president's message replying to resolution of the house of representatives of the 19th of December, 1867.

First.—Letter of transmission. pp. 189-190.

Second.—Enclosures:—*a.* Instructions to captain Howard. pp. 190-192.

b. Memoranda from Smithsonian institution. pp. 192-195.

c. First report of captain Howard. pp. 195-198.

d. Letter of capt. Howard respecting administration of justice. p. 198.

e. Second report of captain Howard. pp. 198-203.

f. Lieutenant Hodgedon's report of ascent of Makushin mountain. pp. 203-206; also pp. 355-356.

g. Captain Howard's final report. pp. 206-214.

h. Report of botany, by Dr. Kellogg. pp. 214-218.

i. Letter from coast survey transmitting report of party. p. 219.

k. Report of assistant George Davidson. pp. 219-307.

l. Appendix to report of Mr. Davidson. pp. 307-314.

m. Report of Theo. A. Blake on geology. pp. 314-325.

n. Report of W. G. W. Harford on conchology. pp. 325-327.

o. Vocabulary of native languages. pp. 328-333.

p. Meteorological abstract for Sitka from 1847 to 1852. pp. 334-339.

q. Meteorological observations at Iliuliuk, Unalashka, 1825-1834. pp. 340-345.

r. Daily meteorological record, Oct. 29, 1866, to April, 1867, at Iliuliuk. pp. 346-354.

s. Daily meteorological record, May 1 to September 29, 1867, at Sitka. pp. 357-359.

t. Daily meteorological record on Lincoln during the cruise. pp. 360-361.

- House of Representatives.—40th Cong. 2d sess.—Ex. Doc. No. 177. Part 2. **RUSSIAN AMERICA.** Message from the president of the United States in answer to a resolution of the house of 19th December last, calling for information relative to Russian America. April 21, 1868. Referred to the *committee on foreign affairs*. 19 pp. 1 map. 8°. [*Washington, government printing office*, 1868.]

CONTENTS.

First.—Correspondence.

Second.—Notes upon the geography and geology of Russian America and the Stickeen river, from observations made in 1863; by William P. Blake.

- House of Representatives.—40th Cong. 2d sess.—Ex. Doc. No. 216. **INDIANS OF ALEUTIAN ISLES.** Letter from the secretary of the interior [O. H. Browning] recommending that an appropriation be made to be expended in presents to the Indians of the Aleutian isles, in Alaska. March 24, 1868. Referred to the *committee on appropriations*. 3 pp. 8°. [*Washington, government printing office*, 1868.]
- House of Representatives.—40th Cong. 2d sess.—Report No. 37. **TREATY WITH RUSSIA.** [To accompany bill H. R. No. 1096.] Report of Mr. Banks, from the *committee on foreign affairs*. May 18, 1868. 65 pp. 8°. [*Washington, government printing office*, 1868.]
pp. 1-43. Report by N. P. Banks.
pp. 44-65. Minority report by C. C. Washburn and Geo. W. Morgan.
- House of Representatives.—40th Cong. 3d sess.—A BILL No. 1603. [Printer's No., 579.] To regulate and protect the fur seal trade at the islands of Saint Paul's and Saint George, in the territory of Alaska. Introduced by Mr. Eliot, January 11, 1869; referred to the *committee on commerce*. 6 pp. large 8°. [*Washington, government printing office*, 1869.]
- House of Representatives.—40th Cong. 3d sess.—A BILL No. 1670. [Printer's No., 599.] To provide a temporary government for the territory of Alaska. Introduced by Mr. Ashley January 12, 1869; referred to the *committee on the territories*. 18 pp. large 8°. [*Washington, government printing office*, 1869.]
- House of Representatives.—40th Cong. 3d sess.—A BILL No. 1688. [Printer's No., 613.] To regulate and protect the fur seal trade at the islands of Saint Paul's and Saint George, in the territory of Alaska. Introduced by Mr. Eliot January 18, 1869; referred to the *committee on commerce*. 8 pp. large 8°. [*Washington, government printing office*, 1869.]

Congressional Papers—continued.

- House of Representatives.—40th Cong. 3d sess.—A BILL No. 1885. To protect the fur-seal trade at the islands of St. Paul and St. George, in the territory of Alaska. Introduced by Mr. Eliot February 8, 1869; referred to the *committee on commerce*. * * * [Washington, government printing office, 1869.] *Not seen*.
- House of Representatives.—40th Cong. 3d sess.—Report No. 35. ALASKA INVESTIGATION. Report of Mr. Hulburt, from the *committee on public expenditures*. February 27, 1869. Laid on the table. 41 pp. 8°. [Washington, government printing office, 1869.]
- House of Representatives.—41st Cong. 1st sess.—A BILL No. 91. To prevent the extermination of fur-bearing animals in Alaska. Introduced by Mr. Ferry March 15, 1869; referred to the *committee on commerce*. * * * [Washington, government printing office, 1869.] *Not seen*.
- House of Representatives.—41st Cong. 1st sess.—A BILL No. 107. To provide a temporary government for the territory of Alaska. Introduced by Mr. Johnson March 15, 1869; referred to the *committee on territories*. [Washington, government printing office, 1869.] *Not seen*.
- House of Representatives.—41st Cong. 1st sess.—A BILL No. 146. To protect the fur-seal trade in Alaska and for other purposes. Introduced by Mr. Johnson March 19, 1869; referred to the *committee on commerce*. * * * [Washington, government printing office, 1869.] *Not seen*.
- House of Representatives.—41st Cong. 1st sess.—A BILL No. 305. [Printer's No., 130.] To prevent the extermination of fur-bearing animals in Alaska, and to regulate the fur-seal trade at the islands of Saint Paul and Saint George, in the territory of Alaska. Introduced by Mr. Sargent March 29, 1869; referred to the *committee on commerce*. 6 pp. large 8°. [Washington, government printing office, 1869.]
- House of Representatives.—41st Cong. 1st sess.—A BILL No. 306. [Printer's No., 134.] To provide a temporary government for the territory of Alaska. Introduced by Mr. Sargent March 29, 1869; referred to the *committee on territories*. 18 pp. large 8°. [Washington, government printing office, 1869.]
- House of Representatives.—41st Cong. 2d sess.—A BILL No. 1319. [Printer's No., 538.] To provide temporary civil organization for the territory of Alaska. Introduced by Mr. Garfield February 21, 1870; referred to the *committee on territories*. 6 pp. large 8°. [Washington, government printing office, 1870.]
- House of Representatives.—41st Cong. 2d sess.—A BILL No. 1657. For extending the land laws of the United States over the territory of Alaska. Reported by Mr. Julian, from the *committee on public lands*, March 30, 1870; recommitted. * * * [Washington, government printing office, 1870.] *Not seen*.
- House of Representatives.—41st Cong. 2d sess.—A BILL No. 1884. To prevent the extermination of fur-bearing animals and to regulate the fur-seal trade at the islands of Saint George and Saint Paul, in the territory of Alaska. Introduced by Mr. Dawes April 26, 1870; referred to the *committee on commerce*. * * * [Washington, government printing office, 1870.] *Not seen*.
- House of Representatives.—41st Cong. 2d sess.—A BILL No. 2036. To prevent the extermination of fur-bearing animals in Alaska. Introduced by Mr. Washburn May 16, 1870; referred to the *committee on commerce*. * * * [Washington, government printing office, 1870.] *Not seen*.
- House of Representatives.—41st Cong. 2d sess.—Ex. Doc. No. 1, part 2. REPORT of the secretary of war [W. W. Belknap], being part of the message and documents communicated to the two houses of congress at the beginning of the *second* session of the *forty-first* congress. 8°. Washington, government printing office, 1869.
 See pp. 15 and 113-121 for report of gen. Geo. H. Thomas.
 See pp. 135-138 for report of gen. Jeff. C. Davis.
- House of Representatives.—41st Cong. 2d sess.—Ex. Doc. No. 36. ALASKA. Letter from the secretary of the treasury [George S. Boutwell], in answer to a resolution of the house of December 5, transmitting a copy of the report of the late special agent [H. H. McIntyre] of his department for Alaska. January 13, 1870. Referred to the *committee of ways and means*. 18 pp. 8°. [Washington, government printing office, 1870.]

Congressional Papers—continued.

- House of Representatives.—41st Cong. 2d sess.—Ex. Doc. No. 112. **YUKON RIVER AND ISLAND OF ST. PAUL.** Letter from the secretary of the treasury [G. S. Boutwell] in answer to a resolution of the house of February 3, transmitting the report of acting inspector of customs [Charles W. Raymond] concerning the Yukon river and the islands of St. Paul and St. George. February 8, 1870. Referred to the *committee on commerce*. 18 pp. 8°. [*Washington, government printing office, 1870.*]
- House of Representatives.—41st Cong. 2d sess.—Ex. Doc. No. 129. **FUR-SEAL FISHERIES OF ALASKA.** Letter from the secretary of the treasury [Geo. S. Boutwell] in answer to a resolution of the house of January 17, in relation to the fur-seal fisheries of Alaska. Feb. 11, 1870. Referred to the *committee on commerce*. 4 pp. 8°. [*Washington, government printing office, 1870.*]
- House of Representatives.—41st Cong. 2d sess.—Ex. Doc. No. 136. **FUR SEAL FISHERIES OF ALASKA.** Letter from the secretary of the treasury [Geo. S. Boutwell] in answer to a resolution of the house, transmitting a report of the special agent of Alaska [Frank N. Wicker] upon the fur seal fisheries of that territory. February 14, 1870. Referred to the *committee on commerce*. 6 pp. 8°. [*Washington, government printing office, 1870.*]
- House of Representatives.—41st Cong. 2d sess.—Ex. Doc. No. 143. **REVENUE AND CUSTOMS RECEIPTS IN ALASKA.** Letter from the secretary of the treasury [Geo. S. Boutwell] in answer to a resolution of the house of 17th January, transmitting a statement of the receipts from revenue and customs and all other sources in Alaska, since that territory was incorporated into the United States. February 18, 1870. Referred to the *committee of ways and means*. 2 pp. 8°. [*Washington, government printing office, 1870.*]
- House of Representatives.—41st Cong. 2d sess.—Ex. Doc. No. 144. **FUR SEAL FISHERIES OF ALASKA.** Letter from the secretary of the interior [J. D. Cox] in answer to a resolution of the house, of February 9, 1870, transmitting a copy of a portion of *Vincent Colyer's* report relating to the fur-seal fisheries of Alaska. February 18, 1870. Referred to the *committee on commerce*. 12 pp. 8°. [*Washington, government printing office, 1870.*]
- House of Representatives.—41st Cong. 2d sess.—Ex. Doc. No. 220. **AWARDS UNDER HUDSON'S BAY AND PUGET SOUND AGRICULTURAL COMPANIES' TREATY.** Letter from the secretary of the treasury [Geo. S. Boutwell] inclosing a letter from the secretary of state [Hamilton Fish] asking an appropriation to pay the awards under the Hudson's bay and Puget sound agricultural companies' treaty with her Britannic Majesty. March 29, 1870. Referred to the *committee on appropriations*. 3 pp. 8°. [*Washington, government printing office, 1870.*]
- House of Representatives.—41st Cong. 2d sess.—Ex. Doc. No. 255. **SURVEY OF ALASKA AND THE ALEUTIAN ISLANDS.** Letter from the secretary of the treasury [Geo. S. Boutwell] transmitting a letter from the superintendent of the United States coast survey, asking for an appropriation to survey Alaska and the Aleutian islands. May 11, 1870. Referred to the *committee on appropriations*. 7 pp. 8°. [*Washington, government printing office, 1870.*]
- House of Representatives.—41st Cong. 2d sess.—Mis. Doc. No. 11. **ST. PAUL AND ST. GEORGE, ALASKA.** Letter from Frank N. Wicker to hon. Robert C. Schenck, with copy of report made to the solicitor of the treasury [by Frank N. Wicker, special agent] relative to the islands of St. Paul and St. George, Alaska. December 14, 1869. Referred to the *committee of ways and means*. 3 pp. 8°. [*Washington, government printing office, 1869.*]
- House of Representatives.—41st Cong. 2d sess.—Mis. Doc. No. 35. **MANAGEMENT OF INDIANS IN BRITISH AMERICA.** Report on the management of the Indians in British North America by the British government. January 27, 1870. Presented by Mr. Clarke, from the *committee on Indian affairs*. 38 pp. 8°. [*Washington, government printing office, 1870.*]
- House of Representatives.—41st Cong. 3d sess.—A BILL No. 1657. **For extending the land laws of the United States over the territory of Alaska.**

See also Congressional Globe for the house, pp. 1154-56, Feb. 11, 1871.

See also Congressional Globe for the senate, p. 1330, Feb. 17.—Nye's adverse report.

Congressional Papers—continued.

- House of Representatives.—41st Cong. 3d sess.—A BILL No. 2944. To provide a temporary civil organization for the territory of Alaska.
See Congressional Globe for the house, pp. 972-74, Feb. 4, 1871.
- House of Representatives.—41st Cong. 3d sess.—Ex. Doc. No. 108. ALASKA SEAL FISHERY LEASE. Letter from the secretary of the treasury [Geo. S. Boutwell] in relation to the *leasing of the Alaska seal fishery*. February 7, 1871. Referred to the *committee on commerce*. 24 pp. 8°. [*Washington, government printing office, 1871.*]
- House of Representatives.—41st Cong. 3d sess.—Ex. Doc. No. 122. ST. PAUL ISLAND, ALASKA. Letter from the secretary of the treasury [Geo. S. Boutwell] transmitting a report of the special agent of the treasury department, [Charles Bryant] stationed at St. Paul island, Alaska territory, in charge of the seal fishery. Feb. 11, 1871. Referred to the *committee on commerce*. 7 pp. 8°. [*Washington, government printing office, 1871.*]
- House of Representatives.—42d Cong. 1st sess.—Ex. Doc. No. 5. ALASKA. Letter from the secretary of war [William W. Belknap], in relation to the *territory of Alaska*. March 15, 1871. Referred to the *committee on military affairs*. 32 pp. 8°. [*Washington, government printing office, 1871.*]
Note.—Contains reports from military sources (*major J. C. Tidball, major E. H. Ludington*) on the resources of the Alexander archipelago; also a detailed census of Sitka.
- House of Representatives.—42d Cong. 2d sess.—AN ACT No. 1342. Supplementary to the act entitled "An act to prevent the extermination of fur-bearing animals in Alaska." In the senate of the United States, February 5, 1872; referred to the *committee on commerce*. 2 l. large 8°. [*Washington, government printing office, 1872.*]
- House of Representatives.—42d Cong. 2d sess.—A BILL No. 2174. [Printer's No., 1812.] Authorizing the secretary of the interior to take jurisdiction over the people of Alaska called Indians, and for other purposes. Introduced by Mr. Coghlan April 1, 1872; referred to the *committee on Indian affairs*. 1 l. large 8°. [*Washington, government printing office, 1872.*]
- House of Representatives.—42d Cong. 2d sess.—Ex. Doc. No. 20. FUR-SEAL FISHERIES, ALASKA. Letter from the secretary of the treasury, [G. S. Boutwell] transmitting copy of report of the special agent [Charles Bryant] in charge of the fur-seal fisheries at the islands of St. Paul and St. George, Alaska. Dec. 14, 1871. Referred to the *committee on commerce*. 9 pp. 8°. [*Washington, government printing office, 1871.*]
- House of Representatives.—42d Cong. 2d sess.—Ex. Doc. No. 85. DEPUTY COLLECTOR AT THE PORT OF UNALASKA. Letter from the secretary of the Treasury, [Geo. S. Boutwell] relative to an allowance for the compensation to the late acting deputy collector of customs at the port of Unalaska. Jan. 23, 1872. Referred to the *committee on appropriations*. 2 pp. 8°. [*Washington, government printing office, 1872.*]
- House of Representatives.—42d Cong. 2d sess.—Ex. Doc. No. 197. CONDITION OF THE INHABITANTS OF ALASKA. Letter from the secretary of the interior, [C. Delano] relative to the condition of the inhabitants of Alaska who resided there prior to the date of our acquisition of that territory. Mar. 19, 1872. Referred to the *committee on the territories*. 7 pp. 8°. [*Washington, government printing office, 1872.*]
- House of Representatives.—43d Cong. 1st sess.—AN ACT No. 2225. To amend the act entitled "An act to prevent the extermination of fur-bearing animals in Alaska," approved July 1st, 1870. In the senate of the United States, March 4, 1874; referred to the *committee on commerce*. 1 l. large 8°. [*Washington, government printing office, 1874.*]
- House of Representatives.—43d Cong. 1st sess.—AN ACT No. 2667. To enable the secretary of the treasury to gather authentic information as to the condition and importance of the fur-trade in the territory of Alaska. In senate, April 6, 1874; referred to the *committee on commerce*. 4 pp. large 8°. [*Washington, government printing office, 1874.*]

Congressional Papers—continued.

- House of Representatives.—43d Cong. 1st sess.—A BILL No. 1596. [Printer's No., 1527.] To enable the secretary of the treasury to gather authentic information as to the condition and importance of the fur-trade in the territory of Alaska. Introduced by Mr. Dawes February 2d, 1874; and referred to the *committee on ways and means*. 2 pp. large 8°. [Washington, government printing office, 1874.]
- House of Representatives.—43d Cong. 1st sess.—A BILL No. 2225. [Printer's No., 2210.] To amend the act entitled "An act to prevent the extermination of fur-bearing animals in Alaska," approved July first, eighteen hundred and seventy. Introduced by Mr. Kasson, February 28th, 1874; referred to the *committee on commerce*. 2 pp. large 8°. [Washington, government printing office, 1874.]
- House of Representatives.—43d Cong. 2d sess.—A BILL No. 4558. [Printer's number, 4652.] Authorizing the appointment of a commission to proceed to the territory of Alaska, after the adjournment of the present congress, to inquire into the number of fur-seals killed on the islands of Saint Paul and Saint George, and if an increased number could be killed without jeopardizing the perpetuity of the fisheries, and for other purposes. Introduced by Mr. Rainey, February 4, 1875; referred to the *committee on commerce*. 2 l. large 8°. [Washington, government printing office, 1875.]
- House of Representatives.—44th Cong. 1st sess.—A BILL No. 148. [Printer's No., 159.] For the relief of the estate of late paymaster John S. Walker, United States army. Introduced by Mr. Lane Dec. 14, 1875; referred to the *committee on military affairs*. 1 l. large 8°. [Washington, government printing office, 1875.]
- House of Representatives.—44th Cong. 1st sess.—Ex. Doc. No. 43. ALASKA SEAL-FISHERIES. Letter from the secretary of the navy [Geo. M. Robeson] transmitting a copy of the report of *lieut. WASHBURN MAYNARD, United States navy*, on the subject of the Alaska seal-fisheries. January 5, 1876. Referred to the *committee on commerce*. 23 pp. 8°. [Washington, government printing office, 1876.]
- House of Representatives.—44th Cong. 1st sess.—Ex. Doc. No. 83. SEAL-FISHERIES IN ALASKA. Letter from the secretary of the treasury [B. H. Bristow] transmitting in response to a resolution of the house of representatives, information relating to the seal-fisheries in Alaska. January 20, 1876. Referred to the *committee on ways and means*. 201 pp. 8°. [Washington, government printing office, 1876.]

CONTENTS.

1. A complete list of papers [405 in number] on file in the office of the secretary of the treasury, on Alaskan business, August 3, 1870, to the present date.
 2. Copies of all documents and papers [143 in number] mentioned in said list containing information pertaining to the seal-fisheries of Alaska.
- House of Representatives.—44th Cong. 1st sess.—Ex. Doc. No. 135. JURISDICTION OF THE WAR DEPARTMENT OVER THE TERRITORY OF ALASKA. Letter from the secretary of war, transmitting a copy of a brief on the subject. February 29, 1876. Referred to the *committee on the territories*. 56 pp. 8°. [Washington, government printing office, 1876.]
- House of Representatives.—44th Cong. 1st sess.—Report No. 623. THE ALASKA COMMERCIAL COMPANY. Report by Mr. Fernando Wood. June 3, 1876. Recommitted to the *committee on ways and means*. 143 pp. 8°. [Washington, government printing office, 1876.]
- House of Representatives.—44th Cong. 2d sess.—A BILL No. 4260. [Printer's No., 4673.] Granting to the Alaska ship building and lumber company the right to occupy and purchase certain lands in the territory of Alaska upon paying the government price therefor, and for other purposes. Introduced by Mr. Piper, Dec. 20, 1876; referred to the *committee on the public lands*. 4 pp. large 8°. [Washington, government printing office, 1876.]
- House of Representatives.—44th Cong. 2d sess.—A BILL No. 4560. [Printer's No., 5007.] Authorizing the sale of certain lands in the territory of Alaska upon paying the government price therefor, and for other purposes; a substitute for bill 4260. Introduced by Mr. Walling, February 1, 1877; recommitted to the *committee on public lands*. 4 pp. large 8°. [Washington, government printing office, 1877.]

Congressional Papers—continued.

- House of Representatives.—44th Cong. 2d sess.—Ex. Doc. No. 1. Part 3. REPORT OF THE SECRETARY OF THE NAVY, being part of the message and documents communicated to the two houses of congress at the beginning of the first session of the forty-fourth congress. — pp. 8°. *Washington, government printing office, 1875.*
Note.—Contains an account of the loss of the U. S. S. *Saranac*, capt. W. W. Queen, in Seymour Narrows, B. C.
- House of Representatives.—44th Cong. 2d sess.—Report No. 174. SALE OF LANDS IN THE TERRITORY OF ALASKA. Report by Mr. Walling [to accompany bill H. R. 4560]. February 16, 1877. Recommitted to the *committee on public lands*. 4 pp. 8°. [*Washington, government printing office, 1877.*]
- House of Representatives.—45th Cong. 2d sess.—A BILL No. 2533. [Printer's No., 2650.] To authorize the killing of fur-seal and other fur-bearing animals within the limits of Alaska territory. Introduced by Mr. Willis January 21, 1878; referred to the *committee of ways and means*. 4 pp. large 8°. [*Washington, government printing office, 1878.*]
- House of Representatives.—45th Cong. 3d sess.—A BILL No. 6027. [Printer's No., 6728.] For extending the land laws of the United States over the territory of Alaska. Introduced by Mr. Fuller January 20, 1879; referred to the *committee on the public lands*. 5 pp. large 8°. [*Washington, government printing office, 1879.*]
- House of Representatives.—45th Cong. 3d sess.—A BILL No. 6150. [Printer's No. 6850.] Authorizing the secretary of the navy to accept for the purposes of a voyage of exploration by way of Behring's straits, the ship *Jeannette*, tendered by James Gordon Bennett for that purpose. Introduced by Mr. Wood, Jan. 24, 1879; referred to the *committee on naval affairs*. 4 pp. large 8°. [*Washington, government printing office, 1879.*]
- House of Representatives.—45th Cong. 3d sess.—Report No. 82. PETITION OF HENRY C. DE AHNA FAVORABLY REPORTED. Report by Mr. Phelps [to accompany bill S. 1592]. January 30, 1879. Recommitted to the *committee of ways and means*. 2 pp. 8°. [*Washington, government printing office, 1879.*]
- House of Representatives.—45th Cong. 3d sess.—Report No. 91. RECOMMENDING THE PASSAGE OF A BILL FOR THE RELIEF OF CAPT. J. B. CAMPRELL. Report by Mr. Bragg [to accompany bill H. R. 6271]. January 31, 1879. Committed to the *committee of the whole house*. 10 pp. 8°. [*Washington, government printing office, 1879.*]
- Congressional Papers.** Senate.—26th Cong. 1st sess.—[174.] MEMOIR, HISTORICAL AND POLITICAL, on the northwest coast of North America, and the adjacent territories; illustrated by a map and a geographical view of those countries. By *Robert Greenhow*, translator and librarian to the department of state. xii, 228 pp. 1 map. 8°. *Washington, Blair & Rives, printers, 1840.*
- Senate.—30th Cong. 1st sess.—Miscellaneous No. 80. MEMOIR, GEOGRAPHICAL, POLITICAL, AND COMMERCIAL, on the present state, productive resources, and capabilities for commerce, of Siberia, Manchuria, and the Asiatic islands of the northern Pacific ocean; and on the importance of opening commercial intercourse with those countries, &c. Addressed to his excellency James K. Polk, president of the United States, by *Aaron H. Palmer*. 105 pp. 1 l. 2 maps. 8°. [*Washington, Tappin & Streep, 1848.*]
- Senate.—40th Cong. 2d sess.—A BILL No. 447. To provide a temporary government for the territory of Alaska. Introduced by Mr. Williams March 17, 1868; referred to the *committee on territories*. 6 pp. 1 l. large 8°. [*Washington, government printing office, 1868.*]
- Senate.—40th Cong. 2d sess.—A BILL No. 619. To extend the laws of the United States relating to customs, commerce, and navigation over the territory ceded to the United States by Russia, to establish a collection district therein, and for other purposes. Introduced by Mr. Chandler July 15, 1868; referred to the *committee on commerce*. 8 pp. 1 l. large 8°. [*Washington, government printing office, 1868.*]

Congressional Papers—continued.

- Senate.—40th Cong. 2d sess.—Ex. Doc. No. 29. MESSAGE OF THE PRESIDENT of the United States [Andrew Johnson] communicating, in compliance with a resolution of the Senate of December 18, 1867, information in relation to the occupation of the island of San Juan, in Puget sound. 270 pp. 2 maps. 8°. [*Washington, government printing office, 1868.*]
- - *Same*, with table of contents and index added, issued under the following title: THE NORTH-WEST BOUNDARY. Discussion of the water boundary question: geographical memoir of the islands in dispute, and history of the military occupation of San Juan island, accompanied by maps and cross-sections of channels. x, 270 pp. 2 maps. 8°. *Washington, government printing office, 1868.*
- Senate.—40th Cong. 2d sess.—Ex. Doc. No. 50. MESSAGE OF THE PRESIDENT of the United States [A. Johnson] communicating, in compliance with a resolution of the senate of the 14th instant, information in relation to any application by any party for exclusive privileges in connection with hunting, trading, and the fisheries in Alaska. April 27, 1868. Referred to the *committee on foreign relations*. 11 pp. 8°. [*Washington, government printing office, 1868.*]
- Senate.—40th Cong. 3d sess.—A BILL No. 695. To provide a temporary government for the territory of Alaska. Introduced by Mr. Cole December 16, 1868; referred to the *committee on territories*. 16 pp. large 8°. [*Washington, government printing office, 1868.*]
- Senate.—40th Cong. 3d sess.—A BILL No. 735. To prevent the extermination of fur-bearing animals in Alaska, and to protect the inhabitants thereof. Introduced by Mr. Cole January 5, 1869; referred to the *committee on commerce*. 2 l. large 8°. [*Washington, government printing office, 1869.*]
- Senate.—40th Cong. 3d sess.—A BILL No. 980. More efficiently to protect the fur seal in Alaska. Reported by Mr. Chandler March 2, 1869, from the *committee on commerce*. 1 l. large 8°. [*Washington, government printing office, 1869.*]
- Senate.—40th Cong. 3d sess.—Ex. Doc. No. 8. LETTER FROM THE SECRETARY OF THE TREASURY [H. McCulloch] communicating, in compliance with a resolution of the senate of the 15th ultimo, information in regard to the territory of Alaska and fur interests therein. January 6, 1869. Referred to the *committee on commerce*. 10 pp. 8°. [*Washington, government printing office, 1869.*]
- Senate.—40th Cong. 3d sess.—Ex. Doc. No. 42. MESSAGE OF THE PRESIDENT of the United States [A. Johnson] in relation to the encroachments of the agents of the Hudson's Bay company upon the trade and territory of Alaska. February 5, 1869. Referred to the *committee on commerce*. 4 pp. 8°. [*Washington, government printing office, 1869.*]
- Senate.—40th Cong. 3d sess.—JOINT RESOLUTION No. 239. More efficiently to protect the fur seal in Alaska. Introduced by Mr. Patterson February 26, 1869. 1 l. large 8°. [*Washington, government printing office, 1869.*]
- Senate.—41st Cong. 1st sess.—A BILL No. 32. To prevent the extermination of fur bearing animals in Alaska. Introduced by Mr. Ferry March 6th, 1869. 7 pp. large 8°. [*Washington, government printing office, 1869.*]
- *The same*. [Printer's No. 55.] In the house of representatives, March 15, 1869; referred to the *committee on commerce*. 7 pp. large 8°. [*Washington, government printing office, 1869.*]
- *The same*. AN ACT. [Printer's No., 168.] In the house of representatives, March 15, 1869, referred to the *committee on commerce*. April 7, 1869, reported with amendments [and] recommitted to the *committee on commerce*, (etc.)
- *The same*. AN ACT. [Printer's No., 602.] See 41st Cong. 2d sess.—ACT No. 32.
- Senate.—41st Cong. 1st sess.—A BILL No. 264. To execute the provisions of a certain treaty between the United States and his Majesty the emperor of all the Russias, concluded on the 27th day of January anno Domini 1868. Reported from the *committee on the judiciary* by Mr. Trumbull April 7, 1869. 2 pp. large 8°. [*Washington, government printing office, 1869.*]

Congressional Papers—continued.

- Senate.—41st Cong. 2d sess.—AN ACT No. 32. [Printer's No., 602.] To prevent the extermination of fur-bearing animals in Alaska. In the house of representatives, March 15, 1869, referred to the *committee on commerce*. March 8, 1870, reported back with amendments [and] recommitted to the *committee on commerce*, (etc.) 7 pp. large 8°. [Washington, government printing office, 1870.]
- *The same*. [No printer's number.] In the senate of the U. S., June 29, 1870; ordered printed with the amendment of the house of representatives. 13 pp. large 8°. [Washington, government printing office, 1870.]
- *The same*. [Printer's No., 805.] AMENDMENT in the nature of a substitute, proposed to be submitted by Mr. Dixon, from the *committee on commerce*, to the bill (S. 32) to prevent the extermination of fur-bearing animals in Alaska. In the house of representatives, April 26, 1870; recommitted to the *committee on commerce*. 7 pp. large 8°. [Washington, government printing office, 1870.]
- Senate.—41st Cong. 2d sess.—AN ACT, S. No. 32. [Printer's number, 602.] To prevent the extermination of fur-bearing animals in Alaska. In the house of representatives, March 15, 1869, read twice, referred to the *committee on commerce*, and ordered to be printed. March 8, 1870, reported back with amendments, recommitted to the *committee on commerce*, and ordered to be printed. 8 pp. large 8°. [Washington, government printing office, 1870.]
- Senate.—41st Cong. 2d sess.—AN ACT, S. No. 32. To prevent the extermination of fur-bearing animals in Alaska. June 29, 1870. Ordered to be printed with the amendment of the house of representatives. 14 pp. large 8°. [Washington, government printing office, 1870.]
- Senate.—41st Cong. 2d sess.—A BILL, S. No. 576. To establish a territorial government for the territory of Alaska. Introduced by Mr. Howard February 21, 1870; referred to the *committee on territories*. 15 pp. large 8°. [Washington, government printing office, 1870.]
- *The same*. In the Senate of the United States, Feby. 21, 1870, introduced by Mr. Howard and referred to *committee on territories*. Feby. 23, 1870, reported back with amendments. 14 pp. 1 l. large 8°. [Washington, government printing office, 1870.]
- Senate.—41st Cong. 2d sess.—Ex. Doc. No. 32. LETTER OF THE SECRETARY OF THE TREASURY [Geo. S. Boutwell] communicating, in compliance with a resolution of the senate of December 20, 1869, the reports of captain *Charles Bryant*, late special agent of the treasury department for Alaska, and *H. H. McIntyre*, special agent of the treasury department. January 26, 1870. Referred to the *committee on territories*. 42 pp. 8°. [Washington, government printing office, 1870.]
- Senate.—41st Cong. 2d sess.—Ex. Doc. No. 68. LETTER OF THE SECRETARY OF THE INTERIOR communicating, in compliance with a resolution of the senate of the 14th instant, [Mar. 14, 1870] so much of the REPORT OF VINCENT COLYER, special Indian commissioner, *as relates* to the Indian village of *Wrangell*, Alaska, showing the condition of that village previous to its recent bombardment by United States troops. Mar. 22, 1870. Referred to the *committee on military affairs*. 23 pp. 8°. [Washington, government printing office, 1870.]
- Senate.—42d Cong. 1st sess.—Ex. Doc. No. 12. REPORT OF A RECONNAISSANCE OF THE YUKON RIVER, Alaska territory. July to September, 1869. By capt. C. W. Raymond, corps of engineers U. S. army. 113 pp. 1 map. 8°. Washington, government printing office, 1871.
- Note*.—The map was separately issued and did not appear with the printed report, nor until some time afterwards. This document is important for the observations of precision in the northern part of the territory, along the Yukon river, recorded in it.
- Senate.—42d Cong. 2d sess.—A BILL No. 660. For the protection of seal-fisheries in Alaska, and for other purposes. Introduced by Mr. Chandler, February 19, 1872; referred to the *committee on commerce*. 2 pp. 1 l. large 8°. [Washington, government printing office, 1872.]
- Senate.—42d Cong. 2d sess.—A BILL No. 735. To amend an act entitled "An act to extend the laws of the United States relating to customs, commerce, and navigation, over the terri-

Congressional Papers—continued.

- tory ceded to the United States by Russia, to establish a collection district therein, and for other purposes," passed July 27th, 1868. Reported by Mr. Chandler from the *committee on commerce* March 1, 1872. 1 l. large 8°. [Washington, government printing office, 1872.]
- Senate.—42d Cong. 2d sess.—A BILL No. 843. Further to provide for the punishment of offenses committed in the district of Alaska. Introduced by Mr. Trumbull March 20, 1872; referred to the *committee on the judiciary*. 1 l. large 8°. [Washington, government printing office, 1872.]
- Senate.—42d Cong. 2d sess.—A BILL No. 965. Authorizing the secretary of the interior to take jurisdiction over the people of Alaska called Indians, and for other purposes. Introduced by Mr. Cole April 12, 1872; referred to the *committee on Indian affairs*. 1 l. large 8°. [Washington, government printing office, 1872.]
- Senate.—42d Cong. 2d sess.—Ex. Doc. No. 34. MESSAGE FROM THE PRESIDENT OF THE UNITED STATES [A. Johnson], communicating in compliance with a resolution of the 19th of January, 1869, information in relation to the resources and extent of the fishing-grounds of the north Pacific ocean, opened to the United States by the treaty of Alaska. February 18, 1869, read and ordered to lie on the table. February 16, 1872, ordered to be printed. 9 pp. 8°. [Washington, government printing office, 1872.]
- Senate.—43d Cong. 2d sess.—A BILL No. 1336. Authorizing the appointment of a commission to proceed to the territory of Alaska, after the adjournment of the present congress, to inquire into the number of fur-seals killed on the islands of Saint Paul and Saint George, and if an increased number could be killed without jeopardizing the perpetuity of the fisheries, and for other purposes. Introduced by Mr. Spencer February 20, 1875; referred to the *committee on commerce*. 2 l. large 8°. [Washington, government printing office, 1875.]
- Senate.—43d Cong. 2d sess.—Ex. Doc. No. 15. LETTER FROM THE SECRETARY OF WAR [Wm. W. Belknap] communicating copy of a telegram from the commanding general of the military department of the Pacific, in relation to the length of time of retention of military prisoners, under section 23, act of January 30, 1834. January 14, 1875; referred to the *committee on the judiciary*. 1 p. 8°. [Washington, government printing office, 1875.]
- Senate.—43d Cong. 2d sess.—Ex. Doc. No. 24. LETTER FROM THE SECRETARY OF WAR [Wm. W. Belknap] accompanying a copy of a letter of the commanding general, department of the Columbia, and a copy of the decision of the judge of the district court for the district of Oregon, in the case of John A. Carr. February 6, 1875; referred to the *committee on the judiciary*. 8 pp. 8°. [Washington, government printing office, 1875.]
- Senate.—43d Cong. 2d sess.—Ex. Doc. No. 27.—LETTER FROM THE SECRETARY OF WAR [Wm. W. Belknap] transmitting a copy of a communication from capt. J. B. Campbell, in relation to the illicit traffic in liquor in Alaska. February 17, 1875; ordered to lie on the table. 3 pp. 8°. [Washington, government printing office, 1875.]
- Senate.—43d Cong. 2d sess.—Mis. Doc. No. 13. PETITION OF CITIZENS OF CALIFORNIA, praying a grant of occupancy of certain lands in Alaska, to be paid for at a time to be fixed, to be used and occupied by what shall be known as the "Alaska ship-building and lumber company," for the purpose of ship-building, &c. December 21, 1874; referred to the *committee on public lands*. 2 pp. 8°. [Washington, government printing office, 1874.]
- Senate.—44th Cong. 1st sess.—A BILL, S. No. 67. Attaching the territory of Alaska to, and making it a part of, the territory of Washington, and providing for a civil government therein. Introduced by Mr. Mitchell December 13, 1875; referred to the *committee on territories*. 8 pp. large 8°. [Washington, government printing office, 1875.]
- Senate.—44th Cong. 1st sess.—A BILL, S. No. 199. For the relief of the estate of the late paymaster major John S. Walker, United States army. Introduced by Mr. Kelly January 7, 1876; referred to the *committee on military affairs*. 1 l. large 8°. [Washington, government printing office, 1876.]

Congressional Papers—continued.

- *The same.* [Printer's No., 3000.] Reported to the house of representatives without amendment March 24, 1876. 2 pp. large 8°. [Washington, government printing office, 1876.]
- Senate.—44th Cong. 1st sess.—A BILL, S. No. 1045. For the relief of George A. Eades, late collector of customs at Sitka, Alaska. Introduced by Mr. Mitchell August 12, 1876; referred to the *committee on claims*. 1 l. large 8°. [Washington, government printing office, 1876.]
Feb. 14, 1877. Reported adversely by Mr. Cockrell and indefinitely postponed.
- Senate.—44th Cong. 1st sess.—Ex. Doc. No. 12. LETTER FROM THE SECRETARY OF WAR, transmitting a report of the commanding general [O. O. Howard], department of the Columbia, of his tour in Alaska territory, in June, 1875. January 6, 1876. Referred to the *committee on territories*. 33 pp. 8°. [Washington, government printing office, 1876.]
Note.—Contains a reprint of Bendel's pamphlet, pp. 13-33.
- Senate.—44th Cong. 1st sess.—Ex. Doc. No. 33. Part 2. MESSAGE OF THE PRESIDENT OF THE UNITED STATES, [U. S. Grant] communicating, in answer to a senate resolution of January 7, 1876, additional information in relation to military arrests in the territory of Alaska. March 24, 1876; ordered to lie on the table. 11 pp. 8°. [Washington, government printing office, 1876.]
- Senate.—44th Cong. 1st sess.—Ex. Doc. No. 33. Part 3. MESSAGE FROM THE PRESIDENT OF THE UNITED STATES, [U. S. Grant] communicating, in answer to senate resolution of January 7, 1876, further information in relation to military arrests in Alaska. April 6, 1876; referred to the *committee on the judiciary*. 9 pp. 8°. [Washington, government printing office, 1876.]
- Senate.—44th Cong. 1st sess.—Ex. Doc. No. 37. LETTER FROM THE SECRETARY OF THE TREASURY, in answer to a senate resolution of March 15, 1876, transmitting the report of a special agent [William G. Morris] on the territory of Alaska and the collection of the customs-revenue therein. March 20, 1876; referred to the *committee on finance*. 10 pp. 8°. [Washington, government printing office, 1876.]
- Senate.—44th Cong. 1st sess.—Ex. Doc. No. 48. LETTER FROM THE SECRETARY OF WAR [A. Taft] transmitting information in relation to Alaska and its resources, the Alaska commercial company, the conduct of Mr. Bryant at Saint Paul's and Saint George's islands, and the colonization of Icelanders. April 12, 1876; ordered to lie on the table. 5 pp. 8°. [Washington, government printing office, 1876.]
- Senate.—44th Cong. 2d sess.—A BILL, S. No. 1264. To facilitate the settlement and to develop the resources of the territory of Alaska, and to open an overland commercial route between the United States, Asiatic Russia, Japan, China, and British India. Introduced by Mr. Conkling February 15, 1877; referred to the *committee on territories*. 2 l. large 8°. [Washington, government printing office, 1877.]
- Senate.—44th Cong. 2d sess.—Ex. Doc. No. 14. Letter from the secretary of war, accompanying a memorial from citizens of Wrangell, Alaska, asking for the establishment of courts of justice in that territory. January 12, 1877; ordered to lie on the table. 5 pp. 8°. [Washington, government printing office, 1877.]
- Senate.—45th Cong. 2d sess.—A BILL No. 599. To authorize the killing of fur-seal and other fur-bearing animals within the limits of Alaska territory. Introduced by Mr. Cameron January 24, 1878; referred to the *committee on finance*. 4 pp. large 8°. [Washington, government printing office, 1878.]
Note.—Adversely reported on by Mr. Allison, Jan. 17, 1879.
- 45th Congress, 3d session. Senate. Ex. Doc. No. 59. REPORT UPON THE CUSTOMS DISTRICT, PUBLIC SERVICE, AND RESOURCES OF ALASKA TERRITORY. By William Gouverneur Morris, special agent of the treasury department. 1 p. l. 163 pp. 11 pl. 1 map. 8°. Washington, government printing office, 1879.
Note.—Important, from the details in regard to the resources of the territory contained in it.

Congressional Record (The): containing the proceedings and debates of the *forty-third congress, first session*. 6 parts. 4°. *Washington, government printing office, 1874.*

- Feb. 2, 1874. *Bill* (H. R. No. 1593) introduced by Mr. Dawes and referred to *committee on ways and means*. p. 1120.
- Feb. 28, 1874. *Bill* (H. R. No. 2225) introduced by Mr. Kasson and referred to *committee on commerce*. p. 1862.
- Mar. 3, 1874. *Bill* (H. R. No. 2225) reported back and passed in the house. pp. 1940-1.
- Mar. 18, 1874. *Bill* (H. R. No. 2225) reported to senate without amendment. pp. 2210-11.
- Mar. 19, 1874. *Bill* (H. R. No. 2225) discussed and passed in the senate. p. 2256.
- Mar. 26, 1874. *Bill* (H. R. No. 2337) reported from *committee on ways and means* by Mr. Dawes and referred to *committee on commerce*. pp. 2493-4.
- Apr. 2, 1874. *Bill* (H. R. No. 2667) reported back, discussed, and passed over. pp. 2734-39.
- Apr. 3, 1874. *Bill* (H. R. No. 2337) again discussed and passed. p. 2776.
- Apr. 3, 1874. *Bill* (H. R. No. 2225) signed by the president. pp. 2793-4.
- Apr. 20, 1874. *Bill* (H. R. No. 2337) reported to house as passed by the senate. p. 3206.
- Apr. 22, 1874. *Act* (H. R. No. 2637) signed by the president. p. 3296.

—: containing the proceedings and debates of the *forty-third congress, second session*. 3 parts. 4°. *Washington, government printing office, 1875.*

- Feb. 4, 1875. *Bill* (H. R. No. 4558) introduced by Mr. Rainey and referred to *committee on commerce*. p. 996.
- Feb. 20, 1875. *Bill* (S. No. 1336) introduced by Mr. Spencer and referred to *committee on commerce*. p. 1521.

—: containing the proceedings and debates of the *forty-fourth congress, first session, (etc.)* 7 parts. 4°. *Washington, government printing office, 1876.*

- Dec. 13, 1875. *Bill* (S. No. 67) introduced (by Mr. Mitchell) and referred to *committee on territories*. p. 194.
- Dec. 14, 1875. *Bill* (H. R. No. 148) introduced (by Mr. Lane) and referred to *committee on military affairs*. p. 212.
- Dec. 14, 1875. *Resolutions* calling for Maynard's report and information touching the Alaska com'l co. (By Mr. Payne.) p. 215.
- Dec. 16, 1875. *Resolution* calling for information touching military arrests in Alaska. (By Mr. Mitchell.) p. 233.
- Jan. 5, 1876. The same considered and passed. p. 254.
- Jan. 5, 1876. Maynard's report presented and referred to *committee on commerce*. p. 255.
- Jan. 6, 1876. Executive communication. *Report of gen. O. O. Howard*. p. 273.
- Jan. 7, 1876. *Resolution* calling for information touching military arrests in Alaska (by Mr. Mitchell) adopted. p. 307.
- Jan. 17, 1876. *Resolution* to investigate Alaska Commercial Co. (By Mr. Wood.) p. 449.
- Jan. 20, 1876. Letter from the secretary of the treasury on Alaska seal fisheries; referred to *committee on ways and means*. p. 520.
- Feb. 14, 1876. *Bill* (S. No. 199) reported in senate and put on the calendar. p. 1057.
- Feb. 29, 1876. Letter from the secretary of war on the jurisdiction of the war department over Alaska. p. 1363.
- Mar. 2, 1876. *Bill* (S. No. 199) considered and passed in senate. pp. 1400-1.
- Mar. 3, 1876. *Bill* (S. No. 199) referred to house *committee on military affairs*. (p. 1446.)
- Mar. 6, 1876. Message from the president concerning *military arrests* in Alaska. p. 1483.
- Mar. 9, 1876. *Petition* of Portland board of trade to attach Alaska as a county to Washington territory. (By Mr. Lane.) p. 1605.
- Mar. 15, 1876. *Resolution* calling for Morris's report on *customs collections in Alaska*. (By Mr. Sargent.) p. 1717.
- Mar. 20, 1876. Letter from the secretary of the treasury transmitting *Morris's report*. p. 1793.
- Mar. 21, 1876. *Petition* by H. B. Tichenor and others for a military post and for special privileges for the Alaska Ship building Co. (By Mr. Page.) p. 1871.
- Mar. 24, 1876. Message from the president concerning *military arrests* in Alaska. p. 1945.
- Mar. 24, 1876. *Bill* (S. No. 199) substituted for *Bill* (H. R. No. 148) and referred to *committee of the whole*. p. 1950.
- Apr. 6, 1876. Executive communication on arrests in Alaska. p. 2257.
- Apr. 12, 1876. Letter from the secretary of war transmitting capt. J. W. White's statements concerning *Ice-landers in Alaska*. p. 2400.
- May 5, 1876. *Bill* (S. No. 199) considered in *committee of the whole* and passed. pp. 3009, 3015.
- May 25, 1876. *Bill* (S. No. 199) approved and signed by the president. p. 3310.
- June 3, 1876. *Report* (Rep. H. R. No. 683) on *Alaska seal fishery* submitted by F. Wood. p. 3574.
- July 8, 1876. Memorial from citizens of Alaska presented (by Mr. Mitchell); referred to *committee on territories*. p. 4463.
- Aug. 11, 1876. *Bill* (S. No. 1045) introduced by Mr. Mitchell and referred to the *committee on claims*. p. 5481.
- Aug. 15, 1876. Testimony in relation to Alaska frauds and maltreatment of citizens. p. 5699.

—: containing the proceedings and debates of the *forty-fourth congress, second session*. 4 parts. 4°. *Washington, government printing office, 1877.*

- Dec. 20, 1876. *Bill* (H. R. No. 4260) introduced by Mr. Piper and referred to *committee on public lands*. p. 331.
- Jan. 12, 1877. Letter from the secretary of war with memorial from citizens of Wrangell asking for courts of justice. p. 588.

Congressional Record—continued.

- Jan. 20, 1877. Petition of Geo. A. Eades for credit for money lost on *Geo. S. Wright*. (By *Mr. Mitchell*.) p. 763.
 Feb. 2, 1877. *Bill* (H. R. No. 4560) reported (by *Mr. Walling*) as a substitute for bill (H. R. No. 4230). p. 1211.
 Feb. 14, 1877. *Bill* (S. No. 1045) reported adversely (by *Mr. Cockrell*) and indefinitely postponed. p. 1547.
 Feb. 15, 1877. *Bill* (S. No. 1234) introduced (by *Mr. Conkling*) and referred to committee on territories. p. 1583.
 Feb. 15, 1877. Item in deficiency bill to pay Falconer and McIntyre. p. 1599.
 Feb. 16, 1877. *Report on Bill* (H. R. No. 4560). p. 1651.
 Feb. 20, 1877. *Report on Bill* (H. R. No. 4560) printed in *extenso*. pp. 1723-4.
 Mar. 2, 1877. Amendment to appropriation bill to send steam revenue-vessel to Alaska. p. 2097.

—: containing the proceedings and debates of the *forty-fifth congress, second session*. 5 parts.

40. *Washington, government printing office, 1878.*

- Jan. 10, 1878. *Petition* of the Alaska gold and silver mining company (by *Mr. Conkling*). p. 248.
 Jan. 21, 1878. *Bill* (H. R. No. 2533) to authorize the killing of fur-seal. (By *Mr. Willis*.) p. 442.
 Jan. 24, 1878. *Bill* (S. No. 599) to authorize the killing of fur-seal (by *Mr. Cameron*). p. 516.
 Mar. 23, 1878. Letter from the secretary of the treasury to the house asking protection for fur-seals. pp. 2050-1.
 Apr. 5, 1878. *Bill* (S. No. 1045) to provide for the administration of the oath of office to collectors and other officers of the customs in the district of Alaska; introduced and referred. (By *Mr. Johnston*.) p. 2289.
 Apr. 18, 1878. *Bill* (S. No. 1045) reported from judiciary committee and passed. p. 2328.
 Apr. 19, 1878. *Bill* (S. No. 1045) passed by the house. p. 2652.
 Apr. 23, 1878. *Bill* (S. No. 1045) signed by the speaker. p. 2757.
 Apr. 25, 1878. *Bill* (S. No. 1045) signed by the president *pro tem.* of the senate. p. 2841.
 May 2, 1878. *Bill* (S. No. 1045) signed by the president. p. 3080.

—: containing the proceedings and debates of the *forty-fifth congress, third session*. 3 parts.

40. *Washington, government printing office, 1879.*

- Dec. 4, 1878. *Petition* of Henry C. De Ahna for relief. (By *Mr. Luttrell*.) p. 35.
 Dec. 4, 1878. *Petition* of citizens of Alaska for organization of courts. (By *Mr. Luttrell*.) p. 35.
 Dec. 11, 1878. *Bill* (S. No. 1482) appropriating \$175,000, to construct a revenue steamer for Alaskan waters. (By *Mr. Mitchell*.) p. 83.
 Jan. 7, 1879. *Petition* of Alaska gold and silver mining company adversely reported. (By *Mr. Edmunds*.) p. 341.
 Jan. 7, 1879. *Report* of W. G. Morris called for. (By *Mr. Mitchell*.) p. 342.
 Jan. 13, 1879. *Bill* (S. No. 1592) for the relief of Henry C. De Ahna. (By *Mr. Dawes*.) p. 422.
 Jan. 14, 1879. *Bill* (S. No. 1592) for relief of De Ahna passed by the senate. p. 428.
 Jan. 14, 1879. *Bill* (S. No. 1592) for relief of De Ahna reported to house as having passed the senate. p. 443.
 Jan. 17, 1879. *Bill* (S. No. 599) adversely reported. (By *Mr. Allison*.) p. 517.
 Jan. 20, 1879. *Bill* (H. R. No. 6027) to extend the land laws of the U. S. over Alaska. (By *Mr. Fuller*.) p. 578.
 Jan. 28, 1879. *Bill* (S. No. 599) referred to committee on ways and means. p. 803.
 Feb. 3, 1879. *Report* of Wm. G. Morris received and ordered printed. p. 947.
 Feb. 10, 1879. Resolution to print 5,000 extra copies of Morris's report. (By *Mr. Mitchell*.) p. 1149.
 Feb. 17, 1879. Resolution to print 5,000 extra copies of Morris's report amended and passed. p. 1431.
 Feb. 17, 1879. Passage of above resolution reported to the house. p. 1495.
 Feb. 17, 1879. Referred to house committee on printing. p. 2108.

—: containing the proceedings and debates of the *forty-sixth congress, first session*. 3 parts.

40. *Washington, government printing office, 1879.*

- Mar. 25, 1879. *Bill* (S. 127) introduced for relief of H. C. De Ahna. (By *Mr. Dawes*.) (p. 3, in daily issue.)

Note.—The Record for the period covered by the (extra) 1st session of the forty-sixth congress and also the third part of the Record for the third session of the forty-fifth congress are not accessible in their permanent form to complete this collation to date.

Conrad. [anon.] *Плавание корабля "Ситка" (etc.)* [Voyage of the ship Sitka from Hamburg to New Archangel and Aian. Extracted from the ship's journal.]

[In *МОСКОВСКИЙ СБОРНИК*. 8². St. Petersburg, 1854, Oct. Vol. xiii, [ii], pp. 75-79.]

Cook (James) and King (James). A voyage to the Pacific ocean, undertaken by the command of his Majesty, for making discoveries in the northern hemisphere, performed under the direction of captains Cook, Clerke, and Gore, in his Majesty's ships the *Resolution* and *Discovery*, in the years 1776-1780. 3 v. 4^o. Atlas, fol. London, for G. Nicol & T. Cadell, 1784-85.

— *Same.* Russian translation by Kutuzoff. 2 v. 4^o. 10 maps. St. Peterburg, 1805-10.

Cook (capt. James, r. n.) *Sommaire: centenaire de la mort de Cook.*

[In *BULLETIN* de la Société de géographie. 8^o. Paris, Ch. Delagrave, mai 1879. pp. 401-540; with track chart of Cook's voyages. Pages 481 to 540 contain a "Cartographie (ten entries) et bibliographie par James Jackson." This bibliography relates largely to general works, collections of voyages, etc. and publications on

Cook (*capt. James, r. n.*)—continued.

the South seas. There are, as usual in French publications, only too many typographical errors, in spite of which the list will be found useful. Much of the material noticed by the author has no connection with the Bering Sea basin, and the bibliography has not been made use of by the compilers of the present list, having come to hand after our MSS. had gone to the printer. The list of charts might have been greatly enlarged. The whole document contains about 417 titles, and is of the class to which the work of Chavanne belongs.]

Cook (*rev. Joseph*). Boston Monday lectures. Co-operative savings banks as a help to the poor; with prelude on Alaska.

[In the CHRISTIAN ADVOCATE. Feb. 20, 1879.]

Courrier de Sibérie.

A periodical not seen; tome xviii, 1822, is said by Findlay to contain information in regard to mining operations in 1755 upon Copper island of the Commander group.

Cox (*Ross*). Adventures on the Columbia river, including a residence of six years on the western side of the Rocky mountains among various tribes of Indians hitherto unknown. 2 vols. xxiv, 368 pp. viii, 400 pp. 8°. London, H. Colburn & R. Bentley, 1831.

— *The same*. 335 pp. 8°. New York, Harpers, 1832.

Coze (*rev. William, archdeacon of Wilts*). Account of the Russian discoveries between Asia and America, to which are added, the conquest of Siberia and the history of the transactions and commerce between Russia and China. 3d ed. revised and corrected. 2 p. l. xxviii, 456 pp. 4 maps, 1 pl. 8°. London, for T. Cadell, 1787.

— A comparative view of the Russian discoveries with those made by captains Cook and Clerke and a sketch of what remains to be ascertained by future navigators. 8°. London, for T. Cadell, 1787.

[With the preceding, being a SUPPLEMENT to the Russian discoveries. pp. 411-456.]

— *Nouvelles découvertes des Russes entre l'Asie et l'Amérique, avec l'histoire de la conquête de la Sibérie & du commerce des Russes & des Chinois. Traduit de l'anglois.* xxiv, 320 pp. 8°. Neuchatel, société typ. graphique, 1781.

— *The same*; translated by J. Nic. Demeunier. 4°. Paris, Panckoucke, 1781.

— *The same*. Die entdeckungen der Russen zwischen Asien und America, nebst der geschichte der erobering Siberiens und des handels der Russen und Chineser. Aus dem Englischen. xi pp. 2 l. 410 pp. 4 l. 3 maps, 1 pl. 8°. Frankfurt und Leipzig, J. G. Fleischer, 1783.

— A comparative view of the Russian discoveries with those made by captains Cook and Clerke; and a sketch of what remains to be ascertained by future navigators. 4°. London, T. Cadell, 1787. B. M.

Reviewed in MONTHLY REVIEW. 8°. London, 1788. Vol. lxxviii, p. 674.

— Account of the Russian discoveries between Asia and America, [with] the conquest of Siberia, and the history of the transactions and commerce between Russia and China. 4th ed. xxiv, 500 pp. 5 maps, 1 pl. 8°. London, Cadell & Davies, 1803.

Note.—First edition not seen.

— *The same*; 4th ed. enlarged. xx, 380 pp. 5 maps, 1 pl. 4°. London, Cadell & Davies, 1803. Reviewed (1st edition) in MONTHLY REVIEW. 8°. London, 1780. Vol. lxiii, pp. 1-10.

Critic (*The*). fol. Washington, 1875. *A daily evening newspaper*.

Dec. 16, 1875. Alaska annexation.

Dec. 20, 1875. Elliott before the committee on territories.

Crosby (*rev. Thomas*). The Wesleyan Methodist mission at Fort Simpson, British Columbia.

[In THE ROCKY MOUNTAIN PRESBYTERIAN. fol. Denver, (Col.) S. Jackson, 1878. Vol. vii, No. 1, January, p. 1.]

— Letter, dated at Fort Simpson, B. C. Oct. 30, 1877, to rev. S. Jackson, concerning the Wesleyan mission at Fort Simpson.

[In THE ROCKY MOUNTAIN PRESBYTERIAN. (Monthly.) fol. Denver, Col. 1878. Vol. vii, No. 2, February; p. 2, col. 5.]

Crosse (*prof. Hippolyte*). Catalogue des mollusques qui vivent dans le détroit de Behring et dans les parties voisines de l'océan Arctique.

[In CROSSE (H.) et FISCHER (P.) Journal de conchyliologie. 8°. Paris, H. Crosse, 1877. 3^e série, tome xvii, No. 2, Avril 1877, pp. 101-128.]

Daily Alta California. (San Francisco.) fol. 1871-1879. *A daily morning newspaper.*

- | | | | |
|-----------------|---|-----------------|---|
| July 25, 1871. | A new Alaska expedition. | Jan. 2, 1876. | Letter from Sitka from F[red.] C. P[ratz]. |
| Aug. 11, 1871. | Customs in Alaska. | Jan. 2, 1876. | Affairs in Alaska. Alaska to let. |
| Apr. 14, 1872. | Signal station in Alaska. | Jan. 20, 1876. | The Alaska company. Elliott on Alaska. Fur-seal contract. |
| Oct. 12, 1872. | Loss of the whaling fleet. | Jan. 21, 1876. | Alaska commercial company. |
| Sept. 25, 1872. | Return of the Humboldt. | Jan. 25, 1876. | Queries about the fur seal islands. |
| Dec. 4, 1872. | Sitka gold mines. | Jan. 29, 1876. | Howard after the Alaska commercial co. The Alaska lease. |
| Jan. 28, 1873. | Cruise of the Cygnet. | Feb. 1, 1876. | Howard's last blunder. |
| Mar. 3, 1873. | Loss of the George S. Wright. | Feb. 24, 1876. | Boutwell and the seal islands. |
| Sept. 5, 1873. | Elliott's remarks. | June 2, 1876. | The seal investigation. |
| Nov. 14, 1873. | A limit on Alaska's liquor supply. | Dec. 9, 1876. | Sale of the "Ocean Spray." |
| Jan. 22, 1874. | Alaska monopoly affairs. | Mar. 7, 1877. | The race to Alaska. |
| Feb. 27, 1874. | Alaska seals. Elliott's report. | Mar. 11, 1877. | Coal on the Aleutian islands. |
| Mar. 27, 1874. | Miscellany. | Apr. 12, 1877. | Height of Mt. St. Elias. |
| Mar. 29, 1874. | Large sales of seal skins. | Sept. 20, 1877. | John M. Morton convalescent. See also DEL NORTE. |
| Apr. 3, 1874. | Fur trade of Alaska. | June 14, 1878. | Alaska news. |
| Apr. 6, 1874. | Elliott's trip to Alaska. | Feb. 5, 1879. | Morris's report on Alaska. |
| Apr. 8, 1874. | Seal fisheries investigation. | Feb. 7, 1879. | The Swedish Arctic expedition. |
| Oct. 19, 1874. | On Elliott's report. | Feb. 18, 1879. | *Alaska—our shameful neglect. |
| Oct. 23, 1874. | On Elliott's report. | Feb. 19, 1879. | Relief for Sitka. |
| Nov. 18, 1874. | Silver bay mines. | Feb. 27, 1879. | For utilizing Alaska—as a penal colony. |
| Dec. 11, 1874. | Alaska. Elliott's report. | Mar. 1, 1879. | Letter from Dall on Nordenskiöld. |
| Dec. 24, 1874. | Ship building enterprise. | Mar. 17, 1879. | The Alaska shame. |
| Jan. 14, 1875. | In Alaska or on Puget sound. | Mar. 18, 1879. | Relief for Sitka |
| Feb. 1, 1875. | Alaska investigation proposed. | Apr. 12, 1879. | Alaska and the "Jamestown." |
| Feb. 16, 1875. | Alaska news. "George S. Wright." | Apr. 26, 1879. | Alaska's needs. |
| Mar. —, 1875. | Letter from Sitka from "F." [= Fred. C. Pratz]. | Apr. 28, 1879. | Return of N. Y. Herald' correspondent from Sitka. |
| Mar. 29, 1875. | Letter from Sitka from F. C. P. [= Fred. C. Pratz]. | May 11, 1879. | Views about Alaska. |
| Mar. 29, 1875. | The Sitka gold mines. | | |
| July 17, 1875. | Icelandic immigration. | | |
| Aug. 9, 1875. | General Howard's trip to Sitka. | | |
| Oct. 24, 1875. | Natives of Alaska. | | |

Daily Colonist. fol. Victoria, Vancouver island, 1879. *A daily newspaper.*

Feb. 23, 1879. American government.

Daily Evening Bulletin. fol. San Francisco, 1869-1879. *A daily evening newspaper.*

- | | | | |
|-----------------|--|-----------------|--|
| Feb. 25, 1869. | Protection or monopoly. | Sept. 4, 1873. | The Prybiloff group. C. P. Fish. |
| July 24, 1871. | Alaskan affairs. | Nov. 13, 1873. | Pacific Ocean survey. |
| Sept. 8, 1871. | Card from Pinart. | Nov. 18, 1873. | Exploration in the Aleutian islands. |
| Sept. 9, 1871. | Seal fishery suit. | Apr. 1, 1874. | Fur seal law. |
| Sept. 13, 1871. | Smuggling—see the court record. | Apr. 14, 1874. | Fur seal trade. |
| Sept. 23, 1871. | Alaska coal company. | Apr. 15, 1874. | The seal islands. |
| Oct. 2, 1871. | Supposed wreck of fur seal vessel. | Sept. 23, 1874. | On the Icelanders. |
| Oct. 9, 1871. | Cod fish statistics. | Nov. 2, 1874. | Dall's explorations. |
| Oct. 12, 1871. | Alaska coal fields. | Nov. 18, 1874. | Icelanders at Kodiak. |
| Oct. 30, 1871. | Cod fish statistics. | Nov. 18, 1874. | Silver bay mines, etc. |
| Nov. 6, 1871. | Loss of the whaling fleet. | Mar. 2, 1875. | Japanese wrecks. C. W. Brooks. |
| Nov. 29, 1871. | The fur seal trade. The Arctic whaling disaster. | June 7, 1875. | Sailing of the Saranac. |
| Dec. 18, 1871. | Japanese wrecked on Adakh. | Sept. 9, 1875. | Illegal killing of fur seals. |
| Jan. 2, 1872. | Gold discovery in Silver bay. | Jan. 10, 1876. | On Moore's report. |
| Jan. 19, 1872. | Shipwreck of the Japan. | Jan. 25, 1876. | Concerning the "Urania." |
| Oct. 1, 1872. | Letter from C. P. Fish—see FISH. | Apr. 18, 1876. | Academy of sciences. Bryant. |
| Oct. 8, 1872. | Dall on northern currents. | May 27, 1876. | Alaska Commercial Company investigation. |
| Oct. 15, 1872. | Lost whaling ships. | Oct. 26, 1876. | Return of the schooner "Fanny." |
| Oct. 24, 1872. | Elliott on seals. | Mar. 12, 1877. | Killing of fur-bearing animals. |
| Nov. 6, 1872. | Dall's report of season's work. | Apr. 12, 1877. | Removal of troops from Alaska. |
| June 2, 1873. | A new use for Alaska. | Apr. 12, 1877. | Alaska without troops. |
| June 18, 1873. | A new industry at Alaska; ship-building. | Apr. 21, 1877. | Revenue cutter for service in Alaska. |
| Aug. 18, 1873. | Preparation for laying a Pacific cable. | Apr. 22, 1877. | Removal of troops from Alaska. |
| | | May 29, 1877. | Sitka scientific exploration. |

Daily Evening Bulletin—Continued.

- . June 8, 1877. Alaska. Reported mineral discoveries.
- June 9, 1877. Alaska coal fields.
- June 29, 1877. Fur seal islands and government agents, etc.
- June 30, 1877. Senator Morton and the Alaska fur seal company.
- July 5, 1877. Hostilities at Sitka expected.
- Aug. 18, 1877. News from Cassiar.
- Aug. 21, 1877. Native of Alaska arrested for murder, etc.
- Sept. 24, 1877. Deplorable state of affairs at Sitka, etc. etc.
- Oct. 9, 1877. Sea-otter fisheries.
- Oct. 19, 1877. Arrival of the "*St. Paul*."
- Oct. 26, 1877. More disasters among the whalers.

Daily Evening Post. fol. *San Francisco*, 1872–1879.

- Mar. 13, 1872. Memorial for opening Alaska to trade.
- Dec. 3, 1872. Note on Alaska Commercial Co.
- Dec. 17, 1872. Fur-seal lease.
- Dec. 19, 1872. Note on Alaska.
- Sept. 24, 1874. On the Icelanders.
- Oct. 9, 1874. On Elliott's report.
- Nov. 18, 1874. Icelanders on Kadyak.
- Nov. 21, 1874. On the Icelanders.
- Nov. 24, 1874. What the Icelanders want.
- Vol. vii, No. 31. Alaskan mummies.
- Feb. 18, 1875. Alaska investigation.

Daily Experiment. fol. *Olympia, W. T.*, 1879. *A daily newspaper.*

- Feb. 10, 1879. Alaska. Review of Morris's report.

Daily Graphic. fol. *New York*, 1875. *A daily newspaper.*

- Nov. 30, 1875. Half an hour in Alaska—by Laertes.

Daily (The) Morning Call. fol. *San Francisco*, 1871–1879. *A daily morning newspaper.*

- July 26, 1871. The Alaskan expedition, &c.
- Aug. 17, 1871. Miscellany.
- May 2, 1872. The Aleutian islands.
- Nov. 1, 1874. Cruise of the Yukon.
- Nov. 2, 1874. On Elliott's report.
- Nov. 5, 1874. Bean *versus* Marcellus.
- Nov. 18, 1874. Icelanders in Alaska.
- Nov. 19, 1874. Elliott's report. On the Icelanders.
- Nov. 22, 1874. Why the Icelanders leave Iceland.
- June 22, 1875. Loss of the Saranac.
- Feb. 28, 1876. Investigating the Alaska seal contract.
- July 7, 1876. The missing schooner "*Urania*."
- Aug. 16, 1876. A scientist's return—C. P. Fish.
- Sept. 9, 1876. Academy of sciences. A. L. Pinart.
- Oct. 22, 1876. The Indians of British Columbia and their habits.
- Oct. 22, 1876. The lost fleet. Terrible disaster.
- Oct. 23, 1876. The lost fleet. More about the twelve whalers lost in the ice.
- Feb. 25, 1877. Sitka news.
- Mar. 7, 1877. Kimberly's discovery of coal.
- Apr. 5, 1877. News of the "*George S. Wright*."
- Apr. 23, 1877. The "*George S. Wright*."
- May 1, 1877. Gold discovered on the Taku river.

Daily Standard. fol. *Victoria, Vancouver island*, 1879.

- Feb. 15, 1879. Threatened Indian troubles at Sitka.

- Nov. 2, 1877. Resignation of the Sitka collector—a dodge.
- Jan. 22, 1878. Alarm at Sitka.
- Mar. 28, 1878. The schooner "*General Miller*."
- Apr. 5, 1878. The Cassiar gold mines.
- Apr. 6, 1878. Oath to be taken by the Sitka collector.
- June 8, 1878. News from St. Paul id.
- Aug. 8, 1878. Wreckage in Cook's inlet, etc.
- Sept. 2, 1878. Vessels arrived, etc.
- Sept. 5, 1878. Letter from Ounalaska.
- Oct. 8, 1878. Fruits and minerals from Alaska.
- Feb. 17, 1879. A territory without a government.
- Apr. 26, 1879. Alaska Indians and the whites.

See also WEEKLY BULLETIN.

A daily evening newspaper.

- Feb. 1, 1876. Howard's report.
- Feb. 26, 1876. Notes of a two years' sojourn in our northern country.
- Apr. 18, 1876. Academy of sciences. Capt. Bryant.
- Apr. 21, 1876. Fear she is lost—the "*Sutton*."
- Aug. 30, 1876. Capture of the "*Ocean Spray*" by col. Woods.
- Feb. 7, 1877. Incorporation of the "*Arctic Commercial Co.*"
- Dec. 15, 1877. That Alaska business.
- Apr. 28, 1879. Facts about Alaska.

- June 5, 1877. Kimberly coal company incorporated.
- June 5, 1877. Story of a survivor of the "*George S. Wright*."
- June 29, 1877. Capt. Bryant succeeded by John Morton.
- July 27, 1877. News from Cassiar.
- Aug. 8, 1877. News from the Arctic.
- Aug. 24, 1877. Return of the "*St. Paul*."
- Sept. 4, 1877. Academy of sciences. John M. Morton.
- Sept. 19, 1877. A massacre of Esquimaux.
- Oct. 2, 1877. Trespassing seal hunters.
- Mar. 25, 1878. Loss of the schooner "*General Miller*."
- Mar. 26, 1878. The "*General Miller*."
- Aug. 6, 1878. Alaska and its people.
- Feb. 17, 1879. The Indians at Sitka, Alaska, &c.
- Feb. 28, 1879. The Alaska affair.
- Mar. 8, 1879. Danger in Sitka.
- Mar. 11, 1879. The Jeannette's journey.
- Mar. 18, 1879. Relief for Sitka. Report of the Osprey.
- Mar. 21, 1879. Alaska seals, etc.
- Apr. 8, 1879. The Sitka troubles, etc.
- Apr. 24, 1879. A Sitkan to hang.
- May 5, 1879. "*Richard Rush*."
- May 17, 1879. Neglected Alaska.
- May 19, 1879. Alaska.

A daily newspaper.

Dall (rev. Charles Henry Appleton). Remarks on the explorations of W. H. Dall in Alaska.

[In PROCEEDINGS of the Asiatic society of Bengal. 8°. *Calcutta, the society*, 1876. No. 1, January, 1876, pp. 1-2.]

Dall (William Healey). Letter of Nov. 14th, 1865, to the members of the Chicago academy of sciences.

[In PROCEEDINGS of the CHICAGO ACADEMY of sciences. 8°. *Chicago, the academy*, March, 1866. Vol. i, pp. 31-32.]

—— Letter to John Young Scammon pertaining to the Russian American overland telegraph expedition.

[In the CHICAGO EVENING JOURNAL—newspaper. January, 1867.]

—— Walrussia; a letter of Aug. 1, 1867, from St. Michaels redoubt, Norton sound, Alaska, on the features of the territory.

[In the NEW YORK DAILY TRIBUNE. fol. *New York*, 1867, Nov. 15. p. 2; editorial comments, p. 4.]

—— Explorations in Russian America.

[In SILLIMAN (B.) and DANA (J. D.) American Journal of science and arts. 8°. *New Haven, editors*, 1868. Vol. xlv, No. 133, January, pp. 96-99.]

—— Letter from Alaska.

[In PROCEEDINGS of the CALIFORNIA ACADEMY of natural sciences for 1863-1867. 8°. *San Francisco, the academy*, 1868. Vol. iii, pp. 367-368.]

—— Exploration of the interior of Russian America.

[In the MINING AND SCIENTIFIC PRESS. 4°. *San Francisco, Dewey & co.* Oct. 3, 1868; continued, Oct. 10, 1868.]

—— Remarks on Alaska.

[In PROCEEDINGS of the CALIFORNIA ACADEMY of natural sciences. 8°. *San Francisco, the academy*, 1873. Vol. iv, (read Oct. 5, 1868), pp. 30-37; 268; 293-294.]

[Also in MINING AND SCIENTIFIC PRESS. 4°. *San Francisco, Dewey & co.* 1868, Oct. 10th.]

—— Observations on the geology of Alaska.

[In DAVIDSON (George). Coast Pilot of Alaska, (first part), etc. 8°. *Washington*, (Oct.) 1869. Appendix No. 1, pp. 193-202.]

—— Letter concerning general Thomas's Alaska report.

[In BOSTON DAILY ADVERTISER fol. *Boston*, 1869. Oct. 17th; copied with comments in U. S. ARMY AND NAVY JOURNAL. sm. 4°. *New York*, Oct. 23, 1869.]

—— On the trend of the Rocky mountain range north of lat. 60° and its influence on faunal distribution.

[In PROCEEDINGS of the American association for the advancement of science. 8°. *Cambridge, J. Lovering*, 1870. Report of eighteenth—Salem—meeting, August, 1869, p. 247. Synopsis in AMERICAN NATURALIST, Oct. 1869, p. 447.]

—— On the distribution of the native tribes of Alaska.

[In same, pp. 253-273. Synopsis in AMERICAN NATURALIST, Oct. 1869, p. 439.]

—— Die telegraphen-expedition auf dem Yukon in Alaska.

[In PETERMANN (A.) Geog. Mittheilungen. 4°. *Gotha, Justus Perthes*, Oct. 1869. Vol. 15, pp. 361-365, with map, Taf. 19.]

—— Remarks upon the natural history of Alaska.

[In PROCEEDINGS of the BOSTON SOCIETY OF NATURAL HISTORY. 8°. *Boston, for the society*, 1869. Vol. xii, Nov. 4th, 1868, pp. 143-145. Also, vol. xii, pp. 136-138; 164 and 171.]

—— Report upon the agricultural resources of Alaska.

[In REPORT of the commissioner of agriculture for the year 1868. 8°. *Washington, government printing office*, (Dec.) 1869. pp. 172-189, with plates 4-6.]

—— The first day on the Yukon. An experience of Alaska.

[In OLD AND NEW. 8°. *Boston, H. O. Houghton & co.* 1870. Vol. i, January, 1870, pp. 44-47.]

—— Alaska and its resources. xii, 628 pp. 15 pl. 1 map. 8°. *Boston, Lee & Shepard*, 1870 (April).

Reviewed in the *Canadian Journal*. 8°. *Montreal*, 1870. New ser., vol. xiv, No. 6; No. 72, August, pp. 480-489. Also in the *NATION*. 4°. *New York*, 1870, July 7th. For reply to same see numbers for July 21 and 28, 1870. For other reviews see under heads of various leading journals or newspapers.

—— Survey of Alaska.

[In H. R. Executive Document, No. 255, XLI congress, 2nd session. 8°. *Washington, government printing office*, May 11, 1870.]

Dall (William Healey)—continued.

— A winter's day in the Yukon territory.

[In PACKARD (A. S. jr. m. d.) and PUTNAM (F. W.) *The American Naturalist*. 8°. Salem, Mass., Peabody academy of science, 1871. Vol. iv, No. 4, June, 1870, pp. 218-225.]

— [Remarks on explorations in Russian America.]

[In PROCEEDINGS of the AMERICAN ACADEMY of arts and sciences. 8°. Boston, by the academy, 1870. Vol. viii, Sept. 13, 1870, pp. 297-298.]

— Spring time on the Yukon.

[In PACKARD (A. S. jr.) and PUTNAM (F. W.) *The American Naturalist*. 8°. Salem, Mass., Peabody acad. of sci. 1871. Vol. iv, No. 10, December, 1870, pp. 594-601.]

— On the relative value of Alaska to the United States as compared with other territorial acquisitions.

[In BULLETIN of the Philosophical society of Washington. 8°. Washington, the society, 1874. Vol. i, part 1, May 27th, 1871, pp. 25-26.]

— The food fishes of Alaska.

[In REPORT of the commissioner of agriculture for 1870. 8°. Washington, government printing office, 1871 (July). pp. 375-392.]

— Diagnoses of sixty new forms of mollusks from the west coast of America and the north Pacific ocean.

[In AMERICAN JOURNAL OF CONCHOLOGY. 8°. Philadelphia, acad. nat. sciences, 1871. Vol. vii, part 2, October, 1871, pp. 93-160, pl. 13-16. Also printed separately.]

— Is Alaska a paying investment?

[In HARPER'S new monthly magazine. 8°. New York, Harper & brothers, 1872. Vol. xlv, No. 260, Jan. 1872, pp. 252-257.]

— Preliminary descriptions of new species of mollusks from the northwest coast of America.

[In PROCEEDINGS of the CALIFORNIA ACADEMY of natural sciences for 1868-1872. 8°. San Francisco, the academy, 1873. Vol. iv, pp. 270-271. Separately printed Oct. 8, 1872.]

— Notes on pre-historic remains in the Aleutian islands.

[In same. Vol. iv, pp. 283-287. Separately printed Nov. 4, 1872.]

— Descriptions of three new species of crustacea, parasitic on the cetacea of the northwest coast of America.

[In same. Vol. iv, pp. 281-283. Separately printed Nov. 9, 1872.]

— Preliminary descriptions of new species of mollusks from the northwest coast of America.

[In same. Vol. iv, pp. 302-303. Separately printed Dec. 16, 1872.]

— On the parasites of the cetaceans of the northwest coast of America, with descriptions of new forms.

[In same. Vol. iv, pp. 299-301. Separately printed Dec. 17, 1872.]

— Notes on the avi-fauna of the Aleutian islands from Unalashka eastward.

[In same. Vol. v, pp. 25-35. Separately printed Feb. 8, 1873.]

— Catalogue of the cetacea of the north Pacific ocean, with osteological notes and descriptions of some new forms.

[In SCAMMON (capt. Charles M. . . , r. m.) *The marine mammals of the north-western coast of North America, (etc.)* 4°. San Francisco, (Aug.) 1874. Appendix, pp. 278-307. Separately printed March, 1873.]

— Descriptions of new species of mollusca from the coast of Alaska, with notes on some rare forms.

[In PROCEEDINGS of the CALIFORNIA ACADEMY of sciences for 1873-74. 8°. San Francisco, the academy, 1875. Vol. v, pp. 57-62. Separately printed April 9, 1873.]

— Die aufnahme der Aleuten und die untersuchung der Behring see.

[In HYDROGRAPHISCHE MITTHEILUNGEN. 8°. Berlin, hydr. bureau der kais. admiralität, 1873. 1 jahrgang, No. 26, Dec. 31, pp. 316-317.]

— On further examinations of the Amaknak cave, Captain's bay, Unalashka.

[In PROCEEDINGS of the CALIFORNIA ACADEMY of sciences for 1873-4. 8°. San Francisco, the academy, 1875. Vol. v, pp. 196-200. Separately printed Nov. 17, 1873.]

— Catalogue of shells from Bering strait and the adjacent portions of the Arctic ocean, with descriptions of three new species.

[In same. Vol. v, pp. 246-253. Separately printed Feb. 26, 1874.]

Dall (William Healey)—continued.

- Forschungen in den Aleutischen Inseln 1873.
[In PETERMANN (A.) Geographische Mittheilungen. 4°. *Gotha, Justus Perthes*, März 1874, Bd. 20, Heft iv, pp. 151-152.]
- On new parasitic crustacea, from the N. W. coast of America.
[In PROCEEDINGS of the CALIFORNIA ACADEMY of sciences for 1873-74. 8°. *San Francisco, the academy*, 1875. Vol. v, pp. 254-255. Separately printed March 3, 1874.]
- Notes on the avi-fauna of the Aleutian islands, especially those west of Unalashka.
[In same. Vol. v, pp. 270-281. Separately printed March 14, 1874.]
- Exploration on the western coast of North America.
[In SMITHSONIAN INSTITUTION. Report of the board of regents for 1873. 8°. *Washington*, 1874. pp. 417-418.]
- Deserted hearths.
[In the OVERLAND MONTHLY. 8°. *San Francisco, J. H. Carmany & co.* 1874. Vol. xiii, No. 1, July, pp. 25-30.]
Note.—An account of the shell heaps of the Aleutian islands.
- Notes on some Aleut mummies.
[In the MINING AND SCIENTIFIC PRESS. 4°. *San Francisco, Dewey & co.* 1874, Oct. 24th. See also DAILY EVENING BULLETIN. fol. *San Francisco*, 1874, Oct. 20th. Also in PROCEEDINGS of the CALIFORNIA ACADEMY of sciences for 1873-74. 8°. *San Francisco, the academy*, 1875. Vol. v, pp. 399-400.]
- Explorations in the Aleutian islands and their vicinity.
[In JOURNAL of the AMERICAN geographical and statistical society. 8°. *New York, the society*, 1874. Vol. v, pp. 243-245.]
- Extracts from a letter to rev. C. H. A. Dall concerning operations of the U. S. coast survey in Alaska.
[In PROCEEDINGS of the ASIATIC SOCIETY OF BENGAL for 1874. 8°. *Calcutta, the society*, 1874; pp. 245-249, Dec. 1874. Also in the CALCUTTA ENGLISHMAN, Jan. 23, 1875.]
- [Letter to Messrs. Elliott and Maynard on the condition of affairs in Alaska.]
[In ELLIOTT (H. W.) A REPORT on the condition of affairs in the territory of Alaska. 277 pp. 8°. *Washington, government printing office*, 1875. Appendix, pp. 229-236.]
- Harbors of Alaska and the tides and currents in their vicinity.
[In COAST SURVEY; REPORT of the superintendent showing the progress of the survey during the year 1872. 4°. *Washington*, 1875. Appendix No. 10, pp. 177-212. Separately printed. 36 pp. 1 map. 4°. *Washington*, May, 1875.]
- Arbeiten der küstenaufnahme von Alaska im jahre 1874.
[In PETERMANN (A.) Geogr. Mittheilungen. 4°. *Gotha, Justus Perthes*, Mai 1875. Vol. xxi, pp. 155-156.]
- Arctic marine vegetation.
[In NATURE. large 8°. *London, Macmillan & co.* 1875. No. for July 1, 1875.]
- Alaskan mummies.
[In PACKARD (A. S. jr.) and PUTNAM (F. W.) The AMERICAN NATURALIST. 8°. *Salem, Mass., Peabody academy of science*, 1875. Vol. ix, No. 8, August, pp. 433-440.]
- Report of geographical and hydrographical explorations on the coast of Alaska.
[In COAST SURVEY; REPORT of the superintendent showing the progress of the survey during the year 1873. 4°. *Washington, government printing office*, 1875. Appendix No. 11, pp. 111-122. Separately printed. 12 pp. 1 map. 4°. *Washington*, Nov. 1875.]
- Report on Mt. St. Elias. With map and view.
[In COAST SURVEY; REPORT of the superintendent showing the progress of the survey during the year 1875. 4°. *Washington*, 1878. Appendix No. 10, pp. 157-188. Separately printed, 1 map, 1 pl. 32 pp. 4°. *Washington*, Nov. 1875.]
- Abstract of the population of the native tribes of Alaska.
[In REPORT of the commissioner of Indian affairs for 1874. 8°. *Washington, government printing office*, Nov. 1875. pp. 198-201.]
- Historical notes on Queen Charlotte islands.
[See WHITEAVES (J. . . F. . .) in Geol. survey of Canada; mesozoic fossils, 1876. Vol. i, part 1, p. 1 et seq.]
- Scientific results of the exploration of Alaska, by the parties under the charge of W. H. Dall, during the years 1865-1874. 8°. *Washington, W. H. Dall*, 1876-1879.

CONTENTS.

- Vol. I, No. 1. Introductory note on the marine faunal regions of the north Pacific, by W. H. Dall. pp. 1-4. (Dec. 1876.)
- Art. I. Report on the hydroids, by S. F. Clark. pp. 5-34, pl. i-x. (Dec. 1876.)
- Art. II. On the extrusion of the seminal products in limpets, with remarks on the phylogeny of the Docoglossa, by W. H. Dall. pp. 35-43. (Dec. 1876.)

Dall (William Healey)—continued.

No. 2. Art. III. Report on the brachiopoda of Alaska and the adjacent shores of northwest America, by W. H. Dall. pp. 45-62. (July, 1877.)

Art. IV. Report on the limpets and chitons of the Alaskan and Arctic regions, with descriptions of genera and species believed to be new, by W. H. Dall. pp. 63-126. pl. i-v. (Feb. 1879.)

Art. V. Report on the nudibranchiate gasteropod mollusca of the north Pacific ocean, with special reference to those of Alaska. By Dr. R. Bergh of Copenhagen. Part 1. pp. 127-188, pl. i-viii. (May 10, 1879.)

Note.—Succeeding parts in preparation.

— On the marine faunal regions of the north Pacific; an introductory note to the report on Alaskan hydroids by Mr. S. F. Clark.

[In PROCEEDINGS of the ACADEMY of natural sciences of PHILADELPHIA, for Oct.-Dec. 1876. 8°. Philadelphia, academy of natural sciences, 1877. pp. 205-208.]

— On the extrusion of the seminal products in limpets, with some remarks on the phylogeny of the Docoglossa.

[In PROCEEDINGS of the ACADEMY of natural sciences of PHILADELPHIA for Oct.-Dec. 1876. 8°. Philadelphia, academy of natural sciences, 1877. Part iii, pp. 239-247.]

— Preliminary description of new species of mollusks, from the northwest coast of America.

[In PROCEEDINGS of the CALIFORNIA ACADEMY of sciences for 1877. 8°. San Francisco, the academy, 1877- Vol. vi, pp. — — —. Separately printed March 19, 1877, 6 pp.]

Note.—The proceedings have not yet (June, 1879) been printed.

— Tribes of the extreme northwest.

Separately printed (May 30) 1877, pp. 1-106, with map.

CONTENTS.

Article I. On the distribution and nomenclature of the native tribes of Alaska and the adjacent territory: with a map; pp. 7-40.

Article II. On succession in the shellheaps of the Aleutian islands; pp. 41-91, pl. and cuts.

Article III. Remarks on the origin of the Innuit; pp. 93-106.

Note.—Reviewed by SAYCE (A. H.) in NATURE, No. 450, vol. 18, pp. 165-167, June 13, 1878.

— Tribes of the extreme northwest.

[In POWELL (J. W.) U. S. geographical and geological survey of the Rocky mountain region. CONTRIBUTIONS TO NORTH AMERICAN ETHNOLOGY. 4°. Washington, government printing office, (July) 1877. Vol. 1, part 1, pp. 1-106, with map.]

— Terms of relationship used by the Innuit.

[In same, same vol., pp. 117-119.]

— Table showing relationship of tribes mentioned.

[In same, same vol., appendix, p. 241.]

— Report on the brachiopoda of Alaska and the adjacent shores of northwest America.

[In PROCEEDINGS of the ACADEMY of natural sciences of PHILADELPHIA for 1877. 8°. Philadelphia, academy of natural sciences, 1877. Part ii, pp. 155-170.]

— The late Mr. Sumner and the purchase of Alaska.

[In the NATION. 4°. New York. A weekly newspaper. Nov. 15, 1877.] A letter reviewing Elliott's Ten years, acquaintance with Alaska, etc.

— Mr. Sumner and Alaska.

[In the same, Dec. 6, 1877, p. 349.] A rejoinder to Elliott's reply to the preceding, which appeared in the number for November 22, 1877.

— Social life among our aborigines.

[In PACKARD (A. S. jr. m. d.) and COPE (prof. E. D.) The American Naturalist. 8°. Philadelphia, McCalla and Starely, 1878. Vol. xii, No. 1, Jan. 1878, pp. 1-10.]

— Descriptions of new forms of mollusks from Alaska contained in the collections of the National Museum.

[In PROCEEDINGS of the United States National Museum, 1878. 8°. Washington, Smithsonian institution. Vol. i, pp. 1-3, Feb. 1878.]

— SMITHSONIAN CONTRIBUTIONS TO KNOWLEDGE.—318.—On the remains of later pre-historic man obtained from caves in the Catherina archipelago, Alaska territory, and especially from the caves of the Aleutian islands. 40 pp. 10 pl. 4°. Washington, Smithsonian institution, 1878.

Note.—Accepted for publication January, 1876.

Dall (William Healey)—continued.

— Neuere forschungen auf den Aleüten.

[In DEUTSCHE GEOGRAPHISCHE BLÄTTER herausgegeben von der geographischen gesellschaft in Bremen durch deren schriftführer Dr. M. Lindeman. 8°. *Bremen, G. A. r. Halem*, 1878. Heft i, jahrgang ii, pp. 38-43—with map; continued in Heft ii, jahrgang ii, pp. 84-101.]

— Report on the limpets and chitons of the Alaskan and Arctic regions, with descriptions of genera and species believed to be new.

[In PROCEEDINGS of the United States National Museum, 1879. 8°. *Washington, Smithsonian institution*. Vol. i, pp. 281-344, Feb. 1879.]

— Alaska's actual needs.

[In the NEW YORK Herald. fol. *Newspaper*. *New York*, May 10, 1879.]

— United States coast and geodetic survey, Carlile P. Patterson, superintendent. Pacific coast pilot. Coast and islands of Alaska. Second series. Appendix i. Meteorology. [circa] 350 pp. 13 pl. 28 maps. 4°. *Washington, government printing office*, 1879.

CONTENTS.

Letter of transmission. pp. 5-6.

General meteorological discussion. pp. 15-23.
tables. pp. 24-27.

Local meteorological discussions. pp. 29-47.
tables. pp. 51-160.

List of charts, maps, books, etc.

1. List of charts and maps of the region. pp. 162-223.

2. List of books and other publications of the region.
pp. 225 to end.

— Scrap books of newspaper clippings of articles pertaining to Alaska. 3 vols. 4°. 1866-1879.

— and **Bannister** (Henry Martyn). List of the birds of Alaska, with biographical notes.

[In TRANSACTIONS of the Chicago academy of sciences. 4°. *Chicago, the academy*, 1869. Vol. i, part ii, pp. 267-310.]

Reviewed in the AMERICAN NATURALIST. 8°. *Salem, Mass.* 1870. Vol. iv, pp. 367-371; by Elliott Coues.

Dallas (A . . . G . . .). San Juan, Alaska and the northwest boundary. 11 pp. 8°. *London, King*, 1873. *Not seen*.

Dalrymple (Alexander). Plan for promoting the fur trade and securing it to this country, by uniting the operations of the East India and Hudson's Bay companies. 4°. (*London ?*), 1789.

Note.—This publication of Dalrymple not seen.

— The Spanish memorial of the 4th June considered. 21 pp. 8°. *London, Elmsly*, 1790. B. M.

— The Spanish pretensions fairly discussed. 19 pp. 8°. *London, Elmsly*, 1790. B. M.

Reviewed in the MONTHLY review. 8°. *London, R. Griffiths*, 1790. Vol. lxxxiii (n. s. vol. ii), July, pp. 357-358.

Daly (hon. Charles P . . . , *ll. d.*) Review of the events of the year [1870], and recent explorations and theories for reaching the north pole. Annual address delivered Jan. 25, 1870.

[In AMERICAN geographical and statistical society, journal of the. 8°. *New York, for the society*, 1870. Vol. ii, part 2, pp. lxxxiii-cxxvi.]

Davidoff (Gavril Ivanovich). Двукратное путешествие въ Америку Морскихъ офицеровъ Хвостова и Давыдова, (etc.) [Two voyages to America of the naval officers Khwostoff and Davidoff, described by the latter.] 2 v. 1 p. l. xlvi, 278 pp. 1 p. l. 224, xxviii pp. 8°. *St. Peterburg, Morskaja tipografia*, 1810-1812.

See t. 1, p. 192, for sketch of Baranoff.

— Reise der Russ. kais. flott-officiere Chwostow und Dawydow von St. Petersburg durch Sibirien nach Amerika und zurück, in den jahren 1802-1804. Beschreibt von Dawydow und aus dem Russ. übersetzt von Dr. Carl Joh. Schultz. 8°. *Berlin*, 1816. B. P. L.

Davidoff (dr. —). Извлечение изъ отчета за 1856 годъ, старшаго врача Давыдова, (etc.) [Extract from the report for the year 1856 of senior physician Davidoff, filling the office of medical inspector for the port Petropavlovsk.]

[In MORSKOI SBORNIK. 8°. *St. Peterburg*, 1857, Aug. Vol. xxx, [ii], pp. 87-91.]

Davidoff (—). Nachrichten von der Insel Kadjak. *Not seen*.

[In EWERS (Johann Ph. Gust.) und ENGELHARDT (M. von). Beiträge zur kenntniss Russlands und seiner geschichte. 8°. *Dorpat*, 1816. Vol. i, part 2, pp. — —.]

Davidson (prof. George). Report relative to the resources and the coast features of Alaska territory.

[In COAST SURVEY; REPORT of the superintendent showing the progress of the survey during the year 1867. 4°. *Washington*, 1869. Appendix No. 18, pp. 187-329.]

Davidson (*prof. George*)—continued.

— *The same.*

[In CONGRESSIONAL PAPERS. H. of R.—40th Cong. 2d sess.—Ex. Doc. No. 177, pp. 219–314.]

— Report of observations of the eclipse of the sun, on August 7, 1869, at Kohklux, Chilkah river, Alaska.

[In *same*; for 1869. 4°. Washington, 1872. Appendix No. 8, pp. 177–181.]

— Scientific expedition to Alaska.

[In LIPPINCOTT'S magazine. 8°. Philadelphia, J. B. Lippincott & co. 1868. Vol. ii, Nov. pp. 467–485.]

— United States coast survey, Benjamin Peirce, superintendent. Pacific coast. Coast pilot of Alaska, (first part) from southern boundary to Cook's inlet. 251 pp. 8 pl. 8°. Washington, government printing office, 1869.

Davis (*Horace, m. c.*) Record of Japanese vessels driven upon the north-west coast of America and its outlying islands. Read before the American antiquarian society, at their April meeting, 1872. 22 pp. 1 map. 8°. Worcester, Mass., C. Hamilton, 1872.

Dawson (*George Mercer*). Note on the locust invasion of 1874 in Manitoba and the north-west territories.

[In the CANADIAN NATURALIST and quarterly journal of science. 8°. Montreal, 1876. New series, vol. viii, No. 3, pp. 119–134.]

— Note on some of the more recent changes in level of the coast of British Columbia and adjacent regions.

[In the CANADIAN NATURALIST and quarterly journal of science. 8°. Montreal, Dawson brothers, 1877. New series, vol. ix, No. 1, pp. — — —.]

— *The same.* From the Canadian Naturalist, April, 1877. 8 pp. 8°. [Montreal, 1877.]

— Mesozoic volcanic rocks of British Columbia and Chile. Relation of volcanic and metamorphic rocks.

[In GEOLOGICAL MAGAZINE. 8°. London, Trübner & co. 1877. Decade ii, vol. iv, No. 7, July, pp. — — —.]

— *The same.* Extracted from the Geological Magazine for July, 1877. 4 pp. 8°. London, Trübner & co. 1877.

— On the superficial geology of British Columbia.

[In QUARTERLY JOURNAL of the GEOLOGICAL SOCIETY. 8°. London, 1878, February. Vol. xxxiv, pp. 89–123.]

— *Same*; published separately.

Dease (*Peter Warren*) and **Simpson** (*Thomas*).

See the LONDON and Westminster Review. 8°. 1838. Vol. xxxi, No. ii, pp. 373–392.

See the JOURNAL of the royal geographical society of London, 1838. Vol. viii, pp. 213–225.

See SIN OTECHESTVA, 1839. Vol. x, iii, pp. 36–54.

— Окончательное, (etc.) [Definite account of the northern shores of America by P. W. Dease and T. Simpson, summer and autumn of 1837. From the London Review.]

[In SIN OTECHESTVA. (Son of the Fatherland.) 1839. vii.]

— Открытія въ Сѣверной Америкѣ, (etc.) [Discoveries in North America by Dease and Simpson.]

[In OTECHESTVENNIA ZAPISKI. (Fatherland Journal.) 1839. vi.]

— Открытіе сѣверозападнаго прохода, (etc.) [Discovery of the northwest passage to the Arctic ocean. Extracted from the report of Dease and Simpson.]

[In SIEVERNAIA PCHELA. (Northern Bee.) 1840. 113.]

Delisle de la Croyère (*Joseph Nicholas*). Explication de la carte des nouvelles découvertes au nord de la mer du sud. 18 pp. 4°. Paris, 1752. *Not seen.*

See also HIST. de l'acad. des sciences de Paris. Année 1750. 4°. Paris, 1754. pp. 142–152.

— *The same*, in Russian. (Explanation of the chart which contains new discoveries in the northern part of the Pacific ocean, prepared by Delisle, member of the Paris academy of sciences and professor of mathematics of the college of Paris. 1750. 4°. 35 leaves.) *Not seen.*

— Explication de la carte des nouvelles découvertes au nord de la mer du sud; par M. De L'Isle, de l'académie royale des sciences, & professeur de mathématiques au college royal. 18 pp. 4°. Paris, Desaint et Saillant, 1752.

Delisle de la Croyère (Joseph Nicholas)—continued.

——— *Nouvelles cartes des découvertes de l'amiral De Fonte, et autres navigateurs Espagnols, Portugais, Anglois, Hollandois, François & Russes, dans les mers septentrionales, avec leur explication, (etc.)* 60 pp. 4 maps. 4°. *Paris*, 1753.

——— *The same.* 1754.

Delisle de la Croyère (Louis). *Астрономические и геодезические инструменты Делиль-де-ла-Кроера, (etc.)* [Astronomical and surveying instruments of Delisle de la Croyère in the second Kamchatka expedition.]

[*In* ZAPISKI, etc. (JOURNAL of the hydrographic bureau of the navy department.) 8°. *St. Petersburg*, 1849. Vol. vii, pp. 537-542.]

Del Norte. [*nom de plume.*] Acquisition of Alaska. From a special correspondent of the *Alta*, Oct. and Nov. 1867.

[*In* CONGRESSIONAL PAPERS. House of Representatives.—40th Cong. 2d sess.—Ex. Doc. No. 177, pp. 67-84.]

Demeunier (J... Nie...), translator. See COXE (W.)

Denis (Ferdinand). *Les Californies, l'Orégon, et les possessions Russes en Amérique, les îles de la reine Charlotte.* 108 pp. 8°. *Paris*, F. Didot frères, 1849.

[*L'UNIVERS*, v. 26.]

Dennis (Isaac C...). *Why Alaska should have civil government.*

[*In* the PUGET SOUND ARGUS. fol. *Port Townsend, W. T.* 1877. Friday, Nov. 23.]

Dieterici (C... Fr... W...). *The area of the Russian American possessions.*

[*In* MITTHEILUNGEN des statistischen bureau's in Berlin, vi^{ter} jahrgang, 1853, p. 300.]

See also HANEMANN (Fr.)

Directory for Behring's Sea, &c. See FINDLAY (A. G.); and BUREAU OF NAVIGATION.

Distillation. [*anon.* G. S.] *О винокурении въ Камчаткѣ, изъ сладкой травы.* [Concerning the distillation of brandy in Kamchatka from cow-parasnip.]

[*In* ST. PETERSBURGSKI VIESTNIK. (*The St. Petersburg Gazette.*) 1823. iv.]

Disturnell (John). *The influence of climate in North and South America.* 334 pp. 1 pl. 2 maps. 8°. *New York*, D. Van Nostrand, 1867.

Ditmar (C... von). *О Корякахъ, (etc.)* [Concerning the Koraks and their near kinsmen the Chukchees.]

[*In* VIESTNIK, etc. (Messenger of the imperial Russian geographical society.) 8°. *St. Petersburg*, Edward Pratz, 1855. Vol. 15, [v], pp. 51-63; continued in vol. xvi, 1856, [v], pp. 19-39.]

——— *Les Koriakes et les Tchouktchis.*

[*In* EXTRAITS des publications de la société impériale géographique de Russie en 1856 et 1857. 8°. *St.-Petersbourg*, 1859. pp. 10-14.]

——— *Die Korjaken und die ihnen verwandten Tschuktschen.* 1 col. map. 8°. *St. Petersburg*, 1855. [Not found.]

Dixon (capt. George). *A voyage round the world; but more particularly to the north-west coast of America; performed in 1785-1788, in the King George and Queen Charlotte, captains Portlock and Dixon.* xxix, 1 l. 360 pp. Appendix 47 pp. 17 pl. 5 maps. 4°. *London*, G. Goulding, 1789.

[*Éd. français* traduit par Lebas, *nombr. fig. et cartes.* 2 v. 8°. *Paris*, 1789.]

Reviewed in MONTHLY Review. 8°. *London*, R. Griffiths, 1789. Vol. lxxx, June, pp. 502-511.

——— *A voyage round the world; particularly to the north-west coast of America; performed in 1785-88, in the King George and Queen Charlotte, captains Portlock and Dixon.* 2d ed. [xxi], 360, 47 pp. 5 maps, 17 pl. 4°. *London*, G. Goulding, 1789.

——— *Remarks on the voyages of John Meares, esq., (etc.)* 37 pp. 4°. *London*, Stockdale, 1790.

Reviewed in URBAN (S.) Gentleman's Magazine. 8°. *London*, J. Nichols, 1791. Vol. lxi, part i, Jan. pp. 63-64.

——— *Further remarks on the voyages of J. Meares, (etc.)* 80 pp. 4°. *London*, Stockdale, 1791.

Reviewed in URBAN (S.) Gentleman's Magazine. 8°. *London*, J. Nichols, 1791. Vol. lxi, part ii, p. 653.

Dobell (Peter). *Travels in Kamschatka and Siberia; with a narrative of a residence in China* [in 1812]. 2 v. ix, 351 pp. 1 pl.; x, 341 pp. 1 pl. 12°. *London*, H. Colburn & R. Bentley, 1830.

Dobell (Peter)—continued.

—— ОТРЫВКИ ИЗ ЗАПИСОКЪ, (etc.) [Fragments from the diary of a traveller in Kamchatka. Petropavlovsk. Translated by I. I.]

[In *SIN OTCHESTVA*, 1815. 22, 25, and 26.]

—— Same. [Fragments from the diary of a traveller in Siberia. Okhotsk.]

[In same. 1815. 45 and 48.]

—— О Петропавловскомъ портѣ. [Concerning Petropavlovsk.]

[In same. 1815. 47.]

—— Записки, (etc.) [Journal of a traveller in Siberia. Kamchatka.]

[In same. 1816. 1.]

Doroshin (P... P...). Einige beobachtungen und bemerkungen über das goldvorkommen in den besitzungen der Russisch-Amerikanischen compagnie.

[In *ERMAN (A.) Archiv für wissenschaftliche kunde von Russland*. 8°. Berlin, G. Reimer, 1866. Vol. xxv, pp. 229-237.]

—— Нѣсколько подробностей, (etc.) [A few details of the extent of the gold in the Russian possessions of North America.]

[In *GORNII ZHURNAL. (Mining Journal.)* 8°. St. Petersburg, 1866. No. 2 (part vi), pp. 277-282; see also No. 1 (part v), p. 136.]

—— Изъ записокъ веденныхъ въ Русской Америкѣ. [From a journal kept in Russian America.]

[In same. No. 3 (part iii), pp. 365-401.]

Note.—Contains descriptions of Port Etches, Copper river, Prince William sound, etc.

—— Каменный уголь, (etc.) [Stone coal in the late Russo-American possessions.]

[In *GORNII ZHURNAL. (Mining Journal.)* 8°. St. Petersburg, 1868. No. 10, pp. 45-57.]

—— О нѣкоторыхъ вулканахъ, (etc.) [On certain volcanoes, their eruptions and earthquakes, in the former possessions of Russia in America.]

[In *VERHANDLUNGEN der Russ.-kais. min. gesellschaft zu St. Petersburg*. 8°. St. Petersburg, 1870. 2^{te} serie, Bd. v, ste. 25-44.]

Douglas (David, f. l. s.) Memoir of the late David Douglas, f. l. s. [anon.]

[In *HAWAIIAN SPECTATOR*. 8°. Honolulu, for the proprietors, 1839. Vol. ii, No. 1, Jan. pp. 1-49; No. 2, April, pp. 131-180; No. 3, July, pp. 276-333; No. 4, Oct. pp. 396-437.]

Note.—Contains considerable botanical information for the NW. coast, of which Douglas was one of the most successful botanical explorers.

Douglas (James). Report of a canoe expedition along the east coast of Vancouver island.

[In *JOURNAL of the royal geographical society of London*. 8°. London, J. Murray, 1854. Vol. xxiv, pp. 245-249.]

Douglas (Thomas, 5th earl of Selkirk). A sketch of the British fur trade in North America; with observations relative to the north-west company of Montreal. 3 p. l. 130 pp. 8°. London, J. Ridgway, 1816.

[Reviewed in the *QUARTERLY REVIEW*. 8°. London, J. Murray, 1817. Vol. xvi (Oct. 1816), pp. 129-172.]

Dove (Heinrich Wilhelm). Klimatologische beiträge. 1^{er} theil. viii, 296 pp. 2 maps. 8°. Berlin, D. Reimer, 1857.

[No more published.]

—— Ueber die temperatur von Point Barrow.

[In *NEUMANN (K.) Zeitschrift für allgemeine erdkunde*. 8°. Berlin, D. Reimer, 1858. N. folge, band v, ste. 483-486.]

—— Über die nicht periodischen veränderungen der temperatur-vertheilung auf der oberfläche der erde.

[In *ABHANDLUNGEN der königlichen akademie der wissenschaften zu Berlin; aus dem jahre 1858*. 4°. Berlin, kön. akad. der wiss. 1859. pp. 113-428.]

—— Ueber die wärmeabnahme in höheren breiten.

[In *NEUMANN (K.) Zeitschrift für allgemeine erdkunde*. 8°. Berlin, D. Reimer, 1860. N. folge, band viii, ste. 366-377.]

Downie (William). Explorations in Jarvis inlet and Desolation sound, British Columbia.

[In *JOURNAL of the royal geographical society of London*. 8°. London, J. Murray, 1861. Vol. xxxi, pp. 249-256.]

Drake (sir Francis). Lives and voyages of Drake, Cavendish, and Dampier; including an introductory view of the earlier discoveries in the South seas, and the history of the buccaneers. 461 pp. 3 portraits. 8°. *Edinburgh, Oliver and Boyd, 1831.*

— Lives and voyages of Drake, Cavendish and Dampier. [anon.] 332 pp. 1 portrait. 18°. *New York, J. & J. Harper, 1832.*

[HARPERS' family library. xxx.]

— *The same.* 332 pp. 3 pl. 8°. *New York, Harper & bros. 1842.*

[HARPERS' family library. vol. 33.]

— Sir Francis Drake revived. Who is or may be a pattern to stirre up all heroicke and active spirits of these times, to benefit their countrey and eternize their names by like noble attempts. Being a summary and true relation of foure severall voyages by the said Drake to the West Indies. Collected out of the notes of sir F. Drake, P. Nichols, F. Fletcher, and of divers other gentlemen. [By R. D.] sm. 4°. *London, for Nicholas Bourne, 1653.*

CONTENTS.

Sir Francis Drake revived. 3 p. l. 87 pp. portrait.

The world encompassed by sir Francis Drake. Offered now at last to publique view. Collected out of the notes of master Francis Fletcher. 108 pp. 1652.

A summarie and true discourse of sir Francis Drakes West Indian voyage. 1-41 pp. [With]

A full relation of another voyage into the West Indies. pp. 43-60. 1652.

— *Le voyage cvrievx, faict avtovr du monde.* [Trad. par F. de Louvencourt, sieur de Vau-chelles.] 4 p. l. 230 pp. 16°. *Paris, A. Robinot, 1641.*

— *The same.* The world encompassed by sir Francis Drake, being his next voyage to that to Nombre de Dios. 4 p. l. xl, 295 pp. 1 map. 8°. *London, Hakluyt society, 1804.*

[Hakluyt society publications. Vol. 16.]

— *The same.* [OSBORNE (T.) Collection of voyages. fol. *London, T. Osborne, 1745.* Vol. 2, pp. 433-478.]

— Sir Francis Drake's voyages, particularly that round the world, in 1577, 1578, 1579, and 1580. 158 pp. 5 pl. 8°. *London, F. Newbery, 1774.*

[HENRY (D.) An historical account of all the voyages round the world. Vol. 1.]

Duflet de Mofras (Eugène). Exploration de l'Orégon, des Californies, et de la Mer Vermeille, 1840-42. 2 v. 514 pp. 4 pl.; 524 pp. 4 pl. 8°. Atlas, 14 maps, 3 pl. fol. *Paris, A. Bertrand, 1844.*

Note.—Contains the Lord's prayer in 24 languages. The book is reviewed under the following title: Ueber die Russische colonie Ross in Neu-Californien, in ARCHIV für wissenschaftliche kunde von Russland. Her. von A. Erman. 8°. *Berlin, G. Reimer, 1848.* Vol. vi, pp. 416-425.

Also reviewed in NOUVELLES annales des voyages. 8°. *Paris, Bertrand, 1845.* t. 105, v^e série, 1^{re} année, pp. 197-208.

— *L'Orégon.* 44 pp. 8°. *Paris, Plon, 1846.*

From the "REVUE NOUVELLE."

Dunn (John). History of the Oregon territory and British North-American fur-trade; with an account of the habits and customs of the principal native tribes on the northern continent. viii, 359 pp. 1 map. 8°. *London, Edwards and Hughes, 1844.*

Du Petit Thouars (Abel Aubert). Voyage autour du monde sur la frégate la Vénus, pendant les années 1836-1839. 10 vols. 8°. Atlas, 4 vols. fol. *Paris, Gide, 1840-55.*

CONTENTS.

Vols. 1-4. Relation. [Par A. Du Petit Thouars.] 4 vols. 8°. 1840-43. Atlas pittoresque. 70 pl. fol. 1841.

Vols. 6-10. Physique. Par U. de Tessan. 5 vols. 8°. 1842-44.

Zoologie. Mammifères, oiseaux, reptiles et poissons. [Par Isidore Geoffroy Saint-Hilaire, F. Prévost et O. Des Murs, Duméril et A. Valenciennes.] 2 p. l. 351, iii pp. 8°. 1855. Atlas de zoologie. 3 p. l. 78 col. pl. fol. 1846.

Botanique. Atlas de botanique. 3 p. l. 28 pl. fol. 1846.

Eaton (hon. John). Are the Indians dying out? Preliminary observations relating to Indian civilization and education. 42 pp. 8°. *Washington, government printing office, 1877.*

Eichwald (dr. Eduard von). Geognostisch-palaeontologische bemerkungen über die halbinsel Mangischlak und die Aleutischen inseln. 1 p. l. iv, 200 pp. 20 pl. 8°. *St. Petersburg, kais. akad. der wissenschaften, 1871.*

- Elliot (Jonathan).** Diplomatic code of the United States; a collection of treaties and conventions between the United States and foreign powers, from 1778 to 1827. 668 pp. 8°. *Washington, J. Elliot, 1827.*
- The American diplomatic code; a collection of treaties and conventions between the United States and foreign powers, from 1778 to 1834. 2 vols. 31 p. 1. 566 pp.; 703 pp. 8°. *Washington, J. Elliot, 1834.*
- Elliott (Henry Wood).** Report on the Prybilov group, or seal islands, of Alaska. 65 l. unp. 49 photographs. 4°. *Washington, government printing office, 1873.* [See also under the pseudonym "Alaska."]
- Seventy-five copies printed, and the report, in this form, suppressed, for certain reasons. A perfect copy has been sold for as much as seventy-five dollars. Unpaginated and with the lines running perpendicularly up and down the page this work is a typographical, as well as bibliographical, curiosity, perhaps unique.
- Letter, dated at Washington, D. C., Oct. 31, 1873, to the secretary of the treasury concerning the waste of seal-oil, the "natives" of the Prybilov islands, and the brewing of "quass." [In CONGRESSIONAL PAPERS. H. of R.—44th Cong. 1st sess.—Ex. Doc. No. 83, pp. 103-104.]
- A report upon the condition of affairs in the territory of Alaska. 277 pp. 8°. *Washington, government printing office, 1875.*
- Note.—Contains the text (but not the plates) of the preceding quarto report on the Prybilov group, also the important report on the ornithology by DR. ELLIOTT COUES, U. S. A., etc.
- The same. In CONGRESSIONAL PAPERS. H. of R.—44th Cong. 1st sess.—Ex. Doc. No. 83. pp. 1-277.
- Reviewed in NEW YORK EVENING POST (daily). fol. *New York, July 9, 1875.*
- Also in the NATION. 4°. *New York, Sept. 2, 1875.*
- In same. Sept. 9, 1875. pp. 163-4. A reply. By H. W. Elliott.
- Also reviewed in BOSTON DAILY ADVERTISER. fol. *Boston, July 15, 1875.* By W. H. Dall.
- In same. July 18, 1875. A reply. By H. W. Elliott.
- And farther, in same, August 20, 1875.
- Ten years' acquaintance with Alaska: 1867-1877.
- [In HARPER'S NEW MONTHLY MAGAZINE. 8°. *New York, Harper brothers, 1877.* Vol. lv, No. 330, November, pp. 801-816.]
- Reviewed in the NATION. 4°. *New York, Nov. 15, 1877.* By W. H. D.
- Reply by H. W. E. in same, Nov. 22.
- Answer by W. H. D. in same, Dec. 6.
- Leo marinus, the sea-king—illustrated.
- [In SCRIBNER'S MONTHLY. 8°. *New York, Scribner & co. 1878, Oct.* Vol. xvi, No. 6, pp. 879-887.]
- Wild babies.
- [In HARPER'S NEW MONTHLY MAGAZINE. 8°. *New York, 1878, Nov.* Vol. lvii, pp. 829-838.]
- A few sea birds.
- [In same; 1879, March. Vol. lviii, pp. 497-505.]
- Ellis (W. . .).** An authentic narrative of a voyage performed by captain Cook and captain Clerke in his Majesty's ships Resolution and Discovery 1776-1780 in search of a north-west passage. 2d ed. 2 vols. 5 p. 1. 358 pp. 1 l. 1 map, 8 pl.; 3 p. 1. 347 pp. 12 pl. 8°. *London, G. Robinson, 1783.*
- Emigrés Français.** Voyages et aventures des emigrés français depuis le 14 Juillet 1789, jusqu'à l'an vii, dans la Volhinie, le gouvernement d'Archangel, la Sibérie, la Samojedie, le Kamtchatka, les îles Canaries l'île Majorque, Minorque et le Canada. [anon.] 2 v. in-8°. 6 cartes et 4 pl. *Paris, l'an vii (1799).* (Not seen.)
- Emmons (L. . .).** A prophetic abstract from the proceedings of the Trojan society for the retardation of science, for the year of our Lord 1870. Reported by L. Emmons, under spirit influence. Respectfully dedicated to the American association for the advancement of science. 20 pp. 8°. *Troy, N. Y., W. H. Young & Blake, 1870.*
- Note.—The above contains "New information about Alaska. By a particular friend of Mr. Dall," and is thought to have been written in part at least by prof. F. W. Clark.
- Engel (Samuel).** Mémoires et observations géographiques et critiques sur la situation des pays septentrionaux de l'Asie et de l'Amérique. [anon.] xxii, 268 pp. 2 maps. 4°. *Lausanne, A. Chapuis, 1765.*

Engel (Samuel)—continued.

—— *Geographische und kritische nachrichten und anmerkungen über die lage der nördlichen gegenden von Asien und Amerika, [etc.] welchen noch ein versuch über einen weg durch norden nach Indien, und über die errichtung eines handels in die Südsee beygefüget ist, [etc.]* 2 v. in 1. 1 p. l. xvi, 368 pp. 2 maps; 1 p. l. 304 pp. 1 l. 3 maps. 4°. *Mitau, etc. J. F. Hinz, 1772.*

“The German translation, made by the author himself, is considerably augmented.”

—— *Anmerkungen über den theil von cap. Cooks reise-relation, so die meerenge zwischen Asia und Amerika ansieht; in einem brief durch herrn S. Engel.* 30 pp. 12°. 1780.

—— *Remarques sur la partie de la relation du voyage du capitaine Cook, qui concerne le détroit entre l'Asie et l'Amérique, [etc.]* 26 pp. 1 map. 4°. *Berne, F. S. Fetscherin, 1781.*

Royal Library, Stockholm.

Engelhardt (Georg). *Russische miscellen zur genauern kenntniss Russlands und seiner bewohner.* 4 v. Vol. i, 3 p. l. iv, 204 pp. 1 pl. 1829; vol. ii, 3 p. l. iii, 227 pp. 1 map, 1829; vol. iii, 3 p. l. 229 pp. 1 pl. 1830; vol. iv, 3 p. l. 297 pp. 1 table, 1 plan, 1832. 8°. *St. Petersburg, kais. akad. der wissenschaften, 1829–32.* B. M.

Note.—Vol. i, pp. 28–69, treats of the Russian expeditions from Kronstadt to the Pacific and the Russian-American colonies.

Erizzo. See MINISCALCHI-ERIZZO (*conte Francesco*).

Erläuterung über die im östlichen ocean zwischen Sibirien und America geschehenen entdeckungen.

[In PALLAS (P. S.) *Neue nordische beyträge.* 12°. *St. Petersburg und Leipzig, J. Z. Logan, 1781.* Vol. i, pp. 273–313.]

Erman (Georg Adolph). *Archiv für wissenschaftliche kunde von Russland.* 25 v. 8°. *Berlin, G. Reimer, 1841–66.*

- | | | | |
|-------|--------|-----------------------|--|
| 1841. | I. | pp. 562–579. | On the climate of the Ross colony in California; by ERMAN (G. A.) q. r. |
| 1842. | II. | pp. 459–495. | Veniaminoff on the Aleutian islands; by LOWE (E.) q. r. |
| 1843. | III. | pp. 361–362. | On the tides at Sitka; by LENZ (E.) q. v. |
| | | pp. 439–445. | On the Koloshian language; by SCHOTT (W.) q. r. |
| | | pp. 446–464. | The Chukchees; by LÜTKÉ (F.) q. r. |
| | | pp. 634–682. | On the tides in the Okhotsk sea, etc.; by ERMAN (G. A.) q. r. |
| 1844. | IV. | pp. 593–607. | Information concerning the Samoyedes. |
| 1847. | V. | pp. 389–390. | Kashevaroff's journey to the extreme north of America. q. r. |
| | | pp. 527–529. | Otto von Kotzebue; by HOFFMAN and LENZ. q. r. |
| | | pp. 530–560. | Currents in the north part of the Okhotsk sea, etc.; by ERMAN (G. A.) q. r. |
| 1848. | VI. | pp. 226–240. | Notes on a journey through the Hudson's bay territory; by FREIMANN. q. r. |
| | | pp. 416–425, 555. | On the Ross colony in Upper California; a review of DU'FLOT DE MOFRAS. q. v. |
| | | pp. 426–432. | Remarks on the Russian and Spanish possessions in California; by ERMAN (G. A.) q. r. |
| | | pp. 441–488. | The climate of Petropavlovsk in Kamtschatka; by ERMAN (G. A.) q. r. |
| | | pp. 499–552, 613–672. | Zagoskin's travels in Russian America. See ZAGOSKIN. |
| 1849. | VII. | pp. 126–143. | On the languages of Russian America; by SCHOTT (W.) q. v. |
| | | pp. 286–288. | XI, pp. 227–231. Voyage of the Finnish ships Sitka and Atka. See NORTHERN BEE. |
| | | pp. 429–512. | Zagoskin's travels. See, also, VI, pp. 499 and 613. |
| | | pp. 589–598. | Udskoi Ostrog. |
| 1850. | VIII. | pp. 666–669. | Sea-voyages of the Russians. |
| | | pp. 702–713. | Report of the Russian American company for 1848. |
| 1851. | IX. | pp. 272–294. | Voyage of the sloop Blagonamierenni. |
| | | pp. 473–506, 511–567. | Currents in the Atlantic and Pacific as determined by the Krotkoi. |
| | | pp. 710–716. | Report of the Russian American company for 1849 to 1850. |
| 1852. | XI. | pp. 175–180. | Aid in the Franklin search by the Rus. Am. company. |
| | | pp. 621–627. | Report of the Russian American company for 1850–51. |
| 1854. | XIII. | pp. 423–433. | Voyage of Rus. Am. co.'s vessel Prince Menshikoff to Japan. From <i>Morsk. Sbornik</i> . |
| 1855. | XIV. | pp. 212–223. | Russian voyages of discovery to America; from SOKOLOFF (A.) q. r. |
| | | pp. 306–308. | Letter of VENIAMINOFF, q. r.; from Kamtschatka; from <i>Moscow Viedomosti</i> . |
| 1858. | XVII. | pp. 471–478. | Report of the Russian American company for 1856–57. |
| | | pp. 581–594. | On the natives of the Amur region; continued in XVIII, pp. 29–38. |
| 1859. | XVIII. | pp. 486–500. | The truth about the Amur. |
| 1860. | XIX. | pp. 340–345. | A Chukchee dictionary; by ROMBERG. |

Erman (Georg Adolph)—continued.

1862. XXI. pp. 331-364. Zoological researches on the Amur; by NORDMANN (Alex. von).
 1863. XXII. pp. 47-70. Russian colonies in America; by GOLOVIN (P. N.) *q. r.*
 pp. 369-384. Pauly's ethnographic description of the Russian peoples reviewed.
 pp. 504-520, 571-588. Petrographic researches in North Asia; by HERTER (P.) *q. r.*
 1865. XXIII. pp. 207-210. The word Schaman; by SCHOTT (W.) *q. r.* Continued in XXIV, pp. 162-163.
 1866. XXIV. pp. 474-479. The Siberian-American telegraph.
 1867. XXV. pp. 175-187. Schamanism in Siberia.
 pp. 229-237. Remarks on gold in Russian America; by DOROSCHIN (P. P.) *q. r.*

— Reise um die erde durch Nord-Asien und die beiden oceane in den jahren 1828-1830. 1^{te} abtheil. Historischer bericht. 3 v. 8°. *Berlin, G. Reimer, 1833-48.* 2^{te} abtheil. Physikalische beobachtungen. 2 v. 8°. *Berlin, G. Reimer, 1835-41.* Naturhistorischer atlas. vi, 64 pp. 17 pl. fol. *Berlin, G. Reimer, 1835.*

Reviewed in JOURNAL of the Royal geographical society of London. 8°. *London, J. Murray, 1836.* Vol. vi, pp. 387-393; 1839, vol. ix, pp. 482-487.

— Note on a new map of Kamchatka.

[In *JOURNAL of the Royal geographical society of London.* 8°. *London, J. Murray, 1839.* Vol. ix, pp. 508-511.]

— Travels in Siberia. Translated from the German by W. D. Cooley. 2 v. xi, 495 pp.; ix, 536 pp. 1 map. 8°. *London, Longmans, 1848.*

— Ueber ebbe und fluth an den Ochozker und Kamtschatischen küsten des grossen oceans.

[In *ARCHIV für wissenschaftliche kunde von Russland.* Her. von A. Erman. 8°. *Berlin, G. Reimer, 1843.* Vol. iii, pp. 634-682.]

— Ortsbestimmungen bei einer überfahrt von Ochozk nach Kamtschatka und darauf begründete untersuchung der strömungen in der nordhälfte des Ochozker meeres.

[In *ARCHIV für wissenschaftliche kunde von Russland.* Her. von A. Erman. 8°. *Berlin, G. Reimer, 1847.* Vol. v, pp. 530-560. *Also in Annal. d. Erdkunde (Hertha), 1838, p. 385.*]

— Einige bemerkungen über die Russischen und Spanischen niederlassungen in Neu-Californien.

[In *ARCHIV für wissenschaftliche kunde von Russland.* Her. von A. Erman. 8°. *Berlin, G. Reimer, 1848.* Vol. vi, pp. 426-432, 555.]

— Beiträge zur klimatologie des Russischen reiches. I. Ueber das klima von Ross in Californien und herrn Tschernychs meteorologische beobachtungen an diesem orte. III. Das klima von Petropaulshafen.

[In *ARCHIV für wissenschaftliche kunde von Russland.* Her. von A. Erman. 8°. *Berlin, G. Reimer, 1841,* vol. i, pp. 562-579; *and 1848, vol. vi, pp. 441-488.*]

— Ueber einige meteorologische resultate der Sagoskinschen reise.

[In *ARCHIV für wissenschaftliche kunde von Russland.* Her. von A. Erman. 8°. *Berlin, G. Reimer, 1849.* Vol. vii, pp. 467-480.]

— Высота Камчатскихъ горъ, (etc.) [Heights of mountains in Kamchatka. The volcanoes Tolbachinskoi, Kliucheffskoi and Shiveluchskoi.]

[In *ZHURNAL MINISTERSTVA VNUTRENNIKH DEL.* (*Journal of the Interior Department.*) 1836, xxii, ii.]

— Ethnographische wahrnehmungen und erfahrungen an den küsten des Berings-Meeres.

[In BASTIAN (Adolph) and HARTMANN (R. . .). *Zeitschrift für ethnologie. Organ der Berliner gesellschaft für anthropologie, ethnologie und vrgeschichte, (etc.)* 8°. *Berlin, Wiegandt und Hempel, 1870.* Vol. ii, pp. 295-327, 369-393, with an ethnographic map; *also 1871, vol. iii, pp. 149-175, 205-219.*]

Reviewed in the NATION, no. 322, Aug. 31, 1871.

Eschscholtz (dr. Friedrich). Zoologischer atlas enthaltend abbildungen und beschreibungen neuer thierarten, während des flottcapitains v. Kotzebue zweiter reise um die welt 1823-1826.

Erstes Heft. 2 p. l. 15 pp. 5 pl. fol. *Berlin, G. Reimer, 1829.*

Zweites Heft. 1 p. l. 13 pp. 5 pl. fol. *Berlin, G. Reimer, 1829.*

Drittes Heft. 1 p. l. 18 pp. 5 pl. fol. *Berlin, G. Reimer, 1829.*

Viertes Heft. 1 p. l. 19 pp. 5 pl. fol. *Berlin, G. Reimer, 1831.*

Fünftes Heft herausgegeben von Dr. Martin Heinrich Rathke. viii, 28 pp. 5 pl. fol. *Berlin, G. Reimer, 1833.*

Eskimo (The). [anon.] The Eskimo.

[In *VOSKRESNII DOSUKH.* (*Sunday Leisure.*) 1864. No. 104.]

Espinosa (don José de). Memoria sobre las observaciones astronómicas que han servido de fundamento á las cartas de la costa noroeste de América. 1 broch. 8°. *Madrid, 1805. Not seen.*

Espinosa y Tello (Josef). *Memorias sobre las observaciones astronómicas, hechas por los navegantes Españoles en distintos lugares del globo; las quales han servido para la formacion de las cartas de marear publicadas por la direccion de trabajos hidrográficos de Madrid: ordenadas por don Josef Espinosa y Tello, (etc.)* 2 v. 4 p. l. 170, vii, 184, xxxii, 224 pp. cuts; xx, 200, v, 320 pp. 5 plates. 4°. *Madrid, en la imprenta real, 1809.*

Note.—An account of the voyage of Malaspina in vol. ii.

Esquimaux (The). See HARRINGTON (John J. . .).

Etolin (*vice-admiral* . . .). See RUSSIAN AMERICAN COLONIES. Докладъ комитета, (etc.) [Report of the committee on the North American colonies, etc.] pp. 374-384.

Euler (Leonard). Extract of a letter from Mr. Leonard Euler (etc.) to Rev. Cha. Welstein (etc.) concerning the discoveries of the Russians on the north-east coast of Asia.

[In PHILOSOPHICAL Transactions of the Royal Society. 4°. London, for the society, 1748. Vol. xlv, part ii, pp. 421-423.]

Evening (The) **Star**. fol. Washington, 1869-1879. *A daily evening newspaper.*

- | | |
|---|---|
| Mar. 26, 1869. Gold mines in Alaska. | Oct. 2, 1877. Two Kanakas saved from the whaling fleet. |
| Jan. 11, 1870. On Raymond's report. | Oct. 20, 1877. Alleged murderers (of crew of "Geo. S. Wright") released. |
| Mar. 6, 1870. Alaska seal fisheries. | Oct. 30, 1877. Alaska Indians on a spree. |
| July 20, 1870. Opening of the bids for the seal islands. | Jan. 12, 1878. Sermon on Alaska; by S. Jackson. |
| July 21, 1870. Decision on same delayed. | Feb. 23, 1878. Canada desires to purchase Alaska. |
| July 25, 1870. Decision given in part. | Feb. 26, 1878. Purchase of Alaska by the Dominion. |
| July 26, 1870. Another delay. | Mar. 25, 1878. Loss of the "General Miller." |
| July 27, 1870. Another delay. | Aug. 1, 1878. Miss Fanny E. Kellogg appointed postmaster at Sitka. |
| July 28, 1870. Opinion of the attorney general on same. | Aug. 21, 1878. Disastrous voyage of the "San Diego." |
| July 29, 1870. Another delay. | Nov. 5, 1878. The northwest passage. |
| July 30, 1870. Akerman's decision and award of contract. | Nov. 26, 1878. Volcanic eruptions in the Aleutian islands. |
| Aug. 3, 1870. News from Sitka. | Dec. 5, 1878. Col. De Ahna petitions Congress. |
| Aug. 5, 1870. An act to prevent the extermination of fur-bearing animals in Alaska. | Dec. 28, 1878. Nordenskjöld's expedition. |
| Aug. 6, 1870. Meteorology for 1869—Sitka. | Dec. 30, 1878. American Arctic expedition. |
| Aug. 10, 1870. Alaskan cod-fish. | Jan. 15, 1879. Arctic explorations. Alaska's first hanging. |
| Aug. 11, 1870. Fur-seal fisheries. | Jan. 17, 1879. Permission to kill fur-bearing animals in Alaska refused. |
| Nov. 21, 1870. The seal fisheries. | Jan. 18, 1879. Alaska. |
| Feb. 6, 1871. See House proceedings. | Jan. 27, 1879. News of major Wm. G. Morris. |
| Apr. 24, 1871. A soldier murderer—Wm. B. Bird. | Feb. 3, 1879. Commerce in the Arctic. |
| Mar. 2, 1874. Garfield's contract suspended. | Feb. 8, 1879. Nordenskjöld's fate. |
| Feb. 21, 1875. Alaska for sale for a million. | Feb. 15, 1879. Voyage of the Lena. |
| Feb. 22, 1875. Whiskey smuggling. | Feb. 17, 1879. The situation at Sitka. |
| Feb. 23, 1875. Alaska commercial company. | Feb. 18, 1879. The Sitka outbreak. |
| Apr. 21, 1875. Our Alaskan bonanza. | Mar. 6, 1879. The Bennett polar expedition. |
| May 24, 1875. Military Indian agent in Alaska. | Mar. 12, 1879. The Alaskan boundary. |
| June 26, 1875. Wreck of the Saranac. | Mar. 17, 1879. A man-of-war for Alaska. The outbreak in Alaska. From vagrant to missionary. |
| July 12, 1875. Treasury department order. | Mar. 18, 1879. The "Alaska" to go to Sitka. |
| July 21, 1875. Measles in Alaska. | Mar. 24, 1879. Morris and De Ahna. |
| Dec. 13, 1875. Alaska. | Mar. 26, 1879. Morris and De Ahna. A man-of-war for Alaska. |
| Dec. 15, 1875. See Congressional proceedings. | Apr. 10, 1879. Return of the "Osprey." Arrival at Sitka of the "Alaska." |
| Jan. 22, 1876. Alaska's great volcano—Iliamna. | Apr. 11, 1879. Naval protection of Sitka. |
| Feb. 25, 1876. Alaska seal-fur investigation. | Apr. 15, 1879. Officers of the "Jamestown." |
| Feb. 28, 1876. Seal skins. | Apr. 17, 1879. A Sitka Indian convicted of murder. |
| May 27, 1876. Alaska seal investigation. | Apr. 21, 1879. Capt. Brown, of the "Alaska," leaves Sitka and is ordered back again. |
| Oct. 23, 1876. Twelve whaling vessels lost in the ice. | Apr. 22, 1879. An expedition to Alaska. |
| Apr. 21, 1877. Protection of the people of Alaska. | Apr. 26, 1879. A Sitka Indian to hang. |
| May 26, 1877. Alaska boundary question. | May 6, 1879. The Sitka Indian Kat Koo hung. |
| June 21, 1877. En route with the troops. | May 28, 1879. On Nordenskjöld's success. |
| July 23, 1877. Fate of the crew of the "Geo. S. Wright." | |
| July 24, 1877. Sitka in danger. | |
| Aug. 30, 1877. John Morton's dangerous sickness. | |
| Aug. 31, 1877. John Morton's dangerous sickness. | |
| Sept. 4, 1877. Late from Alaska. | |
| Sept. 19, 1877. Thirteen natives of Bering strait killed. | |

- Falconer** (Samuel). Report as special agent of the treasury department upon the island of St. George, Alaska.
[In CONGRESSIONAL PAPERS. H. of R.—42d. Cong. 2d sess.—Ex. Doc. No. 20, p. 2.] See also *same*: 44th Cong. 1st sess.—Ex. Doc. No. 83, pp. 48-50; 54; 56; 83-85, 90-91, 93, 182.
- Falconer** (Thomas). On the discovery of the Mississippi and on the south-western, Oregon, and north-western boundary of the United States. 100 pp. 1 l. 100 pp. 1 map. 12°. *London, S. Clarke, 1844.*
- The Oregon question. 1st ed. iv, 46 pp. 1 map. 8°. *London, S. Clarke, 1845.* [Political pamphlets, v. 82, No. 1.]
- The Oregon question or a statement of the British claims to the Oregon territory, in opposition to the pretensions of the government of the United States of America. With a chronological table and a map of the territory. 40 pp. 1 map. 8°. *New York, Wm. Taylor, 1845.*
- Falkenstein** (Carl Constantin). Geschichte der geographischen entdeckungsreisen. 5 v. in 1. 12°. *Dresden, P. G. Hilscher, 1828-29.*
- Fast** (Edward G . . .). Catalogue of antiquities and curiosities collected in the territory of Alaska. Also a collection of fire arms, a large geological collection, etc. 32 pp. 1 pl. 8°. [*New York, Leavitt, Strebeigh & co. [1869].*]
Note.—See Washington NATIONAL REPUBLICAN, Dec. 6, 1871, for note concerning Fast.
- Fédix** (P . . . A . . .). L'Orégon et les côtes de l'océan Pacifique du nord, aperçu géographique, statistique et politique. 258 pp. 1 map. 8°. *Paris, Amyot, 1846. Not seen.*
- Finch** (George W . . .). Prospecting in Alaska. Tramping from British Columbia to the Arctic ocean. Three years in the wilderness. The plucky adventures of four enterprising miners [George W. Finch; Andrew Kenzler; Frederick Hart; Arthur Harper]. They find gold in Alaska, but not in paying quantities.
[In THE SUNDAY LEDGER. *San Francisco, 1875. Oct. 10.*]
- Findlay** (Alexander George). A directory for the navigation of the Pacific ocean. 2 v. xlvii, 650 pp. 17 l.; xxx, 651-1388 pp. 8°. *London, 1851.*
See also BUREAU OF NAVIGATION.
- Finsch** (dr. Otto). Zur ornithologie Nordwest-Amerikas.
[In ABHANDLUNGEN des naturwissenschaftlichen vereins zu Bremen. 8°. *Bremen, April, 1872. Band iii, seite 17-86.*]
Note.—Reviews previous literature with criticisms and summary.
- Fischer** (Johann Eberhard). Sibirische geschichte von den entdeckungen Sibiriens bis auf die erobering dieses landes durch die Russischen waffen. 2 Theile. 8°. *St. Petersburg, 1768.*
Not seen. "Book 3d and 5th treats of oceanic discoveries."
- Сибирская исторія съ самаго открытія, (etc.) [History of Siberia from its discovery to its conquest by Russian arms. Compiled in German by J. E. Fischer.] 631 pp. 2 maps. 4°. *St. Peterburg, imp. academy of sciences, 1774. Not seen.*
- Recherches historiques sur les principales nations, établies en Sibérie et dans les pays adjacens lors de la conquête des Russes. Trad. du Russe par Stollenwerck. 8°. *Paris, [1801]. Not seen.*
- Fish** (Charles Pattison). From the Behring Sea. Matters at Unalaska and St. Paul—Seal catching—Climatology of Alaska signal service operations.
[In the DAILY EVENING BULLETIN. fol. *San Francisco, 1872. Oct. 1.*]
- The Prybiloff group. Characteristics of the islands of St. Paul and St. George and the Aleutian people. The Alaska Commercial Company and its monopoly.
[In the DAILY EVENING BULLETIN. fol. *San Francisco, 1873. Sept. 4.*]
- Report of observations made at the island of St. Paul, (Behring Sea,) by observer C. P. Fish, signal service U. S. A., from June 5, 1872, to May 31, 1873.
[In ANNUAL REPORT of the chief signal officer to the secretary of war for the year 1873. 8°. *Washington, government printing office, 1874. pp. 446-458.*]
Note.—For obituary, etc., see NEW YORK HERALD. fol. *Newspaper. New York, Sept. 29, 1879: "Death of a journalist."*

Fisher (...). О посѣвѣ и посадкѣ деревь на о. Уналашкѣ, (etc.) [Concerning the sowing and planting of trees on Unalashka island. Instructions given by Fisher to *father* Innocentius.]

[In *LIESNOI ZHURNAL*. (*Journal of Forestry*.) 1841, iii, 2.]

Fitzgerald (James Edward). An examination of the charter and proceedings of the Hudson's Bay Company, with reference to the grant of Vancouver's island. xv, 293 pp. 1 map. 16°. *London*, T. Saunders, 1849.

Fitzwilliam (William Wentworth, *viscount Milton*). A history of the San Juan water boundary question, as affecting the division of territory between Great Britain and the United States. Collected and compiled from official papers and documents printed under the authority of the governments respectively of Great Britain and Ireland and of the United States of America, and from other sources. 2 p. l. 442 pp. 2 maps. 8°. *London*, Cassell, Petter & Galpin, 1869.

— and **Cheadle** (Walter Butler, *m. d.*) The northwest passage by land. Being the narrative of an expedition from the Atlantic to the Pacific, undertaken with the view of exploring a route across the continent to British Columbia, [etc. 1862]. xviii, 397 pp. 22 pl. 2 maps. *London*, Cassell, Petter, & Galpin, [1865].

Fleming (Sandford, *c. m. g.*) Practical observations on the construction of a continuous line of railway from Canada to the Pacific ocean on British territory. *Not seen*.

[In *HIND* (Henry Youle, *f. r. g. s.*) A sketch of the overland route to British Columbia. 8°. *Toronto*, 1862. pp. — — —.]

— Report on the intercolonial railway exploratory survey, made under instructions from the Canadian government in 1864. 160 pp. 2 maps. 8°. *Quebec*, G. E. Desbarats, 1865.

— Report on surveys and preliminary operations on the Canadian Pacific railway up to January, 1877. xvi, 431 pp. 7 maps and profiles. 8°. *Ottawa*, MacLean, Roger & co. 1877.

— Canadian Pacific railway, Sandford Fleming, *c. m. g.*, engineer-in-chief. Reports and documents in reference to the location of the line and a western terminal harbour. 1878. 104 pp. 3 maps. 8°. *Ottawa*, MacLean, Roger & co. 1878.

Fleurieu (Charles Pierre Claret). Voyage autour du monde, pendant les années 1790–1792. Par Étienne Marchand. Précédé d'une introduction historique, auquel on a joint des recherches sur les terres australes de Drake, et un examen critique du voyage de Roggween, avec cartes et figures. 4 v. 4°. *Paris*, imprimerie de la république, 1798–1800.

— A voyage round the world, performed during the years 1790–92. Preceded by a historical introduction, and illustrated by charts. From the French. 2 v. 8 p. l. cvi, 536 pp.; xiii, 663, 105 pp. 8°. Atlas, 4°. *London*, Longmans, 1801.

Fonte o de Fuente (*almirante* Bartolomé de). Viaje de Fonte [por Navarrete, *q. v.*]

[In *COLECCION* de documentos inéditos para la historia de España por Salvá (D. Miguel) y Baranda (D. Pedro Sainz de). 8°. *Madrid*, 1849. Tomo xv, pp. 134–161.]

See also MONTHLY MISCELLANY, or memoirs for the curious, for April and June, 1708.

See also BURNEY (James). A chronological history of the voyages and discoveries in the South sea or Pacific ocean, vol. iii, pp. 184–195.

Fonvielle (W . . . de). La conquête du pôle nord. 357 pp. 18°. *Paris*, 1877.

Forbes (Charles, *m. d.*) Notes on the physical geography of Vancouver island.

[In *JOURNAL* of the Royal geographical society of London. 8°. *London*, J. Murray, 1864. Vol. xxxiv, pp. 154–171.]

— Островъ Ванкувера, (etc.) [Vancouver Island. Sources of wealth and the strength of its resources as a colony.]

[In *MORSKOI SBORNIK*. 1863, Mar. Vol. lxx, [iii], pp. 107–156.]

Forney's Daily Chronicle. fol. *Washington*, 1870. A daily newspaper.

Feb. 28, 1870. Fur seals. Alaska, etc.

Forster (Johann Georg Adam). Geschichte der reisen die seit Cook an der nordwest- und nordost-küste von Amerika unternommen worden sind. Aus dem Englischen. 3 Bde. 4°. *Berlin*, Voss, 1791.

Forster (Johann Georg Adam)—continued.

— Des kapitains John Meares und des kapitains William Douglas reisen nach der nordwestküste von Amerika, in den jahren 1786 bis 1789. Aus dem Englischen übersetzt und mit anmerkungen erläutert von Georg Forster. iv, 130, 302 pp. 6 pl. 2 maps. 4°. *Berlin, Voss*, 1796.

Note.—Reprint of first volume of the preceding series.

Forster (Johann Reinhold). Geschichte der entdeckungen und schiff-fahrten im norden. 1 map. 8°. *Frankfurt an der Oder*, 1784.

— History of the voyages and discoveries made in the north. From the German. xvi, 489 pp. 2 maps. 4°. *London, G. G. J. & J. Robinson*, 1786.

— Histoire des découvertes et des voyages faits dans le nord, traduit par Broussonnet. 2 v. 8°. *Paris*, 1788.

Franchère (Gabriel, *fil.*). Relation d'un voyage à la côte du nord-ouest de l'Amérique septentrionale, dans les années 1810–1814. 284 pp. 8°. *Montréal*, 1820. B. P. L.

— Narrative of a voyage to the northwest coast of America in 1811–1814, or the first American settlement on the Pacific. Translated by J. V. Huntington. 376 pp. 8°. *New York, Redfield*, 1853. Astor L.

— *The same*. [2d ed.] 376 pp. 3 pl. 12°. *New York, Redfield*, 1854.

Frank Leslie's Illustrated Newspaper. fol. *New York*, 1872–1877. *A weekly newspaper*.

Oct. 12, 1872. Sad story from Alaska.

Mar. 1, 1873. Seals warning up.

Nov. 16, 1872. The fur-seal islands.

Franklin (sir John). Narrative of a journey to the shore of the polar sea, in the years 1819–22. With an appendix on various subjects relating to science and natural history. xvi, 768 pp. 3 maps, 30 pl. 4°. *London, J. Murray*, 1823.

— *The same*. [2d ed. 2 v. 8°. 4 maps. *London*, 1824.]

— Narrative of a second expedition to the shores of the polar sea, in the years 1825–27; including an account of the progress of a detachment to the eastward, by John Richardson. xxiv, 320 pp. clvii, 1 l. 5 maps, 31 pl. 4°. *London, J. Murray*, 1828.

— A letter to captain F. Beaufort concerning a north-west passage.

[In JOURNAL of the Royal geographical society of London. 8°. *London, J. Murray*, 1836. Vol. vi, pp. 43–46.]

Franklin (capt. Samuel R . . . ; u. s. n.) The eclipse in Siberia.

[In the OVERLAND MONTHLY. 8°. *San Francisco, J. H. Carmany & co.* 1871. Vol. 6, No. 6, June, pp. 519–524.]

Franklin Search Expeditions. Английская экспедиция въ Беринговъ проливъ. [English expedition to Bering strait.]

[In MORSKOI SBORNIK. 8°. *St. Peterburg*, 1850. Vol. iii, Mar. pp. 214–234; Apr. pp. 316–334. Also in same, 1851, Mar. vol. v, pp. 230–243. Also 1852, May, vol. vii, pp. 487–504.]

Free Press (The). fol. *Detroit, Mich.*, 1879. *A daily newspaper*.

April 16, 1879. Letter from a Washington correspondent on Alaskan matters.

Freigang (capt. A . . . V . . .). Review of the Report of the Russian American company for 1857.

[In MORSKOI SBORNIK. 8°. *St. Peterburg*, 1858, Feb. Vol. xxxiii, [v], pp. 25–34.]

— Review of the Report of the Russian American company for 1861.

[In same, 1863, Jan. Vol. lxiv, [v], pp. 48–55.]

— Еще материалы для исторіи Россійской Американской к°. [More materials for the history of the Russian American company.]

[In MORSKOI SBORNIK. 8°. *St. Peterburg, typogr. morsk. ministers.* 1862. Tome lxii, No. 9, September, pp. v, 20–25.]

Freimann (. . .). Bemerkungen über eine reise (von Sitcha) durch die besitzungen der Hudsons-bay-company.

[In ARCHIV für wissenschaftliche kunde von Russland. Her. von A. Erman. 8°. *Berlin, G. Reimer*, 1848. Vol. vi, pp. 226–240. See also pp. 179–180.]

See FREIMANN's Report to the N. W. company in Zap. geogr. soc. St. Petersburg, vol. 1.

Friesach (dr. Karl). Das westliche Nordamerika zwischen dem 42 und 55 Breitengrade.

[In KAIS. KÖNIG. GEOGRAPH. GESELLSCHAFT, *Vienna*. Mittheilungen. 8°. *Wien*, 1864. Vol. viii, pp. 204–228, with map. See also vol. ix, pp. 65, 66, 68, and 69.]

Fritsche (dr. Herman Alexandrovich). The climate of eastern Asia. 1 p. l. pp. 127-335, 1 l. 18 maps. 12°. *Shanghai, printed at the "Celestial Empire" office, [1879].*

Fuca (Juan de). Viaje de Juan de Fuca [por Navarrete, q. v.]

[In COLECCION de documentos inéditos para la historia de España por Salvá (D. Miguel) y Baranda (D. Pedro Sainz de). 8°. *Madrid*, 1849. Tomo xv, pp. 102-133.]

See also BURNEY (James). A chronological history of the discoveries in the South sea, etc. Vol. ii, pp. 108-117.]

Fuca (Juan de) y **Lok** (Miguel). Correspondencia entre Juan de Fuca y Miguel Lok sobre nueva expedicion al estrecho.

[In COLECCION de documentos inéditos para la historia de España por Salvá (D. Miguel) y Baranda (D. Pedro Sainz de). 8°. *Madrid*, 1849. Tomo xv, pp. 262-263.]

Fuente. See FONTE.

Fur Trade. On the fur trade and fur-bearing animals.

[In SILLIMAN (Benjamin). The American journal of science and arts. 8°. *New Haven*, 1834. Vol. xxv, pp. 311-329.]

——— Историческій очеркъ мѣховой торговли въ Сѣверной Америкѣ, (etc.) [Historical sketch of the fur trade in North America. From the North American Review.]

[In SIN OTECHESTVA. (Son of the Fatherland.) 1839. x.]

Furuhelm (gov. Hjalmar). Notes on the natives of Alaska. (Communicated to the late George Gibbs, m. d. in 1862.)

[In POWELL (J. W.) U. S. geographical and geological survey of the Rocky mountain region. CONTRIBUTIONS TO NORTH AMERICAN ETHNOLOGY. 4°. *Washington*, 1877. Vol. i, part i, pp. 111-116.]

——— [See also RUSSIAN AMERICAN COLONIES. Приложенія доклада, (etc.) pp. 567-585.]

——— Отчетъ по управленію, (etc.) [Report on the administration of the Russian American colonies from 1859 to 1864.] 63 pp. 8°. *St. Peterburg, v' typogr. Eduarda Tremaina*, 1864.

Gairdner (. . . , m. d.) Notes on the geography of the Columbia river.

[In JOURNAL of the Royal geographical society. 8°. *London, J. Murray*, 1841. Vol. xi, pp. 250-257.]

Galaxy. The Alaska seal islands.

[In the GALAXY. 8°. *New York, Sheldon & co.* 1876. Vol. xxi, No. 6, June. pp. 850-853.]

Galiano (Dionisio Alcala). Relacion del viage hecho por las goletas Sutil y Mexicana en el año de 1792, para reconocer el estrecho de Fuca; con una introduccion en que se da noticia de las expediciones executadas anteriormente por los Españoles en busca del paso del noroeste de la América. De orden del rey. [anon.] 8 p. l. clxviii, 185 pp. 8°. *Atlas*, 4°. *Madrid, imprenta real*, 1802.

Gallatin (Albert, U. d.) A synopsis of the Indian tribes of North America.

[In ARCHEOLOGIA AMERICANA. Transactions and collections of the AMERICAN ANTIQUARIAN SOCIETY. 8°. *Cambridge, for the society*, 1836. Vol. ii, pp. 1-422.]

Gatschet (Albert Samuel). Alaska und seine bewohner. Aus dem Englischen.

[In ACS ALLEN WELTTHEILEN, *Leipzig*. April, 1875, vi, s. 195-204.]

Geographical Society of New York. See AMERICAN geographical and statistical society.

——— of London. See ROYAL geographical society.

——— of Paris. See SOCIÉTÉ de géographie de Paris.

——— of St. Petersburg. See RUSSIA. Imperial geographical society.

——— of Vienna. See KAIS. KÖNIG. geographische gesellschaft.

Geological Survey of Canada. Mesozoic fossils. On some invertebrates from the coal-bearing rock of the Queen Charlotte islands, collected by Mr. James Richardson in 1872. By J. F. Whiteaves, f. g. s. Vol. i, part 1. 2 p. l. 92 pp. 10 pl. 1 map. 8°. *Montreal, for the government*, 1876.

Geologie von Kamtschatka.

[In PETERMANN (A.) Geographische mittheilungen. 4°. *Gotha, Justus Perthes*, 1856. Heft x, November, p. 387.]

Georgi (J . . . G . . .). Beschreibung aller nationen des Russischen reichs, ihrer lebensart, religion, gebräuche, wohnungen, kleidungen und übrigen merkwürdigkeiten. 4 abth. mit 95 kpf. 1 v. 4°. *St. Petersburg*, 1776. Not seen.

——— Geographisch-physikalische und naturhistorische beschreibung des Russischen reichs. 8 v. 8°. *Königsberg*, 1797. Not seen.

Gibbs (George). Smithsonian miscellaneous collections. —161— A dictionary of the Chinook jargon, or trade language of Oregon. xiv, 1 l. unp. 43 pp. 8°. *Washington, Smithsonian institution*, 1863.

Note.—Contains a bibliography of the Chinook jargon.

—— Notes on the Tinneh or Chepewyan Indians of British and Russian America.

[In SMITHSONIAN INSTITUTION. *Report of board of regents for 1866*. 8°. *Washington*, 1872. pp. 303–327.]

—— Physical geography of the north-western boundary of the United States. Read November 11, 1869.

[In JOURNAL of the AMERICAN geographical and statistical society. 8°. *New York, the society*, 1873. Vol. iii, pp. 134–157, 6 illustrations; continued in vol. iv, pp. 298–392, 12 illustrations.]

—— Tribes of western Washington and northwestern Oregon.

[In POWELL (John Wesley). U. S. geographical and geological survey of the Rocky mountain region. CONTRIBUTIONS TO NORTH AMERICAN ETHNOLOGY. 4°. *Washington*, 1877. Vol. i, part ii, pp. 157–241, with map.]

—— Niskwalli-English and English-Niskwalli dictionary.

[In *same*, same vol. pp. 285–361.]

—— and **Dall** (William Healey). Comparative vocabularies [of native tribes of Alaska].

[In POWELL (J. W.) U. S. geographical and geological survey of the Rocky mountain region. CONTRIBUTIONS TO NORTH AMERICAN ETHNOLOGY. 4°. *Washington*, 1877. Vol. i, part i, pp. 121–156.]

—— **Tolmie** (dr. William F. . .) and **Mengarini** (le r. p. Gregorio, s. J.) Comparative vocabularies [of tribes in the northwestern part of the United States and in British Columbia].

[In POWELL (J. W.) U. S. geographical and geological survey of the Rocky mountain region. CONTRIBUTIONS TO NORTH AMERICAN ETHNOLOGY. 4°. *Washington*, 1877. Vol. i, part ii, pp. 247–283.]

Glazunoff (Andrew). Извлечение из путевого журнала помощника мореходства Андрея Глазунова, (etc.) [Extract from the diary of assistant navigator Andrew Glazunoff, of the Russ. Am. company, on the Kwikhpak river, 1834.]

[In ZHURNAL MANUFAKTUR I TORGOVLI. (*Journal of Manufactures and Commerce.*) 1836, 3.]

(See NOUV. ANN. d. voyages, i, 1841, p. 5.)

Gmelin (Johann Georg). Flora Siberica sive historia plantarum Siberiae. 4 v. 4°. *Petropol.* 1747–69.

—— Reise durch Sibirien, von dem jahr 1733 bis 1743. 4 v. in 2. 12°. *Göttingen, A. Vandenhoeck*, 1751–52.

—— Reize door Siberien naar Kamtschatka van 1733–1743. Uit het Hoogd. door H. Elvervelt. 4 v. 8°. *Haarlem*, 1752–57.

—— Voyage en Sibérie fait au frais du gouvernement Russe. 2 v. 8°. *Paris*, 1767.

—— Joannis Georgii Gmelini, reliquias quae supersunt commercii epistolici cum Carolo Linnaeo, Alberto Hallero, Guiljelmo Stellero et al., floram Gmelini sibiricam ejusque iter sibiricum potissimum concernentis [ex mandato et sumtibus Academiae scientiarum Caesareae petropolitanae] publicandas curavit dr. Guil. Henr. Theodor. Plieninger. viii, 196 pp. 3 facs. 8°. *Stuttgartiae, typis C. F. Heringianis*, 1861.

Goldson (William, m. d.) Observations on the passage between the Atlantic and Pacific oceans, in two memoirs on the straits of Anian, and the discoveries of De Fonte. Elucidated by a new and original map. To which is prefixed an historical abridgement of discoveries in the north of America. xii, 162 pp. 1 map. 4°. *Portsmouth, printed by W. Mowbray, and sold by Mr. Jordan, Fleet st., [London]*, 1793.

Reviewed in MONTHLY REVIEW or literary journal, enlarged. 8°. *London, T. Becket*, 1795. Vol. xvi, pp. 18–24.

Golenishcheff (capt. . . .). О состоянии Камчатской области въ 1830 и 31 годахъ. [Concerning the condition of the Kamchatka district in 1830 and 1831. From the report of naval captain Golenishcheff.]

[In ZHURNAL MINISTERSTVA VNUTRENNIKH DIEL. (*Journal of the Interior Department.*) 1833, x.]

Golovin (capt.-lieut. Pavl Nikolaiëvich). О обзоръ русскихъ колоній въ сѣверной Америкѣ. [Review of the Russian colonies in North America.]

[In MORSKOI SBOBNIK. 8°. *St. Peterburg, r' typogr. mors. ministers.* 1862. Vol. lvii, No. 1, January, iii, pp. 19–192. Also in RUSSIAN AMERICAN COLONIES. Приложение къ (etc.) pp. 259–462.]

Golovin (*capt.-lieut. Pavl Nikolaiëvich*)—continued.

——— Отзывъ “Московскихъ вѣдомостей”, (etc.) [Reply by the Moscow News to Golovin's review of the Russian colonies.]

[In MORSKOI SBORNIK. 1862, May, vol. lix, [iv], pp. 52-58.]

——— Ueber die russischen colonien an der nordwest-küste von Amerika.

[In ARCHIV für wissenschaftliche kunde von Russland. Her. von A. Erman. 8°. Berlin, G. Reimer, 1863. Vol. xxii, pp. 47-70.]

See also PETERMANN (A.) Geographische mittheilungen. 4°. Gotha, Justus Perthes, 1863. Heft ii, February, p. 70.

——— Letters from San Francisco, Sitka, and Kadiak.

[In MORSKOI SBORNIK, 1863, May, vol. lxvi, [iii], pp. 162-182; June, vol. lxvi, [iii], pp. 275-320.]

——— Survey of Russian colonies in North America.

[In CONGRESSIONAL PAPERS. H. of R.—40th Cong. 2d sess.—Ex. Doc. No. 177, pp. 109-112.]

——— Letters and correspondence. With an introduction by V. Rimsky-Korsakoff.

[In MORSKOI SBORNIK. 8°. St. Petersburg, 1863. Vol. lxvi, No. 5, (iii), pp. 101-182; also, No. 6, (iii), pp. 275-340.]

Golovnin (*capt. Vasili Mikhailovich*). Сокращенныя записки флота капитанъ-лейтенанта Головнина, (etc.) [Abbreviated report by captain—of the second rank—*Golovnin*, of his voyage in the sloop of war *Diana*, with an account of the Kurile islands, in 1811.] 146 pp. 3 maps. 4°. St. Petersburg, 1819.

——— Путешествіе шлюпа Дианы изъ Кронштадта въ Камчатку, (etc.) [Voyage of the sloop *Diana* from Kronstadt to Kamchatka under the command of lieut. *Golovnin* in 1807-1809. Published by the admiralty.] 2 v. 4°. (2) charts and engr. St. Petersburg, admiralt. dep. 1819.

——— Путешествіе капитана Головнина на Курильскіе острова, (etc.) [Voyage of captain *Golovnin* in the Kurile islands. From the St. Petersburg German Calendar, 1814.]

[In SIN OTECHESTVA, 1814, 6, 8 and 9.]

——— Зимованіе въ Камчаткѣ, 1809-10, (etc.) [Wintering in Kamchatka, 1809-10. From *Golovnin's* diary.]

[In same, 1816, 13.]

——— Отрывки изъ записокъ к. Головнина. [Fragments from capt. *Golovnin's* diary.]

[In same, 1816, 17.]

——— Письмо Головнина. О Камчаткѣ. [A letter from *Golovnin*. Concerning Kamchatka.]

[In same, 1818, 46.]

——— Извѣстія, (etc.) [Information concerning the voyage of the sloop *Kamchatka*.]

[In same, 1818, 47-50 and 52.]

——— Путешествіе вокругъ свѣта, (etc.) [Captain *Golovnin's* voyage around the world.]

[In same, 1820, 1-9, 12-19, 21-30, 32, 34-36, 38-40.]

——— Замѣчанія на донесеніе Американскаго комитета, (etc.) [Remarks on the report of the American committee on the condition of the colony.]

[In same, 1822, 18 and 19.]

——— Путешествіе вокругъ свѣта на военномъ шлюпѣ Камчаткѣ, въ 1817, 1818 и 1819 годахъ. [Voyage round the world, in the sloop of war *Kamchatka*, in 1817-19.] 2 v. 5 p. l. 512, xlv, pp. 2 tab. 12 pl.; 4 p. l. 206, cxx pp. 1 pl. 2 maps. 4°. St. Petersburg, v' morskoi typogr. 1822.

[See EYRIÈS (J. B.) et MALTE-BRUN (Conrad). Nouvelles annales des voyages. 8°. Paris, Gide fils, 1819. Vol. i, pp. 481-482.]

——— Записки Василя Михайловича Головнина, (etc.) [Journal of Vasili Mikhailovich *Golovnin* during his captivity by the Japanese in 1811-13 and a biography of the author.] New ed. xxxvi, 203, 148 and 120 pp. 1 portrait, 2 maps. 8°. St. Petersburg, 1851.

——— Жизнеописаніе, (etc.) [Biography of Vasili Mikhailovich *Golovnin*.] 1 portrait, 32 pp. 8°. St. Petersburg, 1851.

[Reprinted from MORSKOI SBORNIK. 8°. St. Petersburg, 1851. Vol. vi, No. 7.]

——— Жизнеописаніе, (etc.) [Biography of Vasili Mikhailovich *Golovnin*. Various information concerning his family, (etc.)] 153 pp. 2 tab. 8°. St. Petersburg, 1851.

See also MORSKOI SBORNIK, 1852, Mar. vol. vii, pp. 316-317.

Golovnin (capt. Vasili Mikhailovich)—continued.

— Сочиненія и переводы, (etc.) [Complete works, including translations, of Vasili Mikhailovich Golovnin.] 5 v. 8°. *St. Petersburg, v' typogr.orsk. ministers.* 1864.

G . . . (P . . .). Экспедиція съверо-американцевъ, (etc.) [Expedition of North Americans into the former possessions of Russia in America.]

[In SANKTPETERBURGSKIIA VIEDOMOSTI. (St. Petersburg Gazette.) 1867. No. 351.]

Govorlifky (G . . ., m. d.) Report for 1860.

[In ZHURNAL MINISTERSTVA VNUTRENNIKH DIEI. (Journal of the Interior Department.) 8°. *St. Petersburg,* 1861. Division 2, book 1, pp. — —.]

Note.—This book has not been seen, but is understood to contain information in regard to the Sitka Indians.

Grant (rev. George Monro). Ocean to ocean. Sandford Fleming's expedition through Canada in 1872. Being a diary kept during a journey from the Atlantic to the Pacific with the expedition of the engineer-in-chief of the Canadian Pacific and intercolonial railways. xv, 371 pp. 50 pl. 11 maps. 12°. *London, S. Low, Marston, Low & Searle,* 1873.

Grant (capt. W . . . Colquhoun, f. r. g. s.) Description of Vancouver island. By its first colonist.

[In JOURNAL of the royal geographical society of London. 8°. *London, J. Murray,* 1857. Vol. xxvii, pp. 268–320.]

Reviewed in PETERMANN (A.) Mittheilungen, (etc.) 4°. *Gotha, Justus Perthes,* 1858. pp. 119–120.

— Remarks on Vancouver island, principally concerning townsites and native population.

[In JOURNAL of the royal geographical society of London. 8°. *London, J. Murray,* 1861. Vol. xxxi, pp. 208–213.]

Graphic (The). fol. *London,* 1878. *An illustrated newspaper.*

Aug. 10, 1878. The American Arctic expedition.

Gray (col. John Hamilton). The Stikine.

[In NEW DOMINION MONTHLY. 8°. *Montreal, J. Dougall & son,* 1877. Vol. xxi, No. 3, September, pp. 193–204; No. 4, October, pp. 289–302, seven illustrations.]

Gray (William H . . .). A history of Oregon, 1792–1849, drawn from personal observation and authentic information. 624 pp. 1 pl. 8°. *Portland, author* [printed at New York], 1870.

Great Britain. Admiralty. ARCTIC expeditions. Report of the committee appointed by the lords commissioners of the admiralty to inquire into and report on the recent Arctic expeditions in search of sir John Franklin. lix, 216 pp. fol. *London, G. E. Eyre & W. Spottiswoode,* 1852.

— Admiralty. Hydrographic office. The Vancouver island pilot, containing sailing directions for the coasts of Vancouver island, and part of British Columbia. Compiled from surveys made by captain George Henry Richards, r. n., in H. M. ships Plumper and Hecate, between the years 1858 and 1864. x, 270 pp. 1 l. 8°. *London, hydrographic office, admiralty,* 1864.

Grech (Nicholas Ivanovich?). Жизнеописание Василя Михайловича Головнина. [Biography of Vasili Mikhailovich Golovnin, with portrait.]

[In MORSKOI SBORNIK. 8°. *St. Petersburg,* 1851. July, vol. vi, pp. 66–101.]

Greek Church in Alaska. Начатки христіанскаго ученія, (etc.) [The elements of Christian teaching or short sacred history and the short Christian catechism. Translated from the Russian language into the Fox dialect of the Aleutian language by rev. Ioann Veniaminoff in 1827 and corrected in 1837; with revisions by rev. Iakoff Netzvietoff to render it intelligible to those who understand only the Atkan dialect.] 2 l. xix, 24, 104, 51 pp. 8°. *St. Petersburg, synodical press,* 1840.

CONTENTS.

xix pages of preface in the Russian and Aleutian languages in parallel columns; by Ioann Veniaminoff and Iakoff Netzvietoff.

24 pages; primer in the Russian and Aleutian languages.

104 pages; short sacred history in the Aleutian language.

51 pages; short Christian catechism.

Note.—Chiefly in the modified Cyrillic characters.

— The same. 98 pp. *St. Petersburg, synodical press,* 1847.

Note.—Elements of Christian doctrine, short sacred history, and abridged catechism translated into the Kadiak language by Elias Tishnoff. Printed with Cyrillic type with the addition of several characters cast specially for that purpose, to express the sounds of aboriginal dialects. The catechism was translated into the Aleutian language by Veniaminoff, and published at St. Petersburg, 1834.

Greek Church in Alaska—continued.

See LÜTKÉ (T. P.) *Voyage autour du monde, (etc.)* t. i, p. 231.

For Veniaminoff's notes and vocabulary of the Aleutian language, see same, pp. 238-247.

— (The following is a list of works translated into the Koloshian language by Ivan Nadezhdiu:)

1. [The gospel according to Matthew.]
2. [The liturgy.]
3. [Doxologies and short hymns for eight voices.]
4. [Canticle and short hymn for Pentecost week.]
5. Аноетаръ въ нектѣно 30 зач. 258.
6. [The gospel for holy Easter day.]
7. [The ten commandments.]

From the all night (service).

1. [Bless my soul, O Lord!]
2. [Blessed man.]
3. [Praise the name of the Lord.]
4. [The visible resurrection of Christ.]
5. [Thy resurrection, O Christ, the Saviour.]
6. [Exaltation of the saints.]
7. [Christ is risen.]
8. [Resurrection hymns for eight voices, the liturgy, and three prayers.]

Words for conversations.

1. [On God and religion, on festivals, on the universe and time and the seasons, on man and his parts, on sickness, on quadrupeds, birds, fishes, on trees, plants, on flowers, grasses, and fruits, etc.]
2. [On numbers.]
3. [Cardinals, ordinals, and fractions.]
4. [Words.]
5. [Collection arranged alphabetically from Russian into Kaloshian.]
6. [Examples of the invariable parts of speech.]

Note.—This list is taken from the RUSSIAN AMERICAN COLONIES. REPORT of the committee, (etc.) 8°. *St. Petersburg*, 1863. Vol. ii, prilogenie, no pagination, table v.

Green (Jane). *Alaska and its resources. "The midnight sun."*

[In the COMMONWEALTH. fol. *Boston*, 1875. August 21.]

Greenhow (Robert). *Memoir, historical and political, of the northwest coast of North America and the adjacent territories, (etc.)* 7 p. l. 228 pp. 1 map. 8°. *Washington, Blair & Rives*, 1840.

Note.—This is an executive document. See CONGRESSIONAL PAPERS. Senate.—26th Cong. 1st sess. [176]. Reviewed by Thos. Falconer in JOURN. ROY. GEOGR. SOCIETY of London, vol. xiv, 1844, pp. 305-306.

— The history of Oregon and California and the other territories on the northwest coast of North America. [With answers to Falconer's strictures.] 2d ed. ii, xviii, 492 pp. 1 map. 8°. *Boston, Little and Brown*, 1845.

Grewingk (dr. Constantin). *Beitrag zur kenntniss der orographischen und geognostischen beschaffenheit der nord-west-küste Amerikas, mit den anliegenden inseln.* iv, 3-351 pp. 4 pl. 5 maps. 8°. *St. Petersburg, K. Kray*, 1850.

— *The same.*

[In VERHANDLUNGEN der mineralogischen gesellschaft zu St. Petersburg, 1848-49. 8°. *St. Petersburg*. pp. 76-424.]

Grieve (James, m. d.) See KRASHENINNIKOFF (Stephen Peter).**Grimblot (P . . .).** *Le territoire de l'Orégon.*

[In REVUE des deux mondes. 8°. *Paris*, 1843. Mai 15, xiii^e année, nouvelle série, pp. 505-539.]

Guernsey (Alfred H . . .). *An artist in Alaska.*

[In HARPER's new monthly magazine. 8°. *New York, Harper & brothers*, 1869. Vol. xxxviii, No. 227, April, 1869, pp. 589-602.]

Whympers book reviewed.

Guignes (Chrétien-Louis-Joseph de). *Recherches sur les navigations des Chinois du côté de l'Amérique, et sur quelques peuples situés à l'extrémité orientale de l'Asie.*

[In MÉMOIRES de l'Académie royale des inscriptions et belles-lettres. 4°. *Paris, imprimerie royale*, 1761. t. 28, pp. 503-525, 2 maps.]

Gwosdeff (Michael Spiridionovich). Panoprъ, (etc.) [(Gwosdeff's) report to his highness, naval captain Martin Petrovich Spanberg. Received Sept. 1, 1743.]

[In ZAPISKI HYDROGR. DEPART. (*Journal of the hydrographic department.*) 8°. *St. Petersburg*, 1851. Vol. ix, pp. 88-103.]

See also P. (A.), and MORSKOI SBORNIK, 1850, vol. iv, pp. 390-402.

Habersham (Alexander W . . . , u. s. n.) My last cruise; or where we went and what we saw: being an account of visits to the Malay and Loo-Choo islands, the coasts of China, Formosa, Japan, Kamtschatka, Siberia and the mouth of the Amoor river. 1 p. l. 507 pp. 30 pl. 8°. *Philadelphia, J. B. Lippincott & co.* 1857.

Reviewed in MORSKOI SBORNIK, 1857, Oct. vol. xxxi, [v], pp. 34-39; Nov. vol. xxxii, [v], pp. 1-7, by col. Samokhvaloff.

Note.—An account of experiences during the Ringgold and Rodgers exploring expedition, and the only book published in English relating to that expedition. See also HEINE (W.)

Hack (Maria). Winter evenings, or tales of travellers. 4 v. 18°. *London, Harvey*, 1823. *Not seen.* Contains an account of Golovnin.

Hagemeister (capt. Leontius Vasilevich).

Capt. Hagemeister made one voyage to the Russian American colonies and round the world in 1803-7 in command of the ship *Neva*, another in 1816-19 in command of the ship *Kutuzoff*, and a third in 1828-30 in command of the naval transport *Krotkoi*.

For an account of these voyages see ZAPISKI, etc. *Journal of the Russian Hydr. Department.* Vol. vii, 1849, pp. 34-37, 69-75; vol. viii, 1850, pp. 99-110.

See also for the third voyage ZAPISKI uchen. kom. morsk. shtaba. 8°. *St. Petersburg*, 1829. Vol. iii, pp. 182-191.

Hailly (Ed. du). Une campagne dans l'océan Pacifique. L'expédition de Petropavlovsk.

[In REVUE des Deux Mondes. 1858, Aug. vol. xvi, pp. 686-718.]

— *The same.* [Anglo-French expedition to Petropavlovsk. From the *Revue des Deux Mondes.*]

[In MORSKOI SBORNIK. 8°. *St. Petersburg*, 1860. Feb. vol. xlv, [iii], pp. 470-505.]

Halkett (John). Statement respecting the earl of Selkirk's settlement upon the Red river in North America; its destruction in 1815 and 1816; and the massacre of governor Semple and his party. [anon.] viii, 194, c. pp. map. 8°. *London, J. Murray*, 1817.

Hall (prof. Asaph, u. s. n.) Supplementary notes on the observations for magnetism and position, made in the U. S. naval observatory expedition to Siberia to observe the solar eclipse of Aug. 7, 1869.

[In SCHUMACHER (H. C.) *Astronomische Nachrichten.* 4°. *Altona, Hammerich & Lesser*, 1870. Vol. 75, no. 1797, cols. 323-328.]

— Extract from a letter of Sept. 22, 1869, to commodore Sands respecting the eclipse observations in Siberia.

[In the BOSTON DAILY ADVERTISER. fol. *Boston*, 1869. Oct. 4.]

Hallager (Morten). Udførlige og træværdige efterretninger om de fra Rusland af langs med kysterne af Ishavet til søes giorte opdagelser; tilligemed de i russiske tjeneste værende danske søe-officerers, commandeur-capitain Vitus Berings og capitain Morten Spangbergs søe-reiser, foretagne i aarene 1728, 1729, 1738, 1741 til 1743, paa det østlige ocean fra Kamtschatka af til Japon og Amerika; samt en beskrivelse over de siden den tid i dette hav fundne øer, (etc.) uddragne af ovenmeldte søefareres dagböger og af Müllers, Stellers, de l'Isle's, Pallas's beretninger og skrifter, (etc.) xiv pp. 1 l. 350 pp. 16°. *Kjöbenhavn, M. Hallager*, 1784.

Hamilton (W . . . R . . .) No mistake; or, a vindication of the negociators of the treaty of 1783, respecting the north-eastern boundary of the United States in a conversation between John Bull and Jonathan. 20 pp. 8°. *London, privately printed*, 1842. *Not seen.*

Hanemann (Fr . . .). Flächeninhalt des territoriums Alaska.

[In PETERMANN (A.) *Geographische Mittheilungen.* 4°. *Gotha, Justus Perthes*, 1869. Bd. xv, Heft xi, November, pp. 419-420.]

Hardisty (William L . . . , of the Hudson Bay co.) The Loucheux Indians.

[In SMITHSONIAN INSTITUTION. *Report of the board of regents for 1866.* 8°. *Washington*, 1872. pp. 311-320.]

Harford (W . . . G . . . W . . .). Report of natural history collections in Alaska in 1867, with list of shells collected.

[In COAST SURVEY; REPORT of the superintendent showing the progress of the survey during the year 1867. 4°. *Washington*, 1869. Appendix F to Appendix No. 18, pp. 290-292.]

Harford (W . . . G . . . W . . .)—continued.

——— *The same.*

[In CONGRESSIONAL PAPERS. H. of R.—40th Cong. 2d sess.—Ex. Doc. No. 177, pp. 325-327.]

Harper's Magazine. See BEAMAN (Charles C.)

——— See DALL (William H.)

——— See ELLIOTT (Henry W.)

——— See GUERNSEY (Alfred H.)

Harper's Weekly. fol. *New York, Harper & bros.* 1875-1877.

Vol. xix, No. 957. Saturday, May 1, 1875. Polar bears. p. 353.

Vol. xx, No. 1028. Saturday, Nov. 18, 1876. Arctic perils. The lost whalers. p. 925.

Vol. xxi, No. 1060. Saturday, Apr. 21, 1877. Withdrawal of federal bayonets (from Alaska). p. 309.

Harrington (John J . . .). *The Esquimaux.* Volume I. Published at Port Clarence, R. A., and Plover Bay, E. S., by John J. Harrington, 1866 and 1867. 4°. 52 pp. 1 pl. *San Francisco, Turnbull & Smith, for the publisher, 1867.*

Note.—This was a monthly newspaper, of which Nos. 1-10 were published in Libbysville, Port Clarence, Russian America, and Nos. 11-12 in Camp Libby, Plover Bay, Eastern Siberia, in *manuscript*. It was published as a pastime to wile away the hours of an Arctic winter, by that party of explorers who, in the service of the Western Union telegraph company, wintered in Port Clarence. It was first printed in San Francisco in the autumn of 1867.

Harrington (Mark Waldo). *Alaska. Twelve months' residence in the territory, (etc.)*

[In the CHICAGO TRIBUNE. fol. *Chicago*, 1873. January 24.]

——— *The elevation of Arctic regions.*

[In CONSTITUTION AND BY-LAWS of the ANN ARBOR scientific association, with the proceedings for the year ending May 1, 1876. 8°. *Ann Arbor, for the association, 1876.* pp. 38-43.]

Harting (James Edmund, *f. l. s., f. z. s.*) *Catalogue of an Arctic collection of birds presented by Mr. John Barrow, f. r. s. to the university museum at Oxford, with notes on the species.*

[In PROCEEDINGS of the Zoological society of London. 8°. *London*, 1871. xxxix, 1871, pp. 110-123.]

"A good many birds from the Franklin search expeditions, including among other species *Eurynorhynchus pusillus* from Bering strait."

——— *The fauna of the Prybilov islands abridged from the "Report on the Prybilov group or seal islands of Alaska by Henry W. Elliott; with an appendix on the ornithology by Dr. Elliott Coues" (Washington, 1873). 38 pp. 1 pl. 12°. London, reprinted from the natural history columns of "The Field" for private circulation, 1875.*

Hartwell (capt. Leonard). *Letter to the Titusville Herald on the value of Mr. Seward's purchase.*

Note.—For extracts from the above, see the *New York Times*, Dec. 15, 1870. Vol. xx, No. 6001, p. 2, columns 2 and 3.]

Hartwig (George, *m. d.*) *The polar world; a popular description of man and nature in the arctic and antarctic regions of the globe. With additional chapters. 486 pp. 1 pl. 8°. New York, Harper & brothers, 1869.*

Hassel (Johann Georg Heinrich). *Vollständige und neueste erdbeschreibung des britischen und russischen Amerika's und der französischen fischerinseln, mit einer einleitung zur statistik dieser länder. xiv, 604 pp. 8°. Weimar, geographisches institut, 1822.*

Hawaiian Spectator. *Honolulu, Sandwich Islands, 1838-1840. A weekly newspaper.*

Note.—The port of Honolulu being the great rendezvous for the whaling fleet, numerous articles of more or less importance, relating to the Bering strait region, appeared in the local (English-printed) newspaper from time to time. Of this no file was accessible to us.

Hawkesworth (J . . .). *Geschichte der reisen um die welt, übersetzt von Fr. Schiller. 4 bde. mit 21 karten. Berlin, 1775. Not seen.*

Hazlitt (William Carew). *British Columbia and Vancouver island. viii, 247 pp. 1 map. 16°. London, Routledge & co. 1858.*

Note.—Contains an account of the early discoveries on the northwest coast of America.

Hearne (Samuel). *A journey from Prince of Wales's fort in Hudson's bay to the northern ocean, in the years 1769-72. xlv, 458 pp. 1 map. 8 pl. 4°. London, A. Strahan & T. Cadell, 1795.*

——— *The same. 1, 459 pp. 1 map, 8 pl. 8°. Dublin, P. Byrne, 1796.*

——— *The same. 118 pp. 18°. Philadelphia, J. & J. Cruikshank, 1802.*

Hearne (Samuel)—continued.

—— Landreis van 't Prins van Wallis fort aan Hudsons baai, naar den noorder-ocean. Ver-
taald van J. R. Forster. 2 v. 263 pp. 2 maps, 1 pl.; 2 p. l. 290 pp. 1 pl. 8°. *Haage, J. C.*
Leeuwestijn, 1798.

—— Voyage du fort du Prince de Galles dans le baie de Hudson, à l'océan nord, dans 1769-72.
Traduit de l'anglais [par m. Lallemand]. 2 v. 2 p. l. lviii, 374 pp. 4 pl.; 2 p. l. 332, xxix pp.
1 l. 5 pl. 8°. [*Paris*], *Patris*, an 7, [1799].

—— Reise nach dem nördlichen weltmeer. *Halle*, 1797. *Not seen*.

Heer (dr. Oswald). *Flora fossilis Alaskana*.

[In KONGL. VETENSKAPS-AKADEMIENS HANDLINGAR. 4°. *Stockholm*, P. A. Norstedt & söner, 1869. Bandet 8,
No. 4, pp. 1-41, with 10 plates.]

—— *The same*. 4°. 41 pp. 10 pl. *Leipzig, Brockhaus*, 1871.

—— Utdrag ur ett bref af professor Heer rörande fossila vexter från nordvestra Amerika,
insamlade af Hj. Furuholm. Meddeladt af A. E. Nordenskiöld, (den 8 jan. 1868). 63-68 pp.
8°. [*Stockholm*, P. A. Norstedt & söner, 1868.]

[Extracted from Öfversigt af kongl. vetenskaps-akademiens förhandlingar, 1868, no. 1.]

Heine (Wilhelm). Die expedition in die seen von China, Japan und Ochotsk unter commando von
commodore Colin Ringgold und commodore John Rodgers, im auftrage der regierung der
Vereinigten Staaten unternommen in den jahren 1853 bis 1856, unter zuziehung der officiellen
autoritäten und quellen. Deutsche original-ausgabe. 2 v. xx, 330 pp. map (in two sheets),
9 pl. 1858; viii, 391 pp. 2 maps, 8 pl. 1859. 8°. *Leipzig, Hermann Costenoble*, 1858-59. B. M.
Reviewed in MORSKOI SBORNIK, 1859, Feb. vol. xxxix, [v], pp. 38-41; April, vol. xl, [v], pp. 52-53; Aug. vol.
xlii, [v], pp. 25-27.

Helström (prof. Gustavus Gabriel). Observationum barometricarum et sympiesometricarum ab
illustr. Luetke sub itinere circa tellurem collectarum, (etc.) *Read* Apr. 8, 1836.

[In MÉMOIRES présentés à l'Académie impériale des sciences de Saint-Pétersbourg par divers savans. 4°. *St.*
Petersb., acad. imp. des sc. 1837. Vol. iii, pp. 243-257.]

—— Наблюденія, (etc.) произведенныя въ путешествіе вокругъ свѣта капитана Лютке, (etc.) [Obser-
vations, barometrical sympiesometrical and thermometrical, taken during captain Lütke's
voyage around the world, reduced by prof. G. G. Helström of the Helsingfors university.] 37
pp. 4°. *St. Peterburg, imp. acad. sciences*, 1838.

Henningsen (C . . . F . . .). Letter to hon. W. Mungen giving the views of admiral Ricord of the
Russian navy on the value of Russian America.

[In CONGRESSIONAL GLOBE. 4°. *Washington*, 1868. *Second session, fortieth congress*, part 4, pp. 4054-5, July
14, 1868.]

Henriques (capt. John A . . . , u. s. r. m.) *Alaska*. Facts about the new northwest. Statement to
the Kirtland society of natural sciences. 10 pp. 8°. [*Cleveland, Ohio*, 1872.]

Henry (Victor?) Esquisse d'une grammaire raisonnée de la langue aléoute.

[In REVUE LINGUISTIQUE. 8°. *Paris* (first part), 1878, Oct.-Dec. and (concluded) Jan.-Mar. 1879, (39 pp.)]

—— Esquisse d'une grammaire raisonnée de la langue aléoute, d'après la grammaire et le voca-
bulaire de Ivan Veniaminow. 75 pp. 8°. *Paris, Maisonneuve et cie*. 1879.

Herendeen (capt. Edward Perry). The Alaska swindle. One Mr. Elliott squelched. Conclusive
refutal of false statements.

[In the DAILY EXAMINER. fol. *San Francisco*, 1876. Feb. 3.]

Herter (P . . .). Petrographische untersuchungen über gesteine aus Nord-Asien.

[In ARCHIV für wissenschaftliche kunde von Russland. Her. von A. Erman. 8°. *Berlin*, G. Reimer, 1860,
vol. xx, pp. 192-200; 1863, vol. xxii, pp. 504-520, 571-588.]

Hertha, zeitschrift für erd-, völker- und staaten-kunde; von H. Berghaus und K. F. Hoffmann. 8°. *Stuttgart und Tübingen*. — v. 8°. 1824-1828.

—— Continued as ANNALEN der erd-, völker- und staatenkunde, (etc.)

1825. II. pp. 199, 258, 583. *Khromchenko*. q. v.

1825. III. pp. 7, 36. Nachrichten von der sloop Smirnoi. Aus der nordischen Biene.
pp. 390-392. An account of Vasilieff's voyage.

1828. XII. pp. 173-185. *Shabelski*. q. v.

1843. IV. p. 79. *Not seen*.

Herzog (pfarrer Wilhelm). Ueber die verwandtschaft des Yumasprachstammes mit der sprache der Aleuten und der Eskimostämme.

[In ZEITSCHRIFT FÜR ETHNOLOGIE, herausgegeben von A. Bastian und R. Hartmann. 8°. Berlin, Wiegandt, Hempel & Parey, 1878. X. jahrgang, 6. heft, pp. 449-459.] Also printed separately.

Hill (S . . . S . . .). Travels in Siberia. [1847-1848.] 2 v. xv, 458 pp. 1 map; xvi, 432 pp. 12°. London, Longmans, 1854.

Hillsen (K . . . K . . .). Путешествіе на шлюпѣ Благонамѣренныи, (etc.) [Voyage in the sloop Good Intent, for exploring the shores of Asia and America to Bering strait in 1819-22.]

[In OTECHESTVENNIA ZAPISKI. (Journal of the Fatherland.) 1849. Nos. 10-12.] See SHISHMAREFF.

Hind (Henry Youle, m. a.) Territoire du nord ouest. Rapports de progrès; aussi, un rapport préliminaire et un rapport général sur l'expédition d'exploration de l'Assiniboine et de la Saskatchewan, faite en vertu d'instruction du secrétaire provincial, Canada. xii, 208 pp. 2 plans, 6 maps, 2 pl. large 4°. Toronto, John Lovell, 1859.

— Narrative of the Canadian Red River exploring expedition of 1857, and of the Assiniboine and Saskatchewan exploring expedition of 1858. 2 v. xx, 494 pp. 12 pl. 5 maps and plans; xvi, 472 pp. 6 pl. 6 maps and plans. 8°. London, Longmans, 1860.

Hines (rev. Gustavus). Life on the plains of the Pacific. Oregon; its history, condition, and prospects, (etc.) 437 pp. 1 portrait. 12°. Buffalo, G. H. Derby & co. 1851.

Historical Journal (The). [See also ISTORICHESKI ZHURNAL.] 31 v. 8°. Moscow, 1810-29. A Russian periodical; not seen.

1812, i, 2. See KRUSENSTERN.

1818, iii, 227. О новоявившемся вулканическомъ островѣ.—1807, Богословъ, Алеутск. гр. [Concerning the newly risen volcanic island. 1807. Bogosloff, Aleutian group.]

1821, i, 85. Исторія достопримѣчательнѣйшихъ новыхъ поселеній на сѣверо-западныхъ берегахъ Америки. [History of remarkable new settlements on the northwestern shores of America.]

Hodgedon (lieut. D . . . B . . ., u. s. r. m.) Report of ascent of Makushin mountain.

[In CONGRESSIONAL PAPERS. H. of R.—40th Cong. 2d sess.—Ex Doc. No. 177. Appendix F, pp. 203-206.]

Hodgins (J . . . George). The geography and history of British America, and of the other colonies of the empire. viii, 128 pp. 1 l. sm. 4°. Toronto, Maclear & co. 1857.

Hoever (. . .). Russian geographical bibliography.

[In NATURE, sm. fol. Macmillan & co. London, 1879, a weekly scientific periodical; Sept. 11, 1879, p. 460, col. 2, occurs the following note: "M. Hoever has undertaken a valuable work, the compilation of a complete bibliography of all works relative to the geography of Russia published till now. He has already finished the revision of the libraries of the geographical society of the academy of sciences (which receives all Russian works published) and of the general staff." This work when published should probably contain material pertinent to this bibliography.]

Hofmann (ritter Ernst). Geognostische beobachtungen angestellt auf einer reise um die welt, in den jahren 1823 bis 1826, unter dem befehl des kaiserlich russischen flotten-capitänes und ritters herrn Otto von Kotzebue.

[In ARCHIV für mineralogie, geognosie, bergbau und hüttenkunde; von C. J. B. Karsten. 8°. Berlin, 1829. Vol. i, pp. 243-315.]

— The same. 8°. Berlin, Reimer, 1829. Not seen.

Hofmann (col. . . .) and **Lenz** (Emil). Otto von Kotzebue.

[In ARCHIV für wissenschaftliche kunde von Russland. Her. von A. Erman. 8°. Berlin, G. Reimer, 1847. Vol. v, pp. 527-529.]

— Отоуъ Евстафьевичъ Коцебу. [Otto Eustaphevich Kotzebue.]

[In ST. PETERBURGSKIA VIEDOMOSTI. (The St. Petersburg Gazette.) 1846. No. 68.]

Reviewed in ZAPISKI, (etc.) Journal of the hydrographic department. 8°. St. Petersburg, 1847. Vol. v, pp. 458-9.]

Holmberg (Heinrich Joh[ann?]). Geognostische bemerkungen auf einer baidarkenfahrt um die insel Kadjak in den russisch-americanischen colonien, ausgeführt im sommer 1851.

[In VERHANDLUNGEN der Kaiserlich-Russischen Mineralogischen Gesellschaft zu St. Petersburg. 8°. St. Petersburg, 1852-3, pp. 246-251.]

Holmberg (Heinrich Joh[ann?])—continued.

— Ethnographische skizzen über die völker des Russischen Amerika. B. P. L.

[In ACTA Societatis Scientiarum Fennicae. 4°. *Helsingfors*, 1856. Vol. iv, pp. 231–421.]

Brief notice of this in MORSKOI SBOBNIK, 1855, Dec. vol. xix, [vi], pp. 22–23.

— Entwicklung der Russisch-Amerikanischen compagne.

[In ACTA Societatis Scientiarum Fennicae. 4°. *Helsingfors*, 1863. Vol. vii, pp. 37–101.]

Honcharenko (Agapius). Русско-Английскіе разговоры. Russian and English phrase book, specially adapted for the use of traders, travellers, and teachers. 100 pp. 12°. *San Francisco*, A. Roman & co. 1868.

— Первоначальное руководство для изученія Английскаго языка. The school and family Russo-American primer specially published for use in Alaska by the Alaska commercial company. 48 pp. 12°. *San Francisco*, E. Bosqui & co. 1871.

[See also ALASKA HERALD and SVOBODA.]

Hooper (William H. . .). Ten months among the tents of the Tuski; with incidents of an Arctic boat expedition in search of sir John Franklin, as far as the Mackenzie river, and Cape Bathurst. xvi, 417 pp. 1 map, 11 pl. 8°. *London*, J. Murray, 1853.

Horetzky (Charles). Canada on the Pacific: being an account of a journey from Edmonton to the Pacific by the Peace river valley, and of a winter voyage along the western coast of the dominion; with remarks on the physical features of the Pacific railway route and notices of the Indian tribes of British Columbia. 1 p. l. x, 244 pp. 1 map, 1 plan. 12°. *Montreal*, Dawson brothers, 1874.

Howard (Oliver Otis, brigadier-general u. s. a.) Report of tour in Alaska in June, 1875.

[In CONGRESSIONAL PAPERS. Senate.—44th Cong. 1st sess.—Ex. Doc. No. 12, pp. 1–13; also in same, H. of R.—44th Cong. 1st sess.—Ex. Doc. No. 83, pp. 140–150.]

Howard (capt. William A. . . , u. s. r. m.) Reports of. See CONGRESSIONAL PAPERS. H. of R.—40th Cong. 2d sess.—Ex. Doc. No. 177, pp. 195–203; 206–214.

Howes (Osborne, jr.) The fur seal fishery in Alaska.

[In OLD AND NEW. 8°. *Boston*, H. O. Houghton & co. 1870. Vol. i, No. iv, April, pp. 487–493.]

Hudson Bay Company's Territory. Report from the select committee appointed to consider the state of those British possessions in North America which are under the administration of the Hudson's bay company, (etc.)

[In HOUSE OF COMMONS. Report, 1857. 2d sess. Vol. xv. fol. 2 p. l. xviii, 547 pp. 1 l. 3 maps.]

Hulburt (Calvin T. . .). Report of an investigation into the truth of certain statements concerning the purchase money for Russian America. Feb. 27, 1869.

[CONGRESSIONAL PAPERS. H. of R.—40th Cong. 3d sess.—Report No. 35.]

Humboldt (Friedrich Heinrich Alexander, *freiherr von*) et **Bonpland** (Aimé). Voyage aux régions équinoxiales du nouveau continent, fait en 1799–1804. Troisième partie. Essai politique sur le royaume de Nouvelle Espagne. 2 v. 5 p. l. xcii, 350 pp. 3 l.; 1 p. l. 351–904 pp. 1 l. 4°. Atlas, folio. *Paris*, F. Schoell, 1811.

See vol. i, pp. 328–350, for a review of the Spanish explorations on the NW. coast.

Hunter (Joseph). See CANADA. Sessional Papers. No. 125.

Husson (Wesley W. . .). Letter to F. Campbell in regard to the loss of the steamer *George S. Wright*.

[In the DAILY ALTA CALIFORNIA. fol. *San Francisco*, 1873, March 3.]

Ice. Лѣдины въ Южномъ океанѣ. [Ice in the Pacific ocean.]

[In TELESCOP. (The Telescope.) 1831, iv.]

— О плавающихъ льдахъ, (etc.) [Concerning floating ice in the Pacific ocean.]

[In ST. PETERBURGSKIIA VIEDOMOSTI. (The St. Petersburg Gazette.) 1832, 9 and 10.]

Icelandic Committee. Report of the Icelandic committee from Wisconsin [to the president of the United States] on the character and resources of Alaska. 6 pp. 8°. *Washington, government printing office*, 1875.

— The same.

[In NEW YORK HERALD. fol. *New York*, 1874, Dec. 21.] See also ÓLAFFSON (Jón).

- Iliamna.** Alaska's great volcano. Ascending to the ice-clad craters of Iliamna.
[In the WASHINGTON EVENING STAR. fol. Washington, 1876, Jan. 22.]
- Irina (staff-capt. Peter Ivanovich) and Skripoff (staff-capt. . . .).** See КАМЧАТКА.
- Iliashovich (L . . .).** Русский флотъ на восточномъ поморьѣ въ 1849-1856. [The Russian fleet on the east coast in the years 1849-1856.]
[In MORSKOI SBORNIK. 8°. St. Petersburg, 1876. Vol. clv, No. 7, [iii], pp. 51-107.]
- Illustrated Christian Weekly.** fol. New York, 1878. A weekly newspaper.
Apr. 13, 1878. Alaska; by rev. Sheldon Jackson.
Apr. 27, 1878. Alaska; by rev. Sheldon Jackson.
- Ingraham (Joseph).** An account of a recent discovery of seven islands in the South Pacific ocean by Joseph Ingraham, citizen of Boston, and commander of the brigantine Hope, (etc.) bound to the N. W. coast of America.
[In COLLECTIONS of the Massachusetts historical society for the year 1793. 8°. Boston, S. Hall, 1793. First series, vol. ii, pp. 20-24.]
- Inter-Ocean (The).** fol. Chicago, 1877. A daily newspaper.
June 22, 1877. Alaska news.
- Iokinf (I . . .).** Мнѣологическія преданія и суевѣрія Колошей, (etc.) [Mythological traditions and superstitions of the Koloshians who inhabit the northwest coast of America.]
[In SIN OTECHESTVA. (Son of the Fatherland.) 1839, xi.]
- Iorgan.** Выписка изъ писма Iоргана, (etc.) [Extract from a letter by Iorgan, commander of the ship Czarevich, belonging to the Russian-American company, Aug. 24, 1853.]
[In MORSKOI SBORNIK. 8°. St. Petersburg, 1854, Jan. Vol. xi, pp. 114-115.]
- Isbister (Alexander K . . .).** Some account of Peel River, North America.
[In JOURNAL of the Royal geographical society of London. 8°. London, J. Murray, 1845. Vol. xv, pp. 332-345.]
- Istoricheski Zhurnal.** Историческій, статистическій и географическій Журналъ, (etc.) [Historical, statistical and geographical journal or contemporary history of the world.] 31 v. 8°. Moskva [Moscow], 1818-1830. Not seen.
See HISTORICAL JOURNAL and KRUSENSTERN.
- Ivashintsoff (N . . .).** Русскія кругосвѣтныя путешествія. [Russian voyages around the world.]
[In ZAPISKI HYDR. DEPART. (Journal of the hydrographic department.) 8°. St. Petersburg, 1849. Vol. vii, pp. 1-116; 1850, vol. viii, pp. 1-190.]
- Обозрѣніе, (etc.) [Review of Russian voyages around the world.] 1 map, 17 tables, 306 pp. 8°. St. Petersburg, 1850.
Note.—This book is a separate edition of the matter in the Zapiski; only 25 copies were struck off, and they were not offered for sale.
- Jackson (rev. Sheldon, d. d.)** Home mission sketches from British Columbia.
[In the ROCKY MOUNTAIN PRESBYTERIAN. fol. Denver, Col., 1877. December, vol. vi, No. 12; continued in January, vol. vii, No. 1, and February, vol. vii, No. 2, 1878.]
- Alaska.
[In the ILLUSTRATED CHRISTIAN WEEKLY. large 8°. New York, American tract society, 1878. Vol. viii, No. 15, pp. 172-3, April 13, 3 illustrations; continued in No. 17, April 27, pp. 197-198, 2 illustrations.]
See also ROCKY MOUNTAIN PRESBYTERIAN.
- Jacobs (Alfred).** Les régions septentrionales de l'or.
[In REVUE des deux mondes. 8°. Paris, 1861. 15 Août, tome xxxiv, pp. 940-960.]
- Janoffsky (capt. Semeon Ivanovich).** Замѣчанія на статью: матеріалы для исторіи русскихъ заселеній, (etc.) [Remarks on an article: materials for the history of the Russian settlements on the shores of the Pacific ocean.]
[In SIEVERNAIA PCHELA. (Northern Bee.) 1861, No. 109.]
See also SIN OTECHESTVA, 1820-21, 1839, 1845, for other articles by captain Janoffsky. Lieut. Janoffsky went round the world with captain Zachary Ivanovich Ponaïdin in the *Sutoroff* in 1816-18.
- Japanese, Return of shipwrecked.** Возвращеніе, (etc.) [Return of Japanese saved from shipwreck, from New Archangel to their native land.]
[In ZHURNAL MINISTERSTVA VNUTRENNIKH DEL. (Journal of the Interior Department.) 1843, iv.]

Jefferys (Thomas). Atlas Amériquain septentrional, contenant les détails des différentes provinces, de ce vaste continent, traduit des cartes levées par ordre du gouvernement britannique. [Par Le Rouge.] 1 l. 24 maps, 1 pl. fol. *Paris, Le Rouge, 1778.*

— Collection of 32 maps relating to North America, by Jefferys and others. fol. *London, [n. d.]*

[This is a collection in the Library of Congress.]

Jesuits in New Spain, California, the Philippines and the Atlantic Islands. A collection of about 50 unpublished MSS. and printed documents *in folio*. *Mexico, etc., 1750-75.*

Note.—Contains "Noticias de la expedicion de 1769," printed in 1770. [From Quaritch's catalogue, No. 321.]

Jewett (John R. . . .) A narrative of the adventures and sufferings of John R. Jewett; only survivor of the crew of the ship *Boston*, during a captivity of nearly three years among the savages of Nootka sound, (etc.) 204 pp. frontispiece. 12°. *Middletown, [Ct.] S. Richards, 1815.*

— *The same.* 166 pp. incl. 1 pl. 18°. *New York, for the publisher, [1815].*

— *The same.* [Illustrated.] 165 pp. 16°. *Ithaca, Mack, Andrews & co. 1849.*

Jewitt (John R. . . .) See JEWETT (John R. . . .).

Jones (rev. N. . . W. . . .) No. 11. Indian Bulletin for 1868. Containing a brief account of Chinese voyages to the northwest coast of America, and the interpretation of 200 Indian names. 26 pp. 8°. *New York, C. A. Alvord, 1869.*

Jones (Strachan, of the Hudson Bay co.) The Kutchin tribes.

[In SMITHSONIAN INSTITUTION. Report of the board of regents for 1866. 8°. *Washington, 1872.* pp. 320-327.]

Journals, newspapers, magazines, and periodical publications. See:

ALASKA APPEAL.

ALASKA BULLETIN.

ALASKA HERALD.

ALASKA TIMES.

ALASKA TRIBUNE.

ALMANACS, *St. Peterburg.* See SOBRANIE SOCHINENIE, etc.

ALTA CALIFORNIA. See DAILY ALTA CALIFORNIA.

ARCHEOLOGIA AMERICANA. See AMERICAN ANTIQUARIAN SOCIETY.

AMERICAN ANTIQUARIAN SOCIETY.

AMERICAN GEOGRAPHICAL and STATISTICAL SOCIETY; *Bulletin.*

AMERICAN GEOGRAPHICAL and STATISTICAL SOCIETY; *Journal.*

AMERICAN JOURNAL OF SCIENCE AND ARTS.

ANNALEN der erd-, völker- und staatenkunde. See HERTHA.

ANNALES de l'observatoire physique central de Russie.

ANNALES hydrographique, etc.

ANNUAIRE météorologique et magnétique, etc.

ARCHIV für wissenschaftliche kunde von Russland. See also ERMAN (G. A.)

ASTORIAN. See WEEKLY ASTORIAN.

ATHENÆUM (London).

ATLANTIC MONTHLY. See BONE (J. H. A.)

AUSLAND.

BAER (K. E. von) und HELMERSEN (G. von). BEITRÄGE, etc.

BALTIMORE AMERICAN and Commercial Advertiser.

BALTIMORE GAZETTE.

BLAKHONAMIERENNI ZHURNAL.

BOSTON DAILY ADVERTISER.

BOSTON EVENING TRANSCRIPT.

BOSTON HERALD.

BULLETIN. See DAILY EVENING BULLETIN and WEEKLY BULLETIN.

BULLETIN de la Soc. de géogr. de Paris. See SOCIÉTÉ de géograph. etc. *Bulletin.*

BULLETIN of the AMERICAN geogr. society. See AMERICAN geog. and stat. soc. *Bulletin.*

BULLETIN of the RUSSIAN geogr. society. See RUSSIA. Imperial geogr. soc. *Siberian section.* BULLETIN.

BÜSCHING (A. F.) MAGAZIN für die neue historie und geographie.

CALENDARS, collection from See SOBRANIE sochinenie, etc.

CALWER MISSIONSBLATT.

CAPITAL (The), Washington.

CENTRAL PHYSICAL OBSERVATORY. See ANNALES de l'observatoire, etc.

Journals, newspapers, magazines, and periodical publications—continued.

- CHICAGO DAILY TRIBUNE.
 CHICAGO INTER-OCEAN. *See* INTER-OCEAN.
 CHURCH MISSIONARY INTELLIGENCER and RECORD.
 CHURCH MISSIONARY RECORD.
 CINCINNATI COMMERCIAL.
 CINCINNATI DAILY ENQUIRER.
 COAST SURVEY REPORTS.
 COLLECTIONS of the Massachusetts historical society.
 COLORADO WEEKLY TRANSCRIPT, Golden, Col.
 COLTON'S JOURNAL OF GEOGRAPHY.
 COMMONWEALTH, Boston. *See* GREEN (J.)
 CONGRESSIONAL GLOBE.
 CONGRESSIONAL PAPERS.
 CONGRESSIONAL RECORD.
 CRITIC (The), Washington.
 DAILY ALTA CALIFORNIA, San Francisco.
 DAILY COLONIST, Victoria, Vancouver island.
 DAILY EVENING BULLETIN, San Francisco.
 DAILY EVENING POST, San Francisco.
 DAILY EXPERIMENT, Olympia, W. T.
 DAILY GRAPHIC (The), New York.
 DAILY MORNING CALL, San Francisco.
 DAILY STANDARD, Victoria, Vancouver island.
 DEUTSCHE GEOGRAPHISCHE BLÄTTER. *See* DALL (W. H.) p. 268.
 ERMAN (G. A.) ARCHIV für wissenschaftliche kunde von Russland.
 ESQUIMAUX (The). *See* HARRINGTON (J. J.)
 EVENING STAR, Washington.
 EXECUTIVE DOCUMENTS. *See* CONGRESSIONAL PAPERS.
 FORNEY'S DAILY CHRONICLE, Washington.
 FRANK LESLIE'S ILLUSTRATED NEWSPAPER.
 FREE PRESS, Detroit.
 GALAXY.
 GRAPHIC, London.
 HARPER'S new monthly MAGAZINE. *See* BEAMAN, DALL, ELLIOTT, GUERNSEY.
 HARPER'S WEEKLY.
 HAWAIIAN SPECTATOR.
 HERTHA, zeitschrift, etc.
 HISTORICAL JOURNAL, Moscow. *See also* ISTORICHESKI ZHURNAL.
 HOUSE OF COMMONS. *See* PARLIAMENTARY PAPERS.
 HOUSE OF LORDS. *See* PARLIAMENTARY PAPERS.
 ILLUSTRATED CHRISTIAN WEEKLY, New York.
 INTER-OCEAN (The), Chicago.
 ISTORICHESKI ZHURNAL. *See also* HISTORICAL JOURNAL.
 JOURNAL of the AMERICAN GEOG. SOC. *See* AMERICAN GEOG. and STAT. SOC. *Journal*.
 JOURNAL of the Interior Department of Russia. *See* ZHURNAL MINISTERSTVA VNUTRENNIKH DEL.
 JOURNAL of the ROYAL GEOG. SOCIETY. *See* ROYAL GEOG. SOCIETY. *Journal*.
 KALAMAZOO DAILY TELEGRAPH.
 KLIMATOLOGISCHE BEITRÄGE. *See* DOVE (H. W.)
 KOMMERCHESKAIA GAZETA.
 LIESNOI ZHURNAL.
 LIPPINCOTT'S MAGAZINE.
 MERCANTILE MARINE MAGAZINE.
 METEOROLOGICAL CORRESPONDENCE of Kupffer. *See* ANNALES de l'observatoire, etc.
 MINING AND SCIENTIFIC PRESS, San Francisco.
 MISSIONARY LEAVES and Native Church Advocate.
 MITTHEILUNGEN der kais.-könig. geog. gesellsch. zu Wien. *See* KAISERLICH-KÖNIGLICHE GEOGR. GESELLSCHAFT.
 MORNING NEWS, Washington.
 MORSKOI SBORNIK.
 MOSKOVSKIKH VIEDOMOSTI.
 MOSKVITIANIN.
 NATION, New York.
 NATIONAL REPUBLICAN, Washington.
 NEW BEDFORD EVENING STANDARD.

Journals, newspapers, magazines, and periodical publications—continued.

NEW YORK CLOTHIER AND HATTER.
NEW YORK COMMERCIAL ADVERTISER.
NEW YORK DAILY GRAPHIC. *See* DAILY GRAPHIC.
NEW YORK DAILY TRIBUNE.
NEW YORK DAILY TIMES.
NEW YORK EVANGELIST.
NEW YORK HERALD.
NEW YORK JOURNAL OF COMMERCE.
NEW YORK SEMI-WEEKLY EVENING POST.
NEW YORK SEMI-WEEKLY TRIBUNE.
NEW YORK TIMES. *See* NEW YORK DAILY TIMES.
NORTHERN BEE. *See* SIEVERNAIA PCHELA.
NOUVELLES ANNALES des voyages, etc.
OAKLAND DAILY NEWS.
OLD AND NEW. *See* DALL and HOWES.
OTECHESTVENNIIA ZAPISKI.
OUR BOYS AND GIRLS.
OVERLAND MONTHLY.
PALLAS (P. S.) NEUE BEITRÄGE, etc.
PALLAS (P. S.) NEUESTE BEITRÄGE, etc.
PALLAS (P. S.) NORDISCHE BEITRÄGE, etc.
PARLIAMENTARY PAPERS.
PETERMANN (*dr.* A.) MITTHEILUNGEN, etc.
POGGENDORFF (J. C.) ANNALEN, etc.
PORTLAND MORNING OREGONIAN.
PRESS (The), Philadelphia.
PUGET SOUND COURIER, Olympia, W. T.
PUGET SOUND WEEKLY ARGUS, Port Townsend, W. T.
REPERTORIUM für meteorologie, etc.
ROCKY MOUNTAIN PRESBYTERIAN.
RUSSIA. IMP. GEOG. SOC. BULLETIN of Siberian section.
RUSSIAN AMERICAN COMPANY. REPORTS.
RUSSISCHE REVUE.
RUSSKI VIESTNIK.
SAN FRANCISCO CHRONICLE.
SAN FRANCISCO COMMERCIAL HERALD AND MARKET REVIEW.
SAN FRANCISCO DAILY EXAMINER.
SAN FRANCISCO NEWS.
SAN FRANCISCO NEWS LETTER.
SAN FRANCISCO SUNDAY CHRONICLE.
SAN FRANCISCO WEEKLY CHRONICLE.
SANKT-PETERBURGSKIIA GUBERNSKIIA VIEDOMOSTI.
SANKT-PETERBURGSKIIA SENATSKIIA VIEDOMOSTI.
SANKT-PETERBURGSKIIA VIEDOMOSTI.
SCRIBNER'S MONTHLY. *See* BELL (W. H.) and ELLIOTT (H. W.)
SIBIRSKI VIESTNIK.
SIEVERNI ARKHIV.
SIEVERNAIA PCHELA.
SILLIMAN'S JOURNAL. *See* AMERICAN JOURNAL of science and arts.
SIN OTECHESTVA.
SITKA POST.
SMITHSONIAN INSTITUTION. Annual reports.
SPRINGFIELD REPUBLICAN.
STATISTICHESKI ZHURNAL.
SUN (The), New York.
SUNDAY LEDGER (The), San Francisco.
SVOBODA.
TELESKOP.
WASHINGTON CHRONICLE.
WASHINGTON MORNING NEWS. *See* MORNING NEWS.
WASHINGTON POST.
WASHINGTON TRIBUNE.
WEEKLY ASTORIAN.
WEEKLY BULLETIN, San Francisco.
WEEKLY INTELLIGENCER, Seattle, W. T.

Journals, newspapers, magazines, and periodical publications—continued.

WEEKLY TRANSCRIPT, Golden City, Col. See COLORADO WEEKLY TRANSCRIPT.

WEST (The), San Francisco.

ZAPISKI, etc. Journal of the admiralty, 1807-1827.

ZAPISKI, etc. Journal of the hydrographic department, 1842-1852.

ZAPISKI uchenakho komiteta morskakho shtaba.

ZEITSCHRIFT der oesterreich. gesellsch. für meteorologie.

ZHURNAL departamenta narodnakho prosvieshcheniia.

ZHURNAL manufaktur i trgovli.

ZHURNAL ministerstva vnutrennikh diel.

Kadiak. Краткое описание объ Американскомъ островѣ Кадьякъ. [Short description of the American island of Kadiak.] 18 pp. 8°. Moscow, 1805.

— *The same.*

[In DRUKH PROSVIESHCENIIA. (Friend of Instruction.) Moscow, 1805. No. 4.]

Kaiserlich-königliche geographische gesellschaft. Mittheilungen. 21 v. 8°. Wien, 1857-1878.

1864. Vol. VIII. pp. 204-228. Western North America between latitudes +42° and +55°; by FRIESACH (K.) q. r.

1865. Vol. IX. pp. 65, 66, 68, 69. Remarks on British Columbia; by FRIESACH (K.) pp. 76-82. The overland telegraph to Asia; by CANISIUS (T.) q. r.

1869. Vol. XII. p. 44. Note on Whymper's travels.
p. 190. Robert Brown's explorations in Vancouver island.
p. 191. Note on Wrangell Land.

1870. Vol. XIII. p. 426. Note on the discovery of America by the Chinese.
p. 488. Death of Admiral Wrangell, June 6th, 1870.

1871. Vol. XIV. p. 38. Note on the work of capt. Raymond and of Robt. Brown.

1872. Vol. XV. pp. 554-563. The Kurile islands; translated from the Записки императорскаго русскаго географическаго общества, по отдѣленію этнографіи, tome iv, pp. 367-576. See POLONSKY (A.)

1873. Vol. XVI. pp. 413-416. Sakalin island.

Kalamazoo Daily Telegraph. fol. Kalamazoo, Mich. 1877-1879. A daily evening newspaper.

June 30, 1877. Life in Alaska.

July 13, 1877. Gloomy Alaska.

Mar. 5, 1879. Jokul's hunting—illustrated.

Kamchatka. Краткое обозрѣніе Камчатки. [A short review of Kamchatka.]

[In ST. PETERBURGSKII ZHURNAL, 1806, 12.]

— Почва и климатъ Камчатки. [Soil and climate of Kamchatka. From the Agricultural Journal, 1836, No. 2.]

[In ZHURNAL MINISTERSTVA VNUTRENNIKH DIEI. (Journal of the Interior Department.) 1836, xx, 6; also in ST. PETERBURGSKIIA VIEDOMOSTI. (The St. Petersburg Gazette.) 1836, 184.]

— О землѣ Камчаткѣ. [Concerning Kamchatka. History and description.]

[In MIESIATSOSLOFFI. (Almanacs.) 1729, 1730, 1731, and 1732.]

— Сокращеніе историческаго извѣстія о Камчаткѣ, (etc.) [Abridged historical account of Kamchatka, so far as relates to capt.-commander Bering's first voyage.]

[In MIESIATSOSLOFF. (Almanac.) 1736.]

— Восточный берегъ Камчатки, (etc.) [The eastern shore of Kamchatka from the accounts of Ilina and Skripoff, 1830 and 1835.]

[In ZAPISKI HYDR. DEPART. (Journal of the hydrographic department.) 8°. St. Petersburg, 1852. Vol. x, pp. 124-135.]

— Западный берегъ Камчатки, (etc.) [The western shore of Kamchatka, from the accounts of Ushakoff and Elistratoff, 1742 and 1787.]

[In same. 1852, vol. x, pp. 136-155.]

— Состояніе Камчатскаго края въ 1853. [Condition of the Kamchatkan region in 1853.]

[In MORSKOI SBORNIK. 8°. St. Petersburg, 1854. Feb. vol. xi, pp. 79-83.]

— Разсказъ иностранныхъ газетъ, (etc.) [Foreign newspaper accounts of the Anglo-French attack upon Kamchatka in August, 1854.]

[In same. 1854, Dec. vol. xiii, [iii], pp. 448-464.]

— Офіціальное донесеніе англ. адм. о нападеніи на петропавловскій портъ. [Official report of the English admiralty on the attack upon Petropavlovsk.]

[In MORSKOI SBORNIK. 8°. St. Petersburg, 1855, Jan. Vol. xiv, [iv], pp. 87-97.]

Kamchatka—continued.

- Официальное французское извѣстie, (etc.) [Official report of the French on the fight at Petropavlovsk.]
[In same, pp. 97-107.]
- Камчатка и ея обитатели, (etc.) [Kamchatka and its inhabitants; with a view of Petropavlovsk village and a plan and description of the battle of the 20th and 24th of August, 1854.] 8°. *St. Petersburg*, 1855.
- Нападение на Камчатку англо-французской эскадры, въ Августѣ 1854. [Attack of the Anglo-French squadron in Kamchatka in August, 1854.] 8°. *St. Petersburg*, 1855. *Not seen.*
Note.—From SOBELEWSKI *Rus. cat.* p. 20.
- Aardrijkskundige en natuurlijke beschrijving van Kamtschatka en de Kurilische eilanden met een ged. der kust v. Amerika. — pp. — pl. 8°. *Haerl.* 1770. *Not seen.*
- Объ урожаѣ льна и картофеля, (etc.) [Concerning an abundant crop of flax and potatoes from seeds, sent out by the Wilna Economical Society to Kamchatka, the Yakutsk district and the Irkutsk province.]
[In TRUDI, etc. (TRANSACTIONS of the Wilna Economical Society.) 8°. *Wilna*, 1848. Vol. —, No. 6, pp. ——.] *Not seen.*
- Kämtz** (Ludwig Friedrich), *editor.* See ANNALES de l'observatoire physique central de Russie.
- Kanacheff** (. . .). ОХОТСКЪ. (Okhotsk.)
[In SIEV. OBS. (Northern Observer.) 1850. No. 2.]
See SOKOLOFF and POLONSKY.
- Kane** (Elisha Kent, *m. d.*) The U. S. Grinnell expedition in search of sir John Franklin; a personal narrative. 552 pp. 2 maps, 13 pl. 8°. *New York, Harper & brothers*, 1854.
- Arctic explorations. The second Grinnell expedition in search of sir John Franklin, 1853-55. 2 v. 1 p. l. 464 pp. 1 map, 11 pl.; 467 pp. 2 maps, 8 pl. 8°. *Philadelphia, Childs & Peterson*, 1856.
- Kane** (Paul). Incidents of travel on the northwest coast, Vancouver island, Oregon, etc., etc. The Chinook Indians. [Read before the Canadian Institute March 14, 1855.]
[In the CANADIAN JOURNAL. A repertory of industry, science and art, and a record of the proceedings of the Canadian Institute; edited by Henry Youle Hind. fol. *Toronto, Maclear & co.* 1855. Vol. iii, pp. 273-279.]
- Wanderings of an artist among the Indians of North America from Canada to Vancouver's island and Oregon through the Hudson's Bay company's territory and back again [1846-1848]. xvii, 455 pp. 4 l. unsp. 8 pl. 1 map. 8°. *London, Longmans*, 1859.
- Kapus** (William). Correspondence, as *collector of customs* at Sitka, with the treasury department.
[In CONGRESSIONAL PAPERS. H. of R.—44th Cong. 1st sess.—Ex. Doc. No. 83, pp. 35-37, 57-58.]
- Kashevaroff** (*lieut.* Alexander Philippovich). Kaschewarow's reise im äussersten norden von Amerika.
[In ARCHIV für wissenschaftliche kunde von Russland. Her. von A. Erman. 8°. *Berlin, G. Reimer*, 1847. Vol. v, pp. 389-390.]
- Что такое запускъ, (etc.) [What the competition for and the pursuit of the fur-bearing animals is in the Russian-American colonies.]
[In MORSKOI SBORNIK. 8°. *St. Petersburg*, 1862. Tome lviii, no. 4, April, pp. iii, 86-92.]
- Оtvѣтъ на замѣчанія главнаго правленія Р. А. К°. [Reply to remarks by the general director of the Russian American company.]
[In MORSKOI SBORNIK. 8°. *St. Petersburg*, 1862. Tome lxii, [iii], no. 9, September, pp. iii, 151-168.]
- Обзорѣніе береговъ Сѣверной Америки, отъ мыса Баррова, (etc.) [Examination of the shores of North America, from Point Barrow, accomplished by the Russian expedition of 1828. From the journal of Kashevaroff.]
[In SIN OTECHESTVA. (*Son of the Fatherland.*) 1840, 1.]
- Атласъ Восточнаго океана. [Atlas of the Pacific ocean.]
[In ZAPISKI HYDROGR. DEPART. (Journal of the hydrographic department.) 8°. *St. Petersburg*, 1850. Vol. viii, pp. 191-210.]

Kashevaroff (*lieut. Alexander Philippovich*)—continued.

—— Плавание судна Зосима и Савватий, 1797. [Voyage of the ships *Zosima and Savvaty*, 1797.]
[In *same*. 1850, vol. viii, pp. 556–562.]

—— Отрывки изъ дневника * * * А. Ф. Комеязова, (etc.) [Fragments from the diary of pilot of the fleet, *lieut. A. Ph. Kashevaroff*, kept while conducting an examination of the frozen shores of Russian America, at the direction of the Russian American company in 1838.]
[In *SANKTPETERBURGSKIIA VIEDOMOSTI*. (The St. Petersburg Gazette.) 1845, nos. 190, 191, 192, 193.]

—— Необыкновенное метеорическое явление, (etc.) [Remarkable meteorological phenomenon in Bering sea in 1838.]
[In *MORSKOI SBORNIK*. 8°. *St. Peterburg*, 1849. Vol. ii, pp. 834–837, with plate.]

—— Ответъ г. Яновскому, (etc.) [Reply to *Mons. Janoffsky* in his remarks concerning the Materials for the history of the Russ. Am. co.]
[In *same*. 1861, July, vol. liv, [iv], pp. 18–20.]

Katherine, Shipwreck of the brig. Крушение брига Екатерина, (etc.) [Wreck of the brig *Katherine*, 1838. In the Kurile islands. News.]
[In *MAIAK*. (The Lighthouse.) 1840, 9–12.]

Kellett (*capt. Henry, r. n.*) Rapport adressé à l'amirauté par le capitaine Kellett, commandant de l'*Herald*.
[In *DÉPÔT GÉNÉRAL DE LA MARINE*. Annales hydrographiques. 8°. *Paris*, *P. Dupont*, 1850. Tome iii, pp. 116–139.]

Kelley (*Hall J . . .*). A geographical sketch of that part of North America called Oregon: containing an account of the Indian title;—the nature of a right of sovereignty;—the first discoveries, (etc.) to which is attached a new map of the country. 80 pp. 8°. *Boston*, *J. Howe*, 1830.

Kellogg (*Albert, m. d.*) Report on the botany of Alaska.
[In *COAST SURVEY*. REPORT of the superintendent showing the progress of the survey during the year 1867. 4°. *Washington*, 1869. Appendices L and M to Appendix No. 18, pp. 318–324.]

—— Report of the botany of the voyage of the United States steamer *Lincoln*, captain *White*, under the command of captain *William A. Howard*, U. S. revenue service, A. D. 1867, by *A. Kellogg, m. d.*, surgeon and botanist.
[In *CONGRESSIONAL PAPERS*. H. of R.—40th Cong. 2d sess.—Ex. Doc. No. 177, pp. 214–218.]

Kennan (*George*). Tent life in Siberia and adventures among the Koraks and other tribes in Kamtchatka and northern Asia. ix, 425 pp. 1 map. 12°. *New York*, *G. P. Putnam & sons*, 1870.

—— *The same*. *London*, *Sampson, Low and Marston*, 1870; another ed. 1871.
Noticed in *AUSLAND*, xliv, no. 12, pp. 265–271; no. 13, pp. 308–312, 1871.
Reviewed in the *NATION*. *New York*, No. 322, Aug. 31, 1871.
Note.—Mr. Kennan visited this region on behalf of the international telegraph expedition in 1865, etc. A Russian translation of his work appeared at St. Petersburg under the title of *STEPNAIA ZHIZN* (Steppe Life).

Kennicott (*Robert*). Biography of Robert Kennicott. By a committee of the [Chicago] academy appointed at the meeting of Nov. 13th, 1866.
[In *TRANSACTIONS* of the Chicago academy of sciences. 4°. *Chicago*, by the academy, 1867–69. Vol. i, part ii, 1869, pp. 133–226, with portrait.] The last year of his life narrated by *W. H. Dall*.

—— People I have met; by *Benj. F. Taylor*. Robert Kennicott.
[In *EXAMINER AND CHRONICLE*. *New York*, Thursday, Oct. 21, 1875.]

—— Words from the language of the Kutch-a'-Kutchin'—the Indians of Youkon river, at the mouth of the Porcupine river, in Russian America. [anon.]
Note.—This is a pamphlet of six foolscap leaves printed for the use of the exploring parties of the W. U. tel. expedition by the Smithsonian institution without title-page or date; the date of publishing was 1865.

—— Slave Indians, Tenue of Liard river, near Fort Liard. Vocabulary.
Note.—Same as preceding; consists of 7 leaves.

Kerhallet (*Charles Philippe de*). Considérations générales sur l'océan Pacifique.
[In *DÉPÔT GÉNÉRAL DE LA MARINE*. Annales hydrographiques. 8°. *Paris*, *P. Dupont*, 1851. Tome vi, pp. 304–371.]

—— General examination of the Pacific ocean followed by nautical directions for avoiding hurricanes. Translated from the second French edition, [by com. C. H. Davis, u. s. n.] xiv, 1 l. 212 pp. 3 maps. 8°. *Washington*, *Bureau of navigation*, 1869.

- Khlebnikoff** (Kyril Timofeëvich). Жизнеописание Александра Андреевича Баранова, (etc.) [Biography of Alexander Andrievich Baranov, chief director of the Russian American colony in America.] 6 p. l. 209 pp. 8°. *St. Petersburg, v' morskoi typogr.* 1835.
- Григорій Ивановичъ Шелеховъ. [(Biography of) Grigori Ivanovich Shelekhoff.]
[In SIN OTECHESTVA. 8°. *St. Petersburg, A. Smirdina*, 1838. Vol. ii, ii, pp. 66—; also in RUSSKI INVALID. (*The Russian Invalid.*) 1838, 77-82 and 84.]
- Записки о Америкѣ. [Notes on America.]
[In MATERIALS for the history of the Russian settlements on the shores of the Pacific ocean. Part third. Supplement to the Morskoi Sbornik, no. 3, 1861, 171 pp.]
- Первоначальное поселение русскихъ въ Америкѣ. [First settlement of the Russians in America.]
[In MATERIALS for the history of the Russian settlements on the shores of the Pacific ocean. Supplement to the Morskoi Sbornik, No. 4, 1861, pp. 40-56.]
Note.—This is a reprint of an article which appeared in RADUGA (*The Rainbow*), a periodical published in Revel, 1833.
- Khramtsoff** (A . . .). Бѣдствіе корабля, (etc.) [Distress of the Russian-American company's ship "The Heir of Alexander."] [In MORSKOI SBORNIK. 8°. *St. Petersburg*, 1848. Vol. i, pp. 82-89.]
- Khromchenko** (capt. Vasili Stepanovich). Bruchstücke aus dem reise-journal geführt während einer fahrt längs den küsten der Rüssischen niederlassungen in nord-west America (durch das sogenannte Seeotter meer der Russen), im jahre 1822.
[In HERTHA, Zeitschrift für erd-, völker- und staaten-kunde; von H. Berghaus und K. F. Hoffmann. 8°. *Stuttgart und Tübingen*, 1825. Vol. ii, pp. 199-222; 258-273; 583-604.
See also KRUSENSTERN. Mém. Hydr. part ii, 1827, pp. 108-111; part iii, 1835, pp. 98-99.]
- Новѣйшія географическія открытія Россіянъ. (Etc.) [Recent geographical discoveries by the Russians. Sailing of the brig Golovnin (capt. Khromchenko) and the cutter Baranoff (capt. Etolin), in 1821, from New-Archangel.]
[In SIN OTECHESTVA, 1822, 48.]
- Орывки изъ журнала плаванія Хромченки, (etc.) [A fragment from the journal of Khromchenko's voyage in 1822. From New-Archangel on the American coast.]
[In SIEVERNI ARKHIV. (*Northern Archives.*) 1824, x, 11 and 12; xi, 13-18.]
Capt. Kromchenko accompanied Kotzebue on his voyage round the world in the brig Rurik, 1815-18; in 1828-30 he commanded the ship Elena on a voyage round the world, and in 1831-33 commanded the naval transport America on a similar voyage.
For brief accounts of these last two voyages see ZAPISKI, (etc.) Journal of the hydrographic department. 8°. *St. Petersburg*, 1850. Vol. viii, pp. 94-98; 111-119. See also Zapiski uchen. kom. morsk. shtaba, 1832. Vol. iv, pp. 304-312. Not seen.
- Khrushchoff** (lieut. Stepan). Плаваніе шлюпа "Аполлонъ", (etc.) [Voyage of the sloop Apollo in 1821.]
[In ZAPISKI Gos. Admiral. Depart. (Journal of the Imperial Admiralty Department.) 8°. *St. Petersburg, the department*, 1824? Vol. x.]
- Khvostoff** (Nikolai Alexandrovich) and **Davidoff** (Gavriil Ivanovich). Reise der kais.-russ. flotten-officiere Chwostow und Dawydow von St. Petersburg durch Sibirien nach Amerika und zurück in den jahren 1802-04. Aus dem Russischen. Not seen.
[In JOURNAL für die neuesten land- und see-reisen, 1816, xxiv, pp. 145-181.]
See also DAVIDOFF, SOKOLOFF.
- King** (Richard, m. d.) On the physical characters of the Esquimaux.
[In JAMESON (Robert). Edinburgh new Philosophical Journal. 8°. *Edinburgh*, 1844. Vol. xxxvi, pp. 296-310. Also in FRORIER (L. F. and Rob.) Neue notizen aus dem gebiete der natur- und heilkunde. 4°. *Erfurt und Weimar*, 1844. Vol. xxx, col. 65-70; 81-87. Also in JOURNAL of the Ethnological Society of London. 8°. *London*, 1848. Vol. i, pp. 45-59.]
- On the intellectual character of the Esquimaux.
[In JAMESON (Robert). Edinburgh new Philosophical Journal. 8°. *Edinburgh*, 1845. Vol. xxxviii, pp. 306-332; also JOURNAL of the Ethnological Society of London. 8°. *London*, 1848. Vol. i, pp. 127-153.]
- On the industrial arts of the Esquimaux.
[In JAMESON (Robert). Edinburgh new Philosophical Journal. 8°. *Edinburgh*, 1847. Vol. xlii, pp. 112-135.]

Kippis (Andrew). The candid answer of the late excellent doctor Kippis to the letters published in the collections of the historical society for 1795, (pages 79, and 156), respecting an error in his life of captain Cook.

[In COLLECTIONS of the Massachusetts historical society for the year 1798. 8°. Boston, S. Hall, 1798. First series, vol. v, pp. 5-6.]

Kirby (W . . . W . . .). A journey to the Youcan, Russian America.

[In SMITHSONIAN INSTITUTION. Report of the board of regents for 1864. 8°. Washington, 1865. pp. 416-420.]

Kirtland (Jared Potter). Letter to hon. William H. Seward giving brief account of the explorations of major Robert Kennicott, &c.

[In CONGRESSIONAL PAPERS. H. of R.—40th Cong., 2d sess.—Ex. Doc. No. 177, pp. 31-33. See also pp. 40-43.]

Kittlitz (F . . . H . . . von). Denkwürdigkeiten einer reise nach dem Russischen Amerika, nach Mikronesien und durch Kamtschatka [1826-1828]. 2 v. xvi, 384 pp. 2 pl.; 2 p. l. 463 pp. 2 pl. 8°. Gotha, Justus Perthes, 1858.

— Twenty-four views of the vegetation of the coasts and islands of the Pacific. Edited by Berthold Seeman. x, 68 pp. 25 photographs. 4°. London, Longmans, 1861.

— Vegetations-ansichten von küstenländern und inseln des Stillen Oceans, aufgenommen auf der entdeckungsreise der kaiserl. russ. corvette "Senjavin" unter Capitän Lütke. 2^{te} aufl. 34 pl. fol. (6 kpftraf. und 24 s. text in gr. 8°). Berlin, Th. Grieben, 1862.

— Nachträgliche bemerkungen zu den im verlage von Justus Perthes in Gotha so eben erschienenen: "Denkwürdigkeiten einer reise nach dem russischen Amerika, nach Micronesien und durch Kamtschatka."

[In JOURNAL für ornithologie . . . herausg. von dr. JEAN CABANIS. 8°. Leipzig, L. A. Kittler, 1858. Vol. vi, pp. 387-390.]

K . . . L . . . Краткая реляція о Сибирской экспедиции флота капитана Беринга. [Short accounts of the Siberian expeditions of naval captain Bering.] 28 pp. 8°. St. Petersburg, 1824.

Klein (N . . .). Die pelzrobben- (Pribylow-) inseln.

[In ALLEN WELTTHEILEN, Mai, 1872, pp. 246-248.]

Klochkoff (. . .). Путешествіе вокругъ свѣта, (etc.) [Voyage round the world to the colonies of the Russian American company by Mr. Klochkoff.]

[In SIEVERNI ARKHIV. (Northern Archives.) 1823, xxiv.]

Kobeleff (Ivan). Auszug aus dem tagebuch des Kasaken-sotniks Ivan Kobelef über das land der Tchuktschen und die demselben entgegen liegende inseln und landecke von America.

[In PALLAS (P. S.) Neue nordische beyträge, (etc.) 12°. St. Petersburg u. Leipzig, J. Z. Logan, 1783. Vol. iv, pp. 105-111.]

— Перечень изъ дневной записки казаѣва сомника Ивана Кобелева, (etc.) [Abstract from the log of the Cossack captain Ivan Kobeleff sent in March 1779 from Gizhiga post to the Chukotskoi country.]

[In SOBRANIE SOCHENENIE, (etc.) 8°. St. Petersburg, 1790. Vol. v, pp. 369-376.]

Koch (N . . . A . . .). Памятникъ капитану Берингу въ Петропавловскѣ. [Monument to captain Bering in Petropavlovsk, with a view of the monument.]

[In MORSKOI SBORNIK. 8°. St. Petersburg, 1867. Vol. lxxxviii, No. 1, [iv], pp. 31-36.]

Kohl (dr. J . . . G . . .). Report on the method, scope, and completion of a history of maritime discovery and exploration on the western coast of the United States, prepared for publication with the records of the United States coast survey.

[In COAST SURVEY. REPORT of the superintendent showing the progress of the survey during the year 1857. 4°. Washington, 1857. Appendix No. 52, pp. 414-433.]

Kommercheskaia Gazeta. Коммерческая Газета. [The Commercial Gazette.] — vols. fol. St. Petersburg, 1825-31; 1855-1860. Not seen.

1845. Nos. 10-12. The Russian American Co.

1848. Nos. 17, 20, 21. Report of the Rus. Am. Co. for 1846 reviewed.

1849. Nos. 8-11. Report of the Russ. Am. Co. for 1847 reviewed.

1851. Nos. 2-3. Report of Rus. Am. Co. for 1849 reviewed.

No. 63. Russian voyages around the world.

- Kornea** (P . . .). [*anon.*] Путешествіе Г. П. Корнея къ сѣверо-западнымъ берегамъ Америки и въ Китай, въ 1813—18, (etc.) [Voyage of Mr. P. Kornea to the northwest coast of America and to China in 1813—18, with the addition of descriptions of the Russian settlements on the coast of America.]
[In SIEVERNI ARKHIV. (*Northern Archives.*) 1822, iii, 18, and iv, 19; 1823, v, 3 & 4.]
- Koshkin** (Nikolai M . . .). [Practices performed by the Koloshians in preparation for hunting expeditions.]
[In ZHURNAL, (etc.) Journal of the Interior Department. 8°. St. Petersburg, 1829—1860. Vol. —? p. —?] *Not seen.*
- Kostlivtsoff** (*state-counselor Sergei*).
See RUSSIAN AMERICAN COLONIES. Doklad komiteta, (etc.) pp. 268—312. Prilogenie k' dokladu, (etc.) pp. 1—267, 463—517, and supplements.
- Kostlitzeff** (. . .). [Information concerning the Koloshians.]
[In ZHURNAL, (etc.) Journal of the Interior Department. 8°. St. Petersburg, 1829—1860. Vol. —? pp. —?] *Not seen.*
- Kotzebue** (*capt. Otto Eustaphovich von*). Voyages entrepris aux frais de M. le comte Romanzoff chancelier de l'empire de Russie.
See EYRIÈS (J. B.) et MALTE-BRUN (Conrad). Nouvelles annales des voyages. 8°. Paris, Gide fils, 1819. Vol. i, pp. 462—463.
- Brief notice of the voyage.
[In JOURNAL des débats. fol. Paris, Le Normant, 1815. Sept. 8, pp. 2—3.]
- Патриотическое предпріятіе, (etc.) [Patriotic enterprise. Sending out of the Rurik by Romanzoff.]
[In SIN OTECHESTVA, 1815, 19.]
- Отправленіе Рюрика, (etc.) [Sailing of the Rurik from Cronstadt.]
[In *same*, 1815, 31.]
- Выписка изъ журнала, (etc.) [Extract from the journal of the brig Rurik, from Kamchatka to New Albion.]
[In DUKH ZHURNALOFF. (The spirit of the press.) 1817, xxi.]
- Извѣстія, (etc.) [Information concerning the voyage of the ship Rurik, Oct. 1, 1816—June 16, 1818.]
[In SIN OTECHESTVA, 1818, 32.]
- Краткое извѣстіе, (etc.) [Brief tidings of the voyage of lieut. O. Kotzebue in the Rurik. From a letter to his parents.]
[In RUSSKI INVALID, 1820, 207 & 9.]
- Оправданіе Коцебу. [Defence of Kotzebue. Reply to the Quarterly Review. Concerning the voyage in the Rurik.]
[In SIN OTECHESTVA, 1822, 45.]
- Путешествіе въ Южный Океанъ и въ Беринговъ проливъ * * * въ 1815—1818, (etc.) [Voyage to the Pacific ocean and Bering strait for the re-discovery of the north-east passage, undertaken in 1815—1818 in the ship Rurik, under the command of lieut. Kotzebue.] 2 v. 4°. Atlas of 21 sheets. (folio!) St. Petersburg, 1821—23. *Not seen.*
- Entdeckungsreise in die Südsee und nach der Berings-strasse zur erforschung einer nordöstlichen durchfahrt. Unternommen in den jahren 1815—1818 auf kosten des grafen Rumanzoff auf dem schiffe Rurick. 3 v. Mit 16 color. und 4 schwartz. kpf. nebst 6 karten. gr. 4°. Weimar, Hoffmann, 1821.
- *The same.* A voyage of discovery into the South sea and Beering's straits, for the purpose of exploring a north-east passage, in 1815—18, (etc.) Translated by H. E. Lloyd. 3 v. 8°. London, Longmans, 1821.
Reviewed in EYRIÈS (J. B.) et MALTE-BRUN (C.) Nouvelles annales des voyages. 8°. Paris, Gide fils, 1822. Vol. xiii, pp. 132—137; 255—261; 396—409.
- Eisberge von ausgezeichneter art in Kotzebue's sund, an der nordwestküste America's.
[In ANNALEN der Physik: von L. W. Gilbert. 8°. Halle & Leipzig, 1821. Vol. lxi, pp. 143—148.]

Kotzebue (capt. Otto Eustaphovich von)—continued.

— Ontdekkingsreis in de Zuidzee en naar de Bering-sstraat, in 1815–1818. Uit het Hgd. 3 v. 8°. With pl. *Amsterdam*, 1822. *Not seen*.

“L'Amiral Krusenstern a joint à cette traduction un aperçu intéressant des voyages précédents au Pole Boréal.” (F. Muller.)

— [anon.] Замѣчанія Русскаго, (etc.) [Russian observations on certain omissions in the German version of the voyage of Mr. Kotzebue around the world.]

[In RUSSKI INVALID. (*Russian Invalid*.) 1822, 284–7, 289, 301–6.]

— Отвѣтъ, (etc.) [Reply by Mr. Kotzebue.]

[In same, 1823, 25.] See STRUVE.

— Путешествіе вокругъ свѣта * * * въ 1823, 24, 25 и 26. [Voyage round the world on the sloop of war *Predpriatii*, in 1823, 24, 25, and 26.] 3 p. l. 201 pp. 4 maps. 8°. *St. Petersburg, v' morskoi typogr.* 1828.

— Neue reise um die welt in den jahren 1823–26. 2 bde. mit 2 kpf., 3 karten und 1 anh. gr. 8°. *Weimar, Hoffmann*, 1830.

— *The same*. A new voyage round the world, in the years 1823–26. 2 v. 4 p. l. 341 pp. 1 l. 3 charts, 1 pl.; 2 p. l. 362 pp. 1 pl. 12°. *London, H. Colburn & R. Bentley*, 1830.

— Russian voyage of discovery.

[In COLLECTIONS of the Massachusetts historical society for the year 1816. 8°. *Boston, the society*, 1816. Second series, vol. iv, pp. 98–99. A notice of the voyage.]

Kozmin (col. . . .). See SOKOLOFF (A.)

Krasheninnikoff (Stepan Peter). Описаніе земли Камчатка. [Description of the country of Kamchatka.] 4°. *St. Petersburg*, 1755. *Not seen*.

— The history of Kamtschatka and the Kurilski islands, with the countries adjacent, (etc.) with maps and cuts. Translated from the Russian, by James Grieve. 4 p. l. 280 pp. 4 l. 2 maps, 5 pl. 4°. *Glocester, T. Jefferys*, 1764.

Note.—This is an abridged translation.

— *The same*. 4°. *London*, 1763. *Not seen*.

— Beschreibung des landes Kamtschatka. Mit landkarten und kupferbildern, herausgegeben von T. Jefferys. In das deutsche übersetzt und mit anmerkungen erläutert, von J. Köhler. xvi, 344 pp. 5 pl. 2 maps. 4°. *Lemgo, Meyer*, 1766.

— Voyage en Sibérie, contenant la description du Kamschatka. 2 v. très gr. 4°. *Paris*, 1768.

— Histoire de Kamtschatka. Trad. par M. E[ridous]. 2 v. 8°. *Lion*, 1767.

— Beschryving van Kamschatka en de Kurilsche eilanden. 8°. *Amsterdam*, 1770.

Note.—The Lemgo, Lion, and Amsterdam editions are all translations of Grieve's Glocester edition.

— Histoire et description du Kamschatka. 2 v. iv parts; 2 p. l. xvi, 439 pp. 7 pl. 2 maps; 2 p. l. 492 pp. 1 l. 12°. *Amsterdam, Marc Michel Rey*, 1770.

Note.—This translation is made directly after the Russian original and contains it all except some vocabularies.

— Описаніе земли Камчатки, (etc.) [Description of Kamchatka, compiled by Stepan Krasheinnikoff, professor in the Academy of sciences. 2d edition.] 2 v. xvi (preface by Miller), ii, 438 pp. 10 pl. 3 maps; ii, 319 pp. 12 pl. 4°. *St. Petersburg, imp. acad. sciences*, 1786.

— *The same*. 2 v. xxxiv, 494 and 2 pp.; x, 486 pp. 8°. *St. Petersburg, imp. acad. sciences*, 1818–19.

Krenitzin (capt.-lieut. Peter Kuzmich) and **Levasheff** (lieut. Michael). Voyage of captain Krenitzin and Levasheff, to the Fox islands in 1768 and 1769.

[In COXE (rev. William). Account of the Russian discoveries between Asia and America, (etc.) 4th ed. 4°. *London, Cadell & Davies*, 1803, pp. 191–202; also in PALLAS (P. S.) Neue nordische beyträge. 12°. *St. Petersburg und Leipzig, J. Z. Logan*, 1781. Vol. i, pp. 249–272.]

— Экспедиція * * * Креницына и Левашева. 1764–69. [Expedition to the Aleutian islands, captains Krenitzin and Levasheff, 1764–69.]

[In ZAPISKI HYDR. DEP. (Journal of the hydrographic department.) 8°. *St. Petersburg*, 1852. Vol. x, pp. 70–104; also in MIESIATSESLOVIE. (The Calendar.) *St. Petersburg*, 1781.]

Kropotkin (P . . . A . . .). See RUSSKI VIESTNIK.

- Krusenstern** (Adam Johann von [*otherwise* IVAN FEODOROVICH, (by Russian baptism ?)]). Путешествие вокруг света въ 1803, 4, 5 и 1806, (etc.) [Voyage round the world in 1803–1806 by order of his imperial majesty Alexander I. in the ships *Nadeshda* (Hope) and *Neva* under the command of fleet-captain-lieutenant and captain-of-the-second-rank Krusenstern.] 2 v. 3 p. l. xxv, 388 pp. 1809; 471 pp. 1 l. 1810. 4°. Atlas of 110 sheets (folio?) *St. Petersburg, v' morskoi typogr.* 1809–1810.
- Reviewed in ALLGEMEINE GEOGRAPHISCHE EPHEMERIDEN. 8°. *Weimar*, 1809 or 1810. Not seen.
- Also reviewed in ZHURNAL NOVEISHIKH PUTESHESTVI, 1810, iii, 4 and 5.
- Also reviewed in ISTORICHESKI ZHURNAL, 1812, i, 2.
- Reise um die welt in den jahren 1803–1806, auf befehl Alexander's I, kaisers von Russland, auf den schiffen *Nadeshda* und *Neva*. Original-ausg. 3 bde. gr. 4°. *St. Petersburg, Schnoor*, 1810–12.
- Reise um die welt. 2 thle. in 3 bdn. m. 11 kpfrt. 12°. *Berlin*, 1811.
- Voyage round the world, in the years 1803–1806, by order of his majesty Alexander I, on board the ships *Nadeshda* and *Neva*, under the command of A. J. von Krusenstern. Translated from the German, by R. B. Hoppner. 2 v. in 1. xxxii, 313 pp. 1 map, 1 col'd pl.; 5 p. l. 404 pp. 1 col'd pl. 4°. *London, J. Murray*, 1831.
- Wörter-sammlungen aus den sprachen einiger völker des östlichen Asiens und der nord-westküste von Amerika. xi, 68 pp. 4°. *St. Petersburg*, 1813.
- Analyse des îles découvertes dans le grand océan sur le vaisseau le *Rurik*, par M. de Kotzebue.
- [In ZACH (baron de). CORRESPONDANCE astronomique, géographique, hydrographique et statistique. 8°. *Gênes, A. Ponthenier*, 1820. Vol. xiv, pp. 322–340.]
- Voyage autour du monde de 1803 à 1806, sur la *Nadéjeda* et la *Néva*, traduit par Eyriès. 2 v. 8°. Atlas fol. compr. neuf cartes marines et vingt et une planches, (etc.) *Paris*, 1821.
- Собрание, (etc.) [Collection of the materials used in the construction and explanation of the atlas of the Pacific ocean.] 2 v. 2 p. l. xlviii, 326 pp.; 1 p. l. xi, 480 pp. 4°. *St. Petersburg*, 1823.
- Beiträge zur hydrographie der grössern ozeane, als erläuterungen einer karte des ganzen erdkreises. 4 p. l. 248 pp. • 4°. *Leipzig, P. G. Kummer*, 1819.
- Reviewed in EYRIÈS (J. B.) et MALTE-BRUN (C.) Nouvelles annales des voyages. 8°. *Paris, Gide fils*, 1819. Vol. ii, pp. 471–472.
- Atlas de l'océan Pacifique. Tom. i, ii. (5 l. text and 34 charts.) gr. fol. *St. Pétersbourg*, 1824–27.
- Reviewed in EYRIÈS (J. B.) et MALTE-BRUN (C.) Nouvelles annales des voyages. 8°. *Paris, Gide fils*, 1825. Vol. xxv, pp. 134–136.
- Recueil des mémoires hydrographiques, pour servir d'analyse et d'explication à l'atlas de l'océan Pacifique. 2 v. 2 p. l. xlviii, 326 pp.; 1 p. l. xi, 480 pp. 4°. *St. Pétersbourg, imprimerie du département de l'instruction publique*, 1824–27.
- Atlas de l'océan Pacifique dressé par M. de Krusenstern, contre-amiral . . . publié par ordre de sa majesté impériale. *St. Pétersbourg*, 1827.
- Note.—The atlas contains 34 plates imp. folio corrected to 1835.
- Дополнение, (etc.) [Supplement to the materials used for the explanation and the construction of an atlas of the Pacific ocean, published in 1826 and 1827.] 2 parts. 1 p. l. vii, 119 pp.; 47 pp. 4°. *St. Petersburg, typogr. imp. acad. sciences*, 1836.
- Reviewed in JOURNAL of the royal geographical society of London. 8°. *London, J. Murray*, 1837. Vol. vii, pp. 406–409.]
- [anon.] Юбилей пятидесятилетней службы вице-адмирала Ивана Федоровича Крузенштерна, (etc.) [Celebration of the fiftieth anniversary of the service of Ivan Feodorovich Krusenstern. Comprising also:—speech, delivered by P. I. Ricord; poem; addresses of the Academy of sciences and the American company.]
- [In SIEVERNAIA PCHELA. (Northern Bee.) 1839, 25; also in RUSSKI INVALID. (The Russian Invalid.) 1839, 30–33.]

Krusenstern (Adam Johann von)—continued.

—— [anon.] Биография. [Biography.]

[In ZHURNAL MINISTERSTVA NARODNAKHO PROSVIESHCENIYA. (Journal of the department of public instruction.) 1846, No. 10; also in RUSSKI INVALID. (The Russian Invalid.) 1846, No. 231; also in SIEVERNAIA PCHELA. (Northern Bee.) 1846, Nos. 255, 256, 259, and 260.]

—— *The same.* [Memoir, edited by sir J. Ross.] 8°. London, 1856. *Not seen.*

Kupffer (Adolph Theodor). Notiz über die mittlere temperatur und barometerhöhe in Iuluk, auf der insel Unalashka.

[In POGGENDORFF (J. C.) Annalen, (etc.) 8°. Leipzig, 1831. Vol. xxiii, pp. 114–119; also in TAYLOR (R.) and PHILLIPS (R.) Philosophical Magazine. 8°. London, 1832. Vol. i, pp. 429–431; and in FRORIEP (L. von). Notizen aus dem gebiete der natur und heilkunde. 4°. Erfurt, 1833. Vol. xxxv, col. 275–276.]

—— Ueber die mittlere temperatur und barometerhöhe zu Sitka, an der nordwestküste America's.

[In TAYLOR (R.) and PHILLIPS (R.) Philosophical Magazine. 8°. London, 1832. Vol. i, pp. 427–428; also in FRORIEP (L. von). Notizen aus dem gebiete der natur und heilkunde. 4°. Erfurt, 1833. Vol. xxxv, col. 273–274.]

—— F. von Wrangel's beobachtungen der stündlichen variationen der abweichung zu Sitka.

[In POGGENDORFF (J. C.) Annalen, (etc.) 8°. Leipzig, 1834. Vol. xxxi, pp. 193–198.]

—— Observations météorologiques faites à Sitka (57° 3' N. lat., 222° 15' E. long. de Paris). [1846.]

[In MÉMOIRES de l'acad. imp. de sc. de St. Pétersbourg. 4°. St. Pétersbourg, 1850. Série vi, Sc. math et phys. t. iv, appendice.] See also ANNUAIRE.

—— editor. See ANNALES de l'observatoire physique central. ANNUAIRE météorologique et magnétique, (etc.)

Kuril Islands. Описание Курильскихъ острововъ. [Description of the Kuril islands.]

[In MIESIATSESLOVAM, 1784; also in SOBRANIE sochineni, (etc.) 1785–93. (Collections from the calendars, 1785–93. 10 vols.) vii, 3.]

—— (anon. У.) Замѣтки путешественника о Курильскихъ островахъ. [Marks for travellers about the Kuril islands.]

[In ST. PETERBURGSKIIA VIEDOMOSTI. (The St. Petersburg Gazette.) 1844, 140, 141.]

Kyber (dr. Johann Friedrich). Извлечение изъ дневныхъ записокъ доктора Кибера, (etc.) [Extract from the daily journal of doctor Kyber, in northeastern Siberia, 1821–22. From a French manuscript.]

[In SIBIRSKI VIESTNIK. (The Siberian Messenger, published by Gregory Spasskia.) St. Peterburg, v' typogr. depart. narodn. pros. 1824. Part 1, pp. 1–58.]

—— Его же: “Чукчи.” [Also his “Chukehee.” From the French of E. Pertsoff.]

[In same, 1824, part ii, pp. 87–126.]

Labillardière (Jacques Julien Houton de). Relation du voyage à la recherche de La Pérouse, fait par ordre de l'assemblée constituante, pendant les années 1791–92, (etc.) 2 v. xvi, 442 pp.; 332, 114 pp. 4°. Atlas, 44 pl. fol. Paris, H. J. Jansen, [1799].

—— Voyage in search of La Pérouse, during the years 1791–94, [with a vocabulary of the Malay and other Polynesian tongues]. Translated from the French, by John Stockdale. 2 v. xxxii, 487 pp.; 344, ciii pp. 46 pl. 8°. London, John Stockdale, 1800.

Laertes (pseudonym). Half an hour in Alaska. The effect of Russian America on Washington. A new Sitka. How the ladies slay the fur seals.

[In THE DAILY GRAPHIC. fol. New York, 1875, Tuesday, November 30; also in HEARTH AND HOME. New York, 1875, January 1.]

Langsdorff (ritter Georg Heinrich von). Voyages and travels in various parts of the world [1803–1808]. 2 v. xxii, 1 l. 362 pp. 3 l. unsp. 16 pl.; 4 p. l. unsp. 386 pp. 3 l. unsp. 1 map, 5 pl. 4°. London, H. Colburn, 1813–14.—— Bemerkungen auf einer reise um die welt in den jahren 1803–07. 2 v. 4°. 45 ch. and pl. Frankfurt am Main, 1812. *Not seen.*—— Reis rondom de wereld in de jaren 1803–1807. 3 v. 8°. Amsterdam, 1820. *Not seen.***La Pérouse** (Jean François de Galaup de). Voyage de La Pérouse autour du monde, publié conformément au décret du 22 avril 1791 et rédigé par M. L. A. Milet Mureau. 4 v. 4°. Atlas, fol. (avec 35 pl. gr. et 34 cartes). Paris, imprimerie de la république, l'an V, 1797.

La Pérouse (Jean François de Galaup de)—continued.

— A voyage round the world in the years 1785–1788. Edited by M. L. A. Milet-Mureau. Translated from the French. 3 v. 8°. Atlas, 31 maps, 38 pl. fol. London, J. Johnson, 1798.

— *The same*. 2 v. 3 p.l. lvi, 539 pp.; viii, 531 pp. 8 l. unp. Atlas, 31 maps, 39 pl. fol. 4°. London, G. G. & J. Robinson, 1799.

— Пътешествіе Лаперуза, (etc.) [Voyage of La Pérouse to the northern and southern Pacific ocean during the years 1785–88. Translated from the Paris edition of 1798, by M. M. Gole-nistcheff-Kutusoff.] 2 v. 8°. St. Petersburg, 1800–1802.

— Voyage de La Pérouse, rédigé d'après ses manuscrits originaux, suivi d'un appendice renfermant tout ce que l'on a découvert depuis le naufrage jusqu'à nos jours et enrichi de notes par de Lesseps, consul de France à Lisbonne, et seul débris vivant de l'expédition dont il était interprète. 436 pp. 8°. Portrait et carte. Paris, 1831.

Lapie (Pierre). Mémoire sur les voyages exécutés dans l'océan glacial arctique, au nord de l'Amérique septentrionale.

[In EYRIÈS (J. B.) and MALTE-BRUN (Conrad). Nouvelles annales des voyages. 8°. Paris. *Gide fils*, 1821. Vol. xi, pp. 5–56.]

— Mémoire sur les voyages exécutés dans l'océan glacial arctique, au nord de l'Amérique septentrionale. [Extrait des Nouvelles annales des voyages, etc. v. 11.] 52 pp. 1 map. 8°. [Paris], 1821.

Note.—This memoir is concerning the voyages of Maldonado, de Fonte, and Bernarda.

Laplace (Cyrille Pierre Théodore). Voyage autour du monde par les mers de l'Inde et de Chine; exécuté sur la corvette de l'état la Favorite pendant les années 1830–1832. 5 v. 8°. Paris, imprimerie royale, 1833.

— *The same*. Atlas hydrographique. Publié par ordre du roi. 2 l. 11 maps. fol. Paris, 1833.

— *The same*. Album historique. 2 l. 72 pl. fol. Paris, A. Bertrand, 1835. B. M.

— Campagne de circumnavigation de la frégate "l'Artémise", pendant les années 1837–1840, sous le commandement de M. Laplace, capitaine de vaisseau; publiée par ordre du gouvernement. 6 v. 8°. Avec figures et cartes. Paris, A. Bertrand, 1840–1853. B. M.

Laptieff (capt. D . . . L . . .) and **Plenisner** (col. . . .). Рѣка Анадырь. [The Anadyr river; from reports by Laptieff and Plenisner in 1742 and 1763.]

[In ZAPISKI, (etc.) Journal of the hydrographic bureau of the navy department. 8°. St. Petersburg, 1852. Vol. x, pp. 163–166.]

Latham (Robert Gordon, m. d.) On the southern limits of the Esquimaux race in America.

[In BRITISH ASSOCIATION for the advancement of science. Report of the fourteenth (York) meeting, 1844. 8°. London, J. Murray, 1845. Part 2, p. 78.]

— On the ethnography of America.

[In BRITISH ASSOCIATION for the advancement of science. Report of the fifteenth (Cambridge) meeting, 1845. 8°. London, J. Murray, 1846. Part 2, p. 77.]

— On the languages of the Oregon territory.

[In JAMESON (Robert). Edinburgh new Philosophical Journal. 8°. Edinburgh, 1845. Vol. xxxix, pp. 157–169.]

— On the ethnography of Russian America.

[In JAMESON (Robert). Edinburgh new Philosophical Journal. 8°. Edinburgh, 1846. Vol. xl, pp. 35–44; and JOURNAL of the ethnological society of London. 8°. London, 1848. Vol. i, pp. 182–191.]

Lazareff (capt. lieut. Andrei Petrovich). Плаваніе вокругъ свѣта на шлюпѣ Ладога въ 1822–24, (etc.) [Voyage round the world in the sloop Ladoga in 1822–24, under the command of capt. lieut. A. Lazareff. Published by imperial authority by A. Lazareff.] iv, 275 pp. 1 map. 8°. St. Petersburg, 1832. Not seen.

Note.—For a short account of the voyage of the sloop Ladoga see ZAPISKI, (etc.) Journal of the hydrographic bureau of the navy department. 8°. St. Petersburg, 1850. Vol. viii, pp. 29–38.

— Извѣщеніе, (etc.) [Extract from the Journal of a voyage round the world by lieut. Lazareff, Oct. 8, 1813—Nov. 17, 1814.]

[In SIN OTECHESTVA, 1815, 32.]

Lazareff (capt. Mikhail Petrovich).

Note.—Capt. (afterwards admiral) Lazareff commanded the ship “*Suvoroff*” on a voyage to the Rus. Am. colonies and round the world in 1813–1816; also the naval sloop “*Peace*” on a similar voyage 1819–1821, and lastly the frigate “*Cruiser*” on a similar voyage in 1822–1825. For brief accounts of these voyages see ZAPISKI, (etc.) Journal of the hydrographic bureau of the navy department. 8°. *St. Petersburg*, 1849. Vol. vii, pp. 47–52; 92–105; vol. viii, 1850, pp. 29–38. For the last voyage see further ZAPISKI gos. admiralt. depart. 8°. *St. Petersburg*, 18—, Vol. vi, pp. 295–298; vol. ix, pp. 457–466.

—— Некрологъ адмирала Михаила Петровича Лазарева. [Obituary of admiral Mikhail Petrovich Lazareff.]

[In MORSKOI SBORNIK. 8°. *St. Petersburg*, 1851, July. Vol. vi, pp. 53–66.]

Lebrun (Henri). Le pôle nord ou voyages et découvertes dans les régions arctiques, aux xviii^e et xix^e siècles. 3 p.l. 188 pp. 8°. *Tours, Mame et cie.* 1857. B. M.

Note.—The first leaf has this inscription only, indicating that the work is one of a series: “*Bibliothèque des écoles chrétiennes approuvée par s. em. mgr. le cardinal archevêque de Tours. 2^e série.*”

—— Abrégé de tous les voyages au pôle nord, depuis Nicolo Zeno jusqu’au capitaine Ross (1380–1833); orné de nombreuses gravures sur bois, d’après les dessins de M. de Sainson. 12°. *Paris, Lavigne*, 1837. *Not seen.*

—— *The same.* 5^{me} édit. 12°. *Tours, Mame*, 1857! *Not seen.*

Ledyard (John). A journal of captain Cook’s last voyage to the Pacific ocean, and in quest of a northwest passage, between Asia and America; performed in the years 1776, 1777, 1778, and 1779. 208 pp. 1 map. 12°. *Hartford, Nathaniel Patten*, 1783.

—— The life of John Ledyard, the American traveller, comprising selections from his journals and correspondence, by Jared Sparks. 1 v. 8°. — pp. *Cambridge*, 1828. *Not seen.*

Lee (rev. Daniel) and **Frost** (rev. J . . . H . . .). Ten years in Oregon. 344 pp. 1 map. 12°. *New York, authors*, 1844.

Lefroy (capt. J . . . H . . .). Barometric and thermometric measurements of heights in North America.

[In JOURNAL of the Royal geographical society of London. 8°. *London, J. Murray*, 1846. Vol. xvi, pp. 263–292.]

Lennard (capt. Charles Edward Barrett). Travels in British Columbia; with the narrative of a yacht voyage round Vancouver’s island. xii, 307 pp. 1 pl. 8°. *London, Hurst & Blackett*, 1862.

Lenz (Heinrich Friedrich Emil, *m. d.*) Physikalische beobachtungen, angestellt auf einer reise um die welt unter dem commando des capitains von Kotzebue in den jahren 1823–1826. (Gelesen den 4 November 1829.)

[In MÉMOIRES de l’Académie impériale des sciences de St.-Petersbourg. 4°. *St. Pétersb. imp. acad. des sciences*, 1831. vi^{me} série. Sciences math. phys. et naturelles, tome i, pp. 221–344, with 5 plates.]

—— Наблюденія надъ наклономъ и степенью силы магнитной стрѣлки, (etc.) [Observations on the magnetic dip and intensity, made during a voyage around the world in the sloop *Seniavin*, 1826–29, fleet-capt. Lütke, corrected and reduced by E. Lenz. Translated from the German by lieut. B. Glazenapp.] 30 pp. 4°. *St. Petersburg*, 1836.

—— Beobachtungen der inclination und intensität der magnetnadel, angestellt auf einer reise um die welt auf der sloop “*Seniawin*” in den jahren 1826–1829 vom capitain Fr. B. Lütke. (Gelesen den 12 October 1834.)

[In MÉMOIRES de l’Académie impériale des sciences de Saint-Petersbourg. 4°. *St.-Petersbourg, acad. imp. des sc.* 1838. vi^{me} série. Sciences math. et phys. tome i, pp. 151–186.]

—— Der fluthmesser auf Sitcha.

[In ARCHIV für wissenschaftliche kunde für Russland. Her. von A. Erman. 8°. *Berlin, G. Reimer*, 1843. Vol. iii, pp. 361–362. See also pp. 178–181 for Description of tide-gauge.]

Lesseps (Jean Baptiste Barthélemy, baron de). Journal historique du voyage de m. de Lesseps, employé dans l’expédition de m. le comte de La Pérouse; depuis l’instant où il a quitté les frégates françoises au port Saint-Pierre & Saint-Paul du Kamtschatka, jusqu’à son arrivée en France, 1788. 3 v. 2 p.l. viii, 280 pp. 1 map, 1 pl.; 1 p.l. 380, viii pp. 1 map. 8°. *Paris, imprimerie royale*, 1790.

Lesseps (Jean Baptiste Barthélemy, *baron de*)—continued.

—— Historisch dagverhaal zijner reize, zeder thet verlaten van de Laperouse in de haven van St. Pieter. Naar het Fr. 2 v. 8°. *Utrecht*, 1792. *Not seen*.

—— Travels in Kamtschatka, 1787–8, translated from the French. 2 v. 8°. *London*, 1790.

—— Travels in Kamtschatka, during the years 1787 and 1788.

[In PELHAM (Cavendish). *The world: or, the present state of the universe*. 4°. *London*, J. Stratford, 1806. v. 2, pp. 146–194.]

See also LA PÉROUSE.

Levasheff. See KRENITZIN and LEVASHEFF.

Liesnoi Zhurnal. Лѣсной Журналъ, (etc.) [Journal of forestry published by the Society for the encouragement of forest culture.] 5 v. 8°. *St. Peterburg*, 1837–1838. [*Not seen*; runs from 1833–1844 according to Zapiski hydr.]

Lincoln (David F . . . , *m.d.*) Medical notes upon the aborigines of Alaska. A paper read before the Obstetrical society [of Boston] Oct. 8th 1870.

[In the MEDICAL AND SURGICAL JOURNAL, *Boston*, 1870, Dec. 1.]

Lindemann (dr. Moritz). Deutsche geographische blätter, herausgegeben von der geographischen gesellschaft in Bremen. 1 v. 8°. *Bremen*, G. A. v. Halem, 1877.

—— Die nordküste Sibiriens zwischen den Lena-mündungen und der Bering-strasse.

[In PETERMANN's (dr. A.) mittheilungen, (etc.) 4°. *Gotha*, Justus Perthes, 1879. Vol. 25, heft v, pp. 161–175, with 2 maps.]

Lindenau (baron Bernhard von). Sur la navigation nord-ouest de Maldonado de Lisbonne au détroit de Behring, en 1588.

[In ZACH (baron de). *Correspondance astronomique, géographique, hydrographique et statistique*. 8°. *A. Gènes*, 1825. Vol. xii, pp. 553–568; vol. xiii, pp. 161–177.]

Lindenberg (capt. . . .). О плаваніи въ Японію корабля Россійской-Американской компаніи “Князь Меншиковъ” въ 1852, (etc.) [Concerning a voyage to Japan in the Russ. Am. Co.'s ship “Prince Menshikoff” in 1852. An extract from the report of the commander of this ship, the Russian skipper Lindenberg, to the general director of the colonies, Oct. 17, 1852.]

[In MORSKOI SBORNIK. 8°. *St. Peterburg*, 1853. Vol. x, pp. 128–138.]

Lionnet (. . .). [anon.] Vocabulary of the jargon or trade language of Oregon. English, French and jargon. 22 pp. 8°. *Washington*, 1853.

Note.—No titlepage. Printed by the Smithsonian institution for private distribution.

Lippincott's Magazine. Alaska—What is it worth?

[In LIPPINCOTT'S MAGAZINE. 8°. *Philadelphia*, J. B. Lippincott & co., 1868. Vol. —, February, pp. — — —. Also in CONGRESSIONAL PAPERS. H. of R.—40th Cong. 2d sess.—Ex. Doc. No. 177, pp. 114–118.]

See DAVIDSON (George).

Lisianski (capt. Iuri Feodorovich). Путешествіе вокругъ свѣта въ 1803–06 (etc.) на кораблѣ неврѣ. [Voyage around the world, in 1803–06, on the ship Neva.] 2 v. ix, 246, iii pp. 1 portrait; 1 p. l. 335, iii pp. 8°. “With atlas of 14 leaves.” *St. Peterburg*, F. Drekhspers, 1812. *Not seen*.

—— A voyage round the world, in the years 1803–1806; performed by order of Alexander I., emperor of Russia, in the ship Neva. xxii, 388 pp. 9 maps, 4 pl. 4°. *London*, J. Booth, 1814.

Logan (Johann Zacharius). See CHICHAGOFF and SHELEKHOFF.

Lomonosoff (Mikhail). Краткое описаніе разныхъ путешествій по Сѣвернымъ морямъ, (etc.) [Short description of various voyages to the northern seas and proof of the feasibility of a passage to the East Indies by way of the Siberian oceans.] 150 pp. 12°. *St. Peterburg*, 1847.

—— Письма Ломоносова графу Чернышеву, по предмету снаряженія экспедиція. [(Two) letters of Lomonosoff's to count Chernisheff respecting the equipment of (Chichagoff's) expedition.]

[In ZAPISKI HYDROGRAFICHESKAGO DEPARTAMENTA. (Journal of the hydrographic department.) 8°. *St. Peterburg*, 1851. Vol. ix, pp. 116–119.]

—— Инструкція Чичагову. [Chichagoff's instructions.]

[In same, 1848, vol. vi, pp. 113–132.]

Long (capt. Theodore). Letter concerning the discovery of Wrangell Land.

[In THE NEW YORK DAILY TRIBUNE. fol. *New York*, 1867, Dec. 31.]

- Lord** (John Keast, *f. l. s.*) The naturalist in Vancouver island and British Columbia. 2 v. xvi, 358 pp. 8 pl.; viii, 375 pp. 4 pl. 8°. *London, R. Bentley, 1866.*
 Reviewed in *IBIS* (The), a quarterly journal of ornithology; edited by A. Newton. 8°. *London, 1867.* New series, vol. iii, p. 126; also vol. iv, 1868, pp. 116-117.
Note.—Mr. Lord was naturalist to the British North American boundary commission.
- Lowe** (F . . .). Wenjaminow über die Aleutischen Inseln und deren bewohner.
 [In *ARCHIV für wissenschaftliche kunde von Russland.* Her. von A. Erman. 8°. *Berlin, G. Reimer, 1842.* Vol. ii, pp. 459-495.] See also *NOUVELLES ANNALES des Voy.* (etc.) *Paris, 1849,* for translation.
- Die Tschuktschen. Nach dem Russischen von F. Lütke.
 [In *ARCHIV für wissenschaftliche kunde von Russland.* Her. von A. Erman. 8°. *Berlin, G. Reimer, 1843.* Vol. iii, pp. 446-464.]
- Ludewig** (Ernst Hermann). The literature of American aboriginal languages. With additions and corrections by professor Wm. M. Turner. Edited by Nicolaş Trübner. 1 l. xxiv, 258 pp. 8°. *London, Trübner & co. 1858.*
- Ludington** (major E . . . Н . . .). See *CONGRESSIONAL PAPERS.* H. of R.—42d Cong. 1st sess.—Ex. Doc. No. 5.
- Lütke** (capt. Feodor Petrovich). Отрывокъ изъ журнала путешествія, (etc.) [Fragment from the journal of a voyage round the world in the sloop Kamchatka, 1819.]
 [In *BLAKHONAMIERENNI.* (*Good Intentions.*) 1824, xxv, 4.]
- [anon.] Экспедиція флота капитана Литке, (etc.) [Capt. Lütke's expedition around the world. From the Literary Gazette.]
 [In *ST. PETERBURGSKIIA VIEDOMOSTI.* (*The St. Petersburg Gazette.*) 1829, 108.]
- Опыты надъ постояннымъ маятникомъ, (etc.) [Experiments with an invariable pendulum made during a voyage round the world in the war-sloop Seniavin 1826-29 by naval captain Lütke.] 232 pp. 4 pl. 4°. *St. Peterburg, 1833.*
- Путешествіе вокругъ свѣта, на военномъ шлюпѣ Сенявинѣ въ 1826, 1827, 1828 и 1829 годахъ. [Voyage around the world, in the sloop of war Seniavin, in 1826-1829.] (Historic part.) 1 tab. 1 pl. 294 pp.; 4 pl. 282 pp.; ix, 170 pp. 8°. Atlas, 51 pl. fol. 1834-1836. (Nautical part.) 8 p. l. 356 pp. 6 pl. 8 maps. 4°. Atlas, 34 pl. fol. *St. Peterburg, C. Hintze, 1835.*
- Voyage autour du monde, par ordre de l'empereur Nicolas I, 1826-29. 3 v. 7 maps. 8°. Atlas, fol. *Paris, Didot, 1835.*
 Reviewed in *JOURNAL* of the Royal geographical society of London. 8°. *London, J. Murray, 1837.* Vol. vii, pp. 374-382.]
- Voyage autour du monde, fait par ordre de sa majesté l'empereur Nicolas I^{er}, sur la corvette le Seniavine, [1826-29, etc.] Partie historique. Atlas lithographié d'après les dessins originaux d'Alexandre Postels, (etc.) et du baron Kittlitz. 1 p. l. 58 pp. 3 maps, 51 pl. fol. *Paris, Engelmann & cie. [1835-36].*
- [anon.] Обзоръ важнѣйшихъ путешествій, (etc.) [Short review of the more important voyages; voyage round the world in the sloop of war Seniavin, 1826-29.]
 [In *SIEVERNAIA PCHELA.* (*Northern Bee.*) 1836, 65-8.]
- Voyage autour du monde, (etc.) Traduit du russe, sous les yeux de l'auteur par le conseiller d'état J. Boyé. Partie nautique avec un atlas. 2 p. l. x, 343 pp. 1 l. 6 pl. 10 maps and plans. 4°. *St. Pétersbourg, C. Hintze, 1836.*
- Observations du pendule invariable, exécutées dans un voyage autour du monde, pendant les années 1826-1829.
 [In *MÉMOIRES* présentés à l'Académie impériale des sciences de Saint-Pétersbourg par divers savans. 4°. *St. Pétersbourg, imp. acad. des sc. 1837.* Vol. iii, pp. 1-242.]
- О приливахъ, (etc.) [Concerning the tides in the north Pacific and in the Arctic oceans.]
 [In *ZAPISKI HYDR. DEPART.* (*Journal of the hydrographic department.*) 8°. *St. Peterburg, 1844.* Vol. ii, pp. 353-376.]
 For LÜTKÉ's magnetic observations, see LENZ.
 For LÜTKÉ's meteorological observations, see HELSTRÖM.
Note.—The name is frequently printed "Frederick Lütke."

- Lynch** (John Arthur). Railroads from the United States through Mexico, Central and South America, to Valparaiso and Buenos Ayres; and from Oregon through Washington territory, British Columbia, Alaska and Kamschatka, to Japan, China, the East Indies, and to Europe. [In the CINCINNATI COMMERCIAL. fol. Cincinnati, O. 1877, Jan. 19.]
- McAlister** (Bryan). Plain talk about Russian America. A plum for the army and navy. Frontier life on the northern coast. Nature of the country. [In the DAILY ALTA CALIFORNIA. fol. San Francisco, 1868, —.]
- McClure** (sir Robert John Le Mesurier). The north-west passage. Capt. McClure's despatches from H. M. S. Investigator, off Point Warren and Cape Bathurst. 45 pp. 1 map. 8°. London, J. Betts, 1853.
- The discovery of the north-west passage by H. M. S. "Investigator," 1850-54. Edited by Sherard Osborn, (etc.) xix, 405 pp. 1 map, 4 pl. 8°. London, Longmans, 1856.
Note.—The appendix to the latter contains the narrative of commander Rochfort Maguire of H. M. S. Plover.
- Macdonald** (Duncan George Forbes). British Columbia and Vancouver's island, (etc.) xiii, 524 pp. 1 map. 8°. London, Longmans, 1862.
- Lecture on British Columbia and Vancouver's island. 60 pp. 8°. London, Longman, 1863.
- McDonald** (J . . . L . . .). Hidden treasures or fisheries around the north-west coast. 110 pp. 1 l. 8°. Gloucester, Mass., Procter brothers, printers, 1871.
Note.—Contains extracts from the hitherto unprinted report of gen. Jeff. C. Davis, U. S. A., while military governor of Alaska. See also NEW YORK DAILY TIMES for Sept. 2, 1867.
- McFarland** (mrs. A . . . R . . .). The Alaska mission. A letter to the rev. Sheldon Jackson, dated at Fort Wrangell, Oct. 11, 1877, concerning the presbyterian missionary work at that place. [In THE DENVER (Col.) ROCKY MOUNTAIN PRESBYTERIAN. fol. Denver, Col., S. Jackson, 1877. Vol. vi, No. 12, December. Continued in vol. vii, No. 1, January, 1878, dated Nov. 10, 1877.]
- See also ROCKY MOUNTAIN PRESBYTERIAN.
- Macfie** (Matthew). Vancouver island and British Columbia. Their history, resources, and prospects. xxii, 574 pp. 2 maps, 7 pl. 8°. London, Longmans, 1865.
- McGillivray** (Simon). A narrative of occurrences in the Indian countries of North America, since the connexion of the right hon. the earl of Selkirk with the Hudson's Bay company, and his attempt to establish a colony on the Red river; with a detailed account of his lordship's military expedition to, and subsequent proceedings at Fort William, in Upper Canada. [anon.] xiv, 152 pp. 2 l. 87 pp. 8°. London, T. Egerton (etc.) 1817.
- McIntyre** (dr. H . . . H . . .). Report of, as special agent of treasury department in Alaska. See CONGRESSIONAL PAPERS. H. of R.—41st Cong. 2d sess.—Ex. Doc. No. 36. Senate.—41st Cong. 2d sess.—Ex. Doc. No. 32, pp. 25-42.
- McIntyre** (William J . . .). Report as special agent of the treasury department upon St. George island. [In CONGRESSIONAL PAPERS. H. of R.—44th Cong. 1st sess.—Ex. Doc. No. 83, pp. 124-125, 129-130.]
- Mackenzie** (Alexander). Voyages from Montreal, on the river St. Laurence, through the continent of North America, to the Frozen and Pacific oceans, in the years 1789 and 1793. With a preliminary account of the rise, progress and present state of the fur trade. cxxxii, 412 pp. 1 l. 3 maps, 1 pl. 4°. London, T. Cadell, 1801.
- Путешествіи по Сѣверной Америкѣ, (etc.) [Voyage in North America to the Arctic sea and Pacific ocean, accomplished by messrs. Hearne and Mackenzie, (etc.) (Translated) From the English, by V. Bergh, on the island of Kadiak.] 1 map, xiv, 196, 66 pp. 4°. St. Peterburg, 1808.
 Also a French translation.
Note.—See Gentleman's Magazine. London, May, 1852. Authorship of Mackenzie's journey claimed by Robert Cole for William Combe.
 See also CHATEAUBRIAND.
- Magee** (James). An account of the discovery of a group of islands in the North Pacific ocean, by capt. James Magee, in the ship Margaret, of Boston, in his run from Canton toward the N. W. coast of America. Extracted from his log-book. [In COLLECTIONS of the Massachusetts historical society for the year 1795. 8°. Boston, S. Hall. First series, vol. iv, pp. 261-262; 298.]

- Maguire** (commander Rochfort, r. n.) Narrative of commander Maguire (of H. M. S. *Plover*), wintering at Point Barrow, [1852-53].
[In M'CLURE (sir Robert John Le Mesurier). *Discovery of the north-west passage, (etc.)* 8°. London, Longmans, 1856. Appendix, pp. 351-405.]
Note.—For Maguire's magnetical observations at Point Barrow see SABINE (maj.-genl. Edward, f. r. s.)
- Maidel** (lieut. G . . . L . . .). Ответы Чукотской экспедиции на вопросы академика Бера. [Replies of the Chukotsk expedition to the questions of academician Baer.]
[In ISVIESTIJA SIBIRSKAKHO, (etc.) Imp. Russ. geogr. soc. 4°. Irkutsk, 1871. Vol. ii, nos. 1 and 2, pp. 60-70.]
- Магнитныя и гидрологическія работы въ восточномъ океанѣ. [Magnetic and hydrological work in the Pacific ocean.]
[In MORSKOI SBORNIK. 8°. St. Peterburg, 1877. Vol. clxii, no. 10, [ii], pp. 49-72.] Also printed separately; 24 pp.
- Malaspina** (don Alessandro). [anon.?] Viaje de Malaspina.
[In COLECCION de documentos inéditos para la historia de España por Salvá (D. Miguel) y Baranda (D. Pedro Sainz de). 8°. Madrid, 1849. Tomo xv, pp. 268-320.]
- Disertacion sobre la legitimidad de la navegacion hecha en 1588 por Ferrer Maldonado, (etc.)
[In same, 1849, tomo xv, pp. 228-250.]
Note.—For Malaspina's magnetic observations see ASTRONOMISCHES Jahrbuch für das Jahr 1828. 8°. Berlin, 1825. Vol. 53, pp. 185-193.
See OTTMANN (J.)
- Путешествіе Маласпины, 1789-94, (etc.) [Malaspina's voyage, 1789-94. Translated from a Spanish MS. into French by Delevron and from French into Russian by P. Nichols.] Not seen.
[In ZAPISKI GOS. ADMIRAL'T. DEPT. 13 v. 8°. St. Peterburg, 1807-1827. See vols. 6, 7, 8, 9, 12, and 13.]
See ESPINOSA Y TELLO and HUMBOLDT ET BONPLAND.
- Maldonado** (Lorenzo Ferrer). Viaggio dal mare atlantico al pacifico, per la via del nord-ovest fatto dal capitano Lorenzo Ferrer Maldonado l'anno mdlxxxviii. Tradotto da un manoscritto spagnuolo inedito da Carlo Amoretti. 2 p. l. 98 pp. 2 l. 3 maps. 4°. Milano, G. Silvestri, 1811.
- The same. 4, 96 pp. 1 map. 4°. Bologna, Masi & ca. 1812.
- Exámen del viaje de Lorenzo Ferrer Maldonado [por Navarrete, q. r.]
[In COLECCION de documentos inéditos para la historia de España por Salvá (D. Miguel) y Baranda (D. Pedro Sainz de). 8°. Madrid, 1849. Tomo xv, pp. 71-101; see also same, pp. 251-261.]
See also MALASPINA and AMORETTI.
See GACETA DE MADRID del martes 18 de febrero de 1812. Núm. 49, pág. 194, col. 2^a.
- Voyage de la mer Atlantique à l'Océan Pacifique par le nord-ouest dans la mer glaciale par le capitaine Laurent Ferrer Maldonado, l'an 1588. Nouvellement traduit d'un manuscrit Espagnol, et suivi d'un discours qui en démontre l'authenticité et la véracité, par Charles Amoretti. vi, 84 pp. 1 map. 4°. Plaisance, de l'imprimerie del Majus, 1812. Not seen.
[Reviewed in the QUARTERLY REVIEW. 8°. London, J. Murray, 1817. Vol. xxi (Oct. 1816), pp. 129-172.]
See also BURNEY (James). A chronological history of the discoveries in the South sea, (etc.) Vol. v, pp. 165-173.
- Imagen del mundo sobre la esfera, cosmografia, geografia y arte de navegar. Alcala por Juan Garcia y Antonio Duplastre. 4°. 1626. Not seen.
- Sur l'imposteur Ferrer Maldonado.
[In EYRIÈS (J. B.) et MALTE-BRUN (C.) Nouvelles annales des voyages. 8°. Paris, Gide fils, 1825. Vol. xxvi, pp. 122-124.]
- Malte-Brun** (Conrad). О плаваніи вокругъ, (etc.) [Concerning the voyage around the world of the ships Nadeshda (Hope) and Neva, 1803-06. From the Journal des Débats.]
[In VIESTNIK EVROPI. (The European Messenger.) 1822, cxxi.] Lib. Harvard college.
- , editor. See NOUVELLES ANNALES, (etc.)
- Mangles** (James). Papers and despatches relating to the Arctic searching expeditions of 1850-51. With a few brief remarks as to the probable course pursued by sir John Franklin. [anon.] 49 pp. 1 col. map. 8°. London, F. & J. Rivington, 1851.
- The same. 2d ed. 1 p. l. 94 pp. 3 maps. 8°. London, F. & J. Rivington, 1852.
- Marchand**. See FLEURIEU.
- Marcou** (Jules). Notes géographiques sur l'Amérique du nord.
[In BULLETIN de la Société de géographie (de Paris). 8°. Paris, pour la société, 1871. Série vi^{me}, tome ii, Sept.-Oct. pp. 297-301.]

- Markoff** (Alexander). Русские на восточномъ океанѣ.—(Etc.) [Russians on the Pacific ocean.—Eastern Siberia.—Russian possessions in America.—Condition of the savages.—California.—Plan for a trading expedition around the world.]
[In MOSKVITIANIN. (The Muscovite.) 1849, 8–10, 14, 16.]
- *The same*. [Russians on the Pacific ocean.] 148 pp. 8°. *Moscow*, 1849. *Not seen*.
- *The same*. 2d ed. corrected, with supplement. 263 pp. 16°. *St. Petersburg*, A. Smirdina, 1856.
Reviewed in MORSKOI SBORNIK, 1857, Feb. vol. xxvii, [v], pp. 49–52.
- Крушение корабля Невы, (etc.) [Shipwreck of the ship Neva on the shores of the port New-Archangel.]
[In MOSKVITIANIN. (The Muscovite.) 1849, No. 13.]
- *The same*. [Narrated by an eye-witness.] 36 pp. 12°. *St. Petersburg*, 1850.
Reviewed in MORSKOI SBORNIK, 1850, Aug. vol. iv, pp. 207–209.
Note.—This first appeared in THE MUSCOVITE, 1849, No. 13. *See also* BERGH.
- Martens** (dr. Charles). Письмо доктора Мартенса, (etc.) [Letter from Petropavlovsk of dr. Martens on the sloop Seniavin, to Mr. Fuss.]
[In ST. PETERBURGSKIJA VIEDOMOSTI. (The St. Petersburg Gazette.) 1829, 78 and 79.]
- Martens** (Eduard von). Conchylien aus Alaschka.
[In PFELFFER (dr. L.) und KOBELT (dr. W.) MALAKOZOLOGISCHE BLÄTTER als fortsetzung der zeitschrift für malakozoologie. 8°. Cassel, T. Fischer, 1872. Vol. ix, pp. 78–99; with plate 3.]
- Martin** (Robert Montgomery). The Hudson's bay territories and Vancouver's island with an exposition of the chartered rights, conduct, and policy of the hon^{ble} Hudson's bay corporation. viii, 175 pp. 1 map. 8°. *London*, T. & W. Boone, 1849.
- Materiali**, (etc.) Материалы для исторіи Русскихъ заселеній по берегамъ восточнаго океана. [Materials for the history of the Russian settlements on the shores of the Pacific ocean.] 4 parts. 8°. *St. Petersburg, morsk. typog.* 1861.
Note.—These four parts appeared as *supplements*, published separately, to the MORSKOI SBORNIK for Jan., Feby., Mar., and April, 1861.
- *The same*.
[In SIEVERNAJA PCHELA. (Northern Bee.) 1861, Nos. 71 and 72.]
- Maurelle** (don Francisco Antonio). Journal of a voyage in 1775. To explore the coast of America, northward of California, by the second pilot of the fleet, don Francisco Antonio Maurelle, in the king's schooner, called the Sonora, and commanded by don Juan Francisco de la Bodega.
[In BARRINGTON (Daines). Miscellanies. 4°. *London*, 1781. pp. 469–534.]
- Tagebuch einer im jahr 1775 zur untersuchung der nördlich von Californien fortgesetzten küsten geschenehen reise; durch den zweiten steuermann der königlich spanischen flotte, don Francisco Antonio Maurelle, in dem königlichen galiot Sonora, geführt durch don Juan Francisco de la Bodega.
[In PALLAS (P. S.) Neue nordische beyträge, (etc.) 12°. *St. Petersburg u. Leipzig*, J. Z. Logan, 1782. Vol. iii, pp. 198–273. *See also* vol. i, 1781, pp. 269–271.]
- Maynard** (lieut. Washburn, u. s. n.) Report on Alaska seal-fisheries.
See CONGRESSIONAL PAPERS. H. of R.—44th Cong. 1st sess.—Ex. Doc. No. 43.
- Mayne** (lieut. Richard Charles, r. n.) Four years in British Columbia and Vancouver island [1857–1860]. xi, 468 pp. 1 map, 18 pl. 8°. *London*, J. Murray, 1862.
- Report on a journey in British Columbia in the districts bordering on the Thompson, Fraser, and Harrison rivers.
[In JOURNAL of the Royal geographical society of London. 8°. *London*, J. Murray, 1861. Vol. xxxi, pp. 213–223.]
- Sketch of the country between Jervis inlet and Port Pemberton, on the Lilloet river, a branch of the Fraser river, British Columbia.
[In *same*, same vol. pp. 297–302.]
- Route in exploring a road from Albernie canal to Nanaimo, in Vancouver island, in May, 1861, with a track chart.
[In *same*, vol. xxxii, pp. 529–535, 1862.]

Meade (com. Richard W. . . , u. s. n.) *Alaska.*

[In APPLETON'S JOURNAL. 4°. New York, D. Appleton & co. 1871. July 22, pp. 91-96; continued July 29, pp. 123-126.]

Meany (dr. D . . . R . . .). *The Aleuts of Alaska.*

[In PACIFIC MEDICAL AND SURGICAL JOURNAL. 8°. San Francisco, 1874. Vol. vii, No. 6, November, 1873, pp. 279-282.]

Meares (lieut. John). *Voyages in the years 1788-89, from China to the northwest coast of America, [with] a narrative of a voyage in 1786, from Bengal, in the ship Nootka.* 10 p. l. xcvi, 372 pp. 54 l. 3 maps, 23 pl. 4°. London, J. Walter, 1790.

Reviewed in MONTHLY review. 8°. London, R. Griffiths, 1791. Vol. 85 (n. s. vol. iv), February, pp. 182-194; March, pp. 249-261.

Also in GERMAN, translated by G. Forster. See FORSTER.

Also in FRENCH, translated by J. B. L. J. Billecocq.

Also in RUSSIAN.

— *An answer to Mr. George Dixon, (etc.)* 32 pp. 4°. London, Walter, 1791.

Reviewed in MONTHLY review. 8°. London, R. Griffiths, 1791. Vol. 86 (n. s. vol. v), May, pp. 46-49.

Note.—See Gentleman's Magazine, May, 1852. Authorship of Meares' voyage is claimed by Robert Cole for William Combe.

— Authentic copy of the memorial of lieut. John Meares, of the royal navy, dated April 30, 1790, and presented to the house of commons May 13; containing every particular respecting the capture of the vessels in Nootka sound. 65 pp. 8°. London, Debrett, 1790.

Reviewed in the MONTHLY review. 8°. London, R. Griffiths, 1790. Vol. lxxxiii (n. s. vol. ii), August, p. 458.

— *Путешествия капитана Мюра, (etc.)* [Voyages of captain Meares to the north-west coast of America, lasting from 1785 to 1789. Translated by Loggin Golenistcheff-Kutuzoff.] 96 and 41 pp. 8°. St. Peterburg, 1797. Not seen.

Meek (Fielding Bradford). *Remarks on the geology of the valley of Mackenzie river, with figures and descriptions of fossils from that region, in the museum of the Smithsonian institution, chiefly collected by the late Robert Kennicott, esq.*

[In TRANSACTIONS of the Chicago academy of sciences. 4°. Chicago, by the academy, 1867. Vol. i, part i, pp. 61-114, pl. xi-xv.]

— *Description of new cretaceous fossils collected by the north-western boundary commission, on Vancouver and Suia islands.*

[In PROCEEDINGS of the ACADEMY of Natural Sciences of PHILADELPHIA. 8°. Philadelphia, Oct. 1861, pp. 314-318.]

Meeker (E . . .). *Washington territory west of the Cascade mountains, containing a description of Puget sound, and rivers emptying into it, the Lower Columbia, Shoalwater bay, (etc.)* 52 pp. 12°. Olympia, W. T., [for the author], 1870.

Melnitski (Vsevolod). *Некрологъ Павла Николаевича Головина.* [Obituary notice of Paul Nicolai-evich Golovin.]

[In MELNITSKI (V.) MORSKOI SBORNIK. 8°. St. Peterburg, typogr. morsk. minist. 1862. Tome lviii, No. 4, April, pp. iii, 400-407.]

Mercantile (The) marine magazine and record of the royal naval reserve. 21 v. 8°. London, Imray & son, 1854-1874.

See BENT (Silas).

See BLACK (lieut. James).

See BLAKE (Theodore A.)

See NOTES on the physical geography of Vancouver island.

Middendorff (dr. Alexander Theodor von). *Reise in den äussersten norden und osten Sibiriens während der jahre 1843 und 1844, mit allerhöchster genehmigung auf veranstaltung der k. akademie der wissenschaften zu St. Petersburg ausgeführt und in verbindung mit vielen gelehrten herausgegeben.* 4 v. in 7. 4°. Atlas obl. fol. St. Petersburg, k. akad. der wissenschaften, 1847-75.

CONTENTS.

Vol. 1. Theil 1. Einleitung. Meteorologische, geothermische, magnetische und geognostische beobachtungen. Fossile hölzer, mollusken und fische. Bearbeitet von K. E. von Baer, H. R. Göppert, Gr. von Helmersen, Al. graf Keyserling, E. Lenz, A. Th. von Middendorff, W. von Middendorff, Johannes Müller, Chr. Peters. lvi, 274 pp. 15 pl. 1848.

Middendorff (*dr. Alexander Theodor von*)—continued.

CONTENTS—continued.

- Theil 2. Botanik. [1^o lief.] Phaenogame pflanzen aus dem hochnorden. Bearbeitet von E. R. von Trautvetter. pp. ix, 1–190, pl. 1–8. 1847.
- [2^o lief.] Tange des ochotskischen meeres. Bearbeitet von F. J. Ruprecht. pp. 193–435, pl. 9–18. 1851.
- [3^o lief.] Florula ochotensis phänogama. Bearbeitet von E. R. von Trautvetter und C. A. Meyer; Musci taimyrenses, boganidenses et ochotenses nec non fungi boganidenses et ochotenses in expeditione sibirica annis 1843–44 collecti a fratribus E. G. et G. G. Borszczow disquisiti. 148 pp. pl. 19–31. 1856.
- Vol. 2. Theil 1. Zoologie. Wirbellose thiere; annulaten; echinodermen; insecten; krebse; mollusken; parasiten. Bearbeitet von F. Brandt, W. F. Erichson, Seb. Fischer, E. Grube, E. Ménétrés, A. Th. von Middendorff. 516 pp. 32 pl. 1851.
- Theil 2. Zoologie. Wirbelthiere. [1^o lief.] Säugethiere, vögel und amphibien. Bearbeitet von A. Th. von Middendorff. 256 pp. 26 pl. 1853.
- Vol. 3. Ueber die sprache der Jakuten. Von Otto Böttlingk.
- Theil 1. Einleitung. Jakutische text. Jakutische grammatik. liv, 397 pp. 1851.
- Theil 2. Jakutische deutsche wörterbuch. 184 pp. 1851.
- Vol. 4. Sibirien in geographischer, naturhistorischer und ethnographischer beziehung.
- Theil 1. Uebersicht der natur nord- und ost-Sibiriens.
- 1^o lief. Einleitung, geographie, und hydrographie. Nebst tafel ii bis xviii des kartenatlases. Bearbeitet von A. [Th.] von Middendorff. pp. ii, 1–200. 1859.
- 2^o lief. Orographie und geognosie. Bearbeitet von A. [Th.] von Middendorff. pp. ii, 201–332. 1859.
- 3^o lief. Klima. Bearbeitet von A. [Th.] von Middendorff. pp. ii, 333–523. 1861.
- 4^o lief. Die gewächse Sibiriens. Bearbeitet von A. [Th.] von Middendorff. pp. iv, 525–783, lvi. 1864.
- Theil 2. Die thierwelt Sibiriens. Die eingeborenen Sibiriens. Bearbeitet von A. [Th.] von Middendorff.
- 1^o, 2^o lief. Die thierwelt Sibiriens. pp. iii, 785–1394, xiii. 1867–74.
- 3^o lief. Die eingeborenen Sibiriens. 2 p. l. xii, 1395–1615 pp. 16 pl. 1875.
- Путешествіе Миддендорфа, (etc.) [Voyage of Middendorff to northern Siberia forphy sical investigations.]
- [In ST. PETERBURGSKIIA VIEDOMOSTI. (The St. Petersburg Gazette.) 1845, Nos. 104–108.]
- Reviewed in ZAPISKI, (etc.) Journal of the hydrographic department. 8^o. St. Petersburg, 1846. pp. 395–397.
- Beiträge zu einer malacozoologia Rossica. [Aus den *Mémoires sciences naturelles tome vi de l'Académie impériale des sciences* besonders abgedruckt.] 151 pp. 1 l. 14 pl. 4^o. St. Petersburg, akad. der wissenschaften, 1847.
- The same. [Second part.] 1 p. l. 187 pp. 10 pl. 4^o. St. Petersburg, akad. der wissenschaften, 1849.
- The same. Third part. 94 pp. 11 pl. 4^o. St. Petersburg, akad. der wissenschaften, 1849.
- Sibirische reise. Band ii, theil 1. Wirbellose thiere. pp. 163–508, 32 pl. 4^o. St. Petersburg, akad. der wissenschaften, 1851.
- Die natur nord- und ost-Sibiriens. Geographie, hydrographie, orographie und geognosie, nebst einleitung über die entdeckungsgeschichte Sibiriens. 2 thle. 332 pp. 4^o. Atlas, 17 pl. fol. St. Petersburg, 1859–61.
- Miesiatsooslovie**, (-eslovie, -eslovam, -oslovoff, etc.) See SOBRANIE SOCHINENIE.
- Miller** (. . .) and **Krusenstern** (Adam Johann von). Описаніе экспедиціи Чичагова. [Description of Chichagoff's expedition.]
- [In ZAPISKI HYDROGRAFICHESKAKHO DEPARTAMENTA. (Journal of the hydrographic department.) 8^o. St. Petersburg, 1848. Vol. vi, pp. 100–113.]
- Miller** (Ivan). Выписка изъ журнала, (etc.) [Extract from the journal of pilot Ivan Vasilieff's voyage to the Aleutian islands in 1811 and 1812.]
- [In DUKH ZHURNALOFF. (The Spirit of the press.) 1816, xiv.]
- Milton** (viscount). See FITZWILLIAM (William Wentworth, viscount Milton).
- and **Cheadle** (Walter Butler, m. d.) See FITZWILLIAM.

Mining and Scientific Press. *A weekly newspaper.* large 8°. *San Francisco, Dewey & co.* 1868-1874.

- Sept. 9, 1868. Scientific reconnaissance of Russian America.
- Oct. 3, 1868. Explorations of the interior of Russian America.
- Oct. 10, 1868. Same—continued.
- Nov. 8, 1873. News from the Arctic.
- April 18, 1874. Stickeen and Cassiar mines; with map.

Miniscalchi-Erizzo (conte Francisco). *Le scoperte artiche narrate.* xii, 644 pp. 4 maps in separate 8° case. 8°. *Venezia, G. Cecchini, 1855. Royal Libr. Stockholm, Sweden.*

Minitzki (count admiral). *Описание Охотскаго порта 1809-17. Контръ-Адмирала Миницкаго.* [Description of the Okhotsk port, 1809-17. Count-admiral Minitzki.]

[*In* SIN OTECHESTVA. (Son of the Fatherland.) 8°. *St. Peterburg, 1829, 29 and 30. See also ZAP. HYDR. DEPT., vol. iii, 1815; and vol. vii, 1824.*]

Is this a misprint for *Melnitski*?

"Missionary Leaves" and *Native Church Advocate*, containing original letters from the missionaries and native clergy in West Africa, and other parts of the mission field occupied by the Church missionary society. Edited by rev. R. C. Billing. 11 v. 12°. *London, Hodder and Stoughton, 1868-1878.*

1878, August, no. 122, pp. 188-190. Letter from rev. A. J. Hall, of Fort Rupert, Vancouver island.

Note.—Only one number of this series has been consulted. *See also* CHURCH MISSIONARY RECORD.

Moore (J . . . S . . .). Report as special agent of the treasury department on Alaska commercial company.

[*In* CONGRESSIONAL PAPERS. H. of R.—44th Cong. 1st sess.—Ex. Doc. No. 83, pp. 187-201.]

Moore (Thomas E . . . L . . .). *Rapport du commander Moore, commandant du Plover, au secrétaire de l'amirauté.*

[*In* DEPOT GENERAL DE LA MARINE. *Annales hydrographiques.* 8°. *Paris, P. Dupont, 1850. Tome iii, pp. 325-336.*]

Morning News. fol. *Washington, 1870. A daily newspaper.*

- Feb. 24, 1870. The Alaska fur seal ring.
- 26, 1870. The Alaska swindle, (etc.)
- 28, 1870. The Alaska swindle, (etc.)

Morris (William Gouverneur). Report upon the customs district, public service and resources of Alaska territory. 1 p. l. 163 pp. 11 pl. 1 map. 8°. *Washington, government printing office, 1879.*

[*In* CONGRESSIONAL PAPERS. Senate.—45th Cong. 3d sess.—Ex. Doc. No. 59.]

Note.—Contains important data as to the resources of the territory.

— *See* CONGRESSIONAL PAPERS. Senate.—44th Cong., 1st sess.—Ex. Doc. No. 37.

See also CONG. RECORD, March 15, 1876, p. 1717; and March 20, 1876, p. 1793.

Morskoi Sbornik (Морской Сборник), edited by the committee on naval instruction. 163 v. 8° *St. Peterburg, k' morskoi typografii, 1848-1877. L. C.*

1848. Vol. i, pp. 82-89. Account of the Rus. Am. co.'s ship "Alexander's heir"; by KHRAMTSOFF, q. v. pp. 115-124, 160-165. Concerning a voyage in bidarkas and concerning the Aleutian islands; by E. L. BLASHKE, q. v.

p. 284. Note giving astronomical position; by ZAREMBO.

1849. Vol. ii, pp. 198-202. Mouth of the Anadyr river; with map.

pp. 202-205. Russian voyages around the world; by P. Ч—ъ. *See* CIRCUMNAVIGATIONS.

pp. 489-494. Voyage of the "Atka." *See* SIEVERNAIA PCHELA.

pp. 834-837. Unusual meteorological phenomenon in Bering sea in 1838, by KASHEVAROFF, q. v.

1850. Vol. iii, pp. 49-78, 143-162. The Franklin search expeditions.

pp. 81-84. Extract from the Report of the Rus. Am. co. for 1848.

pp. 214-234, 316-334. The English expedition in Bering strait; with a map.

Vol. iv, pp. 34-39. The library at Sitka; by AL. SOKOLOFF, q. v. *sub* "Russian library in America."

pp. 190-191. The Rus. Am. co.'s ship "Nicholas I."

pp. 207-209. The "Neva" wrecked at Sitka. *See* A. MARKOFF.

pp. 389-402. Gwosdeff's voyage to Bering strait in 1732; by P— (A—), q. v.

Morskoi Sbornik—continued.

1851. Vol. v, pp. 230-243. Arctic searching expedition, McClure and Collinson.
 Vol. vi, pp. 53-66. Obituary of admiral Mikhail Petrovich Lazareff.
 pp. 66-101. Biography of admiral Golovnin, with portrait; by N. I. GRECH, *q. v.*
1852. Vol. vii, pp. 93-104. Report of the Rus. Am. co. for 1850 reviewed.
 pp. 104-106. The Russo-Finnish whaling company.
 p. 316. Note on Golovnin's life.
 pp. 487-504. The Arctic expeditions; translation of a letter from the editor of the *Nautical Standard*.
 Vol. viii, pp. 415-416. Russian voyages around the world. See CIRCUMNAVIGATIONS.
1853. Vol. ix, pp. 70-80. Extract from Report of Rus. Am. co.
 pp. 349-358. Khwostoff and Davidoff; by SOKOLOFF, *q. v.*
 Vol. x, pp. 26-32. Obituary notice of admiral Th. Th. Bellingshausen.
 pp. 128-138. On the voyage of the Rus. Am. co.'s ship "Prince Menshikoff" in 1852; extract from the report of capt. LINDENBERG, *q. v.*
1854. Vol. xi, No. 1, Jan., pp. 114-115. Extract from a letter, Aug. 24, 1853, from capt. IORGAN, commander of the Rus. Am. co.'s ship "Czarevich." See IORGAN.
 No. 2, Feb., pp. 75-79. Extract from the report of the military governor of Kamchatka, Dec. 5, 1852. See ZAVOIKO.
 pp. 79-83. Condition of Kamchatka in 1853.
 Vol. xii, No. 7, July, p. 195. The departure of the "Czarevich" from Hamburg June 31, 1853, under the command of capt. Iorgan.
 Vol. xiii, No. 10, Oct., pp. 75-79. Voyage of the "Sitka" from Hamburg to Sitka; extract from the log.
 11, Nov., p. 150. Note from ZAVOIKO in Petropavlovsk.
 11, Nov., pp. 328-338. Letter from John Rae (Аюнь Ра) to the admiralty on the Franklin search.
 12, Dec., pp. 210-212. Note from Zavoiko in Petropavlovsk on movement of vessels. See ZAVOIKO.
1855. Vol. xiv, No. 1, Jan., pp. 26-28. Note from Petropavlovsk on the movement of vessels.
 1, Jan., pp. 87-97. Official report to the British admiralty on the attack upon Petropavlovsk.
 pp. 97-107. The French official account of the fight at Petropavlovsk.
 xv, No. 3, pp. 213-214. News from Petropavlovsk; with a view of Petropavlovsk, p. i.
 4, p. lix. Another view of Petropavlovsk taken from seaward.
 Vol. xvi, No. 6, (v), p. 105. The library at Petropavlovsk.
 Vol. xviii, No. 10, (v), pp. 137-139. Departure of the squadron from Petropavlovsk.
 Vol. xix, No. 11, (ii), pp. 1-11. Second visit of the English squadron to Aian.
 11, (v), pp. 83-85. News from the Russian squadron in the Pacific ocean.
 12, (v), pp. 105-125. Movements of the vessels of the Rus. Am. co. from Jan. 1, 1844, to Jan. 1, 1854.
 (vi), pp. 22-23. Review of HOLMBERG (H. J.) *Ethnographische Skizzen*, (etc.) *q. v.*
1856. Vol. xx, No. 3, (ii), pp. 305-321. Attack of the English squadron on the east coast of Siberia.
 (v), pp. 178-185. Parliamentary debate on the English squadron in the Pacific ocean.
 xxi, No. 4, (ii), pp. 159-164. Extract from the report of capt.-lieut. NAZIMOFF of Petropavlovsk for 1855.
 (v), pp. 73-75. Review of WHITTINGHAM (B.) Notes on the late expedition, (etc.) *q. v.*
 xxv, No. 12, (v), pp. 19-20. Review of WHITTINGHAM (B.) Notes on the late expedition, (etc.) *q. v.*
 13, (iv), pp. 103-105. Remarks on "History of northern expeditions, 1733-43," in Journ. of the Rus. Hydr. Dept., v. 9; by A. SOKOLOFF, *q. v.*
1857. Vol. xxvii, No. 1, (v), pp. 18-19. Review of NOVOSILSKI (P. M.) *Северный полюс и арктические открытия*, (etc.)
 pp. 20-24. Review of Report of Rus. Am. co. for 1854-55.
 No. 2, (v), pp. 49-52. Review of MARKOFF (Al.) *Russians in the Pacific*, (etc.) *q. v.*
 xxviii, No. 4, (iii), pp. 252-314. Voyage to the mouth of the Amur river; by PESHTSUROFF, RAEVSKI (etc.) *q. v.*
 xxx, No. 8, (ii), pp. 87-91. Extract from the report of the medical inspector at Petropavlovsk for 1856; dr. DAVIDOFF, *q. v.*
 xxxi, No. 9, (v), p. 5. Review of life and voyages of capt. COOK; by AL. SOKOLOFF.
 10, (v), pp. 34-39. Review of HABERSHAM (W.) *The North Pacific exploring expedition*, (etc.) *q. v.*
 xxxii, No. 11, (v), pp. 1-7. *Same*—concluded; by lieut. SAMOKHVALOFF.
 (iv), pp. 1-5. On a journey to the Amur in 1857; by N. NAZIMOFF, *q. v.*
1858. Vol. xxxiii, No. 2, (v), pp. 25-34. Review of Report of Rus. Am. co. for 1856; by A. V. FREIGANG, *q. v.*
 xxxiv, No. 3, (iii), pp. 29-50. Cruise of the corvette "America" in Japan sea and straits of Tartary in 1857.
 xxxv, No. 5, (iii), pp. 1-45. Notes on the Amur river mouth, Sakhalin, (etc.); by V. R—k, with track chart of the schooner "Vostok."

Morskoi Sbornik—continued.

- xxxvi, No. 8, (iii), pp. 351-390. Cruise of the corvette "America"—continued; *vid. antea*.
 12, (iv), pp. 115-119. Reply to an article on the Amur river; by N. NAZIMOFF.
 (v), pp. 29-31. Review of "Persia, Turkestan, Khiva, India," (etc.) *See* RUS. AM. CO.
1859. Vol. xxxix, No. 1, (v), pp. 20-24. Review of report of Rus. Am. co. for 1857.
 2, (iii), pp. 289-322. Translation of a part of McClure's journal.
 (v), pp. 27-33. Review of report of Russo-Finnish whaling company, *q. r.*
 (v), pp. 38-41. Review of HEINE (W.) Die expedition in die seen von China, (etc.) *q. r.*
 xl, No. 3, (iii), pp. 254-256. The discoveries of the Franklin search expeditions, with a map from Arrowsmith.
 (iv), pp. 42-44. Arrivals and departures in Aian during 1858.
 No. 4, (v), pp. 50-51. Review of "Amur river," *q. r.*
 pp. 52-53. Review of HEINE (Wm.) Die expedition in die seen von China, (etc.)
 Vol. xli, No. 5, (iv), pp. 34-49. On the Tunguses of Eastern Siberia; by ALEX. SGIBNEFF, *q. r.*
 xlii, No. 8, (v), pp. 25-27. Review of HEINE (Wm.) Die expedition in den seen von China, (etc.)
 xliii, No. 10, (iii), pp. 391-413. Sakhalin island and Imperial harbor; by *lieut.* N. BOSHNIAK, *q. r.*
1860. Vol. xlv, No. 1, (v), pp. 1-9. Review of Report of Rus. Am. co. for 1859; by A. V. [FREIGANG].
 2, (iii), pp. 470-505. Translation into Russian of HAILLY (Ed. du). Une campagne dans l'océan Pacifique, (etc.) *q. r.*
 xlv, No. 3, (v), pp. 1-12. Review by R. CH. of RAZIN (A.) Discovery of America, Kamchatka, (etc.) *q. r.*
 xlviii, No. 9, (iv), pp. 87-91. Reply to remarks by the director of the Rus. Am. co.; by IA. BUTKOVSKI, *q. r.*
1861. Vol. liii, No. 5, (iv), pp. 12-15. Arrivals and departures of vessels at Aian. *See* RUS. AM. CO.
 6, [iv], pp. 136-141. Reply of the director of the Rus. Am. co. to an extract from the journal of capt. Laplace. *See* RUS. AM. CO.
 liv, No. 7, [iv], pp. 18-20. Reply to Janoffsky's article on materials for the history of the Rus. Am. co.; by A. PH. KASHEVAROFF, *q. r.*
 lv, No. 10, [iv], pp. 156-176. Wreck of the whale-ships "Phœnix" and "Ocean Wave" in the Okhotsk sea; from the *Alta California*.
 [v], pp. 31-49. Review of MIDDENDORFF (A.) Voyage in Siberia, (etc.) *St. Petersburg*, 1860.
 lvi, No. 11, (iii), pp. 95-114. Notes on a voyage in the Rus. Am. co.'s ship "Tsaritza"; by V. K. Supp. pp. 1-10. Reply of the Rus. Am. co. to Kashevaroff. *See* RUS. AM. CO.
1862. Vol. lvii, No. 1, (iii), pp. 19-192. Review of the Russian colonies in America; by GOLOVIN (*lieut.* P. N.) *q. r.*
 No. 2, [iv], pp. 132-143. Review of Report of Rus. Am. co. for 1860 and of Golovin's review of the colonies.
 Vol. lviii, No. 3, [v], pp. 33-44. Supplementary notice of Golovin's review of the Rus. Am. colonies.
 No. 4, (iii), pp. 400-407. Biographical sketch of Golovin; by V. MELNITZKI, *q. r.*
 [iv], pp. 86-92. What the pursuit of fur-bearing animals is in the Rus. Am. colonies; by KASHEVAROFF, *q. r.*
 [v], pp. 152-154. Nikolaieffsk on the Amur, and Sitka island.
 Vol. lix, No. 5, [iv], pp. 52-58. Extract from the Moscow *Viedomosti* on Golovin's review of the Rus. Am. colonies.
 No. 6, supp. pp. 1-8. Reply of the Rus. Am. co. to Kashevaroff's article "What the pursuit," (etc.)
 Vol. lxii, No. 9, (iii), pp. 151-168. Reply to remarks by the director of the Rus. Am. co.; by KASHEVAROFF, *q. r.*
 [v], pp. 20-25. More material for the history of the Rus. Am. co.; by A. V. [FREIGANG], *q. r.*
1863. Vol. lxiv, No. 1, [v], pp. 48-55. Review of Report of Rus. Am. co. for 1861; by A. V. FREIGANG, *q. r.*
 No. 2, (ii), pp. 74-79. Movements of the corvette "Rynda" in 1862.
 Vol. lxv, No. 3, (ii), pp. 44-45. Movements of the corvette "Rynda" in 1862.
 (iii), pp. 107-156. Vancouver island; by CHARLES FORBES, *q. r.*
 No. 4, (iii), pp. 229-240. Remarks on the whale fishery in the Okhotsk sea; by V. ZBIESHEVSKI, *q. r.*
- Vol. lxvi, No. 5, (iii), pp. 101-182. Letters of P. N. GOLOVIN; with an introduction by V. RIMSKI-KORSKOFF. *See* GOLOVIN.
 No. 6, (iii), pp. 275-340. Letters of P. N. GOLOVIN.
 pp. 421-445. The American telegraph; from the *Сынъ Отечества*, No. xvii, Apr. 29, 1862. *See* ROMANOFF (D.)
- Vol. lxviii, No. 9, (ii), pp. 27-34. Report of the movements of the corvette "Rynda," 1862-63.
 Vol. lxix, No. 11, (iii), pp. 1-86. The Amur region; by AFANASEFF (D. M.) *q. r.*
1864. Vol. lxx, No. 2, [v], pp. 31-48. Review of TIKHMENIEFF (P.) Historical review of the Rus. Am. co.; by AFANASEFF (D. M.)
 Vol. lxxi, No. 3, [v], pp. 1-24. Review of TIKHMENIEFF (P.) Historical review of the Rus. Am. co. part ii; by AFANASEFF (D. M.)
 Vol. lxxii, No. 6, [v], pp. 21-45. Extract from Tikhmenieff, vol. ii, chaps. xii-xiv; by NEVELSKI (G. I.) *q. r.*
 Vol. lxxiii, No. 7, [v], pp. 1-17. Extract from Tikhmenieff, vol. ii, chaps. xii-xiv; by NEVELSKI (G. I.) *q. r.*

Morskoi Sbornik—continued.

- No. 8, [v], pp. 21–38. Extract from Tikhmenieff, vol. ii, chaps. xii–xiv; by NEVELSKI (G. J.) *q. v.*
 [iv], pp. 51–53. Nikolaieffsk on the Amur; by “B.”
- Vol. lxxv, No. 12, (iii), pp. 91–147. Nikolaieffsk on the Amur; by AFANASEFF (D. M.) *q. v.*
 pp. 173–. Nanaimo and its coal mines; by *sub-lieut.* HEIMBRUK, *q. v.*
 [v], pp. 1–29. Tikhmenieff’s Review of the Rus. Am. co. still further examined; by NEVELSKI, *q. v.*
 p. 30. Notice of VESSELAHIO’S (Th. Th.) review of Tikhmenieff.
1865. Vol. lxxviii, No. 5, (iii), pp. 95–110. Description of the Stikine river; by BLAKE (W. P.) *q. v.*
 1866. Vol. lxxxiii, No. 4, (iii), pp. 31–43. Sitka; by BARTOSHEVICH, *q. v.*
 1867. Vol. lxxxviii, No. 1, [iv], pp. 21–29. Movements of the corvette “Variag” in 1865–66.
 pp. 31–36. Bering’s monument; by N. A. KOCH, *q. v.*
 1868. Vol. xcv, No. 4, [ii], pp. 59–63. Wrangell Land; by N. SCHILLING, *q. v.*
 1869. Vol. c, No. 1, [ii], pp. 37–72. Commercial relations attempted between Russia and Japan. *See* A. S. SGIBNEFF.
 No. 2, [ii], pp. — —. Account of Shestakoff’s expedition. *See* SGIBNEFF.
 Vol. ci, No. 4, [ii], pp. 65–142. History of Kamchatka, 1650–1742; by A. S. SGIBNEFF, *q. v.*
 Vol. cii, No. 5, [ii], pp. 53–84. History of Kamchatka, 1742–1759; by A. S. SGIBNEFF, *q. v.*
 No. 6, [ii], pp. 37–69. History of Kamchatka, 1759–1772; by A. S. SGIBNEFF, *q. v.*
 Vol. ciii, No. 7, [ii], pp. 1–129. History of Kamchatka, 1772–1816; by A. S. SGIBNEFF, *q. v.*
 No. 8, [ii], pp. 33–110. History of Kamchatka, 1816–1856; by A. S. SGIBNEFF, *q. v.*
 Vol. cv, No. 11, [ii], pp. 1–92. History of Okhotsk, 1649–1852; by A. S. SGIBNEFF, *q. v.*
 No. 12, [ii], pp. 1–63. History of Okhotsk, 1649–1852; by A. S. SGIBNEFF, *q. v.*
 1870. Vol. cvii, No. 4, [v], pp. 37–40. Maps of Sakhalin island.
 1872. Vol. cxxi, No. 7, [iii], p. 73. Dall’s exploration in the Aleutian islands in 1871–2; from Petermann’s Mittheilung.
 1873. Vol. cxxiv, No. 1, [ii], pp. 1–66. Longitude determinations, magnetical observations, (etc.); by STARITZKI, *q. v.*
 Vol. cxxviii, No. 9, [ii], pp. 1–108. Extract from the report for 1871 of the director of the hydr. dept.
 1874. Vol. cxli, No. 4, [ii], pp. 131–139. Sakhalin island and its importance; by BUTKOVSKI, *q. v.*
 1875. Vol. cxlix, No. 7, [ii], pp. 1–34. Voyage of the “Vostok” in 1874.
 1876. Vol. clv, No. 7, [iii], pp. 51–107. History of the war in Kamchatka 1849–55; by ILLIASHEVICH, *q. v.*
 [ii], pp. 9–10, 137–141. Report of the director of the hydrographic department.
 Vol. clvi, No. 9, [iii], pp. 1–30. Voyage of the “Vostok” in 1875; by ONATSEVICH, *q. v.*
 1877. Vol. clx, No. 5, [ii], pp. 9–11, 84–121. Report of the director of the hydrographic department.
 Vol. clxi, No. 7, [iii], pp. 43–68. Shores of the Chukotsk country; by ONATSEVICH, *q. v.*
 No. 8, [iii], pp. 27–40. Shores of the Chukotsk country; by ONATSEVICH, *q. v.*
 Vol. clxii, No. 10, [ii], pp. 49–72. Magnetism and currents in the Amur region; by MAIDEL, *q. v.*
 Vol. clxiii, No. 12, [iii], pp. 25–31. Currents in La Perouse strait; by ONATSEVICH, *q. v.*

Note.—The issues of the Morskoi Sbornik, since 1855, have had in each volume five series of paginations, relating to official matter, semi-official matter, etc., respectively. These series are sometimes referred to in their indices by Roman numerals, here put in parentheses; or by letters, “O” for official, etc.; which latter kind are represented here by Roman numerals as before, but in brackets, to preserve a certain uniformity.

Mortimer (*lieut.* George). Observations and remarks made during a voyage to the islands of Teneriffe, Amsterdam, Maria’s islands near Van Diemen’s Land; Otaheite, Sandwich islands; Owhyhee, the Fox islands on the north west coast of America, Tinian, and from thence to Canton in the brig Mereury, commanded by John Henry Cox, esq. [1789.] viii, 71 pp. 3 pl. 4°. *London, for the author, 1791.*

— Waarnem. en aanmerk. geduur. eene reize naar Teneriffe, Van Diemensland, Sandwich-Eiland, de Noord-West-Kust van Amerika, enz. onder bevel van J. H. Cox. Uit h. Eng. vert. 8°. *Leyden, 1793. Not seen.*

Moskovskikh Vedomosti. МОСКОВСКИХ ВѢДОМОСТІЙ. [Moscow Gazette.] *Not seen.*

1861. Nos. 219–223. Review of TIKHMENIEFF (P.) Историческое обозрѣніе, (etc.)
 1862. No. 83.

Moskvitianin. МОСКВИТАНИНЪ, (etc.) [The Muscovite, a scientific and literary journal.] i–vi. 8°. *Moskva (Moscow), 1849–1855. Not seen.*

1849. No. 5. Song by Baranoff in 1799. *See* ZAGOSKIN.
 Nos. 8, 9, 10, 14, 16. Russians in the Pacific ocean; by MARKOFF, *q. v.*
 No. 13. Wreck of the Neva; by MARKOFF, *q. v.*

Muir (John). Letters from Alaska.

[In the DAILY BULLETIN. folio. *San Francisco*, 1879. Also reprinted in the weekly edition.]

Note.—The dates of publication do not correspond with the apparent natural sequence, nor with the date of writing as published. They are as follows:

Natural sequence, No. 3; written Aug. 8, 1879; printed Sept. 6, 1879.		
No. 4;	Sept. 5, 1879;	Sept. 23, 1879.
No. 5;	Sept. 7, 1879;	Sept. 27, 1879.
No. 1;	Sept. 25, 1879;	Oct. 29, 1879.
No. 2;	Oct. 8, 1879;	Oct. 30, 1879.
No. 7;	Oct. 16, 1879;	Nov. 8, 1879.
No. 6;	Oct. 12, 1879;	Nov. 12, 1879.

Mulgrave. See PHIPPS.**Müller (dr. Friedrich).** Grundriss der sprachwissenschaft. 2 v. 8°. *Wien*, Alfred Holder, 1878-79.

Note.—Vol. ii, now issuing, contains a sketch of the Aleut language covering 12-15 pages.

Müller (Gerhard Friedrich). Voyages from Asia to America for completing the discoveries of the north-west coast of America. [With] a summary of voyages made by the Russians on the frozen sea. From the high Dutch of s[taatsrath]. Müller by T. Jefferys. [lxvi], 76 pp. 4 maps. 4°. *London*, T. Jefferys, 1761.

— *The same.* 2d ed. viii, 120 pp. 4 maps. 4°. *London*, T. Jefferys, 1764.

— Voyages et découvertes faites par les Russes le long des côtes de la mer glaciale et sur l'Océan oriental, tant vers le Japon que vers l'Amérique. On y a joint l'histoire de fleuve Amur et des pays adjacens, depuis la conquête des Russes. Traduits de l'Allemand par Dumas. 2 v. xii p. l. 388 pp.; iv, 207 pp. 1 l. 1 map. 18°. *Amsterdam*, M. M. Rey, 1766.

Note.—The titlepage of the last-mentioned book has erroneously G. P. Muller instead of G. F. Müller.

— Efterretninger om søe-reiser og til søes giorte oplagelser som ere foretagne fra Rusland af langs med kysterne af Ishavet og fornemmelig i det østlige ocean, imod Japon og Amerika.

[In HALLAGER (Morten). Udførlige og troevaerdige efterretninger om, (etc.) 16°. *Kjöbenhavn*, 1784. pp. 1-248.]

— Sammlung russischer geschichten. 9 v. 8°. *St. Petersburg*, 1732-64.

Note.—Vol. iii, parts 1-3, contains: Nachrichten von seereisen und zur see gemachten entdeckungen, die von Russland aus langs den küsten des eismeeres und auf dem östlichen weltmeere gegen Japan und Amerika geschehen sind, zur erläuterung einer bei der Academie der wissenschaften verfertigten landkarte. 305 pp.

— Описание Сибирскаго Царства, (etc.) [Description of the Siberian realm and all events in its affairs from the beginning to the present time, but especially since its subjugation by the Russian government.] 1 v. 4°. *St. Peterburg*, 1750. *Not seen.* (*Sobol. cat.* p. 27.)

Myers (hon. Leonard). Purchase of Alaska. Speech of, in the house of representatives, July 1, 1868. 4 pp. 8°. [*Washington*, *Globe office*, 1868.]**Narrative (A)** of occurrences in the Indian countries of North America, 1817.

See M'GILLIVRAY (Simon).

Nation (The). 4°. *New York*, E. L. Godkin & co. 1869-1879. A weekly periodical.

Vol. viii, No. 201. Thursday, May 6, 1839. Alaska natives in trouble. pp. 345-346.

Vol. xi, No. 262. Thursday, July 7, 1870. Dall's Alaska. pp. 11-12.

Vol. xi, No. 264. Thursday, July 21, 1870. Dall's Alaska. p. 42.

Vol. xi, No. 265. Thursday, July 28, 1870. Dall's Alaska. p. 55.

Vol. xii, No. 311. Thursday, June 15, 1871. Alaska coast survey. p. 417.

Vol. xii, No. 313. Thursday, June 29, 1871. Raymond's map of the Yukon river. p. 449.

Vol. xiii, No. 322. Thursday, Aug. 31, 1871. Alaska and its tribes. p. 144.

Vol. xiii, No. 322. Thursday, Aug. 31, 1871. Kamtchatka—Review of Kennan's Tent life in Siberia. pp. 145-146.

Vol. xiii, No. 334. Thursday, Nov. 23, 1871. The suppressed petition. p. 330.

Vol. xix, No. 493. Thursday, Dec. 10, 1874. Proposed Icelandic immigration. p. 374.

Vol. xxi, No. 531. Thursday, Sept. 2, 1875. Elliott's report reviewed. pp. 154-155.

Vol. xxi, No. 532. Thursday, Sept. 9, 1875. Elliott's reply. pp. 163-164.

Vol. xxv, No. 646. Thursday, Nov. 15, 1877. Review of Elliott's Ten years, (etc.) and defence of Mr. Sumner, in letter from W. H. Dall. p. 298.

Vol. xxv, No. 647. Thursday, Nov. 22, 1877. Reply by Elliott. pp. 316-317.

Vol. xxv, No. 649. Thursday, Dec. 6, 1877. Rejoinder by Dall. p. 349.

National Republican (The). fol. *Washington*, 1875-1879. *A daily morning newspaper.*

- Jan. 22, 1875. Aleutian mummies.
- Mar. 9, 1876. The fur seal contract.
- Oct. 30, 1877. Apprehensions of hostilities at Sitka.
- Jan. 14, 1878. Sermon by the rev. S. Jackson on Alaska.
- Aug. 1, 1878. Seal island appointments.
- Feb. 17, 1879. Threatened outbreak at Sitka.
- Mar. 12, 1879. Alaskan boundary; Canada excited.
- Mar. 18, 1879. The Indian troubles at Sitka.
- Apr. 4, 1879. Commissioners to draft a government for Alaska.
- Apr. 10, 1879. Alarming situation in Sitka.
- May 9, 1879. Facts about the Indian difficulty.

Navarrete (Martin Fernandez de). *Collecion de los viages y descubrimientos que hicieron por mar los Españoles desde fines de siglo xv., con varios documentos inéditos concernientes á la historia de la marina Castellana, (etc.)* 6 v. 8°. *Madrid*, 1825-1837.

See also NORTH AMERICAN REVIEW, 1826, xxiii, pp. 484-489; 1827, vol. xxiv, pp. 265-294; 1839, vol. xlviii, pp. 109-143.

——— *Disertacion sobre la historia de la náutica y de las ciencias matemáticas que han contribuido á sus progresos entre los Españoles.* 421 pp. 8°. *Madrid, real academia de la historia*, 1846.

Note.—*See* pages 289 and 296 for notes on Maldonado and his apocryphal voyage.

——— *et Navarrete* (don Eustaquio Fernandez de). *Examen histórico-crítico de los viajes y descubrimientos apócrifos del capitan Lorenzo Ferrer Maldonado, de Juan de Fuca y del almirante Bartolomé de Fonte.*

[*In* COLECCION de documentos inéditos para la historia de España por Salvá (D. Miguel) y Baranda (D. Pedro Sainz de). 8°. *Madrid, imprenta de la viuda de Calero*, 1849. Tomo, xv, pp. 5-213.]

Nazimoff (N . . .). *О пути по рѣкѣ Амуръ въ 1857 году.* [On a journey to the Amur river in 1857.

[*In* MORSKOI SBORNIK. 8°. *St. Petersburg, v' typog. morsk. ministers.* 1857. Vol. xxxii, No. 11, Nov., (iv), pp. 1-5.]

Nebolsin (Pavel). *Покорение Сибири, (etc.)* [Conquest of Siberia. Historical researches.] 8°. *St. Petersburg*, 1849. *Not seen.*

From Sobolewski catalogue, p. 29.

Nelson (E . . . W . . .). *The rock ptarmigan (Lagopus rupestris) in the Aleutian islands.*

[*In* BULLETIN Nuttall Ornithological Club. 8°. *Cambridge, Mass.* 1878. Vol. iii, No. 1, January, p. 38.]

Neuman (Karl K . . .). *Историческій обзоръ дѣствий Чукотскомъ экспедиціи.* [Historical review of the results of the Chukotsk expedition.]

[*In* ISVIESTIA SIBIRSKAKHO ot'diela imp. Russ. geogr. soc. 4°. *Irkutsk*, 1871. Vol. i, Nos. 4 and 5, pp. 6-31; vol. ii, No. 3, pp. 7-28.]

Nevelski (G . . . I . . .). *Обзоръ результатовъ дѣйствія русскихъ на сѣверово-восточныхъ предѣлахъ Россіи, (etc.)* [A review of Russian doings in the north-eastern acquisitions of Russia and the part that our naval officers took in the annexation of the Amur region to Russia. Remarks on a book: Historical review of the Russ. Am. co. (Tikhmenieff), vol. ii.]

[*In* MORSKOI SBORNIK, 1864, June, vol. lxxii, pp. 21-45; July, lxxiii, pp. 1-17; Aug. vol. lxxiii, pp. 21-38; Dec. vol. lxxv, pp. 1-29.]

New Bedford Evening Standard. fol. *New Bedford, Mass.* 1875. *A daily newspaper.*

Dec. 21, 1875. The unexplored polar regions.

New York Clothier and Hatter. *New York*, 1875. *A monthly trade journal.*

Mar. 27, 1875. Terrible charges against the Alaska commercial co.

New York Commercial Advertiser. fol. *New York*, 1871-73. *A daily newspaper.*

Oct. 5, 1871. On Dall's explorations.

June 27, 1873. Mining and ship-building in Alaska.

Nov. 4, 1873. Fashions in furs.

New York Daily Tribune. fol. *New York*, 1867-1879. *A daily morning newspaper.*

Nov. 15, 1867. Walrussia. Letter from W. H. DALL, *q. r.*, with editorial comments.

Nov. 29, 1867. Siberia and a journey there; by T. W. KNOX.

Dec. 9, 1867. Seward's purchases.

Dec. 16, 1867. Aliaska. Letter from Sitka, dated Oct. 24.

Dec. 19, 1867. Aliaska. Letter from Sitka, dated Nov. 2.

Dec. 23, 1867. Aliaska. Letter from Sitka, signed L. R. W.

New York Daily Tribune—continued.

- Dec. 31, 1867. Wrangell Land. Letter from capt. Long and also one from capt. Raynor.
 Jan. 6, 1868. Aliaska.
 Jan. 9, 1868. Aliaska.
 Mar. 18, 1869. Kake Indian trouble.
 Mar. 19, 1869. A tough seal-skin job.
 Jan. 26, 1870. The tropical products of Alaska.
 Feb. 15, 1870. The Alaska humbug, &c. From Thomas's report.
 Feb. 18, 1870. Alas, Alaska.
 Mar. 3, 1870. The cost of Alaska.
 Mar. 18, 1870. Alaska matters.
 June 21, 1870. On the fur-seal bill.
 Jan. 21, 1876. Scandal in Alaska. Alaska seal fisheries.
 June 1, 1876. Fernando Wood's investigation.
 Oct. 4, 1876. Purchase of Okhotsk by the United States.
 Oct. 23, 1876. The Arctic disaster.
 Oct. 23, 1876. Wreck of a whaling fleet.
 Mar. 30, 1877. Evacuation of Alaska.
 Apr. 12, 1877. The soldiers of Alaska.
 Apr. 13, 1877. Affairs in Alaska.
 Apr. 30, 1877. No use for troops in Alaska.
 Oct. 27, 1877. A whaling bark wrecked.
 Nov. 6, 1877. A fight with Alaska Indians.
 Feb. 9, 1878. On a most beautiful maiden from Alaska.
 Aug. 7, 1878. Fur-bearing animals protected.
 Nov. 13, 1878. Esquimaux ideas in utensils.
 Dec. 3, 1878. Alaska.
 Feb. 4, 1879. Nordenskjöld's expedition.
 May 17, 1879. Nordenskjöld safe.

New York Daily Times. fol. New York, 1866-1879. A daily newspaper.

- Jan. 14, 1866. Collins's overland route—official notice. p. 1, col. 6.
 Feb. 4, 1866. Russo-American telegraph—Col. Bulkley's report. p. 3, col. 2.
 Feb. 25, 1866. Cape Clear, Ireland, to the Amoor river. p. 3, col. 7.
 Apr. 22, 1866. The projected Russo-American telegraph. p. 2, col. 6.
 June 17, 1866. The Russian telegraph. The country—the people and the experience of an American. "G." From the *Cincinnati Gazette*. p. 3, cols. 3-5.
 Mar. 31, 1867. Cession of Russian America to the United States. p. 4, col. 3.
 Mar. 31, 1867. Russian America sold to the United States. p. 5, col. 1.
 Apr. 1, 1867. The treaty ceding Russian America to the United States. p. 4, col. 3.
 Apr. 1, 1867. Cession of Russian America to the United States. p. 5, col. 3.
 Apr. 2, 1867. The treaty. *The Tribune*. p. 4, col. 2.
 Apr. 2, 1867. Russo-American telegraph—correspondence of secretary Seward on. p. 1, col. 4.
 Apr. 6, 1867. California papers on the purchase. Opinion of general Meigs and commodore Rodgers. p. 4, cols. 6, 7.
 Apr. 7, 1867. The process of negotiation. p. 3, col. 4.
 Apr. 8, 1867. The treaty before the senate. p. 4, col. 6.
 Apr. 9, 1867. Letter of P. McD. Collins on Russian America. p. 1, col. 5.
 Apr. 9, 1867. Prof. Baird on soil, climate, &c., of Russian America. p. 1, col. 5.
 Apr. 9, 1867. Letter of Horace Bushnell on Russian America. p. 1, col. 6.
 Apr. 10, 1867. The ratification of the treaty. p. 4, col. 3.
 Apr. 10, 1867. The ratification of the treaty. p. 1, col. 5.
 Apr. 11, 1867. Our new acquisition. p. 4, col. 4.
 Apr. 11, 1867. The treaty as signed. p. 1, col. 5.
 Apr. 14, 1867. Coal and wood for the Pacific coast. p. 4, col. 3.
 Apr. 19, 1867. The cession of Russian America; how viewed in England. p. 4, col. 5.
 Apr. 21, 1867. French opinion on the cession. p. 4, col. 4.
 May 3, 1867. Notes on Alaska; by G. B. No. 1. p. 2, col. 1.
 May 3, 1867. Le Nord on Russian America. p. 1, col. 3.
 May 4, 1867. Notes on Alaska; by G. B. No. 2. p. 2, col. 1.
 May 21, 1867. Letters on Alaska, by Kirkland (J. J.) and Berry (M. P.) p. 1, col. 7.
 June 17, 1867. Russia and Russian America.—Logic in vogue. p. 4, col. 1.
 June 21, 1867. The treaty ratified. p. 1, col. 2.
 June 26, 1867. Russian America and Vancouver's island. p. 4, col. 3.

New York Daily Times—continued.

- Aug. 5, 1867. Letter of F. N. Wicker to gov. Oglesby on progress of Russian American telegraph. p. 3, col. 1.
 Sept. 2, 1867. Memorial of J. L. Macdonald on cod and other fisheries. p. 3, col. 1.
 Sept. 22, 1867. Order of gen. Halleck on organization of department. p. 3, col. 5.
 Sept. 22, 1867. The peaceable annexation of Alaska. p. 4, col. 2.
 Sept. 27, 1867. Troops gone to Alaska; Russian Fur company's transfer. p. 1, col. 6.
 Oct. 17, 1867. Official report of resources and trading posts. p. 8, col. 9.
 Oct. 17, 1867. The same. p. 4, col. 4.
 Oct. 28, 1867. Return of Russo-American telegraph expedition to San Francisco. p. 5, col. 3.
 Nov. 23, 1867. Formal transfer of Alaska to the United States. p. 1, col. 5.
 Dec. 12, 1867. Gen. Halleck's instructions to gen. Jeff. C. Davis. p. 2, col. 3.
 Jan. 18, 1868. Report of Alaskan gold assay. p. 4, col. 7.
 Jan. 25, 1868. Painting of signing of Alaskan treaty presented to Seward by New York merchants. p. 8, col. 3.
 Mar. 18, 1868. The Alaska purchase. p. 4, col. 3.
 Mar. 18, 1868. Bill introduced by Mr. Williams in senate. p. 1, col. 4.
 Mar. 19, 1868. The Alaska appropriation. p. 1, col. 1.
 Mar. 19, 1868. Alaska a military department. p. 1, col. 2.
 July 1, 1868. The Alaska purchase.—Debate in house of representatives. p. 1, col. 5.
 July 2, 1868. The same. p. 1, col. 4.
 July 2, 1868. Foreign treaties stipulating money payments. p. 4, col. 5.
 July 8, 1868. The Alaska purchase. p. 5, col. 6.
 July 13, 1868. Reported discovery of gold. A letter from Allen Francis to the secretary of state. p. 5, cols. 5 and 6.
 July 15, 1868. The purchase ratified by the house. p. 1, col. 4.
 July 17, 1868. The Alaska bill as it passed the senate. p. 5, col. 3.
 July 18, 1868. Bill passes the senate. p. 1, col. 5.
 Aug. 2, 1868. Payment of the Alaskan purchase money. p. 1, col. 6.
 Aug. 2, 1868. Coal discovered at Sitka. p. 1, col. 7.
 Sept. 11, 1868. Dissatisfaction in Alaska. Gen. Halleck's investigation. p. 5, cols. 1 and 2.
 Dec. 13, 1868. Alaska. Review of the collection of capt. E. G. Fast, *q. v.* p. 1, col. 7.
 Dec. 14, 1868. The Alaska purchase money. p. 4, col. 4.
 Jan. 1, 1869. Alaska and corruption.—The *Round Table*. p. 4, col. 3.
 Feb. 7, 1869. The Alaska investigation. p. 1, col. 1.
 Feb. 10, 1869. Alaska furs. p. 1, col. 2.
 Feb. 10, 1869. The Alaska "fraud" fizzle. p. 4, col. 5.
 Feb. 28, 1869. The Alaska investigation.—Report of the house committee. p. 1, col. 6.
 Mar. 1, 1869. The Alaska investigation.—Testimony of Seward (Wm. H.) and Walker (R. J.) p. 2, cols. 2, 3, 4.
 Mar. 16, 1869. Trouble with the Chilkhat Indians reported. p. 1, col. 3.
 Mar. 20, 1869. The Alaska fur trade and emigration. p. 3, col. 6.
 Mar. 27, 1869. Statement of Aleuts before a committee of the San Francisco chamber of commerce. p. 12, cols. 2, 3.
 Apr. 25, 1869. Report of gen. J. C. Davis on Alaska Indians. p. 3, col. 6.
 June 26, 1869. Fast's collection of Alaskan antiquities. p. 8, col. 3.
 Sept. 13, 1869. Hon. Wm. H. Seward's speech at Sitka. p. 2, cols. 1, 2, 3.
 Sept. 14, 1869. Seward on Alaska. p. 4, col. 6.
 Sept. 14, 1869. Description of Seward's trip to the Chilkhat by the *Alta* correspondent. p. 5, cols. 5, 6.
 Oct. 17, 1869. Gen. Thomas's report on Alaska.—From the *Boston Advertiser*. p. 4, col. 7.
 Nov. 27, 1869. Vincent Colyer's report on Alaska.—From the *San Francisco Bulletin*, Nov. 17. p. 2, col. 4.
 Dec. 11, 1869. A word for Alaska, (etc.) A letter to the Times from "M. N." p. 2, col. 4.
 Jan. 11, 1870. Raymond's report on the position of Fort Yukon. p. 5, col. 2.
 Jan. 19, 1870. Abstract of H. H. McIntyre's report on Alaska. p. 1, col. 2.
 Jan. 28, 1870. Abstract of capt. Bryant's report on Alaska. p. 5, col. 4.
 Feb. 10, 1870. Abstract from capt. Raymond's report. p. 1, col. 2.
 Feb. 19, 1870. Receipts and disbursements in Alaska. p. 1, col. 5.
 Mar. 9, 1870. The Alaska seal fisheries bill in the house. p. 1, col. 4.
 Apr. 4, 1870. The bombardment of the Indian village at Wrangell criticised. p. 1, col. 3.
 July 31, 1870. Award of lease to the Alaska commercial company. p. 5, col. 5.
 Nov. 11, 1870. Anarchy in Alaska. p. 4, col. 4.
 Dec. 15, 1870. Extract from a letter of capt. Leonard Hartwell of New Bedford on the value of Alaska. p. 2, cols. 2, 3.
 Feb. 5, 1871. Bill to attach Alaska to Washington territory reported. p. 1, col. 7.
 July 28, 1871. What becomes of Alaska seal oil? p. 1, col. 6.
 Mar. 10, 1872. The Alaska seal monopoly. p. 1, col. 2.
 Apr. 24, 1872. Gold and silver discoveries in Alaska. p. 1, col. 2.
 Apr. 13, 1872. Unsatisfactory condition of affairs in Alaska. p. 1, col. 6.

New York Daily Times—continued.

- Oct. 10, 1872. The Alaska seal fishery. Extract from a letter from capt. Bryant. p. 5, col. 2.
 Mar. 2, 1873. Loss of the "George S. Wright." p. 5, col. 4.
 Mar. 5, 1873. The same. p. 1, col. 6.
 Mar. 7, 1873. Loss of the steamer "George S. Wright." p. 5, cols. 5, 6.
 Mar. 27, 1873. Strange story of the survivors of the "George S. Wright." p. 1, col. 2.
 May 14, 1873. The Alaskan fisheries. p. 6, col. 6.
 Aug. 15, 1873. Wreck of the steamer George S. Wright, details. p. 2, col. 2.
 Nov. 13, 1873. Gold discoveries in Alaska. p. 3, col. 3.
 Nov. 14, 1873. No liquor allowed in Alaska. p. 1, col. 3.
 Feb. 16, 1874. The fur-seal of Alaska.—Extracts from Elliott's report. p. 2, cols. 3, 4.
 Mar. 8, 1874. Alaska for a penal colony. p. 4, cols. 3, 4.
 June 13, 1874. A letter from Sitka, dated May 17, 1874, from A. B. Travers of the *Illinois*. p. 2, col. 4.
 July 9, 1874. Missionaries for Alaska. p. 4, cols. 6, 7.
 Oct. 19, 1874. Elliott on the condition of affairs in Alaska. p. 1, col. 3.
 Oct. 20, 1874. Elliott on Icelandic immigration. p. 4, col. 2.
 Dec. 9, 1874. Alaska. p. 4, cols. 5, 6.
 Feb. 22, 1875. Smuggling in Alaska; letter from gen. Howard. p. 4, col. 7.
 Apr. 8, 1875. The Alaska fur company and the seals. p. 1, col. 3.
 June 22, 1875. Loss of the U. S. steamer "Saranac." p. 1, col. 2.
 June 22, 1875. The same. p. 6, col. 2.
 July 9, 1875. Wreck of the Saranac. Capt. Queen's report. p. 2, col. 7.
 July 11, 1875. Importation of rifles into Alaska forbidden. p. 7, col. 4.
 July 15, 1875. Review of Elliott's report on Alaska. p. 4, cols. 4, 5.
 July 16, 1875. Letter from gen. O. O. Howard asking for missionaries for Alaska. p. 5, col. 5.
 July 29, 1875. The Alaska Indian trade. p. 4, cols. 6, 7.
 Aug. 26, 1875. Icelanders going to Alaska. p. 2, col. 7.
 Aug. 30, 1875. Black measles in Alaska. p. 2, col. 5.
 Sept. 15, 1875. An Alaskan silver mine. Is it on American territory? p. 1, col. 6.
 Oct. 16, 1875. A land of wonders—Alaska. p. 6, cols. 3, 4.
 Nov. 7, 1875. Alaskan mummy caves. p. 10, cols. 3, 4.
 Dec. 20, 1875. On Alaskan government. p. 4, col. 2.
 Dec. 22, 1875. Alaska to let. p. 4, cols. 3, 4.
 Jan. 6, 1876. The seal and otter in Alaska; report of lieut. Maynard. p. 1, col. 2.
 Jan. 15, 1876. The territory of Alaska; report of gen. O. O. Howard. p. 1, cols. 1, 2.
 Jan. 21, 1876. The Alaska seal fisheries; documents thereon from the treasury. p. 4, col. 7.
 Mar. 16, 1876. Investigation of the Alaska commercial co. p. 5, col. 2.
 May 2, 1876. Louis Goldstone before the ways and means committee. p. 1, cols. 1, 2.
 May 29, 1876. "The wolf's long howl." p. 4, cols. 3, 4.
 Mar. 18, 1879. The woes of Alaska.
 Apr. 5, 1879. Unruly Indians.

New York (The) Evangelist. fol. *New York*, 1879. *A weekly religious newspaper.*

- Feb. 13, 1879. Alaska's resources and needs; addresses by rev. S. JACKSON and capt. EBENEZER MORGAN.

New York Herald. Russian America—its vast resources.

- [In the NEW YORK HERALD, 1867, April 29. Also in CONGRESSIONAL PAPERS. H. of R.—40th Cong. 2d sess.—Ex. Doc. No. 177, pp. 44–51.]

New York Herald (The). fol. *New York*, 1874–1879. *A daily newspaper.*

- Dec. 21, 1874. Alaskan immigration. Report of Ólafsson.
 Oct. 7, 1878. Letter from Attu island.
 Dec. 31, 1878. Nordenskjöld's fate, etc.
 Feb. 4, 1879. Value of Alaska.
 Feb. 5, 1879. Mission work in Alaska.
 Feb. 20, 1879. British gunboat at Sitka.
 Feb. 22, 1879. Our wards in Alaska, etc.
 Feb. 23, 1879. Give the whites a reservation.
 Feb. 23, 1879. Helpless Alaska; by rev. J. G. Brady.
 Feb. 23, 1879. The northeast passage.
 Feb. 26, 1879. Alaska as a penal colony.
 Feb. 27, 1879. Affairs in Alaska.
 Mar. 8, 1879. The Alaska troubles; letter from Wm. G. Morris.
 Apr. 5, 1879. A commission to draft a government for Alaska.
 Apr. 11, 1879. Alaska an American Zululand.
 Apr. 18, 1879. Alaska, Morris's report; Brown's report, etc.
 Apr. 22, 1879. The "Alaska" at Sitka.

New York Herald (The)—continued.

- Apr. 23, 1879. Alaskan troubles.
 May 3, 1879. The Sitkan troubles, etc. Census of Sitka.
 May 5, 1879. Description of Sitka.
 May 7, 1879. Sitkan troubles. Letter from Father Metropolsky, etc.
 May 8, 1879. Sitka Hootchenoo.
 May 9, 1879. Affairs in Alaska.
 May 10, 1879. Letter from W. H. Dall on Alaska's needs.
 May 16, 1879. Quiet in Alaska.
 May 21, 1879. Capt. Dunbar's experience in the Arctic.
 May 27, 1879. Nordenskjöld's safety.
 June 26, 1879. Arctic expedition under De Long.
 June 30, 1879. Arctic expedition under De Long.
 July 8, 1879. Arctic expedition under De Long.
 July 9, 1879. Off to the pole; with circumpolar map.—Sailing of the Jeannette.
 July 10, 1879. The Jeannette's mission. Arctic explorers.
 July 11, 1879. American Arctic expedition.
 July 14, 1879. Letter from Alaska.
 Aug. 8, 1879. The Alaska community: letter from Alaska.
 Aug. 11, 1879. Nordenskjöld in the Arctic.
 Aug. 16, 1879. American Arctic expedition; letter from Unalashka.
 Aug. 25, 1879. Voyage of the Jeannette to Unalashka.
 Aug. 26, 1879. Letter from lieut. De Long to the secretary of the navy.
 Aug. 29, 1879. Nordenskjöld's voyage.
 Aug. 31, 1879. Letter from Alaska.—Loss of steamer Nordenskjöld.
 Sept. 5, 1879. Nordenskjöld arrives at Yokohama.
 Sept. 10, 1879. News from the Jeannette.
 Sept. 30, 1879. News from the Jeannette.
 Oct. 1, 1879. Mining in Alaska.
 Oct. 10, 1879. Letter from the Jeannette.
 Oct. 17, 1879. Letter from the Jeannette.
 Nov. 9, 1879. Last news from the Jeannette.
 Nov. 21, 1879. Reports of whalers.

New York Journal of Commerce. fol. *New York, 1876. A daily newspaper.*

- Jan. 17, 1876. Alaska commercial co.

New York Semi-weekly Evening Post. fol. *New York, 1871–1879. A semi-weekly newspaper.*

- | | |
|---|--|
| Oct. 28, 1871. Petition from Alaska. | June 11, 1875. Campbell's appointment criticised. |
| Nov. 2, 1871. Alaska commercial co. | June 25, 1875. The Saranac. |
| Nov. 15, 1871. Petition from Alaska. | June 29, 1875. One way of reducing the navy. |
| Nov. 18, 1871. Fur trade. | July 9, 1875. Elliott's report on Alaska. |
| Mar. 12, 1872. Fur trade. | July 16, 1875. Indian civilization. |
| Apr. 5, 1872. Ethnological note. | Oct. 19, 1875. Gold in Alaska. |
| Apr. 30, 1872. San Francisco fur trade. | Jan. 18, 1876. Howard's report. |
| June 7, 1872. Fur-seal of Alaska. | Feb. 15, 1876. Alaska fur-seal fisheries. |
| June 11, 1872. Alaska trade. | Feb. 22, 1876. Alaska fur-seal lease. |
| July 9, 1872. The Alents of Alaska. | May 30, 1876. The Alaska contracts. |
| Sept. 6, 1872. Brief note. | Sept. 1, 1876. Facts about furs. |
| Sept. 17, 1872. Alaskan affairs. | Oct. 24, 1876. Loss of twelve whaling ships. |
| Nov. 19, 1872. Mastodon remains in Alaska. | Nov. 28, 1876. The furrier's harvest. |
| Aug. 22, 1873. Relics of the "Geo. S. Wright." | Mar. 23, 1877. Senator Morton's son John. |
| Aug. 29, 1873. Preparations for laying a Pacific cable. | Apr. 10, 1877. News of the "George S. Wright." |
| Sept. 9, 1873. Proposed Pacific cable. | June 5, 1877. Discovery of a survivor of the "George S. Wright"—his confession, (etc.) |
| Sept. 12, 1873. Affairs in Alaska. | Aug. 14, 1877. Sticken boundary. |
| Sept. 16, 1873. Stikine gold mines. | Sept. 28, 1877. Sitka news by chaplain COLLINS. |
| Apr. 3, 1874. Alaska fisheries. | Oct. 5, 1877. The Stikine river. |
| Nov. 17, 1874. Dall's explorations. | Jan. 8, 1878. Proposed catholic mission at Nulato. |
| Dec. 1, 1874. Our Icelandic immigrants. | Feb. 4, 1879. The Nordeuskjöld expedition; letter from Dall and Herendeen. |
| Dec. 24, 1874. Alaska and the Icelanders. | Feb. 7, 1879. Ship "Columbia" and sloop "Washington." |
| Dec. 29, 1874. Seal skins. | Mar. 18, 1879. The cloud at Sitka. |
| Jan. 1, 1875. Alaska—Elliott's report. | Mar. 21, 1879. Aid for Sitka. |
| Feb. 12, 1875. Report of deputy collector John A. Carr. | |
| May 25, 1875. Care of Alaska Indians. | |

New York Semi-weekly Tribune. fol. *New York*, 1870–1878. *A semi-weekly newspaper.*

- | | |
|---|--|
| May 27, 1870. Dall's Alaska reviewed. | Dec. 22, 1874. Value of Alaska. |
| June 10, 1870. Dall's surveying scheme criticised. | Dec. 29, 1874. The Icelanders and Alaska. |
| Mar. 21, 1871. Resources of Alaska. | Jan. 5, 1875. Fur-trade and fisheries of Alaska. |
| Apr. 11, 1871. Sale of all trading posts to Hutchinson Kohl & co. | Feb. 16, 1875. Civilizing Alaska—Carr's letter. |
| Apr. 7, 1874. A fur-seal commissioner. | Jan. 15, 1878. Alaska calls for schools. |
| | <i>See also</i> vol. xxv, No. 2598. |

Nicolay (rev. Charles Grenfell). *The Oregon territory: a geographical and physical account of that country and its inhabitants, with outlines of its history and discovery.* 226 pp. 1 map, 1 pl. 18°. *London, C. Knight & co.* 1846.

Nierop (Dirck Rembrant[s]z von). *Eenige oefeningen, in god-lijke, wis-konstige, en natuerlijke-dingen.* 2 v. 4 p. l. 84 pp.; 68 pp. sm. 4°. *Amsterdam, G. van Goedesbergh en A. S. van der Storck, 1669–1674.* *See* vol. ii, art. 2.

Note.—Art. ii, vol. 2, is a narrative of some observations made upon several voyages undertaken to find a way for sailing about the north to the East Indies; together with instructions given by the Dutch East India company for the discovery of the famous land of Jesso near Japan. To which is added a relation of sailing through Northern America to the East Indies. *See also* PHIL. TRANS. 1674, Numb. 109, vol. ix, pp. 197–208.

Nordenskiöld (Nils Adolf Erik). *Memorial concerning the Arctic expedition of 1878.* (Translation.) 30 pp. 8°. *Göteborg, Göteborgs handelstidnings aktiebolags tryckeri, 1877.*

Note.—Program for a voyage NE. from Europe via Bering strait to circumnavigate Asia, with synopsis of previous voyages along the north coast of Asia.

—— *The Arctic voyages of Adolf Erik Nordenkskiöld, 1858–1879.* xiv, 1 l. 447 pp. 8°. 43 cuts, 4 maps. *London, Macmillan & co.* 1879.

Note.—Translated and compiled from various sources by Alex. Leslie with the authority of Prof. Nordenskiöld, and containing a bibliography of works which have arisen from the voyages in which he has taken part, by many authors and in various languages. The Danish form of the name, also commonly used, is *Nordenskjöld*.

Nordmann (dr. Alexie von). *Notiz ueber eine riesenform der miesmuschel aus den Russisch-Amerikanischen besitzungen, Mytilus edulis, forma gigantea.* 1 p. l. 18 pp. 3 pl. 8°. *Moskau, in der buchdruckerei der kaiserlichen universität, 1863.*

Note.—This is *Mytilus californianus* Conrad, a quite distinct species from the *edulis*.

Northwest-durchfahrt (Die). [anon.] 1^{ster} artikel.

[In UNSERE zeit, v. 8, 1864, pp. 567–591.]

—— 2^{ter} artikel. *Die unternehmungen zur erforschung des schicksals Franklin's und seiner gefährten.*

[In UNSERE zeit, v. 8, 1864, pp. 681–710.]

Northeast Passage. Summary observations and facts collected from late and authentic accounts of Russian and other navigators to show the practicability of a northern passage for vessels between the Atlantic and Pacific oceans, or nearly to approach the north pole, (etc.) [anon.] 1 p. l. 29 pp. 4°. *London, J. Nourse, 1776.*

Northwest (The) American-boundary question. [anon.]

[In FRASER'S magazine. 8°. *London, G. W. Nickisson.* Vol. 27, 1843, pp. 484–502.]

Northwest (The) Boundary. *See* CONGRESSIONAL PAPERS. Senate—40th Cong. 2d sess.—Ex. Doc. No. 29. *Also* UNITED STATES; State Department.

—— Notice respecting the boundary between his majesty's possessions in North America and the United States; with a map of America between latitudes 40° and 70° north and longitudes 80° and 150° west. [anon.] 12 pp. 1 map. 8°. *London, B. McMillan, 1817.*

Northwest Company, carrying on trade from Montreal to the Indian territory, (etc.) The memorial of messrs M'Tavish, Fraser, and co. and messrs. Inglis, Felice, and co. on behalf of themselves and others, [on the subject of the proceedings of the earl of Selkirk in the Indian territories of North America.] 43 pp. 4°. *London, B. McMillan, 1816.*

—— Report of the proceedings connected with the disputes between the earl of Selkirk and the Northwest company at the assizes held at York, in Upper Canada, October 1818. From minutes taken in court. xxvi, 225, 203, 48 pp. 8°. *London, B. McMillan, 1819.*

Northwest Passage. Communications on a northwest passage and further survey of the northern coast of America. Received by the committee of the Royal geographical society, appointed 8th February, 1836, to examine them.

[In JOURNAL of the Royal geographical society of London. 8°. London, J. Murray, 1836. Vol. vi, pp. 34-50.]

Northwest (The) Passage. [anon.]

[In FRASER'S magazine. 8°. London, J. W. Parker & son, 1853. Vol. 48, pp. 535-538.]

Osakoff (Ivan). Амурский край, (etc.) [The Amur region; in respect to its commerce, manufactures, and economy.] 8°. St. Petersburg, 1865. *Not seen.*

Notes on the physical geography of Vancouver's island. [anon.]

[In MERCANTILE (The) marine magazine and record of the royal naval reserve. 8°. London, Murray & son, 1867. Oct. Vol. xiv, pp. 299-310.]

Notices (Hydrographic). See UNITED STATES, NAVY DEPARTMENT.

Nouvelles annales des voyages, de géographie, et de l'histoire. Rédigées par Malte Brun, J. B. B. Eyriès, (etc.) 1-6^e série. 206 v. in 110. 8°. Paris, 1819-70.

— *The same.* Tables générales et raisonnées des séries 1-3. 1819-1839. 8°. Paris [1841].

Note.—This series was preceded by *Annales des voyages, etc.*, q. v. 1813, xx, pp. 43-72.

1828. VII. pp. 229-231.

1841. I. p. 5.

1830. I. pp. 487-488.

1846. III. p. 87.

See also VENIAMINOFF, (I.)

Oakland Daily News. fol. Oakland, Cal. 1873. *A daily newspaper.*

June 2, 1873. The Alaska commercial co.

June 5, 1873. The Alaska commercial co.

June 9, 1873. Slavery in Alaska.

Okhotsk. Ochotsk und seine Geschichte.

[In DAS AUSLAND. fol. Augsburg, J. G. Cotta, 1865. No. 16, pp. — —.] *Not seen.*

Ólafsson (Jón). Alaska. Lýsing a landi og lands-kostum, ásamt skýrslu innar íslenzku sendineýndar um stofnun íslenzkrar nýlendu. 4 p. l. 48 pp. 8°. Washington, D. C. [government printing office] 1875.

— Report of the Icelandic committee from Wisconsin on the character and resources of Alaska. 6 pp. 8°. Washington, government printing office, 1875.

Old and New. 8°. Boston, H. O. Houghton & co. 1870. *A monthly periodical.*

See DALL (Wm. H.)

See HOWES (Osborne, jr.)

Oltmanns (Jabbo). Beobachtungen über die neigung und abweichung der magnetnadel, ausgeführt auf einer reise um die welt von don Alexandro Malaspina und seinen geführten, mitgetheilt vom Herrn prof. J. Oltmanns unterm 18 Sept. 1825.

[In ASTRONOMISCHES jahrbuch für das jahr 1828. 8°. Berlin, 1825. Vol. 53, pp. 185-190.]

— Untersuchungen über die geographie des neuen continents. 8°. 2 v. Paris, 1810. (*Not seen*; cf. vol. ii.)

Onatsevich (lieut. Mikhail Lukian). Краткій гидрографическій обзор плаванія шкуны "Востокъ," (etc.) [Brief hydrographic review of the voyage of the schooner *Vostok* (Orient) in 1875.]

[In MORSKOI SBORNIK. 8°. St. Petersburg, 1876. Vol. clvi, No. 9 [iii], pp. 1-30.]

— Замѣтки во время плаванія около береговъ Чукоткой земли, (etc.) [Notes taken during a voyage along the Chukotsk shores and in the Arctic ocean in 1876.]

[In MORSKOI SBORNIK. 8°. St. Petersburg, 1877. Vol. clxi, No. 7 [iii], pp. 43-68; continued in No. 8 [iii], pp. 27-40.]

— Нѣсколько замѣчаній о теченіяхъ въ Лаперузовомъ проливѣ. [A few remarks on the currents in La Perouse strait.]

[In MORSKOI SBORNIK. 8°. St. Petersburg, 1877. Vol. clxiii, No. 12 [iii], pp. 25-31.]

— [A communication not seen.]

[In VIESTNIK, etc., (Messenger) Rus. Geogr. Soc. for 1877, p. 355 seq.]

Reviewed by PETERMANN (A.) Geogr. Mitt. 1878, Heft iv, p. 159.

Onatsevich (*lieut. Mikhail Lukian*)—continued.

— *Собрание наблюдений*, (etc.) [Collection of observations taken during a hydrographic exploration in the Pacific ocean, 1874–1877.] 3 p. l. 112 pp. 8 pl. 5 maps. 4°. *St. Petersburg, v' tipographiye morskakho ministerstva*, 1878.

Reviewed in PETERMANN (*dr. A.*) MITTHEILUNGEN, etc. 4°. *Götha, Justus Perthes*, 1879. Band 25, Heft 4, pp. 136–141.

See MORSKOI SBORNIK June or July, 1878, for another paper.

Onis (Louis de). Memoir upon the negotiations between Spain and the United States of America, which led to the treaty of 1819. With a statistical notice of that country. Accompanied with an appendix, containing important documents for the better illustration of the subject. Translated from the Spanish, with notes, by Tobias Watkins. 152 pp. 8°. *Washington, E. De Krafft*, 1821.

— *The same*. 152 pp. 8°. *Baltimore, F. Lucas, jr.* 1821.

Onis (Louis de) and **Adams** (John Quincy). Official correspondence between don Louis de Onis and John Quincy Adams in relation to the Floridas and the boundaries of Louisiana, with other matters in dispute between the two governments. 130 pp. 8°. *London, E. Wilson*, 1818.

Oregon-Gebiet, das. "Der Rechtstitel der Vereinegen Staaten klar und unbestreitbar." Offizielle correspondenz des brittischen bevollmächtigten Ministers in Washington und des Staatsecret. der Vereinigten Staaten. (Uebersetzung.) 8°. *Bremen, Schünemann*, 1846. *Not seen*.

Ornithology of Alaska. See

ADAMS (Edward).

BAIRD (S. F.)

BRANDT (Johann F.)

COINDE (J. P.)

DALL (William H.)

DALL (W. H.) and BANNISTER (H. M.)

ELLIOTT (Henry W.) [Dr. Elliott Cones.]

FINCH (Otto).

HARTING (James E.)

WOSSENSSENSKI (E.)

Osborn (commander Sherard). The discovery of the northwest passage by H. M. S. "Investigator," capt. R. M'Clure, 1850–1854. xix, 405 pp. 1 map, 4 pl. 8°. *London, Longmans*, 1856.

Otechestvenniia Zapiski. Отечественные Записки, (etc.) [Journal of the Fatherland, published by Paul Svinin.] 46 v. 8°. *St. Petersburg*, 1818–1830. *Not seen*.

— *The same*. [Journal of the Fatherland, a scientific-literary journal published by Andr. Kraeffski.] — v. 8°. *St. Petersburg*, [1831–1852?] 1853–1856; 1858–1860. *Not seen*.

1849. Nos. 10–12. Voyage of the Blakhonamierennii. See K. K. HILSEN.

1850. No. 6. Okhotsk; by POLONSKI (A. S.)

1851. No. 1. Letter from V—IE (P.) q. r.

1851. No. 3. Bering's first expedition; by POLONSKI (A. S.)

Our Boys and Girls. How they live in Alaska. By one who has tried it.

[In OUR BOYS AND GIRLS. 8°. *Boston, Lee & Shepard*. 1871. pp. 104–107.]

Overland Monthly. 8°. *San Francisco, J. H. Carmany & co.* 1870–1875. A monthly magazine.

1870, vol. iv, No. 3, March, pp. 258–264. British Columbia.

1870, vol. v, No. 5, November, pp. 438–443. The Aleutian islands.

1872, vol. viii, No. 1, January, pp. 64–71. Cook's Inlet, Alaska. See WYTHE (W. T.)

1872, vol. viii, No. 6, June, pp. 549–555. Pavy's expedition to the north pole.

1874, vol. xiii, No. 1, July, pp. 25–30. Deserted hearths. See DALL (W. H.)

See also FRANKLIN (capt. R. S.) and SCAMMON (capt. C. M.)

P . . . (A . . .) = **Polonski** (Alexander Semeonovich); q. v.

Pallas (Peter Simon). Reise durch verschiedene provinzen der Russischen reichs. 3 v. 4°. *St. Petersburg*, 1771–76. *Not seen*.

— П. С. Паллаца, путешествіе, (etc.) [P. S. Pallas's journey to various provinces of the Russian empire.] In 5 parts with many plates. 3 v. 4°. *St. Petersburg*, 1773–88. *Not seen*.

— Icones insectorum praesert. Russiae-Sibiriaeque. 4°. *Erlangen*, 1781. *Not seen*.

— Nachrichten von den Russischen entdeckungen zwischen Asia und Europa (!) *Not seen*.

[In BÜSCHING (Anton Friedrich). MAGAZIN für die neue historie und geographie. 4°. *Halle(?)*, 1782. Vol. xvi, pp. 235–286.

Also in HISTORISCH-GEOGRAPHISCHEN KALENDER für das jahr 1781. *St. Petersburg*.]

Pallas (Peter Simon)—continued.

- *Neue beschreibung der Kurilschen inseln.* (Nach dem russischen original.) [anon.]
[In PALLAS (P. S.) *Neue nordische beiträge*, (etc.) 12°. *St. Petersburg u. Leipzig, J. Z. Logan*, 1783. Vol. iv, pp. 112–141.] Probably by Pallas.
- *Travels into Siberia and Tartary, provinces of the Russian empire.* Taken by order of the empress of Russia, under the direction of the imperial academy of sciences at St. Petersburg, 1768–1774.
[In TRUSLER (John, d.d.) *The habitable world*, (etc.) 8°. *London*, 1788–89. Vols. ii–iv.]
- *Linguarum totius orbis vocabularia comparativa; angustissimae cura collecta.* Sectionis primae, linguas Europae et Asiae complexae. 2 parts, 4 l. unp. 411 pp.; 4 l. unp. 491 pp. 4°. *Petropoli, C. Schnoor*, 1789.
- *Flora Rossica.* 101 col. pl. 2 parts in 1 v. fol. *Petropoli*, 1784–88. *Not seen.*
- *The same.* *Flora Rossica seu stirpium Imperii Rossici per Europam et Asiam indigenar. descriptiones.* 2 parts in 1 v. 8°. *Francfort*, 1789.
Note.—A reprint of the text only of the preceding.
- *Voyages en différentes provinces de l'empire de Russie et dans l'Asie septentrionale*, traduit par Gauthier de la Peyronie. 5 v. 4°. Atlas fol. *Paris*, 1788–93.
- *Voyages dans plusieurs provinces de l'empire de Russie et dans l'Asie septentrionale*, avec notes par Lamarck et Langlès. 9 v. 8°. Atlas of 108 pl. [fol. ?] *Paris*, 1795. *Not seen.*
- *Neue nordische beyträge zur physikalischen und geographischen erd und völkerbeschreibung, naturgeschichte und oekonomie.* 4 v. 22 pl. 8°. *St. Petersburg und Leipzig, Cnobloch*, 1781–1783.
- *Neueste nordische beyträge u. s. w.* 3 v. 7 pl. 8°. *St. Petersburg and Leipzig, Cnobloch*. 1793–1796.
See also App. to Pennant's Arctic zoölogy.
- *О Россійскихъ открытіяхъ*, (etc.) [Concerning the Russian discoveries between Asia and America. From Cox.]
[In MIESIATSESLOVAM, 1781. Also in SOBRANIE SOCHINENIE, (etc.) 1785–1793. (Compilation of collections selected from the calendars, 1785–93. 10 v.) iv, 9.]
- *Efterretning om de Russiske opdagelser i havet imellem Asia og Amerika*, opsatte af Hr. Dr. Pallas og indrykkede i den St. Petersborgiske historiske og geographiske calender for aaret 1781.
[In HALLAGER (Morten). *Udførlige og troevaerdige efterretninger*, (etc.) 16°. *Kjöbenhavn*, 1784. pp. 249–350.]
- *Zoographia rosso-asiatica, sistens omnium animalium in extenso imperio rossico, et adjacenticibus maribus observatorum recensionem*, etc. 3 v. 4°. *Petropoli, Caes. acad. scientiarum*, 1831.

CONTENTS.

- Vol. 1. Lactantia. Aves. xxii, 568 pp. 16 col. pl.
Vol. 2. Aves. vii, 374 pp. 16 col. pl.
Vol. 3. Monocardia. vii, 428, cxxv pp. 6 col. pl.

Palmer (Aaron H. . .). *Memoir, geographical, political, and commercial, on the present state, productive resources, and capabilities for commerce of Siberia, Manchuria, and the Asiatic islands of the Northern Pacific ocean; and on the importance of opening commercial intercourse with those countries, &c.* Addressed to his excellency James K. Polk, president of the United States. 105 pp. 1 l. 2 maps. 8°. [*Washington, Tappin & Streep*, 1848.]

See also CONGRESSIONAL PAPERS. Senate.—30th Cong. 1st sess.—Miscellaneous, No. 80.

Palmer (lieut. H. . . Spencer, r. e.) *Report on the Harrison and Lilloet route, from the junction of the Fraser and Harrison rivers to the junction of the Fraser and Kayosch rivers, with notes on the country beyond, as far as the fountain.*

[In JOURNAL of the Royal geographical society of London. 8°. *London, J. Murray*, 1861. Vol. xxxi, pp. 224–236.]

— *Remarks upon the geography and natural capabilities of British Columbia, and the condition of its principal gold-fields.*

[In JOURNAL of the Royal geographical society of London. 8°. *London, J. Murray*, 1864. Vol. xxxiv, pp. 171–195.]

Pamiatnik, (etc.) *See* STURDZA (Alexander.)

Parker (rev. Samuel of Ithaca, N. Y.) Journal of an exploring tour beyond the Rocky mountains under the direction of the A. B. C. F. M., performed [by the author] in the years 1835-37. xii. 371 pp. 1 map. 12°. *Ithaca, N. Y., the author, 1838.*

Contains vocabulary of Chinook language. pp. 336-338.

Parliamentary Papers. Papers relating to the Red river settlement. July 12, 1819.

[In PARLIAMENTARY PAPERS. fol. London, —, 1819. Session of 1819. Vol. 18, pp. i-iv & 1-287, with 3 maps.]

— Convention between his majesty and the emperor of Russia: signed at St. Petersburg February 28 1825.
16

[In PARLIAMENTARY PAPERS. fol. London, R. G. Clarke, 1825. Session of 1825. Vol. 26, No. 3, 8 pp.]

— Copy of the existing charter or grant by the crown to the Hudson's Bay company; together with copies or extracts of the correspondence which took place at the last renewal of the charter between the government and the company, (etc.)

[In PARLIAMENTARY PAPERS. fol. London, —, 1842. Session of 1842. Vol. 28, No. 547, 32 pp.]

— Correspondence relative to the negotiation of the question of disputed right to the Oregon territory, on the northwest coast of America; subsequent to the treaty of Washington of August 9, 1842.

[In PARLIAMENTARY PAPERS. fol. London, T. R. Harrison, 1846. Session of 1846. Vol. 52 [695] iv, 72 pp.]

— Treaty between her majesty and the United States of America for the settlement of the Oregon boundary. Signed at Washington June 15, 1846.

[In PARLIAMENTARY PAPERS. fol. London, T. R. Harrison, 1846. Session of 1846. Vol. 52, No. 722, 4 pp.]

Pauly (T . . . de). Description ethnographique des peuples de la Russie. Publiée à l'occasion du jubilé millénaire de l'empire de Russie. 1 v. 146 l. and many colored plates. imp. fol. *St. Petersburg, 1862.* (Astor libr.)

— Ueber Herrn v. Pauly's ethnographische beschreibung Russlands. Von Herrn W. Schott.

[In ARCHIV für wissenschaftliche kunde von Russland. Her. von A. Erman. 8°. Berlin, G. Reimer, 1863. Vol. xxii, pp. 369-384.]

Peirce (Benjamin Mills). U. S. STATE DEPARTMENT. A REPORT on the resources of Iceland and Greenland. 72 pp. 2 maps. 8°. *Washington, government printing office, 1868.*

Note.—Prepared in connection with the then proceeding investigations of Alaskan resources, at the request of the department; contains a map indicating Petermann's hypothesis in regard to land north of Bering strait.

Pelly (J . . . H . . .) An account of the recent Arctic discoveries of messrs. Dease and T. Simpson.

[In JOURNAL of the Royal geographical society of London. 8°. London, J. Murray, 1838. Vol. viii, pp. 213-225; also vol. ix, 1839, pp. 325-330; and vol. x, 1841, pp. 268-274.]

Pemberton (J . . . Despard). Facts and figures relating to Vancouver island and British Columbia, showing what to expect and how to get there. ix, 171 pp. 4 maps. 8°. *London, Longmans, 1860.*

Pennant (Thomas, *ll.d.*) Arctic zoology. 2 v. 4°. *London. R. Hughs, 1784-85.*

CONTENTS.

Vol. 1. Quadrupeds. 5 p. l. cc pp. 3 l 185 pp. 9 pl.

Vol. 2. Birds. pp. 185-586, 7 l. pl. 9-23.

— *The same.* New ed. 3 v. 4°. *London, R. Faulder, 1792.*

— Beschrijving van de Noorder Poolanden. Uit het Eng. 8°. *Amsterdam, 1798. Not seen.*

Perrey (Alexis). Documents sur les tremblements de terre et les phénomènes volcaniques dans l'archipel des Kouriles et au Kamtschatka. 116 pp. 8°. *Dijon, 1864.*

[Extrait des ANNALES de la société impériale d'agriculture, d'histoire naturelle et des arts utiles de Lyon. — 1863.]

— Documents sur les tremblements de terre et les phénomènes volcaniques des îles. Aleutiennes, de la péninsule d'Aljaska et de la côte NO. d'Amerique. 131 pp. 8°. *Dijon, 1866.*

[Extrait des Mémoires de L'ACADÉMIE DES SCIENCES, Arts et Belles-Lettres de Dijon. — 1865.]

Pertsoff (E . . .). See KYBER (*dr. Johann Friedrich*).

Pestchuroff (A . . .). Путь вверх по рѣкѣ Амуръ. (Voyage up the Amur river.)

[In MORSKOI SBORNIK. 8°. St. Petersburg, 1857. Apr. Vol. xxviii [iii], pp. 255-290.]

Petermann (dr. August). Mittheilungen aus Justus Perthes' anstalt über wichtige neue erforschungen auf dem gesamtgebiete der geographie. 24 v. 4°. *Gotha, Justus Perthes, 1855–1878.*

1855. I. pp. 14–22. Population of Russia.
pp. 375–376. Commodore Rodgers' discoveries in the Arctic ocean.
1856. II. pp. 486–487. Product of the Russian possessions in the Pacific ocean.
1858. IV. p. 72. Population of the Hudson Bay territory.
pp. 119–120. Col. Grant's description of Vancouver island.
pp. 379–380. Where is fort Nascope?
pp. 502–515. British Columbia and Vancouver island.
1859. V. pp. 41–44. Concerning the researches of the Franklin search expedition; with a map.
1864. X. pp. 171–175. The Stikine river.
1864. X. pp. 357–358. On Robert Kennicott's expedition in the Hudson Bay territory, 1859–1862.
1867. XIII. p. 349. Great American expedition to Alaska.
1869. XV. pp. 1–10; 85–95. The interior of Vancouver island; from explorations by Robt. Brown.
pp. 26–37. Wrangell land and a history of expeditions north of Bering strait.
pp. 361–365. The telegraph expedition to the Yukon in Alaska (m. taf. 19).
1870. XVI. pp. 293–295. The Queen Charlotte islands.
pp. 304–305. Capt. Raymond's voyage to Fort Yukon.
1872. XVIII. p. 232. Dall's researches in the North Pacific.
1875. XXI. pp. 155–156. Coast survey work in Alaska in 1874.
1879. XXV. pp. 161–175. History of exploration in northeastern Siberia; by M. LINDEMAN, q. r.
- Die bevölkerung Russlands zur zeit der neuesten volkszählung im jahre 1851.
[In PETERMANN (A.) Geographische mittheilungen, (etc.) 4°. *Gotha, J. Perthes, 1855, February, pp. 14–22.*]
- Commodore Rodgers' entdeckungen im polar-meere.
[In same, 1855, December, pp. 375–376.]
- Ertrag der Russischen besitzungen im stellen ocean.
[In same, 1856, Heft xi und xii, December, pp. 486–487.]
- Bevölkerung der Hudsonsbai-länder.
[In same, 1858, Heft ii, February, p. 72.]
- Britisch-Columbia and Vancouver island.
[In PETERMANN (A.) Geographische mittheilungen. 4°. *Gotha, J. Perthes, 1858. Heft xii, December, pp. 502–515.*]
- Die neueren aufnahmen und forschungen in dem nordwestlichsten theile von Nord-Amerika.
[In same, 1859, Heft i, January, pp. 41–44.]
- Der Stekin-fluss im Britischen Nord-Amerika.
[In same, 1864, Heft v, May, pp. 171–175.]
- Robert Kennicott's expedition durch die Hudsonbai-länder, 1859–1862.
[In same, 1864. Heft ix, September, pp. 357–358.]
- Grosse amerikanische expedition nach Aljaska, dem von Russland abgetretenen territorium.
[In same, 1867, Heft ix, August, p. 349.]
- Das innere der Vancouver-Insel.
[In same, 1869, Heft i, January, pp. 1–10; Heft iii, March, pp. 85–95.]
- Das neu-entdeckte polar-land und die expeditionen im eismeere nördlich der Bering-strasse von 1648-bis 1867.
[In same, 1869. Band 15, Heft i, January. pp. 26–37.]
- Die königin Charlotte-Inseln.
[In same, 1870, Band xvi, Heft viii, Juli, pp. 293–295.]
- Reisen und arbeiten von W. H. Dall in den nördlichsten theilen des grossen oceans.
[In same, 1872, Heft vi, May, p. 232.]
- Petitot (le r. p. E . . . , s. J.)** Vocabulaire français-esquimau. Dialecte des Tchiglit, des bouches du Mackenzie et de l'Anderson. Précédé d'une monographie de cette tribu et de notes grammaticales. 3 p. l. lxiv, 76 pp. 4°. *Paris, E. Leroux, 1876.*
[BIBLIOTHÈQUE de linguistique et d'ethnographie américaines, publiée par Alph. L. Pinart, v. 3.]
- Géographie de l'Athabaskaw-Mackenzie et des grands lacs du bassin arctique.
[In BULLETIN de la société de géographie. 8°. *Paris, C. Delagrave, 1875. Série vi, t. x, Juillet, pp. 5–42; Aout, pp. 126–183; Sept. pp. 242–290.*]

Petitot (le r. p. E . . . , s. J.)—continued.

— Notes géologiques sur le bassin du Mac'Kenzie.

[In BULLETIN de la société géologique de France. 8°. Paris, pour la société, 1875. Série iii^{me}, tome iii, No. 2, Février, pp. 88-93.]

See also MARKHAM (C. R.) Geograph. magazine. Vol. ii, Oct. 1875, pp. 323-324; Dec. pp. 366-368; Jan. 1875.

— Monograph of Dènè-Dindjié Indians. Translated from the French by Douglas Brymner.

[In NEW DOMINION MONTHLY. 8°. Montreal, John Dougall & son, 1878, May. Vol. xxii, No. 5, pp. 587-600; continued in No. 6, pp. 696-704; also in vol. xxiii, pp. 59-69, 145-157, 268-282, 403-417, and 513-525.]

— [On the Asiatic origin of the Indians of North America.] Not seen.

[In LES MISSIONS CATHOLIQUES. 8°. Paris, Oct.-Nov. (?) 1879.]

Petitot's forschungen im nordwestlichen Amerika.

[In DAS AUSLAND. fol. Stuttgart, 1876, No. 15, April 10, pp. 286-289; also No. 16, April 17, pp. 309-312.]

Petropavlovsk. Извѣстія, (etc.) [News from Petropavlovsk.] (With view.)

[In MORSKOI SBORNIK. 8°. St. Peterburg, 1854, Nov. vol. xiii, [ii], p. 150; also, in same, 1854, Dec. vol. xiii, [ii], pp. 210-212; in same, 1855, Jan. vol. xiv [ii], pp. 26-28; and 1855, March, vol. xv, pp. 213-214.]

See ZAVOIKO.

— Библиотека въ Петропавловскомъ портѣ. (Library at Petropavlovsk.)

[In MORSKOI SBORNIK. 8°. St. Peterburg, 1855, June, vol. xvi [v], p. 105.]

Phipps (Constantine John, baron Mulgrave). Voyage towards the north pole, 1773. viii, 253 pp. 4°. London, J. Nourse, 1774.

[With COOK (James). Second voyage around the world. 4°. London, 1776.]

Pickersgill (Richard). [anon.] A concise account of voyages for the discovery of a north-west passage. Undertaken for finding a new way to the East-Indies. With reflections on the practicability of gaining such a passage. To which is prefixed a summary account of the rise and progress of navigation among the various nations of the world. By a sea officer. xxviii, 69 pp. 12°. London, printed for the proprietor; and sold by J. Bew, No. 28 Paternoster Row. 1782. B. M.**Pinart** (Alphonse L . . .). Letter from Pinart.

[In SAN FRANCISCO CHRONICLE, June 14, 1871.]

— Card from Mr. Pinart; being a letter from Oumnak island, Aug. 10, 1871, to the editor of the Bulletin.

[In DAILY EVENING BULLETIN. fol. San Francisco, 1871, Sept. 8.]

— Catalogue des collections rapportées de l'Amerique Russe (aujourd'hui territoire d'Alaska). 30 pp. 8°. Paris, J. Claye, 1872.

— Les Aléoutes et leur origine.

[In MÉMOIRES de la SOCIÉTÉ D'ETHNOGRAPHIE. 8°. Paris, Maisonneuve et cie. 1872. Tome xi, No. 63, pp. 155-165.]

— Notes sur les Koloche. [Extrait des bulletins de la société d'anthropologie de Paris, séance du 7 novembre 1872.] 23 pp. 8°. Paris, A. Hennuyer, 1873.

— The same.

[In BULLETIN de la société d'anthropologie. 8°. Paris, A. Hennuyer, 1872.]

— Eskimaux et Koloche. Idées religieuses et traditions des Kaniagmioutes. [Extrait de la revue d'anthropologie, 4^e numéro de 1873.] 8 pp. 8°. Paris, A. Hennuyer, 1873.

— The same.

[In REVUE d'anthropologie. 8°. Paris, A. Hennuyer, 1873.]

— Voyage à la côte nord-ouest d'Amérique d'Ounalashka à Kadiak (îles Aléoutiennes et péninsule d'Alaska).

[In BULLETIN de la SOCIÉTÉ de GÉOGRAPHIE de PARIS. 8°. Paris, Fraillery, 1873. Vol. —, Décembre, pp. 561-580.]

— Sur les Atnahs. [Extrait de la Revue de philologie et d'ethnographie, No. 2.] 8 pp. 8°. Paris, E. Leroux, 1875.

— The same.

[In REVUE de philologie et d'ethnographie. 8°. Paris, Leroux, 1875.] Not seen.

— La chasse aux animaux marins et les pêcheries chez les indigènes de la côte nord-ouest d'Amérique. 15 pp. 12°. Boulogne-sur-mer, C. Aigre, 1875.

Pinart (Alphonse L . . .)—continued.

—— **ETHNOLOGIE.**—Sur un abri-sépulture des anciens Aléoutes d'Aknañh, île d'Ounga, archipel Shumagin [Alaska].

[In *COMPTES RENDUS* hebdomadaires des séances de l'académie des sciences. 4°. *Paris, Gauthier-Villars*, 1875. Vol. lxxx, No. 15, 19 Avril, 1875, pp. 1032-1034.]

—— Voyages à la côte nord-ouest de l'Amérique exécutés durant les années 1870-72 par Alph. L. Pinart. Volume I, partie I (Histoire naturelle). 51 pp. 5 pl. fol. *Paris, E. Leroux*, 1875.

CONTENTS.

Minéralogie et géologie par MM. Jannettaz et de Cessac. pp. 13-27.

Paléontologie par MM. A. Gaudry et P. Fischer. pp. 29-36.

Zoologie par MM. P. Fischer, E. Perrier et P. Gervais. pp. 37-41.

—— La caverne d'Aknañh île d'Ounga [archipel Shumagin, Alaska]. 11 pp. 7 col'd pl. fol. *Paris, E. Leroux*, 1875.

—— Bibliothèque de linguistique et d'ethnographie Américains. — v. 4°. *Paris, E. Leroux*, 1875-18—.

CONTENTS.

Vol. III. PETITOT (*le r. p. E . . .*). Vocabulaire Français-Esquimaux. Dialecte des Tchiglit des bouches du Mackenzie et de l'Anderson, précédé d'une monographie de cette tribu et de notes grammaticales. 3 p. l. lxiv, 75 pp. 4°. *Paris, E. Leroux*, 1876.

—— Letter to the Bulletin concerning the Indian mounds of the Pacific coast and Indian remains on Vancouver island.

[In the *WEEKLY BULLETIN*. fol. *San Francisco*, 1876, Aug. 24.]

Platzmann (Julius). Amerikanisch-Asiatische etymologieen viâ Behrings-strasse "from the east to the west." 112 pp. 8°. *Leipzig, B. G. Teubner*, 1871. *Not seen*.

Note.—Only fifty copies printed for private circulation.

Pleschtschejeff [*or Plestchéiéf*] (Sergj Iwanowitsch). Survey of the Russian empire, according to its present newly regulated state, divided into different governments. 3d ed. Translated from the Russian, with considerable additions, by James Smirnov. xxiv, 336 pp. 11 l. 1 pl. 1 map. 8°. *London, J. Debrett*, 1792.

Poggendorff (Johann Christian). *Annalen*, (etc.)

1831. Vol. XXIII. pp. 114-119. *See KUPFFER*.

1834. Vol. XXXI. pp. 193-198. *See KUPFFER*.

Polaris, pseudonym. Sketches in Alaska, [etc., being an account of a voyage up the Kenai river (Kaknu) to lake Skelokh in 1870.]

[In the *SAN FRANCISCO SUNDAY CHRONICLE*. fol. *San Francisco*, 1875, Dec. 26.]

—— Alaskan mythology. The wonderful origin of the Kolosh tribe. The birth and career of Elkh. A land of giants and dwarfs. The crow as a patron saint and creator of animals, (etc.)

[In the *SAN FRANCISCO CHRONICLE*. fol. *San Francisco*, 1876, Feb. 27.]

—— Alaskan resources. The early colonization of our new territory. The Russian American company, (etc.)

[In the *SAN FRANCISCO SUNDAY CHRONICLE*. fol. *San Francisco*, 1876, March 5.]

Poletica (Pierre de).

See H. R. Ex. Doc. No. 112.—1st sess. 17th Cong. vol. 8.

Polevoi (Nikolai A . . .). Кирило Тимофеевичъ Хлѣбниковъ, (etc.) [Kyril Timofeëvich Khliebnikoff, director of the colonies of the Russian American company.]

[In *SIN OTECHESTVA*. (Son of the Fatherland.) 1838, iv, 1; also in *SIEVERNAIA PCHELA*. (Northern Bee.) 1838, 174.]

—— Открытие Америки. [Discovery of America.]

[In *SIN OTECHESTVA*. 8°. *St. Peterburg, A. Smirdina*, 1839. Vol. iv, ii, pp. 180—†]

Polonski (Alexander Semeonovich). Охотскъ. [Okhotsk.]

[In *OTECHESTVENNIA ZAPISKI*. (Journal of the Fatherland.) 1850, No. 6.]

See SOKOLOFF and KARACHEFF.

Polonski (Alexander Semeonovich)—continued.

— Первая Камчатская экспедиция, (etc.) [First Kamchatka expeditions, Bering, 1725–29.]

[In ZAPISKI HYDR. DEPT. (Journal of the hydrographic department.) 8°. St. Petersburg, 1850. Vol. viii, pp. 535–556.]

— Курилы. [The Kuriles.]

[In ZAPISKI imp. Russ. geogr. obshchestva. (Journal of the imperial Russian geographical society; ethnographic section.) 8°. St. Petersburg, 1871. Vol. iv, pp. 367–576.]

Note.—A long and important article, a brief extract from which may be seen in the Mittheilungen der K. K. geog. gesellschaft in Wien, vol. xv, 1872, pp. 554–563.

— Походъ геодезиста Михайла Гвоздева, (etc.) [Journey of surveyor Mikhail Gvosdeff to Bering strait in 1732.]

[In MORSKOI SBORNIK. 8°. St. Petersburg, 1850, Nov. Vol. iv, pp. 390–402.]

Polu-sibiriak (Half-Siberian), *pseudonym*. Кое-что по поводу извѣстiя, (etc.) [Something about the motive for the statement about the discovery of gold in the Russian possessions in North America.]

[In SIBIRSKI VIESTNIK. (Siberian Messenger.) 1866, No. 7.]

Poole (Francis). Queen Charlotte islands; a narrative of discovery and adventure in the north Pacific. Edited by John W. Lyndon. xv, 347 pp. 4 pl. 1 map. 8°. London, Hurst & Blackett, 1872.

Poplonsky (capt.-lieut. Vasili). [anon.] Гавань Константиновская, (etc.) [Constantine harbor and two newly-discovered islands (Menshikoff and Reineke) in the Okhotsk sea.]

[In ZAPISKI HYDR. DEPT. (Journal of the hydrographic department.) 8°. St. Petersburg, 1848. Vol. vi, pp. 92–99.]

See also ANNALES HYDROGRAPHIQUES, (etc.) Vol. ii, pp. 394–397.

Popoff (N . . . I . . .). Общiй историческiй обзоръ, (etc.) [General historical review of archeological investigations in Siberia.]

[In ISVIESTIA SIBIRSKAKHO, (etc.) Imp. Russ. geogr. soc. 4°. Irkutsk, 1871. Vol. ii, Nos. 1 and 2, pp. 46–60.]

Population. Народонаселенiе, (etc.) [Population of the Russ. Am. colonies. Tables.]

[In ZHURNAL MINIST. VNUTRENNIKH DEL. (Journal of the Interior Department.) 1834, xiii.]

Porcacchi (Thomaso de Castiglione). L'isole piv famose del mondo descritte da Thomaso Porcacchi da Castiglione arretino e intagliate da Girolamo Porro, Padovano, (etc.) Engraved titlepage, 13 leaves unpagged, 202 pp. Large 8°. In Venetia, appresso Simon Galignani et Girolamo Porro, 1576. [For ed. of 1620 see Map list, p. 177 *antéa*.]

Note.—Contains numerous engraved maps. At p. 161 is a map entitled "Mondo nuovo," upon which is shown Bering strait under the name of "Streto de Anian." It is represented to be in about the latitude of Newfoundland. It is also represented on p. 193 upon a general map of the world.

Portland (The) **Morning Oregonian**. fol. Portland, Oregon, 1879. A newspaper.

Feb. 21, 1879. Alaska; the threatened outbreak at Sitka.

Portlock (capt. Nathaniel). A voyage round the world, but more particularly to the northwest coast of America; performed in 1785–1788. xii, 384, xl pp. 20 pl. 4°. London, F. Stockdale & G. Goulding, 1789.

Reviewed in the MONTHLY review. 8°. London, R. Griffiths, 1789. Vol. lxxxi, October, pp. 319–324; 575–576.

"Translated into French by M. Lebas, and published at Paris in this (same) year, in 2 vols. 8°."

— Reis naar de noord west kust van Amerika. Gedaan in de jaren 1785, 1786, 1787 en 1788. Door de kapteins Nathaniel Portlock en George Dixon. Uit derzelver oorspronkelijke Reisverhalen zamengesteld en vertaald. Met platen. xii, 2 l. unp. 265 pp. 1 map, 9 pl. sm. 4°. Amsterdam, Matthijs Schalekamp, 1795.

— Reise um die welt, bes. nordwestküste von Amerika 1785–88, hg. v. Dixon, m. anm. v. R. Forster. m. 13 Kpf. 4°. Berlin, 1790. Not seen.

Postels (Alexander). Bemerkungen über die vulkane der halbinsel Kamtschatka, gesammelt auf einer reise um die welt in den jahren 1826 bis 1829 auf der brigg Senjavin unter der leitung * * * F. von Lütke.

[In MÉMOIRES présentés à l'académie imperiale des sciences de Saint-Petersbourg par divers savans. 4°. St. Petersb. acad. imp. des sc. 1835. Tome ii, pp. 11–28.]

Powell (John Wesley). Department of the interior. U. S. geographical and geological survey of the Rocky mountain region. CONTRIBUTIONS TO NORTH AMERICAN ETHNOLOGY. vol. 1, xiv, 361 pp. 9 pl. 2 maps. 4°. Washington, government printing office, 1877.

CONTENTS.

Part I. Tribes of the extreme northwest; by W. H. Dall. Appendix to part i. Linguistics.

Part II. Tribes of western Washington and northwestern Oregon; by Geo. Gibbs. Appendix to part ii. Linguistics.

Pratz (Fred. C . . .). [anon.] Letter dated at Sitka, February 25, on Alaskan affairs. "F."
[In the SAN FRANCISCO ALTA CALIFORNIA (daily). fol. San Francisco, 1875, Mar. —.]

—— Letter dated at Sitka, March 11, 1875, on Alaskan matters. "F. C. P."
[In same, 1875, March 29.]

—— Letter dated at Sitka Dec. 1st, 1875.
[In same, 1876, Jan. 2.]

Press (The). fol. Philadelphia, 1879. A daily newspaper.
Apr. 29, 1879. Proposed expedition to Alaska.

Puget Sound Courier (The). fol. Olympia, W. T., 1879. A weekly newspaper.
Feb. 21, 1879. Alaska—the Sitka outbreak.

Puget Sound Weekly Argus. fol. Port Townsend, W. T., 1875–1879. A weekly newspaper.
Jan. 9, 1875. A cat in the meal tub.
Nov. 23, 1877. Why Alaska should have civil government.
Nov. 23, 1877. Civil government in Alaska.
Apr. 26, 1878. Alaska news.
Feb. 13, 1879. Alaska to the front; Morris's report, etc.
Feb. 20, 1879. Alaska. Appeals for help.

Pullen (lieut. W . . . J . . . S . . .). Rapport du lieutenant Pullen, du brick de S. M. B. Plover, au secrétaire de l'amirauté.
[In DÉPÔT GÉNÉRAL DE LA MARINE. Annales hydrographiques. 8°. Paris, P. Dupont, 1850. Tome iv, pp. 216–236.]

Queen (capt. Walter W . . ., u. s. n.). Loss of the Saranac.
[In CONGRESSIONAL PAPERS. H. of R.—44th Cong. 2d sess.—Ex. Doc. No. 1, part 3. 8°. Washington, government printing office, 1875. pp. 285–290. See also pp. 7–8.]

Radloff (Leopold). Leopold Radloff's wörterbuch Kinai-sprache herausgegeben von A. Schiefner. (Lu le 5 mars 1874.) x, 33 pp. 4°. St. Petersburg, 1874.
[In MÉMOIRES de l'académie impériale des sciences de St. Petersburg. VII^e série, tome xxi, No. 8.]

Raevski (Julius). Береговой путь отъ чстья Амура къ порту Аяну. [Journey along the coast from the mouth of the Amur to Aian.]
[In MORSKOI SBORNIK. 8°. St. Peterburg, 1857, April. Vol. xxviii [iii], pp. 290–300.]

Rathke (dr. Martin Heinrich). See ESCHSCHOLTZ (dr. Friedr.).

Battray (Alexander, m. d.). Vancouver island and British Columbia; where they are; what they are; and what they may become, (etc.) viii, 182 pp. 1 map, 1 tab. 4 pl. 8°. London, Smith, Elder & co., 1862.

Raymond (capt. Charles W . . .). Report of a reconnaissance of the Yukon river, Alaska territory, July to September, 1869. 113 pp. [1 map separately published.] 8°. Washington, government printing office, 1871.

[CONGRESSIONAL PAPERS. Senate—42d Cong. 1st sess.—Ex. Doc. No. 12.]

See also DAILY WASHINGTON CHRONICLE. fol. Washington, 1870, Jan. 11.

The same in PETERMANN (A.) GEOGRAPHISCHE MITTHEILUNGEN. 4°. Gotha, Justus Perthes, 1870. Vol. xvi, heft viii, pp. 304–305.]

—— The Yukon river region, Alaska. Read April 12, 1870.

[In JOURNAL of the American geographical and statistical society. 8°. New York, 1873. Vol. iii, pp. 158–192.]

Razin (A . . .). Открытие Америки, (etc). [Discovery of America, Kamchatka, and the Aleutian islands. Written for children.] 3 pl. 2 maps, 272 pp. 8°. St. Peterburg, M. O. Wolf, 1860.
Reviewed in MORSKOI SBORNIK, 1860, March. Vol. xlvi [v], pp. 1–12.

Repertorium für meteorologie herausgegeben von der kaiserlichen akademie der wissenschaften redigert von dr. Heinrich Wild. 5 v. 4°. *St. Petersburg, Imp. Acad. Sci.*, 1873-77.

Resanoff (Nikolai Petrovich). Первое путешествие Россіянъ, (etc.) [First Russian voyages around the world, described by N. Resanoff.]

In OTECHESTVENNIA ZAPISKI. (Journal of the Fatherland.) 1822, x-xii; 1824, xx; 1825, xxiii and xxiv.]

—— [anon.] Пѣскодько писемъ, (etc.) [Several letters of the deceased lord chamberlain Resanoff from Kamchatka and America.]

[*In MAIAK.* (The Lighthouse.) 1841, 13-16.]

Richardson (sir John, m. d., f. r. s.) Intelligence from the Arctic land expedition under capt. Franklin and dr. Richardson.

[*In JAMESON* (Robert), Edinburgh new Philosophical Journal. 8°. *Edinburgh and London*, 1826. Vol. i, pp. 161-166; 1827, vol. ii, pp. 161-163; 1828, vol. iii, pp. 347-350.]

—— Fauna Boreali-Americana; or the zoology of the northern parts of British America. 4 v. 4°. *London, J. Murray*, 1829-1837.

CONTENTS.

V. 1. Quadrupeds.

V. 2. Birds.

V. 3. Insects.

V. 4. Fishes.

[Vol. ii reviewed in *JAMESON* (Robert), Edinb. new Phil. Jour. 8°. *Edinburgh*, 1832. Vol. xii, pp. 392-395.]

—— A letter to capt. F. Beaufort concerning a north-west passage.

[*In JOURNAL* of the Royal geographical society of London. 8°. *London, J. Murray*, 1836. Vol. vi, pp. 37-42.]

—— Notice of a few observations which it is desirable to make on the frozen soil of British North America; drawn up for distribution among the officers of the Hudson's bay company.

[*In JOURNAL* of the Royal geographical society of London. 8°. *London, J. Murray*, 1839. Vol. ix, pp. 117-120.]

—— Note on the best points in British North America for making observations on the temperature of the air; and also for the height of the station above the level of the sea.

[*In same*, same vol. pp. 121-124.]

—— Results of thermometrical observations made at sir Edward Parry's wintering places in his Arctic voyages and at Fort Franklin.

[*In same*, same vol. pp. 331-380.]

—— On the frozen soil of North America.

[*In JAMESON* (Robert), Edinburgh new Philosophical Journal. 8°. *Edinburgh and London*, 1841. Vol. xxx, pp. 110-423.]

—— On the cultivation of the cerealea in the high latitudes of North America.

[*In same*, same vol., pp. 123-124.]

—— Register of the temperature of the atmosphere, kept at Fort Simpson, North America, in the years 1837, 1838, 1839, and 1840, by Murdock McPherson, esq.

[*In same*, same vol., pp. 124-126.]

—— Observations on solar radiation, made at Fort Franklin, in the years 1825, 1826, and 1827.

[*In same*, same vol., pp. 240-252; 419-421.]

—— Arctic searching expedition; a journal of a boat-voyage through Rupert's land and the Arctic sea in search of the discovery ships, under command of sir John Franklin [1848-1849]. 2 v. viii, 413 pp. 1 map, 9 pl.; vii, 426 pp. 1 pl. i. 8°. *London, Longmans*, 1851.

—— The zoology of the voyage of H. M. S. Herald, under the command of capt. Henry Kellett, r. n., 1845-51. Edited by Prof. Edward Forbes, f. r. s. Vertebrals, including fossil mammals. xi, 172 pp. 33 pl. 4°. *London, L. Reeve*, 1854.

—— The polar regions. ix, 400 pp. 1 map. 8°. *Edinburgh, A. & C. Black*, 1861.

Ricord. See RIKORD.

Ridgway (Robert). Birds new to the fauna of North America.

[*In PACKARD* (A. S. jr.) and PUTNAM (F. W.) *THE AMERICAN NATURALIST*. 8°. *Salem, Peabody academy of science*, 1874. Vol. viii, No. 7, July, pp. 434-435.]

—— Three additions to the avifauna of North America.

[*In BULLETIN* Nuttall ornithological club. 8°. *Cambridge, Mass.* 1878. Vol. iii, No. 1, January, pp. 37, 38.]

- Rikord** (Peter Ivanovich). Записки флота капитана Рикорда, (etc.) [Writings of naval captain Ricord concerning his voyage to the coasts of Japan in 1812 and 1813, and concerning commerce with Japan.] 1 portrait, 2 maps, 2 plates, 137 pp. 4°. *St. Peterburg*, 1816.
- *The same*. New ed. 2 portraits, 4 maps, 98 pp. 8°. *St. Peterburg*, 1851.
- Rink** (dr. Henry). Tales and traditions of the Eskimo, with a sketch of their habits, religion, language and other peculiarities. Translated from the Danish by the author. xii, 472 pp. 1 l. 6 pl. 8°. *W. Blackwood & sons, Edinburgh & London*, 1875.
- Ritter** (H . . .). Land und leute im russischen Amerika. Nach dem russischen Marine-Archiv (Morskoi Sbornik, 1862, No. 1) bearbeitet.
[In KONER (dr. W.) Zeitschrift für allgemeine erdkunde. 8°. *Berlin, D. Reimer*, 1832. Bd. xiii, *neue folge*, ste. 241-270.]
- Riumin** (. . .). Записки, (etc.) [Riumin's notes on his adventures with Benjowsky.] 8°. *St. Peterburg*, 1822. *Not seen*.
- Roche** (Alfred R . . .). A view of Russian America in connection with the present war (with Russia); a paper read before the Literary and Historical society of Quebec. 70 pp. 8°. *Montreal*, 1855. *Not seen*.
- Robert de Vangondy** (Didier). Observations critiques sur les nouvelles découvertes de l'amiral de la Fuente. 12°. *Paris*, 1753.
- Lettre au sujet d'une carte systématique des pays septentrionaux de l'Asie et de l'Amerique. 4°. *Paris*, 1768.
- Note*.—This is a "précis" of Engel's work on this subject.
- Nouvelle représentation des côtes Nord et Est de l'Asie, grav. 1772.
[In BÜSCHING (A. F.) Nachrichten. *Berlin*, 1775. iii, p. 85.]
- Mémoire sur les pays de l'Asie et de l'Amérique situés au nord de la mer de Sud. 37 pp. 1 map. 4°. *Paris*, 1774.
- Note*.—The object of this work was to reconcile the works of Delisle and Buache.
- Roberts** (Josiah) and **Magee** (Bernard). The discovery and description of the islands called the Marquesas, in the South Pacific ocean. With a farther account of the seven adjacent islands, discovered first by capt. Joseph Ingraham, and since by capt. Josiah Roberts.
[In COLLECTIONS of the Massachusetts historical society for the year 1795. 8°. *Boston, S. Hall*, 1795. First series, vol. iv, pp. 238-246.]
- Robertson** (Wyndham, jr.) Oregon, our right and title; containing an account of the territory. 2 p. l. 203, xxiv pp. 1 map. 8°. *Washington, J. & G. S. Gideon*, 1846.
- Rocky Mountain Presbyterian** (The). A home missionary paper. Published monthly by rev. SHELTON JACKSON, d.d. fol. *Denver, Col.* 1877-Jan. 1879, and *Cincinnati, O.* Feb.-Sept. 1879. *Denver and Cincinnati*, Oct. 1879 —. vols. vi-viii.
- Vol. vi, No. 6. June, 1877. Letter concerning the school at Fort Wrangell.
No. 7. July, 1877. Appeal for aid for missions in Alaska.
Nos. 6-12. June to Dec. 1877. Articles by the editor.
No. 12. Dec. 1877. Letter on the Alaska mission; from A. R. MCFARLAND.
Home mission sketches from British Columbia; by S. JACKSON.
- Vol. vii, No. 1. Jan. 1878. Home missions around the Arctic circle; by S. JACKSON.
Letter on the Alaska mission; from A. R. MCFARLAND.
Regions beyond British Columbia; by S. JACKSON.
The Wesleyan Methodist mission at Fort Simpson, B. C.; by T. CROSBY, q. r.
- No. 2. Feb. 1878. Mission church unroofed at Fort Simpson; letter from T. CROSBY.
- No. 3. Mar. 1878. Letter on the Alaska mission; from A. R. MCFARLAND.
- No. 4. Apr. 1878. Letter on the Alaska mission; from A. R. MCFARLAND.
Home mission letters to children.
- No. 5. May, 1878. A plea for Alaska; by S. JACKSON.
Letter from A. R. MCFARLAND.
- No. 6. June, 1878. Funeral and wedding feast; by A. R. MCFARLAND.
- No. 7. July, 1878. Letter from Sitka; from J. G. BRADY.
Letter from Fort Wrangell; from A. R. MCFARLAND.
- No. 8. Aug. 1878. Annual report of the ladies' board of home missions.

Rocky Mountain Presbyterian (The)—continued.

Vol. vii—continued.

No. 9. Sept. 1878. Letter from Fort Wrangell; from A. R. McFARLAND.

No. 11. Nov. 1878. Home mission work in Utah, N. Mexico, and Alaska.

No. 12. Dec. 1878. A Christmas offering for Alaska; by S. JACKSON.

Vol. viii, No. 1. Jan. 1879. Alaska; by J. G. BRADY.

Fort Wrangell; by A. R. McFARLAND.

A Christmas gift to the Saviour; by J. M. WRIGHT.

News of the Wesleyan Methodist missions in British Columbia; by CROSBY and GREEN.

No. 2. Feb. 1879. Alaska; by S. H. YOUNG.

Fort Wrangell; by A. R. McFARLAND.

No. 3. Mar. 1879. Review of Morris's report on Alaska.

Alaska; corroborative testimony by E. MORGAN.

The girls' home in Alaska; by J. M. WRIGHT.

Fort Wrangell; by A. R. McFARLAND.

No. 4. Apr. 1879. Fort Wrangell; by A. R. McFARLAND.

The value of Alaska from a British standpoint.

No. 5. May, 1879. Missionary trip to the Hoonas; by J. G. BRADY.

Fort Wrangell; by A. R. McFARLAND.

No. 6. June, 1879. Fort Wrangell; by A. R. McFARLAND.

Education among Aleuts. News.

No. 7. July, 1879. Sitka, Alaska; by J. G. BRADY.

No. 8. Aug. 1879. Fort Wrangell; by A. R. McFARLAND.

No. 9. Sept. 1879. A trip to Alaska and British Columbia.

"Hoocheenoo;" by J. G. BRADY.

The claims of Alaska and the Indians in its forests. (From the *London Illustrated Missionary News*.)

No. 10. Oct. 1879. News. Organization of the first Presbyterian church in Alaska.

Fort Wrangell, Alaska.

No. 11. Nov. 1879. News.

Alaska customs; by the EDITOR.

Letter from rev. doctor HENRY KENDALL.

A missionary band. (From the *New York Observer*.)

Fort Wrangell, Alaska; by A. R. McFARLAND.

No. 12. Dec. 1879. A canoe voyage off the coast of Alaska; by the EDITOR.

The home at Fort Wrangell.

See CROSBY (rer. T.) and JACKSON (rer. Sheldon).

Romanoff (lieut.-col. D . . .). Американскіе телеграфы. [American telegraph lines. Reply to an article (in *SIN OTECHESTVA*, 1862, Apr. 29, No. xvii), [entitled] *lieut.-col. Romanoff's report*.][In *MORSKOI Sbornik*, 1863, Jun. Vol. lxxvi [iii], pp. 421-445.]

— Русско-американскій телеграфъ по линіи Коллинса. [Russo-American telegraph by Collins' line.]

[In *St. PETERBURGSKIIA VIEDOMOSTI*. (St. Petersburg Gazette.) 1866, Nos. 37, 41, and 44.]**Romanoff** (V . . .). Предначертаніе путешествія, (etc.) [Preliminary sketch of a journey from the western shores of North America to the Polar sea and Hudson's bay.][In *MOSKOVSKI TELEGRAF*. (Moscow Telegraph.) 1825, v. 18.]

— [anon.] Пятилѣтнія медицинскія наблюденія въ колоніяхъ, (etc.) [Five years' medical observations in the colonies of the Rus. Am. co.]

[In *ZHURNAL MINISTERSTVA VNUT. DEL*. (Journal of the Interior Department.) 1849, 1 and 2.]**Roquefeuil** (Camille de). Journal d'un voyage autour du monde, pendant les années 1816, 1817, 1818 et 1819. 2 v. in 1. 1, 344 pp. 1 p. l. 407 pp. 2 maps. 8°. Paris, Ponthieu, (etc.) 1823.

— A voyage round the world between the years 1816-1819. 112 pp. 8°. London, R. Phillips & co., 1823.

Ross (Alexander). Adventures of the first settlers on the Oregon or Columbia river; being a narrative of the expedition fitted out by John Jacob Astor to establish the "Pacific Fur Company," (etc.) xvi, 352 pp. 1 map. 12°. London, Smith, Elder & co., 1849.**Ross** (Bernard R . . ., of the H. B. co.) The eastern Tinneh.[In *SMITHSONIAN INSTITUTION*. REPORT of the board of regents for 1866. 8°. Washington, 1872. pp. 303-311.]

- Ross** (capt. sir John, *r. n.*) Narrative of a second voyage in search of a northwest passage, and of a residence in the Arctic regions, during the years 1820-33 (etc.), including the discovery of the northern magnetic pole. 4 p. l. xxxiv, 740 pp. 1 chart, 29 pl. 4°. London, A. W. Webster, 1835.
Also in French and Russian translations.
- A letter to capt. Maconochie concerning a northwest passage.
 [In JOURNAL of the Royal geographical society of London. 8°. London, J. Murray, 1836. Vol. vi, pp. 47-50.]
- Rotcheff** (A . . . G . . .). Очерки сѣверозападнаго берега Америки, 1836. [Short descriptive sketch of the northwest coast of America. A letter from Sitka and the voyage of Voronkoffski for describing Alaska, 1836.]
 [In SIN OTECHESTVA. (Son of the Fatherland.) 1838, 1.]
- Rothrock** (Joseph Trimble, *m. d.*) Sketch of the flora of Alaska.
 [In ANNUAL report of Smithsonian Institution for 1837. 8°. Washington, government printing office, 1838. pp. 433-463.]
- A note from the far north.
 [In the AMERICAN NATURALIST. 8°. Salem, Mass. Essex Institute, 1838. Vol. i, No. 4, June, 1837, pp. 205-208.]
- Northwestern North America; its resources and its inhabitants. Read Dec. 17, 1872.
 [In AMERICAN geographical and statistical society, Journal of the. 8°. New York, 1874. Vol. iv, pp. 393-415.]
- Rouhaud** (Hippolyte). Les régions nouvelles; histoire du commerce et de la civilisation au nord de l'océan Pacifique. 1 v. 8°. — pp. Paris, Dentu, 1868. *Not seen.*
- Royal geographical society.** London. Arctic geography and ethnology. A selection of papers on arctic geography and ethnology. xii, 292 pp. 2 maps. 8°. London, J. Murray, 1875.
- Royal geographical society** [of London], *Journal*. 47 v. 8°. London, the society, 1831-1877.
- | | | | |
|-------|---------|-----------------------|--|
| 1831. | I. | pp. 193-222. | Beechey's voyage reviewed; by W. F. AINSWORTH, <i>q. v.</i> |
| 1833. | III. | pp. 64-71. | The Ross search expedition; by BACK (<i>sir G.</i>) <i>q. v.</i> |
| 1835. | V. | pp. 59-70. | Notes on upper California. |
| | | pp. 405-409. | Arctic land expedition. |
| 1836. | VI. | pp. 1-11. | Great Slave lake to the Polar sea; by BACK (<i>sir G.</i>) <i>q. v.</i> |
| | | pp. 34-50. | The Northwest passage. |
| | | pp. 387-393. | Erman's voyage reviewed. |
| 1837. | VII. | pp. 374-382. | Lütke's voyage reviewed |
| | | pp. 406-409. | Krusenstern's hydrog. memoirs reviewed. |
| 1838. | VIII. | pp. 210-213, 401-405. | Ground ice of Siberia; by BAER (K. E. von) <i>q. v.</i> |
| | | pp. 213-225. | Discoveries of Dease and Simpson; by PELLY (J. H.) <i>q. v.</i> |
| 1839. | IX. | pp. 117-120. | Frozen soil of British America; by RICHARDSON, (<i>sir JOHN</i>) <i>q. v.</i> |
| | | pp. 121-124. | Best points for temperature observations; by <i>same</i> . |
| | | pp. 325-330. | Dease and Simpson's discoveries; by PELLY (J. H.) <i>q. v.</i> |
| | | pp. 331-359. | Parry's temperature observations. |
| | | pp. 482-487. | Erman's travels reviewed. |
| | | pp. 508-511. | Note on a new map of Kamtschatka; by ERMAN (G. A.) <i>q. v.</i> |
| 1841. | X. | pp. 268-274. | Dease and Simpson's discoveries; by PELLY (J. H.) <i>q. v.</i> |
| | XI. | pp. 250-257. | Notes on the Columbia river; by GAIRDNER (—, <i>m. d.</i>) <i>q. v.</i> |
| 1844. | XIV. | pp. 305-306. | Greenhow reviewed by Thomas Falconer. |
| 1845. | XV. | pp. 332-345. | Peel river; by ISBISTER (ALEX. K.) <i>q. v.</i> |
| | | pp. 367-371. | On the freezing of streams in North America; by ANDERSON (A. C.) <i>q. v.</i> |
| 1848. | XVIII. | pp. 19-23. | On the best means of reaching the North Pole; by WRANGELL (<i>adm. F. von</i>). |
| | | pp. 24-25. | Note on the foregoing paper by <i>sir J. Barrow</i> . |
| 1852. | XXII. | pp. 73-81. | Journey from Great Bear lake to Wollaston land by J. Rae. |
| | | pp. 118-127. | On the distribution of food animals in the Arctic; by PETERMANN (A.) |
| | | pp. 174-200. | Rapid communication across British America; by SYNGE (M. H.) <i>q. v.</i> |
| 1854. | XXIV. | pp. 240-245. | M'Clure's discovery of the Northwest passage; by BACK (<i>sir G.</i>) <i>q. v.</i> |
| | | pp. 245-249. | Vancouver island; by DOUGLAS (JAMES), <i>q. v.</i> |
| 1855. | XXV. | pp. 194-206. | Proceedings of H. M. S. Enterprise, capt. Collinson. |
| | | pp. 246-256. | The search for Franklin. |
| 1857. | XXVII. | pp. 268-320. | Description of Vancouver island; by GRANT (W. C.) <i>q. v.</i> |
| 1858. | XXVIII. | pp. 376-446. | Notes on the Amur, (etc.) From the Russian of Peshturoff and others. |
| 1860. | XXX. | pp. 267-314. | Palliser's exploration of British North America. |
| 1861. | XXXI. | pp. 208-213. | Remarks on Vancouver's island; by GRANT (W. C.) <i>q. v.</i> |
| | | pp. 213-223. | Report on a journey into British Columbia; by MAYNE (R. C.) <i>q. v.</i> |

Royal geographical society [of London], *Journal*—continued.

1861. XXXI—continued.
 pp. 224-236. On the Harrison and Lilloet route; by PALMER (H. S.) *q. v.*
 pp. 237-248. Journey into British Columbia; by BEGBIE (M. B.) *q. v.*
 pp. 249-256. Explorations in Desolation sound; by DOWNIE (W.) *q. v.*
 pp. 297-302. Jervis inlet to Port Pemberton; by MAYNE (R. C.) *q. v.*
1862. XXXII. pp. 529-535. Journey on Vancouver island; by *same*.
1868. XXXVIII. pp. 118-128. Mountain passes in British Columbia; by WADDINGTON (A.) *q. v.*
 pp. 219-237. Journey up the Yukon river; by WHYMPER (F.) *q. v.*
1869. XXXIX. pp. 121-131. On the formation of fjords (etc.); by BROWN (R.) *q. v.*
1872. XLII. pp. 373-388. On Saghalin island; by VENIUKOFF, (col. —), *q. v.*

Royal Society. Manual of the natural history, geology, and physics of Greenland and the neighboring regions; prepared for the use of the arctic expedition of 1875, under the direction of the arctic committee of the royal society; together with instructions for the use of the expedition. 1 p. l. vi, 86 pp. xii, 783 pp. 3 maps. 8°. *London, published by the admiralty, 1875.*

Ruge (Sophtus). *Fretum Anian. Die geschichte der Behringsstrasse nach ihrer entdeckung.* [In PROGRAMM der Annen-Real-schule. 4°. *Dresden, 1873.* pp. —.]
 Also printed separately. 14 pp. *Not seen.*

Ruschenberger (William S . . . W . . . , *m. d. u. s. n.*) A voyage round the world; including an embassy to Muscat and Siam, in 1835-37. 559 pp. 8°. *Philadelphia, Carey, Lea & Blanchard, 1838.*

Russia. DEPARTMENT OF FOREIGN AFFAIRS. Документы для исторiи, (etc.) [Documents for the history of the diplomatic relations of Russia with the western European states from the conclusion of the general peace of 1814 to the congress of Verona in 1822; published by the department of foreign affairs. Part I. Public documents.] 2 v. 4°. *St. Peterburg, 1823.*

Note.—Contains record of questions relating to boundary and rights in the North Pacific.

— IMPERIAL GEOGRAPHICAL SOCIETY. [Publications of.] Географическо-статистическiй словарь Россiйской имперiи. [A geographical and statistical gazetteer of the Russian empire. By direction of the imperial Russian geographical society. By Semeonoff, Zvierinski, Philippoff, and Maak.] v. 1-4. 8°. *St. Peterburg, V. Besobrazoff, 1863-68.*

— IMPERIAL GEOGRAPHICAL SOCIETY, *Siberian section.* Извѣстiя Сибирскаго отдѣла имп. рус. геогр. общ. (etc.) [Bulletin of the Siberian section of the imperial Russian geographical society. Published under the direction of A. F. Usoltzeff, a member of the section.] 7 v. 4°. *Irkutsk, v' typogr. N. N. Sinitsin, 1870-1876.*

1870. Vol. i, No. 1, pp. 30-31. News of the Chukotsk expedition.
 Nos. 2 and 3, pp. 18-34. The south part of Sakhalin island; by dr. DOBROTVORSKI.
 pp. 67-69. Expedition to the Chukotsk region.
1871. Vol. i, Nos. 4 and 5, pp. 6-31. History of the Chukotsk expedition; by K. K. NEUMAN, *q. v.*
 Vol. ii, Nos. 1 and 2, pp. 46-60. History of Siberian archeology; by POPOFF (N. I.) *q. v.*
 pp. 60-70. The Chukotsk expedition; reply to Baer; by MAIDEL (G. L.) *q. v.*
 No. 3, pp. 7-28. The Chukotsk expedition; continued from vol. i, Nos. 4 and 5, p. 31.
1872. Vol. iii, No. 1, pp. 44-56. Statistics of population of Eastern Siberia, with notes.
 No. 2, pp. 81-99. Materials for the zoology of Eastern Siberia; by DYBOWSKI and GODLEVSKI.
 No. 4, pp. 204-212. Statistics of Eastern Siberia; continued from No. 1.
1873. Vol. iii, No. 5, pp. 296-298. Notes on the eclipses of 1873, with a map of Eastern Siberia; by NEUMAN (K.)
 Vol. iv, No. 2, pp. 65-82. Geographical discoveries in Siberia, from the earliest times; by STCHAPOFF, *q. v.*
 No. 4, pp. 180-194. Review of VAGIN (B.) Historical information, (etc.) *q. v.*
 No. 5, pp. 200-225. Review of VAGIN (B.) Historical information, (etc.) *q. v.*
1874. Vol. v, No. 1, pp. 28-42. Review of VAGIN (B.) Historical information, (etc.) *q. v.*
1875. Vol. vi, No. 4, pp. 185-186. Voyage of the *Vostok* to the straits of Tartary. Review of the article in *Morskoi Sbornik*, 1875, No. 7.
1876. Vol. vii, Nos. 1 and 2, p. 34. *Rhytina Stelleri* discovered on Bering island by K. K. NEUMAN.
 vii. SGIBNEFF, *q. v.*

— Отчетъ, (etc.) [Report of the Siberian section for 1871, (etc.)] 4°. *Irkutsk, the society, 1872.*

— MINISTRY OF THE INTERIOR. Приморская область восточной Сибири, (etc.) [Maritime province of Eastern Siberia. Nikolaieffsk, Okhotsk, Petropavlovsk, Udsch, etc.]

[In GORODSKIIA POSELENIIA v Rossiiskoi Imperii, (Colonial towns of the Russian empire, etc.) sostavlena po prikazaniu ministra Vnutrennikh Del. 7 v. 8°. *St. Peterburg, K. Wolf, 1860-1864. See vol. iv, pp. 226-258.*]

Russia—continued.

- **MINISTRY OF WAR.** Каталогъ, (etc.) [List of trigonometrical and astronomical points determined in the Russian empire and on its borders up to the year 1860. Compiled by the geodetic section of the corps of topographical engineers. Supplement to part xxiv of the Journal of the War Department.] 1 p. l. vi, 74, 1150 pp. 3 maps. 4°. *St. Petersburg*, 1863.

For list of positions in Russian America, *see* pp. 3-6.

For list of positions in the Amur region, *see* pp. 7-14.

Russian American Colonies. Russisch-Nord-Amerika.

[In ILLUSTRIRTE ZEITUNG. fol. *Leipzig*, 1867. No. 1237.]

- [anon.] Статистическій очеркъ, (etc.) [Statistical sketch of the Russian possessions in America. From the first vol. of Baer and Helmersen's Contributions, (etc.) With two views and one plan.]

[In ZHURNAL MIN. Vnutrennikh Del. (Journal of the Interior Department.) 1843, xxxviii.]

- О Росс. Амер. колоніяхъ, (etc.) [Concerning the Russian American colonies. From an American journal.]

[In DUKH ZHURNALOFF. (The Spirit of the Press.) 1819, xxxviii.]

See also COLONIES.

- Докладъ комитета, (etc.) [Report of the committee on the organization of the Russian American colonies.] 2 p. l. 403 pp. 8°. *St. Petersburg*, v' *typogr. dep. vneshnei torgovli* (foreign commerce), 1863.

CONTENTS.

- I. Report of the committee. pp. 1-267.
 - II. Separate opinion of state-counselor Kostlivtsoff. pp. 268-312.
 - III. Reply of the Russian American company to the conclusions of the committee. pp. 313-373.
 - IV. Separate memoir of vice-admiral Etolin, a member of the managing board of the Russian American company. pp. 374-384.
 - V. An exhibit by the managing board concerning the financial condition of the company. pp. 385-397.
- *The same.* Приложенія къ докладу, (etc.) [Supplement to the report of the committee on the organization of the Russian American colonies.] 3 p. l. vi, 613 pp. 55 l. unsp. 5 tab. 8°. *St. Petersburg*, v' *typogr. dep. vneshnei torgovli* (foreign commerce), 1863.

CONTENTS.

- I. Report of an inspection of the Russian American colonies in 1860 and 1861. State-counselor Kostlivtsoff. pp. 1-267.
- II. Report on this same subject by captain, of the second rank, Golovin. pp. 269-462.
- III. Remarks of the board of directors of the Russian American company upon the report of state-counselor Kostlivtsoff. pp. 463-517.
- IV. Explanation of the board of directors of the Russian American company in reply to the naval ministry touching the privileges of the company. pp. 518-554.
- V. Notes on this same subject by general-adjutant baron Wrangell, member of the imperial council. pp. 555-566.
- VI. Letter of mining engineer Furuhelm on the Russian American colonies, and the contract made by the company with him in regard to prospecting and mining. pp. 567-585.
- VII. Letter of capt.-lieut. Vorman on the condition of the Russian American company and its trade in the northern colonial possessions. pp. 586-601.
- VIII. Extract from the report of the board of directors of the Russian American to the committee on the organization of the Russian American colonies of January 13, 1863, in No. 53. pp. 602-613.
- IX. Supplements to the reports of state-counselor Kostlivtsoff and captain, of the second rank, Golovin.

- О Русскихъ Сѣверо-Американскихъ владѣніяхъ. [Concerning the Russian possessions in North America.]

[In MOSKVA. (Moscow.) 1868, No. 3.]

- Прощальный взглядъ, (etc.) [A parting glance at the Russo-American colonies.]

[In PRIBAVLENIA k Irkutskim eparkh. Vied. (Supplement to the Irkutsk Diocesan News.) Nos. 37, 38, 39, 40, and 41. *Irkutsk*, 1868.]

- Русско-американскія владѣнія. [Russian American possessions.]

[In RUSSKIIA VIEDOMOSTI. (The Russian Gazette.) 1867, No. 85.]

- Russian American Company.** Отчетъ, (etc.) 1844-1863. [Reports of the Russian American company.] 19 v. 8°. *St. Petersburg*, 1845-1865.

- Report for 1848. 40 pp. 1 map (of Kadiak and various harbors therein). 8°. *St. Petersburg*, v' *typogr. Fisher*, 1849.

Russian American Company—continued.

- Report for 1849. 38 pp. 1 map (west coast of Sitka island). 8°. *St. Petersburg, v' typogr. shtaba inspektora po ingenernoi chast., 1850.*
- Report for 1854 and 1855. 62 and 8 pp. 1 map (of Eastern Siberia). 8°. *St. Petersburg, 1856.*
Not seen. Reviewed in MORSKOI SBORNIK, 1857, January, bibl. p. 20.
- Report for 1856. 40 pp. 5 supplements, 1 map (channel in the Amur river). 8°. *St. Petersburg, 1857.*
Not seen. Reviewed in MORSKOI SBORNIK, 1858, February, bibl. p. 25.
- Report for 1857. 52 pp. 5 supplements, 1 view (of Port Aian). 8°. *St. Petersburg, 1858.*
Not seen. Reviewed in MORSKOI SBORNIK, 1859, January, bibl. p. 20.
- Report for 1858. 62 and vi pp. 5 supplements, 1 chromo-lithographic view (of Sitka). 8°. *St. Petersburg, 1859.*
Not seen. Reviewed in MORSKOI SBORNIK, 1860, January, bibl. p. 1.
- Report for 1862. 64 and 17 pp. 1 tab. 8°. *St. Petersburg, v' typogr. E. Freiman, 1865.*
- Report for 1863. 46, ii and 14 pp. 1 tab. 8°. *St. Petersburg, v' typogr. E. Freiman, 1865.*
- Извлечение из отчета Р. А. К. за 1848. [Extract from the report of the Russian American company for 1848.]
[In MORSKOI SBORNIK. 8°. St. Petersburg, 1850, Jan. vol. iii, pp. 81-84.]
- Выписки из отчета, (etc.) [Extracts from the report of the American company for the year 1850.]
[In MORSKOI SBORNIK. 8°. St. Petersburg, 1852, Jan. vol. vii, pp. 99-104.]
- *The same* for 1851.
[In same, 1853, Jan. vol. ix, pp. 70-80.]
- *The same* for 1852.
[In same, 1854, June, vol. xii, pp. 220-222.]
 For brief abstracts from these reports see ZAPISKI HYDR. DEPT. iv, 371-372; vi, 457-458; vii, 488-490; viii, 522-523; x, 665-666.
 For report of 1834 [report of 1844?] see KOMMERCHESKAIA GAZETA, 1845, 10-12.
 For report of 1846 see KOMMERCHESKAIA GAZETA, 1848, 17, 20-21.
 For report of 1847 see KOMMERCHESKAIA GAZETA, 1849, 8-11.
 For report of 1849 see KOMMERCHESKAIA GAZETA, 1851, 2-3.
 Report for 1854 and 1855 reviewed in MORSKOI SBORNIK, 1857, Jan. vol. xxvii, [v], pp. 20-24.
 Report for 1856 reviewed by Freigang in MORSKOI SBORNIK, 1858, Feb. vol. xxxiii, [v], pp. 25-34.
 Report for 1857 reviewed in MORSKOI SBORNIK, 1859, Jan. vol. xxxix, [v], pp. 20-24.
 Report for 1858 reviewed in MORSKOI SBORNIK, 1860, Jan. vol. xlv, [v], pp. 1-9.
 Report for 1861 reviewed by Freigang in MORSKOI SBORNIK, 1863, Jan. vol. lxiv, [v], pp. 48-55.
- Jahresbericht der Russisch-Amerikanischen kompagnie für das jahr 1848.
[In ARCHIV für wissenschaftliche kunde von Russland. Her. von A. Erman. 8°. Berlin, G. Reimer, 1850. Vol. viii, pp. 702-713.]
- Bericht der Russisch-Amerikanischen handels-compagnie für das jahr 1849 bis 1850.
[In ARCHIV für wissenschaftliche kunde von Russland. Her. von A. Erman. 8°. Berlin, G. Reimer, 1851. Vol. ix, pp. 710-716.]
- Aus dem jahresberichte der russisch-amerikanischen handels-compagnie für 1856-1857.
[In ARCHIV für wissenschaftliche kunde von Russland. Her. von A. Erman. 8°. Berlin, G. Reimer, 1858. Vol. xvii, pp. 471-478.]
- Владение Рос.-Сѣверной Амep. комп. [Possessions of the Russian North American company.]
[In SPISKI naselennikh miest, (etc.) (Census of the Settlements.) Vol. lxi. Published by the central statistical committee of the ministry of the interior. 8°. St. Petersburg, 18—.] Not seen.
- Статистическія свѣденія, (etc.) [Statistical information concerning the colonies of the Russian company.]
[In KOMMERCHESKAIA GAZETA. (The Commercial Gazette.) 1834, 80, 81, 87, 90, 93, 96, 98, and 99; also in ST. PETERBURGSKIIA VIEDOMOSTI. (The St. Petersburg Gazette.) 1834, 155, 157, 169, and 170.]
- Обзорѣніе состоянія дѣйствій Р. А. К. (etc.) [Review of the hostile attacks upon the Russian American company from 1797 to 1819. With 3 views.]
[In ZHURNAL MANUFAKTUR I TORGOVLI. (Journal of Manufactures and Commerce.) 1835, 1-3.]

Russian American Company—continued.

- [Archives of the Russian American Company. Published by the directors.] *St. Petersburg, 1862. Not seen.*
- Р.-А. К. корабль "Николай I." [The Russian American company's ship "Nicholas I."] [*In* MORSKOI SBORNIK. 8°. *St. Petersburg, 1850, Aug.* Vol. iv, pp. 190-191.]
- Движеніе судовъ, (etc.) [Movement of the vessels of the Russian American company from Jan. 1st, 1844, to Jan. 1st, 1854.] [*In* MORSKOI SBORNIK. 8°. *St. Petersburg, 1855, Dec.* Vol. xix, [v], pp. 105-125.]
- Мнѣніе "Русскаго Мира" объ отчетѣ, (etc.) [Opinion of "The Russian World" on the report of the Russ. Am. co. and review of the Russian colonies in North America.] [*In* MORSKOI SBORNIK, 1862, Feb. vol. lvii, [iii], pp. 132-143; Mar. vol. lviii, [iv], pp. 33-44.]
- [anon.] Персія, * * * * Россійско-Американская Компания, (etc.) [Persia, Turkestan, Khiva, India, East Indian company, Cathay, Russian American company and the United States, with descriptions of the extent of territory and number of inhabitants, mountains, seas, bays, lakes, rivers, (etc.)] 1 map, ii, 130 pp. 8°. *Moscow, 1855.*
Reviewed in MORSKOI SBORNIK. 1858, Dec. vol. xxxviii, [v], pp. 29-31.
- [anon.] Вѣдомость Р.-А. К. Аянской портовой конторы, (etc.) [List of arrivals and departures of vessels at Port Aian during the navigation season of 1860, from the office of the Russ. Am. co. at Port Aian.] [*In* MORSKOI SBORNIK. 8°. *St. Petersburg, 1861, May.* Vol. liii, [iv], pp. 12-15.]
- [anon.] Замѣчанія, (etc.) [Remarks of the director-general of the Russian American company on an extract from the journal of capt. Laplace of the French navy contained in the fourth number of Materials for the history of Russian settlements on the shores of the Pacific ocean.] [*In* MORSKOI SBORNIK. 8°. *St. Petersburg, 1861, June.* Vol. liii, [iv], pp. 136-141.]
- Замѣчанія, (etc.) [Remarks of the general director of the Russ. Am. co.] [*In* MORSKOI SBORNIK, 1862, June, vol. lix, [vi], pp. 1-8.]
Note.—This is a reply to Kashevaroff's article "What the pursuit of the fur-bearing animals is in the Russ. Am. colonies."
- Подъ высочайшимъ его, (etc.) [By the authority of his supreme imperial majesty an act incorporating the Russian American company and also the gracious establishment for this company of regulations conformable to this decree.] 2 p. l. 60 pp. sm. fol. *St. Petersburg, v' typogr. N. Baikoff, 1808.*
- Свѣдѣнія объ укрѣпленіяхъ, (etc.) [Information concerning material for buildings and fortifications in the colonies of the Russian American company.] [*In* INGENERNI ZHURNAL. 8°. *St. Petersburg, 1864.* No. 4, April, pp. 99-111.]
- [anon.] [*In* BIRZHEVIA VIEDOMOSTI. (The Exchange Gazette.) 1864, No. 83.]
See also D. ZAVALISHIN.
- [anon.] [*In* GOLOS. (The Voice.) folio. *St. Petersburg, 1868, Nos. 170 and 256.*]
- Russian American Telegraph.** Der russisch-amerikanische Welt-Telegraph.
[*In* MAGAZIN für die Literatur des Auslandes. 4°. *Berlin, J. Lehmann, 1866.* No. 32, Aug. 11, p. 454.]
- Русско-американскій телеграфъ по линіи Коллинса. [Russo-American telegraph by the Collins line.] [*In* ST. PETERBURGSKIIA VIEDOMOSTI, 1866, Nos. 37, 41, and 44.]
- По поводу русско-американ. телеграфа. [On the reasons for a Russo-American telegraph.] [*In* GOLOS. (The Voice.) fol. *St. Petersburg, 1867.* No. 155; *see also* No. 161.]
- Русско Американскій телеграфъ. [The Russo-American telegraph.] [*In* RUSSKI INVALID, 1867, Nos. 8 and 18.]
See also ABAZA (S.)
- Russians in Alaska.** Положеніе русскихъ, (etc.) [Condition of the Russians in the possessions of the Russian American company ceded to America.] [*In* VSEMIERNI TRUD. ——. —°. 1869, No. 7, pp. 91-126.]

Russian Voyages. Первый поход Русскихъ къ Америкѣ. [First Russian voyages to America.] 1732.
[In ZAPISKI HYDR. DEPARTAMENTA. (Journal of the hydrographic department.) 8°. St. Petersburg, 1851.
Vol. ix, pp. 78-107.]

—— Плаваніе, (etc.) [Voyage of the Russo-Finnish merchant ships Sitka and Atka around the world.]

[In SIEVERNAIA PCHELA. (Northern Bee.) No. 252, 1847.]

See also MORSKOI SBORNIK, 1849, ii, pp. 489-499, and ZAPISKI HYDR. DEPT. vi, 457.

See NORTHERN BEE, Nos. 71-72, 1861, and No. 109, (1861 ?)

—— Reisen finnisher schiffe um die welt.

[In ARCHIV für wissenschaftliche kunde von Russland. Her. von A. Erman. 8°. Berlin, G. Reimer, 1849. Vol. vii, pp. 286-288.]

—— Seereisen der Russen.

[In ARCHIV für wissenschaftliche kunde von Russland. Her. von A. Erman. 8°. Berlin, G. Reimer, 1850. Vol. viii, pp. 666-668.]

Note.—An official list of voyages from the *Morskoi Sbornik*.

—— Первое путешествие, (etc.) [First Russian voyage around the world. From(?) the Wilna Journal.]

[In VIESTNIK EVROPI, xxx, 22, 1806.]

Russische revue. Monatsschrift für die kunde Russlands; her. von Carl Röttger. 6 v. Jahrg. 1-6.
8°. St. Petersburg, 1872-1877. (Only one heft seen.)

Heft 10, 1877. Paper and review of publications on the Ainos, inhabiting Yesso and the Kuril islands.

Ruski Invalid. Русскій Инвалидъ или военныя вѣдомости. [The Russian Invalid or military gazette.]

— v. 4° and fol. St. Petersburg, 4°, 1816-1839; fol. 1840-1855.

1822. No. 266.

1848. Nos. 143, 144. Baranoff, biography of.

1846. No. 231. Biography of admiral Krusenstern.

1849. Nos. 121-123. Bering and Chirikoff; by BAER, q.v.

1848. Nos. 114, 115. The Udsck settlement.

1851. No. 118. Voyage of the Atka and Freia.

Ruski Mir. Русскій Миръ, (etc.) [Russian World, a political, social and literary gazette.] 102 nos.
per annum. (St. Petersburg?), 1862-3. Not seen.

Ruski Viestnik. Русскій Вѣстникъ. [The Russian Messenger. Published by M. Katkoff, Moscow.] 90 v. 8°. Moskva, [1859-1866, 1868-1873 and 1876.]

1860, Sept. Vol. 29, pp. 179-211. From St. Vladimir bay to the Amur. A. V. VUISHESLAVTZEFF.

1863, Nov. Vol. 48, pp. 417-454. Life in an Amur station.

1865, June. Vol. 57, pp. 663-681. A journey from the trans-Baikal to the Amur by way of Manchuria. P. A. KROPOTKIN.

1866, Mar. Vol. 62, pp. 36-65. The affair of the Ross colony. D. E. ZAVALISHIN.

May. Vol. 63, pp. 125-149. Sketches from Amur life.

1870, May. Vol. 87, pp. 211-264. Letters of Alexander Beztuzheff from Yakutsk. M. E. SEMEFSKI.

1876, June. Vol. 123, pp. 442-504. Recollections of Kamchatka and the Amur in 1854-5. U. ZAVOIKO.

Russo-Finnish whaling company. Устава, (etc.) [Regulations of the Russo-Finland whaling company. Its report from its organization to the end of the year 1858. Description of the northwestern shores of America. Mythological traditions of the Koloshians who inhabit the northwest shores of America.] 8°. St. Petersburg, 1858. Not seen.

—— Отчетъ, (etc.) [Report of the Russo-Finnish whaling company from its organization to the end of 1858.] 33 pp. 8°. St. Petersburg, 1858. Not seen.

Reviewed in MORSKOI SBORNIK. 8°. St. Petersburg, 1859. Vol. xxxix, No. 2, (v), pp. 27-33.

See also same, 1852, vol. vii, pp. 104-106.

S . . . (J . . . L . . .). (anon.) Neue nachrichten von denen neuentdeekten insuln in der see zwischen Asien und Amerika; aus mitgetheilten urkunden und auszügen verfasset, von J. L. S . . . (anon.) 1 p. l. 173 pp. 16°. Hamburg und Leipzig, F. L. Gleditsch, 1776.

See also PALLAS (Peter Simon). Neue Nordische beiträge. 8°. St. Petersburg & Leipzig. 1781. Vol. 1, part 2, pp. 273-313.]

S = ? [Strählin or Staehlin, or Staehlin-Storcksburg, or Schloezer.]

Note.—Catalogued in Congressional Library under Strählin.

Sabine (*maj.-gen. Edward, f. r. s.*) Contributions to terrestrial magnetism. No. II. Captain Belcher's observations on the west coast of America and the adjacent islands.

[In PHILOSOPHICAL TRANSACTIONS of the Royal society of London. 4°. London, 1841. Part i, pp. 11-35. 1843. Part ii, pp. 113-144.]

— On hourly observations of the magnetic declination made by captain Rochfort Maguire, r. n., and the officers of h. m. s. "Plover" in 1852-1854 at Point Barrow, on the shores of the Polar sea.

[In PHILOSOPHICAL TRANSACTIONS of the Royal society of London. 4°. London, 1857. Vol. 147, part ii, pp. 497-532.]

— On the amount and frequency of the magnetic disturbances and of the aurora at Point Barrow, on the shores of the Polar sea.

[In BRITISH association for the advancement of science. Report of the twenty-seventh (Dublin) meeting, 1857. 8°. London, J. Murray, 1858. Transactions of sections, pp. 14-15.]

— Results of hourly observations of the magnetic declination made by sir Francis Leopold M'Clintock and the officers of the yacht "Fox" at Port Kennedy, in the Arctic sea, in the winter of 1858-1859; and a comparison of these results with those obtained by captain Rochfort Maguire (etc.) in 1852-1854 at Point Barrow.

[In PHILOSOPHICAL TRANSACTIONS of the Royal society of London, 1863. 4°. London, 1864. Vol. 153, pp. 649-663.]

— Contributions to terrestrial magnetism. No. XIII. A magnetic survey of the north polar regions from latitude $+40^{\circ}$ to $+90^{\circ}$ reduced to the mean epoch 1842.5.

[In PHILOSOPHICAL TRANSACTIONS of the Royal society of London. 4°. London, 1872. Vol. 162, part ii, pp. 353-434.]

Sachot (Octave). L'Amerique Russe.

[In REVUE BRITANNIQUE. 8°. Bruxelles, Lacroix, Verboeckhoven et cie., 1867. Novembre, pp. 1-42.]

— La Sibirie orientale et l'Amerique Russe. Le pôle nord et ses habitants. Récits de voyages. 1 p. l. vi, 371 pp. 62 engravings, 1 map. 8°. Paris, P. Ducrocq, 1875.

Saikoff. See ZAIKOFF.

Sailing directions for the west coast of North America. Embracing the coasts of Central America, California, Oregon, Fuca strait, Puget sound, Vancouver island, and the islands and rocks off the coasts of Central America and California. With an appendix containing various remarks on the winds, tides, currents, &c. vi, 232 pp. 1 map. 8°. London, J. Imray, 1853.

St. Petersburger kalender auf das jahr 1833. 287 pp. 8°. St. Petersburg, 1833.

Note.—This is the only year represented in the Library of Congress.

See GOLOVNIN. Cf. years 1729-32, 1736, 1774, 1781-82, 1814.

Samokhvaloff (*col. . .*). See HABERSHAM.

San Francisco Chronicle. fol. San Francisco, 1871-1879. A daily newspaper.

June 14, 1871. Movements of Pinart.

Dec. 31, 1872. Mons. Pinart's skulls.

Sept. 4, 1873. On the Geo. S. Wright.

April 3, 1874. Alaska seal fisheries.

Nov. 13, 1874. Fur-seal company investigation.

Nov. 18, 1874. Icelanders at Kadiak.

Nov. 19, 1874. Icelandic exodus.

Nov. 19, 1874. Gold mines in Sitka.

Nov. 22, 1874. Bishop of Alaska.

Jan. 1, 1875. Alaska timber.

Jan. 4, 1875. Forests of Alaska.

Jan. 9, 1875. Alaskan mummies.

Jan. 23, 1876. Alaska fuf company.

Feb. 27, 1876. Alaska fur company.

Dec. 24, 1876. An Alaska job.

Jan. 6, 1877. Alaska timber. A company that wants to buy out the territory.

Jan. 6, 1877. Alaska news.

Jan. 6, 1877. More facilities wanted for Alaska.

Jan. 19, 1877. Big-hearted philanthropists. Alaska timber company.

June 9, 1877. Alaska coal.

San Francisco Chronicle—continued.

- June 23, 1877. Withdrawal of troops from Alaska.
- June 30, 1877. The fur company.
- Sept. 28, 1877. The Alaska troubles. Views of capt. Wight.
- Sept. 29, 1877. Capt. Wight's report.
- Oct. 9, 1877. The seal fisheries.
- Nov. 3, 1877. Cape Prince of Wales fight, (etc.)
- Nov. 6, 1877. Indian pirates attempt to seize a whaling br
- Dec. 14, 1877. Proposed virtual surrender of Alaska.
- Dec. 14, 1877. The Alaska collectorship.
- Jan. 26, 1878. Threatened outbreak at Sitka.
- Mar. 3, 1878. A romance from Alaska.
- Sept. 7, 1878. Life on St. Paul island.
- Nov. 24, 1878. The open polar sea.
- Dec. 28, 1878. Alaska's advantages; by WM. G. MORRIS.
- Dec. 30, 1878. Sad condition of Alaska.
- Jan. 18, 1879. A letter from H. W. Elliott.
- Jan. 27, 1879. An Arctic El Dorado.
- Feb. 3, 1879. The Jeannette.
- Feb. 18, 1879. The troubles in Sitka.
- Mar. 1, 1879. The Alaska Indians.
- Mar. 17, 1879. Lives in peril at Sitka.
- Mar. 24, 1879. Alaskan affairs.
- Mar. 27, 1879. Letter from Sitka on the Indian trouble.

San Francisco Commercial Herald and Market Review. fol. *San Francisco, J. H. Carmany & co.,* 1873-1877. *A weekly newspaper.*

- Jan. 31, 1873. Trade of the North Pacific for 1872.
- Feb. 7, 1873. The Cygnet and Shooting Star.
- Feb. 28, 1873. Review of the whale fishery for 1872.
- Mar. 7, 1873. Trade in Alaska.
- May 30, 1873. The Alaska Commercial company.
- June 6, 1873. The Alaska Commercial company.
- June 19, 1873. The Alaska Commercial company.
- Nov. 5, 1874. The one American monopoly.
- Jan. 18, 1877. Vessels lost in 1876.

San Francisco Daily Examiner. fol. *San Francisco, 1872-1879. A daily newspaper.*

- Nov. 14, 1872. An infamous job.
- Nov. 18, 1872. America and Siberia.
- Dec. 10, 1872. White slaves.
- Dec. 14, 1872. The Alaska infamy.
- Dec. 18, 1872. A lame defence.
- Dec. 19, 1872. The Alaska fraud.
- Dec. 21, 1872. A bold attempt of the Alaska commercial company.
- Dec. 23, 1872. Woe to the Aleuts.
- Dec. 24, 1872. If not slavery, what is it?
- Dec. 27, 1872. Why so reticent?
- Aug. 9, 1873. A monstrous monopoly.
- May 6, 1875. An extraordinary monopoly.
- Dec. 30, 1875. Should scrutinize it.
- Feb. 3, 1876. The Alaska swindle.
- Feb. 3, 1876. Letter from capt. E. P. Herendeen.
- Feb. 7, 1876. The defence of a swindle.
- Mar. 8, 1876. The Alaska job and the "Alta."
- April 24, 1876. Capt. F. H. Ernest Henning's will.
- April 18, 1877. Can cheat to an unlimited extent.
- July 9, 1877. The Alaska iniquity.
- Sept. 29, 1877. The Alaska fur job.
- Oct. 10, 1877. The "Alert's" cruise.
- Oct. 17, 1877. Frauds of the Alaska commercial company.
- Nov. 2, 1877. Alaska and troops.
- Jan. 9, 1878. Murder of E. P. Boyle at Kolmakoff redoubt.
- Feb. 28, 1878. Who owns Alaska?

San Francisco Daily Examiner—continued.

- Mar. 28, 1878. Sherman and Alaska.
 April 18, 1878. The plain duty of Congress.
 April 26, 1878. An educated Aleutian.
 June 10, 1878. A singular nomination—gen. Miller's.
 July 6, 1878. A tour of Alaska.
 July 29, 1878. The worth of Alaska.
 Sept. 25, 1878. Letter from Ounalaska's shore.
 Oct. 3, 1878. Too good a thing to give away.
 Oct. 31, 1878. Fresh from all Alaska. Petroff.
 Jan. 29, 1879. More of Sherman's rascality.
 Feb. 1, 1879. The Alaska great fraud.
 Feb. 5, 1879. Sherman's report on Alaska.
 Feb. 12, 1879. The reported trouble in Alaska.
 Feb. 20, 1879. Affairs in Alaska.
 Mar. 6, 1879. Review of the "*Alaska Appeal*."
 Mar. 17, 1879. The Alaska disgrace.
 April 8, 1879. Fisheries in Alaska.
 April 10, 1879. Alaska mines.
 April 16, 1879. The Jamestown ordered to Sitka.
 May 8, 1879. The Alaska trouble.
 May 10, 1879. The steamer "St. Paul."
 May 16, 1879. How the Sitka scare originated.
 May 17, 1879. The cruise to Alaska.

San Francisco News. fol. *San Francisco*, 1870. *A daily newspaper*.

- Feb. 1, 1870. Murder of capt. Smith.

San Francisco News Letter. Large 8°. *San Francisco*, 1877. *A weekly newspaper*.

- June 9, 1877. The missing "Urania."

San Francisco Sunday Chronicle. fol. *San Francisco*, 1875–1878. *A weekly newspaper*.

- Dec. 26, 1875. Voyage to lake Skelokh; by "POLARIS."
 Feb. 27, 1876. Alaska mythology; by "POLARIS."
 Mar. 5, 1876. Alaskan resources; by "POLARIS."
 April 14, 1878. Glorious Alaska. Abandoned Alaska.
 April 28, 1878. Abandoned Alaska.
 June 16, 1878. Absorbed Alaska.
 June 30, 1878. Alaska's resources.
 July 6, 1878. Alaska.
 Aug. 4, 1878. Alaska.

San Francisco Weekly Chronicle. fol. *San Francisco*, 1877–1878. *A weekly newspaper*.

- Thursday, Aug. 2, 1877. Alaska Indian troubles.
 July 18, 1878. Pinart's explorations.

Sankt-peterburgskii Gubernskii Vedomosti. Санктпетербургскія Губернскія Вѣдомости. [The St. Petersburg government gazette.] — v. 4°. *St. Petersburg*, 1838–1841, 1843, 1846–1855, 1857–1859. *Not seen*.**Sankt-peterburgskii Senatskii Vedomosti**. Санктпетербургскія Сенатскія Вѣдомости. [St. Petersburg Journal of the Senate.] — v. 4° and fol. *St. Petersburg*, 1813, 1815, 1816, 1818–1860. *Not seen*.**Sankt-peterburgskii Vedomosti**. Санктпетербургскія Вѣдомости. [The St. Petersburg Gazette.] — v. fol. *St. Petersburg*, 1805–1811 (incomplete), 1813–1856. *Not seen*.

1845. Nos. 104–108. Middendorff's explorations in N. E. Siberia.
 1845. Nos. 190–193. Kashevaroff's discoveries.
 1846. No. 68. Concerning Kotzebue.

Saranac, loss of. See QUEEN (capt. Walter W. . . , u. s. n.)**Saricheff or Sarichev** (Gavrila Andreëvich). Путешествіе фл. кап. Сарычева, (etc.) [Voyage of fleet-captain Saricheff to the northeastern parts of Siberia, the Arctic and the north Pacific oceans, under the command of capt. Billings in 1785–90.] 2 v. 4°. Atlas folio, 51 sheets. *St. Petersburg*, Schnoor, 1802.

Saricheff or Sarichev (Gavril Andreïvich)—continued.

—— Voyage of discovery to the northeast of Siberia, the Frozen ocean, and the north-east sea. 2 v. 70 pp. 4 l. 1 map, 4 pl.; 80 pp. 1 pl. 8°. *London, R. Phillips, 1806-7.*

[PHILLIPS (R.) Voyages and travels. Vols. 5-6.]

—— Reis in het N. O. Siberie en op de ijszee en den noordoostel. Oceaen. 2 v. 8°. *Amsterdam, 1808. Not seen.*

—— Путешествіе кап. Биллинга, (etc.) [Journey of captain Billings through the Chukotsk country from Bering strait to the Nizhnikolinsk post, and capt. Hall's voyage to the north Pacific ocean in 1791. Extracted from various journals by vice-admiral Saricheff.] 4°. iv, 191 pp. 3 maps, 3 pl. *St. Peterburg, 1811. Not seen.*

—— Reise durch die nördlichen theile Sibiriens, des Eismeers und den nördlichen ocean 1785-93; aus dem russischen von J. H. Busse. 2 v. 8°. *Leipzig, 1805-15. Not seen.*

—— Замѣчанія, (etc.) [Reply to Bergh's article on Shalauoff.]

[In SIN OTECHESTVA, 1819, 46 and 47; see also 1820, 9. *Not seen.*]

Sauer (Martin). An account of a geographical and astronomical expedition to the northern parts of Russia, for ascertaining the degrees of latitude and longitude of the mouth of the river Kovima, (etc.) Performed by commodore Joseph Billings, in the years 1785 to 1794. xxvii, 332, 58 pp. 1 map, 14 pl. 4°. *London, T. Cadell, jun. & W. Davies, 1802.*

—— Voyage fait par ordre de l'impératrice de Russie Cathérine II dans le nord de la Russie asiatique (etc.) 1785-1794, par le commodore Billings; traduit de l'anglais, avec des notes, par J. Castéra. 2 v. 2 p. l. xxiv, 385 pp.; 2 p. l. 418 pp. 8°. Avec atlas de 15 pl. *Paris, F. Buisson, an 10 (1802).*

—— Geograph.-astronomisch. reise nach den nördlichen gegenden Russlands, zur untersuchung der mündung des Kowina-flusses (etc.), 1785-94. Aus d. Engl. 1 map. 8°. *Berlin, 1803. Not seen.*

—— *The same.* 2^d ed. *Berlin, Sander, 1820.*

Savin (lieut. . .). (anon.) ОХОТСКЪ, (etc.) [Okhotsk. From the journal of Savin.]

[In ZAPISKI HYDR. DEPT. (Journal of the hydrographic department.) 8°. *St. Peterburg, 1851. Vol. ix, pp. 148-161.*]

—— (anon.) ЗАЛИВЪ АЯНЪ, (etc.) [Aian bay. From the journal of capt.-lieut. Zavoiko and lieut. Savin.]

[In *same*, 1846. Vol. iv, pp. 79-85.]

Scammon (capt. Charles M . . .). Northern whaling.

[In the OVERLAND MONTHLY. 8°. *San Francisco, J. H. Carmany & co. 1871. Vol. 6, No. 6, June, pp. 548-554.*]

—— The sea otters.

[In the AMERICAN NATURALIST. 8°. *Salem, Mass., Peabody academy of science, 1871. Vol. iv, No. 2, April, 1870, pp. 65-74.*]

—— The marine mammals of the northwestern coast of North America, described and illustrated: together with an account of the American whale-fishery. 320, vi pp. 27 pl. 4°. *San Francisco, J. H. Carmany & co. 1874.*

—— A Russian boat-voyage.

[In the OVERLAND MONTHLY. 8°. *San Francisco, J. H. Carmany & co. 1875. Vol. 15, No. 6, December, pp. 552-554.*]

Scherer (Johann Benedict). Recherches historiques et géographiques sur le nouveau-monde. xvi, 352 pp. 8°. *Paris, Brunet, 1777.*

[See chap. vii, pp. 156-185 for "Decouvertes faites par les Russes, en allant du Kamtschatka en Amérique."]

Schilling (N . . .). [Notes on Wrangell Land taken from the Nautical Magazine 1868, No. 2, pp. 96-100.]

[In MORSKOI SBORNIK. 8°. *St. Peterburg, 1868. Vol. xcv, No. 4, April, [ii], pp. 59-63.*]

Schlözer (August Ludwig von). Allgemeine geschichte von der nord. 4°. *Halle, Gebauer, 1771. Not seen.*

Schmidt (Mag... Fr...). Über die petrefakten der kreideformation von der insel Sachalin. (Lu le 23 Mai 1872.)

[In MÉMOIRES de l'académie impériale des sciences de St. Pétersbourg. 4°. St. Pétersbourg [for the academy], 1873. VII^e série, t. xix, No. 3, 2 p. l. 37 pp. 8 pl.]

Schott (W...). Etwas über die sprache der Koloschen nach Wenjaminow.

[In ARCHIV für wissenschaftliche kunde von Russland. Her. von A. Erman. 8°. Berlin, G. Reimer, 1843. Vol. iii, pp. 439-445.]

—— Ueber die sprachen des Russischen Amerika nach Wenjaminow.

[In ARCHIV für wissenschaftliche kunde von Russland. Her. von A. Erman. 8°. Berlin, G. Reimer, 1849. Vol. vii, pp. 120-143.]

—— Ueber einige ethnographische ergebnisse der Sagoskinschen reise im Russischen Amerika.

[In ARCHIV für wissenschaftliche kunde von Russland. Her. von A. Erman. 8°. Berlin, G. Reimer, 1849. Vol. vii, pp. 480-512.]

—— Ueber Herrn v. Pauly's ethnographische beschreibung Russlands.

[In ARCHIV für wissenschaftliche kunde von Russland. Her. von A. Erman. 8°. Berlin, G. Reimer, 1863. Vol. xxii, pp. 369-384.]

—— Das wort Schamane.

[In ARCHIV für wissenschaftliche kunde von Russland. Her. von A. Erman. 8°. Berlin, G. Reimer, 1865. Vol. xxiii, pp. 207-210; also vol. xxiv, 1865, pp. 162-163.]

Schrenck (Leopold von). Reisen und forschungen im Amur-Lande in den jahren 1854-56, im auftrage der Kaiserl. akademie der wissenschaften zu St. Petersburg ausgeführt, [etc.] Vol. i, 1-2 lief; ii. 4°. St. Petersburg, k. akad. der wissenschaften, 1858-67.

CONTENTS.

Band i. 1^e lief. Einleitung. Säugethiere. pp. xxxi, 1-213, 1 map, pl. 1-9, 1858.

2^e lief. Vögel. pp. 215-567, pl. 10-16, 1860.

Band ii. 1^e lief. Lépidoptères. Par E. Ménétrières. 1 p. l. pp. 1-75, pl. 1-5, 1859.

2^e lief. Coléoptères. Par V. de Motschulsky. 1 p. l. pp. 77-257, pl. 6-11, 1 map, 1860.

3^e lief. Mollusken. 2 p. l. pp. 259-976, pl. 12-30, 1867.

Band iv. 1^e lief. Meteorologische beobachtungen in Amur-Lande und resultate aus denselben. 1 p. l. iv, 372, pp. 1 l. 1876. The results are deduced by Köppen (dr. W...) and Fritsche (dr. H...).

Slater (Philip Lutley). On a collection of birds from Vancouver's island.

[In PROCEEDINGS of the zoological society of London. 8°. London, 1859. xxvii, 1859, pp. 235-237.]

Scoresby (William, d. d.) An account of the Arctic regions, with a history and description of the northern whale-fishery. 2 v. xx, 551, 82 pp. 1 pl.; viii, 574 pp. 23 pl. 8°. Edinburgh, for A. Constable & co. 1820.

Scott (Robert Henry, f. r. s.) Results of meteorological observations made on board H. M. S. "Hecate" and "Plumper," 1857-1863.

[In QUARTERLY JOURNAL of the meteorological society. 8°. London, Williams & Strahan, 1874, Jan. new series, vol. ii, No. 9, pp. —.]

Not seen. A review of this in ZEITSCHRIFT der öster. gesell. für meteor. vol. ix, q. v.

Scouler (John, m. d., f. l. s.) On the temperature of the northwest coast of America.

[In BREWSTER (David), Edinburgh journal of science. 8°. Edinburgh, 1827. Vol. vi, pp. 251-253.]

—— Observations on the indigenous tribes of the northwest coast of America.

[In JOURNAL of the royal geographical society of London. 8°. London, J. Murray, 1841. Vol. xi, pp. 215-249.]

—— On the Indian tribes inhabiting the north-west coast of America.

[In JAMESON (Robert), Edinburgh new philosophical journal. 8°. Edinburgh, 1846. Vol. xli, pp. 168-192; and JOURNAL of the ethnological society of London. 8°. London, 1848. Vol. i, pp. 228-252.]

Scripps (John Locke). The undeveloped northern portion of the American continent. A lecture delivered in the course before Bell's Commercial College February, 1856. 20 pp. Chicago, "Democratic press" steam printing house, 1856.

Scudder (Samuel Hubbard). The insects of the tertiary beds at Quesnel (British Columbia). 15 pp. 8°. [Toronto, J. Lovell, 1876.]

—— The same.

[In GEOLOGICAL SURVEY OF CANADA. Report of progress, 1875-76.]

Seal Islands. The Alaska seal islands.

[In the GALAXY. 8°. New York, Sheldon & co. 1876. Vol. xxi, No. 6, June, pp. 850-853.]

- Seemann** (Berthold). Narrative of a voyage of H. M. S. Herald, 1845-51, under the command of capt. Henry Kellett, being a circumnavigation of the globe, and three cruises to the Arctic regions in search of sir John Franklin. 2 v. xvi, 322 pp. 1 map, 1 col'd pl.; vii, 302 pp. 1 col'd pl. 8°. *London, Reeve & co.* 1853.
- The botany of the voyage of H. M. S. Herald, 1845-51. vi, pp. 5-484, 100 pl. 2 maps. 4°. *London, L. Reeve*, 1852-57.
- Reise um die welt und drei fahrten der köngl. Brittischen fregatte Herald nach dem nördlichen Polarmeere zur aufsuchung sir John Franklin's in den jahren 1845-1851. 2 v. xii, 335 pp.; vi, 294 pp. 8°. *Hannover, Rümpler*, 1858.
- *The same*. 2d ed. 8°. *Hannover*, 1858.
[Reviewed in MORSKOI SBORNIK, 1859, Aug. vol. xlii, [v], pp. 24-25.]
- Seghers** (rev. Charles J . . . , bishop of *Vancouver island*). Letters from St. Michael's redoubt, Norton Sound, Alaska Territory.
[In THE CATHOLIC SENTINEL. fol. *Portland, Oregon*, 1878. A weekly newspaper.
Letter No. 1, published Aug. 29, 1878.
No. 2, Sept. 5, 1878.
No. 3, Sept. 12, 1878.
No. 4, Sept. 19, 1878.
No. 5, Sept. 26, 1878.
No. 6, Oct. 3, 1878.]
- Selkirk**, The earl of. See DOUGLAS (Thomas, *fifth earl of Selkirk*).
- Semefsky** (M . . . E . . .). See RUSSKI VIESTNIK.
- Semeonoff** (Peter Petrovich). Обзоръ Амура, (etc.) [Review of the Amur in reference to its physical and geographical features.]
[In VIESTNIK Imperatorsk. russk. geograf. obshchestva. 8°. *St. Petersburg*, 1855. Vol. xv, (ii), pp. 227-254.]
- Semivsky** (K . . . S . . .). О восточной Сибири, (etc.) [Latest news from Eastern Siberia.] 2 maps, 10 pl. 8°. *St. Petersburg*, 1817. *Not seen*.
- Serebrennikoff** (pilot Ruff). Рѣка Мѣдная, (etc.) [The Copper river, from the report of Serebrennikoff, 1847-8.]
[In ZAPISKI HYDR. DEPT. (Journal of the hydrographic department.) 8°. *St. Petersburg*, 1852. Vol. x, pp. 167-177.]
- Seward** (William Henry). Our north Pacific states. Speeches in Alaska, Vancouver, and Oregon, August, 1869. 1 p. l. 31 pp. 8°. *Washington, Philp & Solomons*, 1869.
- Sgibneff** (Alexander S . . .). О Тунгусахъ приморской, (etc.) [On the Tunguses of the maritime region of Eastern Siberia.]
[In MORSKOI SBORNIK. 8°. *St. Petersburg*, 1859. Vol. xli, No. 5, (iv), pp. 34-49.]
- Попытки русскихъ, (etc.) [Attempt of the Russians to establish commercial relations with Japan in the 18th and beginning of the 19th centuries.]
[In MORSKOI SBORNIK. 8°. *St. Petersburg*, 1869. Vol. c, No. 1, [ii], pp. 37-72.]
- Матеріалы для исторіи Камчатка, (etc.) [Materials for the history of Kamchatka; expedition of (Afanasi) Shestakoff.]
[In MORSKOI SBORNIK. 8°. *St. Petersburg*, 1869. Vol. c, No. 2, Feb. [ii], pp. — — —.] *This number not seen.*
Note.—The account of the expedition is taken from the Siberian archives.
- Историческій очеркъ, (etc.) [Historical sketch of the most important events in Kamchatka, 1650-1742.]
[In MORSKOI SBORNIK. 8°. *St. Petersburg*, 1869, Apr. Vol. ci, No. 4, [ii], pp. 65-142, with a map.]
- *The same*, 1742-1759.
[In *same*, vol. cii, No. 5, May, [ii], pp. 53-84.]
- *The same*, 1759-1772.
[In *same*, vol. cii, No. 6, June, [ii], pp. 37-69.]
- *The same*, 1772-1816.
[In *same*, vol. ciii, No. 7, July, [ii], pp. 1-129.]

Sgibneff (Alexander S . . .)—continued.

— *The same*, 1816–1856.

[In MORSKOI SBOJNIK. 8°. *St. Petersburg*, 1869. Vol. ciii, No. 8, Aug. [ii], pp. 32–110.]

— Охотскій портъ съ 1649 по 1852, (etc.) [The port of Okhotsk from 1649 to 1852; an historical sketch.]

[In *same*, vol. cv, No. 11, Oct. [ii], pp. 1–92; No. 12, [ii], pp. 1–63.]

— Описание пути, (etc.) [Description of a journey from the Anadyr post to that at Gizhinsk in 1765.]

[In ZAPISKI SIBIRSKAKHO OTDIELA. geogr. obshchestva. 4°. *Irkutsk*, 1876. Vol. vii, pp. 96–100.]

Shabelski (Achille). Voyage aux colonies russes de l'Amerique, fait à bord du sloop de guerre l'Apollon, pendant les années 1821, 1822 et 1823. 1 v. 12°. 106 pp. *St. Pétersbourg, N. Gretsck*, 1826.

Reviewed (?) in *Hertha geog. zeitung*, xii, 1828, pp. 173–185.

— [anon.] Изъ записокъ Шабельскаго, (etc.) [From Shabelski's diary. Residence in the colonies of the Rus. Am. company, Rio Janeiro, New Holland. From the French of Och—n.]

[In SIEVERNI ARKHIV. (Northern Archives.) 1826, xxii, xxiii.]

Shakovskoi (lieut. Alexander Yegorovich). Сѣверный берегъ Охотскаго моря, (etc.) [North shore of the Okhotsk sea according to the chart of lieut. Shakovskoi, 1817–19.]

[In ZAPISKI HYDR. DEPT. (Journal of the hydrographic department.) 8°. *St. Petersburg*, 1852. Vol. x, pp. 156–162.]

Shalauoff (. . .). See BERGH (V. N.)

Shayeshnikoff (rev. Innocentius). Instructions given to—by Fisher—concerning the planting of trees at Unalashka.

See FISHER. LIESNOI ZHURNAL, (etc.)

Shelikhoff (Grigori Ivanovich). Erste und zweyte reise von Ochotsk in Sibirien durch den ostlichen ocean nach den küsten von Amerika, 1783–89. Aus dem Russischen übersetzt von J. Z. Logan. 104 pp. 8°. *St. Petersburg, J. Z. Logan*, 1793.

— Памятникъ, (etc.) [In memory of Grigori Ivanovich Shelikhoff.]

[In SIN OTECHESTVA. 8°. *St. Petersburg, A. Smirdin*, 1839. Vol. 7, vi, pp. 20–21.]

— Григорья Шелехова первое странствованіе, (etc.) [Grigori Shelikhoff's first journey, from 1783 to 1787, from Okhotsk to the Pacific ocean and shores of America.] 172 pp. — charts. 12°. *St. Petersburg*, 1793. *Not seen*.

— Продолженіе, (etc.) [Continuation of Grigori Shelikhoff's journey to the Pacific ocean and shores of America in 1788.] 95 pp. 12°. *St. Petersburg*, 1792. *Not seen*.

Note.—The preceding two volumes reappeared in one publication, 172 and 90 pp. 12°. *St. Petersburg*, 1812, without maps and under the title of "Voyages of G. Shleikhoff from 1783–1790," according to Sokoloff, *Zap. Hydr. Dep.* vii 450, 1849. It would seem as if the 1792 for the "continuation" must be a misprint, since the first part appeared in 1793.

Shell (U . . .). Матеріалы, (etc.) [Materials for the climatology of north-eastern Russia and Siberia for the year 1875.]

[In OBSTCH. ESTESTVOISP. pri imp. Kazanskom univ. (etc.) (Society of naturalists of the imperial Kazan university. Supplement to the minutes of the 81st session held the 28th of September, 1876.) pp. —. 8°. *Kazan*, 1876.]

Shemelin (Feodor or The Журналъ перваго путешествія, (etc.) [Journal of the first voyage of the Russians around the globe. Written by authority of his supreme imperial majesty, by the chief commissioner of the Russian American company, (etc.)] 2 v. in 1. 4 p. l. 428 pp. 1 l. 4°. *St. Petersburg, v' meditsinskoi typogr.* 1816.

— Историческое извѣстіе, (etc.) [Historical information about the first Russian voyages around the world.] 33 pp. 8°.

Note.—The above first appeared in the RUSSKI INVALID. (The Russian Invalid.) 1823, nos. 23, 28, 31, 36, 48, and 49. *Not seen*.

Shestakoff (Afanasi), expedition of. See SGIBNEFF (A. S.) Materials for the history of Kamchatka.

- Shillinglaw** (John J . . .). A narrative of Arctic discovery from the earliest period to the present time. xx, 348 pp. 2 maps, 1 pl. 12°. *London, W. Shoberl, 1850.*
- Shishkoff** (S . . .) Наше американское дѣло. [Our American affairs.]
[In SOVREMENNŌE SLOVA, 1863, No. 88.]
Note.—This is a review of an article entitled "Monopoly of the Russian-American co."
- Shishmareff** (capt.-lieut. Glieb Semeonovich). Свѣденія о Чукчахъ, 1821. [Information concerning the Chukchees, 1821.]
[In ZAPISKI HYDR. DEPT. (Journal of the hydrographic department.) 8°. *St. Petersburg, 1852.* Vol. x, pp. 178-200.]
- Siberia.** [Geographical and statistical description of Siberia and its islands.]
[In SIBIRSKI VIESTNIK. (The Siberian Messenger.) 1824, supplements i and ii.]
— Recueil de voyages en Sibirie extr. des journaux de divers savans voyageurs. 2 v. 8°. *Berne, 1791. Not seen.*
- Sibirisch-amerikanische telegraph.** Der Sibirisch-amerikanische telegraph.
[In ERMAN (A.) Archiv für wissenschaftlich kunde von Russland. 8°. *Berlin, G. Reimer, 1865.* Vol. xxiv, pp. 474-479.]
- Sibirski Viestnik.** Сибирскій Вѣстникъ, (etc.) [The Siberian Messenger, published by Grigori Spasskia.] 12 v. i-xxiv. 8°. *St. Petersburg, v' typ. dep. narodnakho pros. 1818-1824, (etc.) B. M.*
1823. Sergeant Andreëf's expedition to the Bear islands.
1824. Part 1, pp. 1-58. Extract from dr. Kyber's journal, translated from the French by PERTSOFF.
Part 2, pp. 87-25. The Chukchis; by dr. KYBER, q. r.
- Siemonoff** (I . . .). Извѣстie, (etc.) [Information concerning capt. Bellingshausen's voyage in 1819-21. From the French.]
[In SIEVERNI ARKHIV. (Northern Archives.) 1824, xii, 19.]
— Опреѣленіе географическаго положенія, (etc.) [Determination of the geographical positions of the anchorages of the sloops Vostok (Orient) and the Mir (World), discovered under the command of capt. of the second rank, now vice-admiral Bellingshausen, at the time of his voyage round the world 1819-21.] First part. 152 pp. 4°. *St. Petersburg, 1828. Not seen.*
- Sieverni Arkhiv.** Сѣверный Архивъ, (etc.) [Northern Archives, a journal of history, statistics and travel, published by Thaddeus Bulgarin.] i-xxv. 8°. *St. Petersburg, 1822-1828.*
1822. Nos. 21 and 22. Account of T. Taraikanoff's voyage to the N. W. coast of America.
- Sievernaia Pchela.** Сѣверная Пчела. [Northern Bee.] — v. fol. *St. Petersburg, 1825-1860. A [daily?] newspaper. Not seen.*
1846. Nos. 255, 256, 259, 260. Biography of admiral Krusenstern.
1847. No. 252. Voyage of the Sitka and Atka.
1849. No. 32. The Ross settlement in California.
Nos. 98, 99. Bering and Chirikoff; by A. SOKOLOFF, q. r.
No. 133. Reply to K. E. von Baer; by A. SOKOLOFF, q. r.
1851. Nos. 106-108, 120, 126. Russian voyages round the world; by VL. ROMANOFF.
No. 160. Russian American company assisting in the Franklin search.
- Simpson** (Alexander). The life and travels of Thomas Simpson, the Arctic discoverer. viii, 424 pp. 1 portrait, 1 map. 8°. *London, R. Bentley, 1845.*
- Simpson** (sir George). Narrative of a journey round the world, during the years 1841 and 1842. 2 v. xi, 438 pp. 1 map, portrait; vii, 469 pp. 8°. *London, H. Colburn, 1847.*
— [anon.] Sitka.
[In NAUTICAL magazine and naval chronicle. 8°. *London, Simpkin, Marshall & co. 1849.* June, pp. 310-311.]
- Simpson** (John, surgeon, r. n.) Results of thermometrical observations at the Plover's wintering place, Point Barrow.
[In BRITISH Association for the advancement of science. Report of the Dublin meeting. 8°. *London, 1857.* pp. 159-184.]
— Observations on the western Esquimaux and the country they inhabit.
[In Further papers relative to the recent Arctic expeditions in search of sir John Franklin. Presented to both houses of parliament Jan. 1855.]
See also ROYAL GEOGR. SOC. A selection from papers, etc. 8°. *London, John Murray, 1875.* pp. 233-275.

Simpson (Thomas, *arctic explorer*). Narrative of the discoveries on the north coast of America, effected by the officers of the Hudson's Bay company during the years 1836-39. xix, 419 pp. 8°. *London, R. Bentley, 1843.*

See also SIMPSON (Alexander).

Sin Otechestva. Сынъ Отечества, (etc.) [Son of the Fatherland, an historical and political journal.] i-cxxii. 8°. *St. Peterburg, 1812-1850.*

Note.—Consult STUCKENBERG (J. C.) Versuch eines quellen, etc. Bd. ii, pp. 419-428, for list of geographical articles which appeared in Sin Otechestva, 1812-50.

— Сынъ Отечества и Сѣверный Архивъ, (etc.) [Son of the Fatherland and Northern Archives, a journal of literature, politics and contemporary history, published by Nicholas Gretch and Thaddeus Bulgarin.] — v. 8°. *St. Peterburg, 1829-1844. Not seen.*

— Сынъ Отечества, (etc.) [Son of the Fatherland, a journal of politics, education and literature, published by A. V. Starcheffsky.] — v. fol. *St. Peterburg, 1847-1858. Not seen.*

See 1821, xxvii.

1848. No. 9. Russians on the Amur in the xvii century.

1850. No. 12. Extract from the journal of a Russian navigator.

Sitka ou Novo-Arkangelsk.

[In EYRIÈS (J. B.) et MALTE-BRUN (C.) nouvelles annales des voyages. 8°. *Paris, Gide fils, 1825. Vol. xxvi, pp. 126-127.*]

— Островъ Сѣтка. [Sitka island.]

[In MORSKOI SBORNIK, 1862, April. Vol. lviii, [iv], pp. 153-154.]

— Ново-архангельскъ, съ видомъ. [New Archangel, with view.]

[In ILLIUSTRIROVANNAIA GAZETA. (Illustrated Gazette.) *St. Peterburg, 1867, No. 37.*] *Not seen.*

Sitka Post. A semi-monthly newspaper. 2 v. sm. fol. *Sitka, Wm. W. Ward and Jas. J. Daly, 1876-1877.*

Vol. I. No. 1, Oct. 20, 1876, to No. 12, April 20, 1877.

Vol. II. No. 13, May 5, 1877, to June 5, 1877, No. 14; by J. J. DALY. No more published.

Note.—This appears to be a continuation of the Alaska Bulletin under a different management.

Smet (*le r. p. Pierre de, s. J.*) Extrait d'une lettre du P. de Smet, de la compagnie de Jésus, à M. de Smet, son frère, à Gand; Sainte-Marie du Wallamette, Océgon, 9 octobre, 1844.

[In NOUVELLES annales des voyages. 8°. *Paris, A. Bertrand, 1845; t. 108 de la collection. Vme série, tom. iv, pp. 372-379.*]

Smithsonian Institution. Annual reports of the board of regents of the Smithsonian Institution, showing the operations, expenditures, and condition of the institution, 1853-1877. 25 v. 8°. *Washington, government printing office, 1854-1878.*

See GIBBS, HARDISTY, ROSS, ROTHROCK, (etc.)

Snow (William Parker). Russian America. Its physical characteristics and native tribes.

[In SHERWOOD (J. M.) Hours at home. 8°. *New York, C. Scribner & co. 1897. Vol. v, July, pp. 254-264.*]

Sobranie sochinenie. Собрание сочинений. [Collection of articles selected from the calendars (almanacs) of various years (edited by N. Ozeretskoff).] 10 v. 8°. *St. Peterburg. Imp. acad. sci. 1785-93.*

CONTENTS [in part].

Vol. III, 1789, pp. 33-51. (Concerning Russian voyages in the Arctic ocean and concerning certain phenomena observed in the sea and in the air in that place during cold journeys.) From the CALENDAR, 1769.

Same, pp. 335-362. (Short extract concerning the newly-discovered Northern Archipelago.) From the CALENDAR, 1774.

Same, pp. 300-334. (On the submission of Siberia to the Russian empire.) From the CALENDAR, 1774.

Vol. IV, 1790, pp. 226-236. (Information concerning Cape Chukotski.) From the CALENDAR, 1780.

Same, pp. 263-392. (Concerning the Russian discoveries in the seas between Asia and America; P. PALLAS.) From the CALENDAR, 1781.

Vol. V, 1790, pp. 146-164. (Summary of the voyages of pilot Zaikoff to the islands situated between Asia and America in the boat St. Vladimir.) From the CALENDAR, 1782.

Same, pp. 304-318. (Summary of the voyages undertaken to the islands situated between Asia and America, in the ship St. Michael.) From the CALENDAR, 1783.

Same, pp. 369-376. (Abstract from the log of the Cossack captain Ivan Kobeleff, sent in March, 1779, from Gizhiga post to the Chukchi country.) From the CALENDAR, 1784.

Sobranie sochinenie—continued.

CONTENTS [in part]—continued.

Vol. VI, 1790, pp. 63–103. (Description of the Kuril islands.) From the *CALENDAR*, 1785.*Same*, pp. 282–325. (On the Tunguses in general.)

Vol. VIII, 1792, pp. 92–125. (Concerning Siberian trees and bushes, which serve for ornament and for the formation of groves and gardens in the northern regions.)

Société de géographie de Paris, *Bulletin*. 1–6^e série. 107 v. 8°. Paris, 1822–1877.

1834. ii, pp. 28–40. Notice of Lesseps' voyage.

1834. ii, pp. 345–357. Concerning discoveries on the west coast of America.

1835. iv, pp. 201–220. Voyage of A. Shabelski to Russian America. A. TARDIEU.

1873. vi, pp. 561–580. Pinart's explorations.

Sokoloff (Alexander). Опись Удскаго берега, (etc.) [Account of the Udsch coast and the Shantar islands, lieut. Kozmin, 1829–31.][In *ZAPISKI HYDR. DEPT.* (etc.) (Journal of the hydrographic department.) 8°. *St. Petersburg*, 1846. Vol. iv, pp. 1–78.]

— Прозект Ломоносова и экспедиция Чичагова 1765 и 1766 года. [Lomonosoff's plan and Chichagoff's expedition 1765–66.]

[In *ZAPISKI HYDR. DEPT.* 1847, vol. v, pp. 240–251.]

— Русская Морская библиотека. [Russian naval library.]

ZAPISKI HYDR. DEPT. 1847, vol. v, pp. 421–446. First period; reign of Peter the Great.

1848, vol. vi, pp. 413–448. Second period; from the end of the reign of Peter I to the accession to the throne of Catherine II.

1849, vol. vii, pp. 402–483. Third period; the reign of Catherine II and Paul I.

1850, vol. viii, pp. 395–514. Fourth period; reign of the emperor Alexander I.

1851, vol. ix, pp. 470–621. Fifth period; the present reign.

1852, vol. x, pp. 485–656. Conclusion; supplement and corrections; nautical manuscripts, (etc.)

— Приготовление кругосветной экспедиции 1787, (etc.) [Preparations for the circumnavigation expedition of 1787, under Grigori Ivanovich Muloffski.]

[In *ZAPISKI HYDR. DEPT.* (etc.) (Journal of the hydrographic department.) 8°. *St. Petersburg*, 1848. Vol. vi, pp. 142–191.]

— Опись берегов ледовитого моря, (etc.) [Description of the shores of the Arctic ocean, between the Olenek (rein-deer) and Indigirka rivers and the northern islands. Lieut. Anjou. 1821–1823.]

[In *ZAPISKI HYDR. DEPT.* (etc.) (Journal of the hydrographic department.) 8°. *St. Petersburg*, 1849. Vol. vii, pp. 117–212.]— Берингъ и Чирикoffъ. [Bering and Chirikoff.] 13 pp. 8°. *St. Petersburg*, 1849.— *The same.*[In *SIEVERNAIA PCHELA*. (Northern Bee.) 1849, Nos. 88 and 99.]

— [Reply to Mr. Baer of the academy of sciences.]

[In *same*, 1849, No. 133.]

— Начало Охотскаго порта. [Origin of Okhotsk.]

[In *MORSKOI SBORNIK*. 8°. *St. Petersburg*, 1850, 6.]*Note.*—This article is a reply to Kanacheff upon the history of Okhotsk.

— Русская библиотека въ Америкѣ. [Russian library in America.]

[In *MORSKOI SBORNIK*, 1850, July, vol. iv, pp. 34–39.]

— Исторія. (Etc.) [History. Northern expeditions 1733–43.]

[In *ZAPISKI HYDR. DEPT.* 1851, vol. ix, pp. 190–469.]*Note.*—This is a full account of the voyages of Bering and Chirikoff to the coast of America.

— Хвостовъ и Давыдовъ. [Khvostoff and Davidoff.]

[In *same*, 1852, vol. x, pp. 391–433.]— *The same.*[In *MORSKOI SBORNIK*, 1853, May, vol. ix, pp. 349–358.]

— Russische entdeckungsreisen nach dem nordöstlichen Asien und dem nordwestlichen Amerika.

[In *ARCHIV für wissenschaftliche kunde von Russland*. Her. von A. Erman. 8°. *Berlin*, G. Reimer, 1855. Vol. xiv, pp. 212–223.]

— Примѣчанія, (etc.) [Remarks on the 'Account of the northern expeditions of 1733–43,' published in vol. ix of the journal of the hydrographic department.]

[In *MORSKOI SBORNIK*, 1856, Nov. vol. xxv, [iv], pp. 103–105.]

- Spasskia** (Gregory N . . .). Описание Мѣднаго острова, (etc.) [Description of Copper island, situated in the sea of Kamchatka. With a map.]
[In SIBIRSKI VIESTNIK. (The Siberian Messenger.) 1822, xviii.]
- Списокъ съ чертежа сибирскія земли, (etc.) [Copy of some Siberian plans taken from a manuscript journal of the 17th century, (etc.)] 8°. —, —. *Not seen*; from Sobolewski cat. p. 41.
- De antiquis sculpturis et inscriptionibus in Siberia repertis. 7 pl. 4°. *Petropoli*, 1822.
- Springfield Republican.** fol. *Springfield, Mass.* 1871–1879. *A daily newspaper.*
Sept. 28, 1871. On the Aleuts.
May 2, 1879. The situation at Sitka.
- Sproat** (G . . . M . . .). Scenes and studies of savage life. 330 pp. 8°. *London, Smith & Elder*, 1868.
Reviewed in PETERMANN (A.) geographische mittheilungen. 4°. *Gotha, Justus Perthes*, 1868. Heft v, Mai, p. 188.
- Staehlin-Storcksburg** (Jacob von). An account of the new northern archipelago, lately discovered by the Russians in the seas of Kamtschatka and Anadir. Translated from the German original. xx, 39 pp. 1 map. 8°. *London, C. Heydinger*, 1774.
Note.—The original is in the St. Petersburg geographischen kalender für das jahr 1774 †.
- Staniukovich** (Mikhail Nikolaievich).
Capt. Staniukovich commanded the sloop Möller on a voyage round the world 1826–1829, and explored the north shore of the Alaskan peninsula. For a brief account of the voyage see ZAPISKI, (etc.) (Journal of the hydrographic department of the ministry of marine.) 8°. *St. Petersburg*, 1850. Vol. viii, pp. 63–75.
“Capt. Staniukovich published three reports of the voyage from Kronstadt to Kamchatka and New Archangel in ZAPISKI uchenakho komiteta morskakho shtaba. 8°. *St. Petersburg*, 1828. Vol. i, pp. — —.” See vol. iii, 1829, pp. 103–125, for an account of “the newly discovered Möller island.”
- Stapleton** (Augustus Granville). The political life of George Canning from 1822 to his death, in 1827; together with a short review of foreign affairs subsequently to that event. 3 v. 8°. *London, Longmans*, 1831.
• See vol. iii, pp. 114–126, for a brief history of the treaty of 1825 between Russia and Great Britain.
- Staritzky** (capt. lieut. K . . .). Гидрографическая командировка, (etc.) [Hydrographic voyages in the Pacific ocean during the years 1865–1871.]
[In MORSKOI SBORNIK. 8°. *St. Petersburg*, 1873. Vol. cxxiv, No. 1, [ii], pp. 1–66, with two maps.]
Note.—This is an account of the chronometric longitude determinations in the Amur region, Sakhalin island, etc.
- Нѣсколько измѣреній болшихъ глубинъ, (etc.) [Deep-sea soundings in the Okhotsk and Japan seas, the Pacific and Indian oceans. Bottom. Seaweed.]
[In MORSKOI SBORNIK. 8°. *St. Petersburg*, 1873. Vol. cxxvi, No. 6, [iii], pp. 73–113.]
- Statisticheski Zhurnal.** (Journal of Statistics.) О первомъ путешествіи Русскихъ кругомъ свѣта. [Concerning the first Russian voyage around the world.] i, 1. 1806.
- Stchapooff** (Afanasi Prokopevich). Историко-географическія замѣтки о Сибири. [Historico-geographical notes on Siberia.]
[In ISVESTIJA Sibirskakho otdiela Imp. Russ. geogr. obshchestva. 4°. *Irkutsk*, 1873. Vol. iv, No. 2, April, pp. 65–82.]
Note.—Treats of first geographical discoveries in Siberia. See under RUSSIA, Geogr. soc. *Siberian section*.
- Stearns** (Robert E . . . C . . .). Shells collected by the U. S. Coast Survey expedition to Alaska, in the year 1867.
[In PROCEEDINGS of the CALIFORNIA ACADEMY of natural sciences. 8°. *San Francisco, the society*, 1868. Vol. iii, pp. 384–386.]
- Stein** (ritter Feodor Ivanovich otherwise Friedrich Wilhelm staabs-chirurgus). Изъясненіе рисунка, (etc.) [Explanation of the drawing representing the volcanic island St. Ioanna Bogoslova or Agashagok.] 4 l. 4°. *St. Petersburg*, 1825.
- О времени происхожденія, (etc.) [Concerning the date of upheaval of the Aleutian islands.]
[In TRUDAKH Imp. mineralog. obshchestva. 8°. *St. Petersburg*, 1830. pp. 374–389.]
- Sind die Aleutischen inseln ein product des untererdischen feuers, der flötzzeit oder der urzeit?
[In SCHRIFTEN der in St. Petersburg gestifteten Russisch-kaiserlichen gesellschaft für mineralogie. 8°. *St. Petersburg*, 1842. Vol. i, abth. 2, ste. 199–213.]
Note.—This Stein (probably a German who had received a Russian name) is said to have gone round the world with Vasilieff in 1818, though his name does not appear in the list of officers given by Sokoloff in the Zapiski Hydr. Dept.

Steller (Georg Wilhelm). Reise von Kamtschatka nach Amerika mit dem commandeur-capitän Bering. 133 pp. 8°. *St. Petersburg, J. Z. Logan*, 1793.

— *The same.*

[In PALLAS (P. S.) Nordische Beiträge. 8°. *St. Peterburg und Leipzig*, 1795 (†) Vol. v, pp. 129–236; vol. vi, pp. 1–26.

Also in ALLGEMEINE HISTORIE der reisen zu wasser und lande, (etc.) 21 v. 4°. *Leipzig, Arkstee & Merkus*, 1747–64. See vol. xx, pp. 357–361.]

— [Translation from Steller's description of capt. commander Bering's voyage. 87 pp.]

[TITLE, in (the catalogue of the) LIBRARY of the imperial academy of sciences. *St. Peterburg*. 1, 120.]

Note.—This is a *manuscript*.

— Beschreibung von dem lande Kamtschatka, dessen einwohner, sitten, namen, lebensart und verschiedene gewohnheiten; herausgegeben von J. B. Scherer; mit kpf. 8°. *Frankfurt am Main*, 1774. *Not seen*.

Stevens (hon. Isaac I . . .). Northwest America, an address delivered before the American geographical and statistical society, New York, Dec. 2d, 1858. (Abridged.)

[In JOURNAL of the American geographical and statistical society. 8°. *New York*, 1859. Vol. i, pp. 3–10.]

Stikine River.

See PETERMANN Geog. Mitth. 1863, ix, 237; 1864, x, 171–175. Also ATAHUALPA.

— La nouvelle colonie anglaise de Stickeen dans l'Amérique du nord.

[In MALTE-BRUN (V. A.) Nouvelles annales des voyages. 8°. *Paris, A. Bertrand*, 1863. Série vime, année ixme, tome iii, pp. 246–247.]

Stollenwerck. See FISCHER.

Stout (Arthur B . . ., m. d.) Arctic discovery, read before the California academy of sciences June 16th, 1879. 9 pp. 1 map. 8°. *San Francisco, Alta California printing house*, 1879.

Strahlenberg (Philipp Johann Tobbert von). Das nord- und ostliche theil von Europa und Asia—das gantze Ruszische reich mit Sibiérien und der grossen Tartarey in sich begreiffet, in einer historisch-geograph. beschreibung. Mit einer tabula polyglotta von 32erley arten Tatar. völkersprachen und einem Kalmuckischen vocabulario. Sonderl. aber einer grossen land, charte und verschied. kupferst. 4°. *Stockholm*, 1730. *Not seen*.

— Historico-geographical description of the north and eastern parts of Europe and Asia, particularly of Russia, Siberia, and Great Tartary, both in their ancient and modern state, with a polyglot table of dialects of 32 Tartarian nations. Translated into English. 8 p. l. 463 pp. 1 map, 4 pl. 4°. *London, Innys & Manby*, 1738.

Struve (W . . .). Астрономическія наблюденія, (etc.) [Astronomical observations, made by E. V. Price during capt. Kotzebue's second voyage. From the German, published by W. Struve, by lieut. A. Borisoff. Supplement by P. Tarkhanoff] ii, 47 pp. 4 tab. 8°. *St. Peterburg*, 1832.

— Ouvrages relatifs au voyage autour du monde de M. le contre-amiral Lütke.

[In BULLETIN sci. de l'acad. imp. de sciences de St. Pétersbourg. t. i. 4°. [1836.] pp. 141–144.]

Stuckenberg (Johann Christian). Hydrographie des Russischen reiches oder geographisch-statistisch-technische beschreibung seiner floss- und schiff-baren flüsse und seen, seine küsten, inneren meere, häfen und aufuhrten. Ein von der kaiserlichen akademie der wissenschaften eines Demidowschen preises gewürdigtes werk. 6 v. 8°. *St. Petersburg, Buchdruckerei der k. acad. d. wissenschaften*, 1844–49. B. M.

Vol. ii. 1844. Das bassin des oceanes, von der Norwegischen gränze bis zur Chinesischen. 1 p. l. 810 pp. 1 folding table.

— Versuch eines quellen-anzeigers alter und neuer zeit für das studium der geographie, topographie, ethnographie und statistik des Russischen reiches. 5 parts. 8°. *St. Petersburg, druckerei der militair-lehr-anstalten*, 1849–52.

CONTENTS.

Band i, abth. 1. Landkarten. Pläne und monographien. 1849. pp. 1–93.

Same. Cartographie des Russischen reiches. Supplement. 1849. pp. 93–142.

abth. 2. Bibliographie. 1851. vi, 406 pp.

Band ii, abth. 1. Sammelwerke und journalistik. 1852. 688, iv pp.

The rest not found in the British Museum library or elsewhere.

- Sturdsa** (Alexander). Памятникъ трудовъ, (etc.) [Memoirs of the labors of the Russian missionaries of the united Greek church, from 1793 to 1853.] 2 p. l. xxiii pp. 1 l. 380 pp. 8°. *Moskva, V. Gote*, 1857.
- Sulphur**, Zoölogy of the voyage of H. M. S. *See* HINDS (R. B.) in ADDENDA.
- Sumner** (Charles). Speech on the cession of Russian America to the United States. 48 pp. 1 map. 8°. *Washington, congressional Globe office*, 1867.
- Sun** (The). fol. *New York*, 1878–1879. *A daily newspaper*.
 Mar. 11, 1878. Sherman and Alaska.
 Feb. 9, 1878. Who owns Alaska?
 Mar. 30, 1879. British protection for American citizens.
 Apr. 28, 1879. Capt. Brown's return from Sitka.
 May 2, 1879. Archbishop Nestor.
- Sunday Ledger** (The). fol. *San Francisco*, 1875. *A weekly newspaper*.
 Oct. 10, 1875. From British America to the Arctic ocean.
- Svoboda**. Свобода. [Liberty.] *A newspaper in the Russian language published at irregular intervals*.
 1 v. sm. fol. *San Francisco, California, Agapius Honcharenko*, 1872–1877 (?)
- Swan** (James G. . . .). The northwest coast; or, three years' residence in Washington territory. [1852–55. Illustrated.] 435 pp. 12°. *New York, Harper & brothers*, 1857.
- Letter to hon. Wm. H. Seward in regard to the acquisition of Russian America.
 [In CONGRESSIONAL PAPERS. H. of R.—40th Cong. 2d sess.—Ex. Doc. No. 177, pp. 33–34.]
- Russian America.
 [In BOSTON EVENING TRANSCRIPT, 1867, Thursday, April 11; also in CONGRESSIONAL PAPERS. H. of R.—40th Cong. 2d sess.—Ex. Doc. No. 177, pp. 36–38.]
- Smithsonian contributions to knowledge—267—. The Haidah Indians of Queen Charlotte's islands, British Columbia, with a brief description of their carvings, tattoo designs, etc. 2 p. l. 18 pp. 7 pl. large 4°. *Washington, Smithsonian institution*, 1874.
- Report of, on his cruise in Alaska in 1875.
 [In MORRIS (W. G.) Report upon the customs district, (etc.) of Alaska territory. 8°. *Washington, government printing office*, 1879. Appendix, pp. 146–50.]
- Swegy** (Jacques Philibert Rousselot de). Mélanges intéressans et curieux; ou, abrégé d'histoire naturelle, morale, civile, et politique de l'Asie, l'Afrique, l'Amérique et des terres polaires. [anon.] 10 v. 12°. *Paris, Durand*, 1763–1765.
- *The same*. Second ed. 12 v. sm. 8°. *Yverdon*, 1764–1767.
Note.—Vol. iii, 1765, contains notes on early explorations of Kamchatka, Bering strait, etc. The second edition is to be found in the library at Stockholm, and the first and second volumes of the first edition in the Library of Congress.
- Synd** (lieut. . . .). *See* BERGH.
- Synge** (col. Millington H. . . , r. e.) Proposal for a rapid communication with the Pacific and the East viâ British America.
 [In JOURNAL of the Royal geographical society of London. 8°. *London, J. Murray*, 1852. Vol. xxii, pp. 174–200.]
- Taraikanoff** (Timofe). Schiffsbuch über eine fahrt der Russisch-Amerikanischen compagnie-sloop St. Nikolai, unter befehl des steuermanns Bulaegin, an der N. W. küste Amerikas.
 Cf. ST. PETERSBURGER ZEITUNG, 1822, x, pp. 22–52.
 SIEVERNI ARKHIV. (Northern Archives.) 1822, Nos. 21 and 22.
 This title from GREWINGK (dr. C.) Beitrag zur kenntniss, (etc.) p. 337.
- Tebenokoff** (capt. Michael Dmitrievich). Атласъ сѣверо-западныхъ береговъ Америки, (etc.) [Atlas of the northwest coast of America from Bering strait to cape Corrientes and the Aleutian islands, together with some places on the northeast shore of Asia.] fol. *St. Peterburg*, 1852; with index and hydrographic observations to this atlas. 8°. *St. Peterburg*, 1852. *Not seen*.
- *The same*. [Atlas of the north-west coast of America from Bering strait to cape Corrientes and the Aleutian islands, with additions.] 3 p. l. 39 maps. fol. [*Sitka*], 1852.
 Reviewed in MORSKOI SBORNIK, 1854, June, vol. xii, [iv], pp. 3–9.
See WRANGELL.

- Telegraph Expedition, Russo-American.** Ueberwinterung der telegraphen-erbauer im vormals Russischen Nord-amerika. (Aus dem Daily Morning Call.)
[In DAS AUSLAND. fol. Augsburg, J. G. Cotta, 1867. No. 52, Dec. 24, pp. 1240-1244.]
- Teleskop.** Телескопъ, (etc.) [The Telescope, a journal of contemporary civilization, published by Nikolai Nadejdin.] i-xlii. 8°. Moskva, (Moskow), 1825-1831. *Not seen.*
- Tennent (Thomas).** Tennent's nautical almanac for the Pacific coast, California tide-register, and marine digest, [1864-1873]. 7 v. 16°. San Francisco, [1864]-1873.
Note.—None issued for 1866, 1867, and 1871.
- Tennent's nautical almanac, tide-register for the Pacific coast, and marine digest, for 1874-1877. 4 v. 12°. San Francisco, [J. H. Carmany & co. (etc.)], 1874-[77].
- Thom (Adam).** The claims to the Oregon territory considered. iv, 44 pp. 8°. London, Smith, Elder & co. 1844.
- Thomas (George Henry, major-general u. s. a.)** Report of his tour in Alaska in 1869 on the "Fideliter," capt. J. W. White.
[In CONGRESSIONAL PAPERS. H. of R.—41st Cong. 2d sess.—Ex. Doc. No. 1, part 2, pp. 15, 113-121.]
- Tidball (major John C . . .).** See CONG. PAPERS. H. of R.—42d Cong. 1st sess.—Ex. Doc. No. 5.
- Tikhmenieff (P . . .).** Историческое обозрѣніе, (etc.) [Historical review of the organization of the Russian American company, and its history to the present time.] 2 v. Vol. 1, 1 pr. l. v and x, 386 pp.; with suppl. i, x, 66 pp. 4 pl. 1861; vol. 2, 1 pr. l. ii, 389 pp. with suppl., 1 pr. l. 79, and 292 pp. 4 charts, 1863. 8°. St. Peterburg, E. Weimar, 1861-3.
See also PETERMANN (A.) Geogr. mitth. 4°. Gotha, Justus Perthes, 1864, p. 280, for brief mention; and for a review see MORSKOI SBORNIK, 1864, Feb. vol. lxx, [v], pp. 31-48; Mar. vol. lxxi, [v], pp. 1-24. *See also* AFANASEFF (D.)
- Нѣскольکو словъ, (etc.) [A few remarks concerning the export of salt fish from Sitka and concerning the cod-fisheries.]
[In KRONSTADSKI VIESTNIK. (The Kronstadt Messenger.) 1864, No. 26.]
- Tiling (Henry).** Brief (den 10. October 1850) aus Ajan am Ochotskischen meere an herrn coll.-rath dr. Deeters in Riga.
[In BUNDE (F. A.) and GOTTFRIEDT (M. R.) Correspondenzblatt des naturforschenden vereins zu Riga. 8°. Riga, F. Hucker, 1851. Vierter jahrgang, 1850-51, No. 9, pp. 134-139.
Note.—A discussion of the climate of Ajan from 3 years' observations, by the observer, doctor Tiling. Observations New Style. Barometer above the sea 40-50 feet.
- Tilley (Henry Arthur).** Japan, the Amoor, and the Pacific; with notices of other places comprised in a voyage of circumnavigation in the Russian corvette "Rynda," in 1858-60. xii, 405 pp. 8 pl. 8°. London, Smith, Elder & co. 1861.
Reviewed in MORSKOI SBORNIK, 1862, Jan. Vol. lvii, [v], pp. 16-39.
- Tishnoff (Ilia).** Алеутско-Кадьякскій букваръ. [Aleutian-Kadiak primer.] 1 p. l. 33 pp. 12°. St. Peterburg, synodical press, 1848.
Note.—Mostly in the modified cyrillic characters.
- Trafford (F . . . W . . . C . . .).** Amphiorama ou la vue du monde. Phénomène inconnu pour la première fois observé et décrit. 80 pp. 8°. Lausanne, the author, 1875.
- The same. Avec une carte du pôle arctique. 1 p. l. 78 pp. 8°. Lausanne, G. Bridel, 1877.
- Tristram (Henry Baker).** Notes on some passerine birds, chiefly Palearctic.
(In the IBIS, a quarterly journal of ornithology; edited by Osbert Salvin and Philip Lutley Selater. 8°. London, John Van Voorst, (for the British ornithologists' union) 1871. 3rd series, vol. 1, No. 2, pp. 231-234.]
- Tronson (John M . . ., r. n.)** Personal narrative of a voyage to Japan, Kamtschatka, Siberia, Tartary, and various parts of coast of China, in H. M. S. Barracouta. [1854.] xiv, 414, pp. 4 charts, 10 pl. 8°. London, Smith, Elder & co. 1859.
- Truman (Ben C . . .).** Occidental Sketches.—No. 1. A summer in Alaska.
[In the WASHINGTON CHRONICLE. fol. Washington, 1870, Feb. 6.]
- Trusler (rev. John, d. d.)** Descriptive account of the islands lately discovered in the South seas, (etc.), with some account of the country of Kamschatka. 8°. London, 1778. *Not seen.*
Note.—In Stuck's bibliography of geographical literature (1785) the date of this pamphlet is given as 1777.

Trusler (*rev. John, d. d.*)—continued.

— The habitable world described ; or the present state of the people in all parts of the globe, from north to south ; shewing the situation, extent, climate, productions, animals, etc., of the different kingdoms and states, (etc.) 20 v. 8°. *London, the author, 1788-97.*

See PALLAS (P. S.)

See also vol. v, which contains—

1st. An account of the Tungusians, &c. From Steller, Kratscheninikaff, Muller, Cooke, and others. pp. 2-21.

2d. A description of Kamtschatka, from Bhering, Pawlontzky, Steller, Kratscheninikaff, King, and others. pp. 22-78.

3d. An account of the Koraiks and Tschouktsches. pp. 79-93.

4th. [An account] of the Kurilians. pp. 93-98.

5th. [An account] of the Eastern islands [Aleutian islands]. pp. 98-121.

6th. [An account] of the Schamane religion. pp. 121-127.

Tucker (Ephraim W . . .). History of Oregon, containing a condensed account of the most important voyages and discoveries of the Spanish, American, and English navigators on the north-west coast of America, (etc.) 84 pp. 12°. *Buffalo, A. W. Wilgus, 1844.*

Twiss (Travers, *d. c. l.*) The Oregon question examined, in respect to facts and the law of nations. x, 392 pp. 2 maps. 8°. *London, Longmans, 1846.*

Tytler (Patrick Fraser, *f. r. s. & f. s. a.*) Historical view of the progress of discovery on the more northern coasts of America from the earliest period to the present time * * *, with descriptive sketches of the natural history of the North American regions, by James Wilson, *f. r. s. c.*, to which is added an appendix, (etc.) 1 v. 444 pp. map and 9 pl. 16°. 2nd ed. *Edinburgh, Oliver & Boyd ; and London, Simpkin & Marshall, 1833.*

— Same. 360 pp. 1 map. 18°. *New York, Harper & brothers, 1839.*

— Same. 360 pp. 18°. *New York, Harper & brothers, 1842.*

[HARPER'S family library, vol. 58.]

— **Ulloa** (*don Antonio de.*) Noticias Americanas ; entretenimientos phisico-historicos sobre la América Meridional, y la Septentrional Oriental ; comparacion general de los territorios, climas y producciones, en las tres especies, vegetal, animal y mineral, (etc.) 12 p. l. 407 pp. 1 l. 4°. *Madrid, Manuel de Mena, 1772.*

— Mémoires philosophiques, historiques, physiques, concernant la découverte de l'Amerique, ses anciens habitants, (etc.) Traduit par M * *. 2 v. viii, 376, xv pp. ; 1 p. l. 499, xv pp. 8°. *Paris, Buisson, 1787.*

— Carta de D. Antonio de Ulloa á D. Martin Fernandez de Navarrete.

[In COLECCION de documentos inéditos para la historia de España por Salvá (D. Miguel) y Baranda (D. Pedro Sainz de). 8°. *Madrid, 1849.* Tomo xv, pp. 264-267.]

Ulsky (A . . . Th . . .). О гидрографических изслѣдованіяхъ, (etc.) [Concerning hydrographic investigations in Bering, the Okhotsk and Japan seas.]

[In ISVIESTILA, (etc.) (Bulletin of the imp. Russ. geog. soc.) 8°. *St. Peterburg, 1867.* Vol. iii, No. 2, pp. 95-99.]

United States. CONGRESS. Proceedings of.

See CONGRESSIONAL GLOBE and CONGRESSIONAL RECORD.

— — Executive documents. For reports and letters presented to, acts, bills, and resolutions introduced, and miscellaneous documents printed by direction of either senate or house, see CONGRESSIONAL PAPERS and UNITED STATES ; WAR and INTERIOR DEPARTMENTS.

— DEPARTMENT OF STATE. Papers relating to the treaty of Washington. Vol. v. Berlin arbitration. Containing the memorial of the United States on the canal de Haro as its boundary-line ; case of the government of her Britannic Majesty ; reply of the United States thereto ; second and definitive statement of the government of her Britannic majesty ; and correspondence. x, 271 pp. 19 maps (A-H, J-O, 1-5.) 8°. *Washington, government printing office, 1872.*

United States. DEPARTMENT OF STATE—continued.

————— Purchase of the Russian possessions in North America by the United States. Papers relating to the value and resources of the country. 5 pp. fol. [*Washington, government printing office, 1867.*]

CONTENTS.

Letter from Mr. Collins to Mr. Seward.

Letter from gen. Meigs to Mr. Seward.

Telegram from gen. Halleck to Mr. Stanton.

Extract from a letter from commodore Rodgers to the department of state.

Some account of Russian America by prof. Baird.

Letter from Mr. Gibbs to Mr. Seward.

Extract from a letter from Mr. Fletcher to Mr. Seward.

Note.—This is one of the confidential documents of the state department. Its contents all appear in CONGRESSIONAL PAPERS. H. of R.—40th Cong. 2d sess.—Ex. Doc. No. 177, pp. 25–33.

See PEIRCE (B. M.)

————— The following papers were turned over by Russia to the United States at Sitka April 7th, 1867, and are now in the archives of the department of state:

I. Despatches and other correspondence of the board of directors of the Russian American company for the years 1802, 1817–1866.

II. Journals of the correspondence between the governor of the colonies and the board of directors of the company and other persons for the years 1818–1867.

III. Log-books kept on board the company's vessels on their voyages in the colonies.

IV. Journal of the explorations of capt. Archimandritoff in 1860 and 1864; on the northwestern coast of Kadiak and in Norton sound and the Pribiloff islands.

V. Journal of Zagoskin's explorations.

Note A.—A casual examination of Nos. I, II, and III led to the impression that the documents related solely to the internal colonial administration and not to that between the colonial direction and the mother country.

Note B.—The paper supposed to have been issued by the department of state, and catalogued under BLACK (J.) in the early part of this list, may have had no existence, and its title may have been due to a misconception of the editor of the British magazine which professed to copy or reprint it. The department knows nothing of such a paper, which, however, seems to have been based on notes issued by the department.

————— **INTERIOR DEPARTMENT. Bureau of education. Annual reports. 8°. *Government printing office, Washington, D. C. 1874–1879.***

Consult reports of hon. John Eaton, commissioner of education, as follows:

Report for 1870. pp. 336, 339, 345.

1873. p. 424.

1874. pp. 459–460.

1875. pp. 463–466.

1877. pp. xxxi–xxxii.

————— [Publications of geological surveys.]

See POWELL (J. W.) and DALL (W. H.)

————— **NAVY DEPARTMENT. Bureau of navigation. Hydrographic office. Books published for purposes of navigation. Nos. 1–61. *Washington, bureau of navigation, 1858–1875.***

No. 5. General examination of the Pacific ocean, followed by nautical directions for avoiding hurricanes. Translated from the second French edition, [by com. C. H. Davis, u. s. n.] xiv, i l. 212 pp. 3 maps. 8°. *Washington, bureau of navigation, 1869. See KERHALLET.*

No. 20. Directory for Behring's sea and coast of Alaska, arranged from the directory of the Pacific ocean by A. G. Findlay. 193 pp. 8°. *Washington, government printing office, 1869. See BUREAU OF NAVIGATION.*

No. 54. Deep-sea soundings in the north Pacific ocean, obtained in the United States steamer Tuscarora, commander George E. Belknap. 51 pp. 19 pl. 9 profiles, 1 map. 8°. *Washington, government printing office, 1874.*

————— **Hydrographic notices, 1869 to 1879. 11 v. 8°. *Washington, government printing office, 1870–1880.***

1869. Hyd. notice No. 13, issued July 26; 29 pp. and 1 l. of errata. Notes by commander R. W. Meade, jr., on the Alexander archipelago.

1875. Hyd. notice No. 67, issued Nov. 20; 11 pp. Gulf of Tartary, Saghalin island, the Amoor leman, (etc.)

1876. Hyd. notice No. 32, issued May 24; 4 pp. Sailing directions for the Amur river.

1877. Hyd. notice No. 66, issued Nov. 27; 17 pp. Sailing directions for Queen Charlotte, Smith and Fitzhugh sounds, by lieut. Daniel Pender, r. n.

1879. Hyd. notice No. 35, issued June 3; 2 pp. Keen's rock, Sitka sound.

Hyd. notice No. 63, issued Oct. 11; 3 pp. Symond's bay, (etc.)

Hyd. notice No. 66, issued Nov. 10; 2 pp. Sitka entrance.

Notice to mariners No. 81, issued Aug. 14; 2 pp. Sitka.

United States—continued.

——— **TREASURY DEPARTMENT.** Coast [and geodetic] survey. Notices to mariners. 8°. *Washington, U. S. coast survey office, 1874–79.*

——— Notice to mariners. U. S. coast survey. Northwest coast of America. Aleutian islands. [Geographical positions in the Aleutian islands determined by actg. asst. W. H. Dall and party in 1873.] 1 l. 8°. *U. S. coast survey office, June 20, 1874.*

——— Notice to mariners. No. 19. Coast of Alaska. Location of Keen rock, in the middle passage to Sitka harbor, Alaska. 1 l. 8°. *Coast and geodetic survey office, Washington, June 27, 1879.*

See also COAST SURVEY; DALL (W. H.) and DAVIDSON (G.)

——— **WAR DEPARTMENT.** Circular No. 8, war department, surgeon-general's office. A report on the hygiene of the United States army, (etc.) lxi, 567 pp. 1 map, 9 pl. 4°. *Washington, government printing office, 1875.*

See p. 483 for a condensed meteorological statement for Sitka for 4 years, viz: July, 1870, to June, 1874.

——— **REPORTS** of the secretary of war, being part of the message and documents transmitted to the two houses of Congress at the beginning of the sessions. — v. 8°. *Washington, government printing office, 1867–1877.*

Note.—These appeared as executive documents and up to 1877 contained references to the condition and stations of the troops in Alaska.

Ushakoff (surveyor . . .) and **Elistratoff** (surveyor . . .). *See* KAMCHATKA.

Ustingoff (. .) and **Korsakoff** (. .). Explorations in Bristol bay, 1818–19.

See BERGH (V. N.) "Chronological history. Vol. ii, p. 21."

LÜTKÉ (F. P.) Voyage round the world, (etc.) Nautical part (in Russian). pp. 266–267.

ZHURNAL, (etc.) (Journal of the interior department.) 8°. *St. Petersburg, 18—.* Vol. —, pp. —.

Only the second reference seen.

Vagin (B . . .). Историческія свѣдѣнія, (etc.) [Historical information concerning the doings of count M. M. Speranski in Siberia in 1819 to 1822.] 2 v. *St. Petersburg, 1872.*

Reviewed in ISVIESTIA, (etc.) (Bulletin of the imp. Russ. geogr. society, Siberian section.) 4°. *Irkutsk, 1873.* July, vol. iv, No. 4, pp. 180–194; No. 5, pp. 200–225; vol. v, No. 1, pp. 28–42.

Vahl (J . . .). Alaska: folget og missionen. 3 p. l. 108 pp. 8°. *Kjöbenhavn, G. E. C. Gads bog-handel, 1872.*

Account of various missionary enterprises in Alaska.

Vancouver (George). A voyage of discovery to the north Pacific ocean, and round the world, (etc.), performed in the years 1790–95. 3 v. 4°. Atlas, 17 maps, (etc.) fol. *London, for G. G. and J. Robinson, 1798.*

Reviewed in the MONTHLY Review. 8°. *London, R. Griffiths, 1799.* Vol. xxviii, pp. 1–21, 141–160, 374–386.

——— Voyage de découvertes à l'océan pacifique du nord, et autour du monde, (etc.), exécuté en 1790–95. Traduit de l'anglais. 3 v. 4°. Atlas, fol. *Paris, imprimerie de la république, 1800.*

——— *The same in Russian.* [Voyage to the northern part of the Pacific ocean and round the world, performed in 1791–95, by capt. George Vancouver. From the English.] iii, 333, 524, 422, 511, 557, and 297 pp. 8°. *St. Petersburg, 1827–38. Not seen.*

——— Reisen nach dem nördlichen theil der Südsee, 2 thle. 1 chart, 2 pl. *Berlin, 1799. Not seen.*

——— Voyage of discovery to the north Pacific ocean and round the world; in which the coast of northwest America was carefully examined. 6 v. and atlas. 8°. *London, 1801. Not seen.*

See also ADDENDA.

Vancouver Island. Notes on Vancouver island. [anon.]

[In NAUTICAL magazine and naval chronicle. 8°. *London, Simpkin, Marshall & co. 1849.* June, pp. 299–302.]

See also NOTES, etc.

Vancouver Island Pilot. *See* GREAT BRITAIN. Admiralty. Hydrographic office.

Vasilieff (capt.-lieut. Alexander). Sailed in the transport Irtish, commanded by Vonliarliarski, from Kronstadt to Okhotsk, and between Petropavlovsk and Manila in 1843–45. He is indicated in the Zapiski as VASILIEFF "the fourth."

See ZAP. HYDR. DEPT. ii, pp. 432–6; iv, pp. 411–12, and viii, pp. 152, 189.

Vasilieff (*mate Ivan, 1st*). Went out to America in the *Neva*, capt. Hagemeister, in 1806; in 1809 surveyed the western shore of Baranoff island, and at an unknown date "died in the service."
See ZAPISKI HYDR. DEPT. viii, p. 165, 1850.

Vasilieff (*Ivan Phil . . .*). Выписки изъ путешественнаго журнала, (etc.) [Extract from the log-book of the voyage of pilot Ivan Phil. Vasilieff in the ship *Finland* in 1811-12 to the Aleutian islands.] See MILLER (*Ivan*).
[In NOVOSTI Literatura. (The Literary News.) 1823, vi, pp. 49-52.]

Vasilieff (*master's mate Ivan*). Sailed on the brig *Rurik* from Russia for Russian America in 1821 under Klockhoff.

See ZAP. HYDR. DEPT. viii, pp. 11, 174. This may be the same man that the next title refers to.

Vasilieff (*mate Ivan, 2d*). Surveyed the southeastern shore of the Aliaskan peninsula from cape Douglas to Nakchamik island in 1831-1832.

See LÜTKÉ (F. P.) Voyage, &c. Nautical part (in Russian). pp. 278-290.

Also HERTHA, &c. Vol. iii, pp. 390-392. Not seen.

Vasilieff (*vice-admiral Mikhail Nikolaievich*). Commanded the sloop "Discovery" on a voyage to the Rus. Am. colonies and round the world, 1819-1822. Died in 1847.

For an account of the voyage see ZAPISKI, (etc.) (Journal of the hydrographic department.) 8°. *St. Petersburg*, 1849. Vol. vii, pp. 106-116.

See also BERGH (V. N.) Chronological history of all voyages, (etc.) 8°. *St. Petersburg*, 1821 (?). Vol. ii, pp. 1-20. Not seen.

Also ZAPISKI admiral't. depart. 8°. *St. Petersburg*, 181-(?). Vol. v, pp. 219-227. Not seen.

—— [anon.] О плаваніи Россійскихъ кораблей Открытіе и Благонамѣренный. [Concerning the voyage of the Russian ships "Discovery" and "Good Intent".]

[In SIN OTECHESTVA, 1820, 52.]

Note.—This anonymous article is about Vasilieff.

—— Expedition der sloop Blagonamjérenny zur untersuchung der küsten von Asien und Amerika jenseits der Berings-strasse, in den jahren 1819 bis 1822.

[In ARCHIV für wissenschaftliche kunde von Russland. Her. von A. Erman. 8°. *Berlin, G. Reimer*, 1851. Vol. ix, pp. 272-294.]

See also AMÉRIQUE RUSSE.

Vaugondy. See ROBERT DE VAUGONDY.

Venegas (*Miguel*). Noticia de la California, y de su conquista temporal y espiritual hasta el tiempo presenta. Sacada de la historia manuscrita, formada en Mexico año de 1739 por el padre Miguel Venegas, y de otras relaciones. 3 v. sm. 4°. *Madrid, viuda de M. Fernandez*, 1757.

Note.—Compiled by Andres Marcos Burriél.

—— A natural and civil history of California. Translated from the original Spanish. 2 v. 10 p. l. 455 pp. 1 pl.; 4 p. l. 387 pp. 2 pl. 8°. *London, for J. Rivington & J. Fletcher*, 1759.

—— Natuurlyke en burgerlyke historie van California. Uyt het oorsprongkelyk Spaans, te Madrid 1758 nytgekomen, in Engels, en nu int' Nederduyts vertaald door J. J. D. 2 v. 11 p. l. 436 pp. 1 pl. 1 map; 3 p. l. 375 pp. 8°. *Haerlem, J. Enschedé*, 1761-62.

—— Natürliche und bürgerliche geschichte von Californien, nebst einer neuen charte dieses landes. Aus dem Englischen übersetzt von Johan[n] Christoph Adelung. [anon.] 3 v. in 1. 4°. *Lemgo, Meyer*, 1769-70.

Veniaminoff (*rev. Ivan or Ioann, metropolite of Moscow*). General table of meteorological observations at the port of New Archangel, Russian America, from January, 1836, to January, 1837, O. S.
[In HAWAIIAN SPECTATOR. 8°. *Honolulu, for the proprietors*, 1838. Vol. i, No. 4, October, pp. 437-439.]

—— Мнѣологическія преданія и суевѣрія Колошей, (etc.) [Mythological rites and superstitions of the Koloshians who inhabit the north-west coast of America.]

[In SIN OTECHESTVA. 8°. *St. Petersburg, A. Smirdin*, 1838. Vol. xi, iii, pp. 40-82.]

See also LOWE (F . . .) and SCHOTT (W . . .).

—— Записки объ островахъ уналашкинскаго отдѣла, (etc.) [Notes on the islands of the Unalashka district. Published at the expense of the Russian-American company.] 2 v. 4 p. l. ix, 364 pp.; 4 p. l. 409 pp. 8 l. and tab. 8°. *St. Petersburg*, 1840.

Veniaminoff (rev. Ivan or Ioann, metropolit of Moscow)—continued.

——— Записки объ атхинскихъ алеутахъ и колошахъ. [Notes on the Atkan Aleuts and Koloshians.] 2 p. l. 155 pp. 8°. *St. Peterburg*, 1840. [With the preceding as a supplementary volume third, but often found separately.]

——— Указаніе пути, (etc.) [Guide for the journey to the kingdom of heaven. In the Fox island dialect of the Aleutian language.] 71 l. 16°. *Moscow, synodical press*, 1840.

Note.—Chiefly in the modified cyrillic alphabet used by the Russian synod for aboriginal dialects.

——— Опытъ грамматики алеутско-лисеявскаго языка, (etc.) [Essay upon the grammar of the Fox island dialect of the Aleutian language by rev. I. Veniaminoff of Unalashka.] iv, xvi, 120 and vi pp. 2 tab. 8°. *St. Peterburg, imp. acad. sci.* 1846.

——— Забѣчанія о колошенскомъ и кадьякскомъ языкахъ, (etc.) [Remarks concerning the Koloshian and Kadiak languages, as also other Russo-American languages, with an appendix containing a Russo-Koloshian vocabulary of more than 1,000 words, of which some are accompanied by explanatory notes.] 82 and 2 pp. 8°. *St. Peterburg, imp. acad. sci.* 1846.

——— Les isles Aléoutes et leurs habitants. Par M. Venjaminov. Article de M. Erman. Traduit de l'allemand.

[In NOUVELLES annales des voyages, (etc.) Vol. 2, 1849. (Vol. 122 of the collection.) *Paris*, n. d. 8°. pp. 66-82; and vol. 4, 1849. (Vol. 124 of the collection.) *Paris*. 8°. n. d. pp. 112-148.]

——— Notes ethnographiques. Langues de l'Amérique russe. Par Ivan Venjaminov.

[In NOUVELLES annales des voyages, (etc.) Vol. 1, 1850. *Paris*, [n. d.] 8°. pp. 359-364.]

Note.—Comments on the languages of Russian America, and a few words (numerals) of the Unalashkans.

——— Schreiben aus Kamtschatka. [From the *Moscow Viedomosti*.]

[In ARCHIV für wissenschaftliche kunde von Russland. Her. von A. Erman. 8°. *Berlin, G. Reimer*, 1855. Vol. xiv, pp. 306-308.]

Veniukoff (col. . . .). On the island of Saghalin. Translated from the Russian "Voyenni Sbornik" by capt. Spalding.

[In JOURNAL of the Royal geographical society of London. 8°. *London, J. Murray*, 1872. Vol. xlii, pp. 373-388.]

Venus, Voyage of the. See DU PETIT THOUARS (A. A.)

Veritas. See ALASKA COMMERCIAL COMPANY.

Veselago (Feodosi Feodorovich). Разборъ второй части, (etc.) [Review of the second part of the work of Tikhmenieff entitled "Review of the Russian American company and its history down to the present time."] 47 pp. 8°. *St. Peterburg, imperial academy of sciences*, 1864.

——— [Review of the works of Tikhmenieff.]

[In ЗАПИСКИ, (etc.) (Journal of the imperial academy of sciences.) 8°. *St. Peterburg*, 1865. Vol. vi, part 1, pp. 4-28.]

See also MORSKOI Sbornik, 1864, Dec. vol. lxxv, no. 12, [v], p. 30.

Vesseloffski (Constantin Step[anoff?]). Du climat de la Russie.

[In MÉLANGES RUSSES tirés du bulletin historico-philologique de l'académie impériale des sciences de St. Pétersbourg, 1851. Tome ii, pp. 625-668.]

——— Tabellen über mittlere temperaturen in russischen reiche.

[In BAER (K. E. von) und HELMERSEN (Gregor von) beiträge zur kenntniss des russischen reiches. 8°. *St. Pétersbourg*, 1856. Band xviii, pp. 197-257.]

See also PETERMANN (A.) geograph. mittheilungen, 1860. Heft ix, Sept. p. 362.

——— О климатъ Россіи. [Concerning the climate of Russia.] xii, 408 pp. 1 l.; 326 pp. 1 l. 2 tab. 1 pl. 4 maps. 4°. *St. Peterburg, imperial academy of sciences*, 1857.

——— [A brief communication on the meteorology of northwest America.]

[In BULLETIN physico-math. de l'acad. imp. de St. Pétersbourg. 4°. *St. Pétersbourg*, 1858. Tome xvi, col. 141.]

——— Sur le climat d'Ikognut.

[In BULLETIN de l'académie impériale des sciences de St. Pétersbourg. 4°. *St. Pétersbourg*, 1860. T. i, col. 63-86; also in MÉLANGES physiques et chimiques de l'académie impériale des sciences de St. Pétersbourg. 8°. *St. Pétersbourg, pour l'académie*, 1859. Tome iii, pp. 629-660.]

- V——ie (P.)** Письма Русскаго Моряка, (etc.) [Letter of a Russian navigator during a voyage from Valparaiso to Sitka.]
[In OTECHESTVENNIIA ZAPISKI. (Journal of the Fatherland.) 1851, 1.]
- Viestnik Evrope.** Вѣстникъ Европы, (etc.) [The European Messenger, published by Michael Kachenofsky.] — v. 8°. *Moscow*, 1807–1830. *Not seen.*
- *The same.* [European Messenger, a journal of historico-political literature.] 68 v. 4°. *St. Petersburg*, redaction “*Viestnik Evropeia*,” 1866–77. Harvard college library.
- Vinogradski (V . . .).** Матеріалы для климатологіи, (etc.) [Materials for the climatology of north-eastern Russia and Siberia.]
[In OBSTCHESTVA, (etc.) (Society of naturalists of the imperial Kazan university. Supplement to the minutes of the 66th session held the 21st of November, 1875.) — pp. 8°. *Kazan*, 1876.] *Not seen.*
- Völter (D . . .).** Das kaiserthum Russland in Europa, Asien und Amerika. 1 map. 8°. *Esslingen*, 1855. *Not seen.*
- Vorman (capt.-lieut. . . .)** See RUSSIAN AMERICAN COLONIES. Prilozheniia dokladu, (etc.) pp. 586–601.
- Voronkoffski.** See ROTCHEFF.
- Vossnessenski.** See WOSSNESSENSKI.
- Vsevolozhsky (le chev. Nikolai S . . .).** Dictionnaire géographique-historique de l'empire de Russie, contenant le tableau politique et statistique de ce vaste pays, (etc.) 2 v. 1 p. l. xvi, 297 pp.; 1 p. l. 360 pp. 8°. *Moscou*, de l'imprimerie de l'auteur, 1813–16. Royal Library at Stockholm.
- *The same.* 2d éd. avec supplément. 2 v. 8°. *Moscou*, 1823.
- Vuisheslavtzeff (A . . . V . . .).** See RUSSKI VIESTNIK.
- Waddington (Alfred).** On the geography and mountain passes of British Columbia in connection with an overland route.
[In JOURNAL of the Royal geographical society of London. 8°. *London*, J. Murray, 1868. Vol. xxxviii, pp. 118–128.]
- Walker (David, m. d.)** [Natural history notes made during a voyage from Liverpool to Vancouver island, Dec. 1862 to June, 1863.]
[In PROCEEDINGS of the zoological society of London. 8°. *London*, 1863. xxxi, 1863, pp. 378–380.]
- Wappäus (dr. J . . . E . . .).** Handbuch der geographie und statistik von Nord Amerika. Nebst einer allgemeinen übersicht von Amerika.
[In STEIN (Christian Gottfried Daniel) and HÖRSCHELMANN (dr. Ferdinand). Handbuch der geographie. 8°. *Leipzig*, J. C. Hinrichs, 1865. vi. abth. 2, or pp. 223–1050.]
- Russisches Nord-amerika.
[In STEIN (Christian Gottfried Daniel) and HÖRSCHELMANN (dr. Ferdinand). Handbuch der geographie und statistik, (etc.) 7th ed. 8°. *Leipzig*, J. C. Hinrichs, 1855. Vol. i, part 2, pp. 293–304.] C. L.
- Washington Chronicle (The).** fol. *Washington*, 1869–1876. *A daily morning newspaper.*
- | | |
|--|---------------------------------------|
| Mar. 29, 1869. Alaska. | Apr. 29, 1875. Alaska seal fisheries. |
| Jan. 11, 1870. On Raymond's report. | June 22, 1875. Loss of the Saranac. |
| Feb. 6, 1870. Truman's sketches. | June 24, 1875. Loss of the Saranac. |
| Mar. 7, 1870. Literary entertainment by V. Colyer. | Feb. 27, 1876. Alaska fisheries. |
| Dec. 24, 1874. On the Icelanders. | |
- Washington Post (The).** fol. *Washington*, 1877–1879. *A daily newspaper.*
- | |
|--|
| Dec. 17, 1877. Alaska agents. |
| Feb. 4, 1879. All about Alaska: an interview with William G. Morris. |
- Washington Tribune (The).** fol. *Washington*, 1875. *A daily newspaper.*
- | |
|-------------------------------------|
| Oct. 14, 1875. Resources of Alaska. |
|-------------------------------------|
- Weekly Astorian (The).** fol. *Astoria, Oregon*, 1875–1879. *A weekly newspaper.*
- | |
|--|
| Oct. 16, 1875. Explorations by Mr. Holt on the Chilkhat. |
| Feb. 21, 1879. On Morris's report. |
| Feb. 28, 1879. Return of major M. P. Berry. |
| Apr. 11, 1879. Letter from major M. P. Berry. |

Weekly Bulletin (The). fol. *San Francisco*, 1874-1879. *A weekly newspaper.*

- Jan. 30, 1874. Alaska as a penal colony.
 Jan. 7, 1875. Alaska timber for ship-building.
 Jan. 14, 1875. Aleutian mummies.
 Jan. 14, 1875. Letter from Sitka.
 Jan. 21, 1875. Bryant to be retained.
 Dec. 18, 1875. The Stickeen mines.
 Feb. 18, 1875. Migrations. Japanese wrecks.
 Mar. 25, 1875. Notes.
 Apr. 8, 1875. Conflicting testimony.
 May 6, 1875. On Alaska commercial company.
 June 10, 1875. Election of officers of the Alaska commercial co.
 July 15, 1875. Lost steamer "George S. Wright."
 July 22, 1875. Return of the Icelandic commissioners.
 Sept. 16, 1875. Illegal killing of fur seals.
 Sept. 23, 1875. Notes on codfish and the mines.
 Sept. 30, 1875. News from the arctic.
 Oct. 28, 1875. Miscellany.
 Nov. 4, 1875. Whaling season.
 Nov. 11, 1875. North Pacific whaling fleet.
 Dec. 9, 1875. "Sierra Nevada" libeled.
 Dec. 16, 1875. From the arctic. Whaling news.
 Dec. 30, 1875. Civil government for Alaska.
 Feb. 3, 1876. Fernando Wood's investigation.
 Feb. 24, 1876. Alaska gleanings.
 Mar. 9, 1876. Pribiloff islands, etc.
 Apr. 27, 1876. Capt. F. H. Ernest Henning's will.
 May 4, 1876. Work of a savant—A. L. Pinart.
 May 11, 1876. A seal-skin sacque. The Alaska commercial company's fur-seal bonanza.
 A glossy secret in a London dye-vat.
 The Aleutian islands, etc.
 May 25, 1876. The fur-seal islands.
 July 20, 1876. Codfishing. New departure.
 Aug. 17, 1876. Wild Sitka wheat.
 Aug. 24, 1876. Letter from A. L. Pinart on Indian remains on Vancouver island.
 Oct. 19, 1876. The codfish fleet.
 Nov. 2, 1876. The codfish fleet.
 Nov. 9, 1876. Arrival of the "St. Paul."
 Nov. 16, 1876. The abandoned whalers.
 Nov. 23, 1876. Loss of the "Otsego."
 Dec. 21, 1876. Incorporation of the Alaska ship-building co.
 Dec. 28, 1876. News from the Stickeen.
 Feb. 1, 1877. Sitka news.
 Feb. 15, 1877. Incorporation of Arctic commercial company.
 Mar. 29, 1877. The Okhotsk fisheries.
 Apr. 12, 1877. The truth about the "George S. Wright."
 Apr. 12, 1877. The ill-fated "George S. Wright."
 Apr. 12, 1877. Taylor's trip to Sitka.
 May 17, 1877. Killing of fur seals, etc.
 May 24, 1877. The boundary question.
 May 31, 1877. The Sitka scientific exploration, etc.
 June 14, 1877. The lost schooner "Urania."
 July 5, 1877. Senator Morton and the Alaska commercial company.
 July 26, 1877. Trial of Indians for massacre of crew of the "George S. Wright."
 Aug. 30, 1877. The codfish fleet. An Alaskan murder, etc.
 Aug. 30, 1877. Fur seals. The Alaska commercial company. Its history and its operations, etc.
 Sept. 13, 1877. Brief missionary notes. The codfish fleet.
 Sept. 27, 1877. Report from the schooner "W. F. March" of the Prince of Wales massacre.
 Oct. 25, 1877. Arrival of the "St. Paul."
 Nov. 22, 1877. News from the whalers.
 Jan. 17, 1878. The Alaska mining company asks protection.
 Mar. 7, 1878. The future of Alaska.
 Mar. 28, 1878. Wreck of the "General Miller."
 July 25, 1878. News items from Sitka.
 Aug. 22, 1878. The schooner "San Diego."
 Dec. 12, 1878. Commerce on the shores of Bering straits.
 Dec. 12, 1878. Pacific coast cod-fishing.
 Jan. 9, 1879. A murderer hanged at Fort Wrangell.
 Jan. 30, 1879. Whales and walrus.
 Feb. 20, 1879. The Alaska trouble.
 Feb. 27, 1879. Alaska—what a missionary says.
 Mar. 6, 1879. Alaska as a penal colony.
 Mar. 20, 1879. Curious tenure.
 Apr. 17, 1879. Indignation of citizens of Sitka against capt. Brown.
 May 1, 1879. Wreck of the schooner "Ellen J. McKinnon."
 See also DAILY EVENING BULLETIN.

Weekly Intelligencer. fol. *Seattle, W. T.* 1879. *A weekly newspaper.*

Feb. 15, 1879. Alaska. Review of Morris's report.

West (The). 4°. *San Francisco*, 1873. *A monthly periodical.*

Feb. 1873. Alaska.

Mar. 1873. Antiquities of Unalashka.

June, 1873. Alaska commercial company.

Western Union Telegraph company. Board of directors. To the stockholders of the Western Union (and Russian extension) Telegraph company. Statement of the origin, organization and progress of the Russian-American Telegraph, Western Union extension, Collins' overland line via Behring strait and Asiatic Russia to Europe. Collated and prepared from official documents on file in the "Russian bureau" of the Western Union Telegraph company, by order of the board of directors. O. H. Palmer, secretary. 165 pp. 8°. Rochester, N. Y., "Evening Express" book and job printing office, May, 1866.

Wheildon (William W . . .). The new Arctic continent, or Wrangell's Land, (etc.)

[In PROCEEDINGS of the American association for the advancement of science. 8°. Cambridge, J. Lovering, 1869. Seventeenth meeting, Chicago, Ills. Aug. 1868. pp. 304-311.]

White (capt. J . . . W . . ., u. s. r. m.) A cruise in Alaska. 10 pp. 8°. Washington, government printing office, 1869.

[Senate Ex. Doc. No. 8, 40th Cong. 3d sess.]

— A cruise in Alaska.

See CONGRESSIONAL PAPERS. Senate.—40th Cong. 3d sess.—Ex. Doc. No. 8.

Whiteaves (Joseph Frederick, f. g. s.) On some invertebrates from the coal-bearing rocks of the Queen Charlotte islands, collected by Mr. James Richardson in 1872; with an historical introduction by W. H. Dall on the discovery of the islands and in adjacent regions.

[In GEOLOGICAL SURVEY OF CANADA. Mesozoic fossils. 8°. Montreal, for the government, 1876. Vol. i, part 1, pp. 1-92, 10 pl. 1 map.]

Whitney (prof. Josiah Dwight). Which is the highest mountain in the United States, and which in North America?

[In PROCEEDINGS of the California Academy of Natural Sciences, 1858-1862. 8°. San Francisco, Towne & Bacon, 1863. Vol. ii, pp. 219-224; also vol. iii, 1863, pp. 325-327.]

Whitney (rev. Samuel). Account of an alleged attempt on the part of the Russians to take possession of the island of Kauai.

[In HAWAIIAN SPECTATOR. 8°. Honolulu, for the proprietors, 1838. Vol. i, No. 1, January, pp. 48-52.]

Whittingham (capt. Bernard). Notes on the late expedition against the Russian settlements in eastern Siberia; and of a visit to Japan and to the shores of Tartary and of the sea of Okhostk. xv, 300 pp. 1 map. 12°. London, Longmans, 1856.

Reviewed in MORS. SBORN. 1856. Mar. vol. xxi, [v], pp. 73-75; Oct. vol. xxv, [v], pp. 19-20. See also MORS. SBORN. 1856. Feb. vol. xxi, [ii], pp. 305-321; [iv], pp. 178-185.

Whymper (Frederick, f. r. g. s.) Travel and adventure in the territory of Alaska, formerly Russian America, and in various other parts of the North Pacific. xix, 331 pp. 1 map, 14 pl. 8°. London, J. Murray, 1868.

Reviewed (by W. H. DALL) in the NATION. 4°. New York, 1869, Mar. 11. See also ALASKA.

— A journey from Norton sound, Bering sea, to fort Youkon (junction of Porcupine and Youkon rivers).

[In JOURNAL of the Royal geographical society of London. 8°. London, J. Murray, 1868. Vol. xxxviii, pp. 219-237.]

— On the progress of the Russo-American telegraph expedition via Bering's straits.

[In PROCEEDINGS of Brit. Ass. for the advancement of science. 8°. London, J. Murray, 1867. Report of the Nottingham meeting. p. 117.]

— Alaska. Reisen und erlebnisse im hohen norden. Autorisirte deutsche ausgabe von F. Steger. 367 pp. 1 map. 8°. Braunschweig, Westerman, 1869.

— Voyages et aventures dans l'Alaska (ancien Amérique russe). Traduit de l'anglais par F. Jonveaux, illustré de 37 gravures sur bois et une carte. — pp. 8°. Paris, 1871. Not seen.

— The heroes of the Arctic and their adventures. xvi, 302 pp. 8 pl. 1 map. 12°. London, society for promoting Christian knowledge, [1875.]

Reviewed in the WEEKLY BULLETIN. fol. San Francisco, 1876, Jan. 13.

— A card.

[In SAN FRANCISCO DAILY HERALD, about May 13, 1869.]

Wicker (Frank N . . .). See CONGRESSIONAL PAPERS. H. of R.—41st Cong. 2d sess.—Misc. Doc. No. 11. Also Ex. Doc. No. 136.

— St. Paul's island.

[In CONGRESSIONAL PAPERS. H. of R.—40th Cong. 2d sess.—Ex. Doc. No. 177, p. 89; also in same, Ex. Doc. No. 50, pp. 9-10.]

Wild (dr. Heinrich). Die temperatur-verhältnisse des Russischen reiches. Supplementband zum Repertorium für meteorologie. Erster hälfte. x, 176, lxviii, 14 pp. 4°. St. Petersburg, kais. akad. der wissenschaften, 1877.

Wild (*dr. Heinrich, editor*). See *ANNALES de l'observatoire physique central de Russie*.

See also *Repertorium für meteorologie*.

Wilkes (Charles, *rear-admiral, u. s. n.*) United States exploring expedition. During the years 1838-42. Under the command of Charles Wilkes. *Philadelphia, C. Sherman, 1844-1874*.

CONTENTS.

- BAIRD (S. F.) and GIRARD (Charles). Herpetology. xv, 492 pp. 4°. Atlas, 101. 32 col. pl. fol. 1858. Vol. 20.
 BRACKENRIDGE (W. D.) Botany. Cryptogamia: Filices, including lycopodiaceae and hydropterides. viii, 357 pp. 4°. Atlas, 1 p. l. 7 pp. 46 pl. fol. 1854-56. Vol. 16.
 CASSIN (J.) Mammalogy and ornithology. viii, 466 pp. 4°. Atlas, 2 l. 53 col. pl. fol. 1858. Vol. 8.
 DANA (J. D.) Crustacea. 1 v. in 2 parts. viii, 1318 pp. 4°. Atlas, 27 pp. 96 pl. fol. 1852-55. Vols. 13-14.
 — Zoöphytes. 740 pp. 4°. Atlas, 12 pp. 61 col. pl. fol. 1846-49. Vol. 7.
 — Geology. xii, 9-756 pp.; atlas, 6 pp. 21 pl. 1849. Vol. 10.
 GOULD (A. A.) Mollusca and shells. xv, 510 pp. 4°. Atlas, 16 pp. 52 col. pl. fol. 1852. Vol. 12.
 GRAY (A.) Botany. Phanerogamia. 2 p. l. 777 pp. 4°. Atlas, 4 pp. 100 pl. fol. 1854-56. Vol. 15.
 — (editor). Botany. Cryptogamia and phanerogamia. 1 p. l. 514 pp. 4°. 1874. Vol. 17.
 HALE (H.) Ethnography and philology. xii, 666 pp. 2 maps. 4°. 1845. Vol. 6.
 PICKERING (C.) The races of man, (etc.) 447 pp. 1 map. 12 col. pl. 4°. 1848. Vol. 9.
 WILKES (C.) Narrative of the expedition. 5 v. 4°. Atlas, 2 l. 5 maps. 4°. 1844. Vols. 1-5.
 — Hydrography. 2 p. l. 514 pp. 5 maps. 4°. 1861. Atlas, 1 v. in 2, 106 charts. fol. 1858. Vol. 23.
 — Meteorology. lviii pp. 1 col. map, 24 pl. 4°. 1851. Vol. 11.

Note.—The publication of this work has not been completed.

Vol. 18 should contain Botany; by ASA GRAY.

19 should contain Geographical distribution of animals and plants; by C. PICKERING.

21-22 should contain Ichthyology; by L. AGASSIZ.

24 should contain Physics; by C. WILKES.

An edition of the mammalogy and ornithology was prepared by Peale, but suppressed on account of sundry alleged errors; a few copies still exist.

— Narrative of the United States exploring expedition, 1838-42. With an atlas. 6 v. 4°. *Philadelphia, Lea & Blanchard, 1845*.

— Synopsis of the cruise of the U. S. exploring expedition, during the years 1838, '39, '40, '41, and '42; delivered before the National institute by its commander on the twentieth of June, 1842. 56 pp. 1 map. 8°. *Washington, P. Force, 1842*.

Wilkes (George). The history of Oregon, geographical and political, with an examination of the project of a national railroad from the Atlantic to the Pacific ocean. 127 pp. 1 map. 8°. *New York, Wm. H. Colyer, 1845*.

Wilson (*dr. Daniel*). Review of DALL (Wm. H.) ALASKA and its resources, &c. 8°. *Boston, 1870*.
 [In the CANADIAN JOURNAL. 8°. *Montreal, 1870*. No. lxxii, August pp. 480-489.]

Wilson (James, *f. r. s. e.*) See TYTLER (Patrick Fraser).

Witsen (Nicolaas). Noord en oost Tataryen behelzende eene beschryving van verscheidene tartersche en nabuurige gewesten inde noorder en oostelykste deelen van Asiën en Europa, (etc.) 2 v. 11 p. l. xxv, 503 pp. 50 pl. and maps; 1 p. l. 504-968 pp. 9 l. unp. 46 pl. and maps, illustrated. fol. *Amsterdam, Schalekamp, 1785*.

Note.—This is the 2d edition with preface by Boddaert. The 1st edition was published in 1705.

Woeikoff (*dr. Alexander von*). Ueber das klima von Ost-asien.

[In ZEITSCHRIFT der Österreichischen gesellschaft für meteorologie. 8°. *Wien, 1870*. Bd. v, pp. 39-42, 393.]

Note.—Contains monthly and annual mean temperatures for Aian, Nikolaieffsk, Okhotsk, Petropalovsk and Udsch.

— Das klima von Ost-asien.

[In PETERMANN (A.) geographische mittheilungen. 4°. *Gotha, Justus Perthes, 1870*. Band xvi, heft iv, März, pp. 153-154.]

Note.—Contains mean annual and monthly temperatures for Aian, Nikolaieffsk, Petropavlovsk, and Sitka.

See ZEITSCHRIFT der Österreichischen gesellschaft für meteorologie. 8°. *Wien, 1876*. Bd. xi, No. 19, pp. 259-292.

— Die vertheilung der wärme in Ost-asien.

[In ZEITSCHRIFT der Österreichischen gesellschaft für meteorologie. 8°. *Wien, 1878*. July, Bd. xiii, Nos. 14, 15, pp. 209-218, mit 1 tafel.]

Woewodski (*captain-lieut. Stepan Vasilievich*). [Voyage from Elsinore to Sitka in the Russian American company's ship 'Nikolai,' 1839-41.]

[In ZAPISKI HYDR. DEPT. 1850, viii, pp. 136-138. Printed from the log-books by IVASHINTSOFF, q. r.]

Wossnessenski (Ilia G . . .). [Notice of his travels in Russian America.]

[In NOUVELLES annales des voyages. 8°. Paris, A. Bertrand, 1846. Tome 110 de la collection. V^e série, vi, tom. ii, p. 250.]

See also BULL. Phys.-math. de l'acad. imp. des sciences de St. Pétersbourg. 4°. St. Pétersbourg, 1843. Tom. vi, sup. p. 16.

Wrangell (admiral baron Ferdinand Petrovich von). О торговых, (etc.) [Concerning the commercial relations of the people of northwest America with each other and with the Chukchis.]

[In TELESKOP. (The Telescope.) 1835, xxvi.]

Note.—The spelling of the word "Wrangell" forms the subject of a special notice in Baer and Helmersen's BEITRÄGE, (etc.) p. 328, in which it is stated that, while different persons of the name have adopted different modes for it, the individual here referred to, one of the most eminent of that noble and distinguished family, invariably spelled his own name with two l's.

—— [Concerning the fur trade in the Russian possessions in North America.]

[In same. 1835, xxvii.]

—— [Short statistical notes concerning the Russian colonies in America.]

[In same. 1835, xxvii.]

—— [Voyage from Sitka to St. Peterburg, via Mexico, 1835–6.]

[In SIEVERNAIA RUSSELA. (Northern Bee.) 1836, 240–6, 259–64.]

—— Очеркъ пути изъ Ситки въ С. Петербургъ. [Sketch of a journey from Sitka to St. Peterburg.] 117 pp. 12°. St. Peterburg, 1836. Not seen.

—— [Historical review of voyages to the Arctic ocean between the Kara sea and Bering strait, up to 1820; with a map.]

[In SIN OTECHESTVA. (Son of the Fatherland.) 1838, iv, 1.]

—— [Review of a voyage to the Arctic ocean.]

[In same, 1838, vol. iv, ii, pp. 1–7]

—— [Inhabitants of the northwest shores of America.]

[In SIN OTECHESTVA. 8°. St. Peterburg, 1839. Vol. vii, iii, pp. 51–82.]

—— Narrative of an expedition to the Polar sea in the years 1820–1823. Edited by sir Edward Sabine. cxxxvii, 413 pp. 1 map. 8°. London, J. Madden & co. 1840.

—— Прибавленія, (etc.) [Supplement to a voyage to the northern shores of Siberia and to the Arctic ocean, performed in 1820–24, (etc.) under the command of naval lieut. F. von Wrangell; compiled by himself.] 125 pp. 9 pl. 8°. St. Peterburg, 1841.

—— Путешествіе по сѣвернымъ берегамъ Сибири, (etc.) [Voyage to the northern shores of Siberia and to the Arctic ocean, performed in 1820–24, (etc.) under the command of naval lieut. F. von Wrangell.] vi, 356, 360 pp. 4 maps. 8°. St. Peterburg, 1841.

—— Le nord de la Sibérie. Voyage parmi les peuplades de la Russie asiatique et dans la mer glaciale. Traduit par E. Galitzin. 2 v. 8°. Paris, 1843. Not seen.

—— [Notes on Tebenkoff's atlas.]

[In MORSKOI SBORNIK. 8°. St. Peterburg, 1854. June, vol. xii, [iv], pp. 3–9.]

See also RUSSIAN AMERICAN COLONIES. Prilozheniia dokladu, (etc.) pp. 555–556.

—— Nord-est de l'Asie.

[In EYRIÈS (J. B.) et MALTE-BRUN (C.) Nouvelles annales des voyages. 8°. Paris, Gide fils, 1822. Vol. xiv, p. 143.]

Brief note concerning Wrangell.

Wrangell Land.

[In MARKHAM (C. R.) Geographical Magazine. 4°. London, Trübner & co. 1876. Vol. iii, No. x, October, pp. 263–265.]

—— Entdeckung eines neuen Polar-landes durch den Amerikanischen kapitän Long, 1867.

[In PETERMANN (A.) Mittheilungen, (etc.) 4°. Gotha, Justus Perthes, 1868. January, Heft i, [vol. xiv], pp. 1–6.]

See also NEW YORK DAILY TRIBUNE of Dec. 31, 1857.

—— Recent discovery of arctic land.

[In NAUTICAL MAGAZINE. 8°. London, Simpkin, Marshall & co. 1868. February, pp. 94–100; also May, pp. 233–242.]

Note.—On Long's first report of the discovery of Wrangell Land.

See also LONG (Theodore) and WHEILDON (W. W.)

- Wyman** (Jeffries, *m. d.*) Observations on crania. 34 pp. 8°. *Boston, A. A. Kingman, 1868. Also subsequently,—*
 ——— Observations on crania.
 [In PROCEEDINGS of the Boston society of natural history. 8°. *Boston, for the society, 1868.* Vol. xi, 1866–1868. pp. 440–462.]
Note.—Contains important observations on crania from the Alaskan region, with cuts.
- Wythe** (W. T.) Kodiak and southern Alaska.
 [In the OVERLAND MONTHLY. 8°. *San Francisco, J. H. Carmany & co. 1872.* Vol. viii, No. 5, June, pp. 505–511.]
- Yermoloff** (M. . . de). Extrait d'une note sur l'Amérique russe.
 [In NOUVELLES annales des voyages. 8°. *Paris, A. Bertrand, 1846.* T. 111 de la collection. V^e série, tom. iii, pp. 87–95.]
- Zagoskin** (*lieut. Laurenti Alexieff*). [Journal of a citizen of the whole world. Journey to Okhotsk and Sitka.]
 [In МАЛАК. (The Lighthouse.) 1840, 9–12, and 1841, 13–16.]
 ——— [Letter from America. Proposed expedition.]
 [In МАЛАК. (The Lighthouse.) 1843, vii.]
 ——— [St. Michael's redoubt on the southern shore of Norton sound.]
 [In ЗАПИСКИ, (etc.) (Journal of the hydrographic department.) 8°. *St. Petersburg, 1816.* Vol. iv, pp. 86–101.]
 ——— Пешеходная опись части русских владѣній въ америкѣ, (etc.) въ 1842, 1843 и 1844 годах.
 [Account of travels on foot in the Russian possessions of America, 1842–44.] 2 v. 1 p. l. 183 pp.; 1 p. l. 120, 44 pp. 1 map. 8°. *St. Petersburg, K. Kray, 1847–48.*
 ——— Ueber die reise und entdeckungen des lieutenant L. Zagoskin im Russischen Amerika. (*Anonymous review of Zagoskin's journey.*)
 [In ARCHIV für wissenschaftliche kunde von Russland. Her. von A. Erman. 8°. *Berlin, G. Reimer, 1848.* Vol. vi, pp. 499–552, 613–672; vii, pp. 429–512.]
 ——— Expedition auf dem festlande von Nord-amerika, (etc.)
 [In DENKSCHRIFTEN der russischen geograph. gesellschaft zu St. Petersburg. 8°. *Weimar, 1849.* Vol. i, pp. ——.] *Not seen.*
See also PETERMANN (A.) geographische mittheilungen. 1857. Heft iv und v, Juli, pp. 211–312.
- [On a song by A. A. Baranoff in 1799.]
 [In МОСКВИТИАНИН. (The Muscovite.) 1849, 5.]
- Zaikoff** (. . .). [Summary of the voyages of pilot [Stepan?] Zaikoff to the islands situated between Asia and America in the boat St. Vladimir. With a chart.]
 [In МЕСЯЧЕСЛОВ, 1782. Also in СОБРАНИЕ СОЧИНЕНІЙ, (etc.) (Compilation of selections from the calendars, 10 v. 1785–93.) Vol. 5, pp. 146–164.]
 ——— Auszug aus dem reisebericht des Russischen steuermanns Saikoff über eine bis an das feste land von Amerika geschehenen schiffahrt.
 [In PALLAS (P. S.) Neue nordische beiträge, (etc.) 12°. *St. Petersburg u. Leipzig, J. Z. Logan, 1782.* Vol. iii, pp. 274–288.]
- Zapiski Admiralteiskim departamentom**, (etc.) Записки, издаваемые Гос. Адмиралтейскимъ департ. (etc.)
 [Journal published by the admiralty, pertaining to navigation, science and literature.] 13 v. 8°. *St. Petersburg, 1807–1827.*
 From SOKOLOFF's list in the ЗАПИСКИ Hydr. Dept. *Not seen.*
- Zapiski Hydrograficheskakho departamenta.** Записки гидрогр. департ. морскаго министерства, (etc.)
 [Journal of the hydrographic department of the ministry of marine. Published by authority.] 10 v. 8°. *St. Petersburg, v' morskoi typografii, 1842–1852.* L. C., B. M.
 Vol. i. 1842. pp. xvi–xliv. General review of hydrographic work, 1827–1830. *See* pp. xx–xxiii for work in the Okhotsk sea, about Kamchatka and the Aleutian islands.
 Vol. ii. 1844. pp. 164–222. Voyage round the world, 1840–43, of the naval transport “Abo,” capt. A. A. Yunker.
 353–376. Tides in the north Pacific and Arctic oceans; by ЛУТКЕ, *q. v.*
 432–436. Voyage of the “Irtish,” Vouliarliarski commanding, from Kronstadt to Okhotsk.
 438–439. Hydrographic work in the Okhotsk sea, etc.
 Vol. iii. 1845. pp. v–vi. Hydrographic surveys in the Okhotsk sea, etc.
 444–448. Meteorological observations at Okhotsk, 1843.

Zapiski Hydrograficheskakho departamenta—continued.

- Vol. iv. 1846. pp. ii-iii. Charts of northwest America, etc., published during the year.
 1-78. Kozmin's account of the Shantar islands, UdsK, etc.; by A. SOKOLOFF, *q. v.*
 79-85. Aian; by SAVIN, *q. v.*
 86-101. St. Michael; by ZAGOSKIN, *q. v.*
 320-330. Glossary of words peculiar to the north Pacific and eastern Siberia.
 371. Fragments from Kashevaroff's diary. *See* KASHEVAROFF (A. P.)
 371-372. Russian American company; extract from the report for 1834.
 406-407. Storm in the Okhotsk sea, Aug. 25-28, 1845.
 411-412. Voyage of the "Irtish" to Petropavlovsk from Manila.
 450-452. Meteorological observations in Okhotsk and Aian, 1844.
- Vol. v. 1847. pp. 240-251. Lomonosoff's plan and Chichagoff's expedition, 1765-66; by A. SOKOLOFF, *q. v.*
 421-446. Nautical literature in the Russian language; by A. SOKOLOFF, *q. v.*
 458-459. Concerning Kotzebue. *See* HOFMANN and LENZ.
 459. Concerning Krusenstern.
 521-525. Meteorological observations in Okhotsk and Aian, 1845.
- Vol. vi. 1848. pp. ii-iv. Surveys in the Okhotsk sea.
 91-99. Constantine harbor and two newly-discovered islands in the Okhotsk sea.
 100-141. Miscellaneous information about Chichagoff's expedition. *See* CHICHAGOFF, MILLER and KRUSENSTERN and LOMONOSOFF.
 142-191. Preparation for a voyage round the world in 1787 under Muloffski; by A. SOKOLOFF, *q. v.*
 413-448. Nautical literature in the Russian language; period II; by A. SOKOLOFF, *q. v.*
 457. Zagoskin's discoveries in America.
 457-458. Voyage of the "Sitka" and "Atka." *See* SIEVERNAIA PCHELA, 1847, No. 252.
 556-559. Meteorological observations in Okhotsk and Petropavlovsk, 1846.
- Vol. vii. 1849. pp. iii. Hydrographic work in the Okhotsk sea.
 1-116. Russian voyages around the world; by IVASHINTSOFF, *q. v.*
 117-212. The shores of the Arctic sea explored by Anjou, 1821-3; by A. SOKOLOFF, *q. v.*
 402-483. Nautical literature in the Russian language; by A. SOKOLOFF, *q. v.*
 484-490. Report of the Russian American company for 1846 reviewed.
 490. Russians on the Amur in the xvii century.
 492-493. Bering's report of his expedition to eastern Siberia, 1725-30.
 494-495. On flax and potato culture in Kamchatka. *See* KAMCHATKA.
 499-500. UdsK settlement.
 501-507. Russia's first voyages around the world.
 537-542. Instruments used by Delisle in the second Kamchatka expedition.
 569-570. Meteorological observations at Okhotsk, 1847.
- Vol. viii. 1850. pp. ii-iii. Surveys in Bering and Okhotsk seas.
 1-191. Russian voyages around the world; by IVASHINTSOFF, *q. v.*
 191-210. Atlas of the Pacific ocean; by KASHEVAROFF, *q. v.* Contains a list of positions of the principal settlements in eastern Siberia and Alaska.
 395-514. Nautical literature in the Russian language; by A. SOKOLOFF, *q. v.*
 522-523. Russian American company's report for 1847 reviewed.
 523-524. Notice of a song by Baranoff in 1799. *See* ZAGOSKIN.
 524. Bering and Chirikoff; by A. SOKOLOFF, *q. v.*
 524. Bering strait; by K. K. HILSEN, *q. v.*
 527-528. Wreck of the "Neva"; by A. MARKOFF, *q. v.*
 531. The Ross settlement in California.
 535-556. Bering's first expedition, 1725-29; by POLONSKI, *q. v.*
 556-562. Voyage of the "Zosima" and "Savvaty," 1797; by A. P. KASHEVAROFF, *q. v.*
 563-573. Navigation school in Siberia.
 622-626. Meteorological observations in Okhotsk, Petropavlovsk, and Aian, 1848.
- Vol. ix. 1851. pp. ii-iii. Surveys in the north Pacific and Bering sea.
 78-107. First Russian voyages to America, including report of GWOSDEFF, *q. v.*
 108-147. Chichagoff's expedition. pp. 108-109. Introduction.
 pp. 109-116. Preparation for the expedition.
 116-119. Lomonosoff's letters.
 119-125. Decision of the admiralty concerning Chichagoff's return from the first voyage.
 125-129. Chichagoff's letter to the admiralty.
 129-133. Decision by the admiralty respecting the destination of the second Chichagoff expedition.
 133-146. Extract from the journal.
 146-147. Ukase concerning the expedition.

Zapiski Hydrograficheskakho departamenta—continued.

Vol. ix. 1851—continued.

- pp. 148-161. Okhotsk described; with two maps; by SAVIN, *q. v.*
 190-469. History of northern expeditions, 1733-1743, with 5 maps; by SOKOLOFF, *q. v.*
 470-621. Nautical literature in the Russian language; by SOKOLOFF, *q. v.*
 631. Okhotsk.
 642-644. Destination of Bering's first expedition.
 657-661. Meteorological observations at Okhotsk, Petropavlovsk, and Aian, 1849.
 Vol. x. 1852. pp. i-ii. Surveys in the Aleutian islands and Pacific ocean.
 70-103. Krenitzin and Levasheff's expedition to the Aleutian islands.
 119-123. Plenisher's chart of CHUKCHEE LAND, *q. v.*
 124-135. Kamchatka, east shore of, with list of positions. *See* KAMCHATKA.
 136-155. Kamchatka, west shore of. *See* KAMCHATKA.
 156-162. Okhotsk sea, north shore of, with list of positions; by SHAKOVSKOI, *q. v.*
 163-166. Anadyr river; from reports of Laptieff and Plenisher.
 167-177. Copper river; from report, 1847-48, of R. SEREBRENNIKOFF, *q. v.*
 178-200. The Chukchis; by capt. SHISHMAREFF, *q. v.*
 391-433. Khvostoff and Davidoff; by A. SOKOLOFF, *q. v.*
 485-656. Nautical literature in the Russian language; by A. SOKOLOFF, *q. v.*
 665-666. Russian American company's report for 1849 reviewed.
 670-671. Notice of Bering's voyage.
 675-676. Notes on voyages round the world.
 689-690. Note on the Chukchis.
 740-744. Meteorological observations in Okhotsk, Petropavlovsk, and Aian, 1850.

Zapiski uchenakho komiteta morskakho shtaba. Записки ученаго комитета Морскаго Штаба, (etc.) [Journal of the committee of instruction of the naval staff of his Imperial Highness.] 16 v. 8°. *St. Peterburg*, 1828-1842. *Not seen.*

1828. Vol. 1. Contains Staniukovich's report of his voyage round the world in the sloop "Moller," and his exploration of the Aliaskan peninsula.

Zarembo (captain-lieut. Dionisi Feodorovich). [Voyage from Kronstadt to Sitka in the Russian American company's ship "Prince Alexander," 1840-41.]

[In ZAPISKI HYDR. DEPT. viii, pp. 139-40, 1850. Printed from a MS. journal of the voyage kept by V. Bazhenoff, by IVASHINTSOFF, *q. v.*]

Zavalishin (Dmitri Irinarkh.) Россійско-Американская Компания. [The Russian-American company.]

[In MOSKOVSKIA VEDOMOSTI. (The Moscow Gazette.) 1864, No. 146.]

— **Неизбѣжные вопросы, (etc.)** [Inevitable questions in regard to the actual dissolution of the Russo-American company.]

[In SOVREMENNAIA LIETOPIS. (Contemporary Annals.) 1868, No. 1.]

See RUSSKI VIESTNIK.

Zavoiko (general-major Vasili). [anon.] Извлечение изъ рапорта, (etc.) [Extract from the report of the military governor of Kamchatka and commander of the port Petropavlovsk, Dec. 5th, 1852.]

[In MORSKOI SBORNIK. 8°. *St. Peterburg*, 1854. Feb. vol. xi, pp. 75-79.]

— [anon.] Извѣстія, (etc.) [News from Petropavlovsk, Dec. 3-20, 1853.]

[In MORSKOI SBORNIK.) 8°. *St. Peterburg*, 1854. June, vol. xi, pp. 119-120.]

— *The same.*

[In *same.* 1854, Dec. vol. xiii, [ii], pp. 210-212.]

See also RUSSKI VIESTNIK.

Zbishevski (V . . .). Забѣчания, (etc.) [Remarks on the whale fishery in the Okhotsk sea.]

[In MORSKOI SBORNIK, 1863. April, vol. lxx, [iii], pp. 229-240.]

Zeitschrift der österreichischen gesellschaft für meteorologie; redigirt von dr. C. Jelinek und dr. J. Hann. 14 v. 8° and 4°. *Wien, selbstverlag der gesellschaft*, 1866-1879.

1869. Vol. iv, pp. 262-3. On the climate of Cape Flattery.

1870. Vol. v, pp. 39-42, 393. The climate of eastern Siberia; by dr. A. V. WOJIKOFF, *q. v.*

1871. Vol. vi, pp. 15-16. Review of the report of the commissioner of agriculture for 1868; contains an abstract of the temperatures at St. Michael, Ikognut, Nulato, and Fort Yukon.

1871. Vol. vi, p. 76. Climate of New Westminster, British Columbia.

1874. Vol. ix, pp. 186-187. Climate of Vancouver island.

Vols. 1875-79 *not seen.*

Zeitschrift, (etc.)—continued.

—— der österreichischen gesellschaft für meteorologie; redigirt von dr. Julius Hann. 4°. *Wien, W. Braumüller*, 1878.

See vol. xiii, No. 3, Feb. 1, 1878, pp. 45–46, for “*Zum klima von Unalaschka.*”

Zelanie (S . . . I . . .). Измеченіе, (etc). [Extract from the diary of lieut. Zagoskin, kept during an expedition concluded on the continent of north-west America.]

[In *ZAPISKI RUSS. GEOGR. OBSHCHESTVA*. (Journal of the Rus. geograph. soc.) 8°. *St. Peterburg*, 1849. Vol. i, pp. 211–266.]

See also *RUSSIA IMP. GEOG. SOC. ISVISTIA*, i, 1849, pp. 307, 651.

Zhurnal departamenta narodnakh prosvieshcheniia. Журналъ Департамента Народнаго Просвѣщенія. [Journal of the department of public instruction.] i–viii, 1822–1823, v–cvii, 1835–1860. 8°. *St. Peterburg, the department*, 1822–1860. *Not seen.*

1846. No. 10. Biography of admiral Krusenstern.

Zhurnal manufaktur i torgovli. Журналъ Мануфактуръ и Торговли. [Journal of manufactures and commerce.] — v. 8°. *St. Peterburg*, 1825–1831, 1855–1860. *Not seen.*

Zhurnal ministerstva vnutrennikh del. Журналъ Министерства Внутреннихъ Дѣлъ. [Journal of the interior department.] — v. 8°. *St. Peterburg*, 1829–1831, 1835–1860. *Not seen.*

1848. No. 5. The Uda settlement; by N. S. SHCHUKIN.

1849. Nos. 1 and 2. Five years' medical observations in Russian America; by ROMANOFF, g. r.

1851. No. 6. The Chukchis and their country.

No. 7. Trade relations between the Chukchis and Alaskans.

ADDENDA.

The long period during which this bibliography has been in press [June–December, 1879] has rendered it possible to add a few titles of interest. This sort of thing, of course, would never cease. Some few of the periodicals have been posted up to date during the delay, but most of them cease at the time the MS. was sent to the printer, or shortly before that time, in general about May 1, 1879. On account of the small amount of Russian type at our command each signature was read and printed before work on the next one began. This is believed to be the first book issued in the United States, in which Russian type has been used, if we except Honcharenko's two little Russian primers. The new Catalogue of the Library of Congress, now in press, will be the second.

Abolesheff (*lieut. Nil*). Cf. ZAPISKI HYDR. DEPT. viii, p. 183, 1850.

Note.—He was with Litké on the sloop-of-war “Seniavin” in 1826–29, and died, in 1842, captain of the second rank, commanding a frigate.

Beardslee (*commander Lester A . . .*), under the *nom de plume* of PISECO. The game and fish of Alaska; [a letter dated at Sitka, June 21, 1879.]

[In FOREST AND STREAM AND ROD AND GUN, the American sportsman's journal, (etc.) Charles Hallock, editor. 8°. New York, Forest and Stream publishing company, 1879. Vol. 12, No. 25, July 24, p. 483. See also p. 490 for editorial comment.]

——— Alaska in summer; [a letter dated at Sitka, July 13.]

[In *same*, 1879. Vol. 13, No. 2, Aug. 14, p. 552.]

——— The game and fish of Alaska; [a letter dated at Sitka, Sept. 8.]

[In *same*, 1879. Vol. 13, No. 11, Oct. 16, pp. 723–724.]

——— The resources of Alaska; [a letter written at Sitka, Sept. 17.]

[In *same*, 1879. Vol. 13, No. 18, Dec. 4, pp. 863–864.]

For a reply to this last article by Henry W. Elliott see *same*, No. 20, Dec. 18, p. 911.

Belknap (*commander George E . . .*). See UNITED STATES. NAVY DEPARTMENT. *Hydrographic office*. Books (etc.) No. 54.

Berens (*captain-lieut. Evgeni Andreëvich*). [Voyage on the Russian American company's ship “Nikolai,” from Kronstadt to the colonies, 1837–39.]

[In ZAPISKI HYDR. DEPT. viii, pp. 131–135, 1850. Printed from information derived from the commander by IVASHINTSOFF, q. v.]

Chistiakoff (*lieut. afterward vice-admiral Peter Yegorovich*). [Voyage of the Russian American company's ship “Elena,” from Kronstadt to Sitka, 1824–26.]

[In ZAPISKI HYDR. DEPT. viii, pp. 49–52, 1850. Printed by IVASHINTSOFF, q. r., from information derived from the commander, who remained at Sitka and was succeeded in command of the “Elena” by MURAVIEFF, q. r.]

Coast Survey. See also UNITED STATES. TREASURY DEPARTMENT.

Congressional Papers. Senate—40th Cong. 1st sess.—Ex. Doc. No. 17. Message of the president of the United States (Andrew Johnson), communicating a copy of a treaty between the United States and his majesty the emperor of all the Russias, and recommending an appropriation for the payment for the territory ceded to the United States, and legislation for the occupation and government of the same. July 16, 1867. Read; ordered that so much of the message as recommends an appropriation for payment for said territory be referred to the *committee on appropriations*; and that so much as relates to the occupation and government of the territory be referred to the *committee on territories*. 4 pp. 8°. [Washington, government printing office, 1867.]

Congressional Papers—continued.

— Senate—40th Cong. 2d sess.—Ex. Doc. No. 50, part 2. Message of the president of the United States (Andrew Johnson), communicating, in compliance with a resolution of the Senate of the 14th of April last, information relative to any application by any party for exclusive privileges in connection with hunting, trading, and the fisheries in Alaska. May 21, 1868. Read and referred to the *committee on territories*. 2 pp. 8°. [*Washington, government printing office, 1868.*]

— Senate—40th Cong. 2d sess.—Misc. Doc. No. 68. Resolutions of the legislature of Minnesota in relation to the purchase of Alaska and the transfer of the territories between Minnesota and Alaska to the Dominion of Canada. March 31, 1868. Referred to the *committee on foreign relations*. 2 pp. 8°. [*Washington, government printing office, 1868.*]

— Senate—46th Cong. 2d sess.—A BILL, S. 1052. To extend the land laws of the United States over the territory of Alaska. Introduced by Mr. Paddock, January 19, 1880. Referred to the *committee on public lands*. 8 pp. large 8°. [*Washington, government printing office, 1880.*]

Note.—This seems to be identical with House bill No. 3221.

— House of Representatives—46th Cong. 2d sess.—A BILL. No. 3221. [Printer's No., 1464.] To extend the land laws of the United States over the territory of Alaska. Introduced by Mr. Brents, Jan. 7, 1880. Read twice, referred to the *committee on the public lands*, and ordered to be printed. 8 pp. large 8°. [*Washington, government printing office, 1880.*]

— House of Representatives—46th Cong. 2d sess.—A BILL No. 3473. [Printer's No., 1624.] To extend the internal revenue laws of the United States over the territory of Alaska. Introduced by Mr. Brents, January 12, 1880. Read twice, referred to the *committee of ways and means*, and ordered to be printed. 4 pp. large 8°. [*Washington, government printing office, 1880.*]

Cope (*prof. Edward Drinker, a. m.*) A contribution to the ichthyology of Alaska.

[*In* PROCEEDINGS of the American philosophical society. 8°. Philadelphia, for the society, 1873. Jan. 17, vol. xiii, No. 90, pp. 24-32.]

Coues (*dr. Elliott, u. s. a.*) For report on the ornithology of the Pribiloff islands *see* ELLIOTT (Henry Wood).

Dall (William Healey). *See also* the NATION, New York, E. L. Godkin & co. 1875. No. xxi, Sept. 2, pp. 154-5.

— Aleutian cephalopods.

[*In* PACKARD (A. S.) and PUTNAM (F. W.) THE AMERICAN NATURALIST. 8°. Salem, Mass. Peabody academy of science, 1873. Vol. vii, No. 8, Aug. pp. 484-5.]

Dokhturoff (*lieut. Pavel Afanasievich*). [Voyage from Kroustadt to the colonies on the Russian American company's ship "Kutuzoff," 1820-22.]

[*In* ZAPISKI HYDR. DEPT. viii, pp. 7-10, (*see also* pp. 53-56), 1850. Printed from the log-books and information received from the commander (who died in 1847) by IVASHINTSOFF, q. v.]

Eaton (*hon. John*). *See* UNITED STATES. INTERIOR DEPARTMENT. Bureau of Education.

Elliott (Henry Wood). Letter on Alaska's resources.

[*In* FOREST AND STREAM AND ROD AND GUN, the American sportsman's journal, etc. Charles Hallock, editor. 8°. New York, Forest and Stream publishing company, 1879. Vol. 13, No. 20, Dec. 18, p. 911.]

Eschscholtz (*dr. Friedrich*). p. 275, add "otherwise (in Russian) Ivan."

Filatoff (*lieut. Nikander Ivanovich*). [Voyage of the brig-of-war "Aiaks" (Ajax) toward the northwest coast of America, 1821.]

[*In* ZAPISKI HYDR. DEPT. viii, 24-28, 1850, is an account of the wreck of the "Ajax," commanded by Filatoff, on her way to the northwest coast, by IVASHINTSOFF, q. v.]

Forest and Stream and Rod and Gun, the American sportsman's journal. A journal of field and aquatic sports, practical natural history, fish culture, protection of game, preservation of forests, and the inculcation in men and women of a healthy interest in out-door recreation and

Forest and Stream and Rod and Gun—continued.

study. CHARLES HALLOCK, editor. *Published weekly by Forest and Stream publishing company, New York, 1879.* Vols. xii, ending July 31, No. 26, and xiii, Aug. 7, Nos. 1-26.

1879. Vol. 12, No. 25, July 24, p. 483. The game and fish of Alaska; by PISECO; see BEARDSLEE.
 Vol. 13, No. 2, Aug. 14, p. 552. Alaska in summer; by PISECO; see BEARDSLEE.
 No. 11, Oct. 16, pp. 723-4. The game and fish of Alaska; by PISECO; see BEARDSLEE.
 No. 12, Oct. 23, p. 756. Alaskan fish-hooks and fish-club; by the editor.
 No. 14, Nov. 6, pp. 787-8. The fur trade of to-day.
 No. 18, Dec. 4, pp. 863-4. The resources of Alaska; by PISECO; see BEARDSLEE.
 No. 20, Dec. 18, p. 911. Alaska's resources; by the editor, including a letter by ELLIOTT (H. W.) q. v.

Glazenap (*midshipman* Gotlib). Cf. ZAPISKI HYDR. DEPT. viii, p. 183, 1850.

Note.—He was with Lütke on the sloop-of-war "Seniavin," 1826-29; afterward rose to be captain of the first rank.

Glazenap (*midshipman* Vladimir). Cf. ZAPISKI HYDR. DEPT. viii, p. 182, 1850.

Note.—He was with Staninkovich on the naval transport "Moller" in 1826-29; afterward became captain of the first rank and commanded a steam-frigate.

Hinds (Richard Brinsley, *editor*). The zoology of H. M. S. "Sulphur," under the command of capt. sir Edward Belcher, (etc.) 1836-1842. 3 v. 1 p. l. 150 pp. 64 pl. (32 col'd); 1 p. l. 72, v pp. 21 col'd pl. — —. 4°. London, Smith, Elder & co. 1844 [1843-1846?].

CONTENTS.

- Vol. 1. Mammalia; by J. E. GRAY. Birds; by J. GOULD. Fish; by J. RICHARDSON.
 Vol. 2. Mollusca; by R. B. HINDS, *surgeon r. n.*
 Vol. 3. Botany; by GEORGE BENTHAM, 60 pl.

Note.—Vol. 3 not seen.

Illustrated Missionary News, containing missionary intelligence from all parts of the world. 4°.

London, J. R. Phillips, 1879. Dec. 1, No. 168.

p. 139. Hydahs, Tsimshians, and Kitkanets of Queen Charlotte's islands.

pp. 141-142. Ancient customs of Alaska; by rev. S. JACKSON, q. v.

Note.—The only number of this magazine seen by the compilers is the above, No. 168. Other numbers are said to contain several articles pertinent to this bibliography.

Innker. See YUNKER.

Ivashintsoff (N . . .). Русскія кругосвѣтныя путешествія. [Russian voyages around the world.]

[In ZAPISKI. (etc.) (Journal of the hydrographic department.) 8°. St. Petersburg, 1849. Vol. vii, pp. 1-116; 1850, vol. viii, pp. 1-190.]

CONTENTS.

Brief accounts of the following voyages:

- KRUSENSTERN in the *Nadezhda* (Hope), 1803-06; vii, 6-26.
 LISIANSKI in the *Nera*, 1803-06; vii, 27-33.
 HAGEMEISTER in the *Neva*, 1806-07; vii, 34-37.
 GOLOVNIN in the *Diana*, 1807-09; vii, 38-46.
 LAZAREFF (M. P.) in the *Suraroff*, 1813-16; vii, 47-52.
 KOTZEBUE in the *Rurik*, 1815-18; vii, 53-68.
 HAGEMEISTER in the *Kutuzoff*, 1816-19; vii, 69-75.
 PONAVIDIN in the *Suraroff*, 1816-18; vii, 76-78.
 GOLOVNIN in the *Kamchatka*, 1817-19; vii, 79-91.
 BELLINGSHAUSEN in the *Vostok* (Orient) and
 LAZAREFF (M. P.) in the *Mirni* (Peace), 1819-21; vii, 92-105.
 VASILIEFF in the *Otkritie* (Discovery) and
 SHISHMAREFF in the *Blagonamierenni* (Good Intent), 1819-22; vii, 106-116.
 Six tables of the routes of the ships, etc., vii, tab. i-vi.
 PONAVIDIN in the *Borodino*, 1819-21; viii, 1-6.
 DOKHTUROFF in the *Kutuzoff*, 1820-22; viii, 7-10.
 KLOCHKOFF in the *Rurik* and
 KISLAKOFFSKI in the *Elisabeta*, 1821-22; viii, 11-18.
 TULUBIEFF and KHRUSHCHOFF in the *Apollon*, 1821-24; viii, 19-23.
 PHILATOFF in the *Ajax*, 1821-22; viii, 24-28.
 LAZAREFF (M. P.) in the *Kreiser* and
 LAZAREFF (A. P.) in the *Ladoga*, 1822-25; viii, 29-38.
 KOTZEBUE in the *Predpriatie* (Enterprise), 1823-26; viii, 39-48.

Ivashintsoff (N . . .). Russian voyages around the world—continued.

CONTENTS—continued.

CHISTIAKOFF and

MURAVIEFF in the *Elena*, 1824-26; viii, 49-52.DOKHTUROFF in the *Smirni*, 1824-25; viii, 53-56.WRANGELL in the *Krotki*, 1826-27; viii, 57-62.STANIUKOVICH in the *Moller*, 1826-29; viii, 63-75.LUTKÉ in the *Seniarin*, 1826-29; viii, 76-93.KHROMCHENKO in the *Elena*, 1828-31; viii, 94-98.HAGEMEISTER in the *Krotki*, 1828-30; viii, 99-110.KHROMCHENKO in the *Amerika*, 1831-33; viii, 111-119.VON-SHANTS in the *Amerika*, 1834-36; viii, 120-127.TEBENKOFF in the *Elena*, 1835-36; viii, 128-130.BERENS in the *Nikolai*, 1837-39; viii, 131-135.

KADNIKOFF and

WOEWODSKI in the *Nikolai*, 1839-41; viii, 136-138.ZAREMBO in the *Nastiednik Alexander*, 1840-41; viii, 139-140.YUNKER in the *Abo*, 1840-42; viii, 141-151.VONLIARLIARSKI in the *Irtish*, 1843-45; viii, 152-159.NEVELSKOI in the *Baikal*, 1848-49; viii, 160-162.

Full list of officers of the above vessels, with full names, rank, etc., viii, pp. 163-190.

Eleven tables of the routes of the ships, etc., viii, tab. vii-xvii.

Jackson (rev. Sheldon, d. d.) Missionary work among the Indians of Alaska.

[In NINTH annual report of the board of Indian commissioners for the year 1877. 8°. Washington, government printing office, 1878. pp. 41-47.]

—— Letter to the commissioner of education on Alaskan affairs.

[In REPORT of the commissioner of education (John Eaton) for the year 1877. 8°. Washington, government printing office, 1879. pp. xxxi-xxxii.]

—— Fort Wrangell, Alaska.

[In OUR MISSION FIELD. Published by the ladies' board of missions of the presbyterian church. 12°. New York, for the society, 1879. Nov. vol. —, pp. 87-89.]

—— Ancient customs of Alaska.

[In ILLUSTRATED MISSIONARY NEWS. 4°. London, 1879. December 1, No. 168, pp. 141-142.]

—— Sitka, Alaska.

[In THE COMMERCIAL REPORTER. fol. Portland, Oregon, 1879, Oct. 9. A newspaper.]

Kadnikoff (lieut. Nikolai Kondratievich). [Voyage on the Russian American company's ship "Nikolai" from Kronstadt to Sitka, 1839-41.]

[In ZAPISKI HYDR. DEPT. viii, pp. 136-140, 1850. Printed by IVASHINTSOFF, q. r., from a MS. of V. Bazhenoff.]

Kadnikoff, who was drowned while in the company's service in 1842, had as passengers contr-admirals Adolf Karlovich Etolin and Ivan Andreïevich Kupreanoff, commander Stepan Vasilievich Woewodski, (q. r.), and dr. Eduard Blaske, all distinguished in the history of the colonies.]

Khrushchhoff (lieut. afterward vice-admiral Stepan). [Voyage of the sloop-of-war "Apollon" from Kronstadt to Kamchatka and Sitka, 1821-24.]

[In ZAPISKI HYDR. DEPT. viii, pp. 19-23, 1850; by IVASHINTSOFF, q. r. See also TULUBIEFF, whom Khrushchhoff succeeded as commander of the "Apollon," SHABELSKI, and ZAPISKI ADM. DEPT.]

Kislakoffski (asst. mate Ivan Mikhailovich). [Voyage from Kronstadt to Sitka on the Russian American company's ship "Elisabeta," 1821-22.]

[In ZAPISKI HYDR. DEPT. viii, pp. 11-18, 1850. Printed from information derived from the commander and from the SIEVERNI ARKHIV, xxiv, (see KLOCHKOFF, p. 298), by IVASHINTSOFF, q. r.]

Klochhoff (. . .) p. 298, add (Efim Alexieïevich).

Note.—He was master's mate on the "Neva" in 1803 and commanded the "Rurik" in 1821.

Klochhoff (mate, afterward captain, Efim Alexieïevich). [Voyage from Kronstadt to Sitka on the Russian American company's brig "Rurik," 1821-22.]

[In ZAPISKI HYDR. DEPT. viii, pp. 11-18, 1850. Printed from information received from the commander (who died in 1832) and from materials published in the SIEVERNI ARKHIV, xxiv, (see KLOCHKOFF), by IVASHINTSOFF, q. r.]

Kozmin (col. . . .) p. 300, add (Prokopi T . . .).**Krasilnikoff (Feodor).** Cf. ZAPISKI HYDR. DEPT. viii, p. 166, 1850.

Note.—He was clerk on the "Suvaroff," captain Lazereff, 1813-16.

Kupreanoff (Ivan A . . .). Cf. ZAPISKI HYDR. DEPT. viii, pp. 171, 176, 187, 1850.

Note.—He was a midshipman with Lazareff on the "Mirni," 1819-21; a lieutenant with Lazareff on the "Kreiser," 1822-25. He afterward, 1836-40, succeeded Wrangell as chief of the Colonial Direction, and in 1840-41 was succeeded by Etolin and returned to Russia in command of the ship "Nikolai."

Kyber (dr. Johann Friedrich). p. 302, add "otherwise (in Russian) Avgust."

Leontovich (lieut. Alexander). Cf. ZAPISKI HYDR. DEPT. viii, p. 182, 1850.

Note.—He was with Staniukovich on the naval transport "Moller" in 1826-9, and was afterward retired as captain of the second rank.

Marbault (. . .). [anon.] Essais sur le commerce de Russie avec l'histoire de ses découvertes. 8°. Amsterdam, 1777.

— The same. 8°. 1781.

Note.—Neither edition has been seen, and bibliographers differ as to the title. There may have been several sold together or separately, each entitled "Essai," etc.

Moller (midshipman Alexander). Cf. ZAPISKI HYDR. DEPT. viii, pp. 176-178, 1850.

Note.—He was on the "Ajax" in 1821 and with Kotzebue on the "Predpriatie" (Enterprise) in 1823-6, and had become contr-admiral in 1847 when he was retired.

Murasheff (conductor Mikhail). Cf. ZAPISKI HYDR. DEPT. viii, p. 186, 1850.

Note.—He was with Tebenkoff in the ship "Elena" in 1835, and afterward became a sub-lieutenant. He is supposed to be the surveyor of Kupreanoff straits and the islands of the Kadiak group.

Muravieff (capt. Matviei Ivanovich). [Voyage of the Russian American company's ship "Elena" from Sitka, 1826.]

[In ZAPISKI HYDR. DEPT. viii, pp. 49-52, 1850; from information derived by IVASHINTSOFF, q. v., from Muravieff, who became general director of the colonies and died in 1832. See also CHISTIANKOFF.]

Nadezhdin (Ivan). See GREEK CHURCH IN ALASKA.

Nevelskoi (capt.-lieut. Khenadi or Genadi Ivanovich). [Voyage of the naval transport "Baikal" from Kronstadt to Okhotsk and Kamchatka, 1848-49.]

[In ZAPISKI HYDR. DEPT. viii, pp. 160-162, 1850. Printed from information derived from the log-books by IVASHINTSOFF, q. v.]

New York Herald.

March 16, 1876. p. 4, cols. 1-3. Corruption in Alaska, etc.; by STUVIAN D. WIN.

March 18, 1876. p. 11, col. 4. Reply by H. W. ELLIOTT.

Note.—On account of the absence of an index no attempt has been made to make the Herald list complete. There are doubtless many other articles which might be found had any one time to search the files from 1867 to 1879. The same is true of most of the other daily journals to which reference has been made, except the New York Daily Times, which has an index.

Philatoff. See FILATOFF.

Piseco, pseudonym. See BEARDSLEE (commander Lester A . . . , u. s. n.)

Ponafidin (lieut. Zakhar Ivanovich). [Voyage from Callao to Sitka on the Russian American company's ship "Suvaroff," 1816-18.]

[In ZAPISKI HYDR. DEPT. vii, pp. 76-78, 1849, and viii, pp. 1-6, 1850. Printed from the log-books by IVASHINTSOFF, q. v. Ponafidin died in 1830.]

Povalishin (capt. Peter). Cf. ZAPISKI HYDR. DEPT. viii, p. 164, 1850.

Note.—He was a lieutenant under Lisianski on the "Neva" in 1803-06, and "died in the service."

Ratmanoff (lieut. Makar). Cf. ZAPISKI HYDR. DEPT. viii, p. 163, 1850.

Note.—He was lieutenant on the "Nadezhda" under Krusenstern in 1803-05, afterward vice-admiral and inspector-general of war, and died in 1833.

Rousselot de Swegy. See SWEGY.

Scudder (Samuel Hubbard). Additions to the insect-fauna of the tertiary beds at Quesnel, British Columbia. 8 pp. 8°. [Toronto, 1877.]

Note.—Separately printed from the Report of progress, 1876-77, geological survey of Canada.

— Insects from the tertiary beds of the Nicola and Similkameen rivers, British Columbia. 11 pp. 8°. [Toronto, 1878.]

Note.—Separately printed from the Report of progress, 1877-78, geological survey of Canada.

Shants. See VON-SHANTS.

Shchapoff. See STCHAPOFF.

Sinitzin (*lieut. Nikolai*). Cf. ZAPISKI HYDR. DEPT. viii, p. 184, 1850.

Note.—He was with Hagemeister on the naval transport "Krotki," 1826-30. He left the service and died state-counselor and director of the Rishelieff academy in Odessa.

Tulubieff (*capt. Irinarkh Stepanovich*). [Voyage of the sloop-of-war "Apollon" from Kronstadt to Kamchatka and Sitka, 1821-24.]

[In ZAPISKI HYDR. DEPT. viii, pp. 19-23, 1850. Sketch of the voyage by IVASHINTSOFF, *q. r.* See also KHRUSHCHOFF, SHABELSKI, and ZAPISKI ADM. DEPT. Tulubieff died on the ship between Rio Janeiro and Port Jackson in 1822.]

United States. NAVY DEPARTMENT. Bureau of Navigation. Hydrographic office. Hydrographic notices. 8°. *Washington*, 1879.

No. 38. Issued July 9, 1879. 3 pp. Sitka sound, etc.

Note.—See page 356, line 4 from bottom of page.

Vancouver (*capt. George, r. n.*)

Reviewed in the MONTHLY REVIEW or literary journal enlarged. 8°. *London*, 1799. xxviii, pp. 1-21, 141-160, 374-386.

Also in the EUROPEAN MAGAZINE. 8°. *London*, *Sewell and Debrett*, 1799. xxxv, pp. 314-319, 393-398; xxxvi, pp. 33-38.

Also in the ANALYTICAL REVIEW or history of literature, (etc.) 8°. *London*, for the editor, 1799. New ser. i, pp. 251-257.

Also in the CRITICAL REVIEW or annals of literature, (etc.) 8°. *London*, for A. Hamilton, 1798. xxiv, pp. 1-12, 276-288; xxv, pp. 22-31, 298-311.

Also in the ANTI-JACOBIN REVIEW and magazine, (etc.) 8°. *London*, for the proprietors, 1799. ii, pp. 372-380, iii, pp. 138-143.

Also in the NAVAL CHRONICLE. 8°. *London*, J. Gold, 1799. i, pp. 221-233, 301-309, 397-410; with biographical notes on the author.

Also in the ANNUAL REGISTER, (etc.) for the year 1798. 8°. *London*, for the proprietors, 1800. pp. 476-496.

Note.—Careful search has not revealed any even tolerable biography of Vancouver. This distinguished pupil of Cook surpassed his old commander in all the qualities of an explorer and navigator. The date of his birth has not been found. May 10, 1798, just before his Voyage was out of the press, but after it had received his personal supervision, he died and was buried in the little church of Ham near Richmond, county Surrey. Some sad circumstances preceded his death, which are mentioned by Charles Reade in an article entitled "What has become of lord Camelford's body," in HARPER'S WEEKLY, (etc.) 4°. *New York*, Harper bros. xx, No. 1010, p. 370, May 6, 1876.

Vonliarski (*captain Ivan Vasilievich*). [Voyage on the naval transport "Irtish" (Grace), 1843-45.]

[In ZAPISKI HYDR. DEPT. ii, pp. 432-436, 1844; iv, pp. 411-12, 1846; and viii, pp. 132-159, 1850. Printed by IVASHINTSOFF, *q. r.*, from information derived from the commander and the log-books.]

Von-Shants (*contr-admiral Ivan Ivanovich*). [Voyage on the naval transport "Amerika" from Kronstadt to Kamchatka and the colonies, 1834-36.]

[In ZAPISKI HYDR. DEPT. viii, pp. 120-127, 1850. Derived by IVASHINTSOFF, *q. r.*, from the log-books.]

Yunker (*captain-lieut. Andrei Logginovich*). [Voyage on the naval transport "Abo" from Kronstadt to Kamchatka, 1840-42.]

[In ZAPISKI HYDR. DEPT. ii, pp. 164-222, 1844; viii, pp. 141-151, 1850. Cf. OTECHESTVENNAIA ZAPISKI, 1844, and IVASHINTSOFF, as above.]

Zbieshevski. See ZBISHEVSKI.

TITLES.

The titles in the foregoing bibliography, without counting simple cross-references, may be enumerated approximately as follows:

English, 895 titles, 1,486 subtitles.	Latin, 13 titles.
Russian, 476 " 370 "	Italian, 5 "
German, 215 " 135 "	Danish, 4 "
French, 170 " 21 "	Swedish, 1 "
Spanish, 21 " — "	Icelandic, 1 "
Dutch, 19 " — "	Total, 1,820 titles and 2,012 subtitles.

The whole number is therefore about 3,832 titles and subtitles in eleven languages.

ERRATA.

- Page 36, line 18, for "L. Herendeen" read "L. N. Herendeen."
 Page 177, lines 10 and 21, for "Porcacci" read "Porcacchi."
 Page 214, line 21, for "Beitriig" read "Beitrag."
 Page 222, line 17 from bottom, for "Lindenterga" read "Lindenberg." .
 Page 236. The first title under BLACK (*lieut. James*) is erroneous. See note under UNITED STATES, DEPT. OF STATE.
 Page 268, line 14, for "circa 350" read "376."
 Page 268, line 19, column 2, for "of" read "on."
 Page 276, line 9, for ETOLIN (*rice-admiral . . .*) read ETOLIN (*rice-admiral Adolf Karlovich*).
 Page 278, line 1, to FISHER add "dr. FRIDRIK."
 Page 286, line 43, for "A weekly newspaper" read "An 8^o quarterly periodical."
 Page 292, line 26, add "and Lindeman (*dr. Moritz*) p. 305."
 Page 301, line 4, for "Nadeshda" read "Nadezhda."
 Page 305, line 17, for LINDEMANN read LINDEMAN.
 Page 305, line 43, for SHELEKHOFF read SHELIKHOFF.
 Page 307, line 22, for A . . . read ABIGAIL.
 Page 314, line 52, for ZBIESHEVSKI read ZBISHEVSKI.
 Page 317, line 38, for NEVELSKI (G . . . I . . .) read NEVELSKOI (*Genadi Ivanovich*).
 Page 340, line 36, for D. E. ZAVALISHIN read D. I. ZAVALISHIN.
 Page 342, line 9, for "br" read "brig."
 Page 351, line 38, for Stchapoff read SHCHAPOFF.

DIRECTIONS FOR THE BINDER.

The heliotype of the old Sitka observatory to face page 61. The rest at the end of the book, as follows:

Charts I and II to face Charts III and IV.

Charts V and VI to face Charts VII and VIII.

Charts IX and X to face Charts XI and XII.

Charts XIII and XIV to face Charts XV and XVI.

Charts XVII and XVIII to face Charts XIX and XX.

Charts XXI and XXII to face Charts XXIII and XXIV.

Charts XXV and XXVI to face Charts XXVII and XXVIII.

Plates I-VIII, wind roses, and Plates IX-XII, profiles, to follow in their numerical order.

For explanation of charts and plates see page 162.

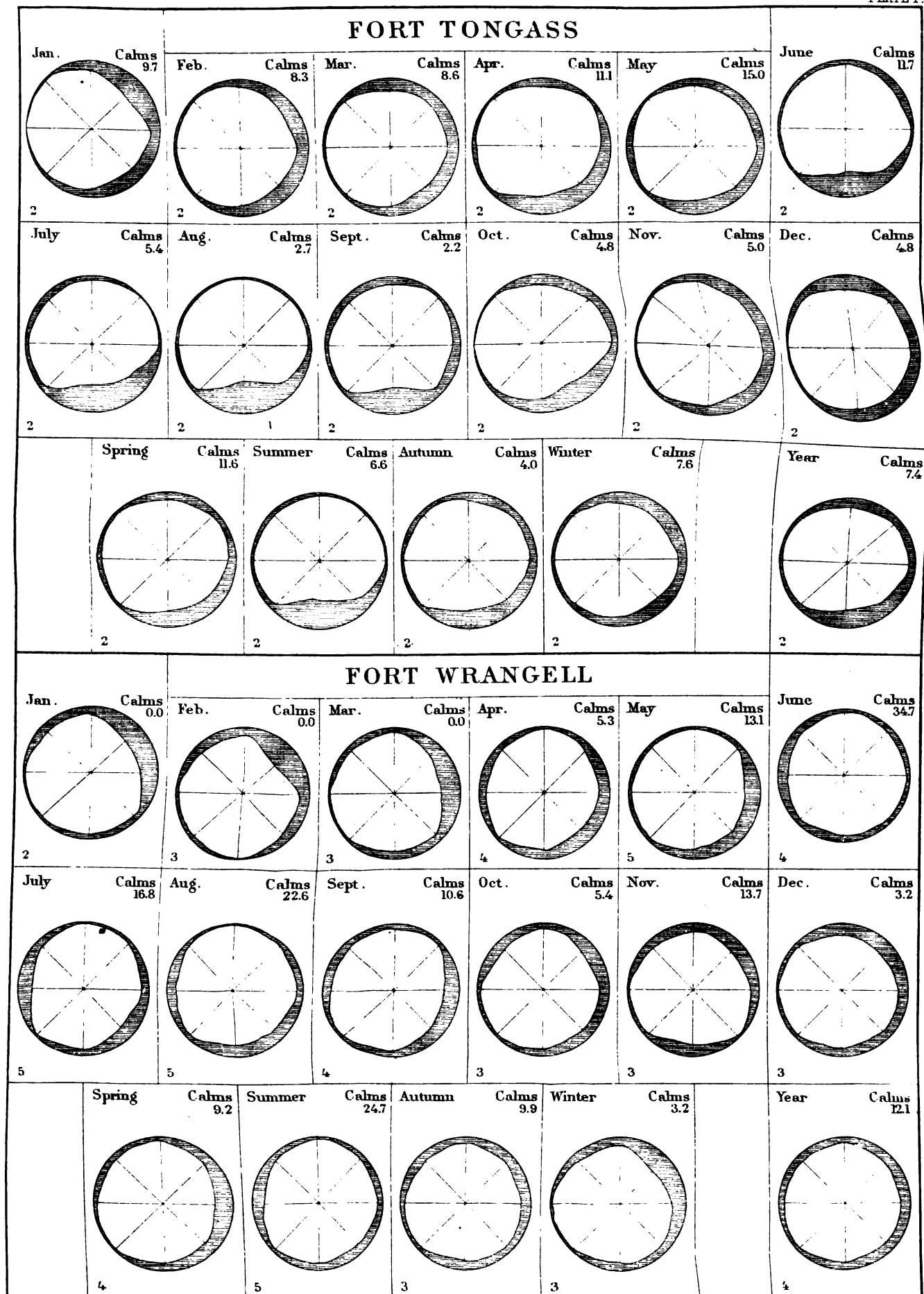
○





METEOROLOGY

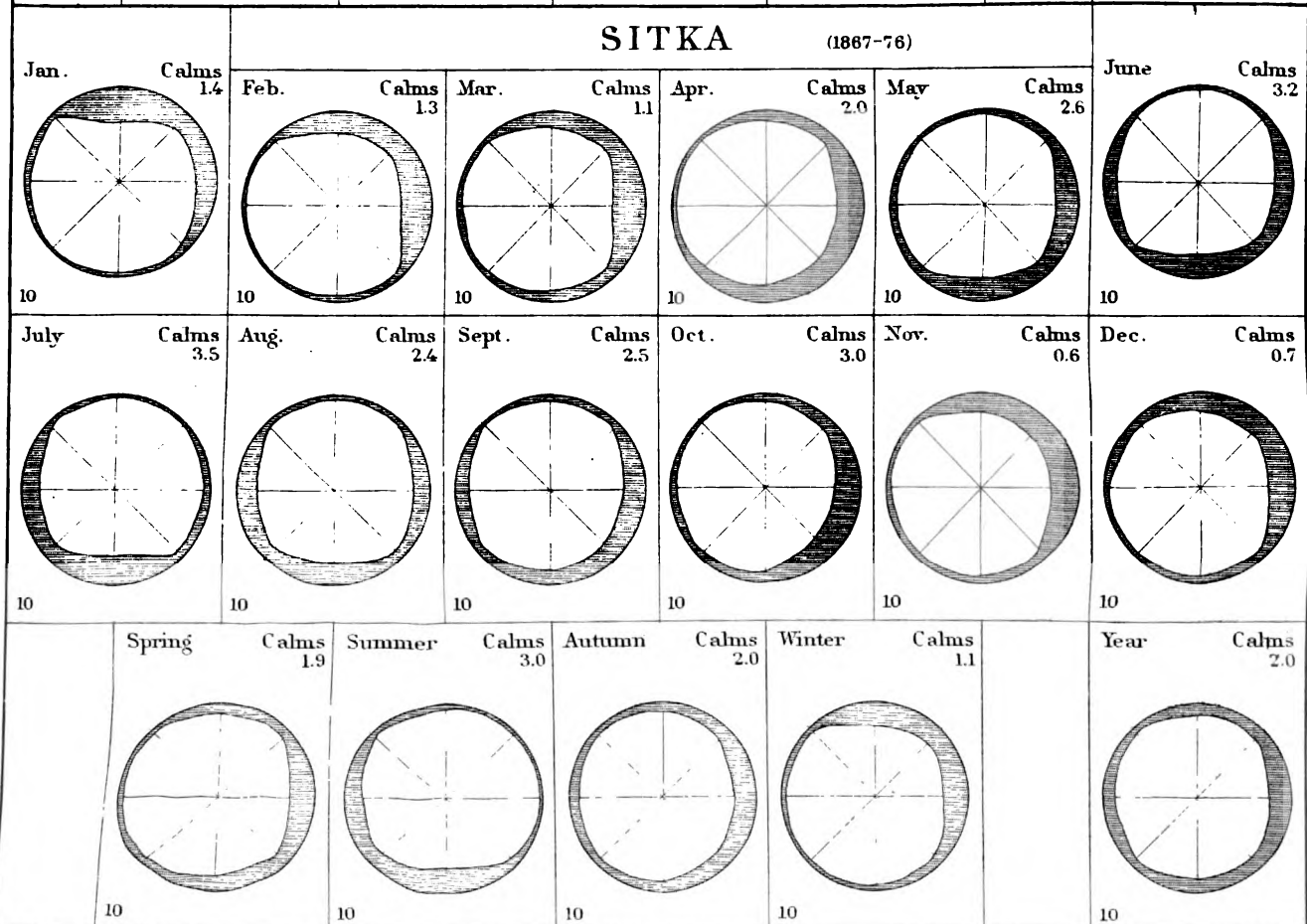
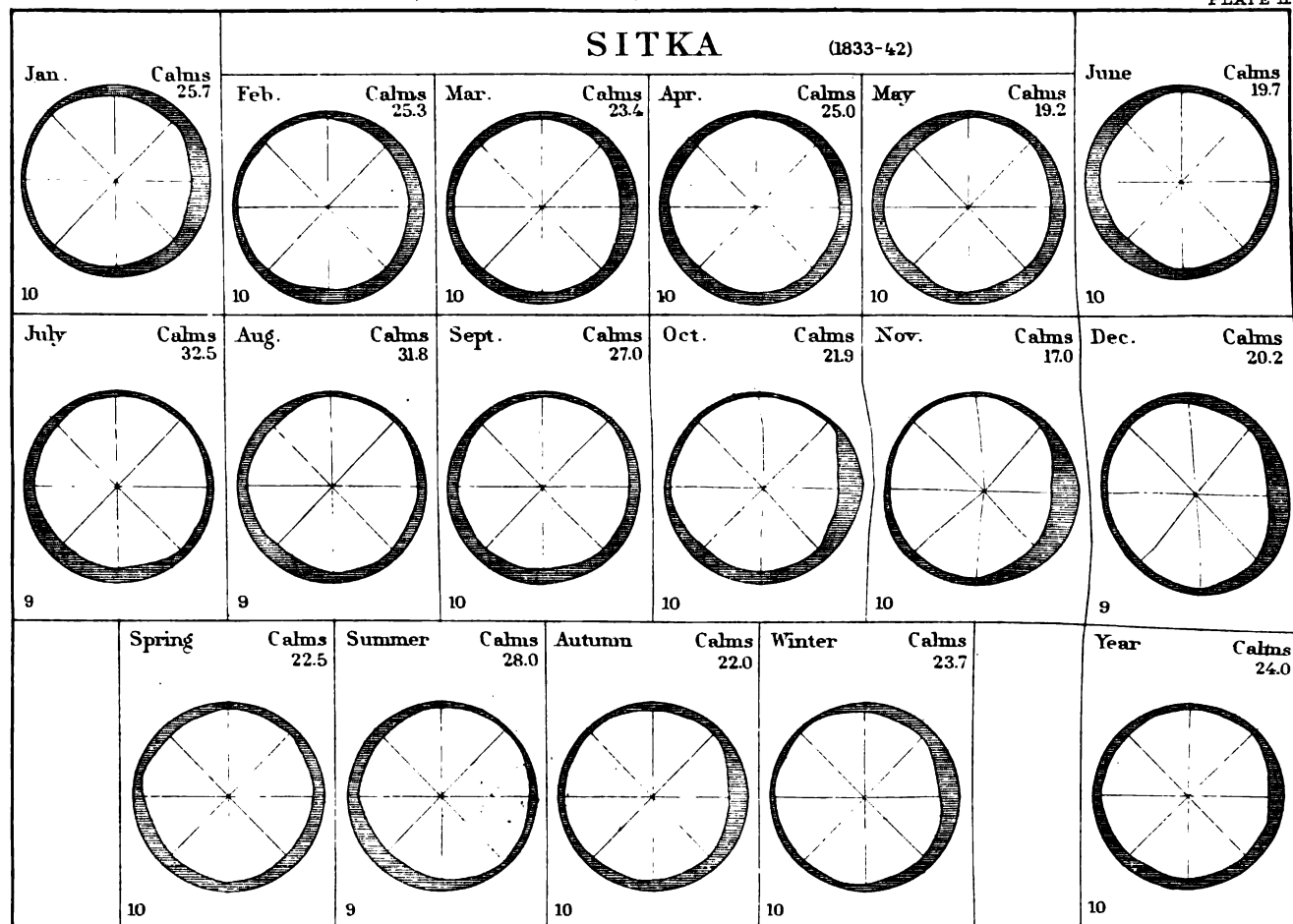
PLATE I.





METEOROLOGY

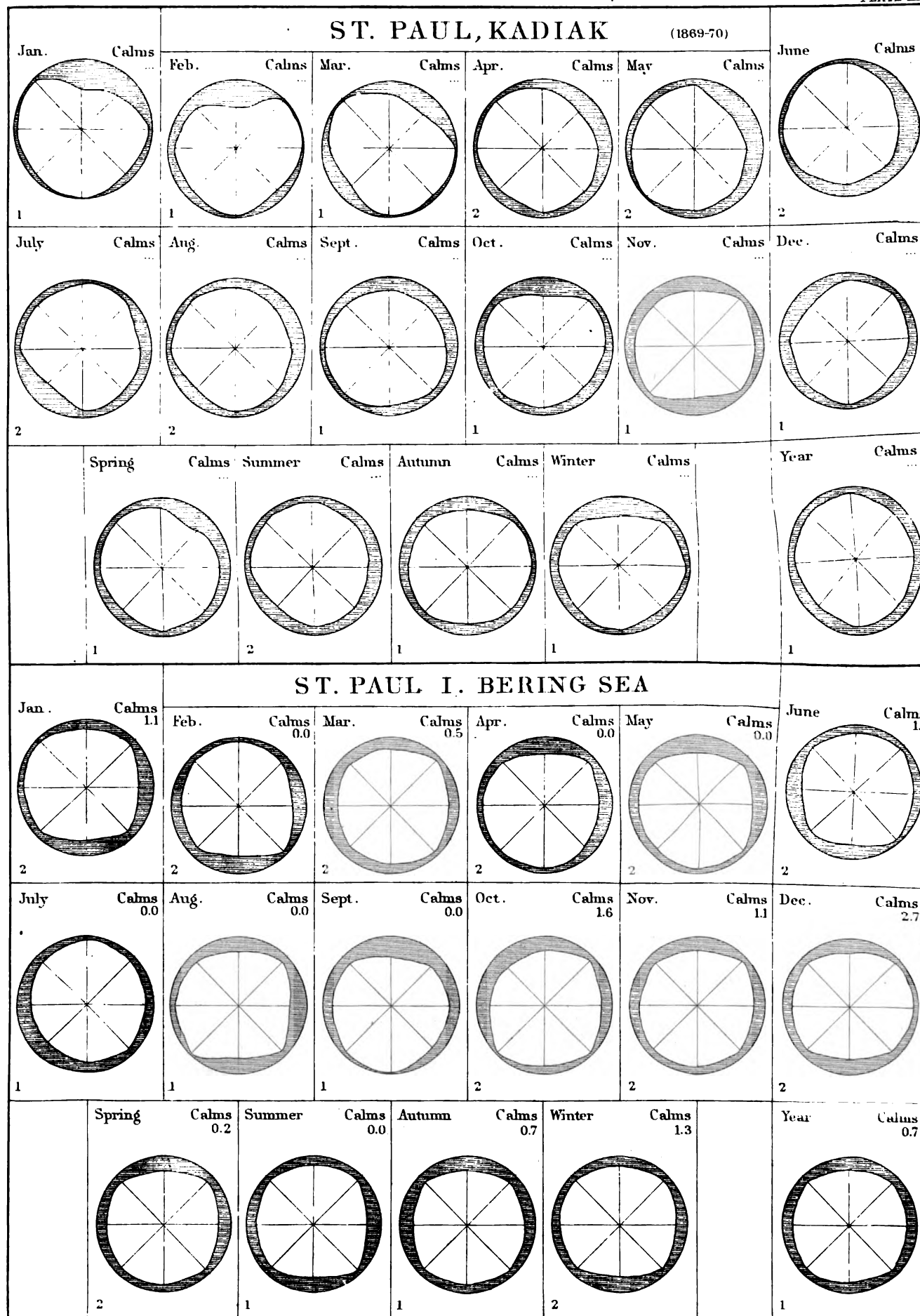
PLATE II





METEOROLOGY

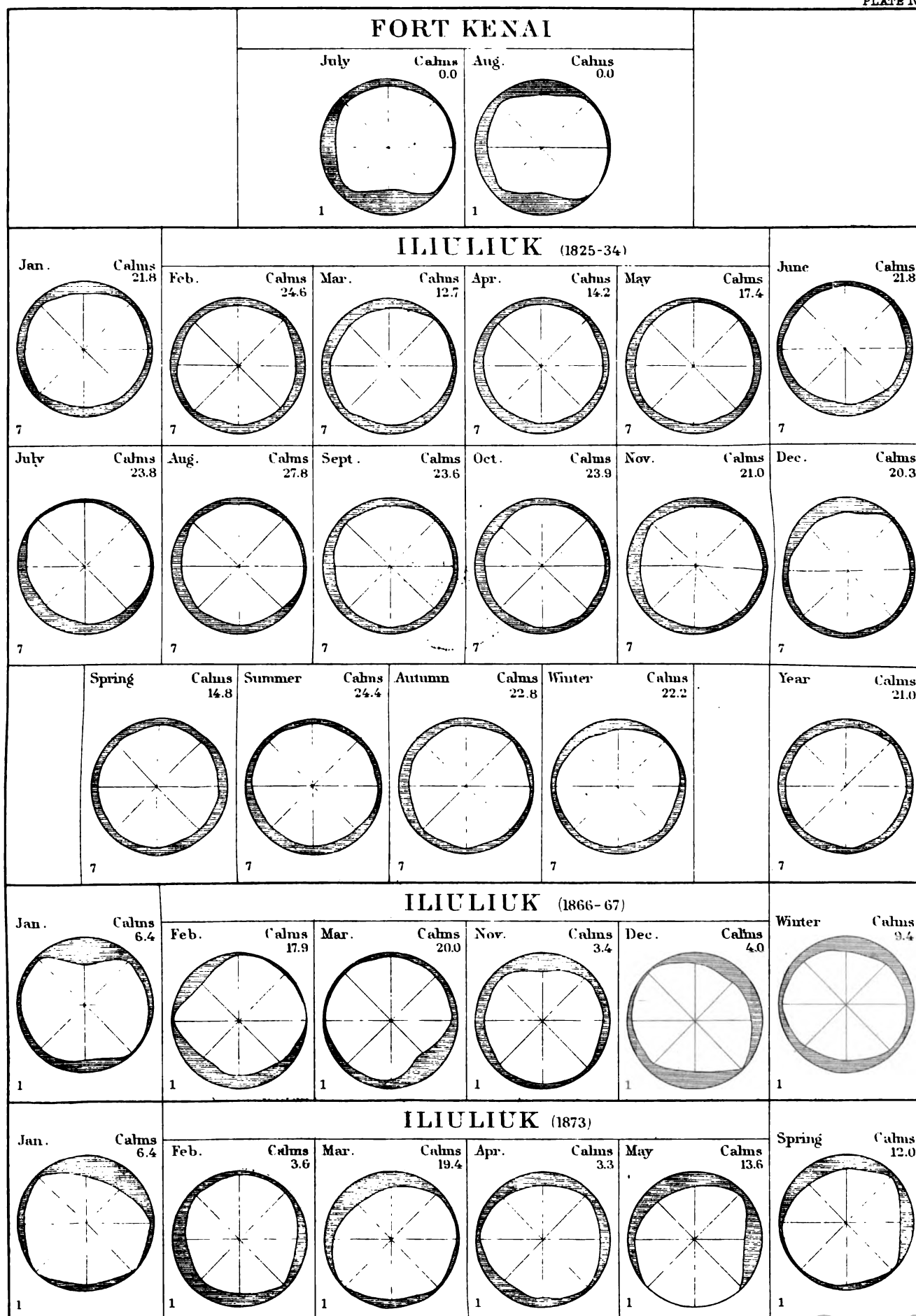
PLATE III.





METEOROLOGY

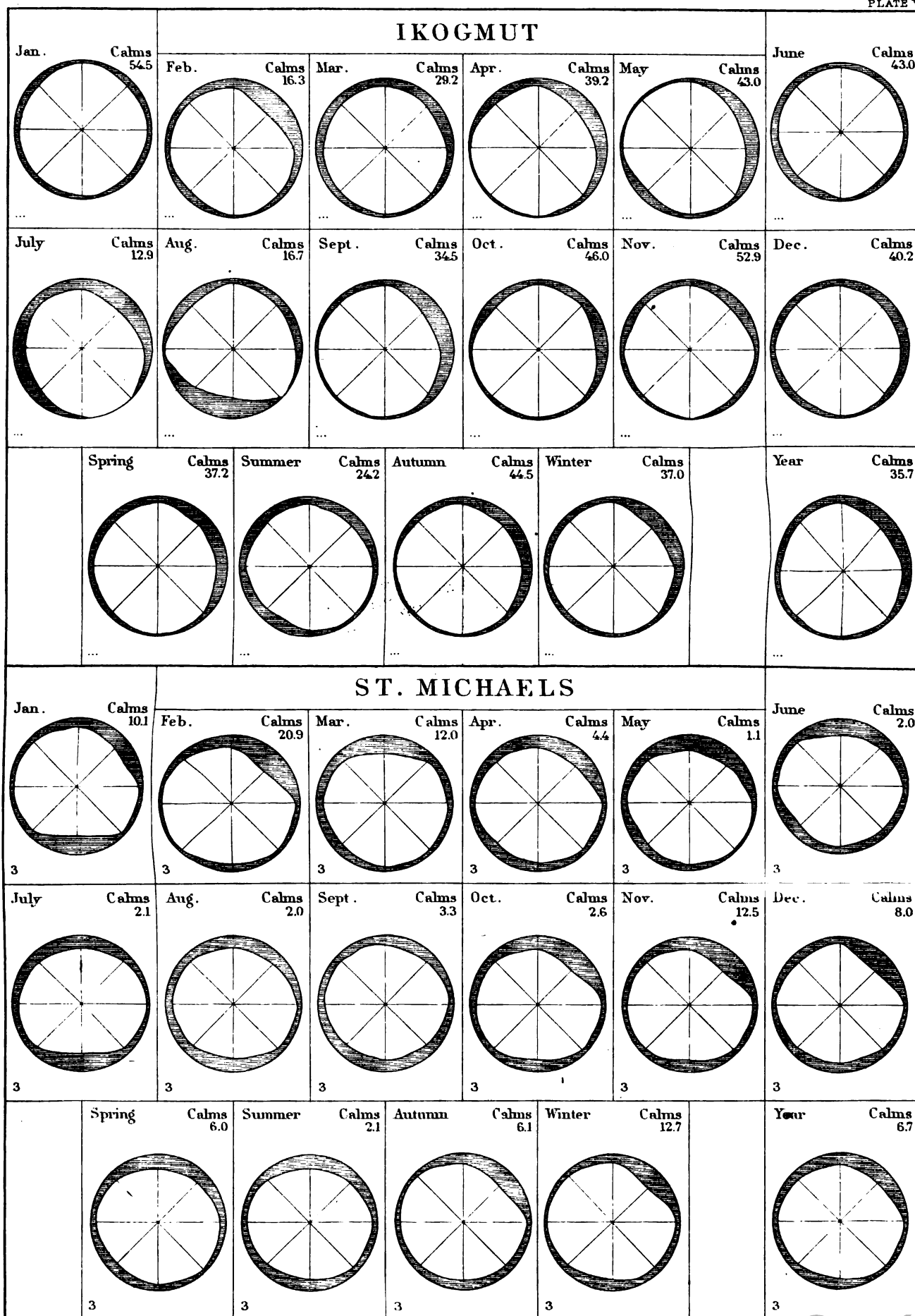
PLATE IV.





METEOROLOGY

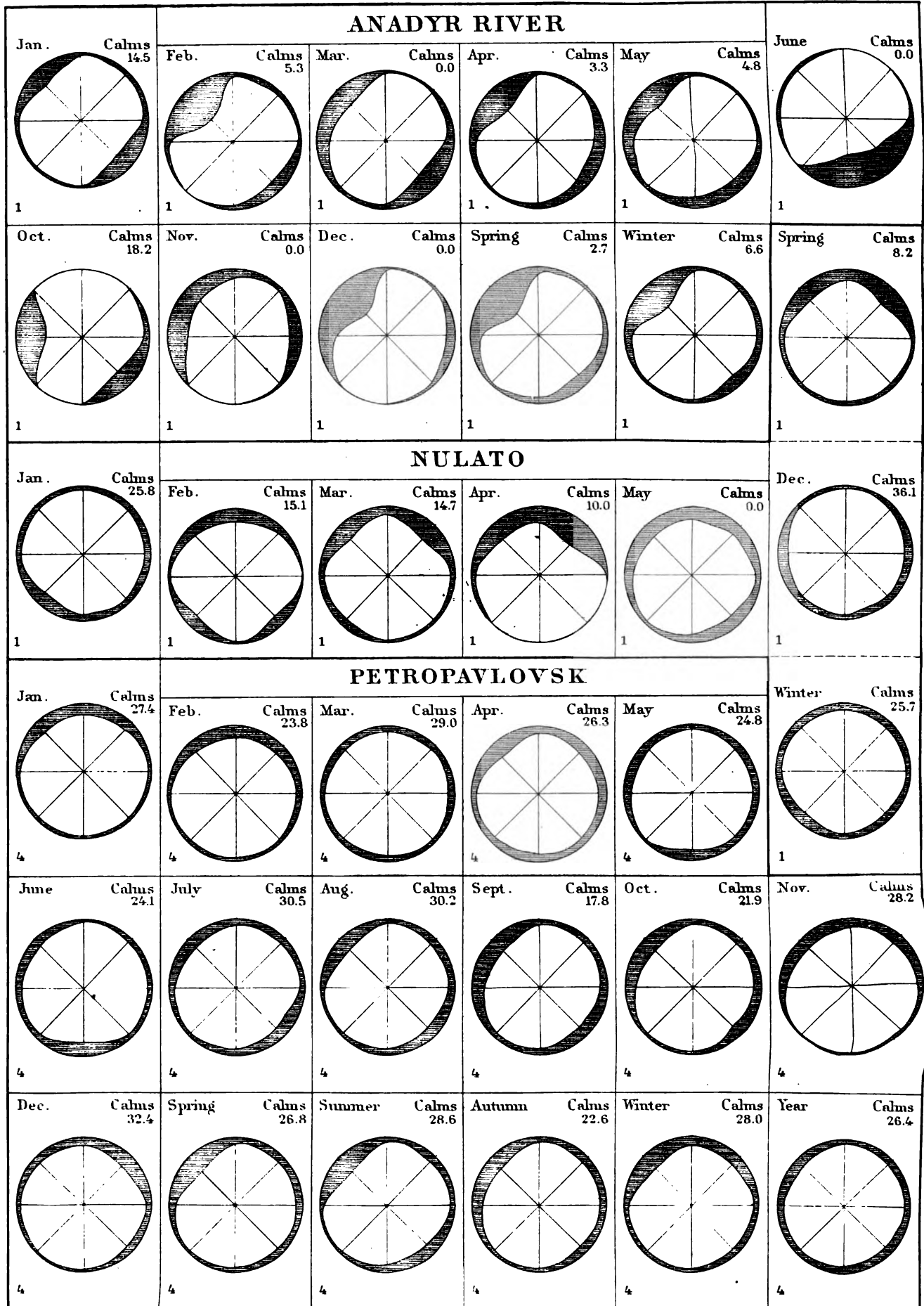
PLATE V.





METEOROLOGY

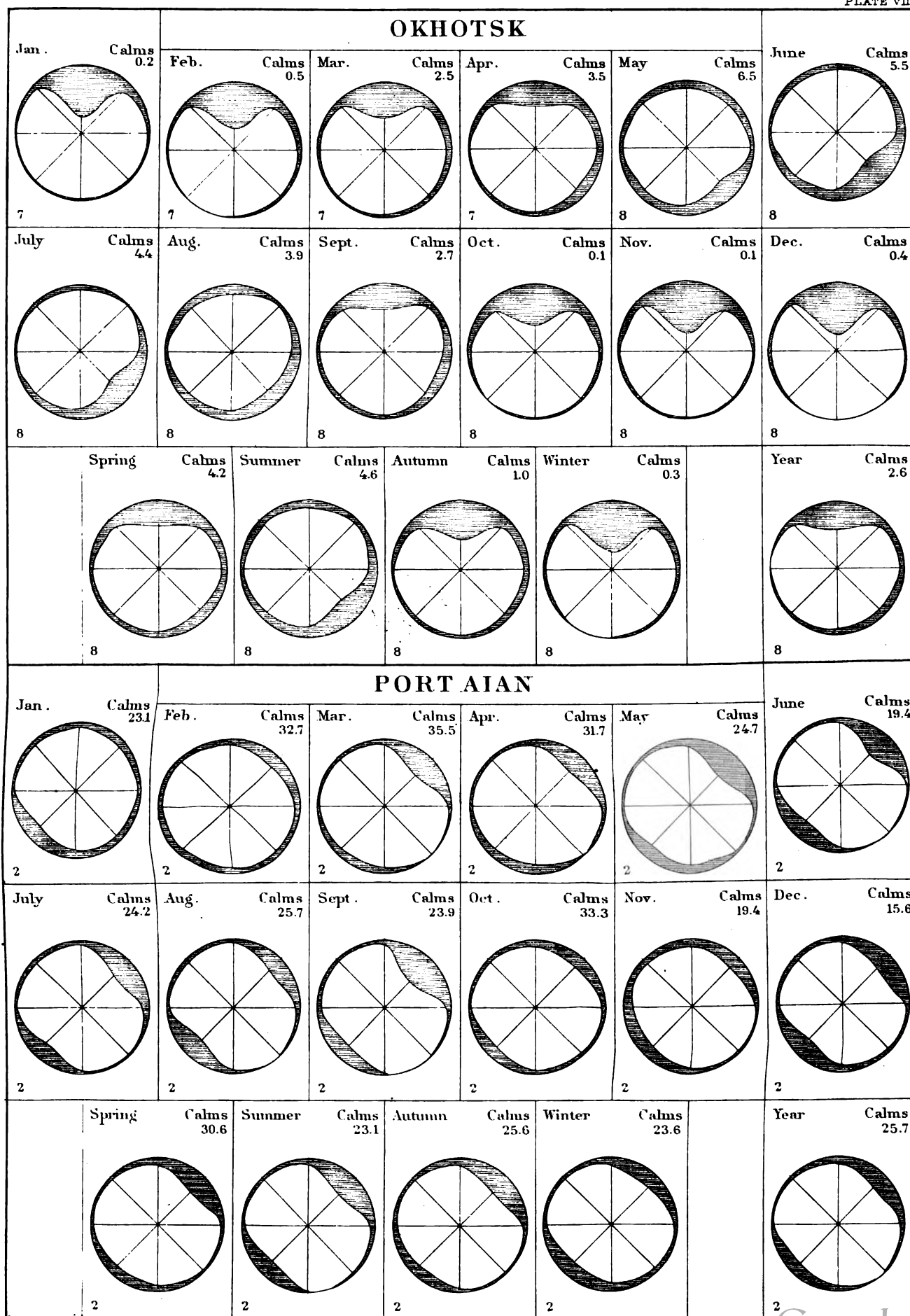
PLATE VI.





METEOROLOGY

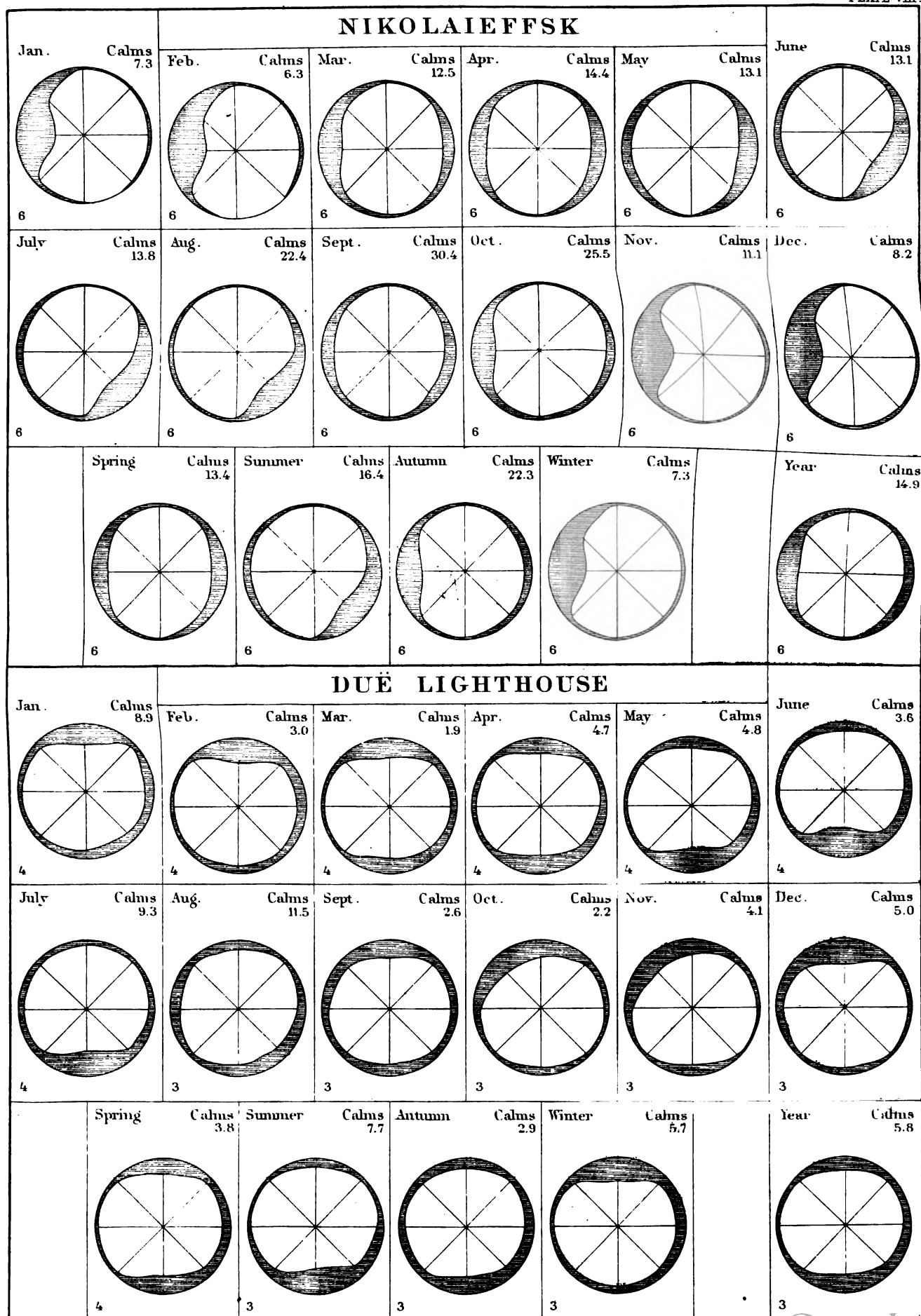
PLATE VII.





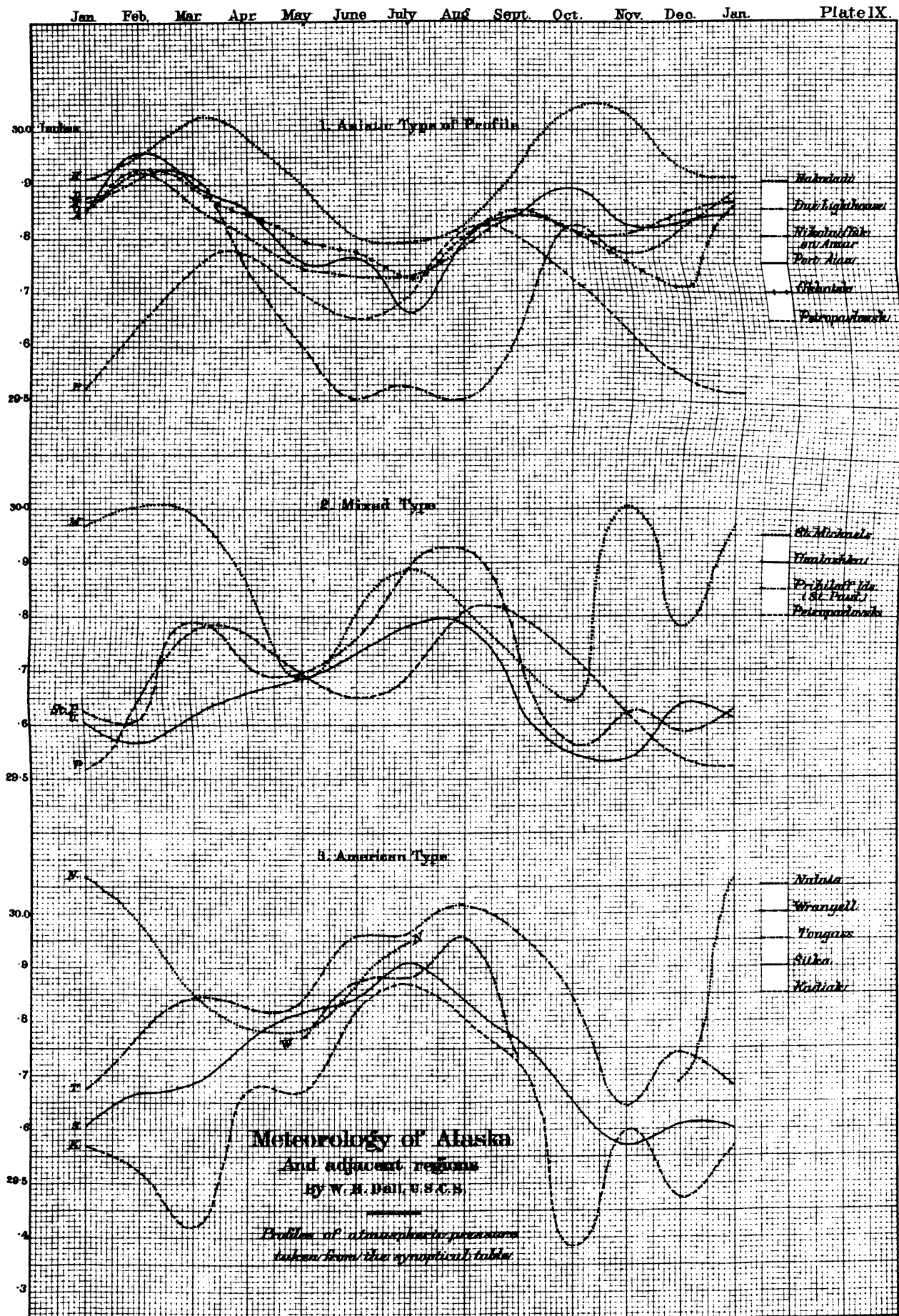
METEOROLOGY

PLATE VIII.



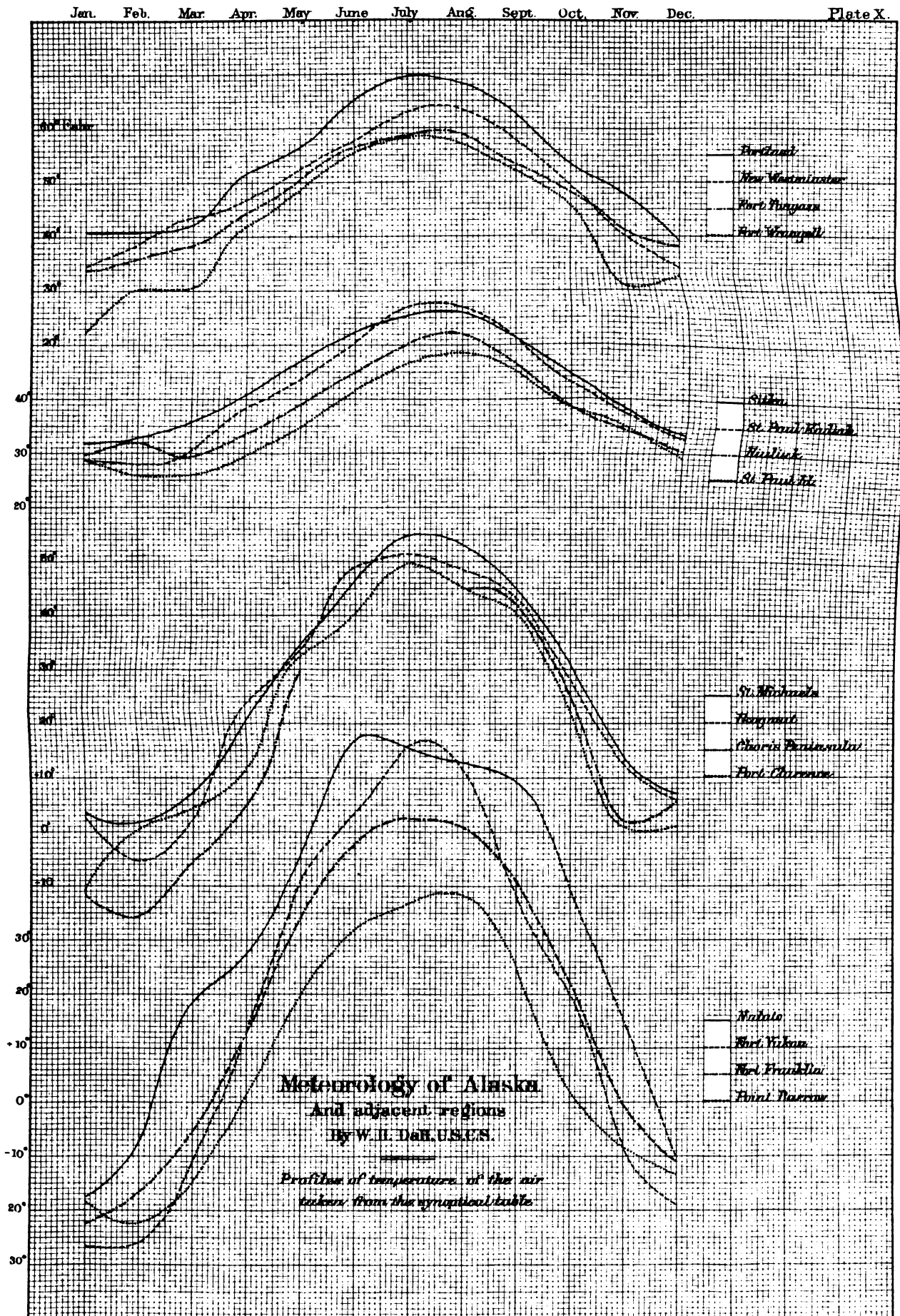


METEOROLOGY.





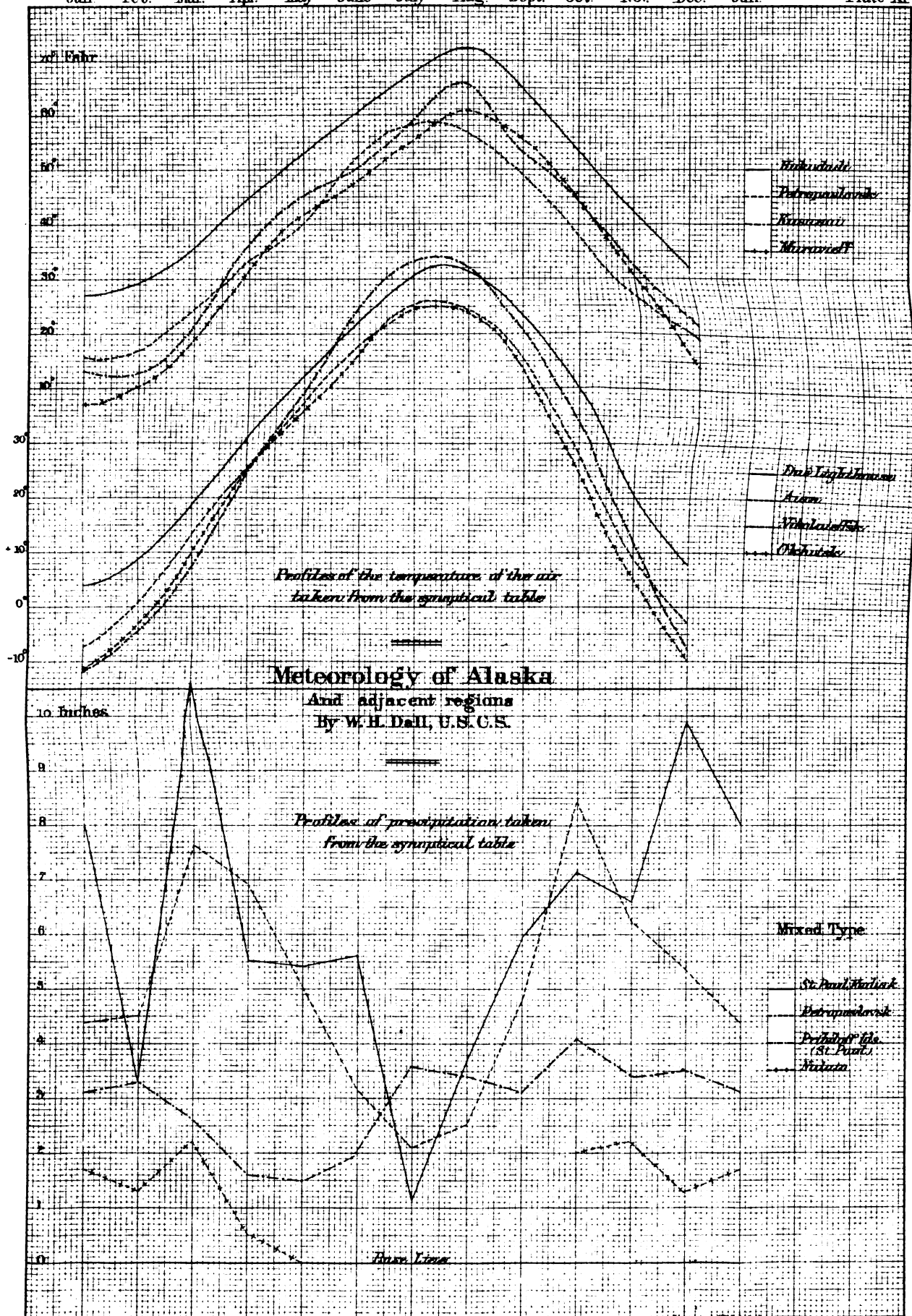
METEOROLOGY.





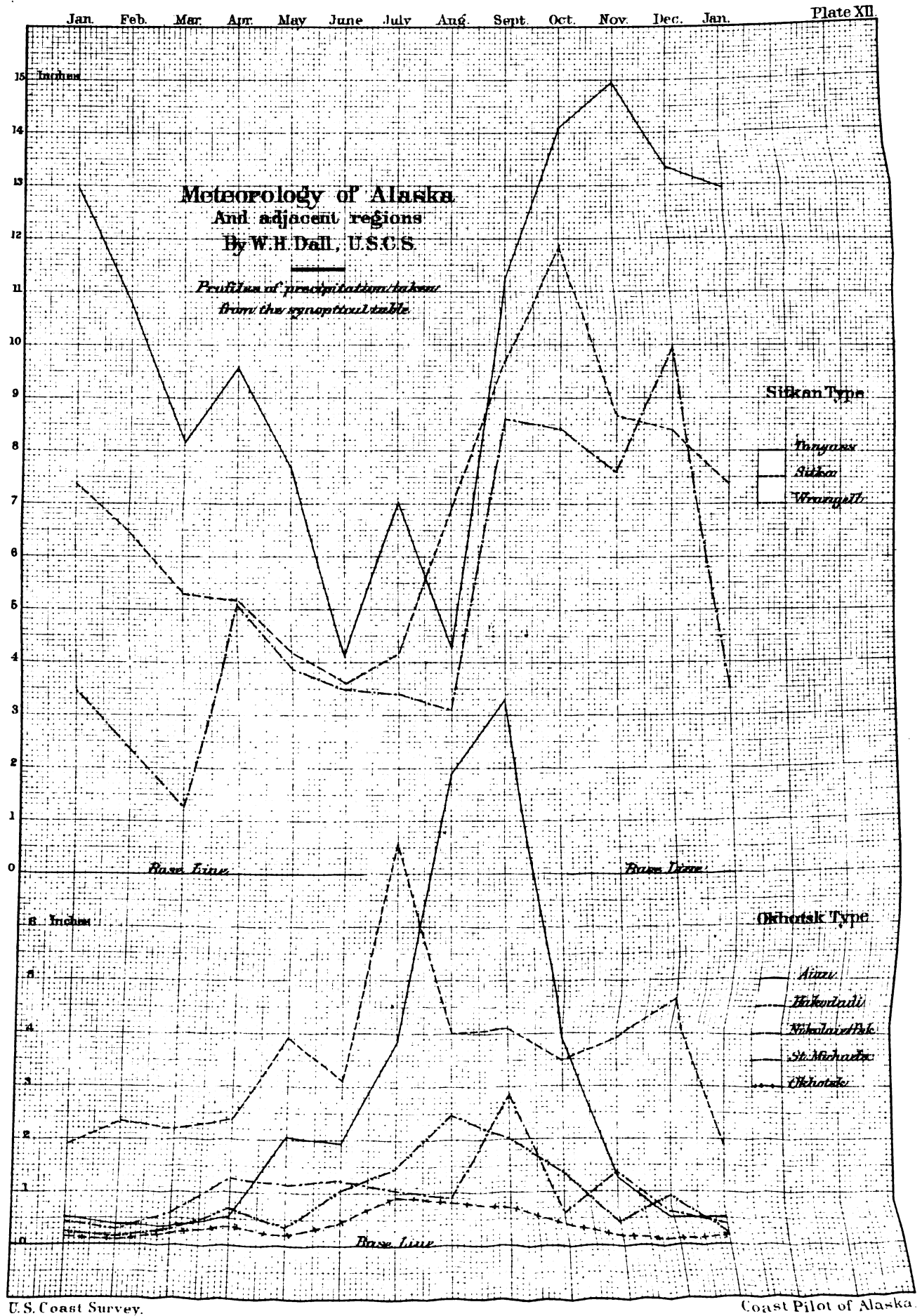
METEOROLOGY.

Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec. Jan. Plate XI





METEOROLOGY.





Aug 13 1933

