

tions relating to Physical Phenomena, which had long remained among the sealed mysteries of nature, have been satisfactorily solved.

A summary of the more important and valuable items of information which have been furnished to the Department in the monthly returns of the observations at the stations is inserted in this number of the *Journal*, and it is our intention to insert a similar table from time to time.

In addition, we append various papers and extracts on meteorological subjects, which will, no doubt, be found interesting. The most important one is the Table of Mean Temperatures which has lately been prepared at the Smithsonian Institution at Washington, and, for the preparation of which, meteorological abstracts were furnished by the Educational Department, as will be seen by the following correspondence which we insert from the *Journal of Education* for January, 1860 :—

SMITHSONIAN INSTITUTION,
Washington, D. C., Nov. 3, 1859.

DEAR SIR,—I write to ask as to the progress you are making in the establishment of the Canadian system of Meteorology, since we are anxious to co-operate with you in collecting materials for tracing the origin and progress of atmospheric movements. We are particularly desirous at this time to obtain as many records as possible of the period from about the middle of December, 1858, to the middle of January, 1859. The Institution would readily pay the expense of copying records for this period, and will be gratified to reciprocate in any way in its power the favours which may be conferred.

Very respectfully,
Your obedient servant,
JOSEPH HENRY, *Secretary*.

J. GEORGE HODGINS, Esq.,
Education Office, Toronto, Upper Canada.

EDUCATION OFFICE, Toronto, Nov. 16, 1859.

SIR,—I have the honour to acknowledge the receipt of your letter of the 3rd instant, and being desirous of co-operating with you as far as I can, in the important object you have in view, I transmit to you, by Express, such Meteorological Reports as I have received during the period to which you refer. We have got 14 stations established in connection with the County Grammar Schools of Upper Canada. We have made arrangements to establish 30. As yet, we have not made any practical use of the observations taken. I will thank you to return these reports at your earliest convenience, as soon as you shall have done with them.

I have the honour to be, Sir,
Your obedient servant,
(Signed,) E. RYERSON.

JOSEPH HENRY, Esq., LL.D.,
Secretary, Smithsonian Institution, Washington, D.C., U.S.

SMITHSONIAN INSTITUTION,
Washington, D.C., Nov. 30, 1859.

DEAR SIR,—I write to thank you for the loan of the Meteorological Observations, which have been safely received, and will be returned as soon as we can extract from them the facts which have a bearing upon the points in which we are at present most interested. We find the progress of the change of weather, which we mentioned in our last letter, very strikingly exhibited in your Observations, and therefore the data with which you have furnished us will enable us to extend our investigations to the north, and be of essential service in tracing the extent and character of the great waves of temperature which traverse the North American continent.

Very respectfully, your obedient servant,
JOSEPH HENRY, *Secretary*.

The Rev. Dr. RYERSON,
Chief Superintendent of Education for U. C., Toronto.

SMITHSONIAN TABLE OF MEAN TEMPERATURES FOR NORTH AMERICA.

Prepared from the reductions of Observations at more than One Thousand Places, for an aggregate period of several Thousand Years, by the Smithsonian Institution, Washington, D. C., 1860.

Places.	Spring.	Summer.	Autumn.	Winter.	For the Year.	No. of Years.	Places.	Spring.	Summer.	Autumn.	Winter.	For the Year.	No. of Years.
Iceland:							Rhode Island:						
Reikjavik	37.04	53.54	37.94	29.18	39.43	14½	Newport	44.84	68.12	53.42	31.16	49.39	40
Greenland:							Providence	44.87	68.17	50.32	28.06	47.85	23
Godhaab	23.26	40.62	29.14	14.14	26.79	13½	Connecticut:						
Omenak	14.15	40.77	23.07	-5.12	18.22	5	Hartford	47.92	69.45	51.75	30.07	49.80	15
Russian America:							New Haven	46.27	68.73	51.94	29.60	49.13	12
Iluluk	33.42	47.97	39.72	32.07	38.30	2	New York:						
Sitka	43.78	67.50	47.06	35.55	45.97	9½	Albany	47.61	70.17	50.01	25.83	48.40	24
British America:							Auburn	44.87	67.19	51.80	26.18	47.39	22
Boothia Felix	-5.21	38.04	9.69	-27.71	3.70	2½	Flatbush	46.62	70.48	53.97	32.67	50.93	24
Labrador:							Fort Columbus	48.74	72.31	54.41	31.38	51.71	33
Nain	21.65	47.08	32.20	-0.38	25.11	9½	Ithaca	46.87	68.12	49.35	29.62	48.12	17
Hudson's Bay Territory:							New York City	49.07	72.43	54.57	31.63	51.92	30
Fort Chippewayan	22.76	58.70	31.89	-3.34	27.50	3½	Penn Yan	44.26	66.87	48.43	26.61	46.54	26
Fort Simpson	26.10	59.16	26.24	-11.04	25.12	2½	Rochester	44.84	67.36	48.78	27.26	47.06	19
Norway House	26.53	59.89	29.99	-2.81	28.40	7	Utica	44.48	66.50	47.35	24.47	45.70	23
Nova Scotia:							West Point	48.72	71.38	53.21	29.68	50.74	30½
Albion Mines	37.82	63.52	46.17	20.85	42.09	11½	New Jersey:						
Windsor	48.78	73.77	53.85	29.32	51.43	17½	Lambertville	49.70	72.95	52.95	30.99	51.50	12½
Newfoundland:							Newark	45.46	68.52	50.16	28.86	48.25	22
St. John's	32.28	57.80	43.93	23.19	39.18	5	Trenton	49.83	71.06	52.75	32.32	51.49	6
Canada:							Pennsylvania:						
Montreal	43.70	70.77	46.93	17.19	44.65	27	Alleghany	49.97	71.14	51.43	30.61	50.79	21½
Quebec	38.63	65.34	43.97	13.82	40.31	10	Carlisle	49.76	72.10	52.05	30.45	51.09	11½
Hamilton	45.04	72.35	51.29	23.13	49.20	6	Easton	48.64	70.71	51.40	31.06	50.45	2½
Toronto	41.31	64.49	46.34	25.15	44.32	13½	Erie	39.42	69.76	56.59	32.31	49.52	1½
Maine:							Gettysburg	50.46	71.36	50.41	30.42	50.66	16
Castine	40.78	62.97	48.37	28.17	43.82	40	Harrisburg	53.07	76.00	55.73	32.86	54.41	14½
Gardiner	41.95	66.99	46.83	20.58	44.09	16	Philadelphia	50.70	73.04	54.03	30.47	52.06	67
Portland	40.12	63.75	45.75	21.52	42.78	35½	Somerset	45.93	65.13	47.41	27.24	46.43	6½
New Hampshire:							Delaware:						
Concord	43.52	66.73	48.11	22.85	45.30	14½	Fort Delaware	63.55	75.91	58.50	36.35	56.08	5½
Hanover	40.76	65.01	44.52	19.09	42.34	18	District of Columbia:						
Vermont:							Washington	55.77	76.33	56.43	36.05	56.14	11½
Burlington	42.81	67.39	47.65	21.77	44.90	18	Maryland:						
Newbury	41.60	67.01	46.09	19.21	43.48	13½	Baltimore	52.87	74.23	56.17	35.07	54.58	22
Massachusetts:							Frederick	52.78	75.29	54.85	33.66	54.14	3½
Amherst	44.46	67.67	48.18	24.15	46.11	19	Virginia:						
Boston	45.88	69.21	51.16	28.41	48.66	34	Alexandria	53.02	76.70	56.88	34.56	55.29	2½
Nantucket	45.65	68.52	55.03	34.66	50.96	10½	Fort Monroe	56.87	76.57	61.79	41.75	59.24	30
New Bedford	44.82	67.15	51.93	29.66	48.39	42½	Norfolk	56.50	76.53	61.48	41.57	59.01	25
Springfield	47.02	71.43	51.50	27.01	49.24	7	Richmond	55.73	75.40	56.27	37.20	56.15	4
Williamstown	43.80	67.69	47.84	23.40	45.56	23							