

The following is the correspondence above referred to.

EDUCATION OFFICE,
26th March, 1866.

SIR,—I have the honor to state, in reply to your letter of the 10th ultimo, that * * * * *

You are already aware, from previous correspondence with the Department, that the Legislature of the Province, at the instance of the Chief Superintendent of Education, authorized the establishment of a meteorological station in every county in Upper Canada, in connection with the Department of Public Instruction, the observers being the head masters of grammar schools. The following instruments were obtained from England for each station: Barometer by Negretti and Zambra; Dry and Wet Bulb Thermometers by the same; and Maximum and Minimum Thermometers by the same and by Casella. These were compared with standards at the Kew Observatory, by Mr. Glaisher, and again at the Toronto Observatory. They are excellent instruments and may be relied on. Each station is also supplied with a wind vane and rain gauge. Full instructions and tables, together with forms for periodical reports are provided for the observers.

As some of the counties have hesitated to pay for the instruments, and in others the observations were not duly taken, it was deemed necessary in 1865 to obtain further legislation and regulations on the subject. Although some observers faithfully performed their duty under the former system, it was found that more satisfactory results would be obtained by restricting the number of stations and making a pecuniary allowance to observers for their labors. Our stations are now ten (10) in number, situated at the most favorable points between Long. 83° and 74° W., and Lat. 42° and 46° N. The observers are educated men, and graduates of universities. Arrangements have also been made for the careful examination and comparison of the records of the observations at this office. The results will appear monthly in our official journal.

I send herewith copies of some recent regulations which we have issued to our stations.

As our meteorological establishments are now being placed on a more satisfactory footing, we may hope to contribute information of a permanent value; and your institution would confer a favor on this Department by sending us as complete a series of its meteorological reports—with any papers bearing on the subject—as it may be able to afford.

I have, &c.,
(Signed), J. GEORGE HODGINS,
Deputy Superintendent.

Joseph Henry, Esq., LL.D.,
Secretary Smithsonian Institution, Washington, D. C.

[Copy.]

SMITHSONIAN INSTITUTION,
Washington, April 3rd, 1866.

DEAR SIR,—We are much interested in your letter of the 26th ult. (No. 2570) in which is contained an account of the improvements lately made in your system of meteorology. I had prepared some remarks in regard to this subject for insertion in the annual report for 1865, which I am now enabled to render more definite, by the facts you have given me.

I shall also publish your letter as a part of the appendix to the report and will add to it the recent regulations which you have adopted. * * * * *

We shall make up a package of such of our meteorological publications as have escaped the fire, and among the number will send a copy of the large volumes of "Meteorological Results" for each of your stations.

There is a prospect, now that the war has ceased, and the number of permanent military posts of the United States are to be increased at which observations will be taken, that we shall be able to reorganize our combined system of observations on an improved and more reliable basis.

I have, &c.,
(Signed), JOSEPH HENRY.

J. George Hodgins, Esq., Deputy Superintendent of Education,
Toronto.

2. METEOROLOGY IN ITALY.

The Italian government is at the present moment establishing a meteorological service on the coasts of Italy, with the object of announcing approaching tempests.

3. THE LUNAR ECLIPSE OF GOOD FRIDAY.

The word Eclipse is derived from the Greek, and signifies to be dimmed or deficient, to faint away, to swoon, to die. When the

full moon, in her greatest lustre, falls into the shadow of the earth, and is deprived of the enlivening beams of the sun, she appears pale and languid before her obscuration, as if sick and going to die. From hence the ignorant heathen imagined the moon was in pain at those times, and therefore lunar eclipses were called by them "*lunæ labores*" the struggles or agonies of the moon. In order to relieve her in that fancied distress, they used to hold up lighted torches and to keep blowing with trumpets and horns, and to make a clatter on vessels of brass and iron, and to sacrifice to the moon after the eclipse was over. This practice was of great antiquity, as well as was the opinion that it was in the power of witches, by their spells and charms, not only to darken the moon, but to bring her down from her orbit, and force her to shed baneful influences on the earth. The Chinese, some 4,000 years ago calculated the period of eclipses. These appearances were ushered in by them by the beating of drums by blind men, and processions by the great officers of State.

The eclipse of the moon on Friday night was surpassing in splendour the appearances usually seen; the deep shades of the celestial space contrasted so beautifully with the "*silvery moon*" up to 8 p. m. Cumulus clouds obscured distinct vision, but at 8.15 the orb of night shone out with great brightness. The clouds had passed away. To the southward a few, and but few, of the stars were visible, some of the first and second magnitude; the others were dim—blotted out by the superior light of one satellite.

A 2½ inches achromatic, by Dolland (and the only one possessed by the McGill Observatory,) with a power of 150, brought out the constant obscured features of the surface of our moon; the edges at that time were very sharp and well defined. This instrument was constantly watched, but it was not of sufficient power to show the phenomena satisfactorily.

Another telescope, kindly lent, with an object glass of nearly 7 inches in diameter, and with a power of 180, was also placed in position, and at 44 minutes past 8 there was a softening of the moon's bright limb to the east, by a brownish colored shadow, which increased in shade until the penumbra became distinctly visible. This shadow could not be seen with the smaller instrument, showing that it is necessary for the vision of the earth's atmosphere, to possess instruments of large size, so as to admit a great amount of the rays of light. The observations on the progress of this shadow and penumbra over the disc of the moon was very closely watched by both instruments until the total phase commenced. A few minutes before the total phase was concluded, the bright limb of the moon seemed to project or assume a conical shape, as though it projected from the moon beyond its circular appearance, or as though it was distorted or gibbous. This was only optical. At 10h. 49m. the total phase took place, and lasted 1h. 37m. Leaving these appearances, let us notice what took place in the surrounding view. One by one the stars of the different magnitudes became as it were lighted up; thousands of these stars were visible throughout the extended horizon; not a cloud obscured the whole face of the field of view, and in the centre of these was the moon, with a dim and unearthly aspect. Nature seemed sad, and hushed in solemn repose, the quiet of midnight, away from the busy stir of the city, added effect to the novel aspect of the scene. For upwards of an hour and a half this continued, and then the twinkling stars were again one by one blotted out from human vision, the moon again assumed its silvery aspect, it merged from its obscurity far brighter in appearance than before, and it took up again its "*wondrous tale*," the prediction of the astronomer was realized—*science had achieved its victory*—the Paschal moon set before the Royal Mountain. The course of nature was scarcely disturbed; a slight and occasional breeze swept through the leafless branches of the trees; no other special phenomena seemed to result from it; the usual meteorological observations yielded no abnormal results, neither did the magnetic instruments.

It is to be regretted that these appearances were not photographed, and that Montreal did not possess an instrument sufficiently large and of proper construction for the purpose.—*Com. by Dr. Smallwood, to Montreal Transcript.*

II. The County School Conventions.

1. MINUTES OF RESOLUTIONS PASSED AFTER DISCUSSION BY EACH CONVENTION; EXTRACTED FROM THE OFFICIAL REPORTS OF THE CONVENTIONS FURNISHED TO THE DEPARTMENT BY THE RESPECTIVE CHAIRMEN AND SECRETARIES.

I. RESPECTING TOWNSHIP BOARDS OF EDUCATION.

At *St. Catharines*, January 15.—Moved by Charles Donaldson, Esq., seconded by James Lilleland, Esq., and (by a majority of two to one.)

Resolved,—That in the opinion of this meeting, Township Boards