

He likewise exposed a collodion plate to the sun, moving it forward every five minutes, to show the effect of the sunlight on the sensitive surface. A like exposure of sensitive paper was made at the Observatory, with remarkably similar results. A piece of chromo-type paper was there also exposed in a similar way, and formed a complete photometer scale, showing the action of the sun light in the production of photographic effects.

On the Thursday previous, two large dark and prominent spots were observed on the sun, among others less conspicuous, but on the Saturday (the day of the Eclipse) only one of these was visible on N. W. aspect, and the progress of the moon across this spot was hid from view, owing to the passage of a somewhat dense *Cumulus* cloud, which obstructed distinct vision.

No distortion of the cusps was apparent. They appeared at all times sharp and well defined, and no flashes nor coruscations were seen on the moon, which presented the same apparently dark appearance and somewhat serrated edge throughout. The border of the moon before contact could not be observed by the small instruments employed.

Two polariscopes were used, one placed in a position due North and the other South. There was an absence of sky polarization in the one placed South during part of the time of the Eclipse, but that the one placed North showed the usual appearances. The change in the aspect of surrounding objects, and of the landscape generally, was very apparent, giving to the buildings (mostly of grey lime-stone) a peculiar lurid yellow hue, quite unlike the grey dawn of twilight. The leaves of the maple trees, close to the Observatory, were noticed to droop, and the petals of some flowers (the *Petunia Phœnicea*) were observed to be partially closed. The effects, if any, on animals, domestic poultry, or birds, were not perceived. This may be owing to the late hour at which the obscuration occurred, being but a short time earlier than the usual hour of retirement.

No appreciable dew was observed on a prepared paper exposed for that purpose, although a very sensible increase of the moisture in the atmosphere was distinctly felt.

Ozone was much in excess. The ozonometer, placed at 4 p.m., and removed at 7 p.m., showed a tint corresponding to 3 of the scale, while the usual measure, exposed from 4 p.m. till 7 p.m., showed somewhat less than 2.

The observations of the sky spectrum, by the spectroscope, were carried out as well as was desirable. The only difference observable was a dulness in the colour of the red ray.

Peltier's Electrometer indicated but a very slight disturbance in the electric state of the atmosphere. The temperature of the air was observed every five minutes, as also the temperature of evaporation. The Barometer was read every fifteen minutes.

The intensity of the Sun's rays was also taken every fifteen minutes.

The wind was from the N. E., and veered occasionally to the W. For the most part it was calm. The clouds moved, during the whole time, from the N. E.

The weather, for some days previous, to the 7th, was, for the most part, cloudy, accompanied by showers of rain, with wind from the S. W., and moderate, varying from five to ten miles per hour. Rain fell on the fifth and sixth days.

The Barometer, at 7 a.m. on the fifth day, stood at 29.811 inches; it rose steadily until 7 a.m. on the morning of the eighth day, and then stood at 30.141 inches, at 2 p.m. of the seventh day it stood at 30.034 inches, and at 4 p.m. the reading was 30.010; from fifteen minutes after 4 until 7 p.m. there was a continuous fall; it reached, at that hour 29.900, and at 9 p.m. it again attained 30.110 inches. This fall of the Barometer accords with the observations made on the partial eclipse of 1860, at St. Martin's Observatory.

The temperature of the air, at 7 a.m. of the seventh day, was 53°; at 2 p.m. 75°0, and at 9 p.m., 63°0. These were the usual tri-daily observations.

The Thermometer marked a constant and almost uniform depression (which was, in a slight manner, interrupted by the presence of clouds) from 5 p.m., when it stood at 70°0, and at 7 p.m., when it stood at 60°2, from which it rose to 63°0 at 9 p.m. The decrease in the intensity of the Sun's rays showed a like uniformity.

The greatest degree of humidity occurred at thirty minutes past 6, or about twenty-four seconds after the greatest obscuration; in like manner the increase of aqueous vapour, and the other hygrometric states of the atmosphere, culminated at or near that time.

The wind, during the night of the fifth day, and up to noon of the sixth, was from the N. by W.: mean velocity, 13 miles per hour. There were three hours of calm. From noon of the sixth day till noon of the seventh the wind was variable. It was due North, and calm, for forty-six minutes. It then veered by the West to W. N. W.

At 9.45 p.m. it was N.N.W., and, from 11 to 12, it attained a velocity of 10 miles: mean velocity 11.11 miles per hour. There was one hour calm from 12 noon to 1 p.m. At noon on the seventh day the wind veered to the N. by E., and from that time, to the N. W. and N. E. by N. From 3 to 4 p.m. it was W. by S., 18 miles. During the Eclipse it was variable, from N. E. to W. S. W.; and it continued in that point until 11 p.m. when it veered to N. by W. until daylight. It was calm from 12 to 1; from 1 to 2 also calm; from 2 to 3, 2 miles; from 3 to 4, 18 miles; from 4 to 5, 2 miles, and was calm during the rest of the night.

No hurries or gusts of wind occurred during the eclipse, and no Aurora Borealis was seen.

Observations on the Magnetic Elements were attended to. The experiments on Vibration indicated nothing differing from the usual appearances. The vibrations did not seem at all affected by the Eclipse.

The Declination Magnet indicated a considerable variation in Eastern declination, and this continued increasing.

The Inclination magnet showed a very slight variation in the dip, but one of very small amount.

No stars were visible to the naked eye, and no telescopic search was made, although some of the first magnitude were well placed for observation, as were also some of the planets.

From the time of the Eclipse, and for the next succeeding eight days, the weather assumed a warm and genial character, in contrast to the unfavourable state of the previous month, and was a source of welcome and delight to the husbandman who so much required it to enable him to reap and secure a prolific harvest.

In reference to the observations of Mr. Balch, at Tadousac, the weather seems to have been very unfavourable. High wind, with rain and cloudy weather, impeded the view. The amount of Ozone would seem to have been somewhat in excess, and there was considerable variation in the Magnetic declination.

### Mr. Ruskin on Art.

The Slade Professor of Fine Arts, Mr. John Ruskin, M. A., Christ Church, delivered his inaugural lecture in the Sheldonian Theatre, Oxford, on Thursday afternoon, 10th ult., when the capacious edifice was filled with as large an audience as was ever seen at an Oxford public lecture, a great many ladies being present, together with the Vice-Chancellor, in his official capacity, and many of the senior members of the University. The attendance of numbers of undergraduates testified to the universal interest that Mr. Ruskin's proposed lectures had excited.

Mr. Ruskin, who was much applauded, commenced by stating how conscious he was of the importance of the task he had in hand. These lectures were to commence a new era in University education; the study of fine art was now introduced in Oxford. The importance of that study he then explained. He said he looked forward to the time when, in the Universities and in our chief schools, this branch of education would cease to be neglected. He enlarged upon the beneficial effects of the study of art upon the character of a nation; he showed how true it was that art is the true exponent of the ethical condition of a people. The importance, then, that this study should be properly directed for this reason was evident; but there was another reason equally urgent. Each nation is peculiarly adapted to excel in certain schools of art, and if energy be exerted in a direction where excellence is unattainable, much power is necessarily wasted—much improvement is lost to the country. Now, in England it may be noticed that our artists never excel in that style which may be called theological and sublime; this was chiefly owing to a grossness in our nature, our greatest men having never regarded what was foul with the same abhorrence as did such men as Dante. Again, we fail in highly-finished decorative designs; our peculiar habit of mind necessitates this. We live in an atmosphere of too much care and anxiety to be able to give that entire devotion to the subject necessary to success. On the other hand, we show very great excellence in portrait-painting, in delineating home scenes, animal life, and landscapes. Now, in these branches of art ought our studies to be encouraged, and we ought to avoid as much as possible attempting to fancy we admire that which we feel to be above us, or, rather, out of our line. He intended, with the assistance of the authorities, arranging in the Taylor Gallery a collection of paintings or prints indexed, so as to show the chief points which are really beautiful in different styles of art. In his first course of lectures he would first examine three landscapes of Turner. He would then examine copies of animals, and point out the peculiar beauties inherent in the originals, as well as the necessity for accurate copying. He went so far as to express the hope that he might soon make some of our English youth prefer to