

Diameter of Bulb 0.58 in.							
1 1/4 inch tube.			Zenith distance.	3 inch tube.			Zenith distance
Sun.	Fluid.	Diff.		Sun.	Fluid.	Diff.	
Fah. 83.6	Fah. 62.6	21	49 54	Fah. 79.2	Fah. 60.1	Fah. 19.1	50 32
85.5	63	22.5	50 3	81	60.3	20.7	50 24
86.4	63.4	23	50 12	82.5	60.7	21.8	50 16
86.7	63.5	23.2	50 21	82.7	60.7	22	50 8
87.7	63.7	23	50 30	83	61	22	50 1
85.9	63.2	22.5	50 12	81.7	60.6	21.1	50 16

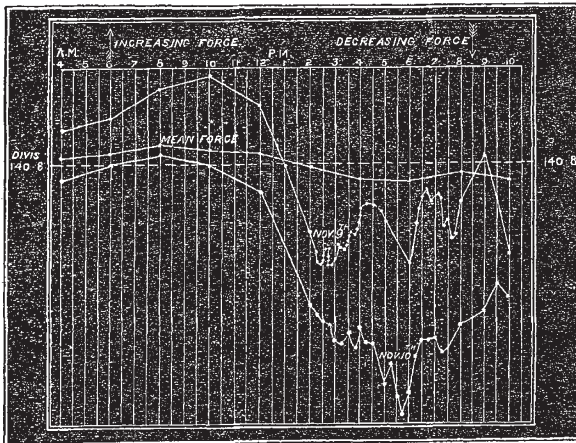
J. ERICSSON

**MAGNETICAL AND METEOROLOGICAL OBSERVATIONS AT HAVANA**

ON the 9th and 10th day of November I noticed on my instruments two strong magnetic perturbations, during which a series of extraordinary observations was taken at intervals of five, of ten, and fifteen minutes. From these I was naturally drawn to think that an aurora borealis would be seen in higher latitudes, and was waiting for a confirmation of my views.

This I found in the numbers 16th and 23rd of November of your scientific journal, NATURE, which I have just received, and in which I see with great pleasure the

Curves of the Horizontal Magnetic Force on the 9th and 10th days of November, 1871, compared with the Mean Force of the whole month.



SCALE { 1 hour = 0<sup>m</sup> .01 in the line of the abscissa  
5 division of the scale of the Bifilar Magnetometer = 0<sup>m</sup> .01 in the line of the ordinates.  
Each one of these divisions of the scale corresponds in parts of horizontal force to K = 0.00099573.

description of the aurora borealis seen in England on the 9th and 10th of November in perfect accordance with my observations of those days.

As it will not be devoid of interest to know to what an extent an aurora borealis, when seen in England, exerts its influence on the magnetic variations of a place situated in the Tropics and in very remote longitude, I take the liberty of sending you the curves of the horizontal magnetic force as registered by the bifilar magnetometer on the 9th and 10th of November, together with the curve of the mean horizontal force of the whole month. A comparison between them and those taken in other places will be, I hope, very pleasant to those who are interested in magnetic researches.

My observations on the bifilar magnetometer are reduced to the temperature of 77° Fah. The variation of

the thermometer attached to it was 0.8 during the whole perturbation.

The magnetic instruments I make use of are those of the Observatory of Makerston, Scotland, which were arranged and sent many years ago to this Observatory by order of General Sabine at the request of P. Secchi, of the Roman Observatory.

Another perturbation, although not so intense as those already described, was observed on the 2nd of November. It began at ten o'clock in the morning, and lasted the whole day.

A very remarkable one was also observed on the 17th and 18th of June; it began at ten o'clock in the evening of the 17th.

On the 21st of August, while a hurricane was felt in St. Thomas, and an aurora borealis seen from the Observatory of Dun Echt, Aberdeen, I noticed an extraordinary variation, which attained its maximum between four and six o'clock in the afternoon. A similar one occurred on the 24th.

Finally, on the 16th and 17th of August two great hurricanes swept the shores of Florida, and their influence upon the magnetic force can be perfectly noticed on the curves of those days.

BENEDICT VINES

Havana, Dec. 21, 1871

**NOTES**

WE alluded some time since to the threatened destruction of one of the most notable megalithic monuments in this country, the Great Circle at Avebury, in Wiltshire. All archaeologists will be glad to hear that Sir John Lubbock has added one more to his eminent services to science by the purchase of the site on which the Circle stands. It is right also that the meed of praise should be awarded to those of the residents in the district whose zeal has been directed towards the attainment of this object; and who have thus shown their sense of the value of the monument which is one of the glories of their county. We refer especially to the Rev. Bryan King, the vicar of the parish, Mr. Kemm, Mr. George Brown, and the Rev. Alfred Charles Smith, Hon. Secretary of the Wiltshire Archaeological and Natural History Society. It is to be hoped that their example will stimulate similar zeal for the preservation of monuments in other parts of the country.

DR. T. STERRY HUNT, chemist to the Canadian Geological Survey, has been appointed to the chair of Geology in the Massachusetts Institute of Technology.

MR. HENSMAN has been appointed Lecturer on Botany at the Middlesex Hospital, in the place of Dr. T. S. Cobbold, F.R.S., who has received the appointment of Lecturer on Parasitic Diseases.

AT the meeting of the Royal Geographical Society on Monday evening last, Sir Henry Rawlinson, the President, announced that the vessel with the Livingstone Expedition on board arrived at Malta on the 23rd inst., and was to reach Port Said on Sunday, and leave Suez on Monday night. By the accounts to hand all on board were pronounced to be well, and in the highest spirits. The finances of the expedition were in a highly satisfactory state, many contributions being remarkably striking, as showing the great interest taken in the enterprise not only in this, but in many distant countries. A contribution of 100 guineas had been received from a former member at Stockholm, who had always taken a deep interest in the travels and discoveries of Dr. Livingstone. The Italian Royal Geographical Society had also sent a contribution of 157. 15s., while national committees to assist the fund had been formed in Scotland and Ireland, who were working most energetically. The town of Glasgow has subscribed 1,000l., Edinburgh 400l., and Dublin promised to be equally