

original book, perhaps into a sixth. As to the need of such an index there cannot be two opinions. If, however, a fuller classified catalogue, such as is proposed by Mr. Garnett, be thought necessary, would it not be better to make it in the form of a series of indexes of separate subjects? The day for great encyclopædic works is nearly past, and as the astronomer cares little for the papers of the zoologist, and would find them only in his way, so both the zoologist and the astronomer would wish to have his own subject in a distinct volume.

This leads me to the chief point of this letter, which is to draw attention to the work that is already being done. I have received a letter from Prof. Holden, of the United States Naval Observa-

tory, in which he announces to me, as Secretary of the Index Society, his intention of making an index to all the entries referring to astronomy in the Catalogue of Scientific Papers, and also informs me that Prof. Abbe, of the United States Signal Service and Weather Bureau, has a complete card catalogue of the meteorological entries in the Royal Society Catalogue. Probably other workers have done the same for other subjects. This is, I think, the best use to make of the Catalogue of Scientific Papers, which is of immense value, in the first place as a catalogue of authors, and secondly, as a collection of authentic documents from which a series of subject-indexes may be drawn.

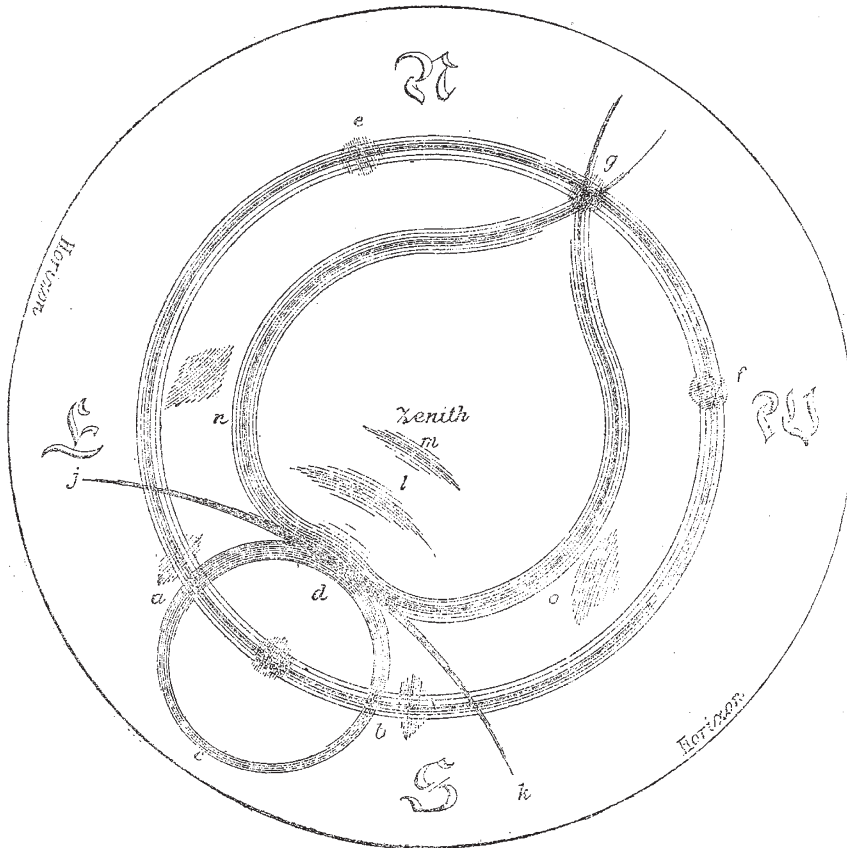
Society of Arts, October 28

HENRY B. WHEATLEY

### Solar Halo

I INCLOSE a sketch of a remarkable solar halo and parhelia which I observed here on the 22nd ult. As I happened to have facilities at hand, I was enabled to take the dimensions and position of the various features of the phenomenon with sufficient accuracy. These appearances were first seen by me at 9.30 A.M., and continued nearly constant in brilliancy till about 10 A.M., when they gradually faded, and at 10.30 hardly anything was visible except the outer ring, *abefg*, which continued till 1 P.M. At 9.45 the inclosed sketch was made and the measurements taken. The sun had then an altitude of about 30°,

and was very misty and indistinct. It was surrounded by an ordinary solar halo of about 45° diameter; and through the sun passed another perfectly unbroken circle whose centre was exactly at the zenith. This circle had no colour and was similar in character to the ordinary concentric solar halo; its angular diameter was 120°; concentric with this was another circle of 78° diameter. This inner circle was not quite perfect at the point where the circle, *abcd*, touched it; it was slightly distorted, and through the same point (*d*) passed a portion of another circle of larger radius, *jk*. The junction of these three circles formed a beautiful spectrum, and was the most brilliant



part of the whole phenomenon. The inner circle was also imperfect on the side opposite the sun, when it branched off in two opposite curved tails, which, crossing the outer circle at the same spot, *g*, formed a mock sun. Two other mock suns were to be seen at *e* and *f*, 50° to each side of *g*. These three mock suns were all colourless, but at *a* and *b*, not on the concentric halo, but about 2° outside it, were two beautifully coloured mock suns, each being a perfect spectrum.

Finally, two portions of coloured circles were seen at *l* and *m*, with the concave side towards the sun, and two others at *n* and *o*, with their convex sides towards the sun, but in every case (both of circles and mock suns, *a* and *b*) the red colour was nearest the sun and the blue farthest from it.

I may mention, to give an idea of the brilliancy of the phenomenon, that many persons mistook one or other of the coloured bands for rainbows, and in one case one of the mock suns was supposed to be the sun itself (the sun happening to be hid from the observer by some adjacent buildings).

Dublin, October 11

HOWARD GRUBB

### Karl Friedrich Mohr

IN your notice on the late Karl Friedrich Mohr there is no mention made of one of his most remarkable works, "Die Geschichte der Erde," the first edition of which appeared in 1866. In it he takes up what he considers entirely new ground