

Crustacea, by C. Warburton; Arachnida and Myriopoda, by R. Innes Pocock; Insecta, by D. Sharp; Echinodermata, by E. A. Minchin; Vermes, by P. C. Mitchell; Cœlenterata, by S. J. Hickson; Spongiæ, by E. A. Minchin; Protozoa, by C. Warburton. The utmost pains have been taken to make the lists complete and accurate, and to students of zoology they are practically indispensable. In the introduction to Mammalia, Mr. Lydekker notes that the number of new recent species is extraordinarily large. He adds, however, that this is "due to the elevation to specific rank of a host of North American forms which would be regarded by most zoologists as varieties." No fewer than forty of the "new species" belong to this category.

#### LETTERS TO THE EDITOR.

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##### Sun Pillar.

A REMARKABLY well-defined instance of this phenomenon was seen by me at this place (460 feet above mean sea-level) this afternoon. At 5.32 p.m. the sun was sinking behind a thick layer of stratus cloud. There was a bank of dust haze, so defined as almost to resemble cirrus, which apparently formed a background to the clouds. When the phenomenon was first noticed, about three-quarters of the sun's disk was below the edge of the cloud bank; and from the centre of that portion of the disk visible there rose a tall column of brilliant light, extending upwards to about  $5^\circ$ , of the same width as the apparent

I had noticed, a quarter of an hour previously, that the rays of the sun, when behind a cloud, stood out in an unusually solid and clearly defined manner. There was a good deal of anti-cyclonic stratus (about 5000 feet) at the time, and the upper part of the atmosphere was more hazy than is usual with a north-east wind at this period of the year. At the earth's surface the wind had dropped to an almost perfect calm.

Lutterworth, March 5.

ANNIE LEV.

##### New Comet.

THE comet discovered here on the evening of Friday, March 18, is extremely small, though not very faint, and it has a decided central condensation or nucleus. Its position at about 8h. 30m., March 18, was roughly determined as R.A.  $341^\circ$ , Decl. N.  $59^\circ$ . The comet was therefore situated in Cepheus, and about  $3^\circ$  east-north-east of the star Delta in that constellation.

On March 19, at 8h., I reobserved the comet, and found its rate and direction of motion to be  $47'$  of arc east, and  $12'$  north. It will therefore shortly traverse Cassiopeia.

The comet was discovered with a 10-inch reflecting telescope, with eye-piece magnifying 40 times, and having a field of  $65'$  of arc.

W. F. DENNING.

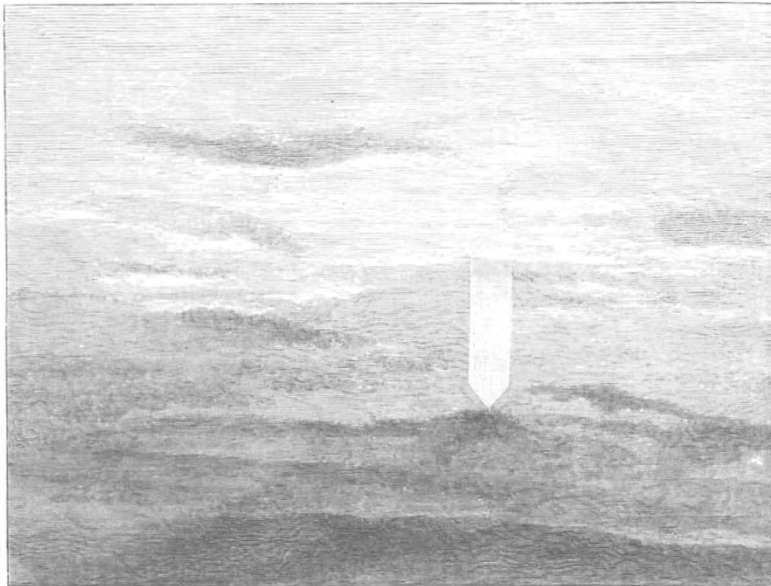
Bristol, March 21.

[This is stated to be Winnecke's comet.—ED.]

##### First Visible Colour of Incandescent Iron.

DURING the discussion which followed the reading of the paper on "Colour Photometry" by Captain Abney and General Festing at the Royal Society on January 28, some interesting remarks were made by Lord Rayleigh as to the colour exhibited by heated iron when raised to such a temperature as only to be just visible in a dark room.

Lord Rayleigh stated that Weber, who, so far as I know, first drew attention to this subject, described the first visible light as a greenish-grey. Lord Rayleigh himself repeated the experi-



Sun pillar observed at Lutterworth.

diameter of the sun, and narrowing almost to a point as it touched the sun's rim. This convergence became more marked as the rest of the disk disappeared, until at the point at which the latter was finally lost to sight the apex appeared to rest on the edge of the cloud bank. The cone-shaped part at the base of the pillar was the most luminous portion, and glowed with a brilliant orange-red tint, which gradually merged into the yellow-white of the upper part of the column. The effect lasted for some minutes after the sun's disappearance, but the pillar lost its conical base and became less defined, while the clouds receding gave the appearance of the base of the pillar having risen in the sky.

ment by making a piece of thin iron part of the wall of a very dark room, and heating the iron gradually by a Bunsen burner upon the other side. Lord Rayleigh could not satisfy himself as to the greenish tint, but was satisfied that no redness was apparent.

It struck me that a very convenient method of trying this experiment would be to introduce a round bar of heated iron into a thin sleeve, as shown in the annexed sketch, the sleeve being closed with a cover lined with asbestos. In this way the heat would slowly penetrate the sleeve, and the observers could note the first appearance of visibility and the changes of colour that followed.