which I called '*swirl opalescence*' (NATURE, **123**, 491; 1929) are consistent with the principle of least action. I should like to mention that I accept Dr. A. S. C. Lawrence's suggestion (private communication) of the term '*stream scintillation*' in place of swirl opalescence.

HUGH NICOL.

Rothamsted Experimental Station,
Harpenden, Herts, April 5.

### The New Planet.

DANS le numéro de NATURE du 12 avril, p. 577, le rédacteur de la note "The New Planet" suppose gratuitement que j'ai commis une erreur de raisonnement dans le calcul du diamètre photométrique de la nouvelle planète. L'inexactitude de cette supposition se trouve démontrée par ma Note, présentée à l'Académie des Sciences de Paris dans sa séance du lundi 7 avril, intitulée : "Sur le calcul du diamètre photométrique du corps céleste de l'Observatoire Lowell" (*Comptes rendus*, t. 190, p. 857; 1930), où se trouve précisément reproduite la formule qui m'a servi :

$$\log \frac{D}{D'} = \frac{1}{5}(m' - m) - \log \frac{r'\Delta'}{r\Delta},$$

et aussi par ce fait que le calcul basé sur le carré de la distance $r'$ au lieu du carré du produit $r'\Delta'$, ne donnerait pas 1500 km. avec les constantes que j'ai indiquées ($D = 53{,}000$ km., $m' = 15{\cdot}0$, $m = 7{\cdot}5$, $r' = \Delta' = 45$, $r = 30$, $\Delta = 29$, $A = 0{\cdot}6$, $A' = 0{\cdot}15$), mais 5000 km. En réalité, il s'était glissé dans *l'Information Rapide*, et ma première Note à l'Académie qui en est la reproduction, une simple erreur numérique dont j'ai publié aussitôt une rectification.

F. BALDET.

Observatoire de Meudon,
Avril 12.

ALL that was stated positively in the note on M. Baldet's diameter of the new planet was that his conclusion that its diameter was only 1500 km. if its albedo was taken as 0·15 was erroneous. His present note is in full accord with that statement, since he now gives, in *Comptes rendus* for April 7, a diameter of 2500 km., taking the albedo equal to that of Neptune; that would give 5000 km. with an albedo $\frac{1}{4}$ that of Neptune.

The note in NATURE went on to say (correctly) that some people had made the mistake of making the light vary as the inverse square of the distance, instead of the inverse fourth power. M. Baldet's letter makes it quite clear that he did not fall into this error. Needless to say, the note was written and published before any correction of M. Baldet's original statement had been received.

THE WRITER OF THE NOTE.

### Influence of Chemical Colloidisation on the Anomalous Diamagnetism of Bismuth and Antimony.

IT is a well-known fact that antimony and bismuth possess a high diamagnetism in the solid massive state, the specific susceptibilities being $0{\cdot}78 \times 10^{-6}$ and $1{\cdot}17 \times 10^{-6}$ respectively at 30° C. according to my experiments. In a communication published in NATURE of Nov. 16, 1929, p. 762, I reported the results of the influence of particle size on the anomalous diamagnetism of antimony, its value falling on mechanical colloidalisation. Further experiments on chemical colloids of bismuth and antimony show a still more striking decrease.

Colloidal antimony was prepared by reducing a solution of potassium antimonate by sodium hydrosulphide. This was centrifuged and the fine particles further purified in very dilute hydrochloric acid and carbon disulphide to remove traces of iron and sulphur. The specific diamagnetic susceptibility obtained was $0{\cdot}31 \times 10^{-6}$ with a particle size of about 100 $\mu\mu$, the particles themselves appearing as clusters of small particles.

In the case of bismuth, the colloid was prepared by reducing bismuth tartrate by stannous chloride in alkaline lye and centrifuging. The purified substance gave a diamagnetic susceptibility of $0{\cdot}25 \times 10^{-6}$. (See also Honda and Owen, *Ann. der Phys.*, **37**, 657; 1919; where Kahlbaum's colloidal bismuth is reported to give $0{\cdot}47 \times 10^{-6}$, whereas in the massive state it is $1{\cdot}4 \times 10^{-6}$.)

These results seem to indicate that the high diamagnetism of these elements and that of graphite (Sir C. V. Raman; see NATURE, June 22, 1929, p. 945) is a crystalline property and not atomic as diamagnetism is generally understood to be.

V. I. VAIDYANATHAN.

Annamalai University,
Chidambaram, South India, Mar. 8.

### Leaf-Curl in Cotton.

IN an article entitled "Cotton in Africa" (NATURE, Feb. 22, 1930, pp. 291-292), referring to cotton in the Sudan, it is stated that "Recently the disease known as leaf-curl has been attacking the crops in this locality, and there is evidence that the jassid insect is responsible for spreading the contagion. The Corporation is now considering the desirability of breeding jassid-resistant strains in the Sudan."

Working in the Gezira area, which is by far the most important long-staple cotton-producing locality in the Sudan, I have recently proved that leaf-curl of cotton (or, as it should preferably be called, leaf-crinkle) is transmitted mainly, if not entirely, by an at present undetermined species of Aleurodidæ (White-flies). A preliminary paper on the subject has been submitted for publication.

T. W. KIRKPATRICK.

Wellcome Tropical Research Laboratories,
Gezira Branch Laboratory,
Wad Medani, Sudan.

### Mounting Media for Microscopic Work.

ALTHOUGH, as Mr. Wilfrid Marshall points out in NATURE of April 12, there appears to be no theoretical advantage in using a mountant containing dried Canada balsam and α-bromonaphthalene, in practice the mixture has the valuable property of high viscosity. The use of a medium of high viscosity enables fresh mounts to be photomicrographed at high magnification, using the microscope in a horizontal position; in fact, we now find it to be an advantage to use twice the stipulated quantity of dried Canada balsam in order to make the mountant as viscous as possible, so that film sections may be photomicrographed within a few minutes of being cut.

E. E. JELLEY.

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### An Anthropological Congress.

I HAVE to-day received from the Institut International d'Anthropologie in Paris a copy, dated Feb. 15, and marked 'urgent', of the circular of invitation to the two Anthropological Congresses to be held concurrently in Portugal in September 1930, of which I was able to give some particulars in my letter of Mar. 15, published in NATURE of Mar. 29.

JOHN L. MYRES.

Royal Anthropological Institute,
London, W.C.1, April 16.