outside rim to a depth of approximately  $\frac{1}{10}$  in. is much coarser than that inside. The character of the crystals is also different, particularly that of the silicon,



FIG. 5.—13.2 per cent. silicon. Centre of ingot.  $\times 150$ .

which takes a definitely needle shape, while the silicon in the centre of the ingot is in more rounded particles and much finer needles. F. C. T.

## University and Educational Intelligence.

LONDON.—The title of emeritus professor of pathology in the University has been conferred on Sir Frederick Andrewes, who retired from the University professor nip of pathology tenable at St. Bartholomew's Hospital Medical College in July last.

The Senate has decided to make a grant of  $\pounds 200$  a year for five years towards the cost of maintaining the British Institute in Paris.

The following doctorates have been conferred: D.Sc. in Chemistry—Miss P. V. M'Kie (Bedford College), for a thesis entitled "The Interaction between Nitric Acid and Unsaturated Compounds"; and Mr. A. W. Chapman (Imperial College (Royal College of Science)), for a thesis entitled "Studies of Isomeric Change—with special reference to the Molecular Rearrangement of Imino-aryl Ethers." D.Sc. in Zoology—Miss H. S. Pearson (University College), for a thesis entitled "On the Skulls of Early Tertiary Suidæ, together with an Account of the Otic Region in some other Primitive Artiodactyla." D.Sc. in Veterinary Pathology—Mr. F. C. Minett, for a thesis entitled "The Standardisation of Immune Serum and the Nature of Immunity in Foot and Mouth Disease," and other papers.

A first public lecture on "Recent Discoveries throwing New Light on some of the Commonest Insects" is to be given by Prof. E. B. Poulton, at Bedford College for Women, at 5.15 on Jan. 31.

WITH the view of encouraging original research in sanitary science, the Grocers' Company is offering scholarships of the annual value of  $\pm 300$  each, plus a further amount for expenses. The scholarships are tenable for one year, but renewable up to three years. A form of application can be obtained from the clerk of the Grocers' Company, Grocers' Hall, E.C.2. THE Pan-American Union has issued in Washington, D.C., two pamphlets containing the projects of the International Commission of Jurists, "Public International Appendix" (pp. 40), and "Private International Law V(pp. 68). These drafts are the findings of serions held at Rio de Janeiro in April and May 1927, and are to be submitted for the consideration of the sixth International Conference of American States which will convene at Havana, Cuba, in January 1928. Under Public International Law two of the earlier projects are (v.) Exchange of publications and (vi.) exchange of professors and students. The remuneration of the professor shall be paid by the institution which has appointed him, unless his services shall have been expressly requested, in which case his remuneration shall be borne by the institution which invited him. In Private International Law, Chap. ii. is on domicile : "The domicile of diplomatic officials and that of individuals temporarily residing abroad in the employment or commission of their government or for scientific or artistic studies, shall be the last that they had in their own territory."

THE annual meeting of the Science Masters' Association will be held on Jan. 4-6 at the Imperial College of Science, under the presidency of Sir Richard Gregory. Evening meetings will be held at King's College for Women, Campden Hill Road, Kensington, W.8, where the presidential address on "Contacts of Science and Literature" will be delivered on Jan. 4. The programme includes discussions on the need of scientific investigators for the agricultural industries overseas, to be opened by Sir J. B. Farmer and Capt. Irby (Colonial Office), and on industrial openings in scientific technology, to be opened by Prof. W. A. Bone, and lectures by Dr. J. W. T. Walsh on modern methods in photometry and by Prof. J. C. Philip on charcoal and its activation. Visits have been arranged to the London docks, the United Dairies, Ltd., the Lighting Service Bureau, the Gas, Light, and Coke Co., and to the new laboratories at Highgate School. During the meeting there will be exhibits by members of the Association and by instrument makers and related firms, and also a display of books by leading publishers. Correspondence should be addressed to the organising secretary, Mr. I. M. Bankes-Williams, at the Chemistry Department, Imperial College of Science, South Kensington, S.W.7.

THE October number of the University Bulletin, issued by the Association of University Teachers, contains a report on the representation of teachers, ton-tains a report on the representation of teaching staffs upon united by bodies. This is the outcome of the labours of a committee appointed to inquire into the subject. A sufficient warrant for undertaking such an inquiry is to be found in the University Grants Committee's report of 1925, in which attention was directed to the reasons why lecturers as well as professors should be accorded a more clearly recognised position in the government of the universities, and, in particular, why they should be represented on the executive governing bodies. Appended to the report of the Association's committee, which concludes by re-affirming the opinions of the University Grants Committee, is a useful tabular statement showing the actual position in the civic universities of England and the University of Wales. In the same number appears, under the title "Jottings from the University of Utopia," a summary of advanced views on adult education, vocational guidance, and "earning while learning." In an article on the "wider aspects of extra-mural work," emphasis is laid on the value to the civic universities of their adult education work as a means of keeping them in touch with public opinion in the regions they serve.

No. 3035, Vol. 120]