

orientation. It is important to point out, however, that they do not yet know whether an iron crystal during a tension test slips upon a dodecahedral plane or cube plane, or indeed upon either of these. This work has still to be done.

A beginning, however, has been made by Miss Elam, who contributed a note at the same meeting entitled "The Orientation of Crystals Produced by Heating Strained Iron." In their previous paper, Prof. Edwards and Mr. Pfeil had stated that square etching pits were frequently obtained with a diagonal in the direction of straining, and concluded from this and other observations that the crystals were similarly oriented. Miss Elam has examined several of their single crystals by X-ray methods, and the crystal axes relative to the axis of the strip of ten crystals have been determined. Some of them have been done by her and the remainder by Mr. R. W. Aston at the Cavendish Laboratory, Cambridge. The accompanying diagram (Fig. 1) represents part of the stereographic projection of the crystal axes with the positions of all the axes of the test-pieces, and hence the direction of straining, marked by a point. The relation of each point to the three principal crystal axes, *i.e.* the apices of the spherical triangle marked (100), (110), and (111), indicates the orientation of the crystal. This diagram shows that the points are scattered throughout the triangle and that the orientation of the crystals is consequently very varied.

Only two crystals showed cubic etching pits, and in both of these the surface of the strip was parallel to a cubic (100) plane in the crystal. These pits were quickly developed by etching in dilute nitric acid, whereas the other crystals appeared unattacked. When first formed the pits were rather indefinite-shaped pyramids, but on prolonged etching they became square. Crystals of other orientations showed pitting only on prolonged etching, and although the form varied from crystal to crystal, the pits had no regular shapes. Fig. 2 shows two crystals. The lower one is deeply pitted and has a cube face nearly in the plane of section. The upper one is not pitted and is attacked to a less extent although more uniformly. X-ray examination showed that the plane of the section was approximately a (112) plane. Miss Elam's experiments show, therefore, that the single crystals produced by Messrs. Edwards and Pfeil have not necessarily the same orientation, and that it should be possible to pick out those in which a (100) plane lies in or near the plane of section.

H. C. H. C.

University and Educational Intelligence.

ABERDEEN.—Kilgour research scholarships have been awarded to Miss E. H. M. Geddes (botany), and to Miss I. Dean and Mr. A. H. H. Fraser (zoology).

The University Court has appointed the following assistants: botany, Mr. N. J. G. Smith and Dr. R. Crookall; materia medica, Mr. T. J. C. Macdonald; pathology, Mr. J. Gray; zoology, Nita I. Rennet.

BIRMINGHAM.—At a meeting of the Council of the University on October 7, the following appointments were made: Dr. W. C. Osman Hill to be demonstrator of anatomy; Miss H. I. Pfister to be lecturer in physiology; and Mr. J. F. D. Shrewsbury to be lecturer in bacteriology.

The foundations of the new buildings for the biological departments having been completed, work

has been begun on the superstructure. The new building for the oil-mining departments is nearing completion.

CAMBRIDGE.—Dr. A. C. Seward, master of Downing College and professor of botany, has entered on his second year of office as vice-chancellor.

The Cambridge University Commissioners are considering their draft of the new statutes; it is expected that it will be published before the term divides and that the final document will go to the Privy Council before the end of 1925; its provisions will not come into operation until the beginning of the academic year 1926-27.

For the moment local interest is focussed on the new restrictions of the motoring activities of persons *in statu pupillari*. Mr. D. Portway, of St. Catherine's College, has been nominated as special pro-rector to deal with the enforcement of the new regulations. There are some members of the Senate who view any new restrictions as contrary to the "Spirit of Progress," but the discussions and voting last term showed quite clearly that a large majority felt that restriction of some kind was imperative and would be wholesome.

H.I.H. the Prince Regent of Japan, who visited the University and took an honorary degree in 1921, has presented the library with four cabinets containing the 666 volumes of the Gunsho Ruiju and a framed portrait of their blind author.

It is announced that there will be an election to an Isaac Newton Studentship (for research in astronomy or physical optics) early in the present term.

THE third annual report of the Imperial College of Tropical Agriculture, for the year ended December 31, 1924, has just been issued, and is a very satisfactory and interesting document. At the close of the year there were eighteen diploma students and fourteen post-graduates working at the College. As there were only six post-graduates on the register at the beginning of the year, the increase of this type of student is very satisfactory. The College is still hampered by lack of adequate funds for the completion and equipment of its new buildings and laboratories, and for the building of a hostel, which is so desirable an addition to the College for the proper accommodation of the students. As a result of the appeal for 100,000*l.* made by the late Lord Milner, 21,083*l.* were contributed during the past year, and this sum has been slightly augmented since the report was published. The report records the laying of the foundation stone of the new building of the College on January 14, 1924, at which several members of the Governing Body were present, including Sir Arthur Shipley, the chairman. Reference is also made to the death of Mr. Claude Tinné Berthon, honorary consulting engineer to the College, who not only designed and superintended the erection of the Instructional Sugar Factory, but was also largely responsible for securing gifts of machinery and plant from the British Sugar Machinery Manufacturers and allied firms to the value of upwards of 20,000*l.* towards its equipment. The year under review was also marked by the retirement of Sir Francis Watts, the first principal of the College, who had been Imperial Commissioner of Agriculture for the West Indies for twenty-four years. Sir Francis, in recognition of his services, was appointed, on his retirement, to the honorary position of Principal Emeritus of the College. The report also records the appointment of Dr. Hugh Martin Leake, formerly principal of the Agricultural College, Cawnpore, to be principal of the College in succession to Sir Francis Watts.