

THE EXTENSION OF THE PHYSICAL AND ELECTROTECHNICAL LABORATORIES OF THE UNIVERSITY OF MANCHESTER.

THE new extension of the physical and electro-technical laboratories of the University of Manchester was formally opened on Friday evening, March 1, by Prof. Schuster, F.R.S. A well-attended reception and conversazione was held on Friday evening in the old and new laboratories. Many interesting experiments and exhibits of apparatus were on view during the conversazione and on Saturday morning. In the course of the evening a meeting was held in the large lecture theatre. The Vice-Chancellor, Sir Alfred Hopkinson, referred to the growth of the work in the physical laboratory and the necessity of providing more space for research. Mr. S. Z. de Ferranti, president of the Institution of Electrical Engineers, was awarded the honorary degree of doctor of science. Prof. Lamb, in presenting Mr. Ferranti to the Vice-Chancellor, said that more than a quarter of a century ago he attacked the problem of the transmission of electrical energy in its most concentrated form, and, undaunted by discouragements and prophecies of disaster, he solved it in practice on a commercial scale with complete success. It was largely to his initiative and his labours that we owed the plentiful use of the light which supplemented and often, alas! superseded and surpassed the sunshine of Manchester.

Prof. Schuster, before declaring the new buildings opened, addressed the meeting, and described the development of the physical department of the University. In a subsequent portion of his address he spoke of the great field for the student of physics in India and the colonies.

When the main physical laboratories were built in 1900, a large part of one floor was set aside for the department of electrical engineering, while a special laboratory, known as the John Hopkinson Dynamo Laboratory, was built. The steady growth of the department and the increase of the number of those engaged in original investigation have, in recent years, placed great pressure on the space of the laboratory. This was emphasised by the nature of many of the researches in radio-activity, in which large quantities of radium are employed. The effect of the γ rays, which are able to traverse the walls and floors of the laboratory, disturbed the measurements of the workers not only in the immediate vicinity, but also in the neighbouring rooms. In order to provide additional space, the Council of the University decided to remove the department of electrical engineering from the physical laboratory proper and to locate it in a new building. In these new engineering laboratories, part of the first floor, containing six research rooms, has been set aside for physics, while a small electrochemical laboratory has been erected outside for work on radio-active substances. The physics department has thus the use of the space formerly occupied by electrical engineering. The addition of a number of new research rooms for physics, removed some distance from the main physical laboratory will prove of great advantage for the purpose of original investigation, especially for radio-activity and allied subjects. It is intended to keep the new laboratories uncontaminated by radio-active matter, and they will be employed mainly for the more delicate measurements.

The new buildings were designed by Mr. I. W. Beaumont the architect of the main physical laboratories. They form a simple but substantial structure faced externally in red Ruabon brick with stone dressings so as to harmonise with the main physics buildings.

A noteworthy feature of the new buildings is the system of bare wires run on insulators, which has been adopted throughout for the experimental circuits. This system has proved so satisfactory in the main laboratory that it has been employed wherever possible in the present extension. From the battery, which is of 600 ampere-hour capacity, with a maximum discharge rate of 300 amperes, heavy bare copper conductors run along a subway beneath the main corridor to the switchboard room in the north wing. From this, by means of plug boards, current can be distributed over the whole building.

CALENDAR REFORM.

AN article by Mr. Victor Anestin, of Bukarest, on calendar reform in the States of the Greek Church, extracted from A. Richter's "Kalender" (Riga, 1912), has been received. The author gives an interesting account of the efforts which have been made in the Balkan States and in Greece towards the adoption of the Gregorian calendar, and describes the state of public opinion on the question at the present time. It is a pathetic story of ecclesiastical prejudice and jealousy on one side and political irresolution and instability on the other. The chief obstacle to following the practice of western Europe lies in the fear entertained by each national church of being denounced as schismatic by the other adherents of the Greek faith, and this prevents any one of the churches, though nominally independent, from taking the lead and sanctioning the reform. Hence the outlook at present is not promising. Mr. Anestin expresses the opinion that the fate of the reform in these States depends on the action of Russia, since the other Greek churches would not be likely to impugn the Russian church, but would probably follow its initiative. In the meantime, the matter does not advance. Roumania seems to have gone further than the other States, and though a Bill enacting the change which was presented to the Chamber came to nothing owing to the political circumstances of the time, the postal and telegraph services and the railways use the Western calendar, and all the almanacs show both styles side by side.

A certain value in the existence of two calendars is suggested by the following quite charming story which happens to appear in close juxtaposition to Mr. Anestin's article, and, if not bearing seriously on the question, may be reproduced as an interesting piece of folklore. It appears that the gipsies of Servia and Montenegro go in fear of the evil spirits which are abroad at Christmas. Therefore an old gipsy living on the Hungarian-Servian border has devised this subtle means of protecting himself. On Christmas Day (N.S.) he hangs up in his hut a Servian (O.S.) calendar; thus any prowling demons will see at once that he is a Serb, and as such observes the Julian Christmas. Thirteen days later he hangs up a Hungarian (Western) calendar; and then, of course, the evil spirits will recognise their powerlessness over him since, so far as he is concerned, Christmas is already a thing of the past. H. C. P.

FORTHCOMING BOOKS OF SCIENCE.

AGRICULTURE.

Baillière, Tindall and Cox.—Fungoid Diseases of Agricultural Plants, Prof. Eriksson (translated from the Swedish). *Cambridge University Press.*—Soil Fertility, Dr. E. J. Russell; a series of Monographs on Agricultural Science, under the editorship of Prof. T. B. Wood and Dr. E. J. Russell; a series (also edited by Prof. T. B. Wood and Dr. E. J. Russell)