

in the skin from which vitamin D is produced. Further development has involved intensive team work by physicists, chemists, and biologists, leading to the production of calciferol, the actual substance of vitamin D. This has not only made important contributions to organic chemistry as such, but also has brought improved practical powers to the medical administrator.

ANOTHER example of intensive work has been in the study of the so-called viruses, which cause widespread and often ruinous diseases in men, animals, and plants. New physical methods have been devised for their optical study and their separation and measurement by means of filters. The better study of these minute particles has not only an obvious utilitarian value, but also has extreme intellectual interest. They are units, apparently alive and reproductive, yet far smaller than any living cell which has hitherto been regarded as the minimal organisation capable of displaying life and reproduction. The whole story of medical research, whether viewed in its wide extent or followed to its intensive studies, illustrates the absurdity of the artificial boundaries that at present tend to separate the different sciences. In the schools, as Lord Chelmsford's Committee has reported, the cleverer boys are 'caught' for physics and chemistry, while the scholarship system, especially at Oxford and Cambridge, encourages a narrow specialisation which is, unfortunately, continued during undergraduate life. Most physicists and chemists proceed throughout school life and to a university degree without ever becoming acquainted with the interest of matter endowed with life. Many students lose opportunities they might have welcomed for fruitful work in the biological field, and the whole cause of medical progress suffers. Of students who proceed to medicine, many are again lost from the research field because of the great attraction offered by the natural human interest of professional work, or because of financial needs or desires.

Institute of Physics

LORD RUTHERFORD, presiding at the annual general meeting of the Institute of Physics, said that in the short time since its foundation, remarkable progress has been made towards the achievement of the original intentions of its founders. There has been a rapidly growing recognition of the importance of the physicist, not only in the academic world, but also in industry, and Lord Rutherford considers that the Institute can justly claim some of the credit for this. The properly trained physicist has the power to form his judgment by performing experiments, and if it be a subject where little is known, the cost of the investigation may only be a matter of a few shillings. It is very important that such an Institute should include every type of physicist among its members, and naturally to physicists in some of the sheltered posts, such as colleges and universities, it is not quite clear what particular advantages can be gained by joining the Institute, when they already have so many facilities at their own door. But taking a long view, Lord

Rutherford said, it is the duty of every physicist to join the Institute, wherever he may be, and so help on the recognition of the profession that he represents. He looks forward to the time when membership of the Institute will be considered a necessary professional qualification. The standing of the physicist in the scientific world, not only of to-day, but also of to-morrow, depends upon the support that the Institute receives.

Reading Rooms at the Institute of Physics

PRIOR to the annual general meeting, Lord Rutherford opened the new reading rooms at the Institute of Physics. Through the generosity of the Royal Commissioners for the Exhibition of 1851, some rooms have been allocated to the Institute for this purpose, and these have now been comfortably furnished. The Joint Library Committee set up by the Institute, the Physical Society, and the Optical Society has arranged that the libraries shall be combined for the mutual benefit of all, and thus a large number of periodicals and other books are already available for the use of members of the Institute and its participating societies. In addition, a limited number of textbooks and reference books are included in the library. In the course of his remarks, Lord Rutherford said that the opening of these rooms is another example of the co-operation of the participating societies through the Institute, which was one of the purposes for which the Institute was founded. Some of the rare old books belonging to the Physical and Optical Societies were open for inspection during the afternoon. It is hoped that authors and publishers will present suitably inscribed copies of their books, and in this way those whose attention has been directed to new books by the reviews published in the various journals of the Institute and its participating societies will have an opportunity of examining the books more carefully before procuring their own copies.

Game Animals of the British Empire

THE new gallery at the Natural History Museum, which is intended for the exhibition of whales, in replacement of the temporary building erected thirty-four years ago, was finished last autumn, but the economic crisis has interfered with the original plans, and, owing to lack of money, the Trustees have been unable to arrange for the renovation and removal of the large whale models. They decided that, in the circumstances, the gallery might usefully be employed for a comprehensive exhibit of the game animals of the British Empire. The open floor of the gallery has been divided into three parts, devoted to specimens from Africa, Indo-Malay, and Canada and Newfoundland respectively, the first of them being about as large as the other two combined, they themselves being equal. On the walls are suspended more than five hundred horns and skulls, some of the former being the 'record', that is, the largest known for the particular animal. Among the horns shown is the magnificent pair of the Indian buffalo which were included in the Sir Hans Sloane collection received in 1753 and are prominent among the limited number of