wave-lengths by an ingenious method of utilizing the luminous rings formed by interference between two reflecting plates. Their researches have proved of fundamental importance: (1) In comparing accurately the wave-lengths of different spectroscopic lines with that of some standard line. (2) In comparing directly the wave-length of the standard line with that of the standard unit of length. This comparison has confirmed in a remarkable way the previous measurements of Michelson, whose method is less direct and more liable to certain errors. The independent confirmation thus obtained has therefore placed the subject on a much firmer basis.

The Davy Medal is awarded to Professor F. Stanley Kipping. Professor Kipping has worked with distinction during the past thirty years on a great variety of problems connected with organic chemistry, involving fatty acids, derivatives of hydrindone, camphoric acid and its halogen compounds, the π-derivatives of camphor, racemism and pseudo-racemism, derivatives of quinquevalent nitrogen, organic compounds of silicon, including derivatives having optical activity due to the asymmetry of the silicon atom.

The Darwin Medal is awarded to Dr. Henry Fairfield Osborn. Dr. Osborn's chief work has been in paleontology, and, in connection with it, he has organized many collecting expeditions to the early Tertiary rocks of the west. One of the results of his work is the more precise determination of the relative ages of the extinct mammals in North America, and that has led to a correlation between the order of succession of the Mammalia in Europe and in America. A good deal of this work was summarized in his book, "The Age of Mammals in Europe, Asia and North America," published in 1910. In 1900 Osborn had come to the conclusion that the common ancestors of Proboscidia, Eirenia and Hyracoidea would be found in Africa; and the correctness of this view has since been confirmed by Dr. Andrew's discoveries in the Egyptian Fayum. Amongst the more important of Osborn's contributions to our knowledge of extinct vertebrata are his memoirs on the rhinoceroses, the horses, the titanotheres and the dinosaurs. In addition to all the work he has done personally, Dr. Osborn has had a wide and most beneficial influence upon biological research in North America, and he has produced a flourishing school of younger vertebrate paleontologists.

The Hughes Medal is awarded to Mr. Irving Langmuir. Mr. Irving Langmuir is a distinguished worker in the physics and methods of production of high vacua. He has studied the vapor pressure of platinum and molybdenum by heating fine wires *in vacuo* and noting the loss of weight. He has investigated the speeds of chemical reaction of different gases on various metals at very low pressures. He has investigated also the dissociation of hydrogen and its apparent abnormal heat conductivity, and the dissociation of chlorine and oxygen; also the chemical activity of dissociated hydrogen. His work on the emission of electrons from hot metals in high vacua led to the evolution of the "kenotron" and "pliotron," and of the "half-watt" lamp. His determination of the melting-point of tungsten is generally accepted. Much of his work, such as the investigation of the cause of blackening of tungsten lamps, is of commercial as well as of academic scientific value.

SCIENTIFIC EVENTS

THE BRITISH MEDICAL RESEARCH COMMITTEE[1]

UNDER the regulations for the Medical Research Fund Major Waldorf Astor, M.P., Dr. A. K. Chalmers (M.O.H. Glasgow), and Dr. George Murray, professor of medicine in the University of Manchester, retired last August. Major Astor was reappointed Chairman, and Dr. Henry Head, F.R.S., physician to the London Hospital and to the Royal Air Force Central Hospital, and Dr. Noël Paton, F.R.S., regius professor of physiology in the University of Glasgow, were appointed members of the Committee. It now consists, in addition to Major Astor (Chairman), Viscount Goschen (Treasurer), and Sir Walter Fletcher, M.D., F.R.S. (Secretary), of Dr. Addison M.P., Mr. C. J. Bond, of Leicester, Professor William Bulloch, F.R.S., Professor F. G. Hopkins, F.R.S., of Cambridge, Colonel Sir William Leishman, K.C.M.G., F.R.S., Dr. Henry Head, and Professor Noël Paton. Reference is made elsewhere (p. 579) to some of the chief points in the annual report. We may note in addition the statement that the committee has acted jointly with various government departments or other bodies, either in appointment or in nomination, with a view to meeting particular administrative needs demanding research work. The committee has in fact a

[1] From the *British Medical Journal*.

number of special committees, including those on the incidence of phthisis in relation to occupation; on surgical shock and allied conditions of which Professor Bayliss has become chairman; on the standardization of pathological methods, of which Professor Adami, F.R.S., is chairman; on salvarsan; on chemical warfare medical investigations; on anaërobic bacteria and infections, of which Professor Bulloch is chairman; on accessory food factors ("vitamines"), of which Professor Hopkins is chairman; on air medical investigations, of which Dr. Head is chairman; and on dysentery, of which Sir William Leishman is chairman. There is also an industrial fatigue research board, appointed last June by the Department of Scientific and Industrial Research jointly with the Medical Research Committee, to consider and investigate the relations of the hours of labor and of other conditions of employment, including methods of work, to the production of fatigue, having regard both to industrial efficiency and of the preservation of health, among the workers. Of this committee Professor Sherrington is chairman. In the introduction to the annual report reference is made to the cordial cooperation received from the Advisory Council of Scientific and Industrial Research, established in 1915. The field of research in every pure science, not less than that of inquiry in industrial science, lies so close at very many points to the fields of medical research, that no boundary line can be drawn. The committee looks forward to the progressive development in this cooperation with the department of scientific and industrial research, and finds new hope for the increasing effective organization of research work in all directions. "This," it is said, "should be an organization not imposed in any sense from above, but one derived from and inspired by the efforts of individual workers in the different fields of science, where the free university and other institutions of the country are pursuing together the common aims of the advancement of knowledge and the good of the state." In this connection it may be recalled that the Ministry of Health Bill provides that "the duties heretofore performed by the Medical Research Committee shall, after the commencement of this act, be carried on by or under the direction of a committee of the Privy Council appointed by His Majesty for that purpose." This would place the Medical Research Committee in a position analogous to that of the Advisory Council of Scientific and Industrial Research.

RESOLUTIONS IN HONOR OF DIRECTOR FREDERICK J. V. SKIFF

On the sixteenth of December Dr. Frederick J. V. Skiff, director of the Field Museum of Natural History, Chicago, was presented with engrossed resolutions by eighty-six of those affiliated with him in the museum, the occasion for this presentation being the twenty-fifth anniversary of the appointment of Dr. Skiff as director of the Field Museum. Dr. Skiff was the recipient of many congratulatory letters and telegrams. The resolutions are as follows:

On this, the occasion of the twenty-fifth anniversary of your appointment as director of this museum, we who are affiliated with you in the work of the museum unanimously extend to you our hearty congratulations upon your successful completion of so notable a term of service, and wish to express to you as well, our deep appreciation of the cordial relations which you have maintained with us during this period.

The task to which you were called twenty-five years ago presented, as we realize, peculiar difficulties. The plan and purpose of the museum were to some extent uncharted and the execution of even such plans as had been made called for the exercise of unusual administrative ability. The opportunity at hand at this time for creating a museum of world-wide scope and importance was known to be great, but the manner in which this opportunity should be improved, so far as administrative details were concerned, rested with you. With what high idealism, fixity of purpose and wisdom of direction you performed this task, the institution which exists to-day eloquently testifies. Whatever great accomplishments of service and progress await the museum in the future, we feel sure that it will always owe its success to the broad foundations which it has been your privilege and at the same time your high honor to have laid. Only one of broad, well-balanced and highly cul-