OBITUARIES

The Rev. Pierre Teilhard de Chardin, S.J.

FATHER TEILHARD DE CHARDIN, whose death occurred on April 10 at the age of seventy-four, was noted for his substantial contributions to mammalian palæontology (with particular reference to Palæocene and Eocene genera) and for his geological and archæological studies in the Far East. His scientific career may be said to have started in 1903 in Jersey, where he was studying philosophy, for while there he published a few notes on the mineralogy of the island which appeared in a local journal. Then, after a period of two years at the Collège de la Sainte Famille in Cairo as lecturer in physics and chemistry, he was sent to a Jesuit College at Hastings to pursue theological studies. It was while there that he assisted in the excavations at Piltdown and later found the canine tooth which was presumed to belong to 'Piltdown man' (though he himself took no part in the study of these alleged fossil specimens).

From 1914 onwards, de Chardin published a series of excellent monographs in the *Annales de Paléontologie* on fossil mammals from Tertiary deposits in France and Belgium. These dealt mainly with the Carnivora and Primates, and among the latter he described one of the earliest known anaptomorphids, which in some of its characteristics proved to be (apart from tupaioids) the most generalized and most primitive of all known Primates. He supposed this early Primate to be congeneric with the American type *Omomys*; but Simpson showed later (1940) that it was a distinct form and, in honour of its discoverer, renamed it *Teilhardina*.

In 1922, Teilhard de Chardin was elected president of the Geological Society of France, and in 1923 he went to the Far East, where for a number of years he took part in geological expeditions organized by American universities and the American Museum of Natural History. His work in China was particularly noteworthy for the detailed records which he made of the sequence of Tertiary deposits in that part of the world. As a result of these observations, he was able to establish important stratigraphical correlations between the different regions of China, and between these regions and India and Burma. He also extended his studies of fossil mammals to include the Pliocene Camelidae, Giraffidae and Cervidae of South-east Shansi, Pliocene and Pleistocene rodents from North China, and a collection of Miocene cervids from Shantung. From the sites at Choukoutien where remains of *Pithecanthropus* (= *Sinanthropus*) had been found, he described a number of the associated mammals, and then turned his attention more particularly to a stratigraphic examination of the cave deposits and a study of the lithic industry found in relation to the human remains. The stratigraphy of the deposits posed a difficult problem because of the complicated fissuration of the limestone formations; but Teilhard de Chardin adduced a considerable amount of evidence to show that the fossiliferous strata were older than the loessic formation of China but younger than the uppermost Pliocene beds of Nihowan.

Teilhard de Chardin's palæontological publications are all characterized by a clarity of style combined with conciseness of description. He also had a facility for designing illustrations which were particularly effective in their simplicity, in the sense that they immediately focused the attention of the reader on the morphological essentials of the specimens which he described. Almost up to the time of his death, he continued to maintain a very active interest in palæontology. W. E. LE GROS CLARK

Dr. Julius Podolanski

DR. JULIUS PODOLANSKI, senior lecturer in theoretical physics in the University of Manchester, died suddenly on April 12. He was born in Poland in 1905 and his family moved to Germany while he was an infant. He read physics and mathematics at Leipzig and Jena, obtaining the degree of Dr.Phil. of the latter University. Because of the Nazi attitude towards Jews, he was unemployed for a long time in the 'thirties, but eventually found work as a reader with the publishing firm Akademische Verlagsgesellschaft. One of his tasks was to read a proof of Prof. H. A. Kramers's book on quantum mechanics. He did not confine himself to purely technical corrections but detected some actual mistakes in the treatment of the subject. Kramers was so struck by this criticism that he inquired about such an unusual corrector. The result was that Kramers arranged for Podolanski to join him in Leyden in order to assist in the research work of his Department.

Podolanski went to Leyden in 1939; but after the German invasion of Holland he was forced to leave the coastal area and went to Utrecht, where he lived on a small stipend. He was officially forbidden to go to the University because of his race; but seminars were held at my house in order that Podolanski could attend. As the War went on even this difficult way of life became impossible and he was driven into hiding. For a time he carried forged papers and lived alone in an isolated windmill. After the liberation he became my assistant at the University of Utrecht and rejoined me in Manchester in 1948. Shortly before coming to England, he married a Dutch student, Marietje van Rossem, who had courageously helped him while he was in hiding.

Podolanski's scientific activity was originally centred on the more abstract aspects of the theory of fields. He had a thorough and profound knowledge of the general theory of relativity and of the geometrical disciplines connected with it. However, his interests covered the whole range of physics, and he always found time and energy to discuss the most varied problems with research students and colleagues at the different places where he worked. A great reserve and somewhat exaggerated propensity to self-criticism prevented him from publishing the results of his investigations, and apart from the few papers which he was persuaded to publish, the only testimonials to his unceasing activity are the many acknowledgments of his help and inspiration that appear in the papers of other authors. His work on unified field theory in six dimensions published by the Royal Society is one of the most original contributions to this somewhat abstract subject. It is typical of his versatility that another of his significant contributions is the elaboration of a method for the analysis of cloud-chamber photographs of heavy mesons.

Podolanski was outstanding as a teacher; his devotion to his students was unexampled. In fact, he was incapable of refusing any request for help or guidance even when this help was given at the expense of his own investigations. His interest in people showed itself most strikingly by the way

in which he gave any casual group of research workers a sense of belonging to a lively and friendly community. Passing visitors enjoyed the hospitality which he and his wife were always ready to offer; they left as lasting friends. Everyone who in any way came into contact with him will ever remember his colourful and lovable personality.

L. Rosenfeld

NEWS and VIEWS

Foreign Members of the Royal Society

The following have been elected foreign members of the Royal Society:

George Washington Corner (Baltimore), distinguished for his work on the endocrine control of gestation and especially on the function of the corpus luteum in mammals;

Werner Heisenberg (Göttingen), distinguished for his basic contributions to quantum theory;

Lise Meitner (Stockholm), distinguished for her fundamental discoveries in radioactivity and nuclear physics;

Otto Renner (Munich), distinguished for his researches in plant physiology and nuclear and cytoplasmic genetics.

Rumford Premium of the American Academy of Arts and Sciences

The Rumford Medal and Premium for 1955 of the American Academy of Arts and Sciences has been awarded to Prof. James Franck, professor of physical chemistry in the University of Chicago. The award was established in 1796 by Benjamin Thompson, Count Rumford, to be given to "the author of the most important discovery or useful improvement on heat or on light", and was first given in 1839. Prof. Franck was formerly professor of physics and director of the Physical Institute in Göttingen, Germany. In 1925 he shared the Nobel Prize in Physics with Gustav Hertz. He left Germany in 1933 and began a new scientific career in the field of photosynthesis, first at Johns Hopkins University and later at the University of Chicago. Since Rumford stipulated that the Premium be granted for discoveries made and published upon the American continent, it has been specifically awarded to Prof. Franck for his important contributions to photosynthesis, both theoretical and experimental.

Royal Aeronautical Society: Awards

Honorary fellowship of the Royal Aeronautical Society has been conferred on Dr. Igor I. Sikorsky and on Mr. H. Grinsted. The following awards have been made by the Society: *R. P. Alston Memorial Prize*, G. A. V. Tyson, for contributions on flight testing of marine aircraft; *Edward Busk Memorial Prize*, J. C. Wimpenny, for a paper on the stability and control in aircraft design; *Herbert Akroyd Stuart Memorial Prize*, E. E. Chatterton, for a paper on compound diesel engines for aircraft; *Usborne Memorial Prize*, L. F. Crabtree, for a paper on the compressible laminar boundary layer on a yawed infinite wing; *Orville Wright Prize*, D. B. Spalding and B. S. Tall, for their paper on flame stabilization in high-velocity gas streams and the effect of heat losses at low pressures; *J. E. Hodgson Prize*, jointly to Major G. P. Bulman, for the first Barnwell Memorial Lecture, and J. Smith, for the first Mitchell Memorial Lecture; *Branch Prize*, E. Chambers, for a paper on meteorological services for the *Comet*; *Royal Aeronautical Society Navigation Prize*, J. F. W. Mercer, for a paper on a quantitative study of instrument approach. Two awards will be made from the Society's *R.*38 Memorial Fund: to Lord Ventry, to assist him in the carrying out of experiments and to help in the development of the airship *Bournemouth*; and to W. N. Alcock, to assist him in his further investigations in connexion with airships.

Honorary Associates of the City of Birmingham College of Technology

At a ceremony on April 30, celebrating the diamond jubilee of the City of Birmingham College of Technology, honorary associateship of the College was conferred on the following: Dr. James C. Duff, formerly head of the Department of Chemistry of the College; Sir Leonard Lord, chairman of the British Motor Corporation; Sir Frederick Handley Page, chairman of Handley Page, Ltd.; Mr. A. B. Waring, chairman and managing director of Joseph Lucas, Ltd.; Lieut.-General Sir Ronald Weeks, chairman of Vickers, Ltd.; and Mr. T. Williamson, general secretary of the National Union of General and Municipal Workers.

Bohuslav Brauner (1855–1935)

Bohuslav Brauner, who was born in Prague one hundred years ago on May 8, 1855, was descended on his mother's side from a family eminent in chemistry and in pharmacy. Accustomed from an early age to speaking English, French, German and Russian at home, he became a remarkable linguist. He was educated at the local university and technical school and, after working with R. W. Bunsen at Heidelberg, he studied under Sir Henry Roscoe at Manchester, being particularly interested in the rare elements. In 1881 he was elected to a Berkeley fellowship at Owens College, Manchester, and began to correspond with D. I. Mendeléeff, whose periodic system of grouping the elements aroused his admiration; the two became lifelong friends. Brauner succeeded in preparing a double fluoride of tetravalent cerium and potassium, which on gentle heating gave off free fluorine—the first time this had been obtained by purely chemical means. He was appointed lecturer in chemistry at the Charles University in Prague in 1883, assistant professor in 1890 and full professor in 1897. He was a voluminous writer, and contributed the section on the rare earths for Mendeléeff's "Principles of Chemistry" and a critical discussion on atomic weights to Abegg's "Handbuch der Anorganischen Chemie". The new base, O = 16·000, long advocated by him, was generally adopted at the Paris Congress in 1900. Brauner was a man of giant frame, commanding voice and sarcastic wit; his interest in various sciences included a special one in astronomy. An honorary D.Sc. of the University of Manchester and an honorary Fellow of the Chemical Society (London), he retired in 1925 after completing forty-three years of teaching, and died of pneumonia on February 15, 1935, in his eightieth year.