

more susceptible to a later infection by Pfeiffer's bacillus. (4) In the filtered washings peculiar "bacilloid" bodies were found measuring $0.15-0.30 \mu$ in their long dimension. The nature of these bodies—at first uncertain—was ultimately believed to be micro-organismal. Hence the name *Bacillus pneumosintes*. (5) Inoculation of cultures of the so-called bacillus followed by injections of *B. influenzae* resulted in the production of consolidation of the lungs with hæmorrhagic œdema and emphysema. (6) A certain degree of immunity is stated to follow injections of *B. pneumosintes*. (7) Inoculation of the bacterium is stated to evoke certain antibodies which are of a specific character. It may be stated that "cultures" of the microbe were obtained only on the highly complicated Smith-Noguchi medium, and especially under anaerobic conditions.

Before assuming that all these statements are correct it may be stated with respect to this microbe—if it is a microbe—that bacilloid and other like bodies indistinguishable in appearance from *B. pneumosintes* may occur in tubes of Noguchi's medium which has never been inoculated at all and nevertheless is sterile. The "bodies" appear to be due to some transformation of

the colloid material of the medium itself. Such transformations may occur in tube after tube and give rise to the erroneous interpretation of successful transmission of the culture. Further, it is remarkable that the "microbe" does not kill the experimental animals, but that when they are killed afterwards they show changes admittedly indistinguishable from those seen in killed animals never inoculated. One great obstacle to the successful study of influenza would appear to be that animals are much less susceptible than man, and that as soon as the question of human inoculation is introduced, great difficulties ensue in excluding other sources of infection. Recently, Lister in South Africa, working on lines identical with those of Olitsky and Gates, has found, like them, *Bacillus pneumosintes* or similar "culture," but on inoculating such unheated cultures into human beings, 13 in number, he had only one success, a typical attack of uncomplicated influenza, after a nineteen-hours incubation period. It may be that the cause of influenza has been located in *B. pneumosintes*, but before this can be accepted by the bacteriological world in general it will be necessary to adduce many more cogent reasons than have been forthcoming so far.

W. B.

Obituary.

PROF. FRITZ COHN.

FRITZ COHN, director of the Berlin Rechen-Institut, died on December 14 after an operation. He was born at Königsberg on May 12, 1866, and studied first at the Gymnasium and afterwards at the University there; after further study at the University of Berlin he was placed on the staff of the Königsberg Observatory in 1891 and remained there till 1909.

Cohn's work included a discussion of Bessel's observations between 1813 and 1819, and a determination of the declinations and proper motions of the stars used in the International Latitude stations. He published catalogues of the stars used for the Eros campaign in 1900-1, and of 4066 other stars observed with the self-registering micrometer of the Repsold transit circle.

In 1909, Cohn was appointed to the chair of theoretical astronomy at Berlin, and director of the Rechen-Institut. He took part in the Paris Conference of 1911 which arranged for combination of work between the national almanacs, to avoid needless duplication of labour. The time thus saved was devoted to investigations on the minor planets, and the Institut took the leading part in deducing their orbits, and in arranging plans for sharing the observing work among different observatories. He showed great skill in keeping up the necessary accuracy of computation without any waste of labour. He also carried on the *Astronomisches Jahresbericht* after the deaths of Wislicenus and Berberich, and left the MS. for the 1921 volume practically complete at the time of his death.

Cohn married a daughter of C. F. W. Peters, director of Königsberg Observatory, in 1898, and leaves a son and two daughters. A fuller account of his life and work is given by J. Peters in *Astr. Nach.* 5208.

Cohn was elected an associate of the Royal Astronomical Society in June 1913.

A. C. D. C.

MR. P. C. A. STEWART.

It is with much regret that we record that Mr. P. Charteris A. Stewart, the well-known petroleum geologist and consultant to Viscount Cowdray's firm (Messrs. S. Pearson and Co.), met his death by drowning while bathing at Balandra Bay, Trinidad, B.W.I., during a recent short visit to the Islands.

For nearly twenty years Mr. Stewart has been connected with Messrs. Pearson's, and he had been closely associated with that firm in its important petroleum developments all over the world, more particularly in Mexico, Roumania, and Trinidad. Prior to this he held an appointment on the staff of the Geological Survey of Egypt.

Mr. Stewart's technical education was at the Royal School of Mines, where, in 1900 and 1901, he obtained diplomas in mining and metallurgy. Returning in 1904 he gained a further diploma in geology at the Royal College of Science in 1905. He was elected a fellow of the Geological Society of London in 1904, and was also a member of the Institution of Petroleum Technologists and the American Institute of Petroleum Geologists.

Mr. Stewart had travelled much, and by his wide experience and intimate knowledge of oilfield conditions in many countries he gradually built up a high reputation in his profession. His sound judgment in technical problems, backed by conscientious inquiry and skilful reasoning, made him an invaluable adviser to those whom he was privileged to serve. His death at the early age of forty-eight is a deplorable loss, one which will be keenly felt, not only by his colleagues, but also by his many friends, to whom he had endeared himself as a kindly, modest, and unselfish man.

H. B. M.