obtained in these various investigations appear contradictory to one another, on the whole the conclusions of the majority of these investigations agree with our observations concerning the processes taking place during the preliminary growth period. (9) There are two principal conditions which inhibit or prevent the development of mammary cancer by ovarian or anterior pituitary transplants: (a) The genetic constitution of the animals or a deficiency in the amount of available milk factor may cause an insufficient degree of sensitization and responsiveness of the mammary gland tissue to the specific hormones (Strains C57, CBA and Old Buffalo). (b) Lack of a sufficient similarity between the individuality differentials in host and donor of the transplants may prevent the survival and function of the grafts for sufficiently long periods of time (strains AKA and also New Buffalo). As pointed out previously, even long-continued close inbreeding of strains of animals does not seem to lead to a completely homozygous condition, owing probably to mutations which occur in these inbred individuals[13] and this applies also to all the closely inbred strains of mice so far tested by us. (10) It has been shown that not only ovarian hormones but also pituitary hormones may be involved in the development of mammary carcinoma in mice and presumably also in other species, in accordance with the conclusion that all those hormones or other factors which stimulate growth processes in an organ or tissue may thereby also affect the production of cancer.

THE CONTRIBUTION OF JAMES McKEEN CATTELL TO AMERICAN ANTHROPOLOGY

By Dr. CLARK WISSLER
THE AMERICAN MUSEUM OF NATURAL HISTORY

PROFESSOR JAMES MCKEEN CATTELL died on January 20, 1944. He was widely known as a psychologist and editor of scientific journals, but his contribution to the development of anthropology in the United States seems to have been forgotten. That he played an important role in the history of anthropological teaching may be suspected when we note that for the academic years 1896–1902 he was head of a department of anthropology and psychology at Columbia University. To most anthropologists of the present generation, this may appear as a surprising statement, so, as an outline of the history of anthropology at Columbia University, we submit the following chronological data:

1891. J. McKeen Cattell appointed professor of psychology at Columbia; previous position in University of Pennsylvania.
1893. Livingston Farrand appointed instructor in psychology at Columbia; began giving a course in anthropology also.
1896. Cattell listed as head of the department of anthropology and psychology; Farrand still giving anthropology courses and Franz Boas listed as lecturer.
1901. Farrand listed as professor of psychology, but continues to give courses in anthropology.
1902. Anthropology listed as a separate department, Boas as head, Farrand as a professor of anthropology. Cattell now head of department of psychology.

The interest of Cattell is clearly indicated; he wished to provide for the teaching of anthropology, encouraged Farrand to give courses, later brought Boas into the picture and at the opportune time saw to it that a separate department of anthropology was created. Boas came to New York in 1895 as assistant curator at the American Museum of Natural History under F. W. Putnam; Cattell added Boas to his staff in 1896. Cattell seems to have been acquainted with Boas at Clark University through the work of the latter on the growth of children. Cattell studied with Galton and Pearson in England, where he acquired a deep and lasting interest in anthropometry, so it is to be expected that Boas would come to his notice when he began to write on anthropometry in 1891. It is plain, however, that Cattell was committed to the promotion of anthropology before Boas came into the New York picture.

At Columbia the writer was assistant in psychology, 1899–1900; university fellow in psychology, 1900–1901; assistant and eventually lecturer in anthropology, 1903–1909. These facts are cited to indicate his personal contact with the situation beginning with 1899.

The writer first saw Cattell at a meeting of the American Association for the Advancement of Science in the summer of 1899 at Columbus, Ohio. He participated in the program of Section H, with other psychologists, demonstrating a few testing instruments. incidentally he made a direct appeal to anthropologists to make measurements on Indians and Negroes to secure comparative data. F. W. Putnam was present, speaking enthusiastically in support of the idea. It was clear that a mutual feeling existed in the minds

W. Turner, *Mo. Agr. Exp. Sta. Research Bull.*, No. 310, 1939; A. A. Lewis, C. W. Turner and E. T. Gomez, *Endocrinology*, 24: 157, 1939; J. P. Mixner and C. W. Turner, *Endocrinology*, 30: 591, 1942.

[13] L. Loeb, H. D. King and H. T. Blumenthal, *Biol. Bull.*, 84: 1, 1943.

of these two aggressive leaders that laboratory psychology and anthropology formed a logical team.

Joseph Jastrow, professor of psychology at the University of Wisconsin, was the first laboratory psychologist to become active in Section H, joining the association and presenting his first formal paper in 1886. He was elected chairman of Section H in 1891, the first psychological chairman. Cattell was the second, elected in 1897 and during the same year presented a paper outlining a plan for the "Study of Eminent Men." Cattell's address as retiring chairman of Section H was strongly in praise of anthropology and its objective character and also insistent upon its integration with psychology. Following Jastrow, psychological papers were presented in Section H with fair regularity. In 1907 the name of Section H was changed to Anthropology and Psychology and alternating chairmen became the rule: in 1919, psychology was given a section of its own.

The interest of laboratory psychologists in anthropology was stimulated by Wundt in Germany, the founder of laboratory psychology, who extended his researches into anthropology; so it is natural that his American students (Hall, Jastrow, Cattell and others) should become enthusiastic promoters of academic anthropology in the United States. Cattell studied with Galton in England, also, and was thus further conditioned to the anthropological bias. William L. Bryan, another student of Wundt, was the writer's teacher in laboratory psychology; he encouraged a course in anthropology at Indiana University by George E. Fellows, a student of Ranke, who regarded anthropology a part of history. (The writer attended this course in 1895.)

Thus it is fair to state that the teaching of anthropology in the United States was, in part at least, promoted by laboratory psychologists of the Wundt and Galton Schools. That Cattell played a conspicuous part in initiating the outstanding national academic department is clear from the foregoing historical data.

In 1896 Daniel G. Brinton of Philadelphia presented a motion in Section H for a "Committee on the Study of the White Race in America." Brinton was the first committee chairman; Cattell, an original member, succeeded Brinton in 1899. In the meantime Cattell received a grant-in-aid from the American Association for the Advancement of Science to devise and construct instruments for making mental and physical measurements as equipment for such a survey. Further, in 1895, Cattell began a series of mental and physical tests on students in Columbia and Barnard Colleges, which ultimately furnished data for the writer's Ph. D. dissertation in 1901.

OBITUARY

FRANK EUGENE LUTZ

IN the passing on November 27, 1943, of Frank E. Lutz, chairman and curator of the Department of Insects and Spiders in the American Museum of Natural History in New York City, entomology has lost one of its most important leaders and one who has influenced a host of younger men through his example, his writings and his educational activities. His versatile biological interests are apparent in his published papers. His ideals of education are to be seen in his museum exhibits, his pioneer work on nature trails, and his writings on popular aspects of insect life, including his famous "Field Book of Insects" (1917) and his more recent "A Lot of Insects" (1941). For many years he edited the *Memoirs* and *Bulletin* of the American Museum and these publications still reflect many of his policies.

Frank Lutz was born in Bloomsburg, Pennsylvania, on September 15, 1879. He graduated from Haverford in 1900 and took his master's degree in 1902 and his doctor's degree in 1907 from the University of Chicago under the direction of Dr. C. B. Davenport. His doctoral thesis was entitled "The Variation and Correlations of Certain Taxonomic Characters of *Gryllus*," and Dr. Lutz continued his interests in crickets as well as other aspects of insect biology until his death. As late as 1938 he published sound recordings of cricket calls. His early interest in variation, which included work in Karl Pearson's laboratory in London (1902), led directly to studies in genetics, and he was one of the early students of *Drosophila* genetics. He records in his latest book how he became interested in *Drosophila* while working as research investigator at the Carnegie Institution at Cold Spring Harbor and how he noted a white-eyed form and gave the strain in which it appeared to Dr. T. H. Morgan, who initiated the experiments that have made *Drosophila* a standard laboratory animal and genetics a great biological science. Dr. Lutz was brought to the American Museum for the preparation of exhibits on variation and heredity, was appointed assistant curator in 1909, becoming associate curator in 1917 and curator in 1921. Although he took part in twenty-four expeditions to Central and South America, the West Indies and various parts of the United States, during which he collected great numbers of insects that were subsequently studied by various taxonomic specialists, he rather prided himself upon the fact that he never described a new species. He became especially interested in bees and made numerous