board of the Allied Chemical and Dye Corporation, to "stimulate original research in chemistry."

DR. AMES AND THE NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS

PRESIDENT ROOSEVELT appointed George Jackson Mead, aeronautical consulting engineer, vice-president and director of the United Aircraft Corporation at West Hartford, Conn., to membership on the National Advisory Committee for Aeronautics to succeed Dr. Joseph S. Ames, who has been chairman of the committee or its executive body for twenty-four years and whose resignation because of ill health was accepted by Mr. Roosevelt "with sincere regret."

Mr. Mead was appointed for the unexpired term of five years from December 1, 1938, to which Dr. Ames was named last year. Dr. Ames advised the advisory committee in September that because of his physical condition he "could not in justice to the committee or to myself accept another term as chairman."

In his letter accepting the resignation of Dr. Ames, President Roosevelt said:

> Our republic would not be worthy of the devoted service you have rendered for over twenty-four years without compensation if it could not on this occasion pause to pay tribute where it is so justly due.
>
> When you were first appointed by President Wilson in 1915, very little was known about the science of aeronautics. To you and to your colleagues were entrusted by law the supervision and direction of the scientific study of the problems of flight. For the past twenty-four years you have served as chairman of the National Advisory Committee for Aeronautics, or chairman of its executive committee. The administration and the accomplishments of the committee under your leadership reflect your great scientific attainments, professional courage and executive ability.
>
> That the people generally have not known of your brilliant and patriotic service is because it has been overshadowed by your passion for accomplishment without publicity. But the fact remains, and I am happy to give you credit for it, that the remarkable progress for many years in the improvement of the performance, efficiency and safety of American aircraft, both military and commercial, has been due largely to your own inspiring leadership in the development of new research facilities and in the orderly prosecution of comprehensive research programs.

SCIENTIFIC NOTES AND NEWS

PROFESSOR GEORGE R. HARRISON, director of the Research Laboratory of Experimental and Applied Physics at the Massachusetts Institute of Technology, was presented on October 11 with the Rumford Medal of the American Academy of Arts and Sciences in recognition of "his notable work in spectrum photometry and spectrum analysis." Dr. Harlow Shapley, director of Harvard Observatory and president of the academy, presided; the presentation was made by Professor Norton A. Kent, of Boston University. Dr. Harrison made an address entitled "New Methods in Spectroscopy."

THE Frederic E. Ives Medal of the Optical Society of America was presented on October 14 at the Lake Placid meeting to Dr. August Herman Pfund, professor of physics at the Johns Hopkins University, in recognition of his work with infra-red rays. Dr. R. C. Gibbs, of Cornell University, president of the society, made the presentation.

THE seventieth birthday of Dr. R. S. Woodworth, professor of psychology at Columbia University, was celebrated on October 17. At an informal luncheon held at the Faculty Club his colleagues presented to him an anniversary volume, "Psychological Issues," containing a collection of twenty-five of his publications, a copy of his portrait and a complete bibliography. A reception was held at the Faculty Club in the afternoon from four to six where he was greeted by officers of the university, his colleagues and students in psychology.

AT a special ceremony in connection with alumni day, Colgate University on October 15 conferred the doctorate of science on William S. Murray, consulting and analytical chemist of Utica, N. Y., and a trustee of the university. President George Barton Cutten conferred the degree after Dean Carl A. Kallgren had read the citation. Mr. Murray is chairman of the New York Republican State Committee.

DR. FRANK AYDELOTTE, president of Swarthmore College, has been elected director of the Institute for Advanced Study at Princeton, New Jersey. He succeeds Dr. Abraham Flexner, who has been director of the institute since its establishment in 1930.

DR. FRANKLYN B. SNYDER, formerly vice-president and dean of the faculties, will be installed as the eleventh president of Northwestern University on November 15. He succeeds Dr. Walter Dill Scott, formerly professor of psychology, who resigned recently after serving as president since 1920.

AT the Armour Institute of Technology, Chicago, Linton E. Grinter, director of the civil engineering curriculum and dean of the Graduate Division, has been appointed vice-president of the institute. He will continue as dean of the Graduate Division.

DR. HERBERT C. SADLER, Alexander Ziwet professor of engineering at the University of Michigan, has retired because of ill health. Resolutions were adopted at a meeting of the Regents on October 7 expressing their appreciation of his services and conferring on

him the titles dean emeritus of the College of Engineering and professor emeritus of naval architecture and marine engineering.

DR. ROYAL N. CHAPMAN, director of the Pineapple Producers Association of the Agricultural Experiment Station and dean of the Graduate School of Tropical Agriculture of the University of Hawaii, has returned to the University of Minnesota as dean of the Graduate School. He takes the place of Dr. Guy Stanton Ford, now president of the university. Dr. Chapman received the degree of bachelor of arts and master of arts from the university, and was from 1916 until he went to Hawaii in 1930 associated with it as instructor, assistant and associate professor and professor of animal biology and economic entomology.

DR. CLARENCE E. BENNETT has been appointed head of the department of physics of the University of Maine; Dr. J. Robert Smyth has been made head of the newly established department of poultry husbandry in the College of Agriculture.

DR. DAVID A. BOYD, JR., instructor in psychiatry and assistant physician in the Neuropsychiatric Institute of the University of Michigan, has been appointed head of the department of mental and nervous diseases of the School of Medicine and Medical Center of Indiana University. Dr. Larue Carter has been named chairman of the division of neurology.

DR. FRITZ LONDON, of the Institute Henri Poincaré, one of the divisions of the University of Paris, has been appointed professor of chemistry at Duke University.

DR. RICHARD W. LINTON, who was engaged in research on cholera in India from 1931 to 1938 under the auspices of the Indian Research Fund Association, has been appointed assistant professor of pathology at Cornell University Medical College, New York City. Dr. Linton is carrying on research on tuberculosis.

H. W. STRALEY, III, formerly of the University of North Carolina, has been appointed associate professor and executive officer of the department of geology of Baylor University at Waco, Texas.

DR. CLINTON V. MACCOY, assistant biologist in the New Hampshire Department of Fish and Game, has been appointed assistant professor of zoology at the Massachusetts State College. He succeeds Professor Herbert E. Warfel, who has joined the faculty of the University of New Hampshire.

DR. WITOLD HUREWICZ, of the University of Vienna, is this year assistant professor of mathematics at the University of North Carolina. Other appointments include: Dr. Jonathan Williams, of Northwestern University, assistant professor of chemistry, and Dr. Harry Davis Bruner, of the University of Louisville, assistant professor of physiology. As already announced, Dr. Robert E. Coker, head of the department of zoology, has been named a Kenan professor, succeeding the late Dr. H. V. Wilson. Dr. I. H. Manning, formerly dean of the Medical School, has been named Kenan professor emeritus of physiology.

DR. LOUIS G. KRESS, of Buffalo, has been appointed the first director of the newly established Division on Cancer Control of the New York State Health Department. He will open an office in Albany to direct the statistical, clinical and educational work. Dr. Kress was director of the old departmental division of cancer control. Dr. Morton L. Levin, of New York City, has been made assistant director.

DR. ELLIOTT C. CUTLER, Moseley professor of surgery at the Harvard Medical School and surgeon-in-chief at the Peter Bent Brigham Hospital, Boston, has been elected president of the Harvard Alumni Association.

DR. JAMES H. HIBBEN, of the Geophysical Laboratory of the Carnegie Institution of Washington, has become chief of the Chemical Division of the U. S. Tariff Commission.

DR. ROBERT T. CONNER, instructor in chemistry at Columbia University, has become associated with the Biochemical Division of the General Foods Company at Hoboken, N. J.

PROFESSOR HUGH O'NEILL, of the Catholic University of America, has returned to Washington after an expedition to Labrador, to the islands north of Canada and to Hudson's Bay. Geological specimens were collected, as well as 600 cross sections of wood showing growth rates; motion pictures were taken.

DR. WILFRED H. OSGOOD, chief curator of zoology at Field Museum of Natural History, sailed from New York on October 6 for Peru, where he will assume leadership of the Magellanic expedition, sponsored by Stanley Field, president of the museum. The expedition, which includes in its personnel Colin C. Sanborn, curator of mammals, and Karl P. Schmidt, curator of amphibians and reptiles, will proceed from Peru via central Chile to the Straits of Magellan for collecting and research which will continue throughout the summer season of southern South America.

DR. THOMAS H. JOHNSON, assistant director of the Bartol Research Foundation of the Franklin Institute, lectured on October 18 at a stated meeting of the institute. His subject was "Cosmic Rays, What has been Learned About Them."

DR. WERNER E. BACHMANN, associate professor of chemistry at the University of Michigan, is lecturing during October under the auspices of the American Chemical Society. He planned to speak in sixteen

cities in Wisconsin, Minnesota, South Dakota, Montana, Washington, Oregon, California, Utah, Colorado, Nebraska and Iowa. The titles of his lectures are: "The Synthesis of Sex Hormones" and "Cancer-Producing Compounds."

DR. SOMA WEISS, Hersey professor of the theory and practice of physic at the Harvard Medical School, will give an address at a joint meeting of the Institute of Medicine of Chicago and the Chicago Society of Internal Medicine at the Palmer House on the evening of October 27. His subject will be "Syncope, Collapse and Shock-Mechanism and Treatment."

DR. DAVID SARNOFF, president of Radio Corporation of America and chairman of the board of the National Broadcasting Company, gave an address at Albany on October 13 entitled "Radio and Education" on the occasion of the seventy-fifth convocation of the University of the State of New York.

AN astronomical conference, on "The Internal Constitution of the Stars," sponsored by the New York Academy of Sciences, is being held on October 20 and 21 at the American Museum of Natural History, with Dr. Harlow Shapley, director of the Harvard Observatory, as chairman. At the morning session on October 20 there is a discussion of "The Distribution of Density in Eclipsing Binaries," at which the speakers announced are Professor Henry Norris Russell, Princeton University; Dr. Theodore E. Sterne, Harvard University, and Dr. Zdenek Kopal, Czecho-Slovakia. In the afternoon the subject is "Sources of Stellar Energy" and the speakers announced are: Dr. Hans A. Bethe, Cornell University; Dr. S. Chandrasekhar, University of Chicago, and Dr. G. Gamow, George Washington University. On Saturday, October 21, the subject announced is "Opacity Problems," and the speakers, Dr. Donald H. Menzel, Harvard University; Professor Philip Morse, Massachusetts Institute of Technology, and Dr. Jaakko Tuominen, Finland.

DISCUSSION

VOCAL MIMICRY OF THE STARLING AND THE MOCKINGBIRD

THE introduced starling and the mockingbird are unsurpassed as versatile vocal mimics among our American birds. While the mimicry of the starling is delivered in a more quiet and less spectacular manner than that of the mockingbird, it is in many respects a more skilled and persistent mimic, and its mimicry may even be more varied in its range and in its methods.

I have spent much time with starlings close at hand by means of observation boxes and nesting boxes placed near my bedroom window. The faithfulness with which the starling can imitate complex sounds is remarkable; in the proper mood its repertoire is almost inexhaustible.

There are many interesting characteristics which enter into its mimicry. First almost all sounds seem to have registered themselves in its brain at one time or another, as the fuss-and-ado made by a hen after laying an egg, the weird calls of the disturbed guinea hen, the calling of the quail, the song of the wood peewee, the mew of kittens, and many others.

Some of the more remarkable exhibitions have extended to very special notes such as the immature chirp of young robins, as well as the clearer less throaty notes of the adults. One of the most interesting renderings was the portion of a whistled song by some boy, the whistled notes being delivered with surprising clearness.

I have never yet heard the clear flute-like notes of the wood thrush attempted, although these birds are everywhere common singers in the immediate vicinity. However, this affords no criterion that some day they will not come from a starling's throat.

Every out-of-door nature student is probably familiar with the drumming notes of the woodpeckers, produced by rapid taps of the beak upon a dead limb. I was convinced that this was one note, so specialized and mechanical in its production, that the starlings would never attempt nor be able to reproduce it. I was wrong, but it took a long period of time to establish this, since for many years the birds had dwelt by my bedroom window and elsewhere in boxes in my trees, with no hint of such accomplishments. In the spring of 1938 a starling began delivering the long monotonal *clip-clip-clip* of the flicker, in its usual low voice, but perfect in its rendering, and from time to time it used its beak to drum out a low, but very clearly reproduced and accurate tattoo of this bird on the top of its box. This note was delivered from time to time for weeks, but only occasionally.

To my mind this is one of the most remarkable instances of mimicry, since it has demanded an entirely new method of mechanical sound production on the part of the bird. I am still convinced, however, that the starling, marvelous mimic that it has proven itself to be, will never reproduce the queer booming sounds of the nighthawk, which follows the termination of the high dive of this bird toward the earth with closed wings. This accomplishment should be beyond its scope and power, it would seem.

A second feature in the starling's mimicry is an out-of-season production of the notes of our summer birds. For instance, the distinctive notes of the wood peewee