

soon be added. Other members of the staff will be appointed as the development of the exhibits proceeds and the need for other services becomes evident.

Lectures before the Franklin Institute are announced as follows:

October 15—Dr. and Mrs. Paul H. Dike, Philadelphia, Pa. "Theremin: Theory and Practice." Dr. Dike will develop the theory of this instrument and Mrs. Dike, who is a licensed performer, will demonstrate the use of it and will give a recital upon it.

October 23—Clifford B. White, M.E., American-LaFrance and Foamite Industries, Inc., Elmira, N. Y. "Modern Fire Extinguishing Methods."

October 30—Douglas Stanley, M.S., New York City. "The Science of Voice." W. M. Jennings, Esq., Philadelphia, Pa. Display of "A New Photography."

November 6—H. H. Lester, Ph.D., research physicist, Watertown Arsenal. "The Use of X-rays in Industry."

November 13—Arthur E. Morgan, D.Sc., president of Antioch College. "The Nation's Water."

November 19—R. T. Haslam, B.S. in Eng., Standard Oil Development Company, New York City. "The Hydrogenation Process in Petroleum Refining."

December 4—J. B. Johnson, Ph.D., research physicist, Bell Telephone Laboratories, Inc., New York City. "The Cathode Ray Oscillograph."

December 10—Sir Henry W. Thornton, K.B.E., chairman of the boards of directors and president, Canadian National Railways. "Men and Industry."

December 17—Saul Dushman, Ph.D., assistant director, Research Laboratory, General Electric Company, Schenectady, New York. "Methods for the Production of High Vacua."

SCIENTIFIC NOTES AND NEWS

THE Capper Medal of the National Country Life Association of \$5,000 was presented to Dr. Stephen Moulton Babcock on the evening of October 10. The money and a plaque were given to him by the donor, Senator Arthur Capper, Kansas publisher, and the story of his work was recounted by Mr. Frank O. Lowden, former governor of Illinois and president of the association. Dr. Babcock, who celebrated his eighty-seventh birthday on October 22, became professor of agricultural chemistry at the University of Wisconsin in 1888 and retired as professor emeritus in 1913.

THE honorary doctorate of laws was conferred at the opening session of the annual convocation of the University of the State of New York on Dr. William H. Welch, of the Johns Hopkins University. In conferring the degree Dr. Frank Pierrepont Graves, president of the university, recalled that Dr. Welch is a graduate of the medical school of Columbia University and carried on his first activities as instructor at Bellevue College of New York University. Continuing he said: "The years that bridge the interval between that first professorship and your present world-wide eminence as teacher, investigator, administrator and leader among scientists are filled with accomplishments and crowded with well-earned honors. No man has done more to make available to America the blessings of modern scientific medicine and public health work."

THE degree of doctor of laws was conferred on Dr. William J. Mayo, of Rochester, Minnesota, at the recent dedication of the medical school building of Temple University.

DR. E. P. FELT, for thirty years state entomologist

at the New York State Museum at Albany previous to his retirement from the state service, has been made collaborator of the museum, in recognition of his scientific work and his cooperation with the museum. The two others previously so honored are Dr. A. P. Brigham, of Colgate University, and Professor George H. Hudson, formerly of the State Normal School, Plattsburgh, N. Y.

DR. ERNEST S. LEWIS, emeritus professor of obstetrics and gynecology at the College of Medicine of Tulane University, was on September 24 the guest of honor at a luncheon given by medical colleagues celebrating his ninetieth birthday. Dr. Lewis has been connected with Tulane University for sixty years. The speaker was Dr. Rudolph Matas.

FOUR foreign surgeons were awarded honorary fellowships in the American College of Surgeons at the convocation on October 17, which concluded the twentieth clinical congress of the college. These were Professor Henry Wade, of Edinburgh, surgeon and urologist; Professor Otfried Foerster, Breslau, neurologist; William Ernest Miles, London, and Professor Dr. Emil von Grósz, Budapest, ophthalmologist.

DR. ALLEN B. KANAVAL, professor of surgery at Northwestern University, was elected president of the American College of Surgeons at the twentieth annual meeting held in Philadelphia. Dr. Rose Millar, Ottawa, and Dr. Eldridge J. Eliason, Philadelphia, were elected vice-presidents.

PROFESSOR WILLIAM R. RANSOM, of Tufts College, was elected president of the Bond Astronomical Club at the first meeting of the season at the Harvard Observatory.

PROFESSOR EGAS MONIZ on October 15 was elected

president of the International Congress of Hydrology, Climatology and Geology at Lisbon.

DR. STORRS B. BARRETT, associate professor of astrophysics, who has served as secretary and librarian of the Yerkes Observatory for the past thirty years, retired on September first under the regulations of the University of Chicago. He will continue to reside at his home adjacent to the grounds of the observatory. He was succeeded on the same date by Dr. Clifford C. Crump, formerly professor of astronomy at Ohio Wesleyan and director of the Perkins Observatory and more recently professor and chairman of the department of astronomy at the University of Minnesota.

DR. JOHN RATHBONE OLIVER, for fifteen years chief medical officer of the supreme bench of Baltimore, has resigned to accept an assistant professorship of the history of medicine at the Johns Hopkins University School of Medicine.

DR. ROGER D. BAKER, who has been during the past year assistant resident pathologist at the Johns Hopkins Hospital, has been appointed instructor in anatomy at Duke University.

AMONG recent additions to the Colgate University faculty are Mr. John A. Allen, from the University of Minnesota, who has been appointed first instructor in astronomy and who will have charge of survey work in that subject; Mr. H. M. Lake, of the University of Texas, instructor in psychology, and Mr. James Stauffer, instructor in biology.

DR. HANS F. K. GÜNTHER, known for his books on races in Europe, has been promoted to be professor of eugenics at the University of Jena.

DR. CHARLES J. STUCKY, formerly research chemist at the research laboratories of Scott and Bowne, Bloomfield, New Jersey, is now research assistant in chemistry at the New York State Psychiatric Institute and Hospital, New York City.

DR. HAROLD LEVINE, formerly chief chemist of the research laboratories of Scott and Bowne, is now research associate at the South Carolina Food Research Laboratory at Charleston, S. C., where he is in charge of nutritional investigations on animals.

DR. ERWIN W. TSCHUDI has entered the Point Breeze Works of the Western Electric Company at Baltimore as physicist-engineer.

DR. F. E. CHIDESTER, of the department of zoology, of West Virginia University, has received a grant of \$500 from the National Research Council to continue his work on nutrition. This is the second grant that he has received from the council for this purpose.

ON the recommendation of its advisory council, the British Department of Scientific and Industrial Research has decided to make a senior research award for a period of three years, and of the value of £300-£350, to Mr. E. A. Stewardson, of the department of physics in the University of Liverpool.

DR. THEOBALD SMITH, of the Rockefeller Institute for Medical Research, Princeton, New Jersey, delivered the William Henry Welch Lectures under the auspices of the trustees and medical staff of the Mount Sinai Hospital, New York City, on October 17 and 18. The subjects of the lectures were: "The General Problem of Respiratory Diseases as Illumined by Comparative Data" and "A Comparative Study of Spontaneous and Induced Streptococcus Disease in the Same Species."

DR. HARLAN T. STETSON, director of the Perkins Observatory, will lecture on "Sun Spots and Radio Reception" at the meeting of the Pittsfield section of the American Institute of Electrical Engineers, on November 4.

THE Medical History Club of the College of Medicine of the University of Illinois opened its fourth season on October 15 with a lecture by Dr. W. F. Petersen on "Count Struensee." These public lectures are held in the Library of the College of Medicine on the first and third Wednesdays of each month at 1:00 P. M.

DR. GRAFTON ELLIOT SMITH, professor of anatomy in the University of London, will give two lectures at the University of California on November 18 and 19 on "Peking Men" and "The Evolution of the Human Brain."

ANNOUNCEMENT has already been made of the names of those who have accepted appointment to the George Fisher Baker Non-Resident Lectureship in Chemistry at Cornell University for the next two years. They are: First term, 1930-31, Professor G. Hevesy, University of Freiburg, Germany; Second term, 1930-31, Dr. N. V. Sidgwick, Lincoln College, Oxford, England. First term, 1931-32, Professor W. L. Bragg, University of Manchester, England; Second term, 1931-32, Professor Alfred Stock, Technische Hochschule, Karlsruhe, Germany. To this list may now be added: First term, 1932-33, Professor Cecil H. Desch, Sheffield, England; Second term, 1932-33, Professor Otto Hahn, Kaiser Wilhelm Institut für Chemie, Berlin-Dahlem, Germany; First term, 1933-34, Professor V. M. Goldschmidt, Göttingen, Germany; Second term, 1933-34, Professor Robert Robinson, Oxford, England.

THE American Astronomical Society has formed a

committee of twenty to proceed with the necessary organization for the meeting of the International Astronomical Union which is to be held in this country in 1932. An executive committee consisting of E. W. Brown, W. W. Campbell, R. S. Dugan, Frank Schlesinger, Harlow Shapley, Joel Stebbins and H. N. Russell has been selected, and several subcommittees appointed. The meeting will be held in Cambridge, Massachusetts, beginning as soon as practicable after the total eclipse of the sun on August 31.

THE Botanical Society of New Orleans was organized on October 9 with the following members as a nucleus: Professor William T. Penfound, Mrs. William T. Penfound, Mr. M. E. O'Neill, of the College of Arts and Sciences of Tulane University; Dr. Miriam L. Bomhard, Miss Anna Haas, of Newcomb College of Tulane University; Mr. E. L. Demmon, Dr. L. J. Pessin, Mr. Philip C. Wakely, Mr. W. G. Wahlenberg, Mr. P. V. Siggers, Mr. R. M. Lindgren, Mr. G. H. Lentz, Mr. J. D. Sinclair, Mr. Robert Winters, Mr. Henry Bull, Mr. H. G. Meginnis, of the Southern Forest Experiment Station; Mr. George Thomas, head of the New Orleans Parking Commission, and Mr. James McArthur, director of nature study in the Orleans Parish Public Schools. The organization proposes to interest itself chiefly in the taxonomy and ecology of the Gulf States, discussing particularly certain general phases of ecology from the standpoint of their local application. Professor Penfound is president and Dr. Bomhard is secretary-treasurer of the society.

Industrial and Engineering Chemistry writes: "An organization of Yale chemists and chemical engineers, to be known as the Yale Chemical Association, was formed on September 27, at New Haven. Some sixty men and women met at 'Bethwood,' the beautiful country home of Professor Treat B. Johnson, for a picnic luncheon and reunion. The guest of honor

was Professor Emeritus W. G. Mixter, now in his eighty-fourth year, who is known and loved by several generations of Yale men. After the luncheon a brief meeting was held, at which Dean W. T. Read, of Rutgers, presided. Informal talks were made by Professor Johnson, Dean C. H. Warren, of the Sheffield Scientific School; A. J. Hill, chairman of the department of chemistry, and C. O. Johns. A nominating committee composed of H. W. Foote, C. R. Downs and E. M. Shelton presented a report which resulted in the election of the following officers: *President*, C. O. Johns; *vice-president*, E. B. Hurlburt; *secretary-treasurer*, J. J. Donleavy.

ACCORDING to the *Journal* of the American Medical Association graduate courses for surgeons and radiologists, held four times a year at the Johns Hopkins Hospital, were announced at the recent three-day graduate teaching course on "The Diagnosis and Treatment of Bone Tumors," held under the auspices of the Garvan Research Laboratories and the Copley Surgical Pathological Laboratory of the Johns Hopkins University, under the direction of Dr. Joseph Colt Bloodgood. The attendance comprised 363 physicians from 42 states. The plan is to supplement the new courses by correspondence and a system of diagnosis in which roentgen plates are sent in by non-resident radiologists. Another development announced in the war on cancer is the creation of a corporation to advance the science of radiology as it bears on the diagnosis and treatment of cancer. This corporation—the Radiological Research Institute—will finance research workers and fellowships in universities and is made possible by gifts from the Chemical Foundation and its president, Francis P. Garvan. The graduate course given at Johns Hopkins will be repeated before the meeting of the Radiological Society of North America in Los Angeles, December 1-5; the admission is free, but attendance is limited to 800.

DISCUSSION

THE FORMATION OF STRIAE IN A KUNDT'S TUBE

SOME experimental work has been carried on by the author from time to time on the formation of striae in a Kundt's tube. Since the summer of 1924 observations seemed to show a rotation of the dust particles on each side of the striae, and in July, 1929, the author succeeded in showing that such rotation does take place.

A glass tube about 150 cm long and about 2 cm inside diameter had some burned cork scrapings scattered along its inside. A sheet tin piston con-

nected to one prong of an electrically driven tuning-fork was used to excite the air vibrations in the tube. The piston was inserted a short distance into the end of the tube and the other end of the tube was closed with a tight-fitting cork. When the fork was made to vibrate complete disks of cork dust were produced across the tube at the antinodes, and close observation showed that at each disk two distinct orbits of rotating particles were present, one on each side of a single striation, one clockwise, and on the opposite side a counterclockwise rotation. The rotations take place so that the particles leave the top of the stria-