

TECHNICAL CONFERENCES

<i>Subject</i>	<i>Chairman</i>
Problems of the Student and Cadet	
Engineer	M. G. Malti
D. C. Test Code	R. W. Owens
Transformers	J. E. Clem
Research on Insulating Oils	K. S. Wyatt
Noise	P. L. Alger
Mercury Arc Rectifiers	O. K. Marti
Dielectric Theories	H. H. Race
Circuit Breaker Standards	R. T. Henry
Reactance of Synchronous Machines	C. M. Laffoon
Electrical Engineering Curricula and Educational Methods	V. Karapetoff
Distribution Transformer Protection	K. B. McEachron
Tensor Analysis	E. E. Dreese
Conductor Vibration	D. M. Simmons

TECHNICAL SESSIONS

Instruments in Measurements	W. B. Konwenhaven
Power Generation	H. W. Leitch
Electrical Machinery	V. M. Montsinger
Protective Devices	H. P. Sleeper
Education	L. A. Doggett
Application of Electricity to Iron and Steel Production	R. W. Graham
Electrochemistry and Electrometallurgy	N. R. Stansel
Power Transmission	D. M. Simmons

HONORARY DEGREES CONFERRED BY HARVARD UNIVERSITY

TWELVE honorary degrees were conferred by Harvard University at its commencement on June 20. These included the doctorate of laws on Henry Agard Wallace, Secretary of Agriculture; on Dr. John Campbell Merriam, president of the Carnegie Institution of Washington, and on Dr. George Sarton, lecturer on the history of science at Harvard University. The doctorate of science was conferred on Dr. Albert Sauveur, McKay professor of metallurgy; on Dr. Waldemar Lindgren, emeritus professor of economic geology at the Massachusetts Institute of Technology; on Dr.

Charles Schuchert, emeritus professor of history and geology, Sheffield Scientific School, and curator of geological collections, Peabody Museum, Yale University, and on Dr. Albert Einstein, of the Institute for Advanced Study at Princeton, N. J. The degree of master of arts was conferred on Dr. Walter Prentice Bowers, physician.

The citations made by President Conant in conferring the degrees are as follows:

DOCTOR OF LAWS

HENRY AGARD WALLACE, doctor of laws—A public servant of deep faith and high integrity, who finds courage to attempt an uncharted journey in our modern wilderness.

JOHN CAMPBELL MERRIAM, doctor of laws—A distinguished scientist whose wise administration of the Carnegie Institution has advanced knowledge on many fronts.

GEORGE SARTON, doctor of laws—Historian of science and of learning, a scholar whose relentless toil and inspired vision are creating a new academic discipline.

DOCTOR OF SCIENCE

ALBERT SAUVEUR, doctor of science—Long famous as a founder of the science of metallography, a Harvard professor of whose achievements we shall be forever proud.

WALDEMAR LINDGREN, doctor of science—A geologist to whom all men turn for knowledge of the metallic secrets hidden in the rock.

CHARLES SCHUCHERT, doctor of science—Eminent paleontologist of Yale, who has mapped the ancient seas and fathomed the geologic past.

ALBERT EINSTEIN, doctor of science—Acclaimed by the world as a great revolutionist of theoretical physics, his bold speculations, now become basic doctrine, will be remembered when mankind's present troubles are long forgotten.

MASTER OF ARTS

WALTER PRENTICE BOWERS, master of arts—A physician devoted to his calling, for more than forty years a general practitioner in Worcester County, he has brought skill and wisdom to countless homes.

SCIENTIFIC NOTES AND NEWS

THE American Association for the Advancement of Science and the associated scientific societies are meeting this week in Minneapolis. A full report of the meeting together with some of the more important addresses and papers will be printed in early issues of SCIENCE.

DR. IRVING LANGMUIR, associate director of the Research Laboratory of the General Electric Company, Schenectady, N. Y., has been elected a foreign member of the Royal Society, London.

DR. THOMAS HUNT MORGAN, director of the Wm. G. Kerekhoff Laboratories of the California Institute

of Technology at Pasadena, has been elected a corresponding member of the Prussian Academy of Sciences.

DR. E. D. MERRILL, for the past six years director of the New York Botanical Garden, has accepted appointment as professor of botany and administrator of botanical collections at Harvard University. His work will involve the administration of the several independent botanical units of the university, including the Arnold Arboretum, the Gray Herbarium, the Farlow Herbarium and Library, the Botanical Museum, the Botanic Garden, the Bussey Institution and the Harvard Forest.

DR. WILLIAM OTIS HOTCHKISS, since 1925 president of the Michigan College of Mining and Technology, previously for six years state geologist of Michigan, has been elected president of Rensselaer Polytechnic Institute. He succeeds the late Palmer C. Ricketts, who had been president since 1901.

DR. HENRY NORRIS RUSSELL, professor of astronomy and director of the observatory of Princeton University, delivered the George Darwin Lecture at a meeting of the Royal Astronomical Society on June 14, taking as his subject "The Analysis of Spectra and its Applications."

DR. RALPH HOWARD FOWLER, Plummer professor of mathematical physics at Trinity College, Cambridge, England, has been appointed visiting lecturer in mathematics at Princeton University for the second term of next year.

THE Susan Colver Rosenberger Medal, given each year to an alumnus of Brown University for distinguished service to humanity, has been awarded to Dr. Charles V. Chapin, for forty-two years superintendent of the department of health of Providence, R. I.

THE Leeuwenhoek Gold Medal of the Royal Academy of Sciences, Amsterdam, has been awarded to Professor S. N. Winogradsky, director of the Division of Agricultural Microbiology of the Institut Pasteur, Brie-Comte-Robert, France, for his contributions to the development of soil microbiology. The medal is awarded every ten years in commemoration of the discovery of microorganisms by Anton van Leeuwenhoek.

AT the University of Wisconsin the degree of doctor of laws was conferred at commencement on Dr. James Bryant Conant, president of Harvard University, and the degree of doctor of science on Professor Gilbert Ames Bliss, head of the department of mathematics of the University of Chicago.

DR. ISAAH BOWMAN, president-elect of the Johns Hopkins University, received the degree of doctor of laws at the commencement of Dartmouth College.

THE honorary degree of doctor of science was conferred on James T. Jardine, chief of the Office of Experiment Stations, U. S. Department of Agriculture, by the Kansas State College of Agriculture and Applied Science, at its commencement exercises on May 27.

THE University of Colorado at commencement conferred the degree of doctor of science on Dr. Florence Rena Sabin, member of the Rockefeller Institute for Medical Research; the degree of master of science was conferred on Darwin Andrews, horticulturist and botanist of Boulder.

DR. HAROLD CLAYTON UREY, professor of chemistry at Columbia University, received the degree of doctor of science at the commencement exercises of Princeton University. In presenting the degree, Professor L. P. Eisenhart, dean of the graduate school, spoke as follows: "Harold Clayton Urey, professor of chemistry in Columbia University, awarded the Nobel Prize in chemistry for his discovery that ordinary hydrogen gas is not simple, but contains a second isotope of mass two; subsequently, in collaboration with the late Dr. Edward Washburn, he located abundant sources of the new hydrogen in electrolytic cells and devised a method to produce pure heavy water in quantity; a bold investigator with a mastery of advanced experimental technique and the theoretical aspects of the new chemistry. Happily timed from the standpoint of science, his discoveries have enriched chemistry and physics, and revealed a rich and inexhaustible domain which others are developing in Princeton and elsewhere."

THE doctorate of science was conferred at the commencement of Yale University on Dr. Carl Emil Seashore, for thirty years head of the department of psychology at the State University of Iowa. In conferring the degree President Angell said: "Eminent scientist, teacher, administrator: Your long and successful career is a monument to the power of tireless industry when wedded to high intelligence, shrewd ingenuity and sound judgment. From small and feeble beginnings, you have built steadily and without interruption a great scientific edifice which has served humanity well and brought you just renown. Your Alma Mater, in recognition of your signal achievement, confers upon you the degree of doctor of science, admitting you to all its rights and privileges."

DR. A. E. MURNEEK, of the University of Missouri, has been elected *president*; Dr. D. R. Hoagland, University of California, *vice-president*, and Dr. W. F. Loehwing, University of Iowa, *secretary-treasurer*, of the American Society of Plant Physiologists for the year 1935-36.

DR. GEORGE W. GRIER, of Pittsburgh, was elected president of the American Radium Society on June 11 at the Atlantic City meeting.

THE Victorian Branch of the council of the British Medical Association at its meeting on June 5 appointed Lieutenant-Colonel Sir James W. Barrett president-elect for the year 1935-36, to take the place of Sir Richard Stawell, who died on April 18 and who was to have presided over the annual meeting in Melbourne next September. Sir James Barrett is vice-chancellor of Melbourne University and consulting surgeon to the Victoria Eye and Ear Hospital.

DR. OTIS W. CALDWELL, since 1917 professor of education at Teachers College, Columbia University, having reached the age for retirement, has been made professor emeritus. Dr. Caldwell, before going to New York, was professor of botany at the University of Chicago. He was director of Lincoln School, Teachers College, for ten years and later director of the Institute of School Experimentation. His work as general secretary of the American Association for the Advancement of Science and other scientific work will be done from an office in the Boyce Thompson Institute for Plant Research, at Yonkers, N. Y.

DR. JOHN LEIGHTON BRAY, professor of metallurgy at Purdue University, has been appointed head of the School of Chemical Engineering to succeed Professor H. C. Pfeffer, who died last summer.

NEIL P. BAILEY, professor of mechanical engineering at the Iowa State College, has been appointed head of the department of mechanical engineering at Rutgers University. He succeeds Dr. Robert C. H. Heck, who becomes research professor of mechanical engineering.

DR. HUGH J. MORGAN, professor of clinical medicine, has been elected professor of medicine in the Vanderbilt University School of Medicine, to succeed Dr. C. Sidney Burwell, who was recently elected dean and professor of research medicine at the Harvard University Medical School.

At Princeton University, Dr. Henry DeWolf Smyth, associate professor, has been made chairman of the department of physics to succeed Professor Edwin P. Adams, who has resigned. Dr. William Taylor Thom, Jr., has been promoted to a professorship of geology and Assistant Professor Marcus S. Farr has become associate professor.

PROFESSOR I. M. HEILBRON has been appointed Sir Samuel Hall professor of chemistry and director of the Chemical Laboratories of the University of Manchester in succession to Professor Arthur Lapworth, who has retired. Dr. Colin Campbell, senior lecturer in chemistry, will be assistant director of the laboratories.

DR. ARTHUR J. BALLANTYNE has been appointed to the new chair of ophthalmology, established under the terms of the will of Dr. Gavin Tennant, at the University of Glasgow.

DR. ANDREW TOPPING, of the Public Health Department of the London County Council, has been appointed lecturer in hygiene and public health at Charing Cross Hospital Medical School in succession to the late Dr. C. W. Hutt.

DR. GEORGE FREDERICK HERBERT SMITH, since 1921

secretary of the British Museum (Natural History), has been appointed keeper of mineralogy, to succeed Dr. L. J. Spencer, who will retire on July 7.

DR. HOWARD IRVING COLE, formerly chief chemist of the Philippine Health Service, has been appointed by the League of Nations to conduct research work at the International Leprosy Center recently established at Rio de Janeiro. The new center was founded by the Brazilian Government under the auspices of the League of Nations with the aid of grants from the league, the Brazilian Government and M. Guilherme Guinle, a philanthropist of Rio de Janeiro. The objects of the center are research, instruction and the development of a world-wide cooperation in the campaign against leprosy.

DR. R. RUGGLES GATES, professor of botany at King's College, University of London, plans to spend August and September in Canada and the United States.

DR. CHARLES N. FREY, director of the Fleischmann laboratories, addressed the American Association of Cereal Chemists at Denver on June 7 on "Yeast." The lecture was followed by a moving picture illustrating the manufacture and some of the uses of yeast.

A NEW library and a new chemistry building were dedicated at the University of Arkansas on June 10. The speakers at the library dedication were Senator Joe T. Robinson, Charles T. Coleman, of Little Rock, and Edward J. White, of St. Louis. Dr. Edward Bartow, president-elect of the American Chemical Society, made the chief address, entitled "The House of Chemistry," at the dedication of the chemistry building. Brief addresses were made by alumni and by H. E. Wiedemann, grand master alchemist of Alpha Chi Sigma, chemical fraternity.

APPLICATIONS must be on file not later than July 15 with the U. S. Civil Service Commission at Washington, D. C., for the positions in the Forest Service, Department of Agriculture, of senior technical editor, \$4,600 a year; technical editor, \$3,800 a year, and associate technical editor, \$3,200 a year.

MISS HELEN GREENWOOD, of Worcester, Mass., has presented to the department of botany of Wellesley College her collection of mosses and hepatics numbering one thousand specimens. The collection includes Miss Greenwood's personal collections in Massachusetts, Maine, Nova Scotia, the Canadian Rockies, the Western Coast, and England; and gift and exchange specimens from England, Scotland, France, Sweden and Canada.

THE Belgian Scientific Research Fund presented

on June 12 to the Science Museum, South Kensington, the nacelle of the balloon used by Professors Piccard and Max Cosyns in their second ascent into the stratosphere. Professors Piccard and Cosyns were present and M. Jean Wilhelms, the director of the fund, made the presentation.

TUFTS COLLEGE has completed the construction of a new biological wing of the Barnum Museum. The wing will contain laboratories for histology, embryology, physiology, bacteriology and general biology, as well as offices for the staff. In the entrance hallway has been placed a tablet in memory of Professor Fred Dayton Lambert, who for more than a generation taught biology at Tufts College. The funds for the new wing were left by Phineas T. Barnum.

THE *Philadelphia Inquirer* states that the American Philosophical Society may not accept the bequest of the late William Wood. The residuary estate which the society was to receive was estimated at \$2,000,000 and was to have been used for the erection of a new building. A number of rulings which will affect the amount the society would receive are now under consideration by Judge Charles Klein, of Orphans' Court. Mr. Wood, who was eighty-four and a bachelor, left an estate originally estimated at \$5,000,000. The present accounting shows a balance of \$1,270,571, not including real estate.

A PROGRAM for the expenditure of \$156,298,000 of work-relief funds for forestation in the semi-arid areas of the tree shelter belt zone of the Midwest, as well as in existing foreign preserves, has been advanced by the Forest Service. On May 31 request for the money was made to the Division of Applications in the works program. The forestation program, which would give work in forty-seven states as well as in Alaska, Puerto Rico and the District of Columbia, would be expected to give impetus to the shelter belt project of Dr. Rexford G. Tugwell, Under Secretary of Agriculture. The fund is contemplated for use in a variety of forestry projects. These include such work as the construction and maintenance of fire-

breaks, forest fire lookout houses, towers and observatories, landing fields, telephone lines, forest roads and trails, housing for forest officers, miscellaneous buildings and structures and shelter belt planting.

It is planned to establish, according to the *Journal* of the American Medical Association, in the Rudolf Virchow-Krankenhaus in Berlin a central cancer institute that is to serve all northern Germany. It will be both a therapeutic and a research center. As the first step, a large committee has been appointed, on which, among others, the whole Berlin faculty of medicine will serve, Professor Sauerbruch being the chairman. For this institute, which is to be directed by Professors Cramer and Hintze, a suite of rooms with 300 beds has been selected.

Nature, in reporting the renaming of the Physical Institute of the University of Heidelberg, writes: "The Physical Institute of the University of Heidelberg has recently, in honor of Professor Lenard, been renamed the 'Philipp Lenard-Institut.' A correspondent has sent us a cutting from the students' magazine of that university, giving Professor Lenard's reply to the congratulations of the Heidelberg students on this occasion. The following is a translation of Professor Lenard's reply, and we prefer to make no comment upon it: 'I am very grateful to the students of the University of Heidelberg for their congratulations on the renaming, by the Ministry, of the institute which was built some years ago under my direction. I hope that the institute may stand as a battle flag against the Asiatic Spirit in Science. Our Leader has eliminated this same spirit in politics and national economy—where it is known as Marxism. In natural science, however, with the over-emphasis of Einstein, it still holds sway. We must recognize that it is unworthy of a German—and indeed only harmful to him—to be the intellectual follower of a Jew. Natural science properly so-called is of completely Aryan origin and Germans must to-day also find their own way out into the unknown. Heil, Hitler!'"

DISCUSSION

THE NEW ACTIVE PRINCIPLE OF ERGOT

THE isolation of a new highly important constituent of ergot has recently been announced by Dudley and Moir,¹ and Kharasch and Legault.² Since I³ described

¹ Dudley and Moir, *Brit. Med. Jour.*, March 16, 1935.

² Kharasch and Legault, *SCIENCE*, 81: 388, 1935.

³ Thompson: Doctorate dissertation, Johns Hopkins University, 1934; abstracts published in *Jour. Am. Pharm. Ass'n.*, 21: 853, 1932; 21: 1135, 1932; 22: 736, 1932; 24: 24, 1935; 24: 185, 1935.

the isolation of what is clearly the same substance almost a year before either of these groups of workers, it seems highly desirable that certain facts be presented in order to clarify the rapidly developing confusion and to prevent still more names from being assigned to the same substance.

During the decade preceding 1932, pharmacologists and clinicians accumulated a vast amount of evidence which resulted in what was tantamount to a unanimity