

- P. E. BROWN, *secretary*, Iowa State College, Ames, Iowa.  
December 31.
- The Society of American Foresters.  
WALTER MULFORD, *president*.  
ROBERT V. REYNOLDS, *secretary*, U. S. Forest Service, Washington, D. C.  
December 30-31.
- The American Society for Horticultural Science.  
M. J. DORSEY, *president*.  
C. P. CLOSE, *secretary*, College Park, Md.  
December 29-31.
- The American Pomological Society.  
PAUL C. STARK, *president*.  
H. C. C. MILES, *secretary*, Milford, Conn.
- The Association of Official Seed Analysts.  
M. T. MUNN, *president*.  
A. L. STONE, *secretary*, University of Wisconsin, Madison, Wis.  
December 31-January 2.
- The Potato Association of America.  
A. G. TOLAAS, *president*.  
WILLIAM STUART, *secretary*, U. S. Department of Agriculture, Washington, D. C.  
December 29-January 3.
- The American Dairy Science Association.  
A. A. BORLAND, *president*.  
J. B. FITCH, *secretary*, Manhattan, Kans.
- The Crop Protection Institute.
- The American Association of University Professors.  
A. O. LEUSCHNER, *president*.  
H. W. TYLER, *secretary*, Massachusetts Institute of Technology, Cambridge, Mass.  
December 27-29.
- The History of Science Society.  
L. J. HENDERSON, *president*.  
F. L. BRASCH, *secretary*, Department of Terrestrial Magnetism, Carnegie Institution of Washington, D. C.  
December 31-January 1.
- The Gamma Alpha Graduate Scientific Fraternity.  
E. M. GILBERT, *president*.  
L. M. HUTCHINS, *secretary*, Fort Valley, Ga.  
January 1.
- The Sigma Delta Epsilon Graduate Women's Scientific Society.  
December 29 and 31.
- The Bibliographical Society of America.  
AZARIAH S. ROOT, *president*.
- The Gamma Sigma Delta Society.  
A. F. WOODS, *president*.  
J. O. RANKIN, *secretary*, Agricultural Experiment Station, Lincoln, Neb.
- The Phi Kappa Phi Fraternity.  
J. S. STEVES, *president*.  
L. H. PAMMEL, *secretary*, Iowa State College, Ames, Iowa.

### Q. Education

- The National Society of College Teachers of Education.  
E. F. BUCHNER, *president*.  
ARTHUR J. JONES, *secretary*, University of Pennsylvania, Philadelphia, Pa.
- The National Society for the Study of Education.  
GUY M. WHIPPLE, *secretary*, 10 Putnam St., Danvers, Mass.
- The American Federation of Teachers of the Mathematical and Natural Sciences.  
R. C. MANN, *president*.  
WM. A. HEDRICK, *secretary*, Central High School, Washington, D. C.
- The American Philosophical Association.  
ALEXANDER MEIKELJOHN, *president*.  
C. I. LEWIS, *secretary*, Harvard University, Cambridge, Mass.
- The Phi Delta Kappa Fraternity.  
LEWIS W. WILLIAMS, *president*.  
ABEL J. MCALLISTER, *secretary*, 2118 West 109th St., Chicago, Ill.  
December 31.

### Societies Not Specially Related to Any Particular Section

- The Society of Sigma Xi.  
F. K. RICHTMYER, *president*.  
EDWARD ELLERY, *secretary*, Union College, Schenectady, N. Y.  
December 30.

### SCIENTIFIC NOTES AND NEWS

At the opening session of the approaching fifth Washington meeting of the American Association for the Advancement of Science, to be held in the Memorial Continental Hall on the evening of Monday, December 29, at 8:30, the Honorable Charles Evans Hughes, Secretary of State, will address the association on "Some aspects of international cooperation." At the same session the retiring president, Dr. Charles D. Walcott, secretary of the Smithsonian Institution, will give the retiring presidential address on "Science and service."

THE executive committee of the council of the American Association for the Advancement of Science will hold its first Washington session at the Cosmos Club, Washington, on Sunday afternoon, December 28, at 4:00 o'clock. The business to be considered includes some important matters, such as the question of academy affiliation and the interpretation of fellowship rules. Communications for the committee should reach the permanent secretary, at the Smithsonian Institution Building in Washington, before December 26. The executive committee will hold its second session at the New Willard Hotel on Monday, December 29, at 10:00 o'clock. The council of the association will hold its first Washington session at the New Willard Hotel on Monday, December 29,

at 2:00 o'clock. Communications for the council should be sent to the permanent secretary's office as above.

DR. THEODORE LYMAN, professor of physics at Harvard University, and Dr. Gilbert N. Lewis, professor of chemistry at the University of California, have been elected honorary members of the Royal Society, London.

THE Nichols medal of the New York Section of the American Chemical Society for 1925 has been awarded to Dr. Edward Curtis Franklin, professor of organic chemistry at Leland Stanford University. The medal is bestowed annually "for the research published during the current year which in the opinion of the jury is most original and stimulative to further research."

THE American Institute of Mining and Metallurgical Engineers has awarded its James Douglas gold medal to William H. Bassett, metallurgist of the American Brass Company, Waterbury, Conn.

JOHN W. HOWELL, of Newark, N. J., has been awarded the Edison medal for the year 1924 for his contributions towards the development of the incandescent lamp. The medal is awarded annually by a committee of twenty-four members of the American Institute of Electrical Engineers.

A PORTRAIT bust of Dr. Simon Flexner, director of the Rockefeller Institute for Medical Research, was presented to Dr. Flexner on December 13 at a dinner held at the Ambassador Hotel, New York City. The bust is by the Russian sculptor, Konenkov. The presentation was made by a group of friends of Dr. Flexner in appreciation of his influence in the medical and allied sciences, and the dinner was attended by about two hundred persons. Addresses were made by Mr. John D. Rockefeller, Jr., Dr. Phoebus A. Levene, Professor Augustus Trowbridge and Professor T. H. Morgan. Dr. Frederick Peterson read an appreciative poem and the address of presentation was made by Dr. William H. Welch. Mr. Raymond B. Fosdick acted as toastmaster.

HENRY R. KRAYBILL, professor of agricultural chemistry and chemist in the Agricultural Experiment Station of the University of New Hampshire, has resigned to accept a position as biochemist in the Boyce Thompson Institute for Plant Research, Inc., Yonkers, N. Y. Joseph T. Sullivan, formerly graduate assistant in the department of agricultural chemistry, University of New Hampshire, has been appointed assistant biochemist in the institute.

J. A. PEECE, university fellow of the Lick Observatory, has been appointed astronomer at the Dominion Astrophysical Observatory, Victoria, B. C.

DR. JOSEPH S. REICHERT has resigned his professorship in the department of chemistry of the University of Notre Dame, Indiana, in order to accept a position in government work at the Edgewood Arsenal.

P. B. MEYERS has been appointed chemist at the Agricultural Station at the University of Delaware, in the place of L. W. Tarr, who has resigned.

DR. GEORGE DE SCHWEINITZ has been elected trustee of the University of Pennsylvania in place of the late Dr. Robert G. Leconte.

DR. R. K. NABOURS, head of the department of zoology at the Kansas State Agricultural College, has been elected a member of the advisory council of the Eugenics Committee of the United States.

C. E. SKINNER, assistant director of engineering of the Westinghouse Electric and Manufacturing Company, has been elected chairman of the American Engineering Standards Committee.

THE fourth fellowship to be awarded by the Canadian Society of Technical Agriculturists for professional distinction was conferred at its recent annual convention at Guelph, Ontario, on W. T. Macoun, Dominion horticulturist since 1910.

JAMES KENDALL, professor of chemistry at Columbia University, has been named chairman for 1925 of the New York section of the American Chemical Society. Dr. B. T. Brooks, a consulting chemist, is vice-chairman, and D. H. Killeffer, associate editor of *Industrial and Engineering Chemistry*, secretary-treasurer.

DR. ARISTIDES AGRAMONTE, professor of bacteriology at the University of Havana, has been appointed to represent the Cuban government at the third Pan-American Scientific Congress that will take place in Lima, Peru, from December 20 to January 6, 1925.

GEORGE L. MEYLAN, professor of physical education and a member of the faculty of applied science, represented Columbia University at the ceremonies commemorating the fiftieth anniversary of the founding of the Ecole Polytechnique at the University of Brussels, Belgium, held on November 20, 21 and 22.

DR. L. M. MASSEY, head of the department of plant pathology at Cornell University, has been granted sabbatic leave and will spend nine months, beginning January 1, in research at the Boyce Thompson Institute for Plant Research, at Yonkers, New York.

EDWIN H. BRYAN, entomologist on the staff of Bernice P. Bishop Museum, has returned to Honolulu after a cruise of nine months on board the schooner *France* of the Whitney South Seas Expedition. February and March were spent at Nassau, Puka Puka,

the Phoenix Islands and Fakaofu; April and May in Samoa; and the time from June to November was given to a study of the Fiji Archipelago, particularly of the little known islands lying between Viti, Levu and Tonga. The collections made by Mr. Bryan are chiefly insects, land shells and plants; his notes include also ethnological and geological material.

DR. ALICE HAMILTON has returned from Russia to take up her work in industrial toxicology in the Harvard School of Public Health.

THE Rockefeller Institute for Medical Research has invited six specially qualified bacteriologists, selected from as many foreign countries, to come to New York for a three months' course in the methods of cultivation and identification of certain filter-passing microorganisms isolated by Drs. Olitsky and Gates. The bacteriologists, one each from England, France, Belgium, Italy, Germany and Denmark, will arrive about the end of December.

DR. MARGARET B. MACDONALD, associate and research professor of biochemistry at the School of Hygiene, Johns Hopkins University, is visiting the University of Illinois for the year and is doing research work on the biochemistry of yeast.

DR. F. O. ANDEREGG and Dr. P. R. Judy, of Purdue University, have returned from Bedford where they went to make a study of Indiana limestone ledges in connection with an investigation of the causes of efflorescence of limestone.

MRS. ETHEL PARSONS, of the staff of the International Health Board, who for the past three years has been serving as general superintendent of the Service of Nursing and Nursing Education of the National Department of Health of Brazil, is in the United States on leave of absence. She will sail for Brazil on December 20 to resume her post.

DR. KURT KOFFKA, professor of psychology at the University of Giessen, who has come to the United States to lecture at Cornell University, gave during December a series of lectures on the psychology of learning at Harvard University.

BEGINNING on December 12, Dr. Morton Prince, of Boston, gave a series of three lectures at Clark University on abnormal psychology.

ON December 6, Dr. Raymond Pearl, of the School of Hygiene and Public Health, Johns Hopkins University, delivered an address to the Royal Canadian Institute, Toronto, on the subject "The experimental study of life duration."

PROFESSOR A. S. EDDINGTON, of Cambridge University, England, gave a lecture on "The theory of relativity," before the Swarthmore Chapter of Sigma Xi,

on December 9. The lecture was attended by about one hundred and fifty members and guests of the chapter.

IN the interest of the American School of Prehistoric Research in Europe, Mrs. George Grant MacCurdy is giving illustrated public lectures on "Prehistoric art and religion." The first lecture of the season was given at Smith College on December 15.

PROFESSOR ERNST J. BERG, of Union College, Schenectady, delivered a course of six lectures during the week of December 1 under the auspices of the department of electrical engineering of Washington University, St. Louis. His subject was "The use of Heaviside's operators in engineering and physics."

AT the opening, October 6, of the new Pathologic Institute of McGill University Faculty of Medicine, Montreal, which owes its being in part to the Rockefeller Foundation, New York, the chief address was delivered by Dr. Arthur E. Boycott, Graham professor of pathology, University of London.

THE Finlayson Memorial Lectures of the Royal Faculty of Physicians and Surgeons of Glasgow were delivered on November 20 and 24 by Sir Leonard Rogers. His general subject was "Pathological evidence bearing on disease incidence in Calcutta," the first lecture dealing with disease in general and the second with simple and malignant tumors.

DR. EDMUND CLARK SANFORD, head of the department of psychology at Clark University, where he had been a member of the faculty for thirty-five years and president of Clark College for eleven years, died suddenly from heart disease on November 22, aged sixty-five years.

ROMEYN B. HOUGH, author of the "Handbook of Trees of the Northern United States and Canada," who was known also for his fascicles of sections of North American woods, has died, aged sixty-seven years.

THE death is announced of Dr. James Mills, for twenty-five years president of the Ontario Agricultural College.

THE deaths are also announced of the following scientific men: Dr. John Beard, lecturer in cytology and comparative anatomy at Edinburgh University; Dr. Alf. Larsen, well-known Swedish engineer; Dr. Karl Hedbom, of Upsala, known for his researches on mycetes; M. L. E. Bertin, for many years director of naval construction in France, known for his work on the theory of waves; Dr. E. König, of Germany, inventor of certain photographic processes; Dr. George Rechenberg, first assistant of the observatory at Breslau; Dr. Gustav Jaumann, professor of physics in the

German Technical High School in Brunn, and Dr. Jaroslav Hlava, professor of pathologic anatomy at Charles University, Prague.

WE are informed that on October 10, following an operation for appendicitis, American science lost one of its younger scholars in the death of James Daley McDonald, at Fresno, California. Born at Clarksfield, Ohio, March 17, 1892, he was graduated from Oberlin College in 1913. The following year he entered the graduate school of the University of California where he took the doctorate degree in protozoology under Professor Charles A. Kofoid. His early professional experience was that of a teacher of biology in the Pasadena High School. Later (1917-1919) he was parasitologist of the State Board of Health of California. At the time of his death, and for several years preceding, he held the position of professor of biology at State College, Fresno, California. His four published papers (1919-1922) deal with intestinal parasites. He leaves a wife, three children and many warm friends.

A CORRESPONDENT writes that Dr. Francis Eschauzier, born at Cadiz, Spain, March 3, 1861, died on November 10. He descended from a family of botanists, and was a British subject. Juan Jacobo Scheuchzer was his grandfather's great grandfather. On his mother's side he belonged to the noble house of Terry, of Cork, Ireland. He had a brother Luis, who died some years ago, and the brothers were much interested in cacti, and to them *Cactus Eschauziera* was dedicated by Dr. J. M. Coulter. They resided for many years in San Luis Potosí, but Dr. Eschauzier died in Mexico City.

OBSERVERS from Mount Wilson and the other observatories in California, University of Virginia, University of Wisconsin, the Harvard and Brown Universities, and possibly from the Yerkes Observatory at Chicago, Princeton University and the United States Bureau of Standards, will go to Middletown, Conn., on January 24, to view the eclipse of the sun at the Van Vleck Observatory connected with Wesleyan University. Apparatus is being sent from some of the observatories for use at Middletown.

THE Harvard College Observatory is to establish four temporary photographic stations along the path of totality of the eclipse of the sun of January 24. There will be a station at Buffalo, N. Y., and one on the island of Nantucket. The others probably will be at Poughkeepsie and near New London, Conn.

THE Rockefeller Institute for Medical Research has announced the release of the drug known as Tryparamide for use in the treatment of human and animal trypanosomiasis (African sleeping sickness and *mal de caderas*) and selected cases of syphilis of the

central nervous system. This action is based on results reported from clinical investigations which have been in progress for several years. The drug will be manufactured by the Powers-Weightman-Rosengarten Company, of Philadelphia, and will become available through the regular trade channels about January 1, 1925. In releasing the drug for the benefit of the public, the Rockefeller Institute desires it to be known that the institute does not share in any way in profits that may be derived from the sale of the drug and that, with the cordial cooperation of the manufacturers, provision has been made for the maintenance of a schedule of prices on as low a basis as possible.

A PRELIMINARY agreement has been signed, which provides land for the erection of the State Psychiatric Institute and Hospital on the site of the Columbia University and Presbyterian Hospital medical center. The agreement, signed by the chairman of the state hospital commission and the chairman of the joint administrative board of Columbia University and Presbyterian Hospital, states that the first buildings constructed will be the new Presbyterian Hospital and the College of Physicians and Surgeons, the remaining land being available for other institutions associating themselves in the development of the medical center. The new psychiatric institute (the old one is on Ward's Island) will have about 150 beds for patients under observation, and will have the use of the medical center outpatient department, thus permitting the observation and treatment of hundreds of other patients, and making possible a great extension of the present research facilities.

THE increasing demands for greater and more varied service to the members by local sections of the American Chemical Society have made the problem of financing these various proper activities extremely acute. Besides providing speakers for the monthly meetings many of the sections maintain employment bureaus, public relations committees and various other agencies for entertainment, membership, etc. The Chicago section of the American Chemical Society is seeking to solve this problem by raising an endowment of \$25,000 over a period of five years. Each administration will make an effort to raise its quota. Up to the present time the subscriptions total \$3,600, most of which has been paid in.

POPE PIUS presided on December 14 at the inaugural sitting of the Pontifical Academy of Science. He delivered a brief address emphasizing the efficacy of the studies of the academy and expressing his best wishes for its development. Scientific reports were read on mathematics, chemistry, physiology, medicine, meteorology and natural history.

THE Commonwealth Fund has made a grant of \$15,000 for a study of foster children, the sum to be

divided equally for use by Dr. L. M. Terman, of Stanford University, and Dr. Frank N. Freeman, professor of educational psychology in the University of Chicago. Dr. Terman will compare foster children and their foster parents and Dr. Freeman will make a comparison between foster children and their brothers and sisters.

MRS. TYNDALL, widow of Professor John Tyndall, has made a donation of £500 to the Royal Society to be used at the discretion of the Tyndall Mining Bequest Committee, as a fund to meet out-of-pocket expenses incurred by the Tyndall Research Student in carrying out his investigations.

THE Japanese government has decided to allot \$1,000,000 for the establishment of an Institute for Natural Science in Shanghai. The research work in the institute will include several branches of pathology, anatomy, bacteriology, parasitology, serology and Chinese pharmacology. A yearly grant of \$250,000 is to be made. It is hoped that the institute will be completed within three years.

THE Field Museum of Natural History, Chicago, has been given a trust fund of \$25,000 by Julius Rosenwald, of Chicago, to be used by the museum without restrictions.

### UNIVERSITY AND EDUCATIONAL NOTES

GROUND was broken on November 13 for two buildings at Columbia University to house the departments of physics and chemistry. They will cost \$2,150,000.

AN appeal for the Harvard Medical School dormitory among physicians and their friends has resulted in gifts of about \$250,000. The university has agreed to invest from permanent funds of the school about \$300,000, and there remains about \$550,000 to be raised.

POMONA COLLEGE has completed the first stage in its campaign for \$3,000,000. More than \$800,000 in pledges has been received, assuring the General Education Board gift of \$400,000.

GLASGOW UNIVERSITY has received £2,000 from the Bellahouston trustees for the purpose of providing electrical appliances for the department of natural philosophy.

DR. HOMER G. BISHOP, instructor in psychology at Cornell University, has been appointed assistant professor of psychology at Smith College.

DR. GEORGE A. MENGE, retiring chairman of the Chicago section of the American Chemical Society,

has been appointed as assistant professor of chemistry at Lafayette College.

DR. ALEXANDER M. BURGESS, of Providence, R. I., has been appointed medical director and assistant professor of biology at Brown University.

PROFESSOR ANDREW ROBERTSON, professor of mechanical engineering in Bristol University, has been appointed principal of Bristol Merchant Venturers' Technical College, in succession to the late Dr. Wertheimer.

Two newly created professorships in the medical faculty of the University of Münster have been filled by the appointment of Dr. Heinrich Többen to the chair of forensic medicine, and of Dr. Hermann Freund, of Heidelberg, to the chair of pharmacology.

### DISCUSSION AND CORRESPONDENCE RELATION BETWEEN THE SURFACE TENSION AND RELATIVE DENSITY OF A LIQUID

MACLEOD has given (Faraday Soc. Trans., 19, pp. 38-41; *Sci. Abs.*, 190, 1924) an empirical relation between the surface tension  $\lambda$  of a liquid, its density  $\rho_1$  and the density  $\rho_2$  of the saturated vapor, which is of the form.

$$\lambda = C (\rho_1 - \rho_2)^4 \quad (1)$$

where  $C$  is a constant which depends only on the nature of the liquid. This relation has attracted some attention, and has been used by Sugden (*Chem. Soc. J.*, 125 pp. 1177-1189, 1924; *Sci. Abs.*, 2391, 1924) in considerations of the molecular volume and constitution of a liquid. May I point out that I have previously obtained the above relation (*Phil. Mag.*, pp. 83-102, Jan., 1911). I have also deduced from theoretical considerations that the constant  $C$  is given by

$$C = 32.96 \frac{(\sum \sqrt{m_1})^2}{M^2 \rho_c^2} \quad (2)$$

where  $\sum \sqrt{m_1}$  denotes the sum of the square roots of the atomic weights of the atoms of a molecule relative to the hydrogen atom,  $\rho_c$  the critical density, and  $m$  the molecular weight relative to the hydrogen atom. For example, the values of  $C$  for the substances methyl formate, carbon tetrachloride, benzene and ether, given by equation (1) are 27.53, 3.99, 45.5 and 62.92, respectively, while equation (2) gives the values 26.93, 3.33, 41.76 and 68.77.

R. D. KLEEMAN

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