Edith Beach, Lawrence High School. Dr. Robert Taft, University of Kansas, continues as editor. Dr. Mary T. Harman and Dr. A. B. Cardwell, Kansas State College, were elected associate editors for a term of three years, and Dr. W. H. Schoewe, University of Kansas, was elected to serve a two-year term as associate editor. Dr. M. J. Harbaugh, Kansas State College, was elected librarian of the academy.

DONALD J. AMEEL
KANSAS STATE COLLEGE

SCIENTIFIC NOTES AND NEWS

DR. VANNEVAR BUSH, president of the Carnegie Institution and director of the Office of Scientific Research and Development, was presented on May 25 at a dinner meeting of the National Institute of Social Sciences in New York City with one of the gold medals awarded by the institute. The medal was awarded for "distinguished services in the field of science, in engineering education and in the application of research to the solving of problems of fundamental value to civilization." The presentation was made by Dr. Karl T. Compton, president of the Massachusetts Institute of Technology.

DR. ELMER D. MERRILL, administrator of Botanical Collections of Harvard University and director of the Arnold Arboretum, was elected on May 8 a corresponding member of the Academy of Sciences of the Institute of France to fill the vacancy caused by the death of Dr. S. Ikeno, of Tokyo.

AT the ninety-second annual commencement of the University of Wisconsin, the doctorate of laws was conferred on Dr. William E. Wickenden, president of the Case School of Applied Science, Cleveland.

THE honorary doctorate of science was conferred on April 30 at the one hundred and twelfth commencement of Denison University on Dr. Carey Croneis, formerly professor of geology at the University of Chicago, now president of Beloit College, in recognition of his achievements "as a brilliant discoverer and interpreter of ancient forms of life, and a thorough and patient teacher of earth science."

THE honorary degree of doctor of science of Fordham University was conferred on May 24 on Dr. William J. Robbins, director of the New York Botanical Garden, at a special convocation in commemoration of the fiftieth anniversary of the garden.

THE Thomas Burr Osborne Gold Medal of the American Association of Cereal Chemists was presented on May 15 at a dinner in New York to John O. Baker, vice-president and director of Wallace and Tiernan Company, Inc. It was the first time that this award had been made for work in the industrial field. The medal was established in 1926, to signalize distinguished contributions to cereal chemistry. It has only been granted five times before and always for work in pure science and teaching.

THE Lamme Medal "for meritorious achievement in engineering or the technical arts" of the Ohio State University has been awarded to Taine G. McDougal, vice-president of the AC Spark Plug Division of the General Motors Corporation, Detroit. Presentation will be made at the commencement exercises of the university on June 8.

THE prize in pure chemistry of $1,000 of the American Chemical Society for 1945 has been awarded to Dr. Frederick T. Wall, associate professor of physical chemistry at the University of Illinois, in recognition of his work on the thermodynamics and statistical mechanics of polymers. The award is made annually to encourage fundamental studies by young chemists working in North America.

DR. KATHARINE B. BLODGETT, of the General Electric Research Laboratory, Schenectady, N. Y., has received the Achievement Award of $2,500 given by the American Association of University Women for distinguished research in developing films of almost infinitesimal thickness.

THE twenty-second annual meeting of the chapter of Sigma Xi at the University of Virginia was held on the evening of May 3. President Fred L. Brown received into membership seven associates and seven members. Dr. Julian F. Smith, of the Institute of Textile Technology, Charlottesville, Va., gave the annual address. The twenty-first award of the President and Visitors' Research Prize in the Natural Sciences and Mathematics was presented by President John L. Newcomb, of the University of Virginia, to Lester Van Middlesworth, Raymond F. Kline and Sydney W. Britton for their published work, "Carbohydrate Regulation under Severe Anoxic Conditions."

THE University of Rochester chapter of Sigma Xi held on May 3 its initiation ceremonies for new members and the installation of officers for 1945–1946. The new officers are: *President,* Dr. K. E. Mason, of the Medical School; *Vice-president,* Dr. C. F. H. Allen, of the Eastman Kodak Research Laboratories, and *Secretary-Treasurer,* Dr. C. D. Kochakian, of the Medical School. New members of the *Executive Committee* are Dr. Frances L. Haven, Medical School, and Dr. Roger P. Loveland, Eastman Kodak Research Laboratories. *Membership Committee:* Dr. A. B. F.

Duncan, chemistry, and Dr. John Coakley, psychology. After the ceremonies Professor L. C. Dunn, of Columbia University, spoke on "Scientific Research after the War."

OFFICERS of the Royal Astronomical Society, London, have been elected as follows: *President,* Professor H. H. Plaskett; *Vice-presidents,* Dr. E. C. Bullard, Sir Harold Spencer Jones, Professor E. A. Milne and F. J. Sellers; *Treasurer,* J. H. Reynolds; *Secretaries,* Dr. H. R. Hulme and D. H. Sadler; *Foreign Secretary,* Professor F. J. M. Stratton.

THE retirement on July 1 is announced of Dr. John R. Murlin, professor of physiology and director of the department of vital economics at the School of Medicine and Dentistry of the University of Rochester.

DR. LARS ONSAGER, associate professor of chemistry at Yale University, has been promoted to the Josiah Willard Gibbs professorship of chemistry.

DR. HENRY S. CONARD, professor emeritus of botany of Grinnell College, Iowa, has been appointed visiting research professor for the academic year 1944–1945 at the State University of Iowa. During the months of April, May and June, he is in residence at the university, working in the moss herbarium and writing a descriptive account of the vegetation of Iowa.

DR. RICHARD VON MISES, lecturer in the Graduate School of Engineering of Harvard University, has been appointed Gordon McKay professor of aerodynamics and applied mathematics, effective on July 1.

ASSOCIATE PROFESSOR A. C. BENJAMIN, of the department of philosophy of the University of Chicago, has been appointed John H. Lathrop professor of philosophy and chairman of the department of philosophy at the University of Missouri. Dr. A. B. Griffen, now of the University of Texas, has been appointed associate professor of zoology.

PROFESSOR ROBERT K. SUMMERBELL has been made chairman of the department of chemistry of Northwestern University. He succeeds Professor Ward V. Evans, who retires in September.

DR. PAUL G. ROOFE, assistant professor of anatomy at the School of Medicine of the University of Louisville, has been appointed professor of anatomy and chairman of the department of anatomy of the School of Medicine of the University of Kansas.

DR. ERIC BALLIOL MOULLIN, of King's and Downing Colleges, fellow of Magdalen College, and Donald Pollock reader in engineering science in the University of Oxford, has been elected into the newly established professorship of electrical engineering at the University of Cambridge from October 1.

DR. H. A. KREBS has been appointed to the newly established chair of biochemistry of the University of Sheffield, Yorkshire.

DR. MARCEL SCHEIN, of the department of physics of the University of Chicago, known for his work on cosmic rays, has been engaged as a consulting physicist by the Research Laboratory of the General Electric Company. He is working on problems connected with the radiations of the 100-million-volt induction electron accelerator; Alfred J. Hartzler, formerly of the department of physics of the University of Chicago, has become a member of the staff, for studies of the radiations produced by the 100-million-volt induction accelerator; Dr. Arthur M. Ross, Jr., until recently of Columbia University, has rejoined the chemical section. Dr. Ross was a member of the Research Laboratory in 1939–40, and later of the staff of the Works Laboratory in Bridgeport.

DR. RALPH E. CLELAND, head of the department of botany and bacteriology of Indiana University, spoke on May 21 before the Plant Institute of the Ohio State University on "The Contribution of Cell Studies in Oenothera to an Understanding of Hereditary Variation in the Genus." On this occasion a dinner honoring Dr. Cleland was held at the Faculty Club, after which he led a discussion on the adequacy of gene and chromosome mutation to account for evolution.

DR. VALY MENKIN, assistant professor of pathology at the School of Medicine of Duke University, delivered on May 15 the annual lectureship of the Sigma Zeta Society before the Medical College of Virginia. His subject was "Chemical Factors and their Rôle in Inflammation."

A CONFERENCE called by the Chinese Health Institute was held from March 5 to 11, with the object of coordinating research on nutrition in China. The subjects and speakers were as follows: Analyses of Chinese Food, Dr. Chi-Yuan Chow; Chinese Army Nutrition, Dr. Shing Wan; Special Requirements in Chinese Nutrition, Dr. Rose Yeh; Vitamin Research in China, Dr. Cheng-Fa Wang; Protein Nutrition Research in China, Dr. Teng-Yi Lo; Dietary Survey in China, Dr. Tung Shen; Nutritional Diseases in China, Dr. Shou-Kai Chow; Nutritional Requirements of the Chinese, Dr. Pei-Sung Tang; Nutritional Education and Extension Work in China, Dr. Sophie Chen; Evaluation of Methods Used in Nutrition Studies, Dr. C. Cheng; Adoption of Terminology for Nutrition Work, Dr. Pao-Chung Loo, and Processing of Chinese Foods and Food Value, Dr. Chao-Yü Chen.

DR. VICTOR A. TIEDJENS has resigned his position as associate olericulturist and associate professor of vegetable crops at Rutgers University to become

director of the Virginia Truck Experiment Station at Norfolk. He will take up his new work on July 1.

DR. J. BROOKES KNIGHT, lecturer and curator of paleozoic invertebrates in the department of geology of Princeton University, has been appointed research associate in paleontology at the Smithsonian Institution. He will work at the U. S. National Museum beginning on July 1.

DR. DAVID F. SMITH, director of research of Johnson and Johnson, New Brunswick, N. J., has been elected a member of the board of directors of the company.

DISCUSSION

HEPATIC "INACTIVATION" OF ESTROGENS

LIPSCHÜTZ *et al.*[1] recently presented data purporting to indicate "that the liver is able to inactivate great quantities of estriol and equilinin." This conclusion was reached on the basis of the relatively poor "fibrous tumoral effect" of these agents when implanted in the spleen of guinea pigs as compared with subcutaneous implantation.

We[2,3] have shown that large amounts of endogenous and exogenous estrogen are excreted in the bile of dogs and human subjects; the rapid disappearance of exogenous estrogen from the systemic circulation and urine is due to this mechanism and not to its rapid destruction or inactivation by the liver. When a 15 mg pellet of alpha-estradiol was implanted in the spleen of a bile-fistula dog, estrogen was excreted in the bile in large amounts for at least 23 days, although no estrogenic activity could be demonstrated in the urine at any time during this period.[3] This is conclusive evidence that with splenic implantation the absence of any type of effect dependent upon the presence of estrogen in the systemic circulation can not be interpreted as indicating its rapid destruction by the liver.

There can be no doubt that the liver is capable of inactivating estrogens *in vitro*, but that it does so rapidly *in vivo* is highly questionable. The results of all experiments on which this hypothesis is based prove only that the normal liver prevents estrogens from entering the systemic circulation in effective concentration. This could be accomplished by biliary excretion and subsequent enterohepatic circulation (as is the case with bile acids) as well as by rapid destruction in the liver. The latter hypothesis not only lacks incontrovertible proof but is indeed directly contradicted by our findings.

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[1] A. Lipschütz, C. Becker, R. F. Mello and A. Riesco, SCIENCE, 101: 410, 1945.

[2] A. Cantarow, A. E. Rakoff, K. E. Paschkis, L. P. Hansen and A. A. Walkling, *Endocrinology*, 31: 515, 1942.

[3] A. Cantarow, A. E. Rakoff, K. E. Paschkis, L. P. Hansen and A. A. Walkling, *Proc. Soc. Exp. Biol. and Med.*, 52: 256, 1943.

A POSSIBLE CASE OF FICTITIOUS CONTINENTAL DRIFT

ONE point has apparently been overlooked in connection with early determinations of longitude cited as observational evidence in connection with the Wegener hypothesis of continental drift.[1] These earlier longitudes were determined from occultations of stars by the moon. The point is not the relatively low degree of accuracy attainable by this method; that point is conceded by all. The point is that longitudes determined from occultations are essentially different in character from longitudes determined by the observation of local times and the exchange of telegraphic or radio time signals.

An ordinary difference of longitude obtained from the exchange of time signals necessarily depends on the directions of the plumb lines at the two points involved. Ultimately we get back to the plumb line at Greenwich. The plumb line at either point may be deflected from what may be conceived as its normal direction. The deflection is due to the visible irregularities in the conformation of the earth's surface and to the invisible irregularities in the densities of the surrounding portions of the earth's crust.

On the other hand, if we examine the underlying equations used to determine longitudes from occultations, we shall find that the longitudes—and the latitudes also—implied in these equations depend not at all upon the direction of the plumb line but depend solely upon position with respect to the center and axis of the earth. They are latitudes and longitudes such as the geodesist would very much like to know, latitudes and longitudes freed from the effect of the irregular deflections of the plumb line. These latitudes and longitudes might be appropriately termed "ideal geodetic" latitudes and longitudes.

Why this should be so is easily seen. It is convenient to follow the course of an occultation or of a solar eclipse by thinking of the apparent sweep of the moon's shadow across the face of the earth as

[1] A. Wegener. Die Entstehung der Kontinente und Ozeane. 4th ed., 1929, Chap. 3; C. R. Longwell, SCIENCE, 100: 403–404, 1944.