

1930, died on February 10 at the age of forty-nine years.

GEORGE HERBERT BROWN, director of the department of ceramics at Rutgers University, died on February 8 at the age of fifty-eight years.

A CORRESPONDENT writes: Richard C. Cady died on January 15, at the age of 35 years, as the result of accidental injuries received while on duty overseas. For the past year he has served as a geologist in locating well sites to develop water supplies for military

establishments of the United States Army in Africa and Asia. He was a member of the Geological Survey, U. S. Department of the Interior, for twelve years. His most important research was on the Pleistocene and Tertiary geology and ground-water hydrology of the Great Plains.

DR. C. TATE REGAN, keeper of zoology in the British Museum and an authority on systematic ichthyology and on the phylogeny of the lower vertebrates, died on January 13 at the age of sixty-five years.

SCIENTIFIC EVENTS

PURE MATHEMATICS IN RUSSIA

ONLY a few scholars in this country may have easy access to Russian publications since the war. It might, therefore, be of interest to give a short list of titles of papers in mathematics published from January to July, 1942, in the "Comptes Rendus (Doklady) de l'Academie des Sciences de l'URSS."

Pontrjagin: Mappings of the three-dimensional sphere into an n -dimensional complex.

Tschebotaröw: On a particular type of transcendent equations.

Khintchine: Lois de distribution des fonctions sommatoires dans la mécanique statistique.

Vinogradow: On the estimation of trigonometrical sums.

Linnik: On Weyl's sums.

Raikov: A new proof of the uniqueness of Haar's measure.

Raikov: On absolutely continuous set functions.

Šmulian: Approximation in the space of bounded functions.

Šilov: On the Fourier coefficient of a class of continuous functions.

Pontrjagin: Characteristic cycles on manifolds.

Tschebotaröw: On R -integrable polynomials.

Alexandroff, A.: Existence and uniqueness of a convex surface with a given integral curvature.

Wassilkoff: Partially ordered linear systems, Banach spaces and systems of functions.

Linnik: On the representation of large numbers as sums of seven cubes.

Tschebotaröw: On entire functions with real interlacing roots.

Tschebotaröw: On some modification of Hurwitz's problem.

Gnedenko: On locally stable probability distributions.

Gontcharoff: Sur la distribution des cycles dans les permutations.

Gnedenko: Investigation of the growth of homogeneous random processes with independent increments.

Malcev: Subgroups of Lie groups in the large.

Gontcharoff: Sur une extension du théorème de Gauss-Lucas.

Malcev: On the representation of an algebra as a direct sum of the radical and a semi-simple subalgebra.

This impressive list of research work in abstract "pure" mathematics, published during the most gigantic struggle which human history has seen, could easily be multiplied by papers from this and other journals concerning all parts of theoretical physics, astrophysics, celestial dynamics, etc. It is really significant that the first Stalin Prize (1940) has been awarded to I. M. Vinogradoff for his paper, "A New Method in the Analytical Theory of Numbers."

O. NEUGEBAUER

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NEW AND RARE INSTRUMENTS

THE Committee on Location of New and Rare Instruments has the following requests and offers:

INSTRUMENTS REQUESTED

Cathetometer ($32'' \pm 0.003''$).

Two-circle reflecting Goniometer.

Loewe Zeiss Liquid Interferometer.

Quartz Microscope.

Zeiss Optimeter.

Hypervac Vacuum Pump (Cenco No. 93,000).

Refractometers: Bausch & Lomb and Zeiss-Pulfrich.

Quartz Spectrograph.

INSTRUMENTS OFFERED

Leeds and Northrup Thermionic Amplifier No. 7673.

Alb. Rueprecht & Sohn Analytical Balances.

Roller-Smith Co. Surface Tension Balances.

Bausch & Lomb Centrifuge.

Gaertner Chronograph.

Fisher Electropode.

Leeds and Northrup Microammeter Type R.

Weston Microammeter for D.C.

Microscopes: Bausch & Lomb, Poller, Winkel-Zeiss, Zeiss.

Sartorius-Werke Brain Microtome.

Hartnack Polariscopes 400 mm tube.

Cenco Hyvac Pumps.

pH meter model Chemie (Bergmann & Altmann).

Radio Test Instruments and Equipment.

Zeiss Refractometer, dipping type.

Bragg X-Ray Spectrometer.

Keuffel & Esser Spectrophotometers.

Franz Schmidt & Haensch—Spectroscope (student

model); Spectrometer; Grating Spectrograph; Universal Spectrograph; Precision Micro-Colorimeter; Immersion Colorimeter.

Chemical Model of the German Typewriter "Adler."
G.E. Wattmeter Type P3.

Information concerning these offers and requests for rare instruments that can be sold, loaned or leased for essential war or other research can be obtained from D. H. Killeffer, chairman of the committee, 60 East 42nd Street, New York, N. Y.

METEOROLOGICAL TRAINING FOR THE ARMY AIR FORCES

AN opportunity for high-school graduates with two and a half years of mathematics to receive training in basic pre-meteorology, leading to commissions, has been announced by the Army Air Forces. The new course will begin on May 17. At the same time applications for courses, beginning on March 1, will continue to be accepted.

Civilians, enlisted men and members of the Enlisted Reserve Corps, including students who have recently graduated or are about to do so, are eligible for the courses. Pay while in training, and free uniforms, board, room and tuition are provided. Applications should be addressed to "Weather," care of the University of Chicago.

The basic premeteorology course for high-school graduates requires twelve months, and is followed by advanced training in meteorology for eight months and commissions as meteorological officers in the Army Air Forces. Requirements are: age, 18 to 21 years, inclusive; two and a half years of high-school mathematics, including algebra and plane geometry, as well as one year of high-school science.

Applicants for the premeteorology course opening on March 1 must be between the ages of 18 to 30, inclusive, and must have completed college algebra, trigonometry and analytic geometry. Previous requirements of one year of residence in college will be waived for outstanding students. This course requires six months, and is followed by the advanced training in meteorology.

The curriculum in the basic course is equivalent to two years of college study in mathematics and science. The premeteorology course is the equivalent of one year of college in these fields. It is expected that both courses of study will be credited by colleges toward post-war degrees.

The basic course in premeteorology and the course in meteorology will be offered at twenty-nine selected colleges and universities throughout the country.

PHILADELPHIA MEETING OF THE INDUSTRIAL RESEARCH INSTITUTE

THE importance of research, both to the present war effort and to our economic development after the

war, was given special emphasis at the recent winter meeting of the Industrial Research Institute in Philadelphia on January 22 and 23. It was attended by over seventy-five industrial executives and research directors, representing member companies and their guests. The sessions were all informal round-table conferences, as is the custom in institute meetings.

At the opening session on Friday morning, W. C. Stevenson, chief of the Laboratories and Technical Equipment Section, Safety and Technical Equipment Division of the War Production Board, described the present regulations of the board that affect the supply of materials and equipment for research laboratories. He stated that the War Production Board feels that research is one of the most important phases of the war effort. The Laboratories and Technical Equipment Section has been charged with the duty of working out ways in which laboratories doing essential research can obtain materials and equipment with the least possible delay and burdensome paper work. Mr. Stevenson explained how to take advantage of the special concessions that have already been secured for research laboratories under the Production Requirements Plan and the Controlled Materials Plan that is gradually supplanting it.

R. C. Newton, vice-president of Swift and Company, Chicago, led a discussion on post-war planning and the research laboratory. It was brought out that, without slackening their all-out war effort, many industrial concerns are giving some organized study to post-war problems and how to meet them. The important part that industrial research directors must play in the post-war planning activities of their companies was emphasized.

There was a symposium on new research tools and their applications in place of the usual visit to a local plant or laboratory. This comprised talks, illustrated by movies and slides, on high-speed photography by Professor Harold E. Edgerton, of the Massachusetts Institute of Technology, and F. Nickel, Jr., of the Western Electric Company, and on the electron microscope by M. C. Banca, Radio Corporation of America, Camden, N. J.

The possibilities and limitations of job evaluation procedures, as applied to research organizations, were discussed at simultaneous group conferences under the leadership of F. W. Blair, chemical director, the Procter and Gamble Company, Ivorydale, Ohio; J. N. Dow, technical director, Bigelow Sanford Carpet Company, Thompsonville, Conn.; J. M. McIlvain, administrative supervisor, Research and Development Department, the Atlantic Refining Company, Philadelphia, Pa.; and R. S. Taylor, chief engineer, Serval, Inc., Evansville, Ind. Following this, A. G. Ashcroft, product engineer, Alexander Smith and Sons Carpet Company, Yonkers, N. Y., chairman of a special