

Grants for research of funds contributed by private sources and received from the American Association for the Advancement of Science were assigned to: H. P. Klug, University of Idaho, "Photographic Records of Thermal Transitions in Substances," \$50; J. H. Ramskill, University of Montana, "Development of the Hypoderm of Western Yellow Pine," \$35; G. A. Matson, University of Montana, "Blood Studies of Montana Indians," \$25; Dr. Van A. Odle, of Spokane, Washington, apparatus and materials for experiment on "Electrokinetic Potential of Red Blood Cells," \$25.

It was announced that the Howard F. Flint Memorial Fund for research amounted to \$1,031.30. The income from this will be used, beginning with next year, as a grant along forestry and biological lines.

O. W. FREEMAN,
Secretary

GRANTS IN AID OF RESEARCH BY THE GEOLOGICAL SOCIETY OF AMERICA

THE following is the list of grants in support of special research projects recently approved by the Geological Society of America:

A. A. Stoyanow, Tucson, Ariz. Grant of \$1,000 covering field expenses in a revision of the Mesozoic sequence at Bisbee, Ariz.

A. O. Woodford and Edward Taylor, Claremont, Calif. Grant of \$780 to cover living and traveling expenses in study of longitudinal profiles of streams, to be conducted in Europe during April and May, 1937.

Horace G. Richards, Trenton. Grant of \$550 covering traveling and field expenses in study of the Pleistocene deposits and faunas of the Gulf Coastal Plain.

U. S. Grant, Los Angeles. Grant of \$300 to be applied against field expenses and costs of preparing manuscript covering study of changes of the California coast.

F. H. Norton, Cambridge. Grant of \$1,500 covering assistance and materials in study of hydrothermal action in minerals, particularly those that change into the clay minerals.

W. Armstrong Price, Corpus Christi, Texas. Grant of \$1,200 covering traveling and field expenses of a reconnaissance of Pleistocene depositional plains of the northwestern Gulf Coastal Plain.

Charles T. Berry, Baltimore. Grant of \$100 covering completion of illustrations for paper on "Ophiuran Remains from Upper Senonian of South Limburg, Netherlands."

Alfred C. Lane, Cambridge. Grant of \$3,000 covering chemical analyses for studies directed to the determination of ages by the helium method.

W. E. Ford, New Haven, and Charles Palache, Cambridge. Grant of \$24,000 covering assistance for four years to complete the seventh edition of James D. Dana's "System of Mineralogy."

Robert T. Hill, Dallas, Texas. Grant of \$1,200 to cover

expenses connected with history of geological investigation in the Southwest.

Committee headed by T. S. Lovering. Grant of \$3,000 covering assistance and supplies in studies of the physical-chemical relation prevailing in a system consisting of a simple silicate and two volatiles at different temperatures and pressures.

John T. Lonsdale, Ames, Iowa. Grant of \$850 covering field and office expenses connected with study of the petrography and petrology of the igneous rocks of the Terlingua quadrangle, Brewster and Presidio Counties, Texas.

AWARDS OF THE JAMES F. LINCOLN ARC WELDING FOUNDATION

THE James F. Lincoln Arc Welding Foundation, which was recently established by the Lincoln Electric Company, Cleveland, and named by the trustees in honor of its president, is dedicated to providing the public and modern industry with accurate knowledge and information on matters affecting the application of electric arc welding to machinery and equipment. One of its primary functions is the stimulation of original design, to utilize this process in modern-day fabrication.

To further this object it is planned to distribute the sum of \$200,000 in 446 separate prizes for papers dealing with the subject as a primary process of manufacture, fabrication or construction in eleven major divisions of industry. The principal prize winner will receive not less than \$13,700. Other prizes range from \$7,500 to \$100, the latter sum to be awarded to each of 178 contestants who receive no other prize, but whose papers are adjudged worthy of honorable mention.

In order to assure equal competitive opportunity, similar prizes are offered in the eleven major divisions of industry covered by the contest, which are further subdivided to insure diversification of awards. An entrant is required to select in advance the particular sub-classification to which his paper will relate and must actually have participated in the work upon which the subject-matter of it is based. The classification follows:

Automotive—engines, bodies, frames and trailers, \$14,200; *aircraft*—engines and fuselage, \$10,500; *the railroad industry*—locomotives, freight cars, passenger cars and locomotive and car parts, \$14,200; *watercraft*—commercial and pleasure, \$10,500; *structural*—buildings, bridges, houses and miscellaneous, \$14,200; *furniture and fixtures*—house and office, \$10,500; *commercial welding*—job shops and garages, \$10,500; *containers*—contents stationary and contents moving, \$10,500; *welderies*—commercial and departments of plants, \$10,500; *functional machinery*—metal cutting, metal forming, electrical, prime movers, conveying, pumps and compressors, business, jigs and fixtures, parts and "not otherwise