increases of $1,480 to provide for additional clerical assistance in the general administrative work of the bureau; $2,500 for laboratory and field work on the perfection of rodent and predatory animal poisons; $6,000 for extension of the campaign for the destruction of injurious rodents; $10,000 for predatory animal control operations; $3,500 for researches on the food habits of water-fowl; $8,000 for extending the study of food habits, diseases and parasites of game animals, fur-bearing and predatory animals; $5,000 for the employment of additional game wardens, and $14,000 for administrative expenses in connection with the acquisition of land for the upper Mississippi River wild-life and fish refuge. There is an apparent decrease of $3,000 in the item for maintenance of mammal and bird reservations, but, due to the release of $18,000 provided in 1928 for fencing on the Wind Cave Game Preserve in South Dakota, there is actually $15,000 additional available for other work, as follows: $600 for minor construction work on the Big Lake Bird Reservation, Arkansas; $3,000 for work incident to the disposal of surplus animals in big-game preserves; $7,230 for the construction of various buildings and shelters and for necessary implements at big-game preserves; $1,000 for water development work on the Wind Cave Game Preserve; $900 for fencing at Sully's Hill Game Preserve, North Dakota, and $2,270 for care and maintenance of lands donated to the government by the Izaak Walton League as an addition to the winter elk refuge in Wyoming. A decrease of $4,000 is made in the fund for the purchase of land for the upper Mississippi River wild-life and fish refuge, the balances from prior appropriations being sufficient, under present purchase limitations, to take care of payments under contractual obligations during the fiscal year 1929.

THE GIANNINI FOUNDATION OF THE UNIVERSITY OF CALIFORNIA

FORMAL tender of a gift of $1,500,000, to be devoted to the study of agricultural economics, has been made to the regents of the University of California by Bancitaly Corporation, "in tribute to A. P. Giannini, of San Francisco, and to be named after him." As already recorded in SCIENCE, one third of the gift is to be used for the construction of a building for the College of Agriculture, to house the works of the Giannini Foundation, and $1,000,000 to be used as an endowment for the foundation.

In making the announcement, President W. W. Campbell, of the University of California, said in part:

As a result of Mr. Giannini's feeling, expressed to me some months ago, that he wanted to do something for the agriculturists of the state, that it is the very opposite of his philosophy of life that a man be rich at the time of his death and that he wanted to do something through the University of California for the farmers of California, conferences have been held since that time getting these ideas clarified; and Mr. Giannini has decided to extend to the regents of the University of California a gift of a million and a half dollars to establish and support a foundation of agricultural economics. Of course I shall recommend that it be designated as the Giannini Foundation of Agricultural Economics, although neither Mr. Giannini nor any of his friends have made any such suggestion.

My recommendation that we complete the agricultural college group of buildings now consisting of Agricultural Hall and Hilgard Hall by the construction of a counterpart of Hilgard Hall, the three buildings to enclose the agricultural quadrangle on as many sides, part of the building to accommodate the activity in agricultural economics, met his approval. This will call for approximately half a million dollars.

The activities of the foundation are to be embraced by the great field of agricultural economics, and relate to such subjects as: (*a*) the economic consideration of increased production, which results from improved seed grains, improved nursery stock, improved livestock, improved methods of farming, all these brought about largely through researches conducted by colleges of agriculture, and from the use of improved farm machinery; (*b*) the economic consequences of overproduction and underproduction arising from unusually favorable seasons or unusually unfavorable seasons as to weather and other conditions in the nations producing the agricultural product concerned, such as grains, cotton, etc.; (*c*) relations between conditions existing in the farming industry and the general economic conditions prevailing in the nation and internationally; (*d*) the methods and problems of disposing of farm products in the markets of the world on terms or conditions giving the maximum degree of satisfaction to the growers; (*e*) the economic questions which concern the individual farmer and the members of his family, and affect their living conditions, and so on.

It may be assumed that the Giannini Foundation of Agricultural Economics will be privileged to produce results of enormous value to the agricultural industry in California, not only in the years and decades immediately ahead but as a continuing foundation in perpetuity.

The offer of the gift was accompanied by a check for $25,000; this is to be followed by another for $475,000 within two months, and the remaining $1,000,000 to be made available as it is needed.

PRESENTATION OF THE CHARLES P. DALY GOLD MEDAL TO PROFESSOR ALOIS MUSIL

ON the evening of February 21, at a meeting of the American Geographical Society of New York, the Charles P. Daly gold medal of the society was presented to Professor Alois Musil, of Charles University, Prague, in recognition of a lifetime devoted to explorations in northern Arabia and Mesopotamia and to historical researches relating to this part of the world. After the ceremony, Professor Musil delivered a lecture entitled "Desert Life in Northern Arabia." We have received from the American Geographical

Society the following account of Professor Musil's work:

Professor Musil is now recognized as the foremost living authority on the topography, history and folklore of the desert tracts lying between the settlements of Palestine and Syria on the west, the Tigris on the east, and the oases of Nejd on the south. Since 1896 he has spent many seasons in the field in the course of journeys on camel-back covering a total distance of no less than 13,000 miles. An extremely close observer, Professor Musil has recorded on his maps detailed topographic features and place-names over broad districts previously wholly unexplored. By comparing the results of his field work with the ancient documentary sources, he has been able to reconstruct the probable course of historical events that have hitherto proved enigmas to students of the Old Testament, and to Assyriologists, classicists and Arabicists. His most sensational discovery was made in 1898 on the edge of the desert east of the Dead Sea. Here he found the Kuseyr 'Amra, well-preserved ruins of a summer residence built by the Omayyad caliph Walid II in the eighth century of our era. The interior walls of this structure were decorated with paintings illustrating the adventures of the caliph in the hunting field and with portraits of the fallen rulers of the various countries which had been brought under Moslem subjection—among them one of Roderick, the last Visigothic king of Spain. From the geographical point of view Professor Musil's most striking work was the determination of the position of the main watershed of northern Arabia and the exploration of the fringes of the Nefud, or great sand waste that lies between Nejd and the Hamad steppes (sometimes called the Syrian desert). Professor Musil also traced the lower course of the River Tharthar, in the interior of Mesopotamia, to its outlet in an unexplored salt lake on the floor of a depression fifty meters below sea-level. Reports of this stream may have given rise to the classical legend of Tartarus, river of the underworld.

Professor Musil has made an extremely important contribution to our knowledge of Bedouin folklore. Accepted as a member of the Rwala tribe, on equal terms with their head chief, he was enabled to study the life of these nomads in its minutest details. He records, translates and explains several hundred of their songs in his volume, "The Manners and Customs of the Rwala Bedouins."

The results of Professor Musil's researches prior to 1908 were published in two great series by the Vienna Academy of Science: "Kusejr 'Amra" (in 2 volumes) and "Arabia Petraea" (in 4 volumes); the latter is accompanied by a map of Arabia Petraea on the scale of 1 : 500,000. His field work of 1908–1915 is described in a series of six volumes, the publication of which by the American Geographical Society has been made possible through the generosity of Charles R. Crane, Esq. Five of these six volumes are devoted to the narratives of the explorer's itineraries and to historical essays on the various regions visited. Three volumes are now in print ("The Northern Hegâz," 1926; "Arabia Deserta," 1927, and "The Middle Euphrates," 1927). Two more will be published in the course of 1928 ("Palmyrena" and "Northern Negd"), and the sixth volume of the series ("The Manners and Customs of the Rwala Bedouin") will also appear before the close of the present year. Forming an integral part of this series are three maps: The Northern Hegâz, 1 : 500,000; Northern Arabia, in four sheets, 1 : 1,000,000, and Southern Mesopotamia, 1 : 1,000,000.

NATIONAL RESEARCH FELLOWSHIPS IN THE BIOLOGICAL SCIENCES

THE Board of National Research Fellowships in the Biological Sciences met on February 10 and 11 and made the following awards for the year 1928–29:

Reappointments

Kenneth Cole—Biophysics
Robert Emerson—Botany
M. B. Linford—Botany
Louis W. Max—Psychology
G. G. Pincus—Zoology
Jack Schultz—Zoology
R. H. Wallace—Botany

New Appointments

F. M. Carpenter—Zoology
F. E. Clements—Anthropology
S. H. Emerson—Botany
Eileen W. Erlanson—Botany
Clay G. Huff—Zoology
C. F. Jacobsen—Psychology
D. A. Johansen—Botany
P. A. Readio—Zoology
D. C. Smith—Zoology
M. T. Sonneborn—Zoology
R. C. Tryon—Psychology

The second meeting of the board for further appointments for 1928–29 will be held the latter part of May, and applications for consideration at that time are requested by April 15. The necessary forms and information for making application may be secured from the Secretary, Board of National Research Fellowships in the Biological Sciences, National Research Council, Washington, D. C.

FRANK R. LILLIE, *Chairman,*
Board of National Research Fellowships
in the Biological Sciences

SCIENTIFIC NOTES AND NEWS

IN recognition of his research work in the field of catalysis, the Nichols medal was formally awarded to Dr. Hugh Stott Taylor, David B. Jones research professor of chemistry at Princeton University, on March 9. The presentation of the medal followed a dinner at the Chemists' Club, given by the New York section of the American Electrochemical Society, the Society of Chemical Industry and the Société de Chimie Industrielle. After speeches by Dean James Kendall,