

to complete the scheme by providing the additional buildings and plant required for the synthesis of ammonia and its oxidation to nitric acid and nitrates suitable for the manufacture of explosives and fertilizers. It is understood that the company has acquired a large amount of additional land and that it intends to develop the project on a very large scale. The factory has been re-designed on a peace as distinct from its former war basis, and in many particulars the new plant will represent a substantial advance, both in the ammonia and nitric acid sections, on anything previously used in Germany.

#### SPANISH EDITION OF THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

At the meeting in New Orleans the board of trustee's presented the following report:

The first year of the Spanish edition of *The Journal* has been reasonably satisfactory. Its publication was undertaken with some hesitancy because it meant a venture in an entirely new field. Other periodicals had been published in this country in the Spanish language for circulation in South and Central America, but their publication was undertaken for commercial reasons. Our Spanish edition entered the field solely as a scientific periodical for educative and scientific purposes, and it has been received with approbation. The field was a difficult one to work in the first place because there was not available any physician's directory, or any even fairly reliable list of physicians of standing. However, a list of such physicians has been gradually assembled so that now there is a fairly reliable one at the association headquarters. Included in this list are the physicians of Central and South America and the Philippine Islands.

Another difficulty has been the mailing facilities; these have been anything but satisfactory. Under normal conditions it takes a long time for a communication to reach the South American countries, with the exception of those bordering on the Gulf of Mexico.

At the end of the year the subscription list comprised 2,908 names. To those who appreciate the difficulties and know the conditions that prevailed at the beginning, this must be regarded as quite satisfactory. Roughly, this circulation is as follows: The largest number of subscribers naturally are in Mexico—539; in Cuba next, 530; Argentina,

270; Brazil, 194 (in Brazil Portuguese is the language in general use, therefore it is rather remarkable that this number has been secured there); Chile, 179; Spain, 142; Peru, 101. The rest of the circulation is in Bolivia, Colombia, Costa Rica, Ecuador, Guatemala, Honduras, Nicaragua, Paraguay, Salvador, Santo Domingo, Uruguay, Venezuela, Panama and Porto Rico.

It is not to be expected that this journal could be published without a loss for the first few years. As will be remembered, the venture was undertaken at the request of the International Health Board of the Rockefeller Foundation, which agreed to pay half the loss. It should be explained in this connection that the number of copies of each issue printed was 4,500 to 5,500, and that the excess above those subscribed for was sent out as sample copies. Hereafter, of course, there will be fewer sample copies distributed; consequently a less expense with an increased income. During the months of January, February and March the circulation has been steadily increasing. The actual loss to the association to date has been less than \$10,000, which amount promises to be returned with more than gratifying results within the first five-year period of its publication.

#### GRANTS FOR RESEARCH MADE BY THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

THE Committee on Grants of the association held a meeting in April, and distributed grants amounting to forty-five hundred dollars as given below. The next meeting of the committee will be in connection with the annual meeting of the association in December, when grants for the year 1920 will be made. Applications or suggestions in regard to grants may be made to any member of the committee, and should be received before December 1. The present membership is: Henry Crew, chairman; W. B. Cannon, R. T. Chamberlin, G. N. Lewis, George T. Moore, G. H. Parker, Robert M. Yerkes, and Joel Stebbins, secretary.

Following are the grants for 1919:

##### MATHEMATICS

Three hundred dollars to Professor Solomon Lefschetz, of Kansas University, to assist in the publication of his memoir on algebraic surfaces, which was awarded the Bordin prize of the Paris Academy of Sciences.

One hundred dollars to Dr. Olive C. Hazlett, of Mount Holyoke College, in support of her work on the theory of hypercomplex numbers and invariants.

## PHYSICS

Two hundred dollars to Professor A. A. Knowlton, of Reed College, in aid of a determination of the relation between chemical composition and magnetic properties in Heusler alloys. The particular problem is to find the precise proportions in which the elements must be mixed in order to get the maximum value of magnetic intensity at saturation.

One hundred dollars to Professor John C. Shedd, of Occidental College, in aid of a further study of snow crystals, similar to that which he has already published.

## ASTRONOMY

Six hundred dollars to Professor Philip Fox, of Dearborn Observatory, Northwestern University, in support of his work on the photographic determination of stellar parallaxes. This is a renewal of the grant made for the same purpose in 1917, but the use of which was interrupted by the war.

One hundred dollars to Professor Anne S. Young, of Mount Holyoke College, for the determination of the positions and proper motions of stars from photographic plates already taken. The work is being done in cooperation with the Yerkes and McCormick Observatories.

## GEOLOGY

Two hundred and fifty dollars to M. Ferdinand Canu, of Versailles, France, to carry forward toward completion the very significant studies upon the classification of bryozoa in which he is collaborating with Dr. R. S. Bassler at the U. S. National Museum.

Two hundred and fifty dollars to Mr. Frank B. Taylor, of Fort Wayne, Indiana, for a field study of the moraines of recession in the St. Lawrence Valley.

## ZOOLOGY

Two hundred and fifty dollars to Professor S. I. Kornhauser, of Denison University, for a continuation of his work on the sexual characteristics of the membracid insect *Thelia bimaculata*. The first part of this work was published in September, 1919, in the *Journal of Morphology*.

Two hundred dollars to Dr. P. W. Whiting, of St. Stephen's College, for breeding outfit and temperature apparatus to be used for genetic and cytological researches on *Ephestia* and *Hadrobracon*.

## BOTANY

Five hundred dollars to the editorial board of *Botanical Abstracts* for editorial and office expenses in connection with the preparation of manuscripts. The general interests of botany, in both its national and international aspects, would seem to be best served at this time by aiding this abstract journal for another year.

Five hundred dollars to Dr. I. W. Bailey, of the Bussey Institution, Harvard University, for aid in investigations upon: (1) Myrmecophytism; particularly certain supposed symbiotic relations between ants and higher plants. (2) Relations between ants and fungi, particularly ants as disseminators of disease. (3) Cytology of the cambium. The entomological work involved will be done in collaboration with Professor W. M. Wheeler, and the headquarters for the summer will be at the British Guiana Tropical Research Station of the New York Zoological Society.

## ANTHROPOLOGY, PSYCHOLOGY AND EDUCATION

One hundred dollars to Mr. S. D. Robbins, of the Harvard Psychological Laboratory, for measurements of blood pressure of a trephined stammerer.

Two hundred dollars to Professor Daniel W. LaRue, Stroudsburg State Normal School, Pennsylvania, in support of experimental work on a phonetic alphabet.

Two hundred dollars to Professor Margaret F. Washburn, Vassar College, for a study of emotional characteristics of certain racial groups in New York City.

Two hundred dollars to Professor Joseph Peterson, George Peabody College for Teachers, Tennessee, in support of a study of the qualitative differences in the mentality of whites and negroes.

Two hundred dollars to Professor A. A. Schaeffer, University of Tennessee, in support of an experimental study of orientation and the direction of movement of animals, and particularly of the "spiral path" in man.

## PHYSIOLOGY AND MEDICINE

One hundred dollars to Professor Theodore Hough, University of Virginia, in support of his studies with Dr. J. A. Waddell on blood changes after severe hemorrhages.

One hundred and fifty dollars to Professor Carl J. Wiggers, Western Reserve University, in support of his investigations of the cardiac function by optical registration.

JOEL STEBBINS,  
Secretary