

Hebrew, as well as French, German and English. He is a graduate of the Agricultural School of Grignon, France, and has attracted the attention of the scientific world through his discovery of the long-sought wild prototype of wheat. His discoveries in Palestine of drought-resistant stocks and dry land grains and forage plants, as well as the possibilities of American breeders utilizing his wild wheat, have led Dr. Galloway, the Chief of the Bureau of Plant Industry, to request Mr. Aaronsohn to prepare a bulletin, which is now in print, giving in some detail the bearing of his studies in Palestine on the many agricultural problems of the United States.

While the special aim of the institution will be to put the Jewish colonists and farmers of Palestine and the neighboring colonies in a position to carry on agriculture in a rational and progressive manner, Mr. Aaronsohn's idea is to assemble as complete an equipment of the official agricultural publications of the United States as possible. Through the liberality of the Office of Experiment Stations and the directors of various state stations, supplemented by private gifts and purchases, Mr. Aaronsohn has already assembled what will be the most complete set of American experiment station reports and bulletins to be found anywhere in the Old World. It is his earnest desire to make this set of American experiment station reports absolutely complete and he will keenly appreciate any help given him towards this end.

As the study of plant pathology is quite unknown in Palestine, Mr. Aaronsohn has purchased as a nucleus of pathological work the collection of the late Professor W. A. Kellerman of about 24,000 specimens of fungi, and the Department of Agriculture has offered to supplement this with about a thousand other numbers. To these American numbers Mr. Aaronsohn proposes to add his own personal collections of agronomic, botanical and geological material, and altogether they will prove of invaluable assistance in the comparative studies which he proposes shall be carried on at the station.

The buildings will be of stone and practi-

cally fireproof, but to give further guaranty against loss Mr. Aaronsohn proposes to install steel shelving for the books and metallic cases for his collections.

It is also Mr. Aaronsohn's purpose to have a visitors' laboratory, with proper facilities, which will be placed at the disposal of properly accredited visitors from abroad. Those who have taken advantage of the marvelous facilities of the Naples Zoological Station will appreciate how much this means in a country like Palestine, where there are few facilities for scientific investigation.

It is Mr. Aaronsohn's intention to publish at least the annual reports of his station in English, although naturally his circulars and bulletins containing the practical results will for the most part be published in Hebrew, Turkish and Arabic.

The founding with liberal financial support of this new station in the eastern Mediterranean region will go far towards introducing American methods in the study of agricultural problems throughout the whole Mediterranean region and facilitate the exchange of plant industries between that region and the United States, which has been already begun by the agricultural explorers of the department, and by such men as Dr. L. Trabut, the government botanist of Algeria, and which has proved of such mutual aid to both regions.

DAVID FAIRCHILD

U. S. DEPARTMENT OF AGRICULTURE

THE CARNEGIE INSTITUTION OF
WASHINGTON¹

THE Carnegie Institution of Washington has just issued its eighth "Year Book," a volume of about 250 pages, containing a résumé of the work accomplished under the auspices of the institution during the year 1909. The "Year Book" comprises the annual reports of the president, the executive committee and the directors of various departments of research, together with reports upon the progress of other investigations carried on by individual grantees and associates of the institution. There is also included a

¹ Statement supplied by the Institution.

bibliography of papers and reports on these investigations which have appeared in various journals during the year.

The report of the president gives detailed figures showing the funds available for expenditure during the year and the manner in which these funds have been distributed. A summary of these financial statements shows that of the \$694,094.11 available, \$467,500 have been applied to the maintenance of large projects and established departments of work; \$49,969.32 have been distributed in the form of minor grants to individuals; \$30,575.02 have been allotted to research associates and assistants; \$54,645.27 have been expended in the work of publication and \$49,792.21 have been required for administrative purposes. These allotments reached a total of \$652,481.82, leaving an unallotted balance of \$41,612.29 at the close of the fiscal year. The total amount of funds appropriated for expenditure from the foundation of the institution to the present time is \$4,320,140.00, of which \$307,227.03 were reverted and afterwards reappropriated. The total amount expended to date is \$4,128,697.11.

The scope of the work undertaken by the institution has broadened until, as shown by the present report, investigations have been carried on in more than thirty different fields of research and extended into more than forty different countries. Two astronomical observatories and five laboratories are maintained, and the equipment of the various establishments located in different parts of the United States includes 58 buildings, a specially designed ship and 8 smaller craft.

The building designed for the principal offices of the institution has been completed during the past year and has been occupied by the administrative staff since the second week in November. It is located at the corner of Sixteenth and P Streets, in Washington, and contains, in addition to the executive offices, an assembly room with a seating capacity of 200 and ample space for the storage of publications. The annual meetings of the board of trustees will be held here, as well as the monthly meetings of the executive committee of the institution.

The building was dedicated on December 13, when addresses were delivered by Mr. Andrew Carnegie, founder of the institution and Hon. Elihu Root, chairman of the building committee. On this occasion also an illustrated lecture was given by Dr. George E. Hale, director of the Solar Observatory located on Mount Wilson, California, inaugurating a series of lectures which it is proposed to give annually. From December 15 to 17 the building was open to the public for inspection, and exhibits from the investigations of the ten departments of research, together with the work of publication and administration, were placed on view.

As a notable event of the past year the president cites the establishment and active operation of the observatory of the Department of Meridian Astrometry, at San Luis, in Argentina, under the direction of Professor Lewis Boss. The work of observation of the southern stars was begun in April last, and is now proceeding at a rate heretofore unequaled in this branch of astronomy. Observations made with the meridian-circle, transferred with great care to San Luis from the Dudley Observatory, in Albany, New York, will be combined with corresponding observations made at Albany.

Another event of prime importance during the year has been the completion and the initial cruise of the nonmagnetic ship *Carnegie*, now making a magnetic survey of the Atlantic Ocean, under the direction of the department of terrestrial magnetism. This ship was launched on June 12, 1909, and set sail upon her first voyage on August 21 last. During her voyage across the Atlantic errors of prime importance to navigation were found in the best magnetic charts now used by mariners.

At the Solar Observatory in California the 60-inch equatorial reflecting telescope has been tested and found highly satisfactory. The construction of a new tower telescope, 150 feet high above ground and 75 feet below ground, has been begun. In addition to the further interpretation of the nature of sunspots, it is expected that an investigation of the electro-magnetic properties shown by the

sun, in conjunction with observations made by the department of terrestrial magnetism on "storms" to which the earth's magnetism is subject, will result in a distinct advance in this field of research.

Capital results have been achieved also during the past year by other departments of the institution. At the Geophysical Laboratory in Washington, where geological and mineralogical experiments are being carried on, there has been an important addition to the equipment in the form of apparatus for subjecting materials under observation to high pressures and high temperatures. At the Marine Biological Laboratory at Tortugas, Florida, research has been widely extended by a corps of specialists. The equipment of the Nutrition Laboratory in Boston has proved highly effective in ascertaining the influence of nutrition upon pathological as well as upon normal subjects. The search for the sources of American history, which is being conducted by the department of historical research, has been vigorously carried forward in Mexico, Italy, France, Germany, Great Britain and the United States.

The investigations of the department of botanical research have been continued successfully. Among these the experiments of the director in the production of mutants in plants seem destined to play a fundamental rôle in the determination of the absorbing biological question of the derivation of species. The progress made in the researches in experimental evolution being conducted at Cold Spring Harbor has also been significant, and the facilities of this department have been increased by the purchase of Goose Island, in Long Island Sound, where the development of plants and animals in a state of isolation may be observed.

The publication work of the institution has proceeded actively. Nineteen volumes, with an aggregate of 4,907 pages, have been issued, bringing the total number of the institution's publications to 141, with a total aggregate of approximately 35,000 pages of printed matter. One of the most important publication projects thus far undertaken by the institution was inaugurated during the year, namely,

that of an addition of the Classics of International Law. Under the general editorship of Professor James Brown Scott, the early master-works in international law are to be issued. Each work is to be reproduced by photographic process from the best available edition, and accompanied by a complete translation into English, and supplied with an introductory commentary. The work already begun includes the "*Juris et judicii fecialis, sive juris inter gentes*" of Zouche, and the "*De jure belli ac pacis*" of Grotius.

THE ROCKEFELLER FOUNDATION

AS readers of SCIENCE have learned from the daily papers, a bill has been introduced into the United States Senate incorporating the Rockefeller Foundation, the object of which is "to promote the well-being and advance the civilization of the peoples of the United States and its territories and possessions, and of foreign lands, in the acquisition and dissemination of knowledge, in the prevention of suffering and in the promotion of any and all the elements of human progress." The bill names as incorporators of the foundation John D. Rockefeller, John D. Rockefeller, Jr., Fred T. Gates, Starr J. Murphy and Charles O. Heydt. The principal offices of the foundation would be in the District of Columbia, though the bill also gives the right to establish branch offices elsewhere and to hold meetings of the trustees at any place they may see fit. The amount of the endowment has not been announced. It is said that Mr. Rockefeller's gifts have amounted to about \$150,000,000, and that his present fortune is in the neighborhood of \$300,000,000.

SCIENTIFIC NOTES AND NEWS

DR. ADOLF VON BAEYER, professor of chemistry at Munich, has been elected a foreign member of the Paris Academy of Sciences.

THE following fifteen candidates have been selected by the council of the Royal Society to be recommended for election into the society: Mr. J. Barcroft, Professor G. C. Bourne, Professor A. P. Coleman, Dr. F. A. Dixey, Dr. L. N. G. Filon, Mr. A. Fowler, Dr. A. E. Garrod,