Plans involving an expanded program of activities in the fields of early American cultures and of plant biology were also referred to by the president.

In respect to the first of these he said that the specific investigations heretofore undertaken by the institution in American archeology had been initiated in the hope that they might lead to some suggestion of laws which have governed in the development of the varying types of early peoples and cultures in America. He pointed out that the time had now come in the work of the Carnegie Institution in this field when the results should be interpreted in the light of what has been learned about the American problem in other regions and by other agencies.

The president also stated that Dr. Alfred V. Kidder, who has worked with distinction in early American history and is deeply interested in the wider aspects of the matter, has accepted leadership for the institution in its broadened activities in this field of research. This change implies no lessening of interest in the investigation of the Maya culture of Yucatan, for the results which the institution has obtained, he assured the trustees, amply justify adherence to its fundamental plan of furthering historical studies in Middle America.

In referring to proposed changes in the plant biology program the president said that during the past two decades the institution had attempted to advance the boundaries of knowledge by intensive effort at several critical points along the margin of the field. Such, he suggested, have been the researches in problems of life process in plant physiology, on the relation of life development to special types of conditions as in work at the Desert Laboratory, on the relation of life progress to environment, on problems of plant heredity, on questions touching relation of classification to heredity and to influence of environment and on problems presented by the history of plant life during the ages.

In 1926 a small committee of the institution's leading investigators in this field was asked to formulate a program for future guidance after full consideration of the matter. The report of this committee, the trustees were informed, indicates that a greater unity of attack would be profitable to all, without real loss or hardship and that a larger measure of unity in administration would facilitate the entire plant biology program.

President Merriam also spoke of the opportunity afforded the institution's investigators during the year of participating in international meetings. He believes that such meetings and the contacts with workers in related fields which they provide have distinct value. On this point he said:

> Through these relationships there has developed both the accumulation of materials arising from studies by other institutions and the contribution from our own researches, which are thus subjected to constructive review by experts in related fields. It is believed that such extension of our relationships is one of the important means to be used in finding how our own course should be steered in the unknown fields toward which we are always moving.

Dr. Merriam presented to the trustees a report covering in detail the progress of research carried on by the institution during 1926–27. This will soon be available for distribution in the form of *Year Book*, No. 26.

The trustees upon completing the business of the day spent the afternoon with their friends in viewing the exhibition prepared by members of the institution staff. This exhibition, which is set up at this time every year at the Administration Building, Washington, D. C., is designed to show the progress made in significant research activities. For three days following the annual meeting of the board of trustees, December 10, 11 and 12, the public generally was invited to view the exhibits.

EXPLORATIONS IN ALASKA BY THE U. S. GEOLOGICAL SURVEY

THE U. S. Interior Department announces the completion of the field work of another exploratory expedition in Alaska by the Geological Survey and the bringing back of maps and information regarding a tract of more than 2,000 square miles in the Alaska Range and adjacent country on the west side of Cook Inlet, in the environs of Mount Spurr, that has hitherto been shown as a blank area on all authoritative maps. This exploration is one of the series that the Geological Survey has been making throughout the last thirty years. The party consisted of S. R. Capps, geologist in charge; R. H. Sargent, topographic engineer, and four camp men. Transportation in the field of the necessary provisions, supplies and equipment for 100 days was furnished by a pack train of fifteen horses. From the time when the party landed at Trading Bay, on the west side of Cook Inlet, about the middle of June, until it returned to that place at the end of the field season, about the middle of September, the members were entirely out of communication with the rest of the world.

Among the many items reported are the discovery and mapping of a large river, numerous lakes, glaciers and mountains and an active volcano. The newly discovered large river is the Chakachatna, whose drainage basin covers an area of more than 1,100 square miles. This stream is a roaring torrent far too swift and too deep to be forded even with horses; in fact, measure-

ments of its current at several places showed that it was flowing at an average speed of 15 miles an hour. This river rises in a superb lake, Lake Chakachamna, 23 miles long, which is hemmed in between lofty mountains and impounded behind a great glacier that lies athwart the general trend of the valley. The distribution of the rivers that head against the Chakachatna can now be predicted with considerable assurance. Thus, to the south are rivers that probably flow in part into Lake Clark; to the west and northwest are tributaries of Stony River and of the South Fork of Kuskokwim River.

Many of the mountain peaks are ragged pinnacles which could be climbed, if at all, only with great difficulty. The highest peak of the region is Mount Spurr, which rises to an altitude of 11,000 feet and is clearly visible from the coast. Although the flanks of this mountain are in large part covered with perpetual snow and glaciers, the mountain was found to be an old volcano that is still active. When the weather was favorable a plume of steam could be seen rising from a point near its crest to a height of more than a thousand feet. This discovery therefore establishes Mount Spurr as the most northerly of the long series of known active volcanoes that occur at intervals along the west coast of Cook Inlet and extend westward into the Alaska Peninsula and Aleutian Islands.

ENDOWMENT FOR THE ARNOLD ARBORETUM

FRIENDS of the late Professor Charles Sprague Sargent and others interested in the Arnold Arboretum of Harvard University, in Jamaica Plain, on November 30 gathered at Sherry's Restaurant, New York City, to hear of plans for the completion of a $1,000,000 endowment fund for the arboretum. The fund, about $600,000 of which has been raised since Professor Sargent's death last March, will be used to perpetuate the great botanical station as he had planned it. About 500 persons attended the dinner, held under the auspices of the New York committee.

David Fairchild, agricultural explorer in charge of foreign plant introduction for the U. S. Department of Agriculture; Professor Oakes Ames, present supervisor of the arboretum and successor to Professor Sargent, and the Right Reverend William Lawrence, formerly Bishop of the Episcopal Diocese of Massachusetts, were the speakers. All urged support of the arboretum, painting it as a vital part of the country's life and as a great power both in the economic world and for the beauty of the nation.

It was announced on December 3, by Mr. J. P. Morgan, who is acting as treasurer, that since the opening of the New York campaign to raise part of the proposed $1,000,000 endowment fund for the arboretum, $109,250 has been contributed by New Yorkers.

A gift of $50,000 to the fund has been offered by Edward S. Harkness, on condition that the New York committee match the $460,000 already contributed in Boston.

New York contributors to the fund so far are Moreau Delano, $25,000; J. P. Morgan, $20,000; Mrs. Harold I. Pratt, $15,000; Mrs. W. Bayard Cutting, $5,000; William Adams Delano, $5,000; T. A. Havemeyer, $5,000; Mrs. James H. Metcalf, $5,000; Charles A. Stone, $5,000; William Nelson Cromwell, $2,500; Henry W. de Forest, $3,000; John E. Aldred, $2,500; R. W. de Forest, $2,500 plus $500; J. N. Jarvie, $2,500; anonymous, $1,000; Paul D. Cravath, $1,000; Mrs. Max Farrand, $1,000; Mrs. W. L. Harkness, $1,000; Clarence Hay, $1,000; Charles Hayden, $1,000; G. O. Muhlfeld, $1,000; Anton G. Hodenpyl, $500; Mrs. Arthur Curtiss James, $500; Mr. and Mrs. A. R. Graustein, $500; Victor Morawetz, $500; W. H. Bush, $250; O. M. Eidlitz, $250, and Elihu Root, $250.

THE FIRST MEETING OF THE COLORADO-WYOMING ACADEMY OF SCIENCE

THE first meeting of the Colorado-Wyoming Academy of Science was held on November 25 and 26, at the University of Wyoming. The new organization has an initial enrolment of 166 members chiefly from the eight educational institutions of these two states.

Sectional meetings were held in the new engineering building of the University of Wyoming and forty-one papers were presented on chemistry, physics, botany, zoology, geology and social science. At the business meeting on the afternoon of the second day the constitution was formally adopted and the following officers elected:

Dr. Aven Nelson, University of Wyoming, *President.*
Dr. O. C. Lester, University of Colorado, *Vice-president.*
Dr. L. W. Durrell, Colorado Agricultural College, *Secretary.*
Dr. E. B. Renaud, University of Denver, *Treasurer.*

Closing the session a banquet was given the members by the University of Wyoming.

SCIENTIFIC NOTES AND NEWS

THOMAS ALVA EDISON has been elected an honorary member of the British Institution of Electrical Engineers.

PRESENTATION of the Chandler medal by Columbia University will be made to Professor Moses Gomberg on December 15, when he delivers the Chandler lecture on "Free Radicals in Chemistry—Past and Present."