he interested hundreds to whom a more rigorous student might have spoken in vain. In this way he created a "Pueblo consciousness" which drew other investigators to the field and provided popular support for their work, performing a similar service to that of Cushing at an earlier date on the side of ethnology. Thus the title "dean of American archeology" which, with advancing years, some of his admirers came to apply to him was not inappropriate. It was a term which his charm of manner set off to most excellent advantage, and he had a devoted circle of friends who will feel that his going has removed something peculiarly warm and winning from their lives.

JOHN R. SWANTON

## RECENT DEATHS

COLONEL WILLIAM BOYCE THOMPSON, mining engineer and copper operator, who founded the Boyce Thompson Institute for Plant Research with an endowment approaching ten million dollars and who gave other large sums for public purposes, died on June 28 at the age of sixty-one years.

PROFESSOR CHRISTEN LUNDSGAARD, professor of internal medicine at the Royal University of Denmark at Copenhagen, formerly an associate of the Rockefeller Institute for Medical Research and a member of the American Society for Experimental Biology and Medicine, died on June 16. He was forty-seven years old.

*Nature* reports the death of Mr. Arthur Stanley Hirst at sea on May 4. Mr. Hirst was formerly an assistant keeper in the British Museum (Natural History). He was born in 1883.

DR. J. B. BRADBURY, for the past thirty-six years professor of medicine in the University of Cambridge, died on June 4 at the age of eighty-nine years.

THE death is announced of Dr. Kiyoo Nakamura, director of the Central Meteorological Observatory of Japan.

## MEMORIALS

*Industrial and Engineering Chemistry* reports that the Northeastern Section of the American Chemical Society, through a committee composed of Lyman C. Newell, Arthur D. Little and James F. Norris, has announced the establishment of a gold medal to commemorate the many fundamental contributions made to chemistry by Theodore William Richards. The medal will be awarded by the Northeastern Section at intervals of two or three years for conspicuous achievements in chemistry, and is being designed by Cyrus E. Dallin, a sculptor who was an intimate friend of Professor Richards. An opportunity is offered the friends of Professor Richards to assist in securing the sum of ten thousand dollars which is required to cover the initial expenses and provide a trust fund yielding sufficient income for the successive medals and incidental expenses.

DEDICATION ceremonies for Atwater Laboratory, the new building to house the animal disease and the genetics departments of the Storrs Agricultural Experiment Station, Connecticut, were held on June 12. The laboratory of brick and brown stone, two stories and a basement, was erected at a cost of $42,000. It was named for Wilbur O. Atwater, professor of chemistry at Wesleyan University, first director of the Storrs Station and of the United States Office of Experiment Stations. On the program of the dedication were Dr. Edward C. Schneider, professor of physiology at Wesleyan; Dr. Edward H. Jenkins, director emeritus of the experiment station, and Dr. A. F. Blakeslee, vice-director of the Carnegie Station for Experimental Evolution in Cold Spring Harbor, L. I., formerly professor of botany at the Connecticut Agricultural College, Storrs. Dr. George Alan Works, president of the college, presided. Guests from many colleges and research institutions attended the ceremonies and the luncheon that followed.

IN commemoration of the twenty-fifth anniversary of the discovery of the spirochete that is the causative agent of syphilis, memorial exercises in honor of the discoverer, Dr. Fritz Schaudinn, were held, May 17, in the Zoological Institute, Berlin. At the same time, his workshop or laboratory was dedicated as the "Schaudinn Room." Professor Max Hartmann and Professor Hesse delivered the memorial addresses.

# SCIENTIFIC EVENTS

## NATIONAL HYDRAULIC LABORATORY

ON May 14 last, the following bill was signed by President Hoover:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there is hereby authorized to be established in the Bureau of Standards of the Department of Commerce a national hydraulic laboratory for the determination of fundamental data useful in hydraulic research and engineering, including laboratory research relating to the behavior and control of river and harbor waters, the study of hydraulic structures and water flow, and the development and testing of hydraulic instruments and accessories: Provided, That no test, study or other work on a problem or problems connected with a project the prosecution of which is under the jurisdiction of any department or independent agency of the government shall be undertaken in the laboratory herein authorized until a written request to do such work is submitted to the

Director of the Bureau of Standards by the head of the department or independent agency charged with the execution of such project: And provided further, That any state or political subdivision thereof may obtain a test, study or other work on a problem connected with a project the prosecution of which is under the jurisdiction of such state or political subdivision thereof.

Sec. 2. There is hereby authorized to be appropriated out of any money in the Treasury not otherwise appropriated, not to exceed $350,000, to be expended by the Secretary of Commerce for the construction and installation upon the present site of the Bureau of Standards in the District of Columbia of a suitable hydraulic laboratory building and such equipment, utilities and appurtenances thereto as may be necessary.

A number of government departments have a long list of urgent problems awaiting solution, and the experiments in connection therewith will be taken up in the new laboratory as soon as it is completed. Among these are questions relating to large reclamation and water conservation projects in the West, the control of erosion below spillways and dams, losses of head in large pipe and channel bends, the flow of water over dams, the entrainment of air at tunnel and syphon entrances, the regulation of rivers, the laws of silting and erosion in drainage ditches and streams, and the improvement of instruments and devices for measuring flowing water.

Owing to the great variety of problems which will be submitted for study, the equipment of the new laboratory will be designed to furnish the greatest possible flexibility of arrangement and combination, so that it can be adapted easily to the simultaneous study of a number of different problems.

The fixed equipment will include electrically driven pumps for circulating the water, a large concrete water-supply basin, a concrete measuring tank, several steel weighing tanks, elevated control tanks for supplying water under several different fixed heads, a standpipe and piping systems for distributing this water to all parts of the laboratory and for returning it from the models under test to the supply basin. A large unobstructed floor will be provided where a number of models can be built and tested simultaneously.

## WEATHER FORECASTS FOR AIRWAYS

THE Weather Bureau is organizing an expansion of its service in aid of aviation, which will provide frequent and regular weather reports covering approximately 13,000 miles of airways. Effective soon after July 1, these reports will provide sufficient detail to meet all needs.

On about 8,000 miles of these airways teletype lines will provide 24-hour communication with exchange of reports once each hour. The remaining 5,000 miles will be served by reports transmitted by telephone or telegraph and at such intervals as will best meet current needs. On nearly 3,000 miles of airways, over which there is as yet comparatively little flying (one or two daily flights each way), the bureau will provide a limited service.

The current reports along all of these airways are supplemented by specialized, short-period airways forecasts which are based primarily on the twice-daily, country-wide reports and weather maps used in the general forecasting service, and, secondarily, on a series of three-hourly reports concentrated at designated centers from a well-selected network of stations. Some of these reporting stations are on the airways and others are at a considerable distance from them. At present the centers to which these reports go and from which the short-period forecasts are issued are the airport stations at Cleveland, Ohio; Fort Crook, Nebraska; Salt Lake City, Utah, and Oakland, California. After July 1, the increased appropriation will enable the bureau to open three new offices, at Atlanta, Georgia, at Dallas, Texas, and at Portland, Oregon. About 110 reporting stations will transmit to these forecasting centers.

Bulletins and short-period forecasts based on these reports will be sent by teletype from the seven centers to other airports and to landing fields and will also be broadcast to aircraft in flight through a rapidly expanding network of radio stations maintained by the Department of Commerce.

The Weather Bureau's program provides for the establishment of observation from pilot balloons at several additional stations, including Albuquerque, New Mexico; Cincinnati, Ohio; Dallas and Del Rio, Texas; Elko, Nevada, and North Platte, Nebraska.

Outside of continental United States, the bureau is increasing its airways service in Alaska, where a new first order station is being organized at Nome. Pilot balloons will be stationed at Nome and Fairbanks. The service in the Hawaiian Islands will include a chain of inter-island stations from which reports will be transmitted by radio to Honolulu, there to be made available for the information of pilots flying from one island to another.

The Weather Bureau also announces that it is continuing its investigations with kites, captive, pilot and sounding balloons and airplanes (through cooperation with the Navy Department), and is now engaged also in studies of ice formation on aircraft, turbulence or gustiness and other problems. The bureau's appropriation for all phases of its airways forecasting and study is $1,400,000.

## APPOINTMENTS AT THE ROCKEFELLER INSTITUTE

THE Board of Scientific Directors of The Rockefeller Institute for Medical Research announces the