

The Department of Pure Research has conducted its investigations along the following lines: the preparation and standardization of organic compounds of boron to be used by medical specialists in research aimed at the relief or cure of epilepsy; the synthesis of new hypnotics related to barbital and luminal; the synthesis of new local anesthetics of low toxicity related to anesthine; the preparation and study of the chemical and physical properties of the ethers of ethylene and propylene glycols, some of which have since been shown to have importance as industrial solvents. The more recent problems of the department have been concerned chiefly with a study of the acidic carbohydrates in plants. The chemical nature of alginic acid has been determined and the acidic nucleus of gum arabic has been shown to be an aldobionic acid closely related to carbohydrate derivatives produced by certain pathogenic bacteria.

Within the entire fiscal year, February 29, 1928, to February 28, 1929, the total number of Industrial Fellowships in operation was 72—22 Multiple Fellowships and 50 Individual Fellowships. Eleven fellowships were supported by trade associations. The 173 scientists working on these problems, classified by the colleges or universities from which they received their highest degrees, represent 45 institutions located in 27 different states.

During the eighteen years since the establishment of Mellon Institute at Pittsburgh the total amount of money appropriated by companies and associations was \$5,820,164. The contributions to scientific literature comprise 15 books, 89 bulletins, 471 research reports, 898 other articles and 391 United States patents.

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MELLON INSTITUTE OF  
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## SCIENTIFIC EVENTS

### THE ITALIAN ACADEMY

ACCORDING to *The Christian Science Monitor*, the Italian Academy, which was formally established by royal decree on February 7, 1926, will be officially inaugurated on October 28, next, the seventh anniversary of the Fascist Revolution.

The academy is divided into four classes of members, fifteen for each class, who are eminent in any of the following four branches: History and moral science, literature, the arts and natural science, physics and mathematics. There will be a president, four vice-presidents, one at the head of each class, a general secretary and a treasurer. These members

will form the academic council and will remain in office for five years.

The first thirty members of the academy have been nominated by royal decree, on the advice of the Prime Minister and of the Minister of Education; the remaining thirty will be nominated within three years at the rate of not less than ten a year. Membership is for life; the academicians will enjoy privileges and rank of high state officials, will wear a special uniform and will receive an annual salary of 36,000 lire.

The academy will hold regular sittings to discuss and promote the general interests of art, natural science and letters. It will grant research subsidies, traveling scholarships and will contribute toward the completion of scientific, literary and artistic works; it will in some cases assign pensions to authors, artists and scientists and to their dependents. The academy will be housed in the beautiful Renaissance palace, La Farnesina, and will receive an annual subsidy from the state. The institution of the academy has met with general favor; the Edison Electric Company of Milan has recently presented to the academy a sum of 10,000,000 lire to provide scholarships for foreign travel and scientific research.

## EXPLORATIONS IN ALASKA

THE results of further explorations are described in the U. S. Geological Survey Bulletin 797-B, by Stephen R. Capps, in which the geography and geology of the Skwentna River country are reviewed. The report is accompanied by a map on a scale of about four miles to the inch, on which the drainage and the distribution of the rock formations are shown.

In a new, unexplored country, where streams are too swift for boating and the only trails are those of the wild animals, the surveyor must still use the primitive methods of transport—the pack-horse and the boat dragged by hand through water too swift for even a modern power-boat. Both of these methods were used by the Geological Survey expedition that in 1926 undertook to extend topographic and geologic surveys into the upper portion of the basin of Skwentna River.

The Skwentna is a large western tributary of the Susitna River and drains a hitherto unexplored area in the heart of the Alaska Range south and east of Rainy Pass. The party of four camp hands in addition to the topographer and geologist, with 16 pack-horses and 2 tons of supplies and equipment, was divided into two parts. The pack train, with four men, was carried by launch and scow from Anchorage, on the Alaska Railroad, to the west shore of Cook Inlet, to travel over a trailless country to the upper basin of the Skwentna River. The other men, with most of the supplies, provided with a shallow-draft

boat and outboard motor, proceeded up the Susitna, Yentna and Skwentna Rivers, traveling by the use of the motor where that was possible, and wading and dragging the boat by hand through the miles of rapids. At the point where even this kind of boating was no longer possible the two parties joined and traveled southward up the Skwentna River into the very heart of the great mountain range. No human being was seen during a period of over two months, and even the few signs of native camps indicated that they were 20 or 30 years old. In September, when the approach of winter put an end to the work, the expedition retraced its own route to the coast.

As a result of the season's work about 700 square miles of hitherto unexplored territory was mapped geologically and topographically, and 350 square miles, previously mapped in an exploratory way, was remapped and corrected. This work gave a clue to the position and courses of the rivers that drain many thousand square miles of one of America's great mountain ranges and to routes of approach to other unexplored areas.

### THE NEW POLICIES OF THE INDIAN BUREAU

THE policy of the Indian Bureau under the new administration has been considered by the Board of Indian Commissioners, created by Congress to advise it on Indian problems, and has been given general approval as announced by Secretary Wilbur. It is as follows:

The fundamental aim of the Bureau of Indian Affairs shall be to make of the Indian a self-sustaining, self-respecting American citizen just as rapidly as this can be brought about. The Indian shall no longer be viewed as a ward of the nation but shall be considered a potential citizen.

As rapidly as possible he is to have the full responsibility for himself. Leadership should be given the Indians rather than custodianship.

The Indian stock is of excellent quality. It can readily merge with that of the nation.

In order to bring this about it will be necessary to revise our educational program into one of a practical and vocational character and to mature plans for the absorption of the Indian into the industrial and agricultural life of the nation.

Decentralization of the activities of the bureau shall be brought about as rapidly as possible.

Viewed over a term of years, the Indian agent, as such, with his abnormal powers, shall be dispensed with.

In so far as it is feasible, the problems of health and of education for the Indians shall become a responsibility of the various states. Certain assistance for these purposes should be provided the states wherever it is equitable and desirable to do so.

New Indian schools should only be provided if it is not possible to merge the training of the Indian into the school system of the states. In so far as it is possible, scholarships in the institutions of higher learning of the country shall be provided for those Indian boys and girls who are capable of going beyond the ordinary high-school training.

The educational program for the Indians should be placed under the supervision of the Bureau of Education.

The health program should be placed under the Public Health Service.

In so far as it is possible, except on a few large reservations that are appropriate for a satisfactory life for the Indians, there should be continued allotment of land with full ownership rights granted to the Indians.

It shall be the aim to provide employment for Indians for all occupations possible in connection with Indian communities.

The general policy should be to increase the facilities for the care and development of the Indian for a short period of time, with the general plan in mind of eliminating the Indian Bureau within a period of, say, twenty-five years.

No new appointments should be made in the Indian Bureau except in following out the above program.

In so far as it is possible, general legislation and general appropriations from the Congress shall be sought, rather than specific legislation for specific Indian groups or to solve individual Indian questions.

A survey shall be made of all existing laws with which the Indian question is involved, so that proper laws can be drawn rescinding former actions which are no longer necessary, and an adequate legislative program developed for the future.

### A HOMEOPATHIC MEDICAL CENTER

PLANS for a new homeopathic medical center at York Avenue and Sixty-third Street, New York City, which involve upwards of \$19,000,000 in building funds and endowment, are announced by the board of the New York Homeopathic Medical College and Flower Hospital. More than \$1,000,000 already has been subscribed through alumni support, and additional land adjoining the college and hospital site was purchased for \$275,000 in April, assuring sufficient space for the development.

The development, which will make New York City the center of homeopathic education and research in this country, includes a project for research in the chronic degenerative diseases of middle age; a new home and training school for 250 nurses; a college dormitory for 225 students, and a new college building which will enable expansion of the undergraduate body to 400 students.

The main unit of the center, a new 300-bed hospital designed to allow for later expansion to 500-bed capacity, will rise fifteen stories. An initial effort to