action and bacterial fermentation is fast outstripping our knowledge of the chemistry involved. While in the past, great chemical discoveries have been personal achievements, to-day they are the carefully plotted results of directed, organized staff research. Formerly, gifted chemists of rare vision and patience, aided by a faithful student or two, have hunted down chemical secrets. Now, corps of chemists, in elaborate laboratories, fitted with every modern appliance and reinforced by libraries stored with the accumulated chemical experience of the past, are besieging chemical problems. These research armies are made up of specialists, each working on some particular phase or part of a general problem which he often but dimly apprehends. Need one press further the dangers of too early specialization on the part of professional students of chemistry?

These dangers are obvious even to our industrialists who lead a movement to foster work in pure science. The fountainheads of our scientific knowledge must be cleansed and revivified. This requires men armed for inductive reasoning with all the chemical facts we have accumulated and all the chemical technique we have acquired. But, above all else, they must be men of courage and imagination who will throw into the chaos of the unknown the grappling irons of deductive theory.

Not only for training such scientists, but also for attracting men of the requisite bold devotion to the science, I submit that a foundation of chemical history and the philosophy of chemistry is best. Such a course, while admirably fitted to the needs of the average student, would be no sinecure. In presenting chemistry historically, from the caveman's discovery of fire, of tanning, of ore smelting to the isolation of Illium and the perfection of the Mont Cenis process of ammonia synthesis, showing how empirical application preceded scientific knowledge and tracing out chemical theory checked by experiment, such a course in pandemic chemistry would cover all the ground of the present Chemistry I. Thus, even for the professional student, little time would be lost. Plainly he would then begin professional study with an understanding of chemistry's true and proper place and an appreciation of the nature of chemical problems that would be invaluable in coordinating his work and rationalizing his generalizations.

WILLIAMS HAYNES

NEW YORK, N. Y.

SCIENTIFIC EVENTS

THE PUTNAM BAFFIN ISLAND EXPEDITION

SAILING under the auspices of the American Geographical Society, the Museum of the American Indian, Heye Foundation, the American Museum of Natural History and the Buffalo Society of Natural Sciences, George Palmer Putnam, publisher and explorer, will lead this summer another expedition to the Arctic Circle.

Last summer Mr. Putnam headed the American Museum Greenland Expedition to North Greenland regions and brought back extensive zoological collections for the museum. This year's expedition will be known as the Putnam Baffin Island Expedition. Mr. Putnam expects to sail from New York in June. This trip, like the one last summer, will be made on Captain Robert A. Bartlett's two-masted schooner *Morrissey*.

The probable route of the expedition, subject to seasonal ice conditions, will be westerly through Hudson Strait and thence north into the Fox Basin district, which is less known than any other similar area on the North American continent. Some of it, so far as mapping is concerned, has remained virtually untouched since the original visit of Luke Fox in 1631. Expeditions into the interior of Baffin Island will be attempted.

Professor L. M. Gould, of the department of geology of the University of Michigan, will be in charge of the geographical work. His assistants will be Robert E. Peary, George Baekeland, Wallace R. Hawkins and George Weymouth.

The expedition's anthropological activities will be carried on in behalf of the Museum of the American Indian, Heye Foundation, which will be represented by Donald A. Cadzow. The zoological collecting for the American Museum of Natural History will be done by Fred Limekiller, a member of last year's expedition. Oceanographic work will be conducted for the Buffalo Society of Natural Sciences. Specimens will be collected by plankton nets and dredging.

THE ANNUAL MEETING OF SCIENCE SERVICE

THE annual meeting of Science Service, Inc., the institution for the popularization of science, was held on April 28 and two new members of the board of trustees were elected. Dr. David White, home secretary of the National Academy of Sciences, was named by that body as one of its three representatives upon the board, and Marlen E. Pew, editor of the weekly publication, *Editor and Publisher*, was chosen a representative of the journalistic profession. Trustees who were reelected were: Dr. D. T. MacDougal, director of the Desert Laboratory, Tucson, Ariz., representing the American Association for the Advancement of Science; Dr. C. G. Abbot, acting secretary of the Smithsonian Institution, representing the National Research Council; Thomas L. Sidlo, of Cleveland, Ohio,

representing the E. W. Scripps Estate; John H. Finley, of the New York *Times*, representing the journalistic profession.

Dr. W. E. Ritter, director emeritus of the Scripps Institution for Oceanography and instrumental in the organization of Science Service, was again chosen president. Dr. Vernon Kellogg, permanent secretary of the National Research Council, was elected vice-president and chairman of the executive committee, and Dr. J. McKeen Cattell, editor of SCIENCE, was elected treasurer. These officers, with Dr. White and Mr. Pew, were chosen to constitute the executive committee.

Trustees whose terms of office have not yet expired and the organizations they represent are: American Association for the Advancement of Science, Dr. J. McKeen Cattell and Dr. M. I. Pupin; National Academy of Sciences, Dr. John C. Merriam and Dr. R. A. Millikan; National Research Council, Dr. Vernon Kellogg and Dr. Victor C. Vaughan; journalistic profession, Mark Sullivan; E. W. Scripps Estate, Dr. William E. Ritter and Robert P. Scripps.

Reports from the director, Dr. Edwin E. Slosson, and the managing editor and secretary, Watson Davis, were received and discussed at the meeting.

In the course of the writing and editing of its newspaper syndicate services, magazine articles, books, radio talks and lectures, Science Service produces some 2,200,000 words and 1,300 illustrations, which have an aggregate circulation of some 14,500,000. One service alone, the daily *Science News Bulletin*, goes to 76 newspapers and other publications and a survey of the utilization of these news releases shows that over 3,500,000 newspaper subscribers have the opportunity to read about 260 words of Science Service news reports each day.

The various newspaper services of Science Service now include: daily *Science News Bulletin*, daily "Why the Weather," daily "Nature's Notebook," weekly "Illustrated Feature," weekly "Science Shorts," monthly "Star Story Map," weekly "Isn't It Odd," daily "Current Radio," weekly "Condensed Service," "Special Wire Services," daily "Ask Yourself," a series of "Baby Tests," a series on "The Mechanics of Golf," etc.

The successful establishment of the *Science News-Letter* as a printed weekly magazine, with a circulation of over 5,500, was reported to the trustees. The *Science News-Letter* is available for personal subscription only.

Another important branch of the work of Science Service is the editing of books for various publishers. Its lectures, notably those of its director, Dr. Slosson, reach many thousands yearly and a group of nearly twenty radio stations broadcast a regular radio talk on science furnished them by Science Service. By contributing to leading periodicals through regular departments and occasional articles, Science Service places before many thousands of people reports and interpretations of scientific progress.

WATSON DAVIS,
Managing Editor

WASHINGTON, D. C.

THE FORTIETH ANNIVERSARY OF THE DENISON SCIENTIFIC ASSOCIATION

EXERCISES commemorating the fortieth anniversary of the founding of the Denison Scientific Association were held at Denison University, Granville, Ohio, on April 19. Commemoration addresses were delivered by Dr. C. Judson Herrick, professor of neurology at the University of Chicago; Dr. Frank Carney, consulting geologist of the National Refining Company, and Alfred D. Cole, professor of physics at the Ohio State University.

In connection with the celebration a series of general addresses have been given as follows: April 13, Professor Robert A. Millikan, director of the Norman Bridge Laboratory of the California Institute of Technology, "Science and Religion"; April 20, Dr. Kirtley F. Mather, professor of geology at Harvard University, "Forty Years of Scientific Thought concerning the Origin of Life"; April 27, Dr. George A. Dorsey, author of "Why We behave like Human Beings," "Charles Darwin, a Pioneer in Experimental Evolution."

This association was organized April 16, 1887, and has been active ever since that time. The moving spirit in founding the association was Dr. Clarence Luther Herrick, and among the charter members were A. D. Cole, now head of the department of physics of the Ohio State University; W. E. Castle, of the Bussey Institution of Harvard University; C. Judson Herrick, professor of neurology, University of Chicago; August F. Foerste, paleontologist; W. H. Cathcart, director of Western Reserve Historical Society, and George F. McKibben, now teacher in a college at Saltillo, Mexico.

The *Journal of the Scientific Laboratories of Denison University* has been published since 1885, and has a distinguished list of domestic and foreign exchanges.

In these days of large institutions, it is rather unusual to find a small college with less than a thousand students supporting an organization like the Denison Scientific Association and the publication issued by it.

W. C. EBAUGH,
Permanent Secretary