fields of mining activity, among them being the radium-silver operations at Great Bear Lake, and the new gold camp in the Yellowknife River area in the Northwest Territories. Another is the appearance of the air routes serving the mining fields across the Dominion. Few such services had been developed when the former map was issued. One of the longer of the air routes is shown extending from Edmonton to Resolution south of Great Slave Lake, from where it branches off to Aklavik and to Port Radium and Coppermine. Another extends from Edmonton to Whitehorse and other centers in Yukon.

Most of the principal metals and many of the principal non-metallic minerals are being produced in the Dominion, some of them, including sulfur, rock wool, nepheline syenite, radium and magnesitic dolomite being fairly recent additions to the list.

ENTOMOLOGY AT DARTMOUTH COLLEGE

THE establishment at Dartmouth College has been announced of the Henry Clinton Fall Fund for the promotion of the study of entomology. The fund is a memorial to the late Henry Clinton Fall, entomologist of Tyngsboro, Mass., from whose estate a capital fund of $5,000 has been received by the college. So that income for entomological research may be available at once, the bequest provides an additional amount for immediate expenditure.

The first use of the Fall Fund by the college will be to purchase entomological equipment for the Dartmouth College Museum, which plans a survey of insect fauna of the Hanover region as part of its program to promote knowledge of the economic entomology of the region. The survey will also result in important additions to the 40,000 specimens already possessed in the various entomological collections at Dartmouth.

Dr. Fall, who died last November in his seventy-seventh year, was an authority on American beetles. During the research which he carried on in addition to his work as high-school teacher, he collected some 200,000 mounted specimens. A graduate of Dartmouth in 1884, he was honored with the degree of doctor of science in 1929. He was a member of the permanent committee of the International Congress of Entomology at Brussels, and also held membership in the Entomological Society of America, the American Association for the Advancement of Science and the American Academy of Arts and Sciences.

The entomological collections in the Dartmouth College Museum have grown in the last ten years from virtually nothing to more than forty thousand specimens. Three quarters of these were acquired in 1929 through two gifts—the John Dexter Locke collection of moths, butterflies and beetles, numbering over 25,000 specimens, which was presented by Mrs. Moses Dyer Carbee, of Haverhill, N. H., and the Charles Pliny Whitney collection of North American butterflies and moths, containing nearly 5,000 specimens, which was presented by Dr. Herbert Stillman Hutchinson, Dartmouth, '75, and recently transferred from the department of biology to the museum. The remaining 10,000 specimens are the result, in large measure, of the collecting activities of the staff and students, directed chiefly to the filling in of groups of insects not represented in these two collections. Numerous small collections have also been presented in recent years, and the foundation for a good general collection now exists.

Until now, however, the growth and development of the collections have been severely handicapped by insufficient storage containers and other equipment, and field work has necessarily been curtailed. The income from the Henry Clinton Fall Fund will be used primarily for this purpose, so that storage and study facilities may keep pace with the growth of the collection.

While the aim of the museum is to build up a general teaching collection of insects, field work will naturally be chiefly in Vermont, New Hampshire and Maine, where a thorough survey is being planned. In so far as New Hampshire is concerned, the museum will work in close cooperation with the recently organized Biological Institute of the University of New Hampshire, where a comprehensive survey is being organized.

REPORT OF THE PRESIDENT OF THE CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING

ON June 30, 1939, the Carnegie Foundation for the Advancement of Teaching had resources of $26,917,932. During the preceding year it received $998,714 as income from securities. It disbursed $1,963,279 on account of retiring allowances and widows' pensions, $61,898 for studies conducted in its Division of Educational Enquiry and $91,350 on grants for special research projects carried forward at American universities and by various bodies and associations.

Pertinent facts concerning the retiring allowances and widows' pensions of the foundation for the year ended June 30, 1939, are as follows:

Year's total expenditure for retiring allowances and pensions, $1,963,279.

Increase over year ended June 30, 1938, $2,073, as contrasted with $38,372 for the preceding year.

New allowances and pensions begun, 174, as contrasted with 170 during the preceding year.

Retired teachers receiving new allowances, 123.

Average amount of new allowances, $971.12.

Average age of 123 teachers retired during 1938–39, 68.17 years.

Average length of service of 123 teachers retired during 1938–39, 38.37 years.

Total allowances and pensions in force, 1,496 as contrasted with 1,414 in the preceding year.

Widows receiving new pensions, 51.

Total allowances granted, 1906–1939, 2,965.

Total expenditures for retiring allowances and pensions, 1906–1939, $36,694,421.30.

Since 1905 the foundation disbursed more than $36,694,000 for retiring allowances and widows' pensions, or more than double its General Endowment Fund. Of these disbursements, Harvard University has received more than $2,985,000; Columbia University, $2,645,000; Yale University, $2,218,000; Cornell University, $1,671,000; the University of Michigan, $1,227,000, and the University of California, $1,062,000.

The report discusses the operation of thirty-one research projects at a cost, during the fiscal year 1938–39, of $91,350.

The cooperative arrangement between Carnegie Corporation of New York and the Carnegie Foundation for the Advancement of Teaching respecting projects in the field of higher education has now been in effect for about fifteen years. A series of 148 grants amounting to $1,449,393 have been made by the corporation for eighty-five projects, of which fourteen, involving thirty-four grants, have been carried on in the offices of the foundation, and seventy-one projects involving $1,087,350 in 114 grants have been carried on under the auspices of forty-one other educational institutions or bodies. To these the foundation has allocated and transmitted the funds provided by the corporation.

SUMMER CONFERENCES ON ASTRONOMY AT THE HARVARD OBSERVATORY

THE fifth session of Summer Conferences on Astronomy will be held at the Harvard Observatory from July 1 to August 10. It is believed that many investigators and teachers will welcome the special opportunities for discussion and research available during the six-week session. Visitors who wish to use the plate collection or the instrumental equipment of the observatory will be accommodated to the greatest possible extent. Colloquia will be conducted twice each week by staff members and visiting investigators.

The conferences will include:

Topics in Celestial Mechanics, Professor Dirk Brouwer, Yale University. A discussion of the theory and application of planetary perturbations.

The Internal Constitution of the Stars, Dr. T. E. Sterne and Dr. Martin Schwarzschild. An application of the laws of physics to stellar interiors and a comparison of the results with observation; an introductory course.

Introduction to Astronomical Optics, James G. Baker. A treatment of the general problem of astronomical optics with numerous illustrations of the designing of specific types of instruments, both in theory and in practical details.

Photographic Photometry, Dr. Cecilia Payne-Gaposchkin and Dr. F. L. Whipple. A comprehensive discussion of the problems of photographic photometry found in the study of point-images, surfaces and spectra.

Opportunities for research under guidance will be available in the topics of the conferences and also in galaxies, astrophysics, variable stars, photoelectric photometry, meteors and meteorites.

Professor Shapley and Dr. Watson, assisted by visiting lecturers, will present a survey course, Introduction to Cosmogony. The lecturers will consider origins, processes and destinies; the subjects will include stars, galaxies, the structure of the universe, relativity, cosmic rays, the generation of stellar energy, ancient cosmogonies, mountain building, the age of the earth, planetary atmospheres and the origin of the solar system. Among the visiting lecturers will be: Professor Henry N. Russell and Professor H. P. Robertson, of Princeton University; Dr. Lyman Spitzer, Jr., of Yale University; Dr. R. E. Marshak, of Cornell University; Professor Kirtley F. Mather and Dr. I. A. Getting, of Harvard University, and Dr. Daniel Norman, of the Harvard Observatory. There will be two lectures and one discussion group each week.

As in 1939, auditors holding the degree of Ph.D. in astronomy, physics or mathematics will be allowed reductions in their fees. Further information can be obtained from the Harvard Observatory or from the Summer School Office, Wadsworth House, Cambridge, Mass.

THE AMERICAN INSTITUTE OF MINING AND METALLURGICAL ENGINEERS

THE hundred and fifty-second annual meeting of the American Institute of Mining and Metallurgical Engineers was held from February 12 to 15, in the Engineering Societies Building, New York City, under the presidency of Donald B. Gillies, vice-president of the Republic Steel Corporation.

In addition to a full program of technical papers the events at the meeting included an "All-Institute" session, presided over by President Gillies, with the president-elect, Herbert G. Moulton, consulting mining engineer of New York City, as vice-chairman. Addresses were made by Colonel L. A. Codd, secretary of the U. S. Army Ordnance Association, and by Merlin H. Aylesworth, formerly utility executive-president of the National Broadcasting System.

At the directors' dinner on Tuesday evening Harvey S. Mudd, vice-president of the institute, presented four prizes, two of $100 and two of $50, in the first Institute National Student Contest.