nomical Society of Canada established the Chant medal for outstanding Canadian amateur astronomers.

Superposed on the background of steady day-to-day efforts were memorable dramatic moments in his life. He was a pioneer in the application of x-ray photography and in February 1896 took a shadow-picture of a woman's heel, by means of which a steel needle was located. He sent the first wireless telegraph message in Canada in November 1899, when a message was carried from one side to the other of a lecture room in University College. His long struggles toward the establishment of a large observatory at Toronto, after years of frustration and disappointments, had a dramatic culmination. Through the generosity of the late Mrs. Jessie Donalda Dunlap, as a memorial to her husband, some of the golden riches from the depths of Canadian mines were fittingly transformed into a beautiful observatory for exploring the worlds beyond. The David Dunlap Observatory, with its 74-inch reflecting telescope—at that time the second largest in the world—was formally dedicated on Chant's 70th birthday, on which day he became director emeritus and received an LL.D. degree from the University of Toronto.

A major task of his life was his editorship of the *Journal of the Royal Astronomical Society of Canada,* which he had founded and edited from its beginning. As late as the issue of September 1956, he contributed an article, the obituary of his old friend Walter S. Adams of the Mount Wilson Observatory. As the last issue of volume 50 of the *Journal,* of which he was still editor, was on the press, his lifework ended. A record of exactly 50 years of continuous editorship of a scientific journal has few challengers.

In his life, as he followed the pathway to the stars, he typified the motto of the society he founded: *Quo Ducit Urania.* Canadian astronomers agree with Harlow Shapley who, on hearing of Chant's death, wrote, "No one can so rightly be adjudged the father of his country's astronomy and astronomers as Dr. Chant."

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News of Science

Mellon Institute to Cultivate Fundamental Research

Plans recently adopted by the board of trustees of the Mellon Institute, Pittsburgh, Pa., call for a major expansion of fundamental research in that institution. According to Matthew B. Ridgway, the board chairman, the decision to reorient the institute's principal investigational activities toward long-range basic scientific objectives represents the culmination of a broad assessment of the role of the institute over a period of several years. In this appraisal, the advice and counsel of eminent scientists from academic life and from the industries were brought to bear on the question of the types of effort in which Mellon Institute could make its greatest contributions in the future under the leadership of Paul J. Flory, executive director of research.

The imperative need for more active replenishment of the reservoir of scientific knowledge through fundamental research is widely recognized. Yet, notwithstanding the funds available for the support of research, the progress of fundamental science has seriously fallen behind the proliferation and consequent requirements of applied science and technology. For these reasons it has been concluded that Mellon Institute can perform a service to the sciences and industries and, hence, to the nation by structuring its organization as a center of advanced investigation, with comprehensive attention to fundamental problems. The course decided upon is a reaffirmation of the original purpose of the institute, a nonprofit institution founded in 1913 and dedicated to scientific research for the benefit of mankind.

Although it is the aim eventually to direct the institute's main efforts along the lines of fundamental scientific research, there is no intention to depart from the field of applied research. Indeed, a healthy collaboration between fundamental and applied research will be fostered. In applied research, investigation of long-range character, or pioneering nature, will be especially encouraged. Then, too, much of the fundamental research will naturally enter potentially practical areas that will invite industrial participation. Ultimate possibilities of technologic application will not, of course, be regarded as criteria for judging the scientific merit of fundamental research undertakings. As is well known, however, results of fundamental investigation, totally unactuated by economic considerations, may now and then reveal high utility.

Fundamental research is contemplated in fields embracing physical chemistry, chemical physics, and inorganic, organic, and analytic chemistry. Solid-state investigations, polymer chemistry and physics, radiation studies, and biophysics and biophysical chemistry will be emphasized, according to present plans. The importance of granting freedom commensurate with ability to individual research workers is recognized, and a wide latitude of opportunity will be assured for creative research. Members of the research staff will be encouraged to direct their efforts toward significant objectives of their own choosing, and to evolve their own problems and programs. Thus the institute will nourish professional motives pointed at generating new ideas of value in scientific investigations for human welfare.

AAAS Socio-Psychological Prize

Through the generosity of an anonymous donor, the AAAS offers an annual prize of $1000 for a meritorious essay in socio-psychological inquiry. Previous winners of this prize and the titles of their essays have been: Arnold M. Rose, "A theory of social organization and disorganization"; Yehudi A. Cohen, "Food and its viscissitudes: a cross-cultural study of sharing and non-sharing in sixty folk societies"; and Herbert C. Kelman, "Compliance, identification, and internalization: a theoretical and experimental approach to the study of social influence."

The conditions of competition for the prize to be awarded at the 1957 annual meeting, Indianapolis, 26–31 Dec., are as follows.

1) The contribution should further the comprehension of the psychological-social-cultural behavior of human beings —the relationships of these hyphenated words being an essential part of the inquiry. Whether the contributor considers

himself to be an anthropologist, a psychologist, a sociologist, or a member of some other group is unimportant as long as his essay deals with basic observation and construction in the area variously known as social process, group behavior, or interpersonal behavior. For ease of reference in the rest of this statement, this general area will be called "social behavior."

2) The prize is offered to encourage studies and analyses of social behavior based on explicitly stated assumptions or postulates, which lead to experimentally verifiable conclusions or deductions. In other words, it is a prize intended to encourage in social inquiry the development and application of dependable methodology analogous to the methods that have proved so fruitful in the natural sciences. This is not to state that the methods of any of the natural sciences are to be transferred without change to the study of social behavior, but rather that the development of a science of social behavior is fostered through observation guided by explicit postulates, which in turn are firmly grounded on prior observations. It may be taken for granted that such postulates will include a spatial-temporal framework for the inquiry. It may properly be added that the essay should foster liberation from philosophic-academic conventions and from dogmatic boundaries between different disciplines.

3) Hitherto unpublished manuscripts are eligible, as are manuscripts that have been published since 1 Jan. 1956. Entries may be of any length, but each should present a completed analysis of a problem, the relevant data, and an interpretation of the data in terms of the postulates with which the study began. Preference will be given to manuscripts not over 50,000 words in length. Entries may be submitted by the author himself or by another person on his behalf.

4) Entries will be judged by a committee of three persons considered well qualified to judge material in this field. The judges will be selected by a management committee consisting of the chairman and the secretary of Section K and the executive officer of AAAS. The committee of judges reserves the right to withhold the prize if no worthy essay is submitted.

5) Entries should be sent to Dael Wolfle, Executive Officer, American Association for the Advancement of Science, 1515 Massachusetts Ave., NW, Washington 5, D.C. Entries should be submitted in quadruplicate. Each entry should be accompanied by four copies of an abstract not to exceed 1200 words in length. The name of the author should not appear anywhere on the entry itself but should be enclosed on a separate sheet of paper which also gives the author's address and the title of his essay. Entrants who wish to have their manuscripts returned should include a note to that effect and the necessary postage. To be eligible for consideration for the prize that will be awarded at the 1957 annual meeting of the Association, entries must be received *not later than 1 Sept. 1957.*

Dental Education at Rochester

In view of the increased national demand for teachers and investigators in dentistry, the University of Rochester has decided to expand its efforts in graduate dental education. Through a training grant from the U.S. Public Health Service and through industrial grants in addition to university funds, a number of fellowships with stipends ranging from $3000 to $5000 per year are now available to dental graduates. Candidates may work for the Ph.D. or the M.S. degree in one of the basic sciences or for the M.S. degree in dental science, or they may conduct research as research associates.

Rockefeller Foundation

Rockefeller Foundation grants during the fourth quarter of 1956 totaled $8,104,849. Grants in the field of medical education and public health amounted to $1,064,709; biological and medical research, $1,147,260; agriculture, $2,568,195; social sciences, $703,375; humanities, $1,051,310; and general appropriations, $1,570,000. During the same period the foundation awarded 36 fellowships to individuals from 17 countries.

In this fourth quarter the foundation also expanded its agricultural program. When a foundation staff member arrived in India in January, the agricultural operating program of the foundation was for the first time extended outside Latin America. The aim of the new project is similar to that of the Latin American work from which it derives: to increase production of the basic food crops of the country through research and training projects. For the support of the new unit in India and for the continuance of the units in Latin America, the foundation has appropriated $1,481,500 for the calendar year 1957.

At the invitation of the Ministry of Agriculture of India, foundation staff members will cooperate with Indian officials, scientists, and teachers in the organization of a central postgraduate school of agriculture in connection with the Indian Agricultural Research Institute at New Delhi, and in the development of research projects in cereal crops, with special reference to corn, sorghum, and millets. Both the ministry and the foundation are helping to meet the costs of the necessary buildings, equipment, and supplies to launch the program.

Three closely related types of activities constitute the agricultural program of the Rockefeller Foundation. One is the direct operation by staff members and their local associates of research and demonstration projects leading to the improvement of food crops of major importance to the host country. Four such projects are now in operation: in Mexico, Colombia, and Chile, and the new one in India.

The second is a system of fellowships, scholarships, and travel grants designed to enrich the experience and broaden the training of selected younger scientists. Many of the fellows and scholars have had preliminary training under the supervision of staff members in one of the operating centers. More than 400 Latin American graduates of agricultural colleges have had advanced training experience of this sort in the 14 years of the system's operation, and already a number of the earlier appointees have returned and been advanced to positions of responsibility in ministries of agriculture, colleges of agriculture, research agencies, and private industry; a number of them are themselves helping in the training of a still younger generation of technicians and scientists.

The third aspect of the work consists of grants to universities and other institutions for the support of education and research in the agricultural sciences. The grants are oriented toward agricultural education leading to the production of increased numbers of qualified graduates, toward the application of agricultural techniques to crop and animal improvement, or toward the support of fundamental research with potential long-range benefits to agricultural science and production. In seeking these objectives, the foundation has made grants to faculties of agriculture in Latin America and Asia, both for the strengthening of instruction and for the expansion of research activities. The grants made to institutions in the United States and Europe have, in general, emphasized research of a very fundamental type.

Of the four centers where foundation staff members cooperate directly in research and training, the oldest is the one in Mexico, established in 1943. A staff of 18 scientists operates four experiment stations, located in climatically different regions, and collaborates in the technical work of a number of other federal and state stations. About 70 graduates of agricultural colleges in Mexico and other Latin American countries join the Mexican office annually for from 3 to 18 months of practical field experimentation experience in their specialties. The