matics and assembled there. The breech piece required considerable modification, and an electric motor for rewinding the driving clock automatically was added. This motor was supplied by Messrs. Tyler and Freeman, who contracted for the electric light, heating and power in the university observatory, and assistance was given with regard to this item by the departments of mechanical and electrical engineering at the college.

The 18-foot dome was constructed by Messrs. Cooke, Troughton and Simms, Limited. At Mr. Gregory's suggestion Messrs. Cooke altered the design of their standard dome, in order to make it possible to rotate the dome by means of an electric motor, fixed to the wall of the observatory. This is effected by means of a friction drive operating upon a ring mounted on the dome and revolving with it. The dome was designed to rotate in either sense at the rate of a quarter revolution per minute and to be controlled from two points, one on the floor and one at the eye-end of the instrument. In order to obviate the difficulties consequent upon the employment, for the distant controls, of a long and heavy trailing cable carrying an electric current at 4.5 volts, a new form of polarized relay was designed by Mr. Gregory and Mr. Norman Whittle, so as to enable the 3-phase alternating current dome motor to be controlled safely from either end of the telescope by means of two small switches, which operate the relay by severing a single low-voltage circuit. This relay was made in the workshop and installed early in June last, and so far has been found to work in a very reliable manner.

The observatory is provided with a spectrographic laboratory, the principal instruments being a 10-foot Rowland grating spectrograph and a spring-driven coelostat. The latter is mounted on the roof immediately over the laboratory under a copper dome, which may be completely removed by means of a davit and winding mechanism operated in the laboratory. A new form of universal mounting has been designed by Mr. Gregory, in collaboration with Professor Filon, and executed by Messrs. G. Wailes and Co., with which the coelostat may be moved into its required position for any star by means of a single setting on a divided circle, and then, when the hour circle of the coelostat has been set and the driving mechanism started, light from the star may be focused on the slit of a fixed spectrograph by means of a 7-inch object glass of 12-foot focal length which is incorporated in the instrument.

The general public will be permitted to view the observatory between 2:30 and 4:30 P.M., on two days in the months of October, November, December, January, February, March, May and June. Parties viewing must not exceed 12 in number at any one time. The director of the observatory is Professor L. N. G. Filon, and the Wilson observer is Mr. C. C. L. Gregory.

THE MEDICAL CENTER IN BOSTON

A NEW ENGLAND MEDICAL CENTER, which when completed will consist of a city dispensary, a modern free hospital for babies, classrooms and clinical teaching facilities for training physicians and a scientific laboratory and operating equipment for the use of all three, will be contained in a group of buildings to be erected at the present location of the Boston Dispensary on Bennet Street, South End, near the Park Square district.

Announcement of this new group of medical forces, organized to train family physicians for the smaller communities of New England and to provide more adequate relief for the needy sick, was made public on October 10 following a luncheon at the Chamber of Commerce attended by trustees of the Boston Dispensary, the Boston Floating Hospital and Tufts College, the three institutions behind the project.

Plans already made call for the remodeling and enlargement of the dispensary, the erection of a forty-bed land hospital of the Floating Hospital and a third building will be constructed jointly to provide a center of clinical training for the Tufts College Medical School, additional clinics for the dispensary and a dormitory for nurses.

While the three institutions will continue to maintain their separate identities, they will, in combining, benefit by the economy and efficiency resulting from a merging of interests. Laboratories, operating rooms, X-ray plant, dining-rooms, kitchen, laundry, power plant and pharmacy will be shared in common.

It is estimated that the carrying out of this building project will cost $970,000. To operate the completed medical center will require the addition of at least $520,000 to the endowment funds of the three institutions, making necessary a total outlay of $1,500,000, in addition to the present resources of the Boston Dispensary, the Floating Hospital and Tufts College Medical School.

One of the principal motives behind the consolidation is that of bringing back to a position of greater importance the family practitioner and the ideals which he represents.

A statement issued by the Administrative Board says:

> The formation of the New England Medical Center will mark the crystallization of a new and significant trend in medicine. During the last fifty years the trend has been entirely in the direction of the scientific control of disease, and has resulted in the development of great hos-

pitals, great laboratories and great teaching centers. It has been a period of unprecedented progress and immeasurable benefits. Yet, during this period, a serious and widening gap has appeared in the medical structure. Modern, scientific medicine has acted as a magnet to draw the great majority of doctors into the large centers as specialists, laboratory research men and teachers. Fewer and fewer men have gone out into the smaller communities of New England to become practicing physicians. The old family doctor—the backbone of the medical profession—is gradually dying out.

Thus, while medicine has developed to a greater perfection than ever, its development has been unbalanced. We have enough doctors in the large cities, but far too few in the rural districts. We have superlative medical resources, but they are not accessible to a large proportion of the people.

The New England Medical Center, through its program of bringing back the family physician and injecting the ideals of the family physician into its treatment of the sick, will help restore a much needed balance.

MEDICAL FELLOWSHIPS OF THE NATIONAL RESEARCH COUNCIL

THE Medical Fellowship Board of the National Research Council, of which Dr. G. Carl Huber, professor of anatomy and dean of the graduate school of the University of Michigan, is the chairman, met on September 21 and made the following appointments for the year 1929–1930:

Edwin Marshall Deery, neurology.
Ade T. Milhorat, physiology.
Sydney L. Wright, Jr., physical chemistry (reappointment).

The following fellows, appointed at the April meeting of the board, have taken up their fellowship work:

Edgar V. Allen, internal medicine.
Eric G. Ball, physiological chemistry.
Claude E. Forkner, pathology and clinical investigation.
Emidio L. Gaspari, bacteriology and immunology.
Arthur K. Koff, obstetrics.
Milton Levy, biochemistry.
Ava J. McAmis, physiological chemistry.
Leone McGregor, pathology.
Charles Midlo, anatomy.
Bruce Webster, internal medicine.

Those whose terms of fellowship expired during the summer have received the following appointments:

Leon H. Collins, Jr., department of pharmacology, University of Pennsylvania.
Arda A. Green, research fellow in physical chemistry, Harvard Medical School, and tutor in biochemical sciences and in biology, Radcliffe College.
Robert M. Moore, Barnes Hospital, St. Louis, Missouri.
Herbert L. Ratcliffe, assistant pathologist to the Zoological Society of Philadelphia and instructor in pathology, University of Pennsylvania School of Medicine.
Francis O. Schmitt, assistant professor of zoology, Washington University, St. Louis.
Richard Thompson, with the Milbank Fund (Columbia University) for the study of infantile paralysis.
Vincent du Vigneaud, associate in the department of physiological chemistry, University of Illinois.
C. Eugene Woodruff, on Dr. Goodpasture's staff, Vanderbilt University.

ADDRESS TO PRESIDENT CAMPBELL BY THE ACADEMIC SENATE OF THE UNIVERSITY OF CALIFORNIA

AT the close of the Commencement Day exercises last May, Dr. William Wallace Campbell, president of the University of California and director of the Lick Observatory, announced that he purposes to retire from the active service of the university thirteen months later (July 1, 1930), at the close of the semester in which he expects to reach the age of sixty-eight years, the age of automatic retirement in accordance with the specifications of the University's Pension System.

The academic senate of the University of California, at the stated meeting of October 7, unanimously and by a rising vote tendered the following address to President Campbell:

It is with profound regret that the Academic Senate has learned of your approaching retirement from the presidency.

The extraordinary genius for organization previously demonstrated in the development of the Lick Observatory, in many eclipse expeditions, and in bringing about international cooperation among astronomers has made your present office a model of business efficiency. Every problem presented by a university department has been answered promptly and without ambiguity.

You have surrounded yourself with an unusual group of wise councilors and able executives in whose judgment the faculty has had confidence.

In the midst of complex external problems and great material development, your administration has not been diverted from the main purpose of a university, the advancement of teaching and of learning. The departments have been strengthened by the addition of men of distinction and by increased facilities for productive scholarship.

Your administration has been a period of tranquillity and healthy growth such as few universities have enjoyed, and we, the Academic Senate, desire to express to you our heartfelt appreciation.