as the Warner and Swazey Observatory, in honor of the donors, members of the noted firm that have made so many of the largest and best telescopes in this country. Mr. Warner is a trustee of Case School of Applied Science, and both men have long taken an active interest in the work of the school. They secured the site on the brow of a hill overlooking a residential section of East Cleveland, about two miles from the campus, but easily accessible, and erected on it a handsome brick structure filled with all the necessary equipment to carry on college instruction in astronomy. The gift to Case is the most noteworthy addition to astronomical equipment in this section of the country, and especially significant because it is in the home city of the men whose name it will bear.

The observatory is L-shaped, with the tower and dome at the angle. One wing contains two astronomical transits, and a zenith telescope, all from the Warner and Swazey factory. The other wing contains a constant-temperature clock room, provided with two Riefler clocks, and a library room, suitable for class use as well, housing the school's collection of astronomical books. The tower will accommodate a small class where the ten-inch telescope is mounted. The lens was ground by John Brashear, of Pittsburgh. The tube is fitted with every device known to the expert makers to increase its usefulness. In the basement are living apartments for a caretaker, a storeroom, a battery room, and a dark room for photographic purposes.

At the dedicatory exercises, which were held outdoors on the grounds, both Mr. Swazey and Mr. Warner spoke, the former relating some of the firm's experiences in the making and improving of astronomical instruments, and the latter referring especially to the instrument presented to Case, and making the formal presentation. President Charles S. Howe accepted the gift on behalf of the trustees. The main address of the occasion was given by Director W. W. Campbell, of the Lick Observatory of the University of California, on the subject, "The Daily Influence of Astronomy." Professor D. T. Wilson, professor of astronomy at Case, outlined the work done at the school in astronomy, and the services he hoped the school would be able to render the community by means of this splendid observatory.

## K. O. THOMPSON

## A SURVEY OF FOREST RESEARCH

"NORTH American Forest Research" published as Vol. 1, Part 4, No. 4, of the Bulletin of the National Research Council, Washington, D. C., is a summary of the investigative projects in forestry and allied subjects. It covers the work carried on in 1919-1920 by national, state, and provincial governments, schools of forestry, scientific schools and private interests in Canada, Newfoundland and the United States. The work is a compilation by the committee on American forest research, of the society of American Foresters. It is the first and only authoritative and complete outline of research work in forestry devoted to increasing the knowledge of the best means of producing and utilizing one of the greatest natural resources of the North American continent.

Agricultural research, as exemplified by the agricultural experiment stations, has proved its practical value. Forest research attempts to do for forest production what agricultural research has done for agricultural production.

The bulletin describes the investigative work that is being done in four main fields. (1) Utilization of forest products; (2) Proper handling of the forest and its perpetuation; (3) Proper handling of the range within or adjoining forests; (4) Forest economics, or the relation of the forests and their products to the economic life of the continent.

The survey is said to contain brief descriptions of studies being carried on for practically every important forest region, type and tree and in every province and state in which the forests are an important economic factor in North America.

## A SCORE FOR HEALTH ACTIVITIES

THE New York State Department of Health has prepared an activities score for cities with