vestigations of the sun. The principal instrument to be erected on the mountain is the Snow horizontal telescope, recently constructed in the instrument and optical shops of the Yerkes Observatory as the result of a gift from Miss Helen Snow, of Chicago. This telescope is a cœlostat reflector, the cœlostat mirror having a diameter of 30 inches. A second plane mirror, 24 inches in diameter, reflects the beam north from the cœlostat to either one of two concave mirrors, each of 24 inch aperture. One of these concave mirrors, of about 60 feet focal length, is to be used in conjunction with a solar spectrograph of 5 inches aperture and 13 feet focal length; a spectroheliograph of 7 inches aperture, resembling the Rumford spectroheliograph of the Yerkes Observatory; and a stellar spectrograph provided with a large concave grating, and mounted in a constant temperature laboratory. It is hoped that it will be possible with this stellar spectrograph to photograph the spectra of a few of the brightest stars. For fainter stars, the spectrograph is to be provided with several prisms, for use singly or in combination.

The second concave mirror of the cœlostat reflector is designed to give a large focal image of the sun, especially adapted for investigations with a powerful spectroheliograph and for spectroscopic studies of sun-spots and other solar phenomena. The focal length of this mirror is about 145 feet, so that it will give a solar image about 16 inches in diameter. The spectroheliograph for use with this large solar image is to be of 7 inches aperture and 30 feet focal length. For the present, until a suitable grating can be obtained, the dispersive train of this instrument will consist of three prisms of 45° refracting angle, used in conjunction with a plane mirror, so as to give a total deviation of 180°. The motion of the solar image, of which a zone about 4 inches wide can be photographed with the spectroheliograph, will be produced by rotating the concave mirror about a vertical axis by means of a driving clock. A second driving clock, so controlled as to be synchronous with the first, will cause the photographic plate to move behind the second slit. Three slits will be provided at this point, so as to permit photographs to be taken simultaneously through as many different lines of the spectra. It is hoped that this spectroheliograph will prove to be well suited for use with some of the narrower dark lines of the solar spectrum.

The work of the expedition is under the immediate direction of Professor George E. Hale, director of the Yerkes Observatory. During his absence Professor E. B. Frost will be in immediate charge of the Yerkes Observatory, with the title of acting director. Professor Frost will also be the managing editor of the *Astrophysical Journal*. Mr. Ferdinand Ellerman and Mr. Walter S. Adams will be associated with Professor Hale in the work on Mt. Wilson.

Professor G. W. Ritchey, superintendent of instrument construction at the Yerkes Observatory, will be in charge of an instrument shop which is being fitted up for the expedition of Pasadena.

CARNEGIE INSTITUTION OF WASHINGTON.

ON May 18, 1904, the trustees of the Carnegie Institution met, and after transacting the necessary business to provide for the transfer of all matters to the Carnegie Institution of Washington, a charter for which passed congress and was approved April 28, 1904, adjourned without day. The trustees named in the act met at once and reorganized under the new charter. The by-laws of the Carnegie Institution were adopted as the by-laws of the new organization, and the officers of the old organization were elected. General resolutions adopting all the obligations, etc., of the old institution were passed. Under the new charter no questions can be raised as to the competency of the institution to carry on the operations outlined in the deed of gift of the founder.

The executive committee of the Carnegie Institution of Washington met after the reorganization and practically completed the making of grants for the year 1904. It will greatly facilitate the work of the executive committee if all those thinking of making applications for grants for 1905 will have them in in September, as applications for grants for 1905 will then be taken up.