

again reduced with the azimuth and collimation constants derived from the least square adjustment. The polar stars were excluded in this last process. The adopted values of the clock correction, however, are always very nearly equal to those obtained from the least square reduction, the greatest difference being $0^{\circ}.035$. (Vera Cruz, 1889, January 17; p. 69.)

The latitude work was all done by Talcott's method, the star-places being derived from the *American Ephemeris*, the *Jahrbuch*, and the Catalogues of Newcomb, Safford, the Coast Survey, and Greenwich Observatory.

The volume contains excellent maps showing the surroundings of the various astronomical stations, and closes with an appendix giving the results of the many valuable magnetic observations made by the members of the Expedition.

HAROLD JACOBY.

COLUMBIA COLLEGE, New York; 1891, *September*.

NOTES.

THE officers of Section A at the Washington Meeting of the American Association for the Advancement of Science were: Vice-President, E. W. Hyde of Cincinnati; Secretary, F. H. Bigelow of Washington. The following papers were read: The evolution of algebra, by E. W. Hyde; On a digest of the literature of the mathematical sciences, by Alex. S. Christie; Latitude of the Sayre Observatory, by C. L. Doolittle; The secular variation of terrestrial latitudes, by George C. Comstock; Groups of stars, binary and multiple, by G. W. Holley; Description of the great spectroscope and spectrograph constructed for the Halsted Observatory, Princeton, N. J., and Note on some recent photographs of the reversal of the hydrogen lines of solar prominences, by J. A. Brashear; Standardizing photographic films without the use of a standard light, by Frank H. Bigelow; On a modified form of zenith telescope for determining standard declinations, and On the application of the "photochronograph" to the automatic record of stellar occultations, particularly dark-limb emersions, by David P. Todd; Principles of the algebra of physics, by A. Macfarlane; The zodiacal light as related to terrestrial temperature variation, by O. T. Sherman; On the long-period terms in the motion of Hyperion, by Ormond Stone; Exhibition and description of a new scientific instrument, the aurora-inclinometer, by Frank H. Bigelow; The tabulation of light-curves: description, explanation, and illustration of a new method, and Stellar fluctuations: distinguished