

ples of the calculation of latitude and time, a theory of errors of the sextant, and the practical rules to be followed in using the instrument for precise observations ashore.

An appendix contains a description of a sextant mounted on a stand for shore observations with the artificial horizon, fitted with a high-power glass and with its various parts specially designed with a view to precise observations. This instrument, constructed by T. COOKE and Sons of York, has been used by Count de CAÑETE DEL PINAR for numerous determinations since 1900.

The diameter of the object glass of the telescope is 49 mm. (1.93 in.) and the focal length is 400 mm. (13.75 in.). Its reticule consists of four vertical and two horizontal threads and is provided with electric lighting. Two eyepieces give magnifications of $\times 14$ and $\times 75$ respectively. The small mirror has been replaced by a reflecting prism with a hypoteneuse of 122 mm. (4.80 in.). The graduated limb has a radius of 150 mm. (5.91 in.). The instrument is also provided with a level and is adjusted by three set screws.

AS CARTAS DE MAREAR

(A STUDY ON OLD SEA-CHARTS).

In the January-February 1934 number of the *Anais do Club Militar Naval*, Lisbon, the series of interesting articles on the "Navy of the Epoch of Discoveries" (*A Marinharia dos Descobrimentos*) is continued by a study furnishing some very curious details on old sea-charts (*As Cartas de Marear*, pp. 5-63) written by Captain FONTOURA DA COSTA. The article embraces the method of establishment of these charts; rectangular and squared plane charts; the globes; units of measurement used; rhumb-lines; *cartas reduzidas* (Mercator charts); and a detailed study, by the author, of Mercator's World-map of 1569 should be specially noted. Numerous bibliographic articles are quoted.

NEW PROJECTIONS FOR WORLD MAPS.

by

R. V. PUTNINS.

(Extract from the *Geografiski Raksti*, Parts III and IV, published by the *Societas Geographica Latviensis*, Riga 1934, pp. 180-209, 16 figs.).

This article is a summary of the "Cartographic Studies" which the author proposes to publish as a separate work.

The author describes the construction of new map systems with elliptical, parabolic and hyperbolic meridians. He suggests 6 projections representing the pole by a point, and 6 others representing it as a line, and he concludes with a comparative table of these "mericylindrical" projections.

THE CARTE DU MONDE AU MILLIONIÈME (*)

by

COLONEL SIR CHARLES CLOSE.

(Extract from *The Geographical Journal*, Vol. LXXXIII, No. 4, London, April 1934, page 323).

Twenty years have passed since the INTERNATIONAL CONFERENCE ON THE CARTE DU MONDE met at Paris and passed its unanimous resolutions, and we may now conveniently

(*) See also *Hydrographic Review*, Vol. VI, No. 2, November 1929, page 181.