COGSWELL'S ALTITUDINAL TABLES

For Computing the True Meridian Altitude of the Sun when it is obscured; by an Observation taken within 34 Minutes; with Explanations and Examples.

EXPLANATION.

To find the Sun's true Altitude at Noon by these tables, the time by watch to the nearest minute for Apparent time at ship when the altitude is taken and the Latitude by account to the nearest degree is necessary.

With the hour angle and Latitude enter Table I. and find the first correction to be applied to the Sun's true Altitude.

With the Sun's Altitude and the Number found above the first correction in Table I. enter Table II. and find the second correction to be applied to the Sun's true Altitude.

When the Zenith distance and Latitude are of contrary Names the difference between the First and Second Corrections must be added to the Altitude.

EXAMPLE	1.
	2.
"	3.
	4.
"	5.

EXAMPLE I.

At 11h. 40m. A. M.—Apparent time at ship in Lat. by account 47° North the observed Altitude of the Sun's L. L. was 56° 56' 56" North. Error of Instrument 2' 15.5" to add. Height of the Eye 22 feet. Required the Sun's Altitude at Noon.

Sun's Ob'sd Alt Index Error	56°	2	53″ 15.5	True Altitude	10' 6 8	12.9" 36 0 54
Dip	56	59 4	11.5 37	Mer. Altitude	25	42.9
App. Alt. L. L Parallax	56	54	34.5 4.8			
Refraction	56	54	39.3 37			
Sun's Semidiameter	56	54 16	$\begin{array}{c} 2.3\\ 10.6\end{array}$			
Sun's true Altitude	57	10	12.9			