

FIFTY YEARS AGO ...

In a short article entitled 'The Centenary of the Position Line' in the Hydrographic Review, Vol. XV(1) of May 1938, it is noted how 100 years before, the American, Captain Thomas Hubbard SUMNER, discovered the utility of the position line, to become known after him as the 'SUMNER Line'.

'Having sailed from Charleston, S.C. 25th November, 1837, bound to Greenock, a series of heavy gales from the Westward promised a quick passage; after passing the Azores, the wind prevailed from the Southward, with thick weather; after passing Longitude 21° W., no observation was had until near the land; but soundings were had not far, as was supposed, from the edge of the Bank. The weather was now more boisterous, and very thick, and the wind still Southerly; arriving about midnight, 17th December, within 40 miles, by dead reckoning, of Tuskar light; the wind hauled S.E., true, making the Irish coast a lee shore; the ship was then kept close to the wind, and several tacks were made to preserve her position as nearly as possible until daylight; when nothing being in sight, she was kept on E.N.E. under short sail, with heavy gales; at about 10 A.M. an altitude of the Sun was observed, and the chronometer time noted, but, having run so far without any observation, it was plain the Latitude by dead reckoning was liable to error, and could not be entirely relied on.

'Using, however, this Latitude, in finding the Longitude by chronometer, it was found to put the ship $15'$ of Longitude E. from her position by dead reckoning which, in Latitude 52° N., is 9 nautical miles; this seemed to agree tolerably well with the dead reckoning; but feeling doubtful of the Latitude, the observation was tried with a Latitude $10'$ further N., finding this placed the ship E.N.E. 27 nautical miles of the former position, it was tried again with a Latitude $20'$ N. of the dead reckoning; this also placed the ship still further E.N.E. and still 27 nautical miles further; these three positions were then seen to lie in the direction of *Small's light*. It then at once appeared that the observed altitude must have happened at all the three points, and at *Small's light*, and at the ship, at the same *instant of time*, and it followed that *Small's light* must bear E.N.E. if the chronometer was right. Having been convinced of this truth, the ship was kept on her course E.N.E., the wind being still S.E., and, in less than an hour, *Small's light* was made bearing E.N.E. $1/2$ E., and close aboard.

'The Latitude by dead reckoning was erroneous 8 miles and, if the Longitude by chronometer had been found by this Latitude, the ship's position would have been erroneous $31 \frac{1}{2}$ minutes of Longitude, too far W. and 8 miles too far S. The ship had, from current, tide, or error of log, overrun her reckoning, 1 mile in 20.

'Thus, it is seen that an observation taken at any hour of the day, and at any angle between the meridian and E. or W. points, is rendered practically useful, inasmuch as the chronometer can be depended on.'

