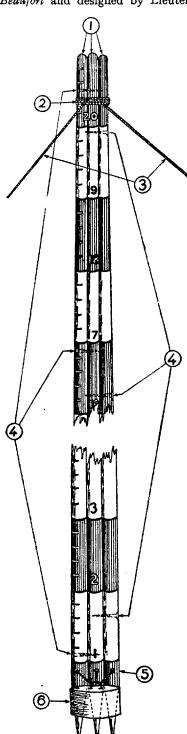# PRACTICAL HINTS FOR HYDROGRAPHIC SURVEYORS.

" BEAUFORT " TIDE POLE

The following is the specification of a tide pole used by H.B.M. Surveying Vessel *Beaufort* and designed by Lieutenant-Commander R. H. KENNEDY, R.N.

The advantages claimed for this type of tide pole are that it is easily and quickly made on board by the ship's staff, and that it combines lightness and portability with strength ; also it possesses sufficient flexibility to withstand any normal shock due to wind and sea.

SPECIFICATION.

This Tide Pole is constructed of three staves for boathook, fir, Norwegian spar, 21 feet long, secured abreast. The outer spars are screwed, at intervals of about three feet six inches, to the centre spar by 4-inch brass, 20-gauge countersunk screws, pattern number 358. The screws through the right-hand spar are staggered from those on the left.

The spars are then marked off in feet and fifths of a foot and grooves about 3/4 inch wide and 1/2 inch deep are cut to facilitate re-painting. The grooves for the foot markings are taken right across the three spars and those for the fifths about half-way across one of the outer spars. The pole is painted in the customary manner with alternate feet in black and white, with the figuring and fifths in alternate colours. The figures are inserted by means of stencils cut in odd pieces of backed drawing paper.

A 1-inch hole is drilled about a foot from the bottom of each spar and a half-hundredweight sinker, to form a heel weight, lashed with seizing wire through these holes.

Near the twenty-foot mark a head lashing of 4 turns of seizing wire is made. This is prevented from slipping down the pole by two screws on its lower side. Guys are secured as necessary to this head lashing by hitches round the lashing, through the holes formed by the junction of adjacent spars and the head lashing.

For securing this type of tide pole to piers etc., requisite holes can be drilled through the spars and large screws inserted.

The weight of the tide pole is 52 lbs. without sinker.