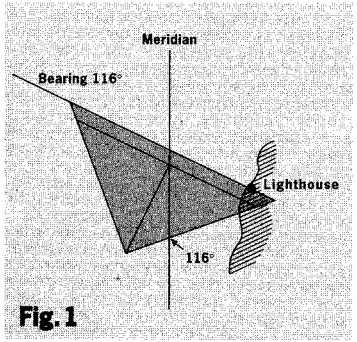

Fig. 1

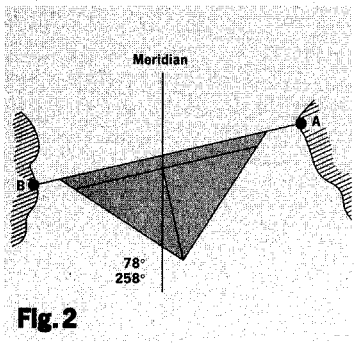

Fig. 2

Using the Portland Navigational Triangle

The Portland Navigational Triangle, or Navigational Set Square, is used to lay off bearings using any convenient meridian on a map (chart) as the datum.

Examination will show that the first 180° of the compass rose is in black and the second 180°-360° is in red. Compass points are shown with similar colour coding.

The Triangle must always be used with the hypotenuse (long side) as the upper edge. The Triangle markings are read the right way up, as are the compass points. The colour coding is used to ensure that the bearings are laid off in the correct direction and red and black arrows assist in this. True bearings must always be used.

Examples:

Fig. 1 Shows how to lay off a bearing from a lighthouse

The bearing of the lighthouse is 124° (M), magnetic variation of 8°W, compass deviation zero. The true bearing was therefore 116°. Lay the Triangle so that a meridian cuts the centre of the hypotenuse and coincides with the line on the Triangle marked 116°.

Move the set square up or down the meridian until the hypotenuse cuts the lighthouse and then draw your line.

Fig. 2 Shows a course to measured AB

The hypotenuse is laid along the course and moved until the centre coincides with a meridian. AB is 258°, BA 078°. Magnetic variation 8°W, compass deviation 3°W. Total correction is 11°W, therefore course 269° (M) or 089° (M).