

## BORDER SCALE SUBDIVIDING DEVICE.

(Hydrographic Office, U. S. Navy)

The border scale of a chart defines the limits of the area and assists the user materially to plot positions by geographic coordinates and to measure distances. Early cartographers performed the task of subdividing chart borders by the divider, the diagonal line, and other crude methods—all of which required considerable time, skill and patience.

It was not until the early 1920's that the "Chart Border Sub-dividing Device" was invented by Mr. Ross E. Gray, a former engraver in the U.S. Navy Hydrographic Office. This instrument is simple in design and costs comparatively little to manufacture. With a reasonable amount of skill, the chart draftsman or engraver can subdivide chart border scales into degrees, minutes, and fractions of minutes with considerable speed and accuracy.

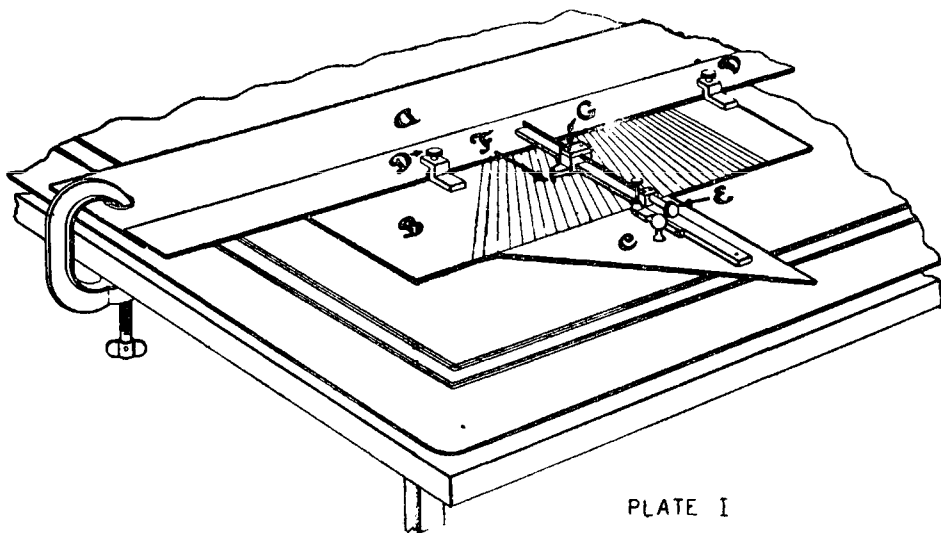


PLATE I

The main parts of this device (see plate I) consist of the following :—

- A. *The steel straightedge* : Sixty (60) inches in length.
- B. *Steel divider plates* : A series of twelve (12) plates, measuring 9" × 4" × 1/16", each cut with deep grooves, running the entire width of the plate from the top to bottom (long sides). The first groove on the right-hand side of each plate is perpendicular to the top and bottom edges and each succeeding groove converges diagonally from bottom to top edge of the plate. The grooves on all twelve (12) divider plates constitute sections of continuous lines, and overlaps are provided on all adjoining divider plates of the series. There are two (2) clamp screws (D) on each divider plate for attaching to straightedge.
- C. *Steel triangle* : This has an arm shaft with an adjustable screw (E) for moving the divider point (F) laterally. The divider point is securely held in position by means of a clamp screw (G).

### Operation.

First, secure the 60" straightedge firmly by weights or clamps, parallel to the inside border or neat line of the side of the chart to be subdivided. Select the divider plate which includes the computed value and subdivisions required. Fasten the selected divider plate to the raised edge of the straightedge with the two clamp screws provided for that purpose. Then, place the triangle with its base resting against the divider plate. Move the divider point into proper position along the divider plate to accurately fit the computed distance which is to be subdivided by engraver's tool, pen, or pencil.

For longitude values, one divider plate only will be necessary for all divisions by moving divider plate and triangle along the straightedge. In the case of latitude, where subdivisions are variable on the Mercator projection, plates with wider subdivisions must be progressively employed.

For an example of results obtained from the above operation, see Plate II. a section of a Standard U.S. Hydrographic Office scale border.

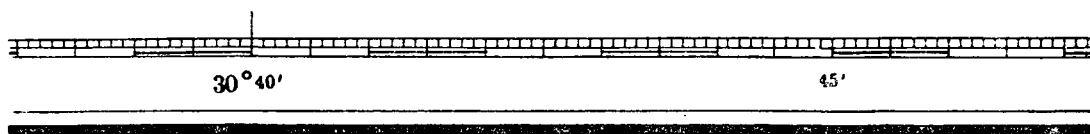


PLATE II

This instrument may be further employed in the dividing of bar scales grids, etc.



# GEOGRAPHICAL NAMES

## Draft of Proposal

(Extract from I.H.B. Circular-Letter No. 6-H of 18 September 1947)

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With the purpose of obtaining approximate uniformity in the geographic names appearing on the nautical charts and documents of maritime countries, it is recommended that each national hydrographic office :

1.—*On its charts for its own coasts*, show names that are in exact agreement with the forms prescribed by its most authoritative source. (*Note* : Each country will thus provide complete and authoritative name coverage in its own official script, whether Roman or non-Roman, for the use of all other national hydrographic offices that issue charts of various scales for the same area.)

2.—*On its charts of foreign coasts where the Roman alphabet is official with the sovereign country*, show names that are in exact agreement with the most authoritative usage of the country having sovereignty. (*Note* : It is anticipated that these names may eventually be obtained directly from new and revised editions of the nautical charts of the country having sovereignty.)

3.—*On its charts of foreign coasts where the script of the sovereign country is other than the Roman alphabet*, show names that are obtained by applying its own authorized transcription system to the names appearing on the most authoritative sources of the country having sovereignty. (*Note* : Among countries where the Roman alphabet is official, international uniformity in transcription systems should be advantageous to the several National governments. It is accordingly recommended that National Hydrographic Offices present to their Governments the desirability of obtaining uniformity and urge the formulation and adoption of an effective agreement.)

4.—*On its charts of all foreign coasts*, use for the generic part of complex geographic names the word (in its Roman alphabet form) used by the country having sovereignty. Example : *Falsterbo Rev.* In cases where the complex name applies to a natural feature, write the generic part as a separate word whenever this can be done without doing violence to its language. Example : *Falsterbo Rev* rather than *Falsterborev.* (*Note* : By following this practice, the geographic generic term will not be translated but will appear (in its Roman alphabet form) on the charts of all nations. If printed as a separate word, the navigator will more readily recognize its significance. Each chart should carry a glossary of the foreign generics that appear on it.)

5.—*On all of its charts*, apply its conventional national usage to names of countries, major territorial divisions and boundary features, and to the oceans and international subdivisions thereof. (*Note* : Some uniformity in the names and limits of oceans and seas is of advantage to the work of national hydrographic offices. The problem of obtaining this uniformity is involved in a separate resolution (see resolution on the *Limits of Oceans and Seas*, adopted by the Fifth International Hydrographic Conference) and will form the subject of a further Circular-Letter.)

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