

## RAZMARA METHOD OF TEACHING TOPOGRAPHIC SURVEYING AND GEODETIC OPERATIONS.

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The basic principle of this new method consists in bringing into the surveying classroom a simple instrument and relief map duplicating actual operations required in the field for the preparing of topographic maps and geodetic work.

This most ingenious method for class-room teaching of practical topographical surveying would appear to be extremely useful in training student surveyors, as in the early stages of instruction it can be used as a substitute for field-work and enable the beginner to become familiar with elementary surveying.

The equipment consists of a double-level horizontal table. A 1 m.  $\times$  1 m. relief map on the scale of 1 000 is set on the lower level. The upper level supports the Razmara duralumin eclimeter, (see figure) which consists of the following parts :

- an alidade 80 (A) cms. long, equipped with a lead counterweight and four vertical rods :
- an eclimeter foot (1) 50 cms. long, with a sharp point ;
- a stadimetric scale rule (2) of the variable stadimetric angle type (briefly described as the "Stadia A.V."). It consists of a rod 40 cms. high that can be set at 10 or 20 cms. from the centre of the eclimeter ;
- a ranging-rod (3) graduated in centimetres and millimetres, for direct levelling purposes ;
- a gradient-scale (4) graduated in decigrades (divisions of course represent tangents to the angles).

Figure 1 shows details of the Razmara eclimeter. Figure 2 shows its general appearance. Additional information concerning the instrument and its application can be obtained from the following address :

369, Avenue Baharestan, Teheran.



