

NEW GEODETIC INSTRUMENTS

(Manufactured by the Askania-Werke Aktiengesellschaft, Kaiserallee 86-88,
Berlin-Friedenau, Germany)

The International Hydrographic Bureau has received a communication from the Berlin "Askania-Werke A.G." describing the firm's latest geodetic instruments (*).

These consist of :-

(1) **A precision theodolite for first and second order triangulations**, built according to the specifications of Director Gigas of the Bamberg "Institut für Erdmessung". This entirely new type of theodolite records photographically, and thus enables full use to be made of the few short hours when visibility is good in a more satisfactory manner than with ordinary visual methods.

A vertical circle renders it capable of being used for all astronomical purposes.

A special attachment to the micrometer for photograph interpretation comes with the theodolite.

The firm's pamphlet describing the instrument in detail is in course of preparation.

(2) **A "Lilliput" Theodolite for third and fourth order triangulations.**—There are two models : the GtK and TK. A few of their characteristics are as follows :-

MEASUREMENTS :	GtK	TK
Theodolite	7.5 x 9.5 x 13.5 cms. 1.1 kg.	Diam. 13 x 15.5 cms. 15 kg.
Metal container	Diam. 11.5 x 15 cms. 0.5 kg.	Diam. 13 x 17 cms. 0.3 kg.
Stand	2.7 kgs.	3 kgs.
TELESCOPE :	Reversible. Electrically lighted cross-hairs and circles. Colored screen for lens. Ocular prism.	
Length	75 mm.	95 mm.
Magnification	x 10	x 12
Aperture	14 mm.	18 mm.
Field of vision	4°	3.5°
	Sighting of plumb point.	
CIRCLES :	Glass, protected, vertical and horizontal. Readings through eye-piece. Graduated in degrees or grades.	
Graduation intervals	1/6° or 1/10 g	5' or 10°
Vernier readings	Sexagesimal or centesimal minutes.	30 sexagesimal seconds or 1 centesimal minute.
LEVELS :	Two perpendicular levels.	
Degree of sensitiveness (tilt- ed mirror readings)	1 1/2 mm.	30''/2 mm.

(*) Descriptive pamphlets : "Geodesy" Nos. 200, 201 and supplement.

(3) **A Monobloc Level**, designed especially for use in all types of land-surveying. With or without horizontal circle. Its principal characteristics are as follows :-

MEASUREMENTS :

Level : 18.5 x 11.5 x 9 cms. Weight : 1.3 kgs.
 Container : 23 x 14 x 12 cms. Weight : 1.1 kgs.
 Tripod, non-adjustable : 150 cms. Weight : 3.1 kgs.
 Tripod, adjustable : 90 cms. Weight : 3.7 kgs.

ANALLATIC TELESCOPE :

Aperture : 36 mm.
 Magnification : x 25.
 Length : 195 mm.
 Field of vision : 1°40'.

HORIZONTAL CIRCLE :

Protected. Readings per one sexagesimal or 2 centesimal minutes.

BUBBLE-LEVELS :

Coincident.
 Sensitiveness : 30"/2 mm.
 Coincidence precision : $\pm 0.7''$.
 Sensitiveness of spherical level used in setting up instrument : 10'/2 mm.

The instrument's mean error per kilometre is ± 3 mm.

