

TELEFAX

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Dear David:

German slide rule

The translation of the calculation examples for this vintage German slide rule follows below. It looks to me like a slide rule for calculating artillery settings. I assume it is for naval artillery, judging by the distances, and presumably for surface to surface..

The critical term is *Ablage*, as used in this business. In a technical dictionary I find that its use in military and microscopy applications means "amount of deviation", here in seconds of angle as the desired result, and meters as an input. The meters must pertain to movement of the target (ship) during, and normal to, the projectile flight; and the angle is the horizontal lead angle of the gun.

Ablage in Winkelsekunden =	deviation in seconds of angle
Ablage in m =	deviation in meters
Wahre e in hm =	true e in hektometers [target distance]
Gerätekonstante =	device constant [here always = 6]
Höhenwinkel =	angle of elevation [of gun barrel]

Sincerely,



Example 1:

Given: Em 4 m [meters], 24 X [multiplier? magnification?], true e = 77.5 hm [7.75 km],

deviation 64 m [meters]

Desired: deviation in seconds of angle

Set the slide of the slide rule with the value 77.5 of the scale "wahre e" [true e] over the device constant 6 (see also slant edge of slide rule). Above the number 64 of the scale *Ablage in m* [deviation in meters] read the resulting deviation in seconds of angle.

Example 2:

Given: Em = 4 m, 24 X, true e = 34 hm, angle of deviation 26°, deviation 28 m

Desired: deviation in seconds of angle

Set the slide of the slide rule with the value 34 of the scale "wahre e" [true e] over the device constant 6 (see also slant edge of slide rule). Set the cursor with line 90 of its red angle of elevation scale to the value 28 of the scale *Ablage in m* [deviation in meters]. Above the value 26 of the red angle of elevation scale read 21 as the desired deviation in seconds of angle.

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