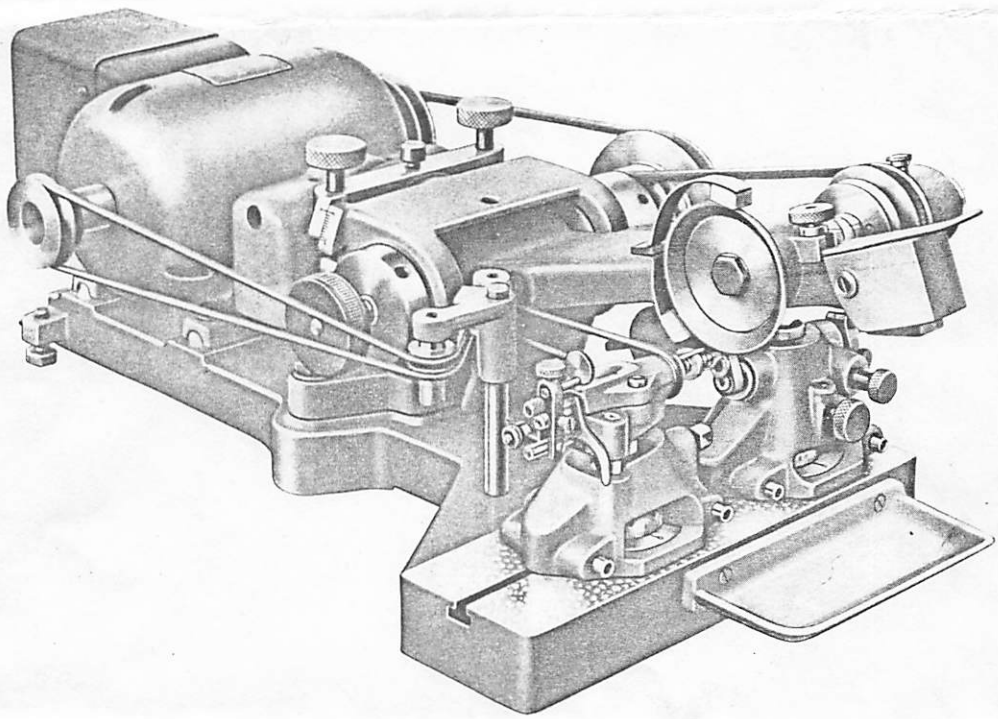
PIVOT POLISHING MACHINES

(patented)



Designed and built for the most exacting requirements
of the Instrument-, Meter-, Clock- and Watch-Trades

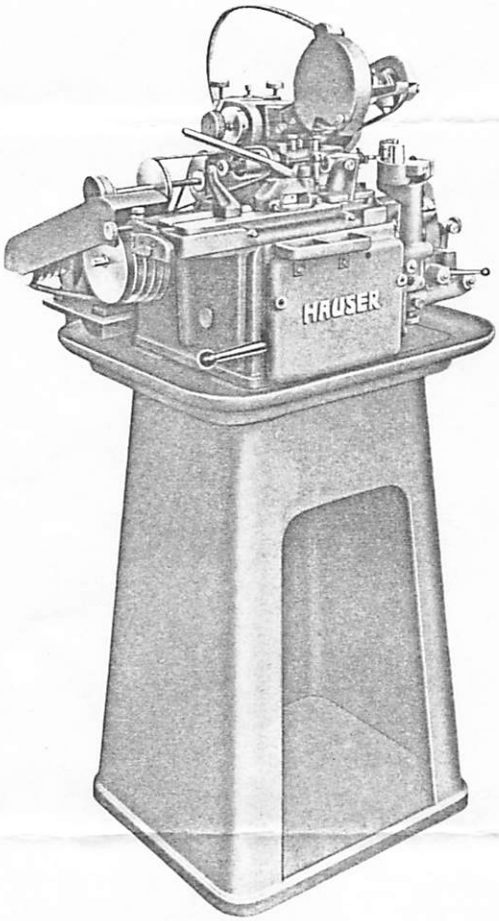
Polishes both hard and soft pivots
Quick and accurate adjustments
Precision workmanship

HAUSER-BIENNE

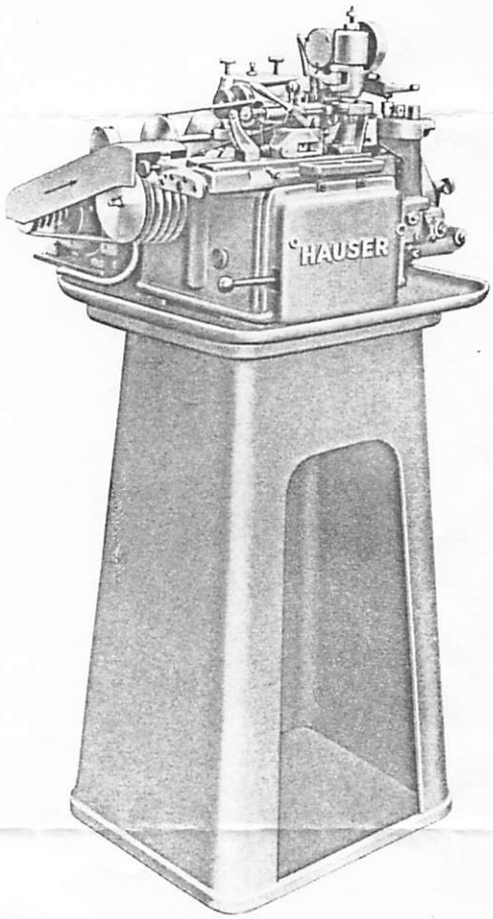
No. 212 *Hauser* Semi-automatic Pivot Polishing Machine (patented)

TECHNICAL DATA:

Minimum diameter to be polished	.004 "
Maximum diameter to be polished	.197 "
Maximum length to be polished	.315 "
Maximum length of workpiece	5 "



Horizontal type

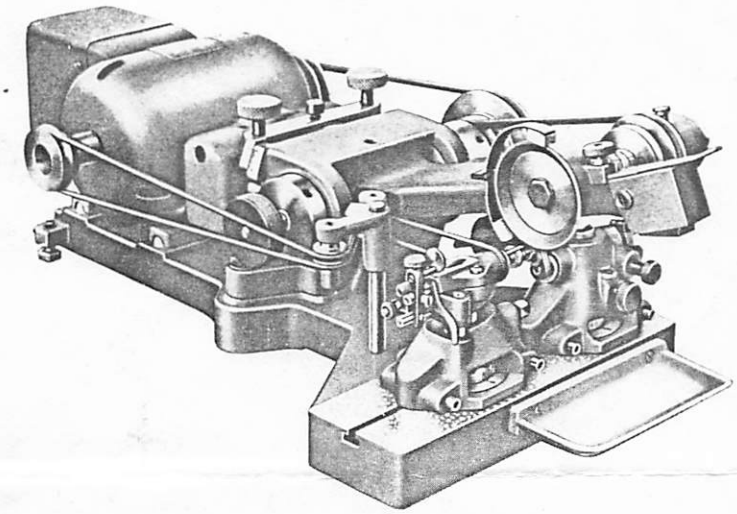


Vertical type

The semi-automatic machines No. 212 are built for accurate polishing of pivot bearing surfaces, after having been turned or ground; the ingenious construction of these machines enables to polish simultaneously one to three diameters and shoulders.

The HORIZONTAL TYPE is convenient for polishing pivot surfaces of .004" to .197" (0,10 to 5 mm).

The VERTICAL TYPE however will be used particularly for polishing pivots up to .118" (3 mm) with especially large shoulders.



TECHNICAL DATA:

Minimum diameter to be polished .002 "
Maximum diameter to be polished .039 "
Maximum length to be polished . .315 "
Maximum length of workpiece . 2 "

No. 191 *Hauser* Pivot Polishing Machine for Watch Industry (patented)

These machines are intended for the accurate and fast polishing of pivot bearing surfaces after they have been turned or ground close to size. About .0004 " to .0008 " should be left on the diameter for polishing. A tungsten carbide polishing wheel is used.

The machines will polish hardened steel parts, giving a mirror-like finish, and also imparts an excellent finish to soft steel and brass parts. Shoulders and diameters are polished in one operation. Tapers, angles and radii can all be polished with equal ease. The necessary time for polishing varies between 3 and 50 seconds, according to the work diameter and the size reduction required.

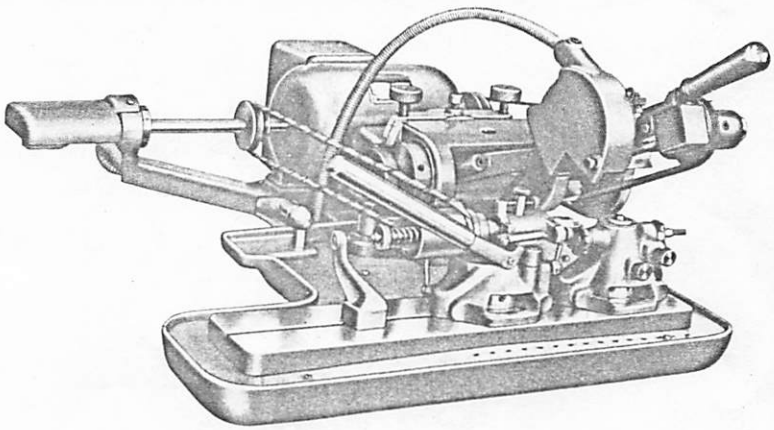
The machines are built up on a base plate and at the front is a longitudinal bed having a machined surface and tee-slot for taking the work head and work support. Each head has a cast base, and passing through the centre is a vertical spindle which supports the work spindle. At the bottom of the vertical pillar a micrometer disc is fitted for accurately adjusting the centre height of the work in relation to the support disc. The work support is set at the right hand end of the bed and has a similar vertical adjustment to that of the work head. In this case, however, the micrometer adjustment controls a stop for the polishing wheel, and thereby the diameter of the piece. The spindle of this head carries a rotatable tungsten carbide disc which is positioned so that the pivot to be polished rests in a groove immediately beneath the polishing wheel.

The work spindle runs at 1200-1700 R. P. M. When the work is held in a collet the spindle is driven direct. The polishing wheel or lap (which runs at 800 R. P. M.) and quill form a unit easily removed from the machine for re-grinding, etc. The quill is held in a swinging frame which is pivoted in bearing mounted at the rear of the machine. The frame can be set for angle and displaced longitudinally. For polishing, the wheel frame is swung down to bring the wheel in contact with the work, the amount of pressure exerted and the duration of the operation depending on the work.

No. 241 *Hauser* Pivot Polishing Machine (Horizontal Type) with pump and oil reservoir, for small gear industries (patented)

TECHNICAL DATA:

Minimum diameter to be polished .004 "
Maximum diameter to be polished .158 "
Maximum length to be polished . . . . . 1.195 "
Maximum length of workpiece . 5 "



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