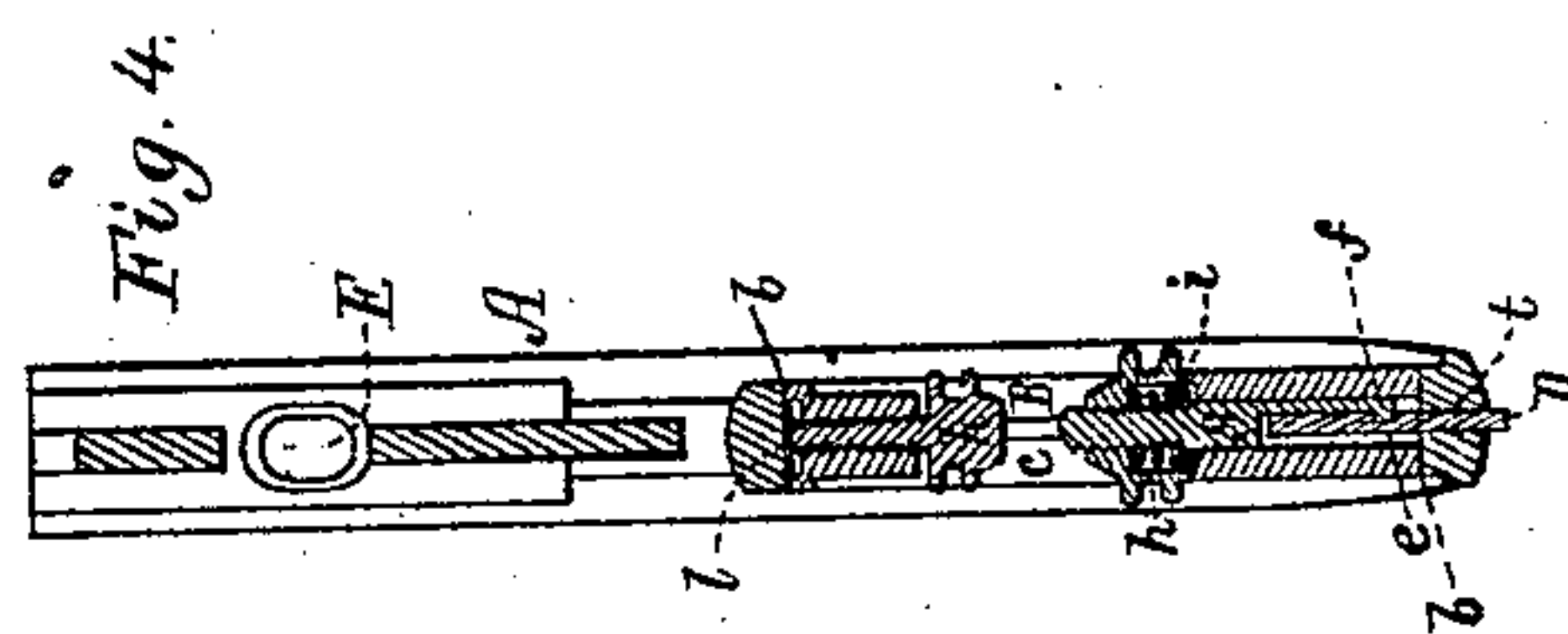
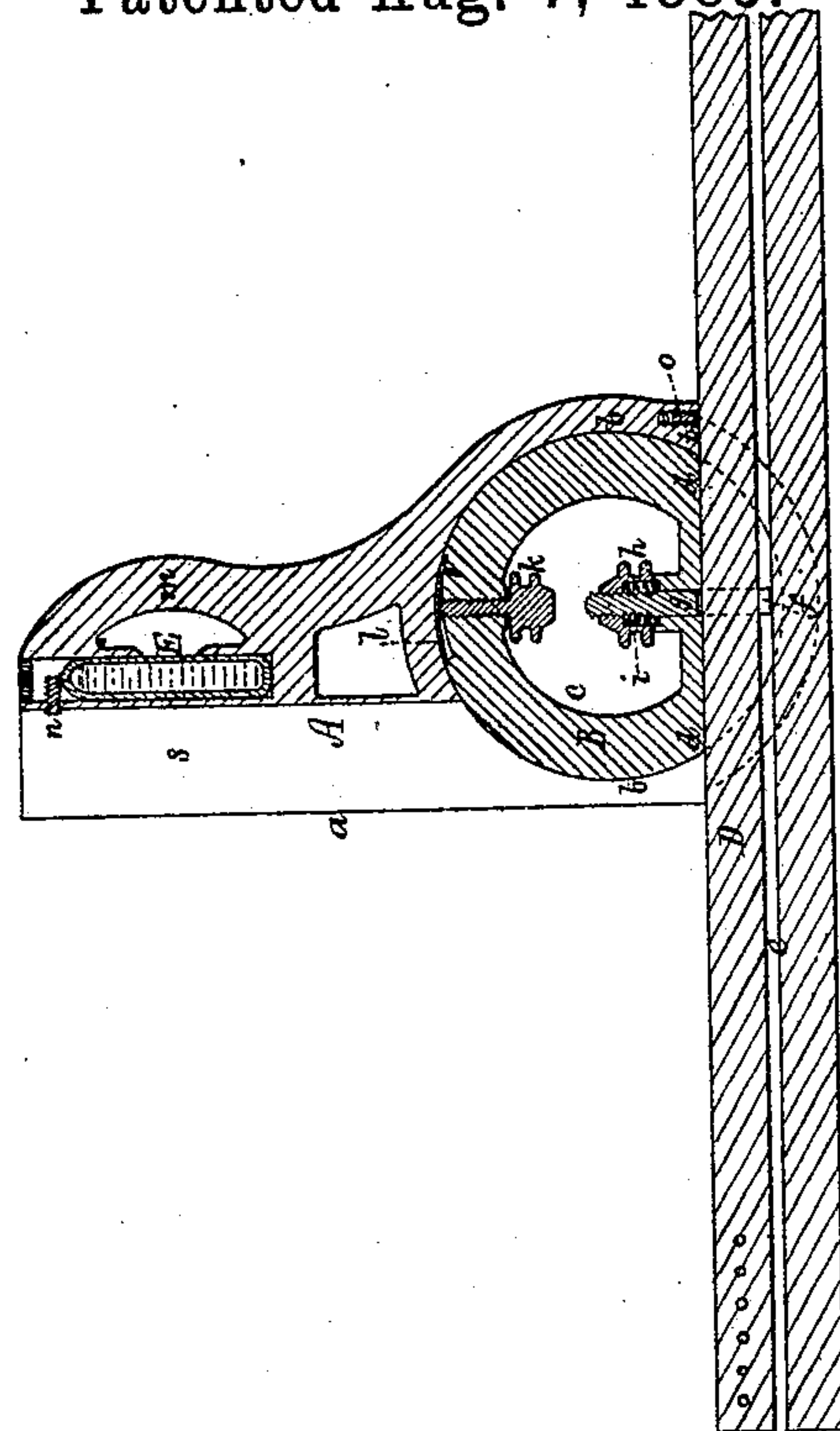
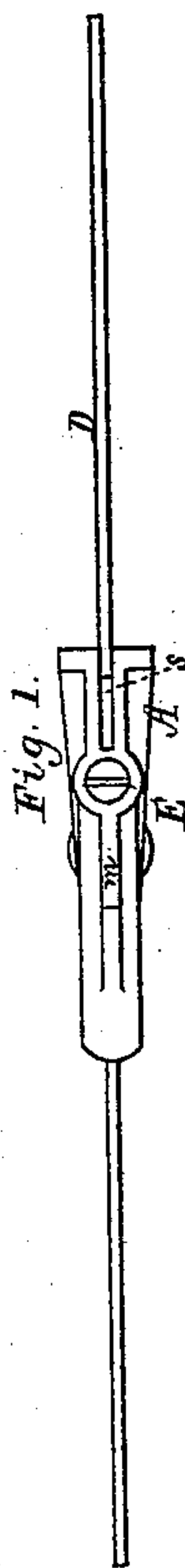
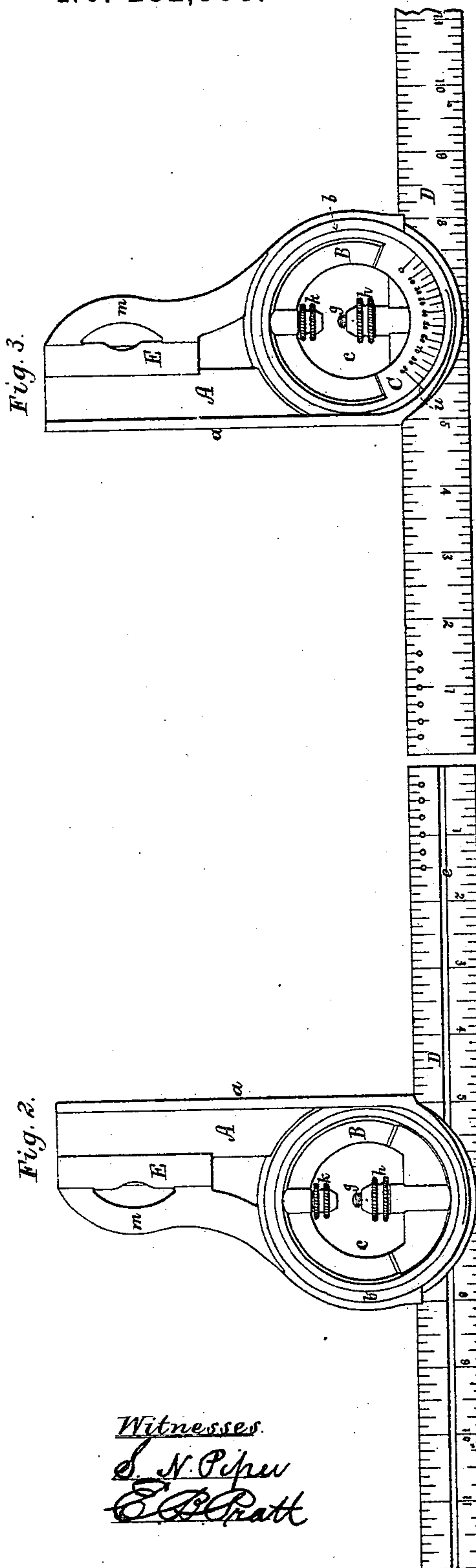


(No Model.)

L. S. STARRETT.
BEVELING INSTRUMENT.

No. 282,583.

Patented Aug. 7, 1883.



Witnesses.
S. N. Piper
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Inventor.
Leroy Sunderland Starrett.
by R. H. Eddy att'y.

UNITED STATES PATENT OFFICE.

LAROY S. STARRETT, OF ATHOL, MASSACHUSETTS.

BEVELING-INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 282,583, dated August 7, 1883.

Application filed May 29, 1883. (No model.)

To all whom it may concern:

Be it known that I, LAROY SUNDERLAND STARRETT, of Athol, in the county of Worcester, of the Commonwealth of Massachusetts, have invented a new and useful Improvement in Inclinometers or Beveling-Instruments; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view, Figs. 2 and 3 opposite side views, Fig. 4 a vertical and transverse section, and Fig. 5 a longitudinal section, of a beveling-instrument containing my invention, such instrument being for use by draftsmen or artificers in leveling off and determining angles or slopes.

The nature of my invention is defined in the claims hereinafter presented.

In the drawings, A denotes the stock of the instrument, such stock having a straight-edge, *a*. Within and extending transversely through the stock is a circular aperture, *b*, for reception of a rotary circular limb, B, having marked upon one face of it divisions of the arc of a circle, as shown at C. The limb has in it an opening, *c*, going through it transversely, and it also has extending within it from its circumference a segmental socket, *d*, for the reception of a straight ruler, D. The stock is grooved lengthwise from its straight-edge, and also at its end next to the divided limb, the grooves being shown at *s* and *t*, and being so as to enable the limb to be revolved to carry the outer edge of the ruler either into parallelism with or at a right angle to the straight edge of the stock. The ruler on one side of it has a straight groove, *e*, made in it from end to end of it, and between and parallel to the two longer edges of such ruler, such groove being to receive a projection, *f*, from a screw, *g*, that extends upward within the circular limb in manner as shown, and it is provided with a nut, *h*. A spiral spring, *i*, encompasses the screw, and extends a short distance upward into the nut and downward into the limb. The spring serves to keep the ruler in or drawn closely up into its socket when such ruler is not fastened therein by means of the clamp-screw and its nut. Furthermore, the rotary limb is provided with a clamp-screw, *k*, that screws upward and through it and against a spring, *l*,

arranged on it circumferentially. Turning up the screw causes the spring to bear against the periphery of the opening on which the limb is arranged. By means of the screw *k* and spring *l*, the limb may be clamped on the stock, so as to hold the ruler at either a right or an acute angle to the straight-edge thereof.

The stock has within it a spirit-level, E, whose axis is arranged parallel to the straight-edge of the stock, and there is extended over the said level an arched guard, *m*, as shown, forming part of the stock. Arranged in the stock in manner shown in Fig. 5 are two screws, *n* and *o*, which screw tightly into it. One of these screws serves as a stop to arrest the rule when its edge may be in parallelism with the straight-edge of the stock, the other screw being for the ruler to bring up against when it may be turned into a position for its edge to be at a right angle to the straight-edge of the stock.

The ruler is to have on each face of it, and next each longer edge thereof, a scale of divisions of inches and parts thereof, as represented.

The instrument so made can be used to advantage by draftsmen, as an ordinary T square or bevel is used with a drawing-board, or it may be employed in several ways for ascertaining or laying out angles, as well as for determining slopes relating to machines or other structures.

An index-mark, *u*, arranged on the stock in manner as shown, serves, with the divisions of the limb, to define the angular position of the ruler relatively to the straight-edge of the stock.

I claim—

1. The combination of the grooved ruler D with the stock A, having the straight-edge *a*, and with the revoluble divided limb B, arranged within such stock, and socketed segmentally to receive the ruler, and provided with a clamping-screw, *g*, and nut *h*, to hold it in place, all substantially as set forth.

2. The combination of the clamp-screw *k* with the stock A, and with the revoluble divided limb B, arranged within the said stock, and segmentally recessed to receive a ruler, D, and having devices for clamping said ruler to it, (the said limb,) all being substantially as set forth.

3. The stock A, provided with the spirit-level E and the straight-edge *a*, parallel thereto, in combination with the revoluble divided limb B, arranged within such stock, and socketted segmentally to receive the ruler D, and provided with devices for clamping the said limb to the stock and the ruler to the limb.

4. The stock provided with the straight-edge *a*, and with the grooves *s* and *t*, extending therefrom lengthwise and crosswise of the said stock, in combination with the revoluble limb, arranged in the stock, and with the ruler, and extended both in the stock and limb, all substantially as represented, the limb and stock

being provided with clamping devices, essentially and for the purposes as explained. 15

5. The stock having the straight-edge and the longitudinal and lateral grooves, and the stop-screws *n* and *o*, arranged therewith as described, in combination with the revoluble limb, and with the ruler and their clamping devices, all being adapted and to operate substantially as set forth. 20

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Witnesses:

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MERWIN A. BARTLETT.