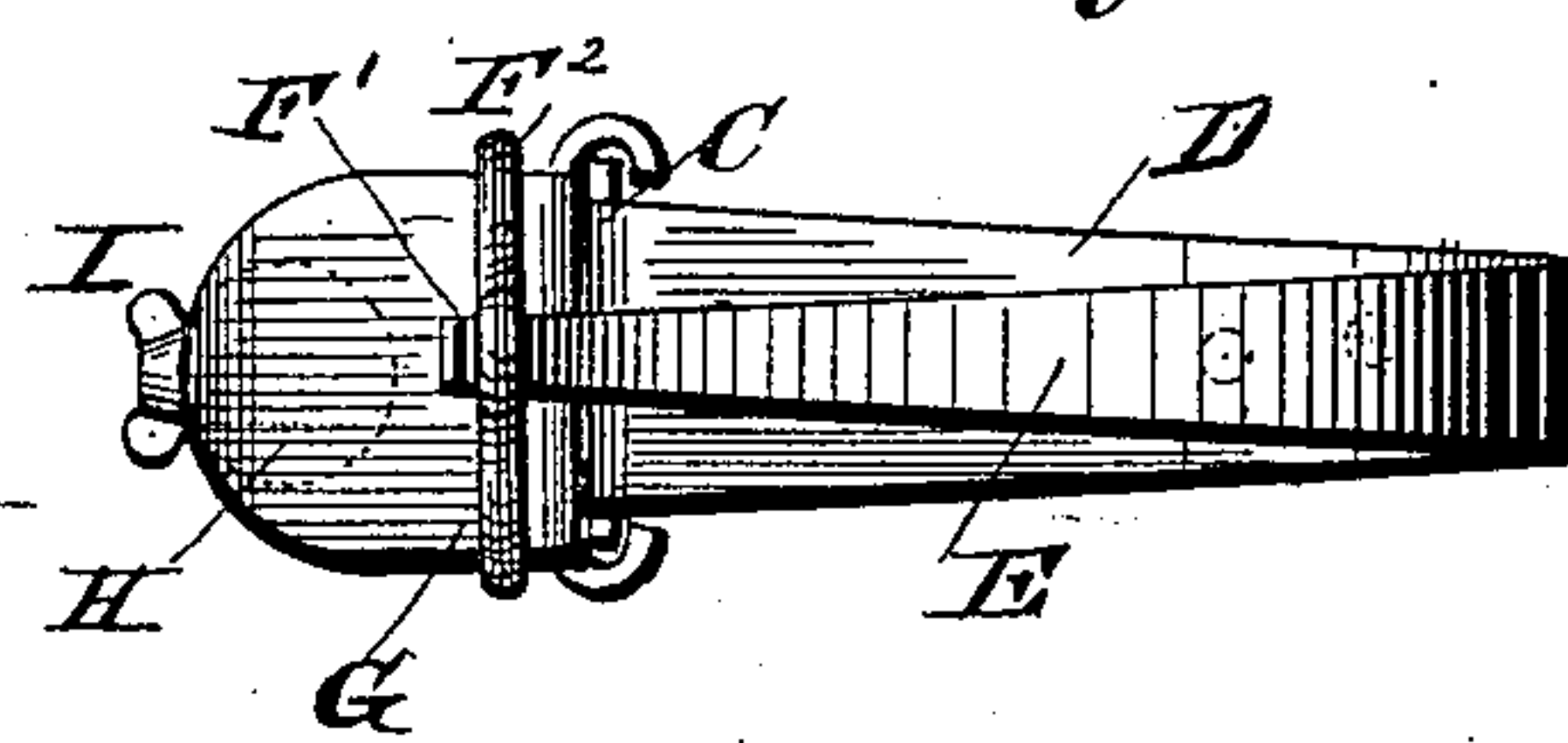
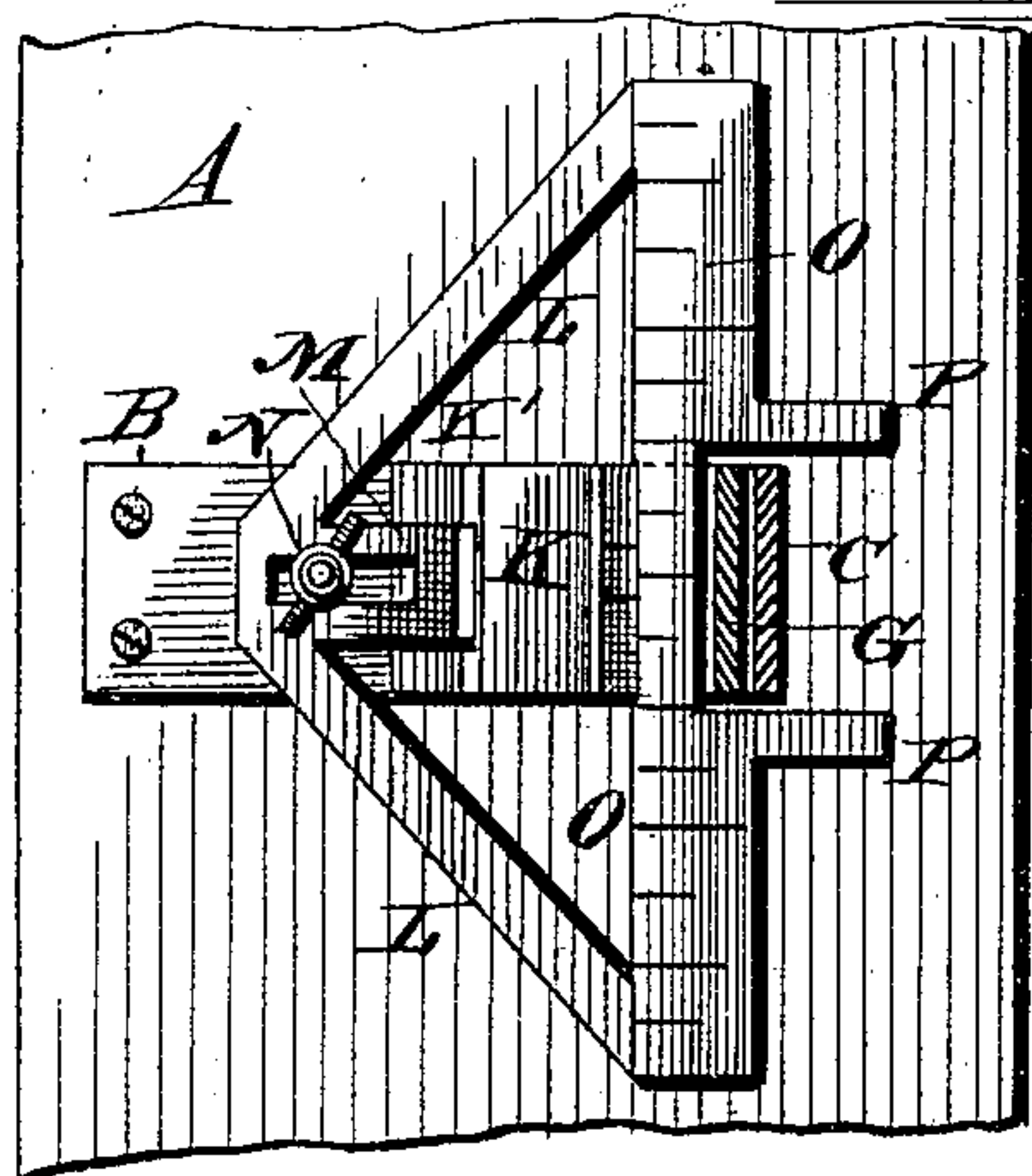
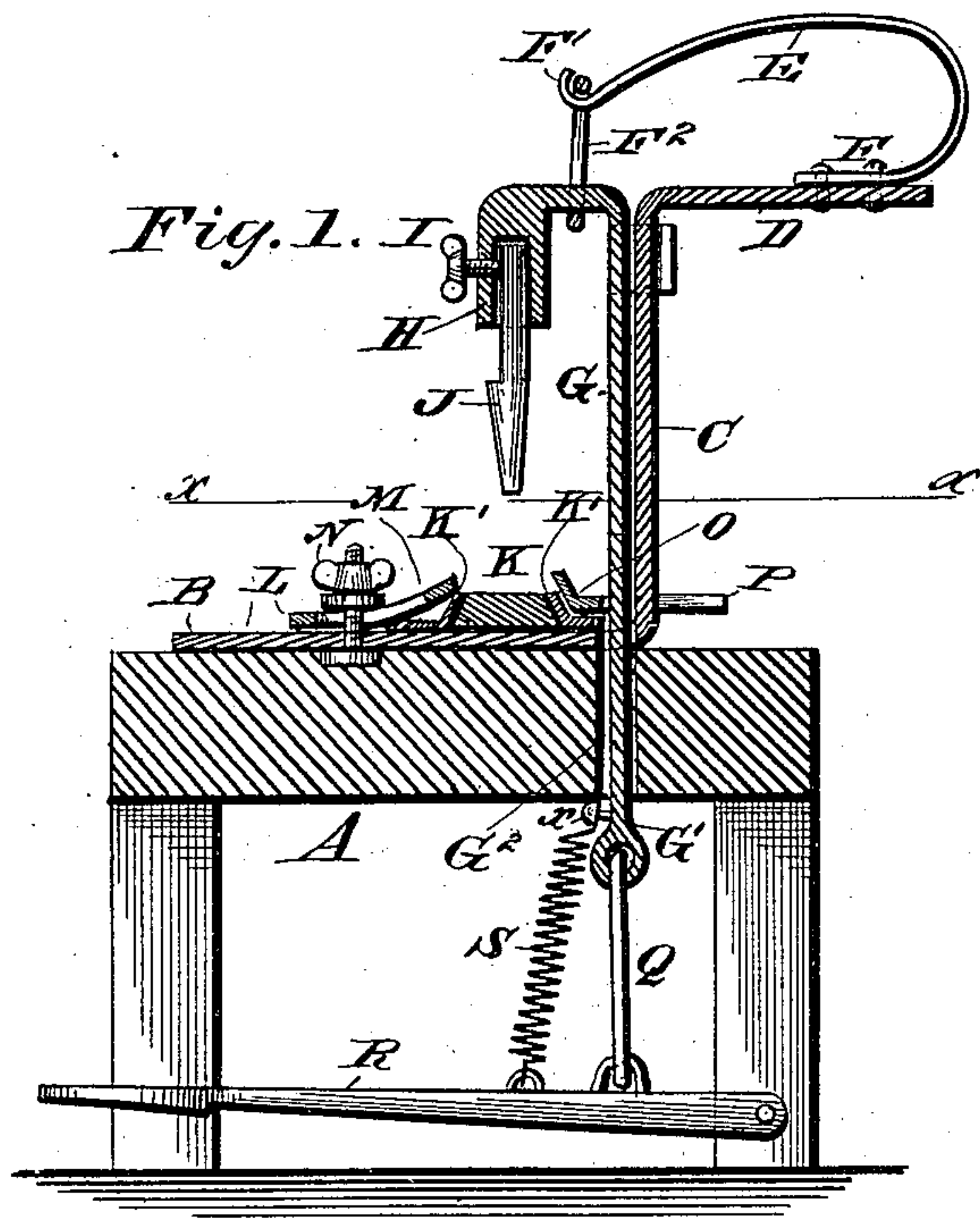


(No Model.)

H. TAY.
PUNCHING MACHINE.

No. 334,139.

Patented Jan. 12, 1886.



WITNESSES

Grace M. Craig
Phillips.

INVENTOR

Hans Tay.
by Anderson Smith
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Attorneys

UNITED STATES PATENT OFFICE.

HANS TAY, OF ARCOLA, ILLINOIS.

PUNCHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 334,139, dated January 12, 1886.

Application filed May 9, 1885. Serial No. 164,969. (No model.)

To all whom it may concern:

Be it known that I, HANS TAY, a citizen of the United States, residing at Arcola, in the county of Douglas and State of Illinois, have
5 invented certain new and useful Improvements in Punching-Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it ap-
10 pertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation
15 of a vertical sectional view. Fig. 2 is a horizontal section on line $x x$, Fig. 1. Fig. 3 is a detail view.

This invention relates to punching-machines for punching harness-straps and the like; and
20 it consists in the construction and novel combination of parts, as will be hereinafter fully described, and particularly pointed out in the claims.

Referring by letter to the accompanying
25 drawings, A designates the work-bench, to which the base B of the punching-machine is secured by screws, to retain it in place while the punch is being operated.

C is the standard which rises from the rear
30 end of the base B, and is preferably integral therewith. At the upper end of the standard C a rearwardly-extending horizontal arm, D, is provided, and this arm D is preferably integral with the standard C. This arm D is
35 provided with the retracting-spring E, which is secured to said arm near its end by a bolt or rivet, F, and is provided at its forward end with a hook, F', which is connected by a bail, F², to the slide G, which carries the in-
40 tegral punch-seat H, which latter is provided with a set-screw, I, for retaining the punch J in place. The punch J may be either a double or single punch, as may be desired for the uses to which the punch is to be applied. A
45 bed-plate, K, of soft metal, is secured in bearings K', and may be slid to place and removed

and replaced when necessary. An adjustable scale, L, which is triangular in form and open, is provided with a slotted arm, M, and a set-screw, N, is employed to hold the scale to its
50 adjustments. The straight portion or base O of the scale is graduated in inches and fractions of inches, to indicate the points where the holes are to be punched in the strap. This scale L is also provided with integral arms P P, which
55 project rearwardly on each side of the standard C. The slide G has an arm, G', made integral therewith, which arm G' extends down through an opening, G², in the bench, and is connected by a rod, Q, to a treadle, R, by which the
60 mechanism is operated by the foot of the workman. The slide has a stop-pin, x , which prevents the spring from carrying it too far upward.

In addition to the flat retracting-spring E,
65 secured to the arm D, I provide a second or auxiliary spring, S, which is a coil-spring, and is connected to the slide G by bolt and eye, the eye being formed in the spring, and is also connected at its lower end to the treadle.
70 This insures a more perfect action of the punch than where the single spring E is used alone.

Having thus fully described my invention, what I claim as new, and desire to secure by
75 Letters Patent of the United States, is—

1. The combination, with the punch-standard and the bed-plate, of the slotted scale provided with guide-arms and the slotted plate and set-screw, substantially as specified. 80

2. The combination, with the base and standard having the horizontal arm at its upper end, of the spring E and bail, the slide having the bail at its upper end and the punch-seat, and the spring S, connecting the slide
85 and treadle, as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

HANS TAY.

Witnesses:

JAMES H. CAMPBELL,
CHARLES W. DOUGLAS.