

J. KELLY.
Corn-Planter.

No. 216,041.

Patented June 3, 1879.

FIG. 1.

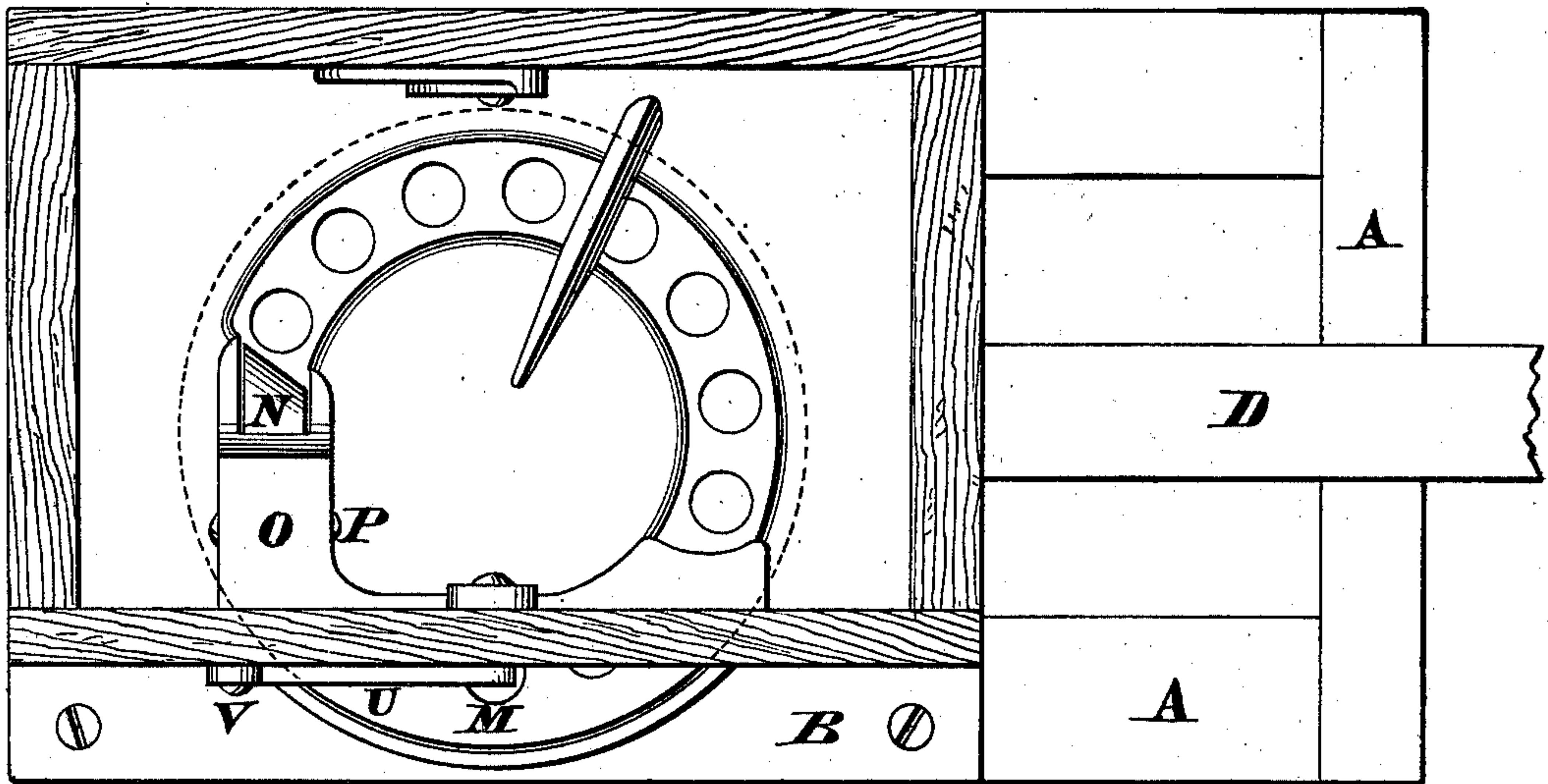


FIG. 2.

FIG. 13.

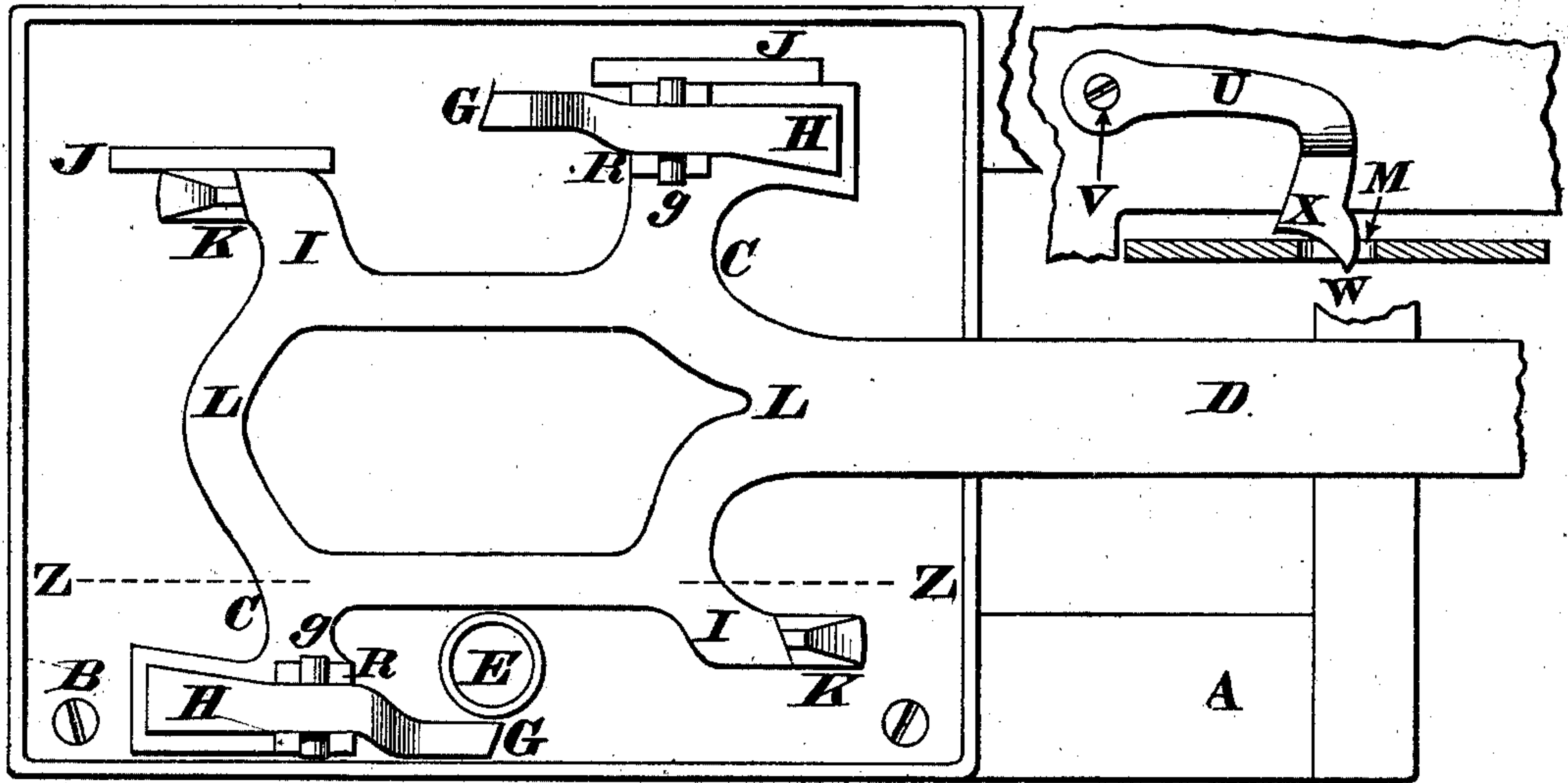
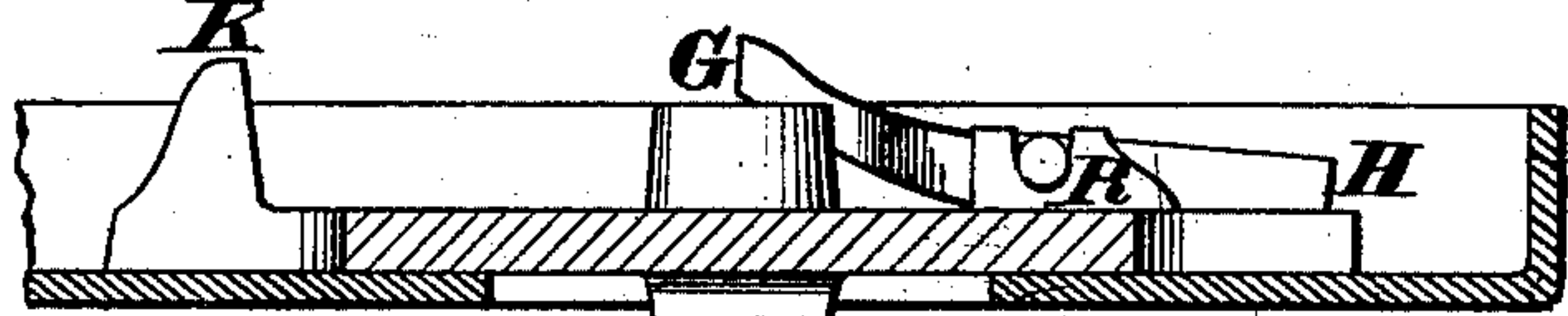
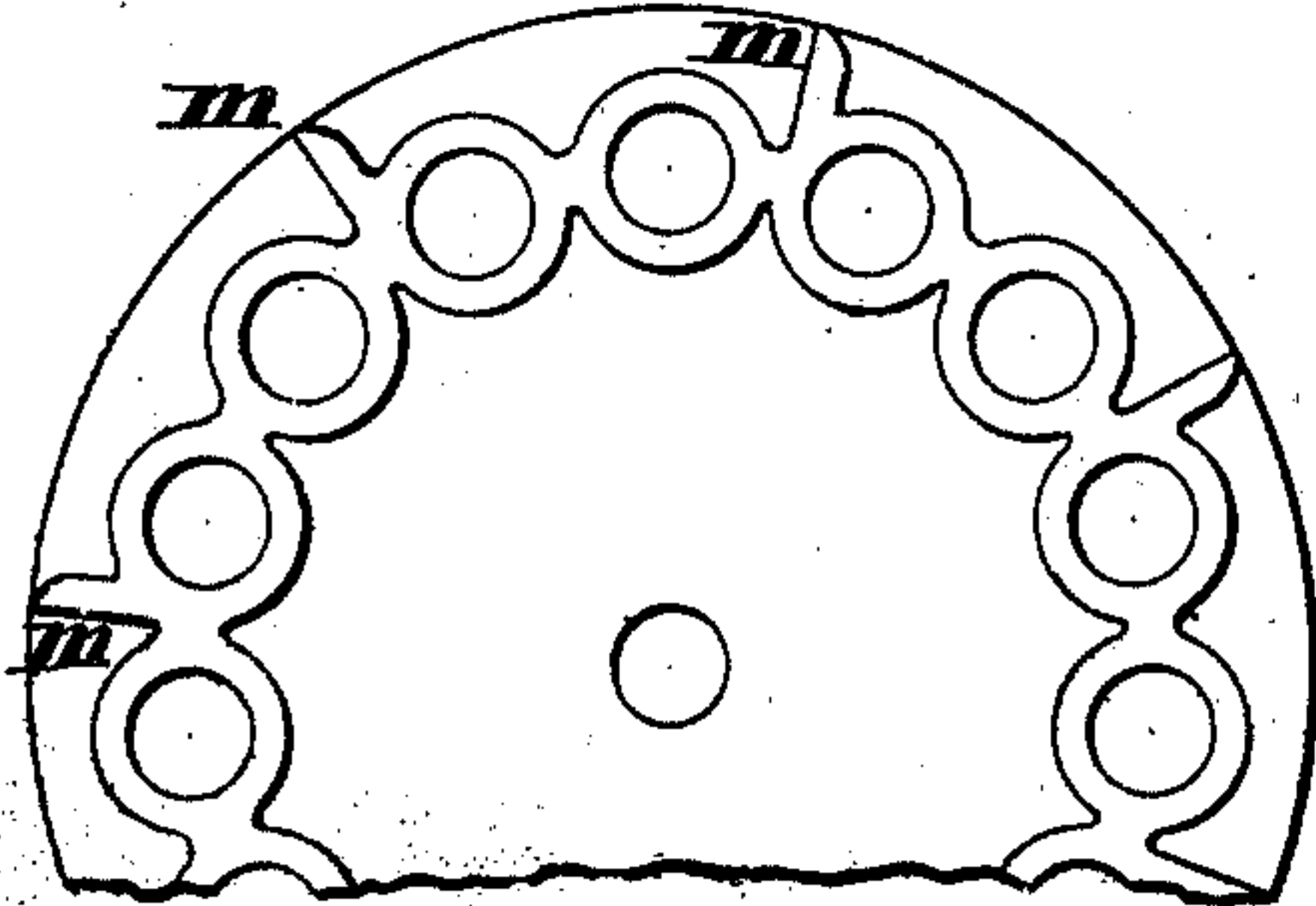


FIG. 3.

FIG. 4.



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FIG. 5.

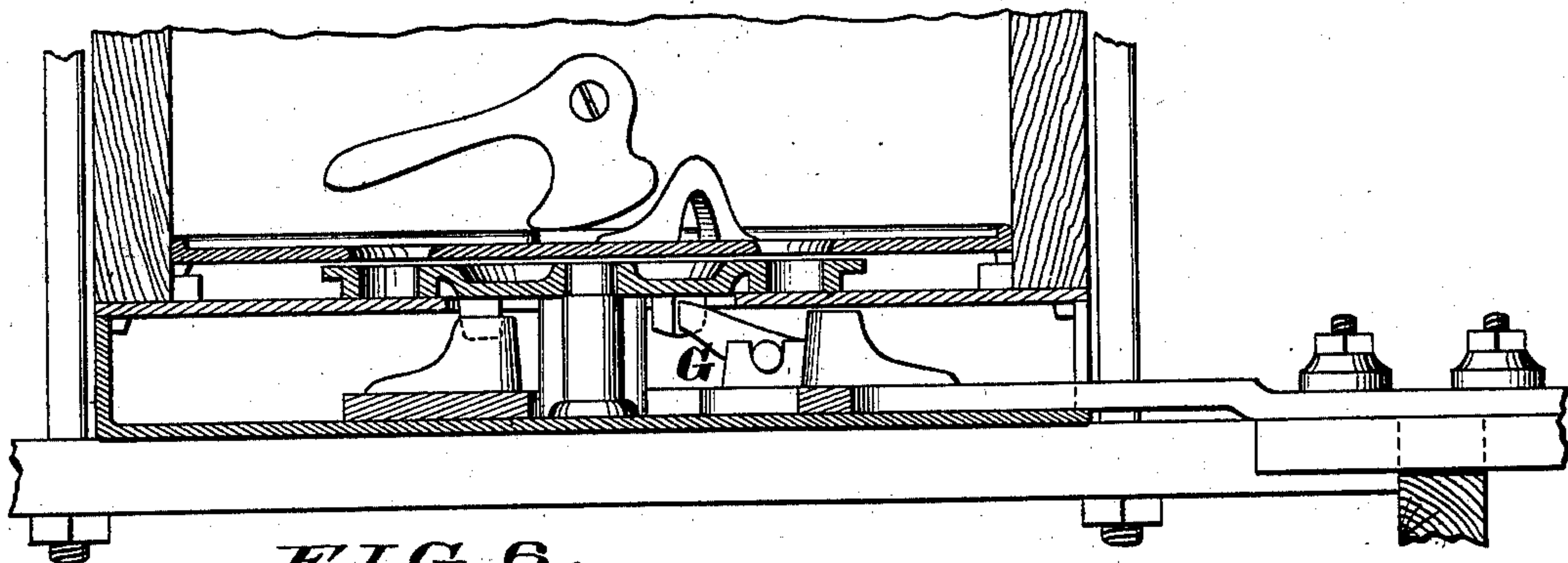


FIG. 6.

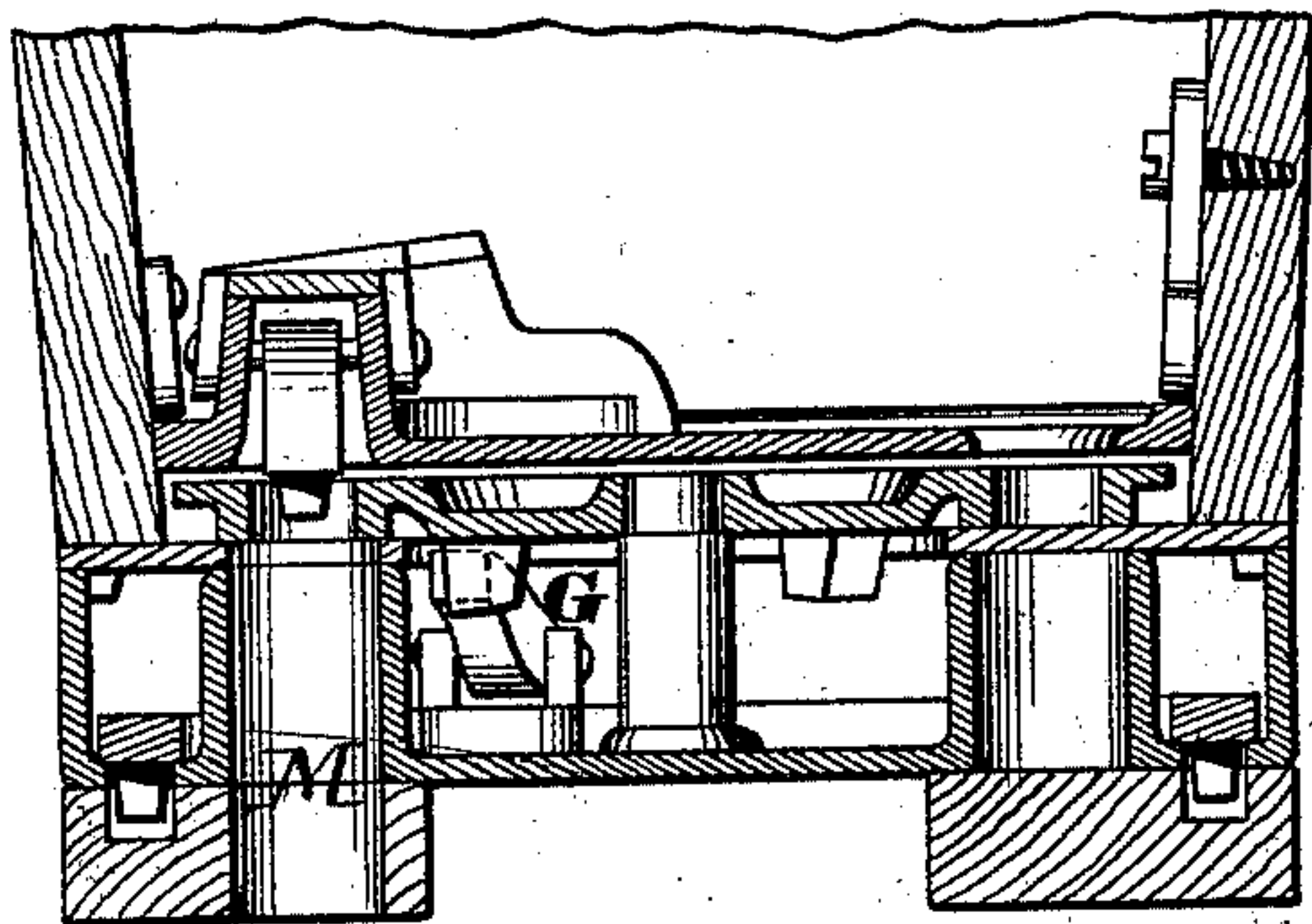


FIG. 7.

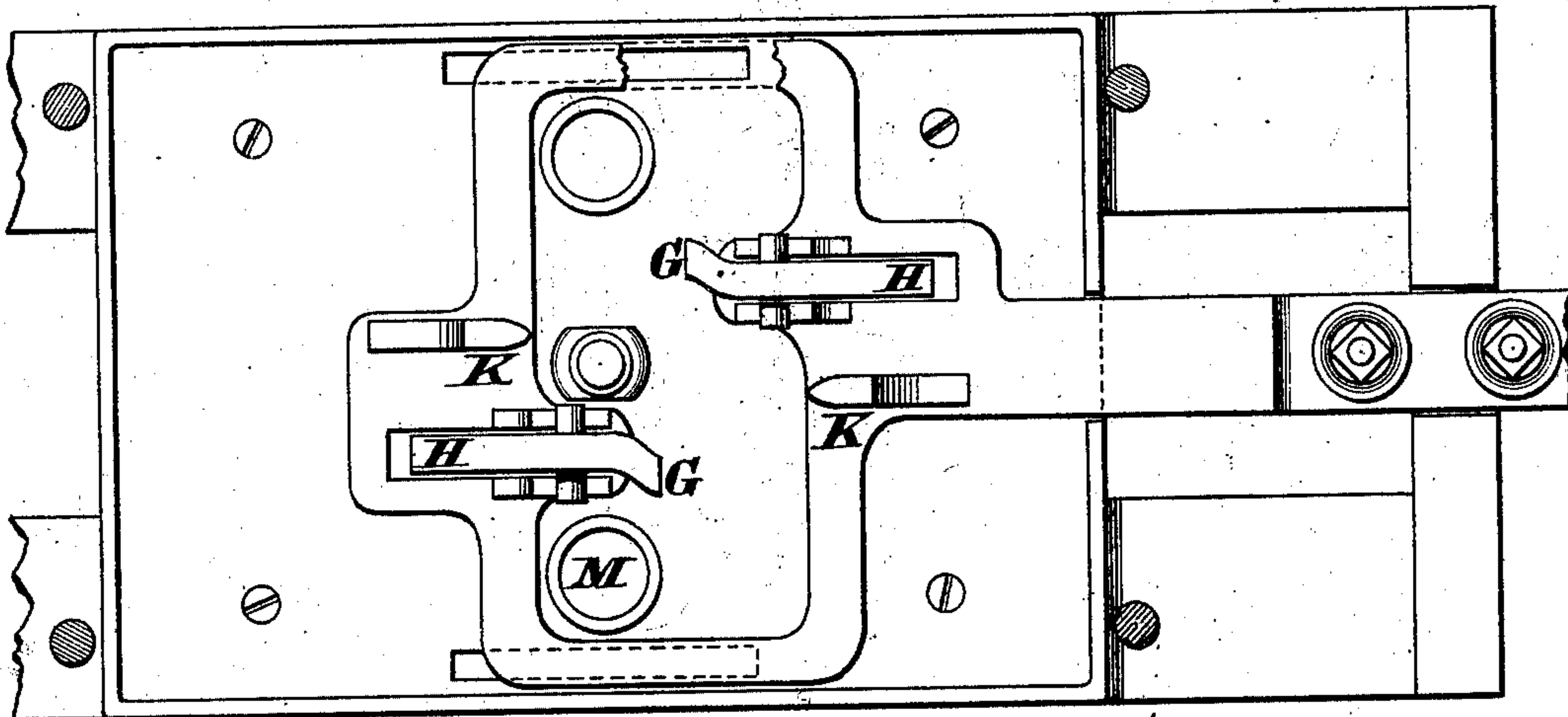
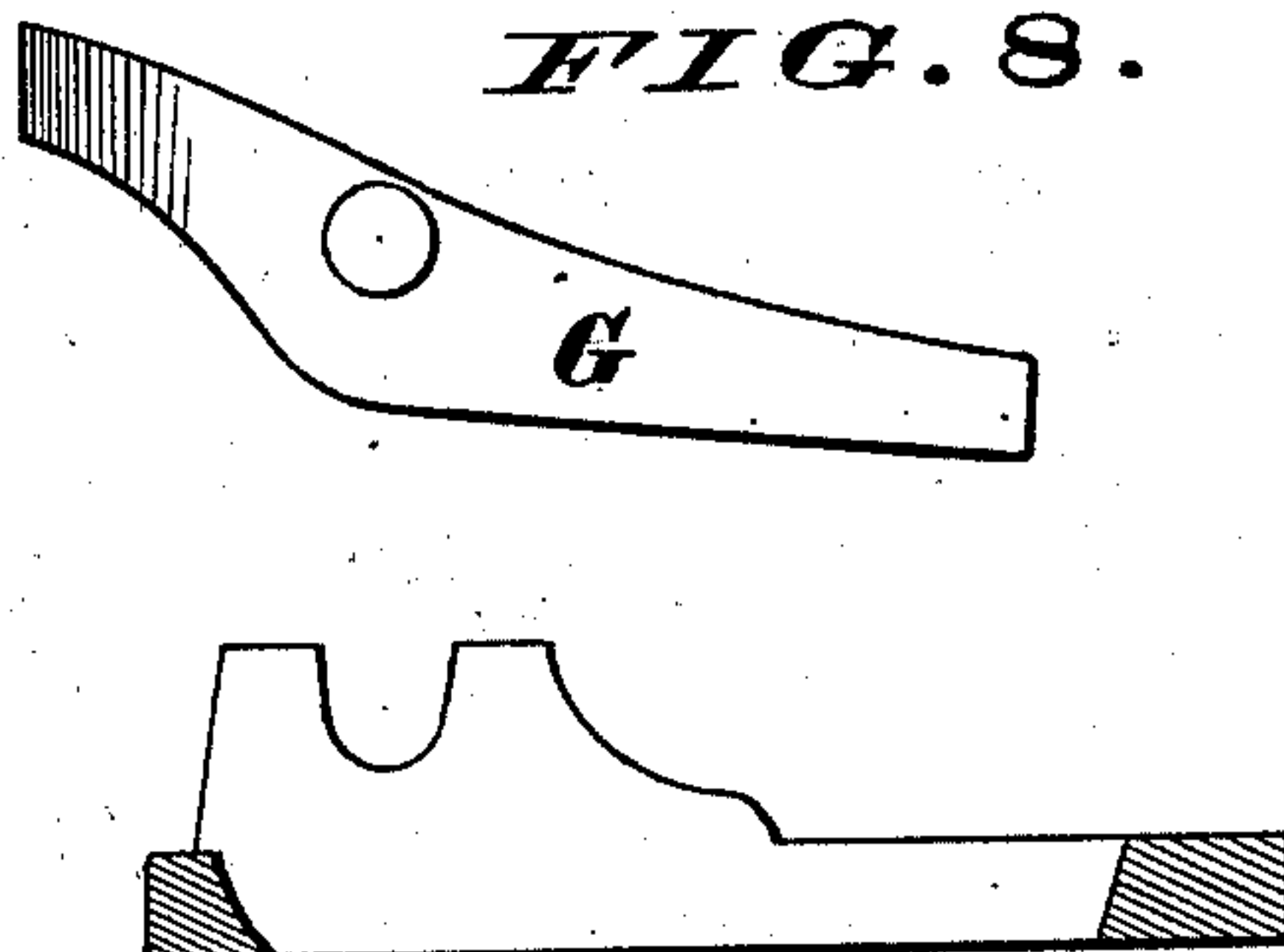


FIG. 8.



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FIG. 9.

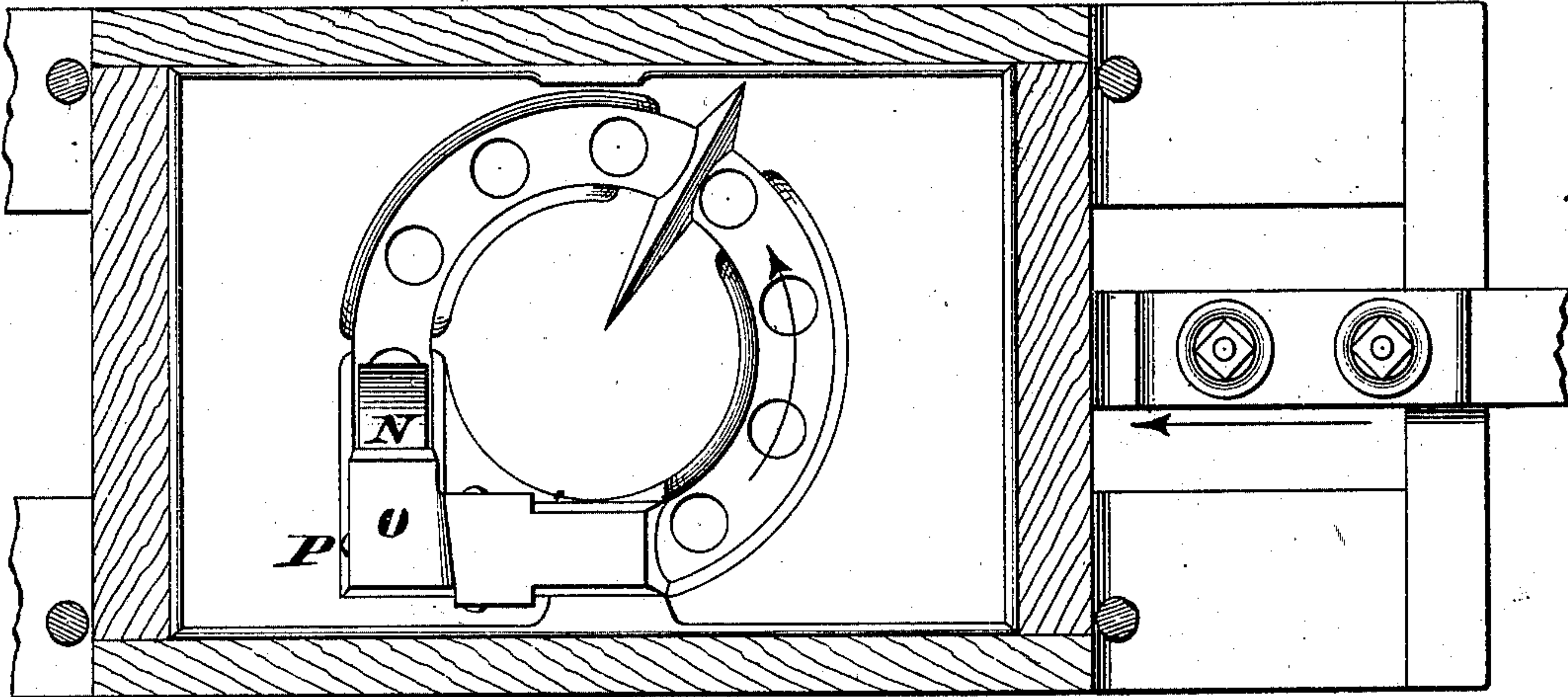


FIG. 10.

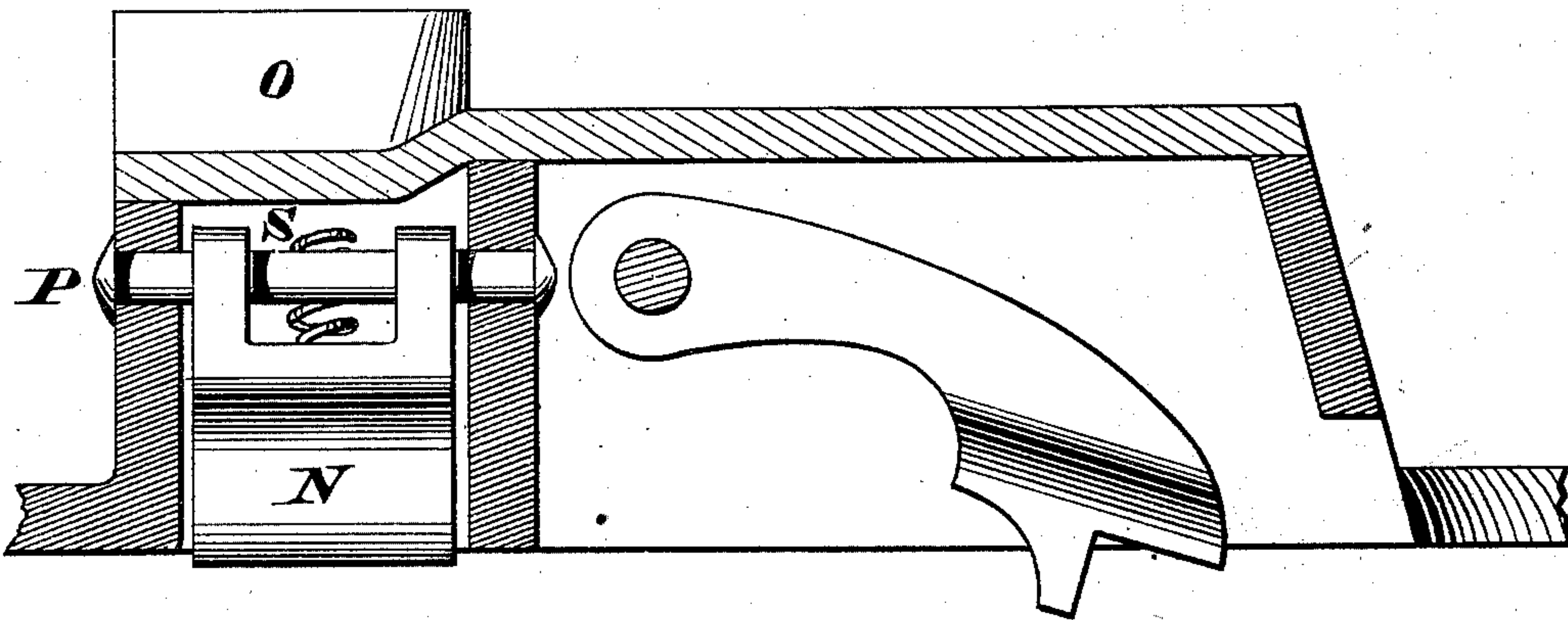
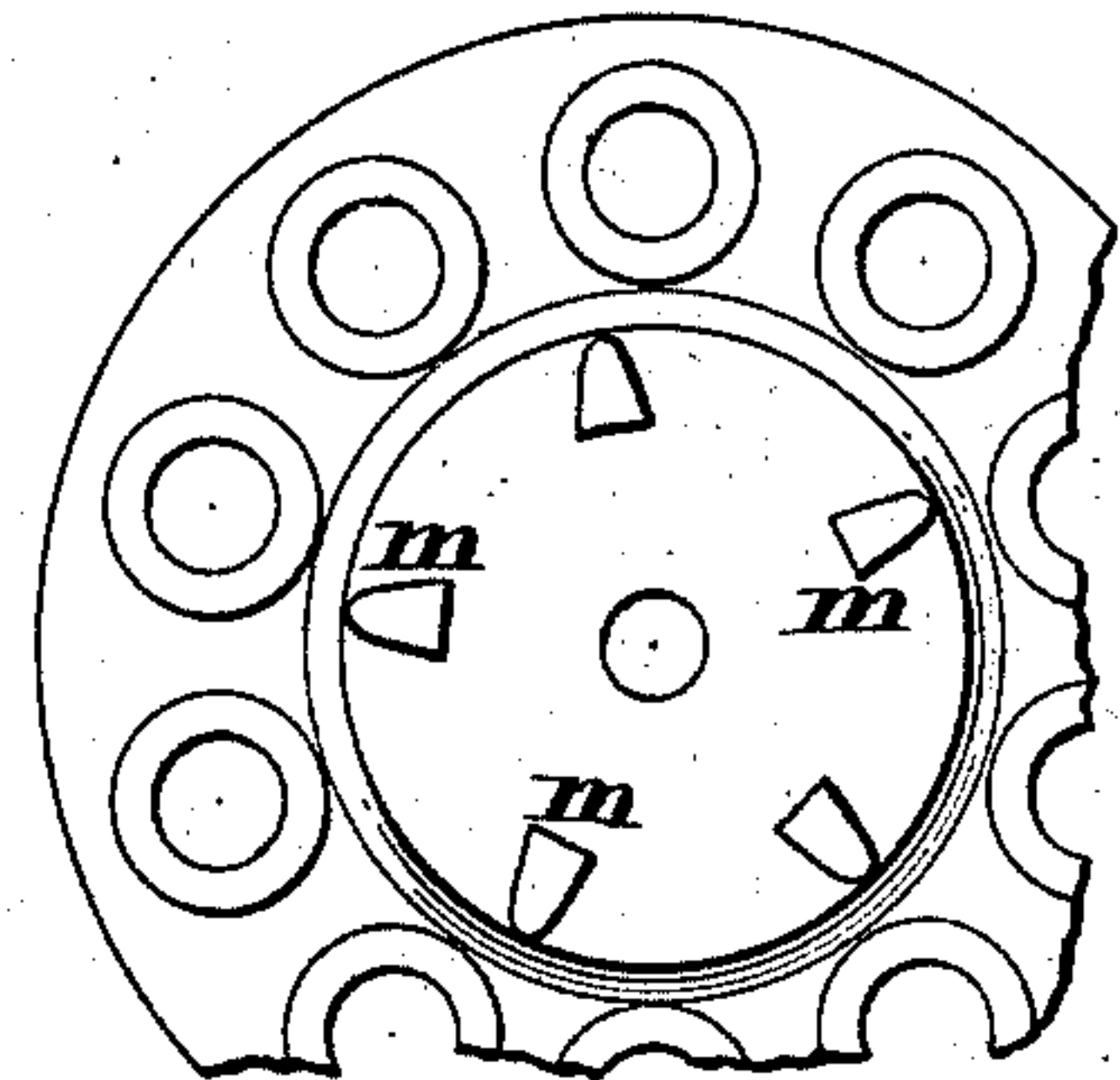
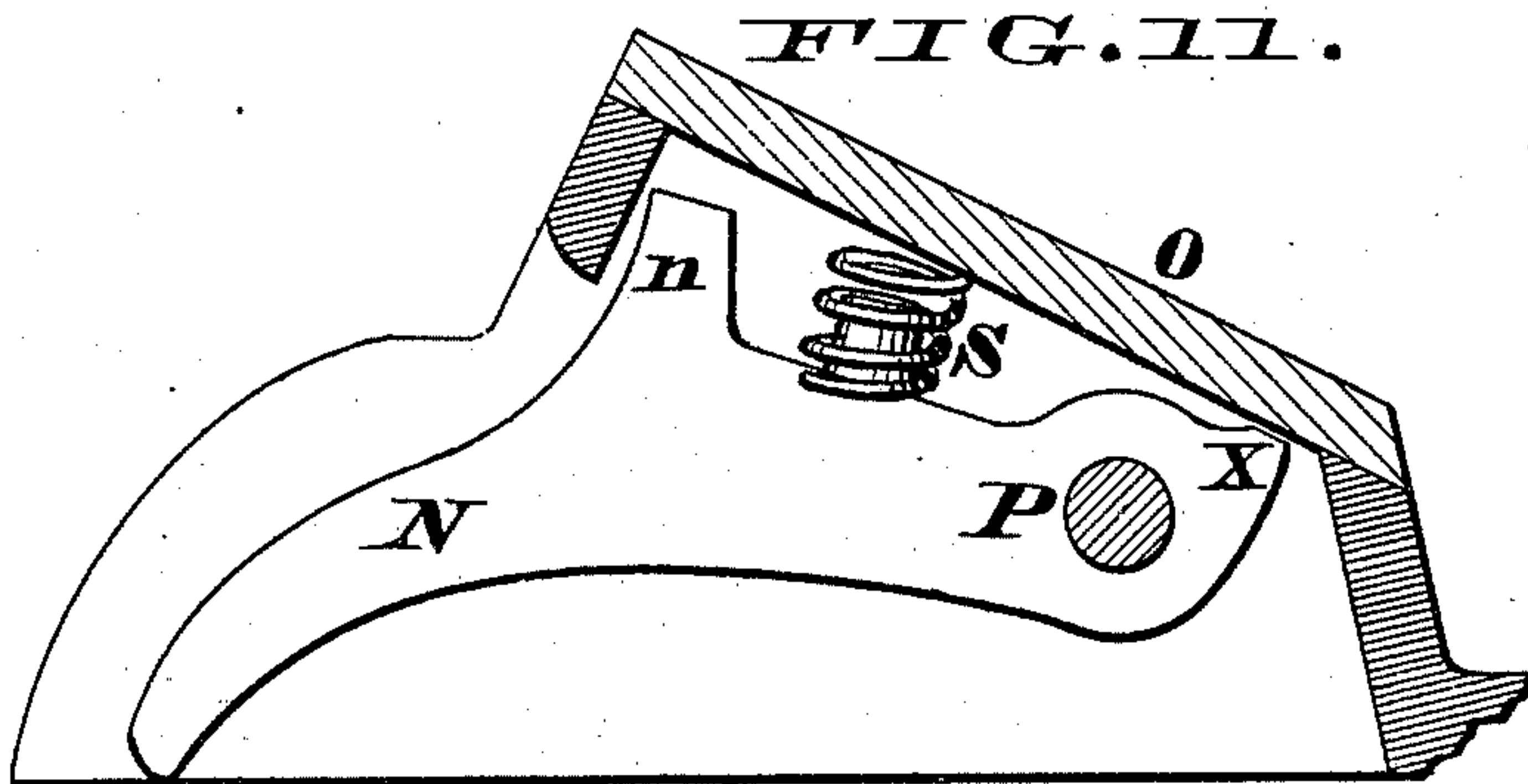


FIG. 12.



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UNITED STATES PATENT OFFICE.

JOHN KELLY, OF TROY, OHIO, ASSIGNOR TO HIMSELF AND A. T. BEEDLE,
OF SAME PLACE.

IMPROVEMENT IN CORN-PLANTERS.

Specification forming part of Letters Patent No. **216,041**, dated June 3, 1879; application filed
December 22, 1877.

To all whom it may concern:

Be it known that I, JOHN KELLY, of Troy, in the county of Miami and State of Ohio, have invented certain Improvements in Corn-Planters, of which the following is a specification.

My invention relates principally to that class of corn-planters commonly known as "double planters," and is so shown in the drawings; but it may be used on single planters.

It consists in the peculiar construction and arrangement of the dropper-plate with a reciprocating frame and pawls, and in the construction of the cut-off and the knocker.

Referring to the drawings, Figure 1 represents a plan of the bottom plate of the feed-box. Fig. 9 is a modification of same. Fig. 2 represents a plan view of the slide-bar and the frame which carries the pawls, and, by its reciprocating motion, gives a continuous intermittent motion in one direction to the dropper-plate, the dropper-plate being removed. Fig. 7 is a modification of the same. Fig. 3 is a bottom view of a section of the dropper-plate. Fig. 12 is a modification of the same. Fig. 4 is a section through line Z Z of Fig. 2, showing one of the pawls and lugs. Fig. 5 shows a cross-section of a modified form of the device taken parallel with the motion of the slide-bar. Fig. 6 shows a cross-section of a modified form taken at right angles to the motion of the slide-bar. Fig. 8 shows one of the pawls and its bearing. Fig. 9 shows a plan view of the dropper-plate of a modified form, the bottom plate of the feed-box being removed. Fig. 10 shows the knocker, which, by falling on the grain in the holes of the dropper-plate as they successively come under it, forces the grain into the grain-spout M. Fig. 11 shows a sectional view of the cut-off and box around it.

A is a part of the wooden frame of the machine. B is a metal box, on the bottom of which slides the reciprocating frame L L, to which motion is given by the slide-bar D. These parts are attached together, and operated in the usual manner. The frame L L has two arms, C C, extending at right angles with the slide-bar, one on each side and at opposite ends of the frame, which carry the

pawls G G, the outer ends of which, H H, are weighted to keep them down, thus causing the active ends to bear against the dropper-plate. These pawls are set in opposite directions, so that by a motion to the right one will act against the ratchet-teeth *m m* of the dropper-plate, and by a motion to the left the other will act, thus giving a continued intermittent motion in one direction to the dropper-plate by the reciprocation of the slide-bar.

The frame L L has two other similar arms, I I, to carry the lugs K K, which, by catching against the ratchet-teeth *m* of the dropper-plate at the end of each stroke, prevent the latter from being carried too far by its momentum. J J are lugs on the bottom of the box B, which keep the frame L L in place. The pawls G G swing on trunnions *g g*, which rest in suitable boxing or bearings R R. E is the seed-tube which conveys the seed through the runners to the ground. It projects up between the frame L L and the pawl G.

The teeth *m* on the dropper-plate are located near its outer edge, and the ends are beveled, as shown in Fig. 3, to fit squarely against the lugs K K, Fig. 2, which are also beveled for the same purpose. N in Figs. 1 and 11 is the cut-off; O, the box around it.

The cut-off is pivoted at P, and at S has a spring, forming a lever of the second class, with its fulcrum at P. This spring is of sufficient strength to prevent the cut-off from rising and allowing the passage of more than the desired number of grains or kernels. The cut-off is beveled at its front end, as shown, the object being that if a kernel gets wedged into the hole in the dropper-plate and projects above the plate it will raise the cut-off and pass under it, instead of being crushed or sheared off, the spring at S being weak enough to permit this rising.

At *n* is a heel which prevents the cut-off from rising too far, and at X a lug or projection, which, by striking against the box O, prevents the front end of the cut-off from striking below the surface of the dropper-plate, and, as does also the heel at *n*, prevents any grain from working around to the spring.

In Fig. 13 the knocker U is pivoted at V. The free end of the knocker is weighted, so

that the spur W drops into the holes of the dropper-plate and forces the grain into the discharge-tube. The heel X prevents the knocker from falling too low.

In Figs. 6 and 7 the grain-spout M and knocker are represented within the feed-box, and the pawls G G and lugs K K represented as arranged to catch on the ratchet-teeth of the dropper-plate when the teeth are located nearer the center of said plate, as shown in Fig. 12.

Having thus described my invention, what I claim is—

1. The dropper-plate having teeth on its under side, in combination with its upwardly-acting pawls G and the single reciprocating frame L, adapted to sustain and carry both pawls beneath the dropper-plate.

2. The combination of the rotary dropper-plate having teeth on the under side, verti-

cally-acting pawls G, provided with the trunnions and the weighted rear ends, and the single reciprocating frame provided with the bearings R, open at the top, to receive and carry the pawls, as shown.

3. The reciprocating frame L L, constructed with the lugs K K and the boxes R R for supporting the pawls.

4. The cut-off N, pivoted at P, and made with the heel to limit its motion and prevent the grain and dust from working around to the spring, as and for the purpose described.

5. The cast-metal knocker U, made in the peculiar form shown, with the point W and the square shoulder X.

JOHN KELLY.

Witnesses:

M. B. EARNHURT,
R. GIBBS.