

(No Model.)

G. McKAY & W. L. TOBEY.
Nailing Machine.

No. 230,957.

Patented Aug. 10, 1880.

Fig:1.

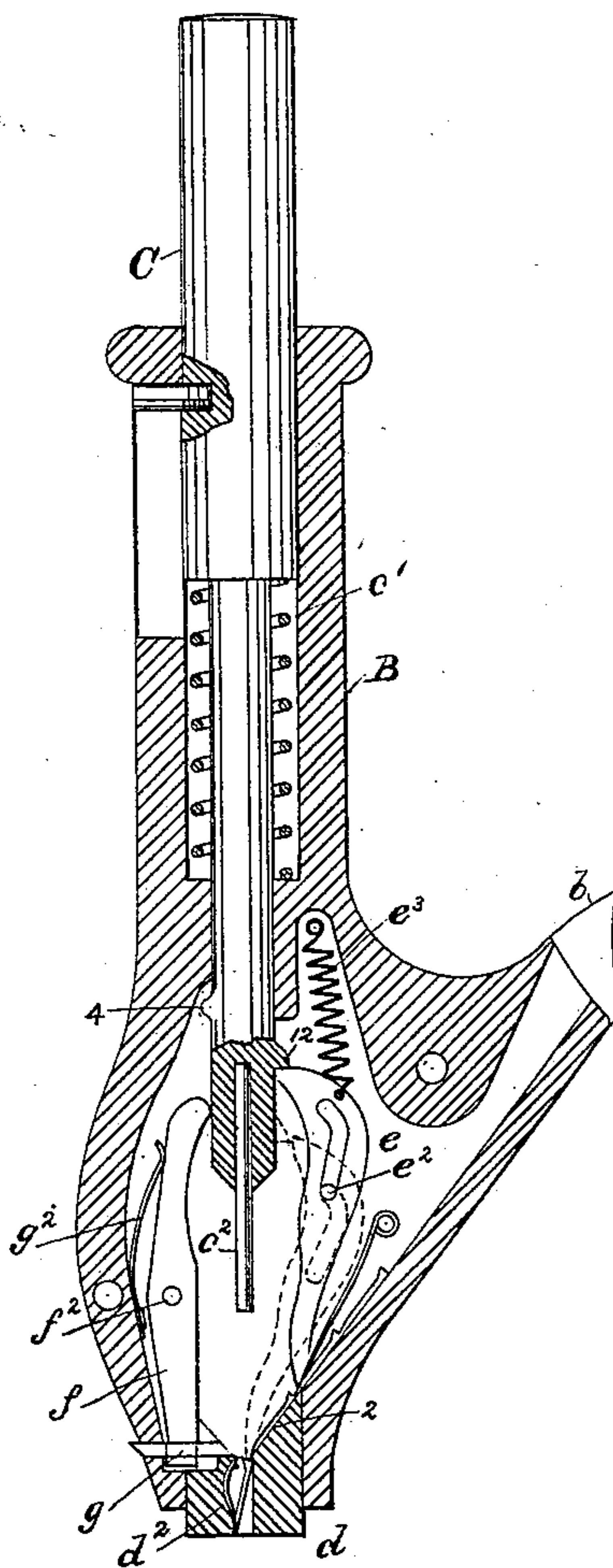


Fig:2.

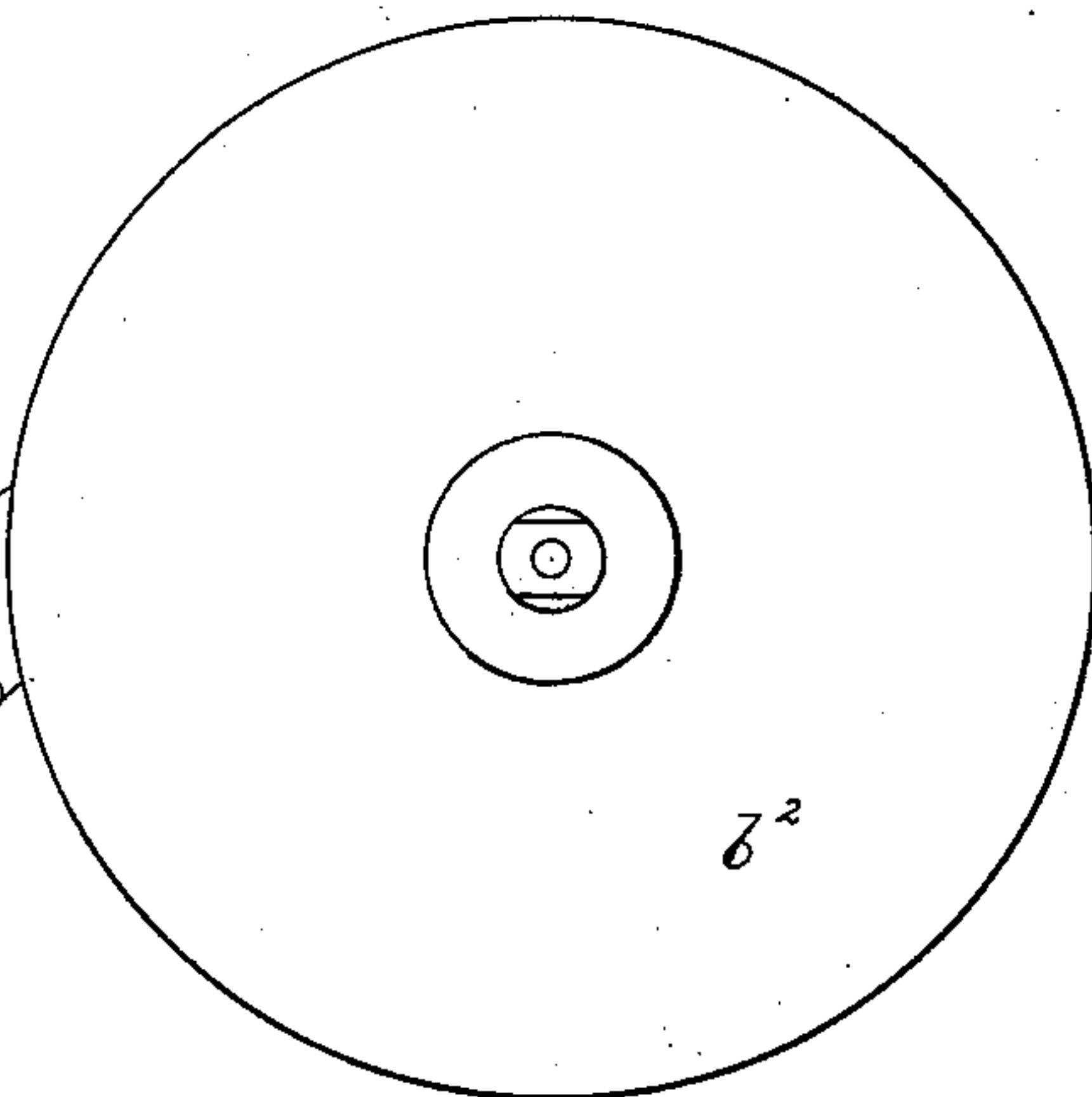
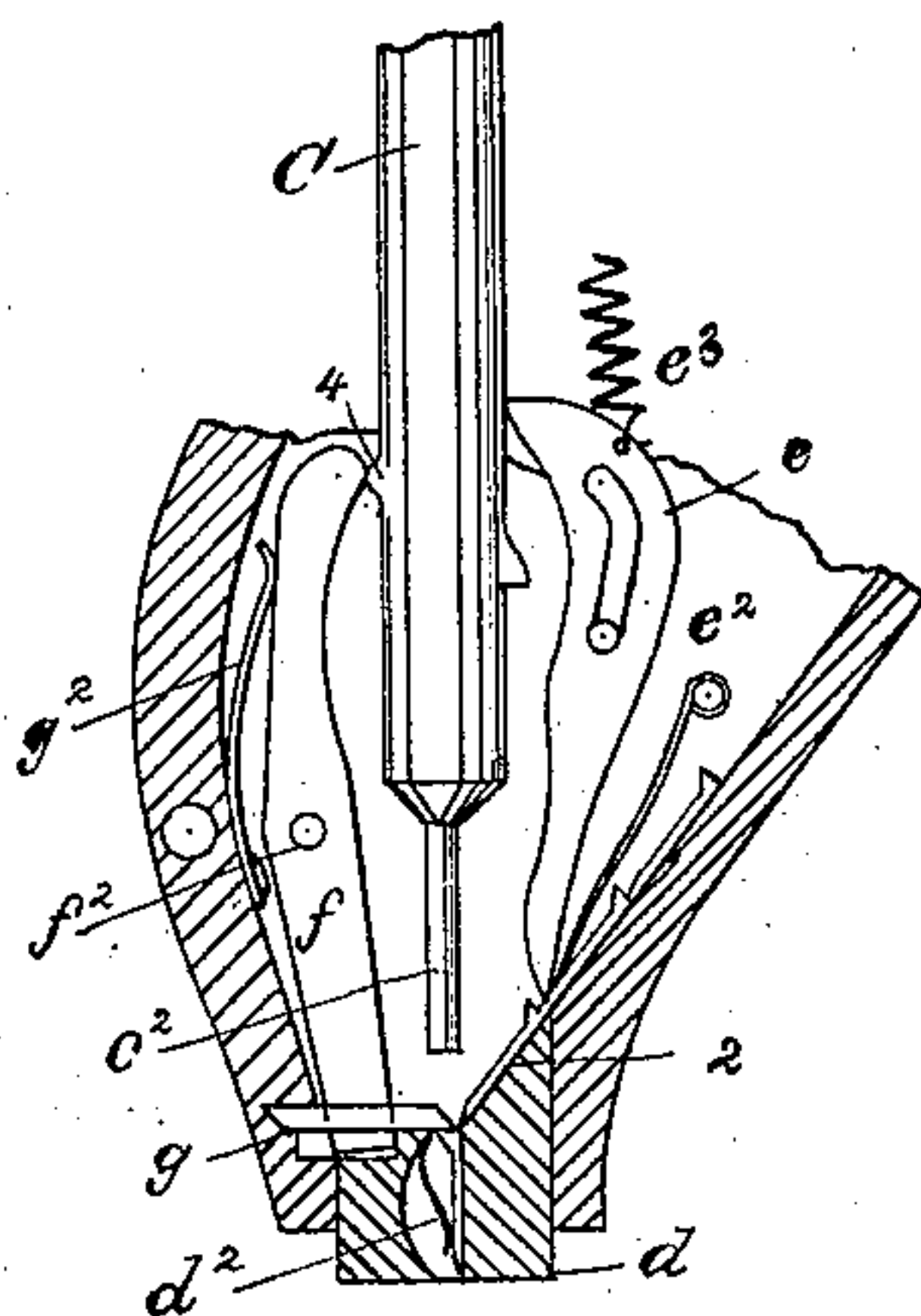
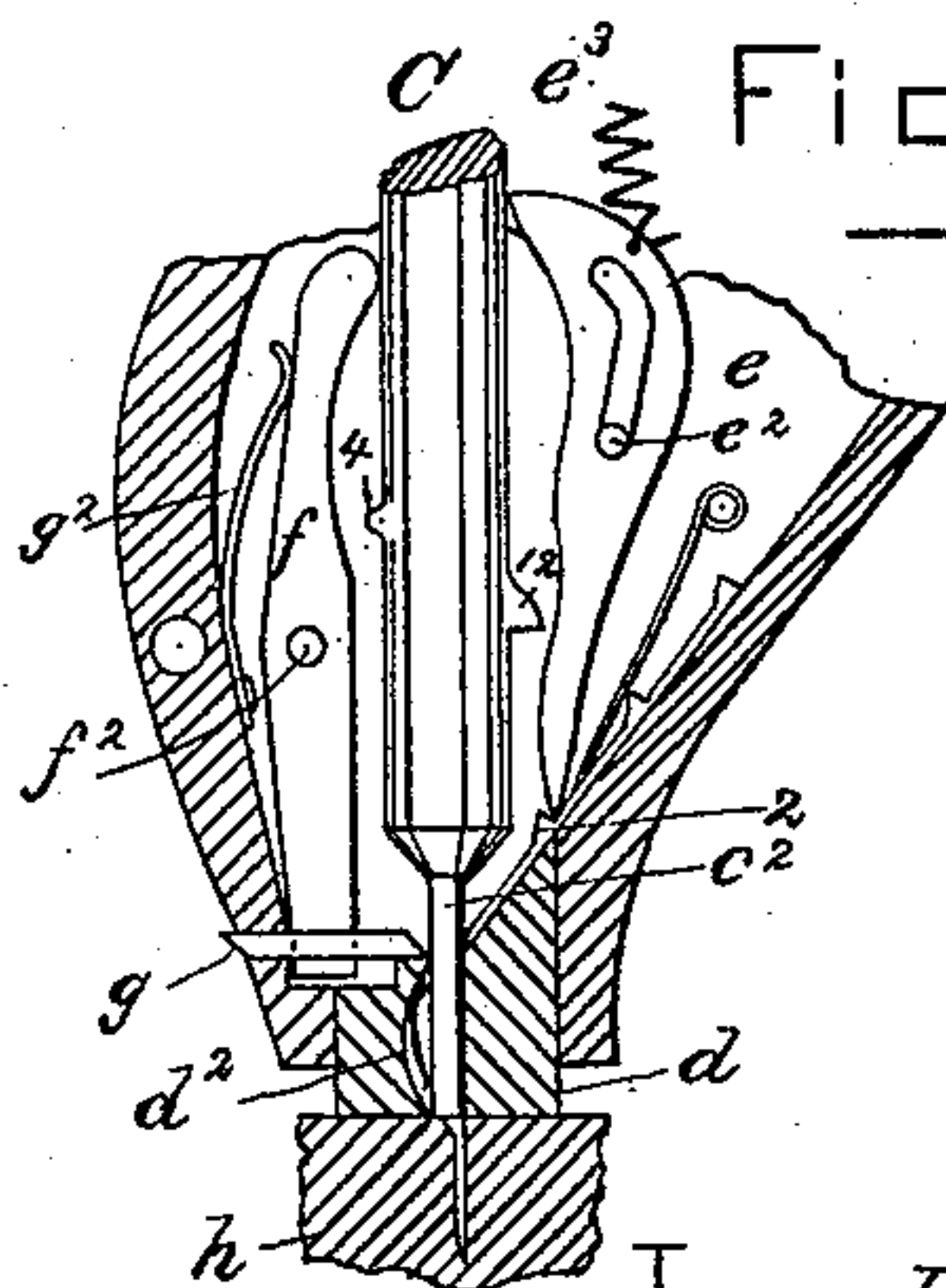


Fig:3.



Witnesses.

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UNITED STATES PATENT OFFICE.

GORDON McKAY, OF CAMBRIDGE, AND WILLIAM L. TOBEY, OF LAWRENCE,
MASSACHUSETTS, ASSIGNORS TO GORDON McKAY, TRUSTEE.

NAILING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 230,957, dated August 10, 1880.

Application filed June 7, 1880. (No model.)

To all whom it may concern:

Be it known that we, GORDON McKAY, of Cambridge, Middlesex county, and WILLIAM L. TOBEY, of Lawrence, Essex county, State of Massachusetts, have invented an Improvement in Nailing-Machines, (Case B,) of which the following description, in connection with the accompanying drawings, is a specification.

This invention relates to nailing-machines chiefly for boot and shoe or leather work; and our invention is shown as embodied in that class of nailing-machine wherein the nails employed are those known as "string-nails," held upon a suitable reel.

In this our present invention we employ a feeder of peculiar shape to engage and feed forward into driving position each nail of the string, forcing the point of each nail against a curved surface, preferably made as a spring, and called by us a "nail-controller," that gradually turns it down from an inclined into a substantially vertical position, directly in the driver-passage, in line with the driver; and, as herein shown, we have arranged a separate cutter to sever each nail from the string of nails just before it is struck by the driver to be driven. The driver at each descent operates in succession first the feeder and then the cutter. Before the cutter is operated the feeder is released and moved backward by a spring out of the way of the descending driver. The cutter is also moved forward and backward between the time the driver is descending from its highest position to the point where the driver meets the nail to be driven by it.

Figure 1 represents, in vertical section and side elevation, a nailing-machine containing our invention; Fig. 2, a detail thereof, showing the driver forced down far enough to actuate the cutter; and Fig. 3, a detail, showing the driver completely down, and as having driven a nail into a piece of leather or other material below the nose.

The frame B has ears *b* to hold the usual reel *b*². The driver-bar C has a spring, *c*¹, to lift it, and at the lower end of the said bar is the driver *c*².

The nose *d* of the machine has located or placed within the driver-passage a nail-controller, *d*², made as a curved spring, against

which the point of the nail 2 next to be driven is forced by the feeder *e* as it is made to feed that nail and the string of nails forward, the said controller, by its action on the said nail, turning it downward from the level of the other nails into the position shown in Fig. 1, and holding it there until struck by the driver.

The feeder *e* is made as an irregularly-slotted lever, guided on a fulcrum-pin, *e*², pulled upward by a spring, *e*³, and forced down into the position shown in dotted lines, Fig. 1, by the projection 12 at the right-hand side of the driver-bar. At one side of the frame is the lever *f*, pivoted at *f*², provided at its lower end with the cutter *g*. This lever is acted upon by a spring, *g*², that keeps the upper end of the said lever pressed toward the driver-bar and the cutter drawn back, as in Fig. 1.

Just before the driver in its descent reaches the position in Fig. 2 the feeder has acted to feed a nail forward, leaving it in the driver-passage of the nose, as in Fig. 1, and as the projection 4 meets the upper end of the cutter-lever *f* it turns the latter lever and causes the cutter *g* to sever the nail then in the driver-passage from the string of nails. As the projection 4 passes below the upper end of the lever *f* the spring *g*² acts quickly to retract the cutter into the position Fig. 3, and the driver-bar and driver continue to descend and drive the nail into the material *h*, as indicated in Fig. 3.

The slot in the feeder is of such shape as to permit the feeder to move in the proper direction backward and forward and carry the nail-string along over the inclined surface on which the back of the nail-string rests.

In another application (Case A, filed concurrently with this) we have shown and claimed the nail-controller, and do not therefore broadly claim the said controller in this application.

We claim—

1. In a nailing-machine, the driver and the driver-bar provided with the projections 12 and 4, combined with a feeder to feed forward string-nails, and an independently-operated cutter to sever the nails from the said string, both the feeder and cutter being operated successively and independently during each de-

scent of the driver-bar, substantially as described.

2. In a nailing-machine, the driver-bar and driver and the feeder actuated by it to feed
5 the string of nails forward, and the nail-controller to turn the nail next to be driven down into the path of the driver, as described, combined with an independent cutter to sever from the string of nails the nail to be driven
10 by the driver, substantially as set forth.

3. In a nailing-machine, the driver-bar provided with projections to operate both the independent feeder and cutter, combined with

the slotted nail-feeder *e* and the lever *f* and its cutter *g*, and the nose to keep in its pas- 15 sage the nail to be driven, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

GORDON McKAY.
WM. L. TOBEY.

Witnesses:

GEO. W. GREGORY,
L. F. CONNOR.