

J. H. BROWN.  
MACHINE FOR PEGGING BOOTS AND SHOES.

No. 40,306.

Patented Oct. 13, 1863.

Fig 1.

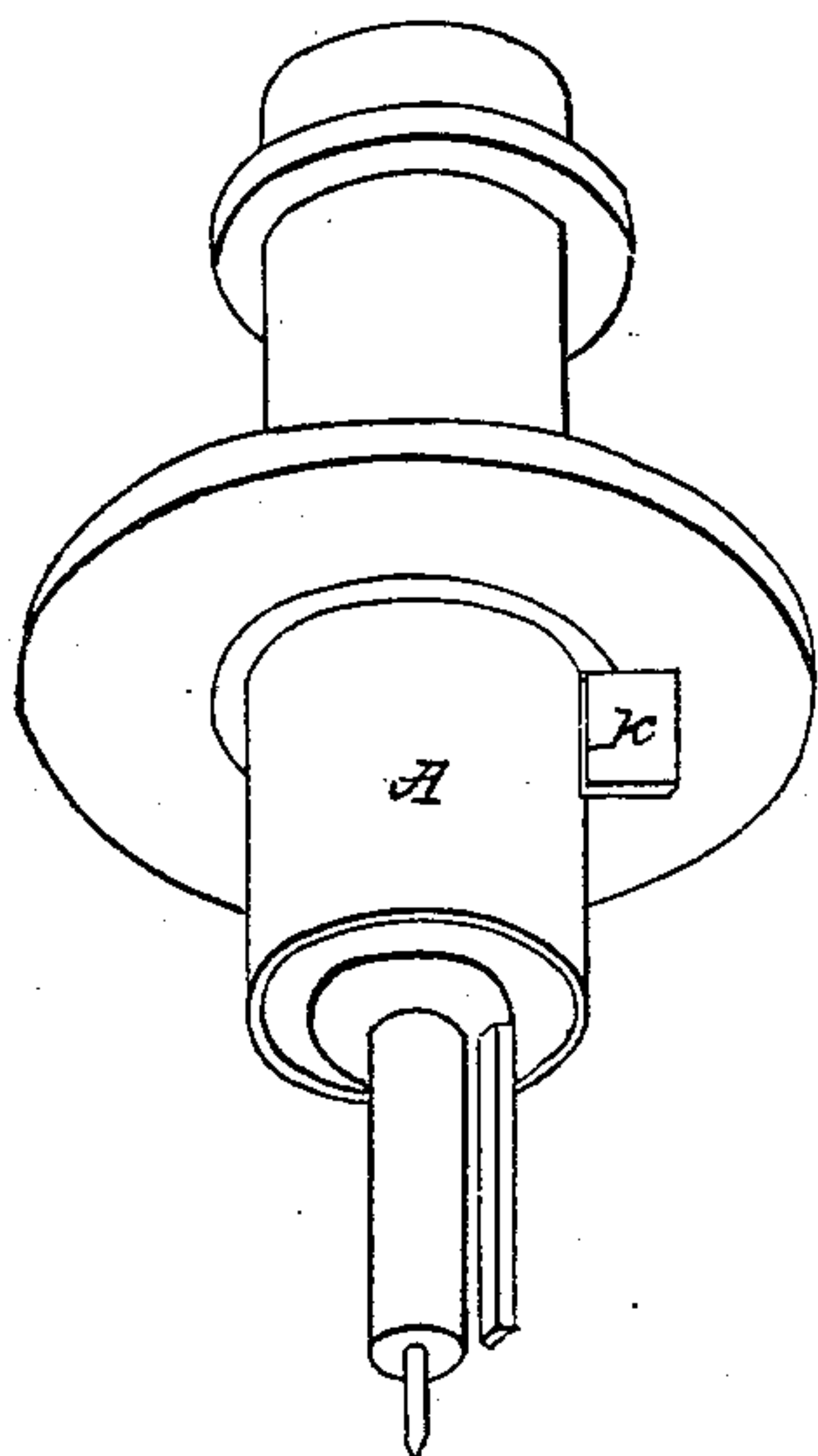


Fig 2.

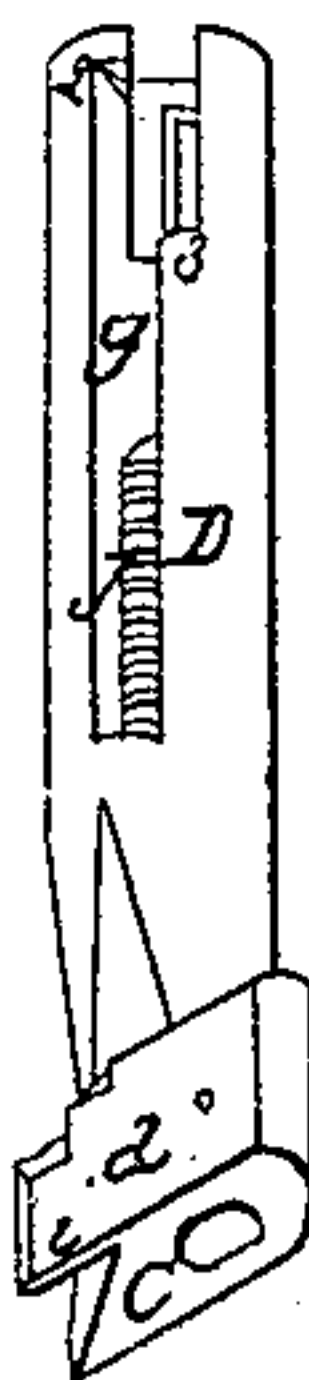


Fig 5.

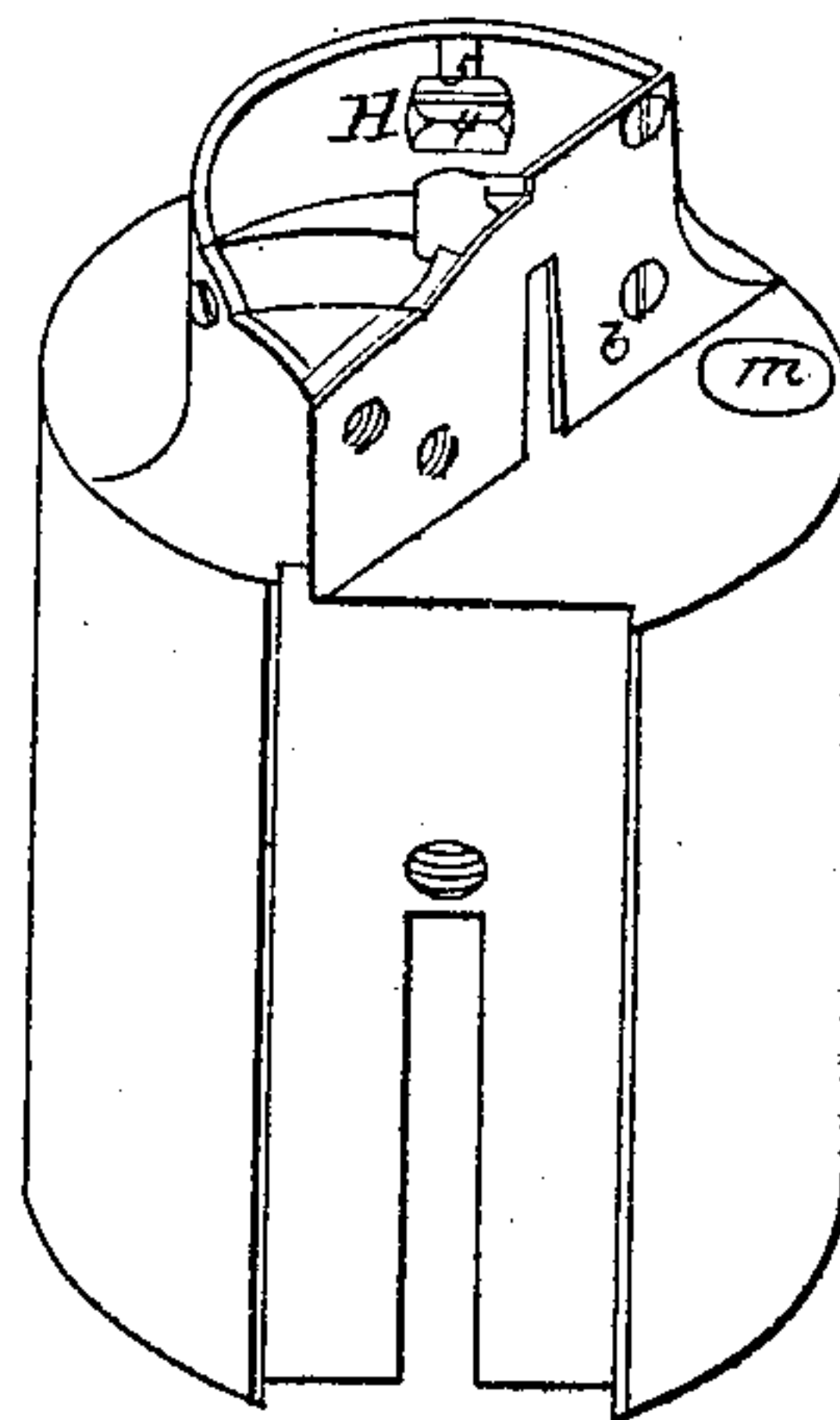


Fig 6.

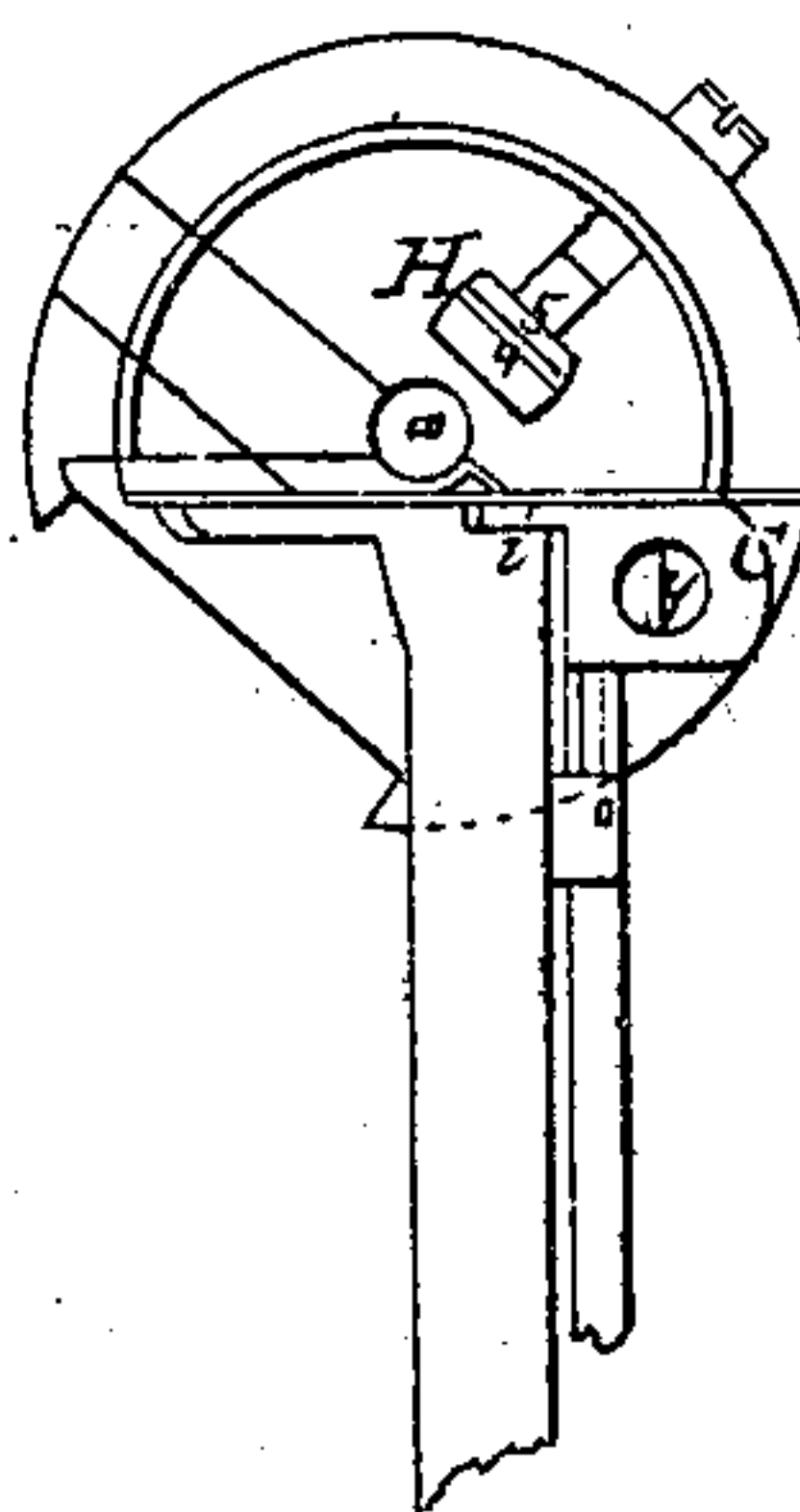


Fig 3.

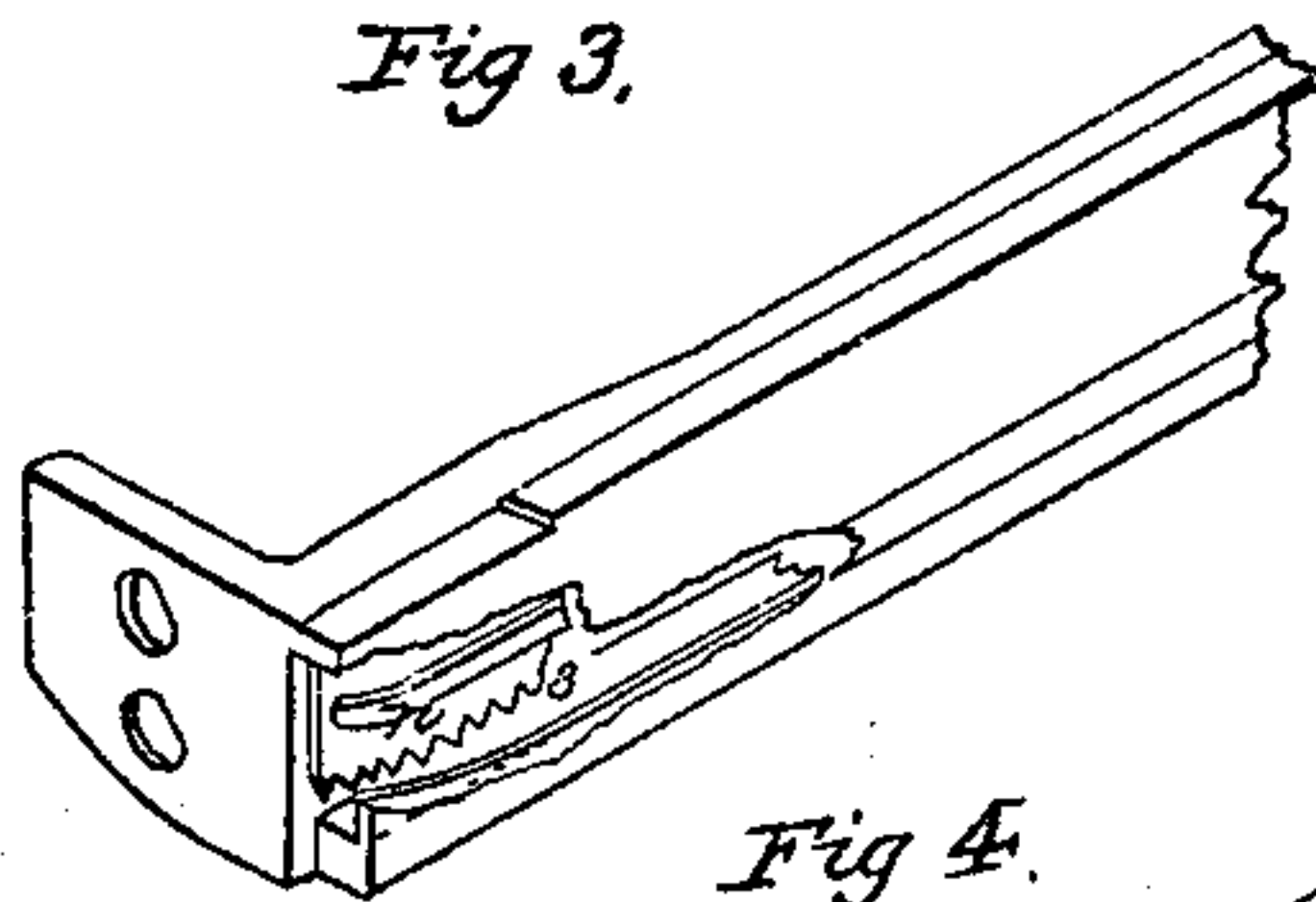
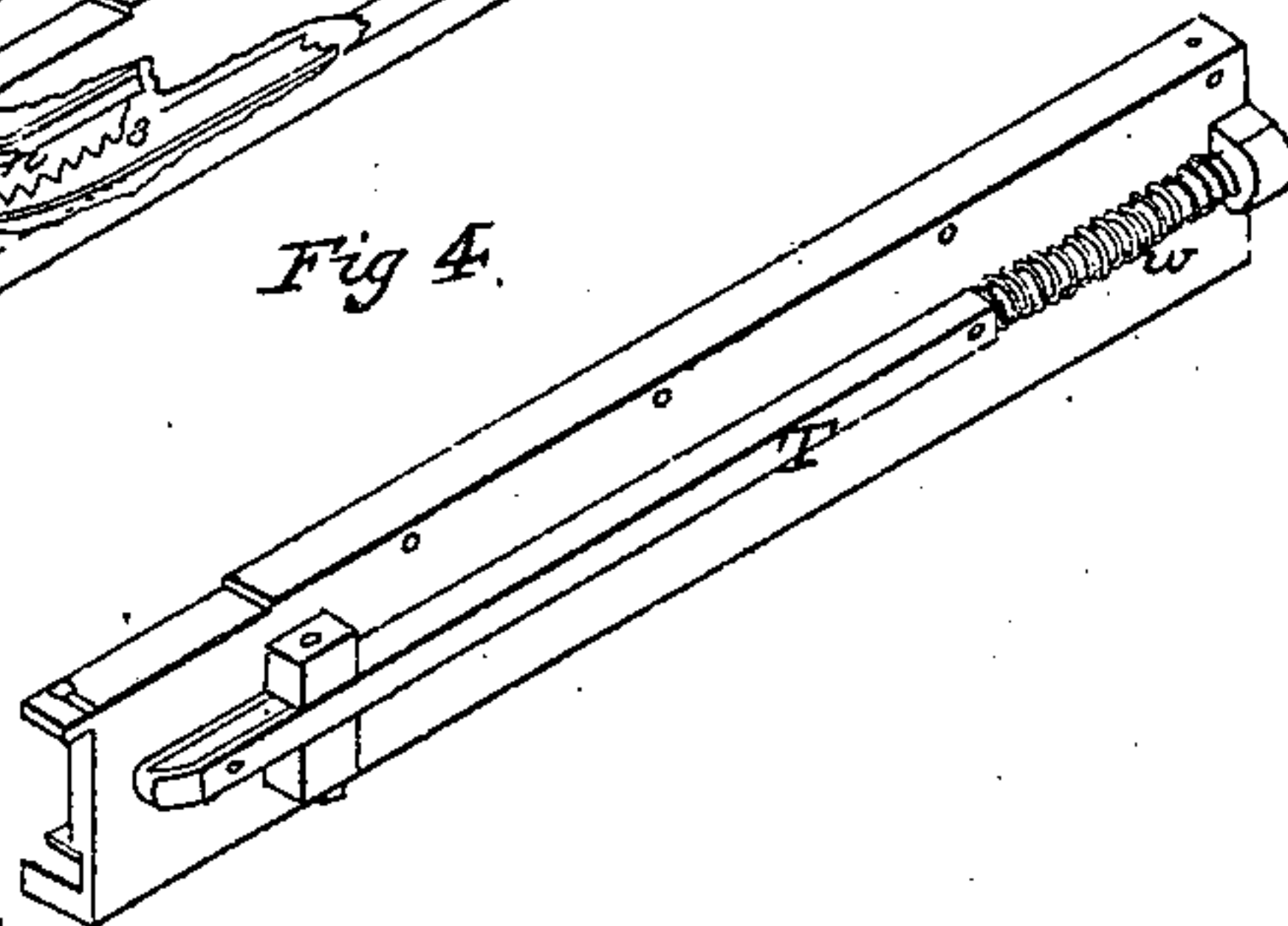


Fig 4.



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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN MACHINES FOR PEGGING BOOTS AND SHOES.

Specification forming part of Letters Patent No. 40,306, dated October 13, 1863.

*To all whom it may concern:*

Be it known that I, J. HAMILTON BROWN, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Machines for Pegging Boots and Shoes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a view of the plunger, together with the awl and peg-driver, detached from the case, the spring which raises the plunger being removed; Fig. 2, a view of the knife which splits off the pegs, together with its rod; Fig. 3, a detached view of the inner end of the peg-trough, one side of the trough being removed to show the parts within; Fig. 4, a view of the side of the peg-trough, detached from Fig. 3; Fig. 5, a view, and Fig. 6 a plan, of the case, as seen from below.

My improvements are particularly applicable to the machine for which Letters Patent of the United States were granted to S. S. Bucklin, assignee of Moses Marshall, on the 5th day of November, 1861, and only those parts of the machine will now be referred to which are necessary to an understanding of my present invention.

In this machine as heretofore constructed the knife-rod was first attached to the plunger, which was then passed down through the opening in the case, the knife itself being necessarily attached to the rod, after the latter was in place, by a screw or pin; but the machine, when in use, was so violently jarred by the blows of the hammer that the knife, when thus attached, was exceedingly liable to be loosened; and to obviate this difficulty and enable me to secure the knife and its rod firmly together, or to make them in one piece, is the object of the first part of my invention, which I will now proceed to describe.

The plunger, with its surrounding sleeve A, is inserted into the top of the case, to which it is secured by screws passing down through the cap B. The knife is attached to a block, C, which is secured to a cylindrical rod, D, as seen in Fig. 2; the knife, knife-block, and rod being made in a single piece, or permanently secured together, so that they cannot

be jarred apart by use. The rod D and block C are bored out in the center for the accommodation of the spring *f*, and a slot, *g*, cut entirely through the rod, extends from a point, 1, about the center of the rod, to near the top of the rod at 2. Upon one side of the rod this slot communicates with a shorter slot, *h*, that extends through to the top of the rod. The spring *f* is supported at its lower end by a pin, *y*. (Seen in Fig. 6.) From the exterior of the sleeve A projects a flattened pin, *k*, that works in the slot *g* above the spring *f*; and thus, as the plunger is operated, the pin *k* in its descent bears upon the spring *f* for the purpose of depressing the knife, and upon the shoulder 2 as it rises for the purpose of raising the knife to split off the pegs.

The knife and its rod, when thus constructed, are introduced into the machine as follows: The plunger is depressed to its lowest point, and the rod is inserted at the hole *m* in such position that the pin *k* shall enter at the slot *h*. The knife-rod is then raised until the pin strikes against the shoulder 3, and it is then turned until the pin is brought into the long slot *g*, in which position it may be forced up into the machine, the flat portion *d* of the knife-block resting against the corresponding portion, *b*, of the case, and thus the knife is held in position.

To take out the knife, it is simply necessary to reverse the operation of inserting it—that is, while the plunger is at its lowest point, to withdraw the rod until the shoulder 2 strikes against the pin *k*. This will relieve the surface *d* of the knife-block from the flat portion *b* of the case, so that the knife-rod may be turned to bring the pin *k* into the slot *h*, when the knife may be withdrawn. I am thus enabled to make the knife and its rod of a single piece of metal, by which the difficulty before alluded is avoided.

In the machines as heretofore constructed the pin *k* descended to the bottom of the slot *g*, to insure the descent of the knife beneath the lower edge of the peg-strip, and the consequence was that the bottom of the knife-block bruised and disfigured the surface of the sole. To remedy this inconvenience without limiting the range of the knife, I have



elongated the slot *g* so that the pin *k* can never strike the shoulder *l* at its lower extremity, and I employ a spring, *f*, of sufficient strength to insure the descent of the knife each time the plunger is forced down. The spring *f*, being thus always interposed between the plunger and the knife-block, the latter cannot at any time strike the sole with sufficient force to deface or bruise its surface.

In the machines as heretofore made the strip of peg-wood rested upon the bottom of the trough, and had a follower above it to keep it in place, and in order that the width of the trough might correspond at all times with the width of the peg strips, the follower was made adjustable. It is necessary, however, that the follower, or whatever it may be that supports the top of the peg-strip, should extend out to the very end of the strip in order to support the pegs while they are being split off.

It is obvious that the knife can never rise above the top of the peg-strip, as it would otherwise interfere with the support above it; but it is quite important that the knife should always rise to the top of the strip, as otherwise the top of the peg would still adhere to the strip, while its point was forced over beneath the driver, and the latter, when it descended, would strike the peg upon its side and mash it up, instead of driving it point, foremost, into the awl-hole.

If, now, with a peg-trough and follower arranged as above indicated, the knife be adjusted so as to split off a short peg when a wider peg-strip is introduced, the knife will not penetrate it, and the pegs will not be entirely separated from the strip; and if the knife be adjusted to properly split off a long peg, when a narrower peg-strip is introduced, the knife will interfere with the follower. To remedy this difficulty, I cause the peg-strip to rest beneath the top of the peg-trough, up against which it is held by a spring, so that the knife, being adjusted to penetrate just to the top of the strip, will always split off the peg and force it beneath the driver, whatever may be the width of the strip.

Fig. 3 is a view of the inner end of my improved peg-trough, one side of the trough being removed to show the parts within, the side thus removed being seen in Fig. 4. The upper wall, *r*, of the trough is made permanent, and extends over the entire length of the

strip, which is kept in contact with it by a spring, *s*, secured to the floor of the trough.

The peg-strip is fed up against the driver by a spring-finger, *n*, attached to a rod, *T*, Fig. 4, which is forced forward by the spring *w*. The rod *T* is forced back each time the plunger rises by an incline upon the knife-block, in a well-known manner. Any other suitable method may be employed for feeding in the peg-strip. The knife may now be fixed permanently to its rod, so as to come up just beneath the upper wall of the peg-trough, and will always be in position for any length of peg that can be used in the machine.

Heretofore the gage, which, by bearing against the edge of the sole, determines the distance of the pegs from the edge, required to be adjusted each time this distance varied—as, for instance, when passing from the inner to the outer row of pegs. To economize the time which this adjustment required, I make my gage with two or more faces at different distances from the awl, so that by simply turning the gage and bringing the proper face into action the pegs will be placed at the proper distance from the edge. This complex gage *H* is seen in Fig. 6. On loosening the confining-screw *c* the gage may be turned so as to bring either of the faces 4 or 5 into action, in which position it is confined by again tightening the screw *c*. The gage may have more than two faces, if required.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The method, herein substantially described, of uniting and securing the knife-rod to the plunger, whereby the knife and its rod may be made in a single piece, for the purpose set forth.

2. The construction of the knife-rod and its arrangement relatively to the plunger so as to effect the bearing of the pin upon the spring, substantially in the manner and for the purpose set forth.

3. In combination with a knife that splits off the peg upon its upward motion, supporting the peg-strip by the upper wall of the peg-trough, and holding it there by a spring beneath it, as set forth.

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