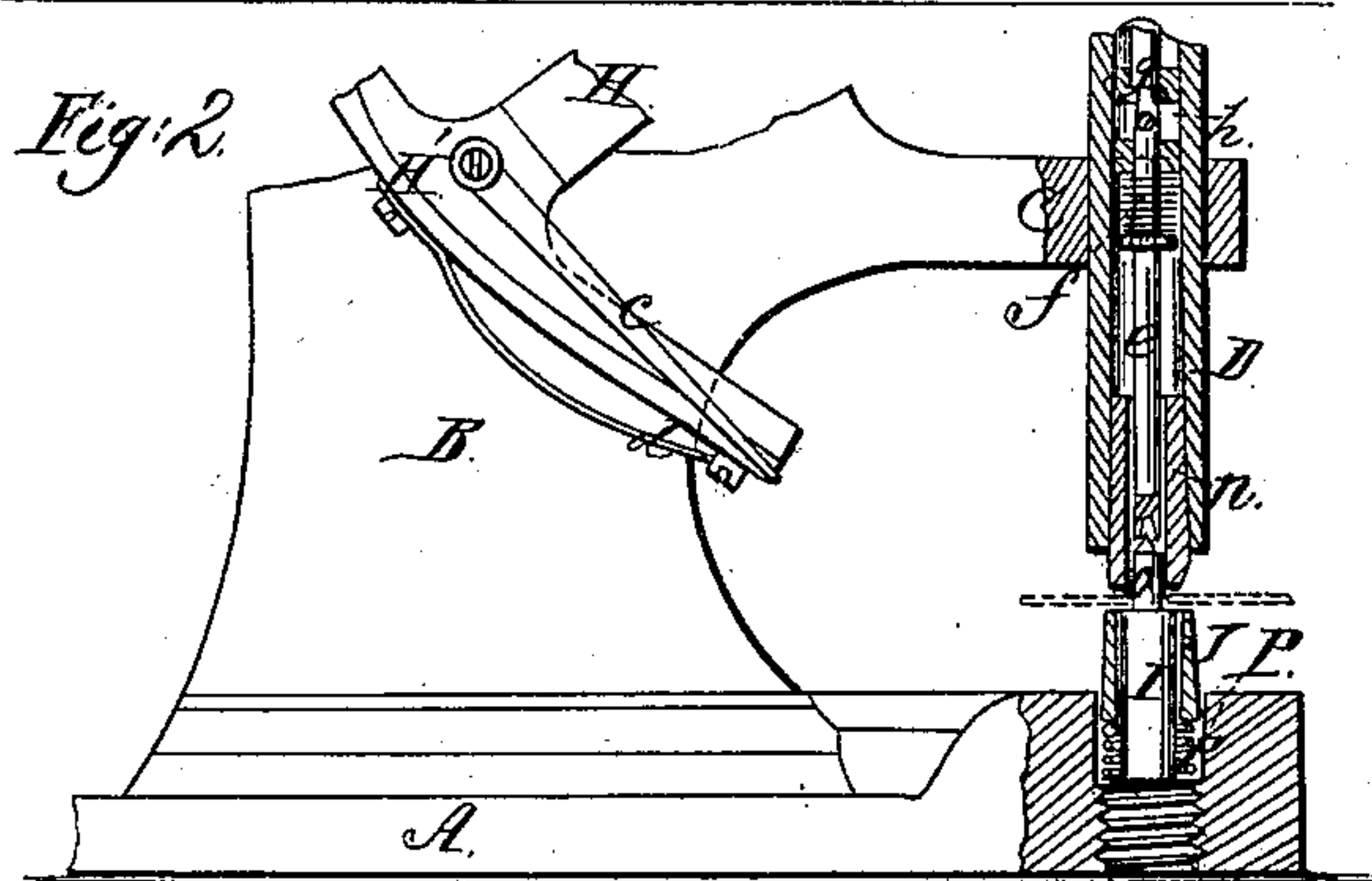
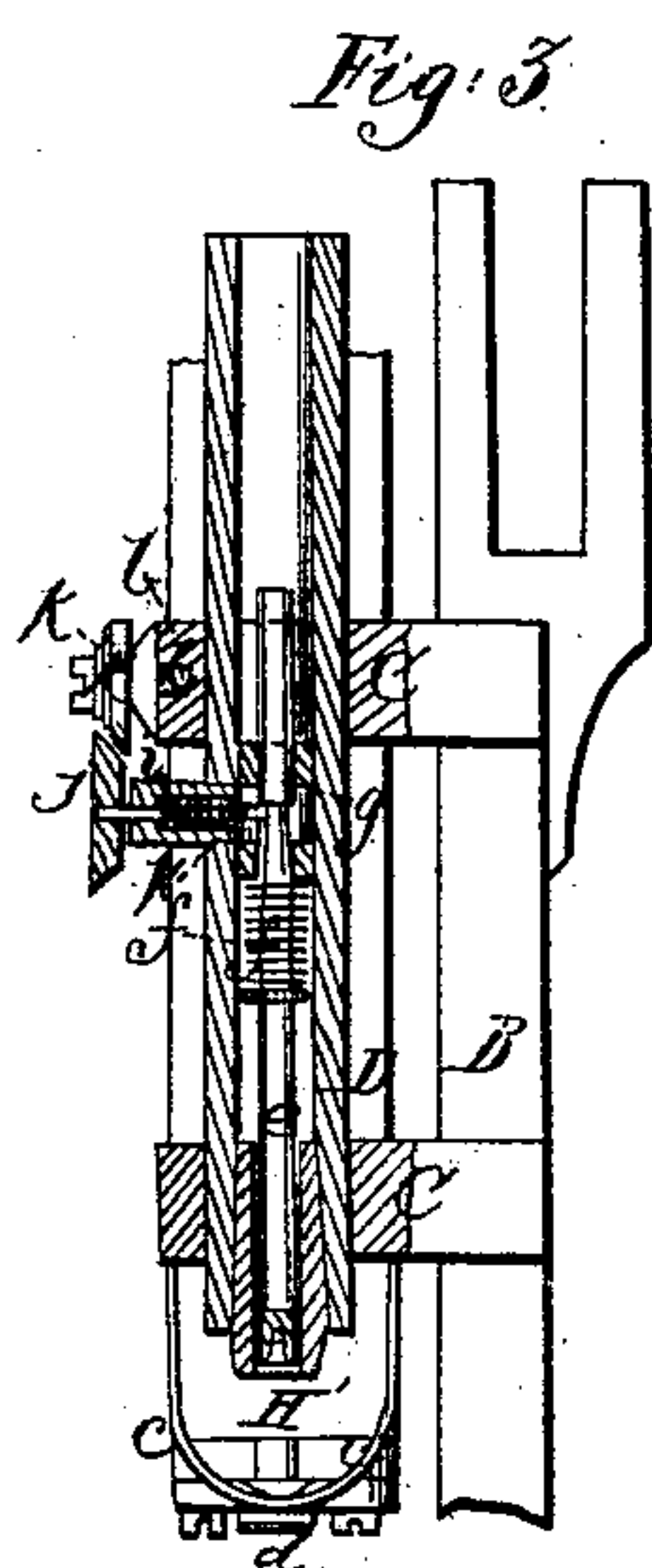
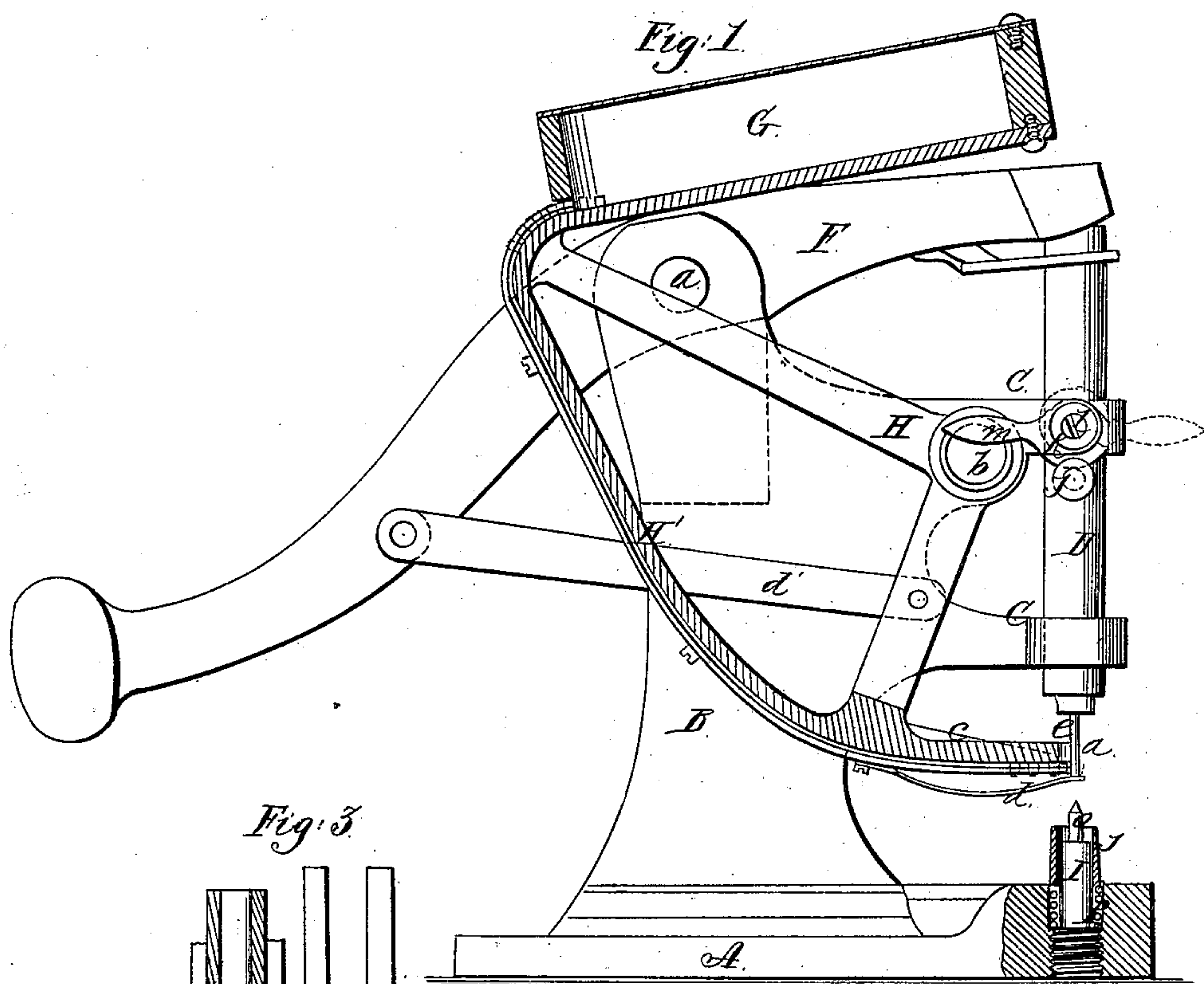


*A. Komp,*  
*Setting Eyelets,*  
*Nº 79,482,* *Patented June 30, 1868.*



Witnesses: *J. C. Poller*  
*E. F. Kastenhuber*

Inventor: *A. Komp per*  
*Van Santvoord & Huff atty.*

# United States Patent Office.

A. KOMP, OF NEW YORK, N. Y.

*Letters Patent No. 79,482, dated June 30, 1868.*

## IMPROVEMENT IN EYELETING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, A. KOMP, of the city, county, and State of New York, have invented a new and improved Eyeletting-Machine; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification, in which drawing—

Figure 1 represents a sectional side elevation of this invention when the punch is up.

Figure 2 is a similar view of the same when the punch is down.

Figure 3 is a detached section of the punch and spring-catch, which acts on the guide-pin in the interior of the punch.

Similar letters indicate corresponding parts.

The invention relates to a machine for fastening eyelets in paper, cloth, leather, or any other material of a similar nature, the eyelets being placed in a hopper, from which extends a curved chute, said hopper and chute being secured to a segment, which oscillates on a pivot, and which connects with the lever that serves to impart motion to the punch in such a manner, that, by the action of said lever, the eyelets in the hopper are agitated, and caused to pass down into the chute, and furthermore, the mouth of the chute is withdrawn from under the punch at the proper intervals, leaving the punch free to force the eyelets through the cloth or other material, and to clinch them. The anvil on which the eyelets are clinched is provided with a projecting point, and it is surrounded with an elastic bed, in such a manner that the cloth or other material in which the eyelets are to be fastened, on being forced over the projecting point, is pierced, and then supported by the elastic bed, which offers sufficient resistance to permit the eyelet being forced through the hole made in the cloth or other material by the projecting point, and which yields as the punch descends to clinch the eyelet.

The eyelets, on passing down through the chute, are reversed, leaving their flanges up, and they are taken from the mouth of the chute by a guide-pin, which is situated in the interior of the punch, and subjected to the action of a spring, which has a tendency to force it out of the punch. When pushed in the guide-pin is retained by a spring-catch, which is automatically released whenever the punch reaches its highest point.

To the side of the guide-pin is secured a weak spring, which retains the eyelets on said pin until the punch forces the same off, and into the cloth or other material on the anvil.

A represents a bed-plate, from which rises a standard, B, which forms the bearings for the principal working parts of my machine.

From the front end of said standard extend two arms, C, which are perforated, to admit the punch D. This punch slides freely in the arms C, and it is suspended from a forked arm, E, which extends from the hand-lever F. The fulcrum of this hand-lever is on a pivot, *a*, which is secured in the standard B, and the front end of said hand-lever bears on the top of the punch D, so that, by raising the rear end of the lever, the punch is depressed, and by depressing said rear end, the forked arm E carries the punch up to its horizontal position, as shown in fig. 1 of the drawing. A weight or spring is made to act on the lever F, in such a manner that the same, when left to follow its inherent gravity, assumes the position shown in fig. 1.

The eyelets to be operated upon by the punch are placed in a hopper, G, which is secured to a segment, H, that swings on a pivot, *b*, fastened in the standard B.

From the hopper extends a chute, H', which is composed of two strips, placed in such a relative position towards each other, and towards the base of the chute, that the flanges of the eyelets can catch under the strips, while the tubes of said eyelets project through the gap left between them, as indicated in red outlines in fig. 1.

The chute, however, is curved in such a manner that the eyelets, which enter the same from the hopper with their flanges down, are reversed, and brought under the punch with their flanges up.

On arriving at the mouth of the chute, the eyelets are prevented from dropping out by a forceps, *c*, and by a supporting spring, *d*, said forceps being composed of two jaws of thin spring steel, so that they yield, and allow the first eyelet to pass out of the chute at the proper intervals.



The segment H is connected by a rod, *d'*, with the lever F, so that, when the rear end of said lever is raised, the mouth of the chute swings back from under the punch, and at the same time, by actuating said lever, a shaking motion is imparted to the hopper and chute, whereby the eyelets are caused to enter said chute, and pass down in the same.

The punch D is bored out, to receive the guide-pin *e*. This pin is subjected to the action of a spring, *f*, which has a tendency to throw the same out to the position shown in fig. 1, and it (the pin) is provided with a shoulder, *g*, which, when the pin is forced in against the action of its spring, catches over a dog, *h*, which passes in through the side of the punch, as shown in fig. 3, and which is subjected to the action of a spring, *i*, that has a tendency to force the same in towards the guide-pin *e*.

To the outer end of the dog *h* is secured a head, *j*, the inner edge of which is chamfered off, and which acts against a cam, *k*, whenever the punch arrives in its highest position. When the head strikes the cam, the dog *h* is drawn back, and the guide-pin, being released, follows the action of its spring, *f*, and flies down to the position shown in fig. 1.

The cam *k* is secured to one of the arms C by a pivot, *l*, and it can be turned on this pivot by a handle, *m*. When the handle is turned to the position shown in red outlines in fig. 1, the low portion of the cam *k* comes opposite the head *j*, and the guide-pin is not released, so that the punch can be worked up several times without causing said guide-pin to fly out, and that the eyelets in the hopper can be subjected to a violent agitation in case they should fail to pass properly from the hopper into the chute.

When the cam *k* is thrown into the position shown in black outlines in fig. 1, the guide-pin flies out whenever the punch has reached its highest position, and passes through the eyelet in the mouth of the chute, and if the rear end of the hand-lever is raised, the chute recedes from under the punch, the punch descends, and the eyelet, through which the guide-pin has passed, is retained thereon by a weak spring, *n*, which is attached to the side of said guide-pin, as shown in figs. 1 and 2 of the drawing.

The cloth or other material into which the eyelet is to be fastened is placed on the anvil I, which is secured in the bed-plate A, underneath the punch D.

From the centre of this anvil rises the point *o*, and as the cloth or other material is forced over this point, a hole is made in the same to receive the eyelet.

The anvil I is surrounded by a yielding rest, J, which is supported by a spring, *p*, and which, when left to follow the action of this spring, rises somewhat above the clinching-surface of the anvil, and supports the cloth or other material in which the eyelet is to be secured.

The bottom end of the guide-pin *e* is countersunk, to admit the end of the point *o*, and as the punch D is depressed by the lever F, the guide-pin, on striking the point *o*, recedes, and the eyelet, suspended from said guide-pin, is forced through the hole previously opened in the cloth or other material by the point *o*. During this operation, the rest J supports the cloth or other material, and the spring *p*, supporting this rest, is of such power that it does not yield by the pressure required to force the eyelet through the hole in the cloth or other material, but when the punch bears further down upon the eyelet, the rest yields, and the eyelet, being compressed between the punch and the anvil, is clinched, as shown in fig. 2 of the drawing.

By these means, the operation of inserting the eyelets into the cloth or other material, and that of clinching the same after they have been inserted, are combined in a simple and effective manner, and the edge of the hole opened in the cloth or other material by the point *o* is gathered up between the flanges of the clinched eyelet, so that each eyelet takes a firm hold, and is not liable to come off, unless subjected to very severe use.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The friction-spring *n*, on the guide-pin *e* in the punch D, substantially as and for the purpose described.
2. The self-acting dog *h* and cam *k*, in combination with the guide-pin *e* and punch D, substantially as and for the purpose set forth.
3. The yielding rest J, in combination with the anvil I and punch D, substantially as and for the purpose set forth.

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Witnesses:

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