

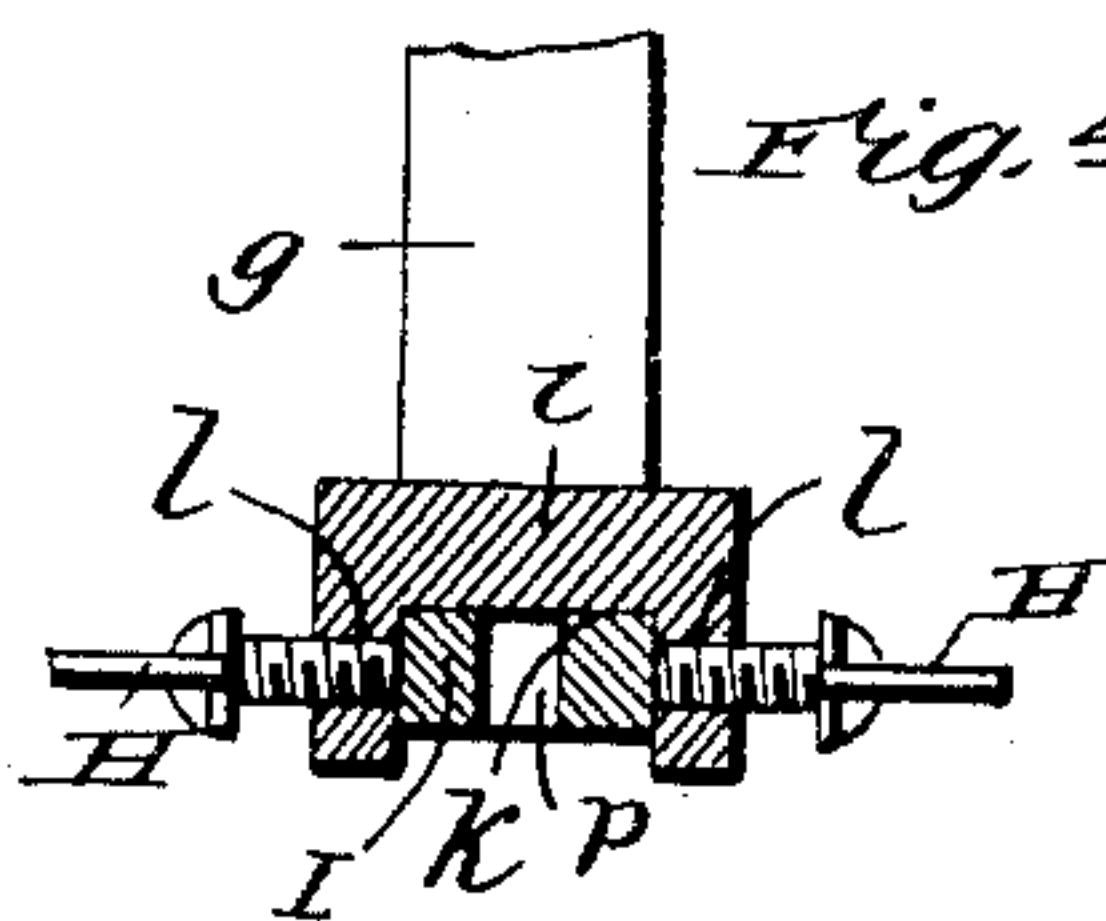
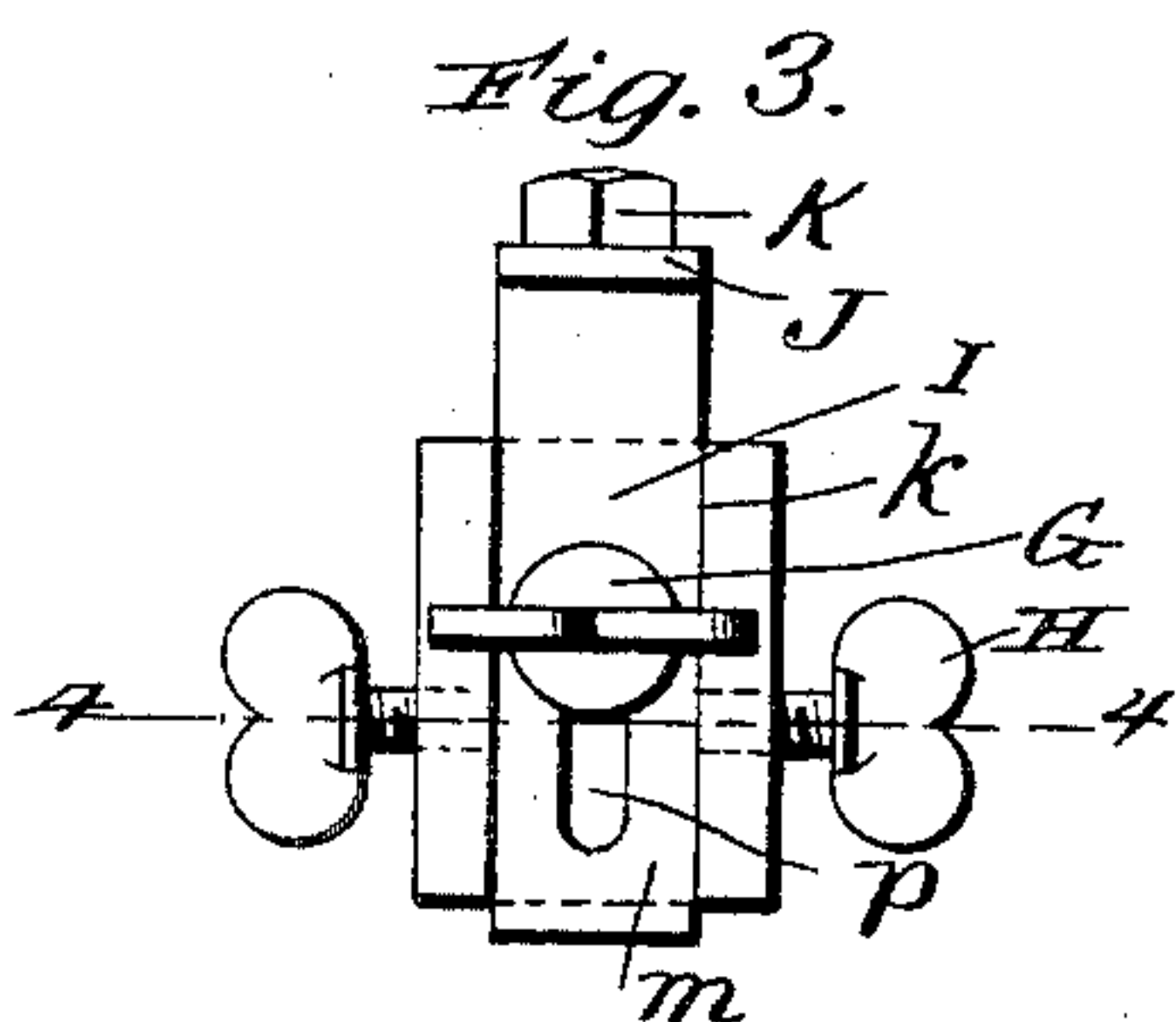
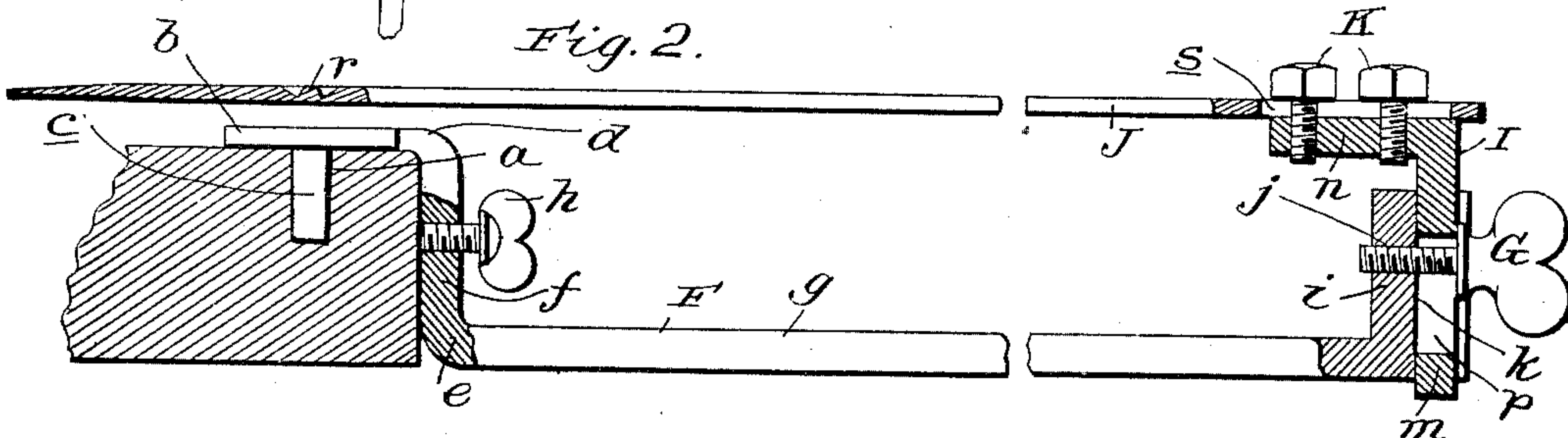
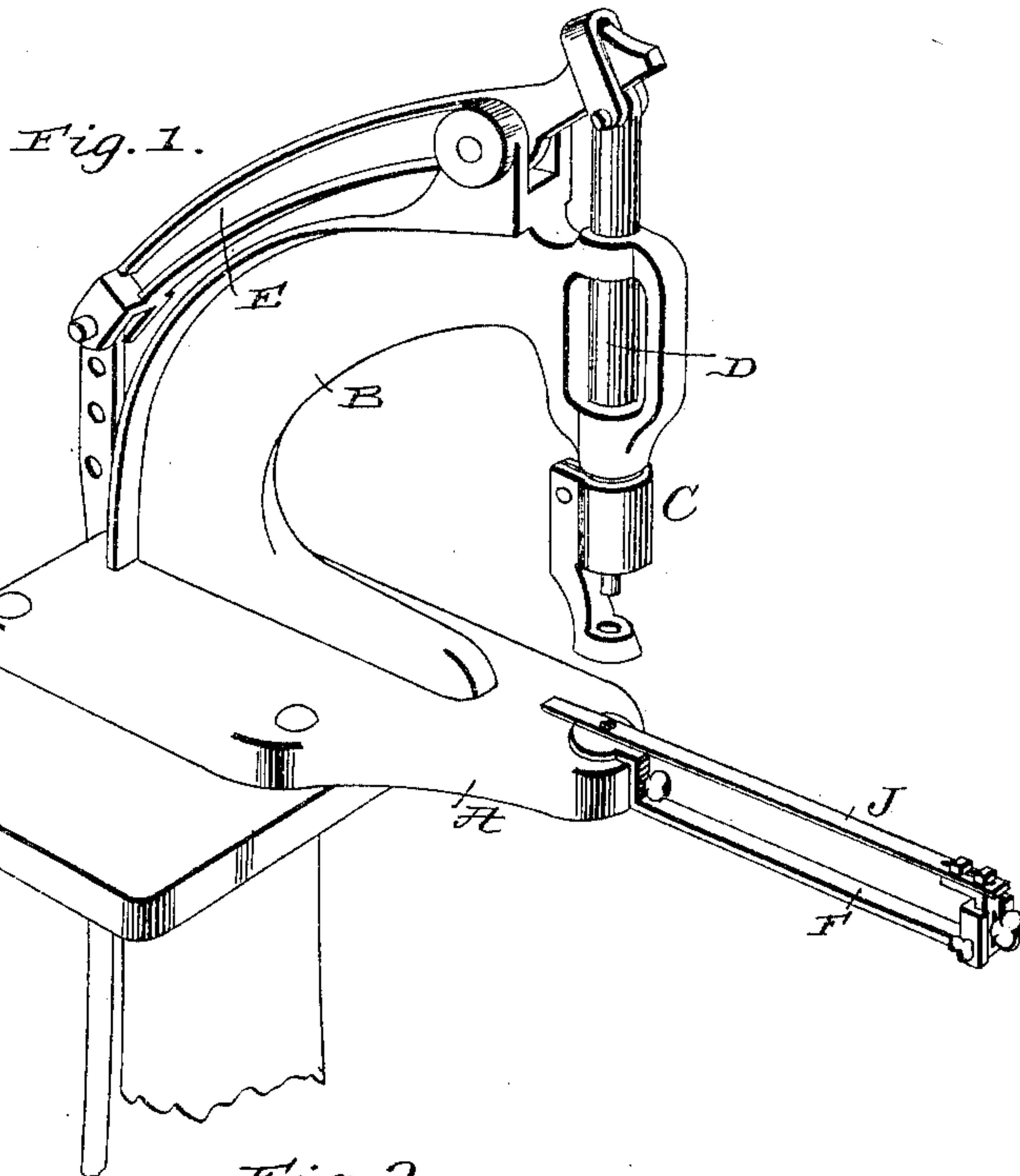
No. 675,482.

Patented June 4, 1901.

W. L. KELLERMAN.
ATTACHMENT FOR RIVETING MACHINES.

(Application filed Sept. 27, 1900.)

(No Model.)



witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM L. KELLERMAN, OF TRINIDAD, COLORADO.

ATTACHMENT FOR RIVETING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 675,482, dated June 4, 1901.

Application filed September 27, 1900. Serial No. 31,274. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM L. KELLERMAN, a citizen of the United States, residing at Trinidad, in the county of Las Animas and State of Colorado, have invented new and useful Improvements in Attachments for Riveting-Machines, of which the following is a specification.

My invention relates to attachments for riveting-machines such as are calculated to materially facilitate the operation of riveting box and other loops and are provided with studs designed to be placed in the anvil-sockets in the work-supports of said machines.

It consists in a certain peculiar attachment, the novelty, utility, and advantages of which will be fully understood from the following description and claims when taken in conjunction with the accompanying drawings, in which—

Figure 1 is a perspective view illustrating a portion of a riveting-machine and my improved attachment in its operative position thereon. Fig. 2 is an enlarged view, partly in elevation and partly in longitudinal section, illustrating the attachment and the outer portion of the work-support of the machine. Fig. 3 is an elevation of the outer end of the attachment, and Fig. 4 is a detail section taken in the plane indicated by the broken line 4-4 of Fig. 3.

In the said drawings similar letters of reference designate corresponding parts in all of the views, referring to which—

A is the work-support of a riveting-machine, having the usual anvil-socket *a* in its upper side and adjacent to its outer end. B is the overhanging arm of the machine, which is provided with a rivet-holder C. D is the rivet-driving plunger, arranged in the overhanging arm in line with the rivet-holder, and E is a portion of the means through the medium of which the rivet-holder is depressed and subsequently raised incident to the operation of the machine. These parts are common to riveting-machines such as at present in use, and since they form no part of my present invention they may be of any preferred construction.

F is the bracket of my improved attachment, which may be and preferably is made of wrought-iron, although any other suitable

metal may be employed in its manufacture, if preferred. This bracket is provided at one end with a circular disk *b*, which is designed to rest upon the upper side of the work-support of the machine and has a depending stud *c*, adapted to enter the anvil-socket *a* of said work-support, as best illustrated in Fig. 2. The bracket is bent at *d* and *e* to form a vertical portion *f*, designed to rest against the edge of the work-support A and the horizontal arm *g*, which extends outwardly from the lower end of the vertical portion *f*, as shown. It will be noticed that by virtue of its stud *c* the bracket is susceptible of being readily placed in engagement with the work-support of any ordinary riveting-machine and that by virtue of its having the vertical portion *f* arranged to rest against the edge of the work-support practically all weight and strain incident to the use of the attachment are removed from the stud *c*. The bracket is provided with a thumb-screw *h*, which bears in a threaded aperture in the vertical portion *f* thereof and is designed to bind against the edge of the work-support, so as to adjustably fix the bracket with respect thereto. At the outer end of its arm *g* the bracket has an upwardly-reaching angular portion *i*, provided with a threaded aperture *j*, disposed in the direction of the length of the bracket and also provided in its outer side with a vertical groove *k* and in the side walls of said groove with threaded apertures *l*, the aperture *i* being designed to receive the shank of a thumb-screw G, while the apertures *l* are designed to receive the shanks of auxiliary thumb-screws H, as best shown in Figs. 2 to 4.

I is an angle-piece, which has a depending portion *m* and an inwardly-directed horizontal portion *n*. The former portion rests in the groove *k* of the bracket and is provided with a vertical slot *p*, designed for the passage of the shank of the thumb-screw G. When the thumb-screws G H are loosened, the angle-piece I may be raised and lowered on the bracket, while when said screws are tightened said angle-piece is adjustably fixed with respect to the bracket. From this it follows that the work-supporting arm J, carried by the angle-piece I, may be adjustably fixed so as to rest at various distances above the disk *b*, according to the thickness of the

leather composing the box or other loop to be riveted. The work-supporting arm J is made of steel, and therefore possesses more or less resiliency or springiness in order to enable it to resume its normal position (shown in Fig. 2) subsequent to its depression by the action of the plunger D. It is provided in its upper side at about the point shown with a countersunk rivet-upsetting teat *r*, and in order that the said teat may be readily made to accurately register with the plunger D of the machine and the stud *c* of the bracket it is adjustably connected to the horizontal arm of the angle-piece I, such adjustable connection being preferably effected by screws K, which bear in threaded apertures in the angle-piece and extend through a longitudinal slot *s* in the work holding or supporting arm, as shown. By virtue of the stud *c* of the bracket being placed in the anvil-socket of the work-support of the machine it will be seen that when the rivet-upsetting teat of the work-holding arm is once properly adjusted with respect to the plunger of said machine very little, if any, adjustment of the work-holding arm is necessary when the attachment is placed on and used in conjunction with another machine.

It follows from the foregoing that with the work-holding arm properly adjusted all that is necessary to connect my improved attachment to a riveting-machine is to place the stud *c* of the bracket F in the anvil-socket of the machine and tighten the screw *h*, while to disconnect the attachment the screw *h* is loosened and the stud *c* lifted out of the anvil-socket.

In operating a riveting-machine equipped with the attachment the box or other loop to be riveted is placed on the arm J with its lapped edges uppermost and above said arm. A rivet having a tubular shank is then placed in the holder C with its head uppermost, and the plunger D is forced downwardly. When the plunger is thus depressed, the tubular shank of the rivet is forced through the lapped edges of the box or other loop, and being engaged by the teat *r* and the upper side of the arm J is upset against the upper wall of the loop and securely fixed in position. After one rivet is placed as described the loop is moved endwise on the arm J a distance corresponding to the distance it is desired to have the rivets apart, and the operation before described is repeated. When the loop has been riveted throughout its length, it is drawn endwise off the arm J to give place to another loop to be riveted. In this connection it will be noticed that adjustment of my improved attachment or any of its parts before and after the riveting of box and other loops is not necessary unless the loops or, more properly, the leathers of which they are composed vary in thickness, in which event it is simply necessary to adjust the angle-piece I vertically with respect to the bracket F in the manner before described.

My improved attachment is designed more particularly for facilitating the riveting of box and other loops, such as employed in harness. It may, however, be used to advantage in riveting various other pieces of work which have one or more layers of leather or other material below the layers to be connected by the rivets.

In conclusion it will be noticed that when the stud *c* of the bracket F loosely fits the anvil-socket in which it is placed the screw *h* plays an important part in accurately placing and holding the teat *r* in true alignment with the plunger of the machine.

When the attachment is to be used to rivet loops composed of leather of a common thickness, the work-holding arm J may be formed integral with or fixedly connected to the bracket without departing from the scope of my claims. The adjustable connection of the angle-piece to the bracket and the adjustable connection of the work-holding arm to said angle-piece, however, obviously increase the field of usefulness of the attachment and are preferable for that reason.

My improved attachment is designed for use when split rivets are employed, as well as when tubular rivets are used, the teat *r* being of a less depth for split rivets than for tubular rivets.

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

1. An attachment for riveting-machines having a depending stud adapted to enter the anvil-socket in the work-support of the machine, a vertically-disposed portion arranged to rest adjacent to the edge of the work-support and a screw in said vertical portion for engaging said work-support, and also having a work-holding arm arranged, when the stud is in the socket of the work-support, to rest over the same; said work-holding arm being provided with means for upsetting a rivet, substantially as specified.

2. In an attachment for riveting-machines, a bracket having a vertically-disposed portion adapted to rest at the edge of the work-support of a machine, an arm extending from the upper end of said vertical portion and having a stud adapted to enter the anvil-socket in said work-support, and an arm extending outwardly from the lower end of the vertical portion, a screw bearing in the vertical portion of the bracket and arranged to engage the edge of the work-support, and a work-holding arm carried by the outwardly-extending arm of the bracket and extending above the anvil-socket, said arm having rivet-upsetting means, substantially as specified.

3. In an attachment for riveting-machines, a bracket having a stud adapted to enter the anvil-socket in the work-support of the machine, a screw bearing in said bracket and arranged to engage said work-support, a work-holding arm carried by the bracket and adapted to rest over the portion of said bracket on

the work-support, and provided with rivet-upsetting means, and a vertically-adjustable connection between the work-holding arm and the bracket whereby the former may be
5 fixed at various distances above the latter, substantially as specified.

4. In an attachment for riveting-machines, a bracket having a stud adapted to enter the anvil-socket in the work-support of the machine, an angle-piece vertically adjustable
10 with respect to the bracket and adjustably connected thereto, and a work-holding arm carried by the angle-piece and provided with rivet-upsetting means, substantially as specified.
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5. The herein-described attachment for riveting-machines, comprising a bracket having a vertical portion adapted to rest at the edge of the work-support of a machine, an arm
20 extending inwardly from the upper end of said vertical portion and having a depending

stud adapted to enter the anvil-socket in said work-support, and an arm extending outwardly from the lower end of the vertical portion, and terminating at its outer end in
25 an upwardly-reaching portion, a screw bearing in the vertical portion of the bracket and arranged to engage the work-support of the machine, an angle-piece connected and adjustable vertically with respect to the upwardly-reaching portion at the outer end of
30 the bracket, and a work-holding arm adjustably connected with the angle-piece, and provided with rivet-upsetting means, substantially as specified.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.
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WILLIAM L. KELLERMAN.

Witnesses:

R. R. ROBERTSON,
JOHN ARMSTRONG.