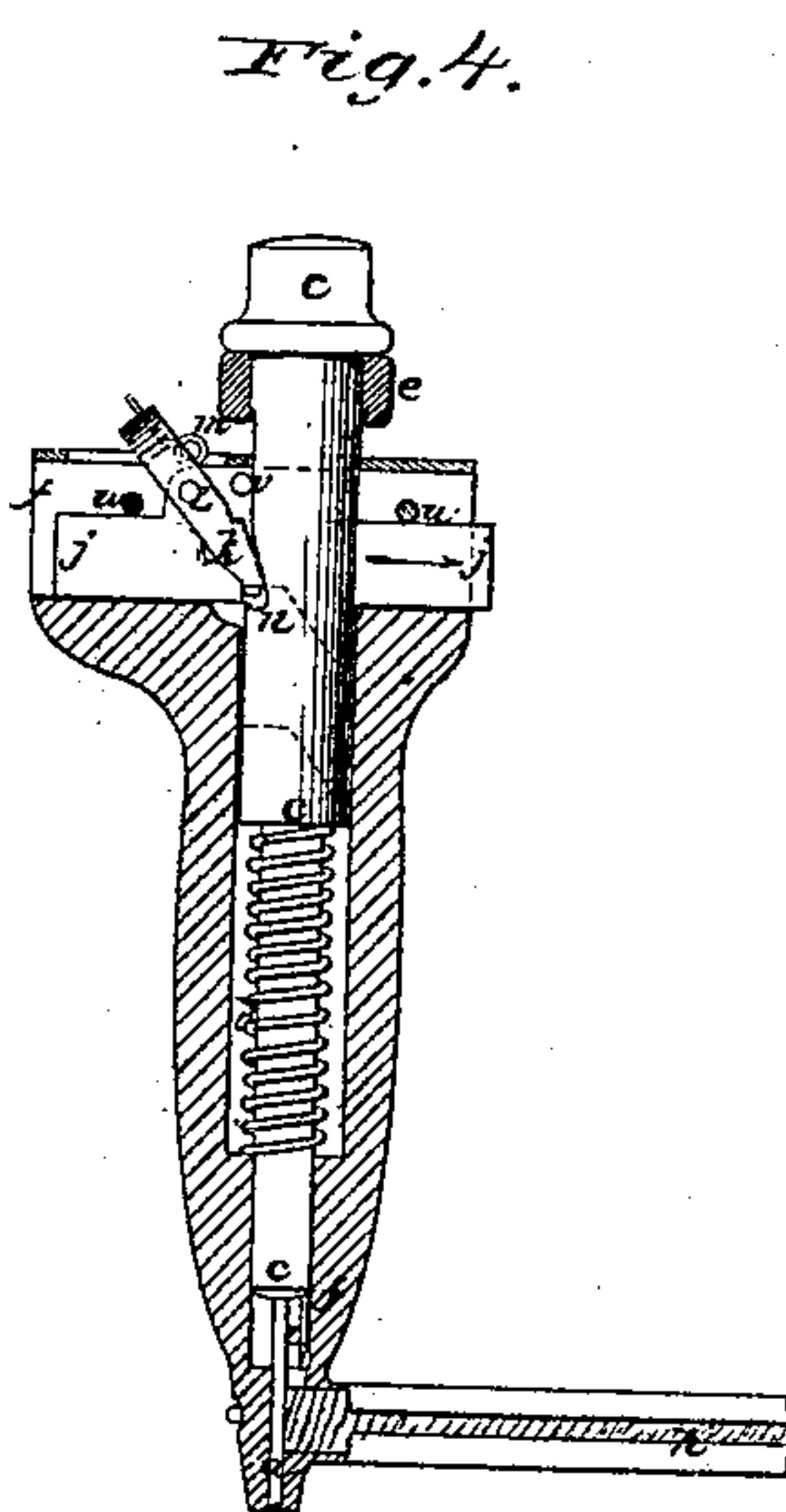
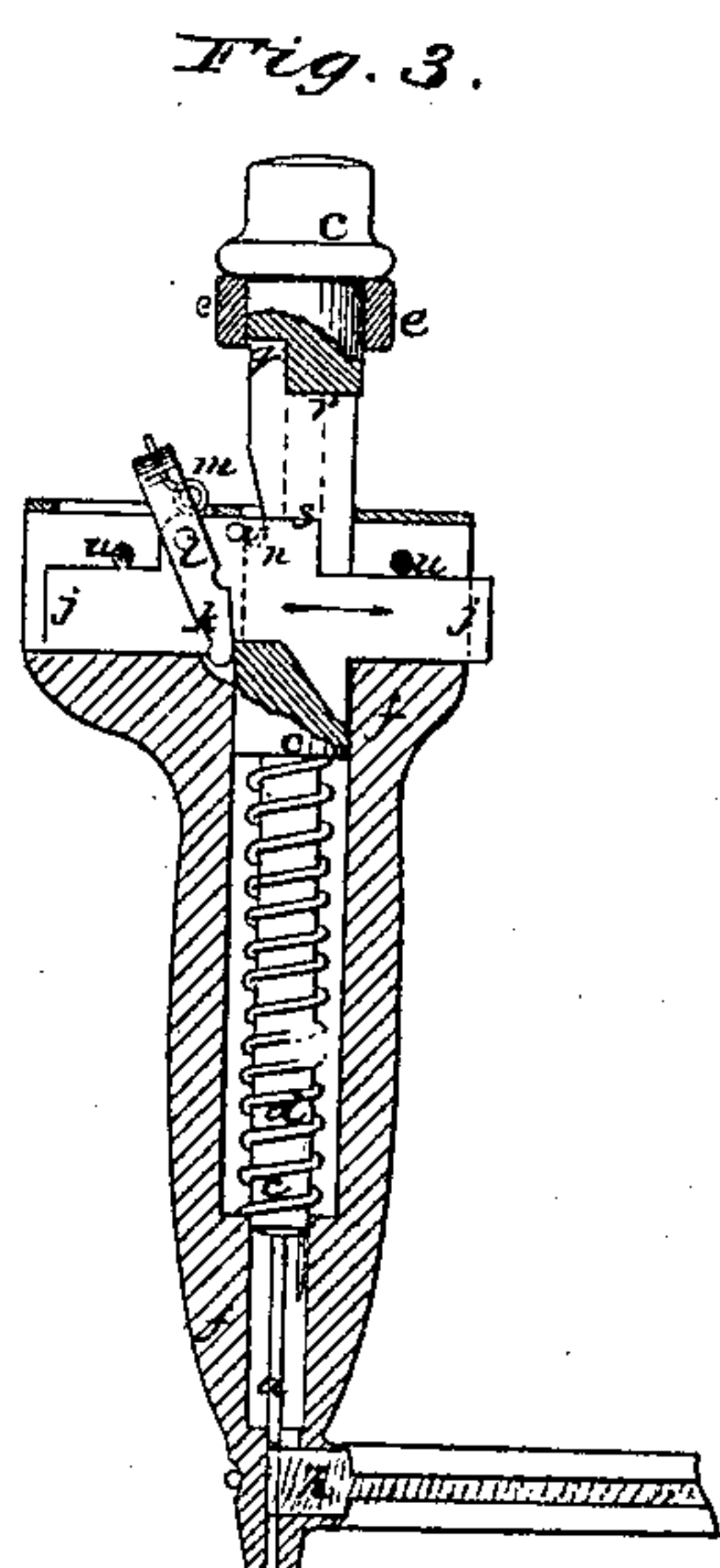
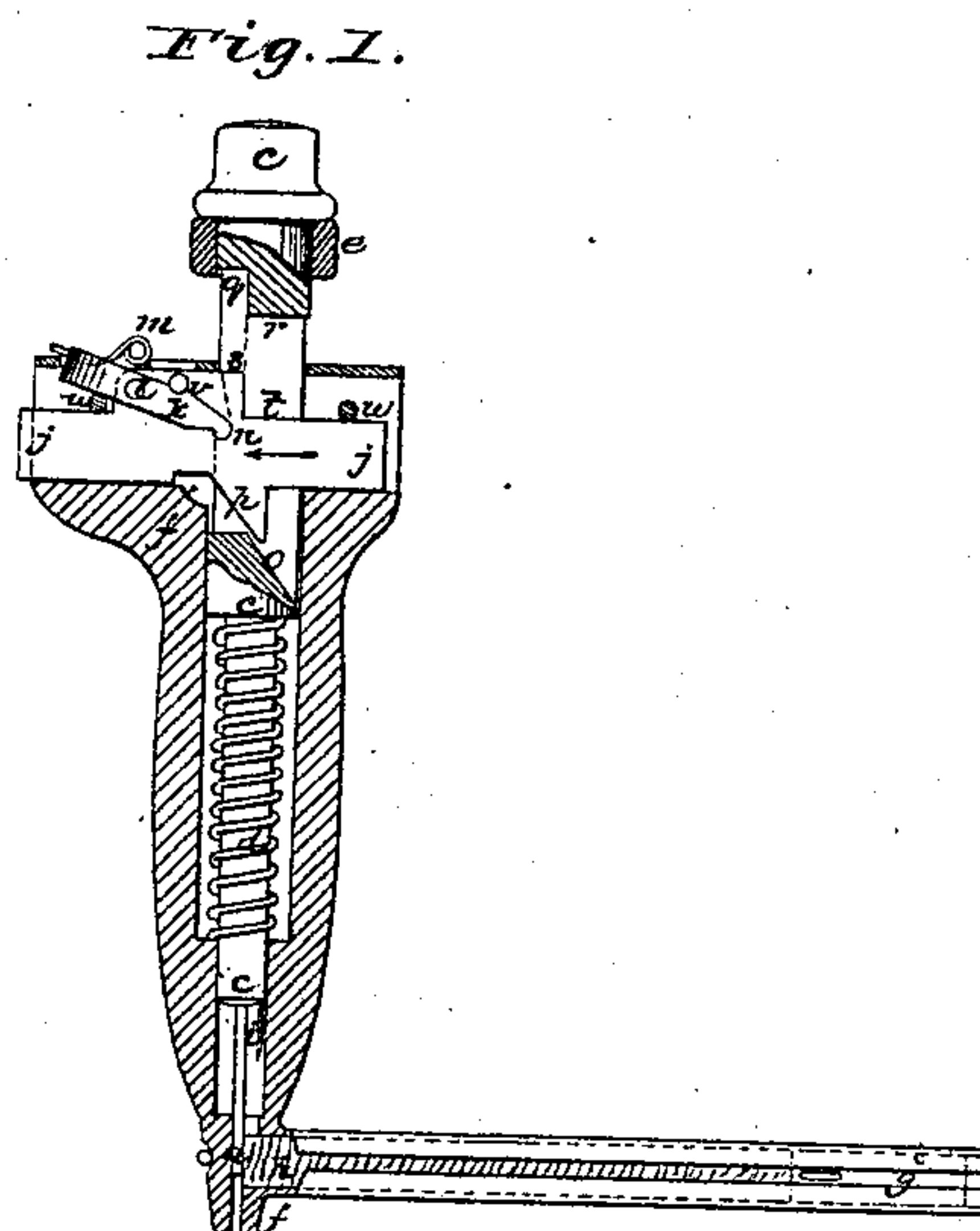
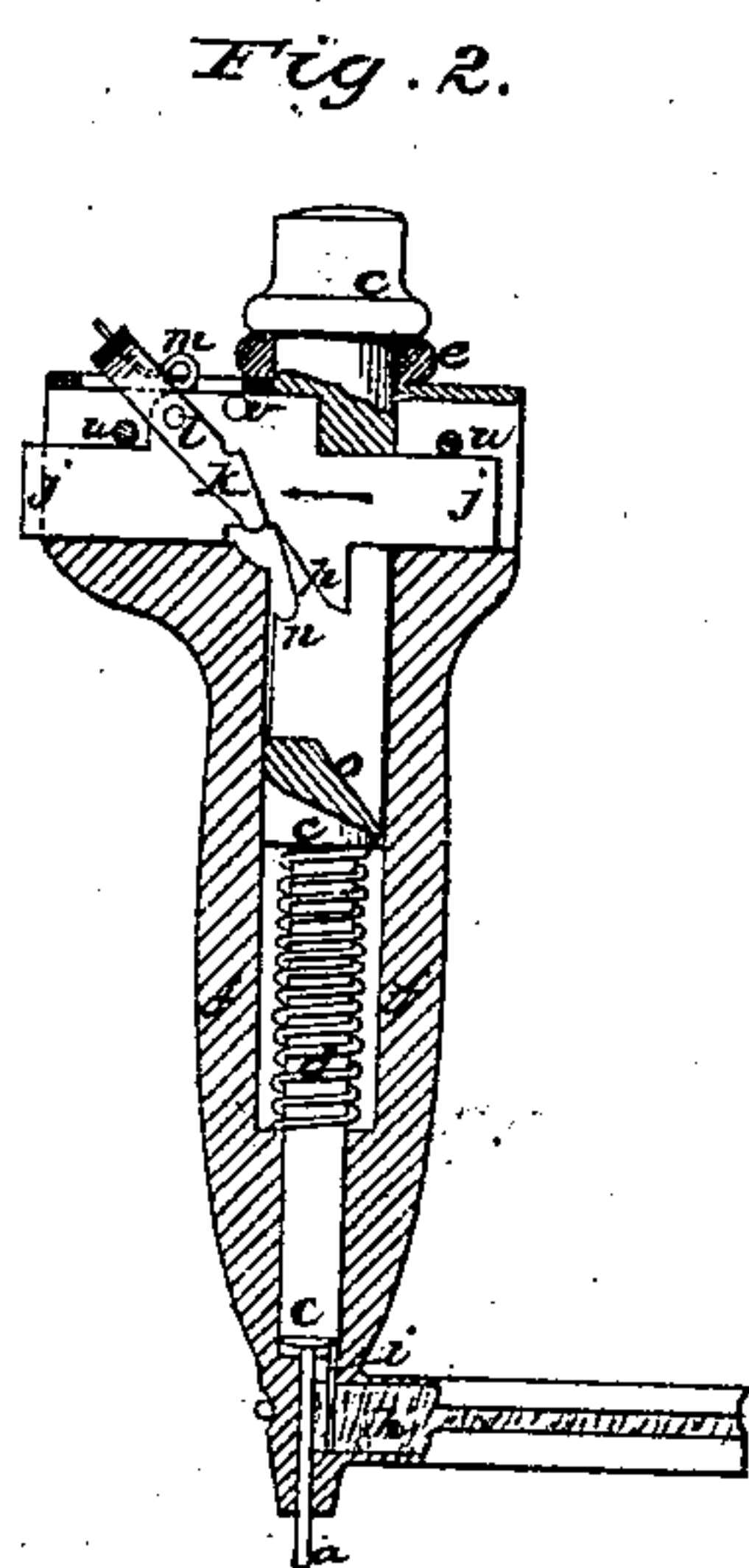


C. H. BINGER & W. E. FISCHER.
PEGGING MACHINE.

No. 41,884.

Patented Mar. 8, 1864.



Witnesses:
J. B. Crosby.
J. E. Fallon

Inventors:
Chas. H. Binger.
W. E. Fischer.

UNITED STATES PATENT OFFICE.

C. H. BINGER AND W. E. FISCHER, OF BOSTON, ASSIGNOR, BY MESNE ASSIGNMENTS, TO ALFRED B. ELY, OF NEWTON, MASSACHUSETTS.

HAND PEGGING-MACHINE.

Specification forming part of Letters Patent No. 41,884, dated March 8, 1864.

To all whom it may concern:

Be it known that we, C. H. BINGER and W. E. FISCHER, both residents in Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Hand Pegging-Machines; and we do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of our invention sufficient to enable those skilled in the art to practice it.

Our invention relates to mechanism, substantially like that described, which controls, under blows from a hammer, the operations of such an implement.

The machine which embodies our invention is particularly adapted and designed for use with "lasting machines," where it is employed to peg down the "vamp" to the "inner sole" for the usual temporary purpose.

As lasting-machines use metallic slides to fold the vamp over upon the inner sole, and to draw it tight upon the "last," the trouble experienced in inserting the "lasting-pegs" into such parts of the vamp as are left exposed by the slides is that the slides are apt to be struck by the hand-hammer employed, and thus become bent or broken. By the employment of our invention this trouble is avoided, as the action of the hammer is remote from the slides and the pegging operation is performed much more quickly than it can be done by hand.

It is not pretended that pegs will hold as well in holes formed by a square-ended instrument—such as we employ—as they will in holes formed by a pointed awl; but it is found in practice that for the purposes of lasting it answers every purpose to use a square-ended implement in the formation of the peg-hole.

Similar letters refer to similar parts in all the figures of the drawings, which we will now proceed to describe, so that those skilled in the art may be enabled to practice our invention.

Figure 1 shows our machine with the awl and driver *a* in such a position that the peg-wood is prevented thereby from being forced forward over the peg-tube, *a* being in readiness to be driven through the peg-tube and

into the leather to form a hole for the reception of the peg, which is done when the parts assume the position shown in Fig. 2. Fig. 3 shows *a* as in position above the top of the peg which has been split by the knife *i* from the peg-wood, and is forced forward over the peg-tube, in readiness to be driven downward into the leather, assuming the position shown in Fig. 4.

As is usual in most "hand-peggers," ours is provided with a plunger, *c*, which is driven downward by percussion, compressing thereby the spring *d*, the reaction of which raises the plunger. To assist the spring *d* to raise the plunger when *a* is buried in the leather, a rubber spring, *e*, is arranged as shown, so as to be compressed by the last portion of the downward movement of *c*. The plunger is contained in a case, *f*, which serves as a handle to be grasped by the operative, and which terminates in a small end, so that the instrument can be worked near the edges of the lasting-machine slides and in holes and cuts therein. A slide for the reception of peg-wood is fixed to the lower part of the instrument, and the peg-wood is fed forward to the peg-tube in a common way by the piece *g*, actuated by an elastic cord or other suitable spring. The plunger *c* carries the knife *i*, as shown, by which the pegs are split off from the peg-wood *h*. The upper part of *f* has a groove formed therein, in which and through the mortise formed in the upper part of *c* a slide, *j*, of the peculiar form shown, can be made to move horizontally. The mortise in *c* is also made of a peculiar form, as shown. The U-formed piece *k* is pivoted to the slide *j* at *l*, and is held by the spring *m* in the position shown in Fig. 2, when uncontrolled by other forces. The function of *k* is to act at one time as a stop to prevent such a rise of *c* as would admit the peg-wood to pass beneath *a*, so as to be over the peg-tube, and so as to act also at the same time to return the slide to a position from which it is forced by contact of inclined surfaces made on the slide and in the plunger.

Further explanation of construction will be best understood by referring to the operation of the machine, commencing with the parts

in the position shown in Fig. 1, where it will be seen that expansion of spring *d*, and consequent movement of *c* to its highest place, is prevented, because *k* is engaged in notches *n*, made in *c*, the effect of which in upward motion of *c* is to move *j* in the direction shown by arrows in Figs. 1 and 2, and to the place there shown.

Percussion upon *c* will now move it down, puncturing a hole in the leather and splitting a peg from the peg-wood by action of *i*, and the extent of the downward motion of *c* is checked by the contact of the surfaces *q* and *r* with *s* and *t*.

After the percussion *c* is forced upward by springs *e* and *d*, bringing the inclines *o* and *p* together, the effect of which is to slide *j* into the position and in the direction shown by arrows in Figs. 3 and 4; but now this upward movement of *c* is not checked by the catching of *k* in notches *n*, and *c* obtains its highest position, because *j* and *k* keep the position shown in Fig. 2, where *k* is not liable to be caught in the notches, inasmuch as the inclines *o* and *p* do not act to move *j* till the notches *n* have passed beyond the ends of *k*, so that its engagement in them is then impossible.

Now, inspection of Fig. 3 will show that a blow upon *c* will not force *a* farther down than to the end of the peg-tube, because the position of *j* is such as to bring the surfaces *r* and *s* together, as seen in Fig. 4.

Now, when *c* is relieved from percussion, it

will be forced upward by the action of springs *d* and *e*; but it cannot move upward farther than shown in Fig. 1, because in its upward movement its notches *n* engage *k*, and make *k* and *j* assume the position shown in Fig. 1. The slide *j* cannot be forced upward, because it is checked by the pins *u*, and further upward vibration of *k* is checked by pin *v*; hence the force of spring *d* is exerted to move *j* in the direction shown by the arrows seen in Figs. 1 and 2.

From the foregoing it will be seen that one blow from a hammer makes a hole for the insertion of a peg, and cuts a peg from the peg-wood, in readiness for the next blow, which forces the peg into the leather, it being understood that between the blows the peg previously split off from the peg-wood is brought over the peg-tube, so as to be subject to the action of *a* in its descent.

We claim—

A mechanism, substantially as herein described, for alternately operating by percussion to give long and short strokes to the instrument *a*.

Executed this 10th day of November, A. D. 1862.

CHAS. H. BINGER.
W. E. FISCHER.

In presence of—

J. B. CROSBY,
J. E. FALLON.