

W. C. DODGE & P. T. DODGE.  
Improvement in Breech Loading Fire Arms.  
No. 118,350.  
Patented Aug. 22, 1871.

Witnesses.

Harry King  
H. B. Munn

Fig 1.

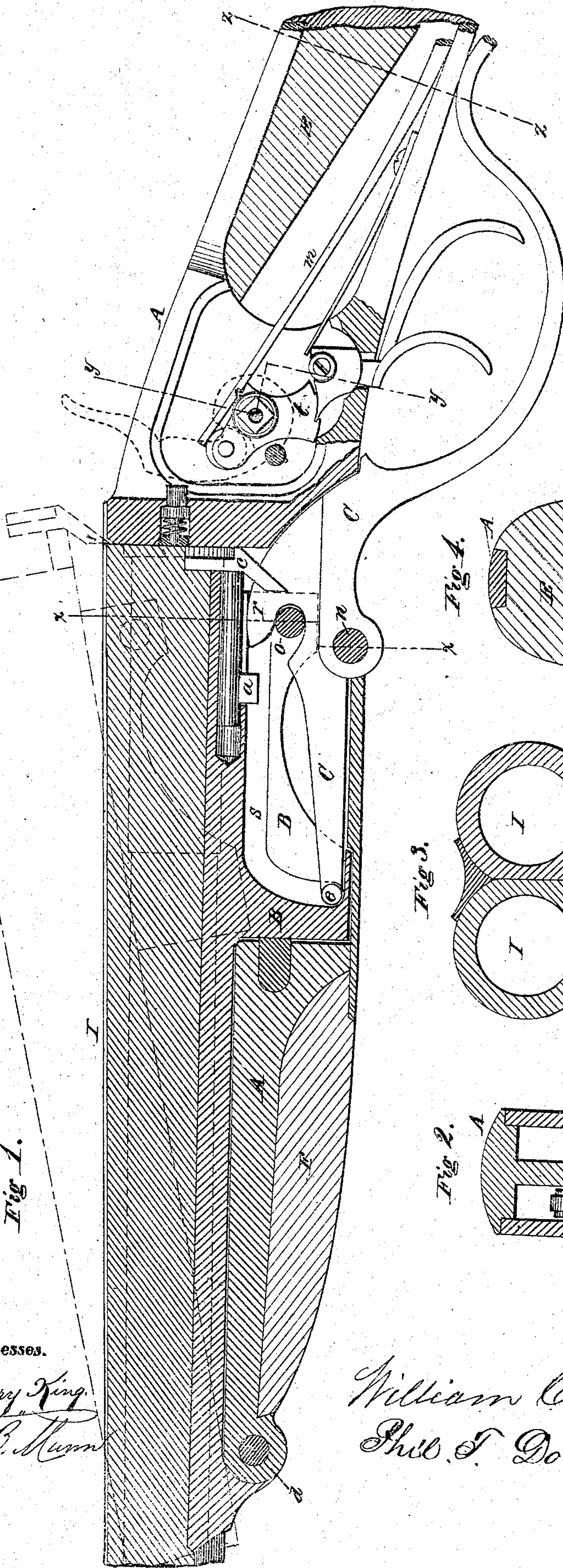


Fig 2.

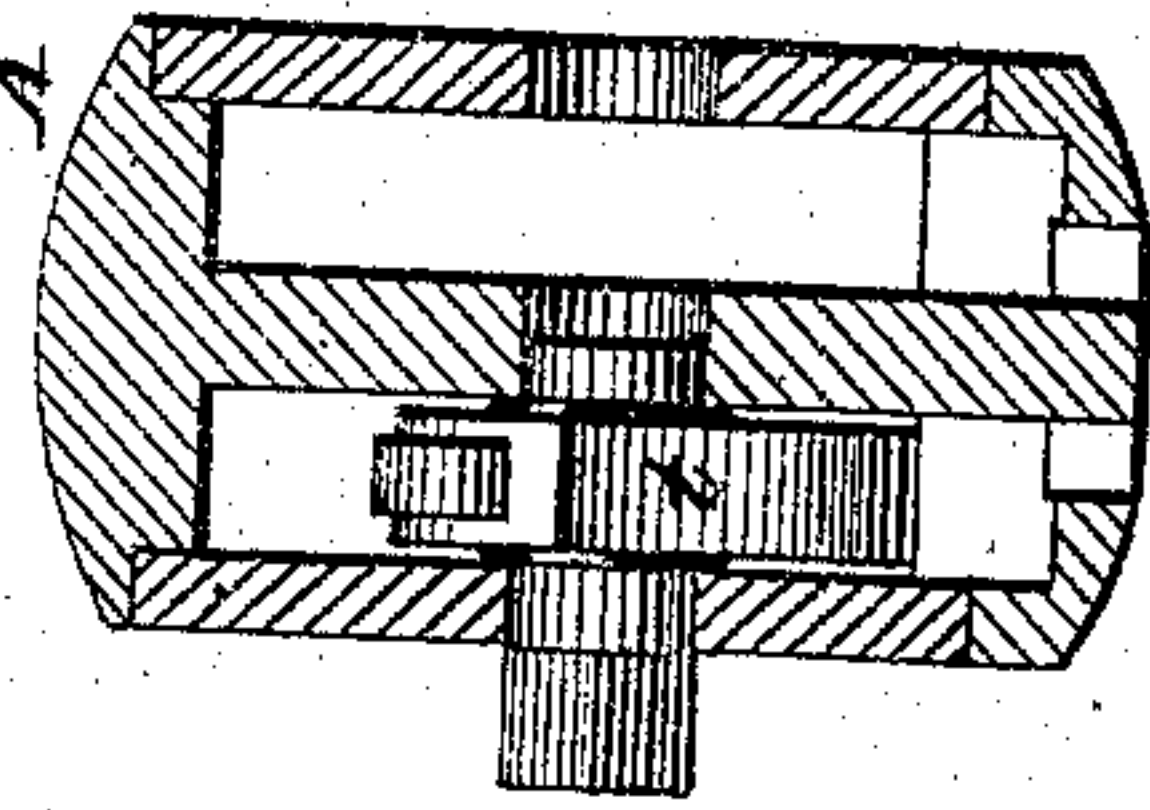


Fig 3.

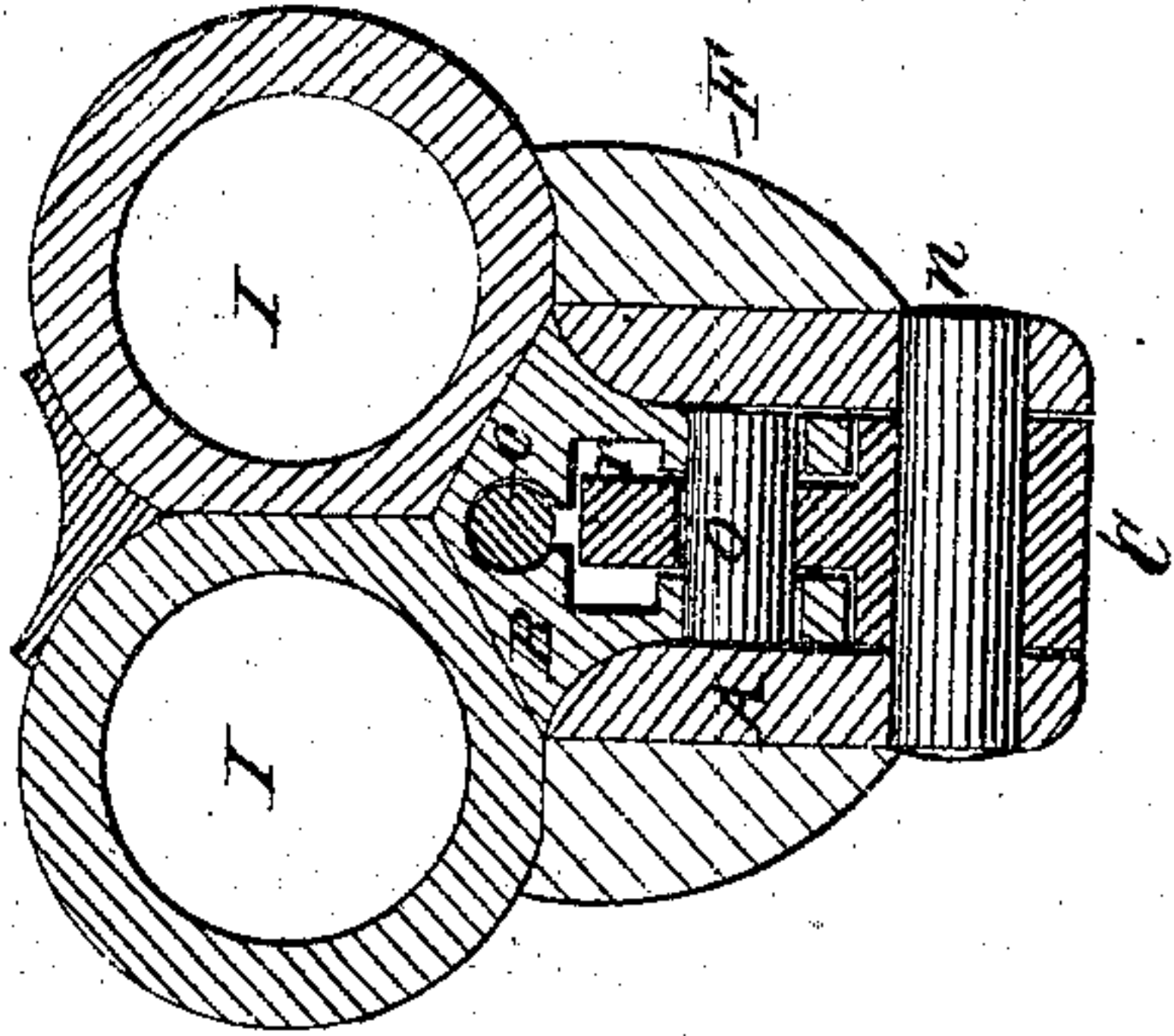
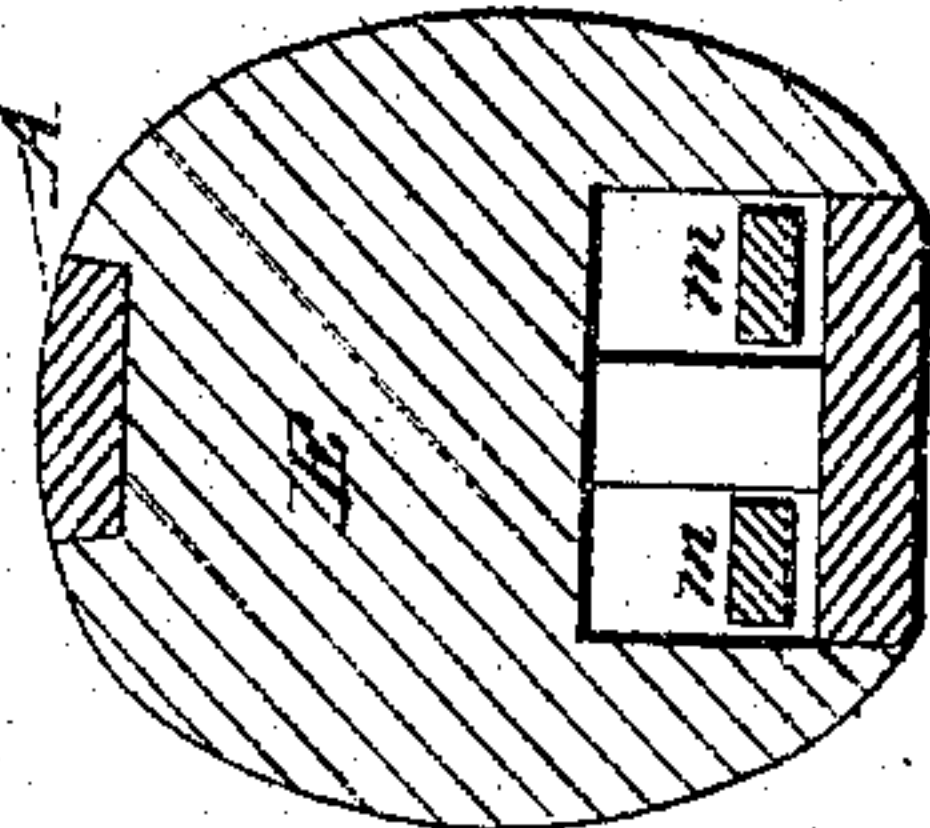


Fig 4.



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W. C. DODGE & P. T. DODGE. (3 Sheets) Sheet 2

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Fig 5.

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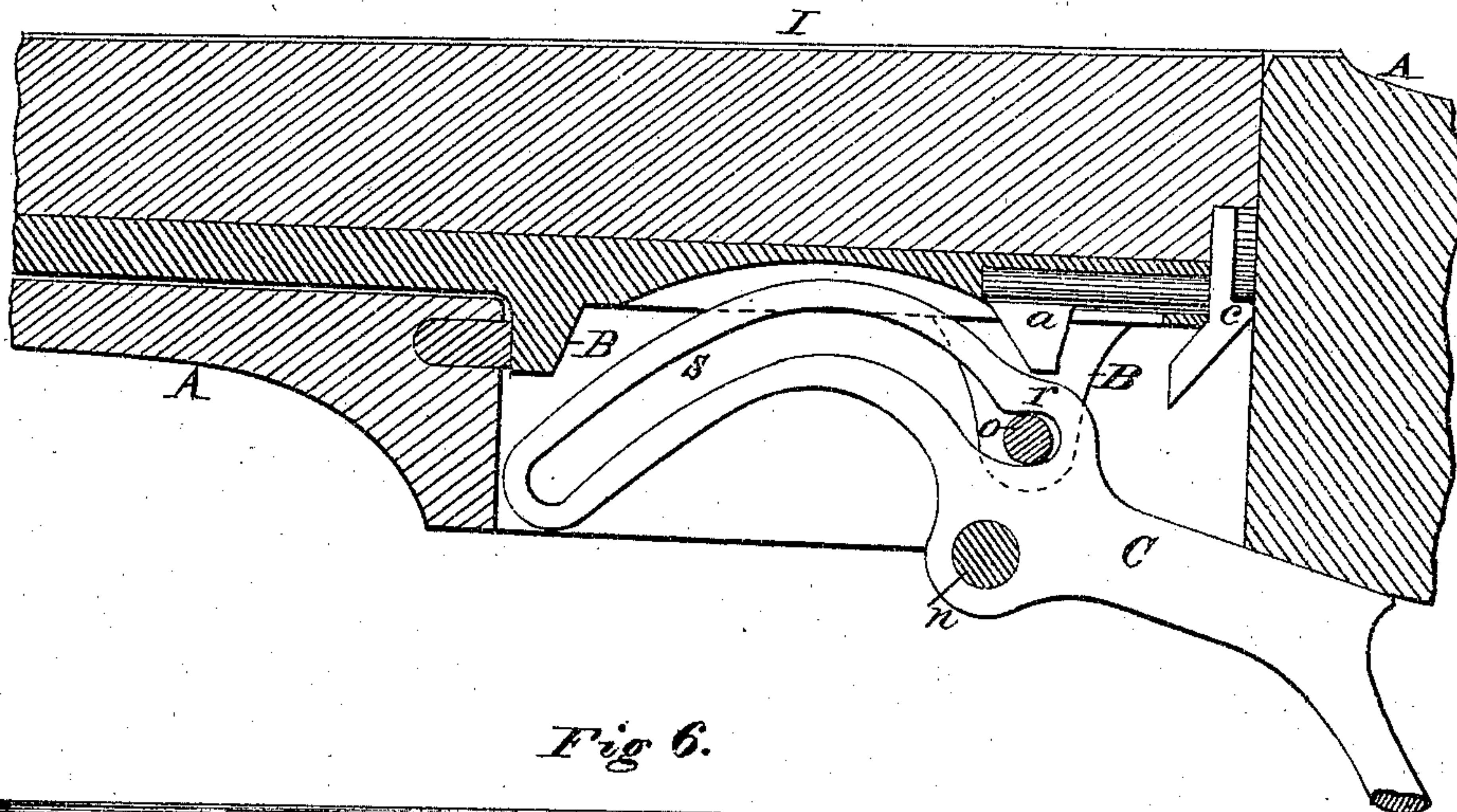


Fig 6.

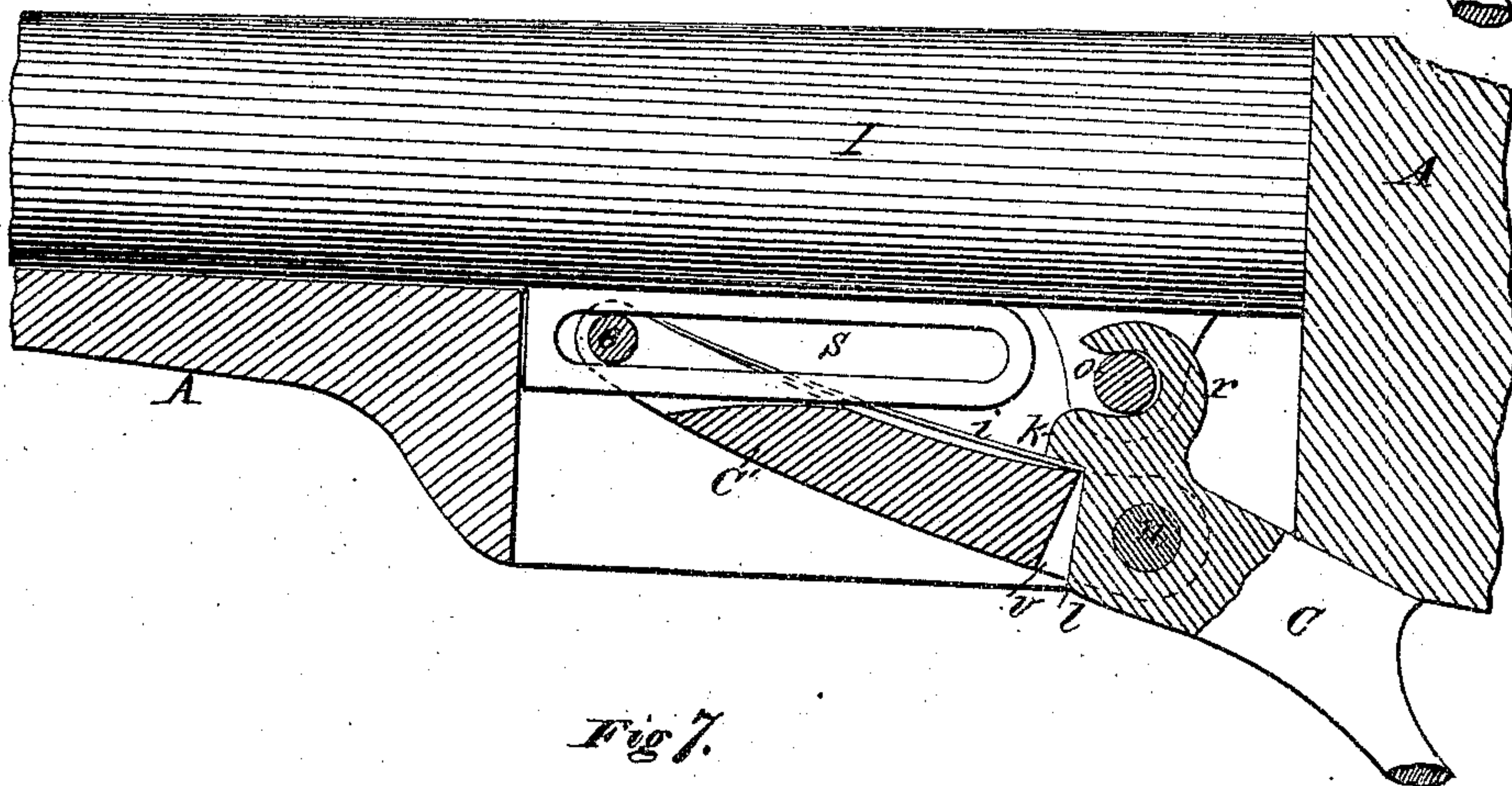


Fig 7.

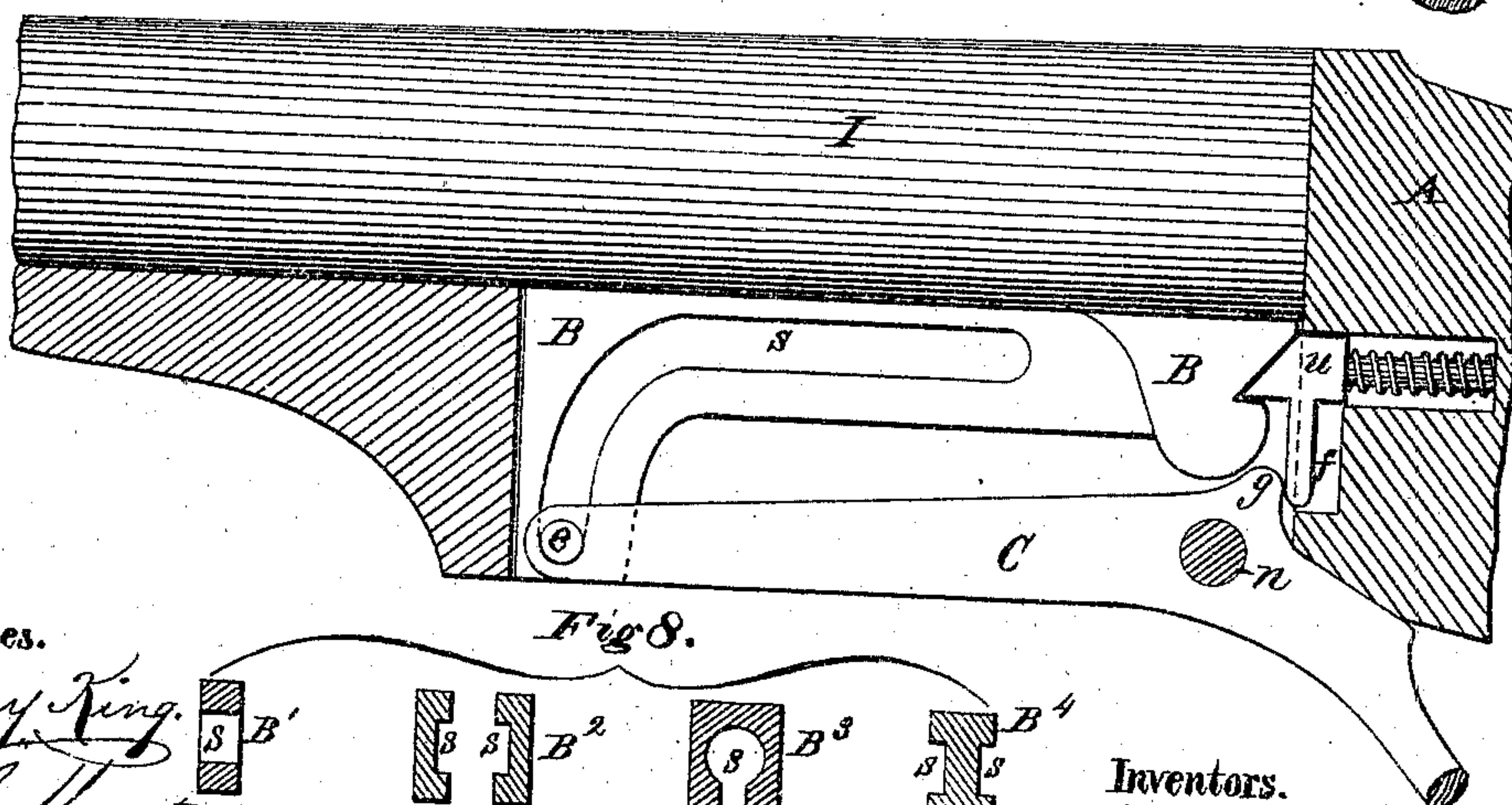
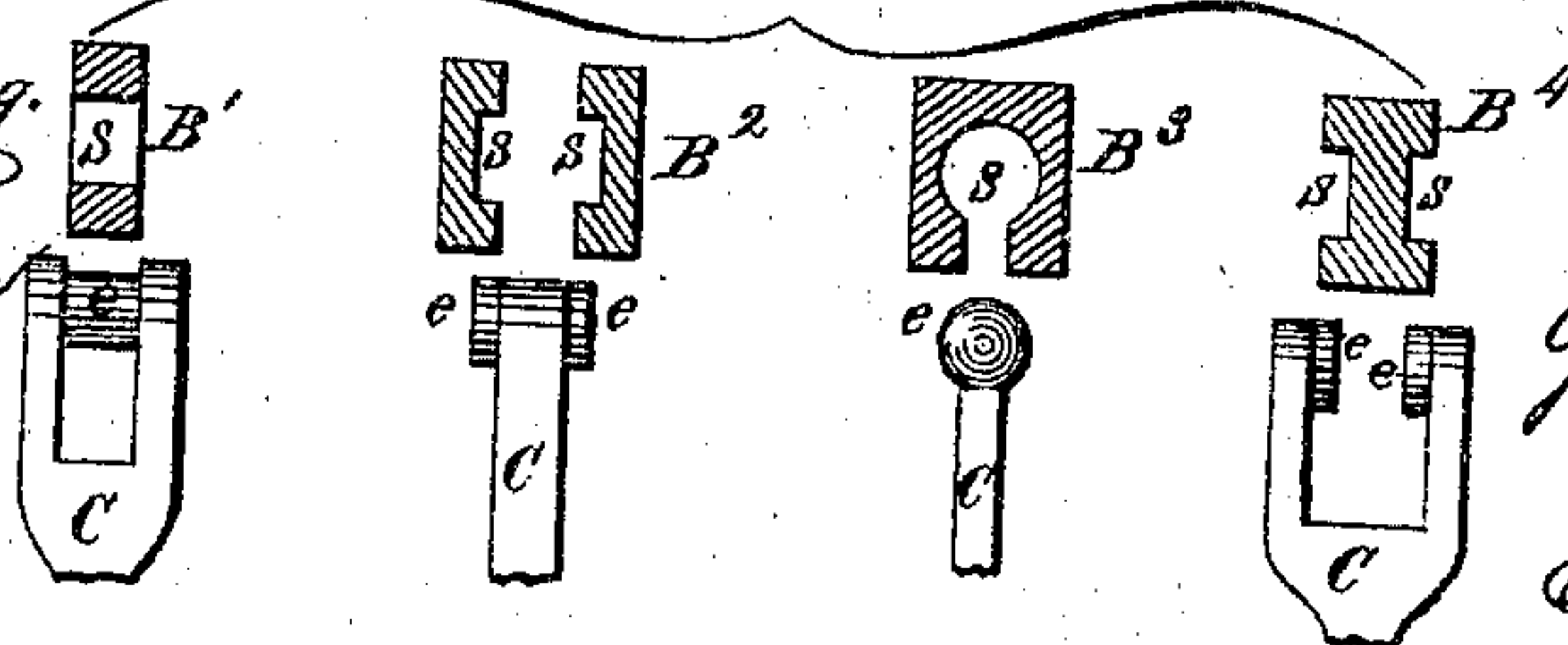


Fig 8.

Witnesses.

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(3 Sheets) Sheet 3

Improvement in Breech Loading Fire Arms.

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Fig 9.

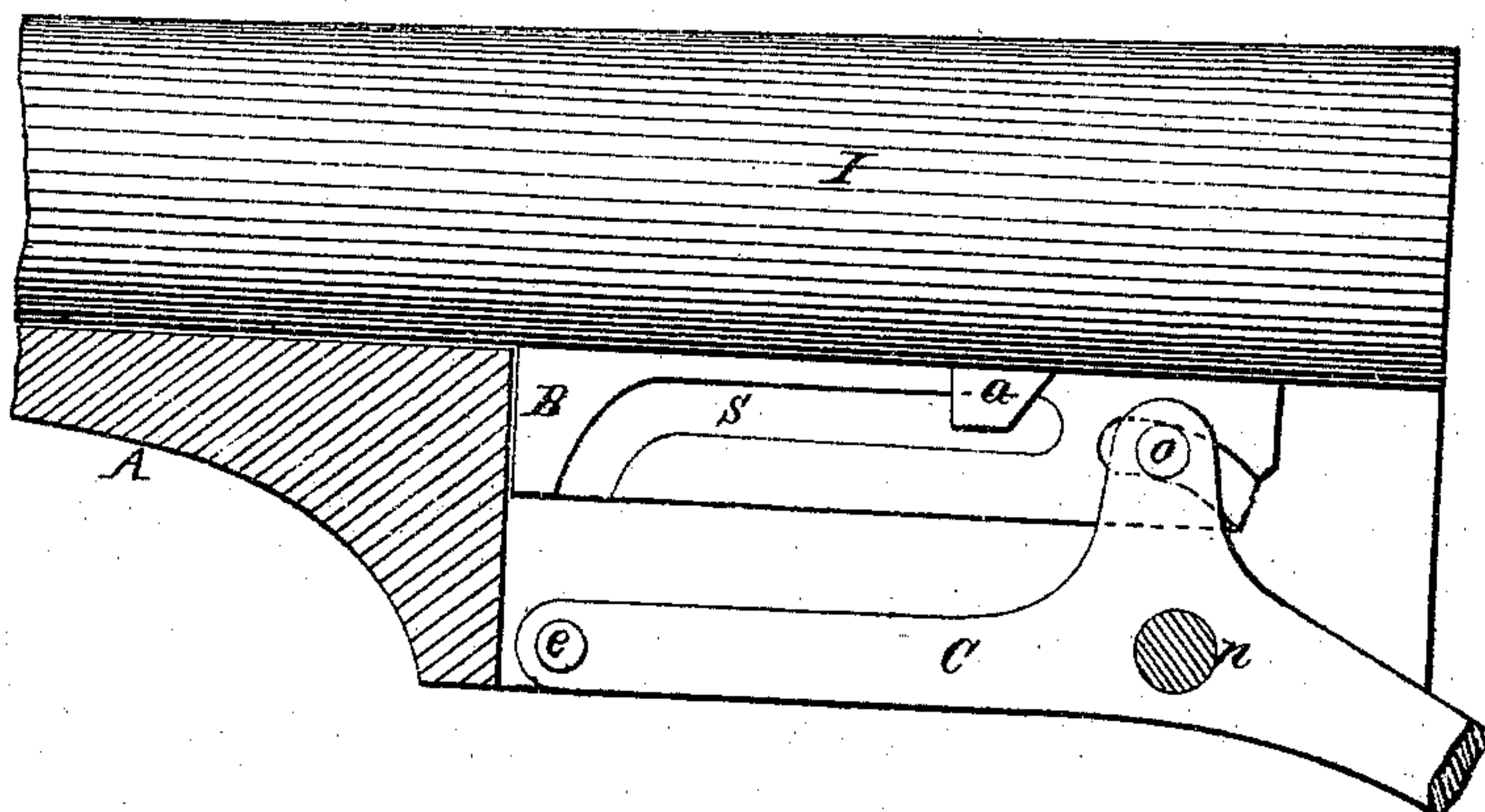


Fig 10.

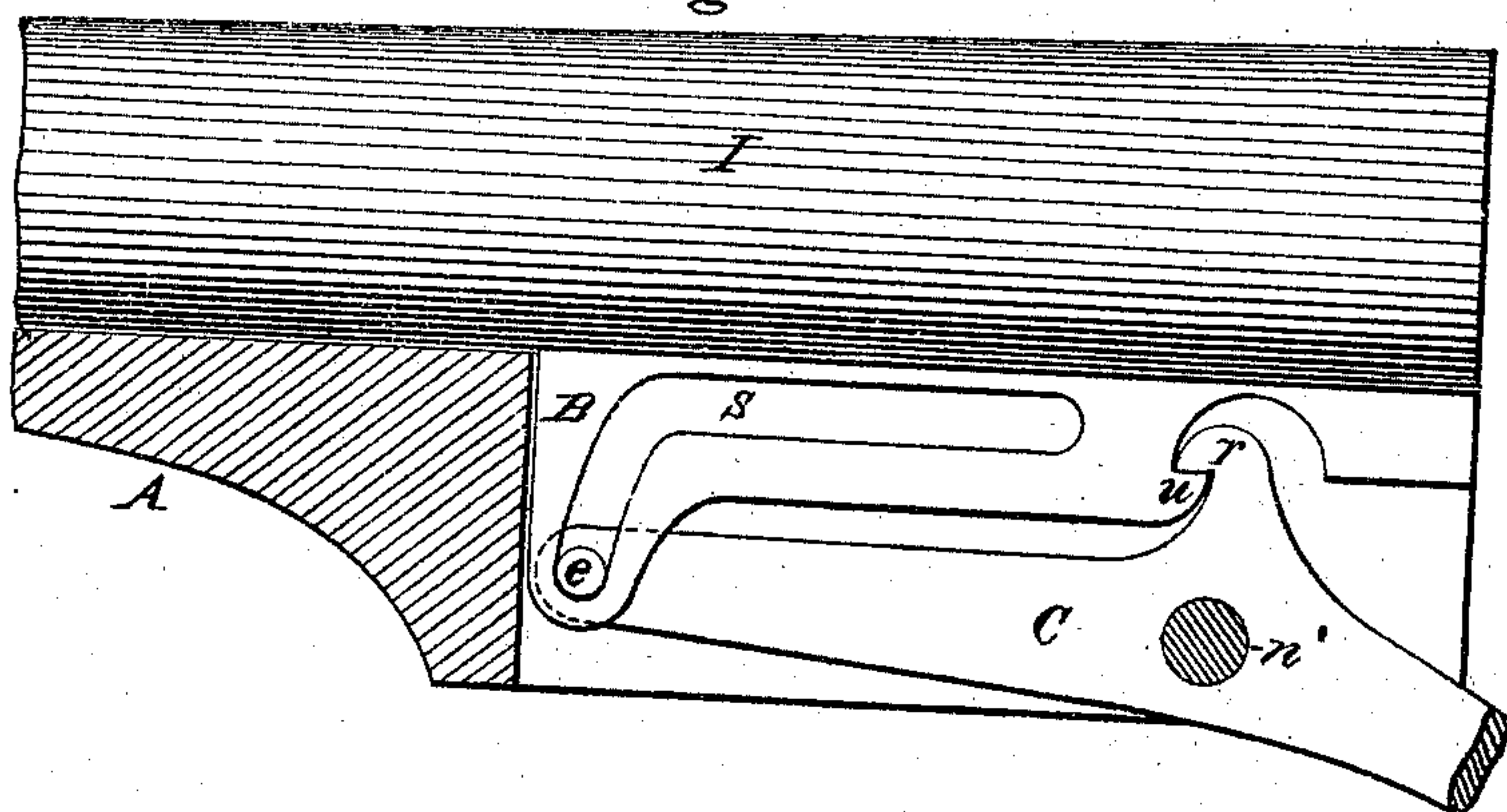
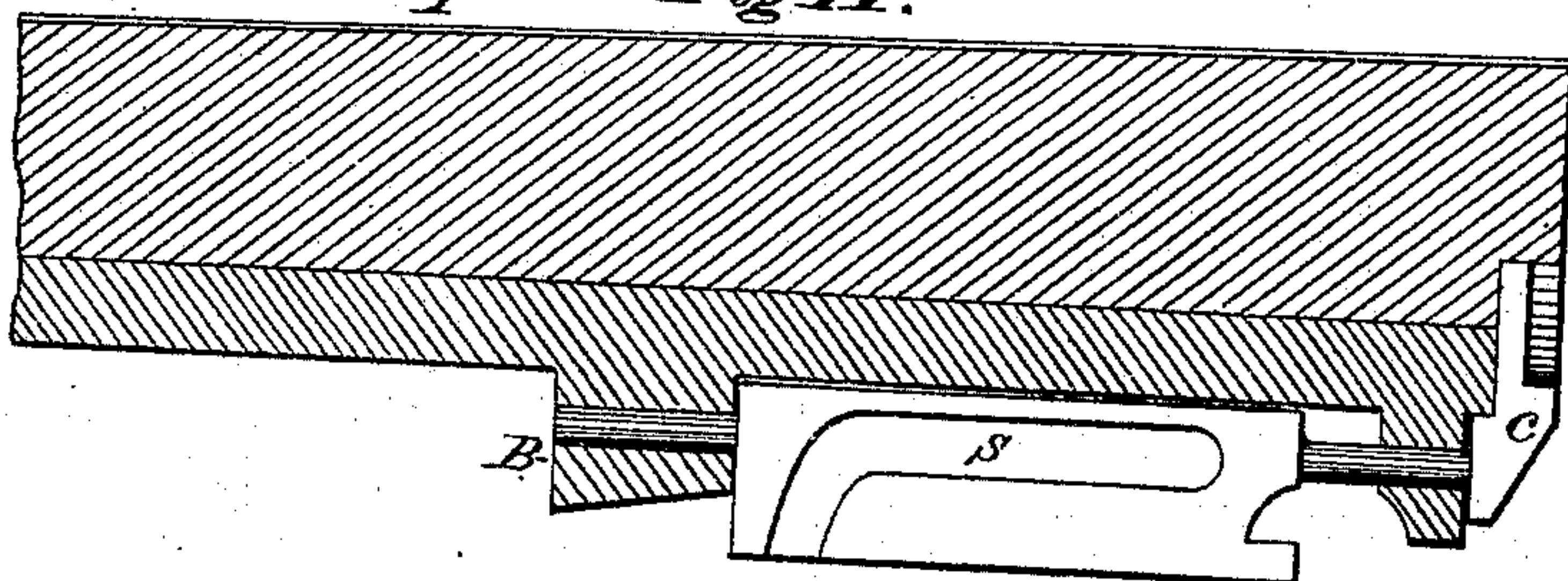


Fig 11.



Witnesses.

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# UNITED STATES PATENT OFFICE

WILLIAM C. DODGE AND PHILIP TELL DODGE, OF WASHINGTON, DISTRICT OF COLUMBIA; SAID P. T. DODGE ASSIGNOR TO WM. C. DODGE.

## IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 118,350, dated August 22, 1871.

*To all whom it may concern:*

Be it known that we, WILLIAM C. DODGE and PHILIP TELL DODGE, of Washington, in the county of Washington and District of Columbia, have invented certain Improvements in Breech-Loading Guns, of which the following is a specification, reference being had to the accompanying drawing.

Our invention relates to breech-loading guns; and the invention consists in the peculiar means used for locking the barrels fast to the frame, and for tipping the barrels and operating the extractor, as hereinafter more fully explained.

Figure 1 is a longitudinal vertical section of a double-barreled gun containing our improvements. Figs. 2, 3, and 4 are transverse sections of the same, on the lines *y y*, *x x*, and *z z*, respectively. Figs. 5, 6, 7, 9, 10, and 11 are views of the improvement in modified forms. Fig. 8 represents cross-sections of the lug B attached to the under side of the barrels, with the slot or groove made therein in various forms.

This invention is an improvement upon the gun patented to William C. Dodge, September 20, 1864, and March 14, 1871; and it has for its object a more perfect and simple plan of locking the barrels and operating the extractor by means of the lever-guard. In the patent of September 20, 1864, the barrels were locked in position by means of a sliding bolt or catch separate from the lever-guard, and which required a spring to operate it and a separate motion to release it before the guard could be moved to tip the barrels. In the subsequent patent of March 14, 1871, the lever-guard was provided with a hook or lug that locked the barrels down, but which also required a separate or sliding motion of the guard, in addition to its swinging motion, both to lock and unlock the barrels. In both those plans it was also necessary to use a spring-catch to fasten the lever-guard in place. The present invention accomplishes the same objects by means of the lever-guard alone, thus dispensing with the additional parts heretofore used; and it does it by the simple swinging movement of the guard.

In Fig. 1, which illustrates our invention in its most perfect form, I represents the barrels, which are hinged to the front extremity of the frame A, by the pivot or pin *d*, and B represents a strong lug, secured rigidly to the under side of

the barrels near their rear end, this lug B fitting into a recess in the frame A, as fully shown and described in the last-mentioned patent, and as represented in Figs. 1 and 3. This lug B is slotted or recessed at its center, longitudinally, from its rear end to near its front, for the front end of the lever C to work in; and near its rear end a strong pin, *o*, passes transversely through it, as shown in Figs. 1 and 3. The lever-guard C is made so as to form a guard for the triggers, and is pivoted to the frame A on a strong pin, *n*, as represented in Fig. 1. As in the former patents, it is prolonged in front of its pivot, and its extreme front end is provided with a transverse pin or projection, *e*, on each side, which works in a slot or groove, *s*, made in the sides of or entirely through the lug B, this slot *s* being made of the form represented, whereby the lever C is permitted to move far enough to unlock the barrels before it operates to tip them. The lever C has on its upper side, just in rear of its pivot, a strong hook, *r*, made solid with and a part of the lever, of the form shown in Fig. 1, which hook *r* is so located that as the lever is swung into position in closing the barrels it will ride over the pin *o* in the rear end of lug B, and thus lock the barrels firmly down upon the frame. It will be observed that the pin *o* is placed a little back of the pivot *n*, and the locking-point of the hook is so formed that it locks past the center of pin *o* in closing; and thus any upward strain on the barrels only tends to force the hook *r* forward over the pin *o* more tightly. This method of locking the barrels down is very secure, and as it holds the lever-guard C firmly in place when locked no spring or catch is necessary to keep the lever in position. We thus make this one piece—the lever-guard—perform all the operations for which several parts were formerly used, and also dispense with all sliding bolts and springs. The extractor *e* is arranged in such a manner that as the lever C moves to tip the barrels the front end of the latter strikes against a projection, *a*, on the stem of the extractor during the last part of its movement, and thereby shoves back the extractor as the rear end of the barrels rises above the recoil or breech-piece, as shown in dotted lines in Fig. 1, the extractor being provided with an incline on its lower side, which, as the barrels are closed, strikes against the breech-piece and forces the extractor in.



It is obvious that this plan of locking the barrels down by means of the lever-guard may be modified in various ways and still operate the same. In Fig. 5 we have shown it modified by making the slot *s* in the front portion of the lever instead of in the lug B, the front part of the lever being curved to permit it to slide over pin *o* without catching at its front end against the under side of the barrels. The hook *r* is arranged to lock past the center just the same, and the lever working the extractor and tipping the barrels the same as above described. This is a very simple form, but is objectionable for the reason that in order to give the required movement to the barrels the curved portion of the lever has to project so far down at its front end as to either require an unusual depth of stock under the barrels or would have to protrude at that point, which would be very objectionable in a gun of this character.

In Fig. 6 we have shown the lever made in two parts, the hook *r* being on the rear part. In this case each part is pivoted on the same pin *n*, the rear part having a shoulder, *l*, which, when the lever has moved far enough to unlock the hook, strikes against a shoulder, *v*, on the other part, and thus makes the two parts rigid as one piece when they move together, tipping the barrels and operating the extractor. The rear part has also a shoulder, *k*, which, when it is drawn back, engages on the top of the front part, thus bringing it down; and if desired, a spring, *i*, may be attached to assist in pushing down the front part. In Fig. 7 we have represented a separate catch-bolt, *u*, for locking into a notch in the rear end of lug B, this bolt having an arm or projection, *f*, extending down in rear of a shoulder or projection, *g*, on the lever, so that as the lever is swung forward this shoulder *g*, acting on the arm *f*, will first shove back the bolt and unlock the barrels, after which the lever will tip the barrels and operate the extractor as before. In Fig. 9 we have shown the hook formed on the lug B, and the pin *o* attached to projections on the lever C, it being a mere reversal of the hook and pin, as represented in Fig. 1, and the operation being the same. In Fig. 10 we have represented the hook *r* as locking into a notch on a shoulder, *w*, in lug B, instead of on the pin, the shoulder being simply a substitute for the pin *o*. In Fig. 11 we have represented the slot or groove *s*, as being made in the stem of the extractor *c*, with a notch in its rear portion for the hook *r* to lock into. In all these various modifications it will be seen that the operation and result are the same—that is to say, the barrels are closed and locked by simply swinging the lever C backward, and they are unlocked, tipped up, and the extractor shoved back by simply swinging the lever forward, the two motions of this one piece thus accomplishing the entire work.

As previously stated, we prefer the form shown

in Fig. 1 as being the simplest and best, and have represented the other forms only as more fully illustrating our invention in its various forms.

In Fig. 1 we have represented the lug B as slotted longitudinally from below upward, and with a groove, *s*, on the inner face of its two walls or sides for the end of the lever-guard to work in, this form of lug being shown in cross-section at B<sup>2</sup> of Fig. 8. It is, however, obvious that this may also be modified, if desired. For instance, it may be a single plain bar with a slot, *s*, through it, as represented at B<sup>1</sup> of Fig. 8, in which case the front end of the lever will be forked to straddle this bar, and have a pin passing through it and the slot *s*; or it may be made, as represented at B<sup>3</sup> of Fig. 8, with a circular groove running lengthwise of the lug, with a narrow slot opening from it out through the bottom of the lug. In this case the front end of the lever which works in the lug will be made with a spherical head to work in the circular groove; or it may be made as shown at B<sup>4</sup> of Fig. 8, in which the lug is a single solid piece, having a groove, *s*, in its two outer faces, the end of the lever-guard in such case being forked, and having a pin or stud on each prong projecting inward to engage in the groove *s*. Either of these forms may be used, as may be found most convenient.

It is also obvious that these improvements may be applied to single-barreled guns, either shot-guns or rifles, at will; and it is our intention to so apply them.

Having thus described our invention, what we claim is—

1. The swinging lever C, provided with the hook *r*, arranged to lock over the pin *o*, or its equivalent, said pin being arranged in relation to the pivot of the lever substantially as described, whereby the barrels are locked to the frame, and the lever held in place without the use of other devices, as herein set forth.

2. The combination, in a breech-loading gun, of the lever C with its locking hook and front-projecting arm, and the tipping barrel or barrels with the lug B and extractor *c*, arranged to operate substantially as described, whereby the swinging of the lever forward and backward serves to unlock the barrels, tip them up at the rear, shove out the extractor, bring the barrels and extractor back into position, and lock the barrels securely in place, as herein set forth.

3. The lug B provided with the curved slot or groove, in combination with the lever C provided with its locking hook, whereby the lever is permitted to move far enough to unlock the barrels before it begins to tip the same, substantially as described.

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Witnesses:

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