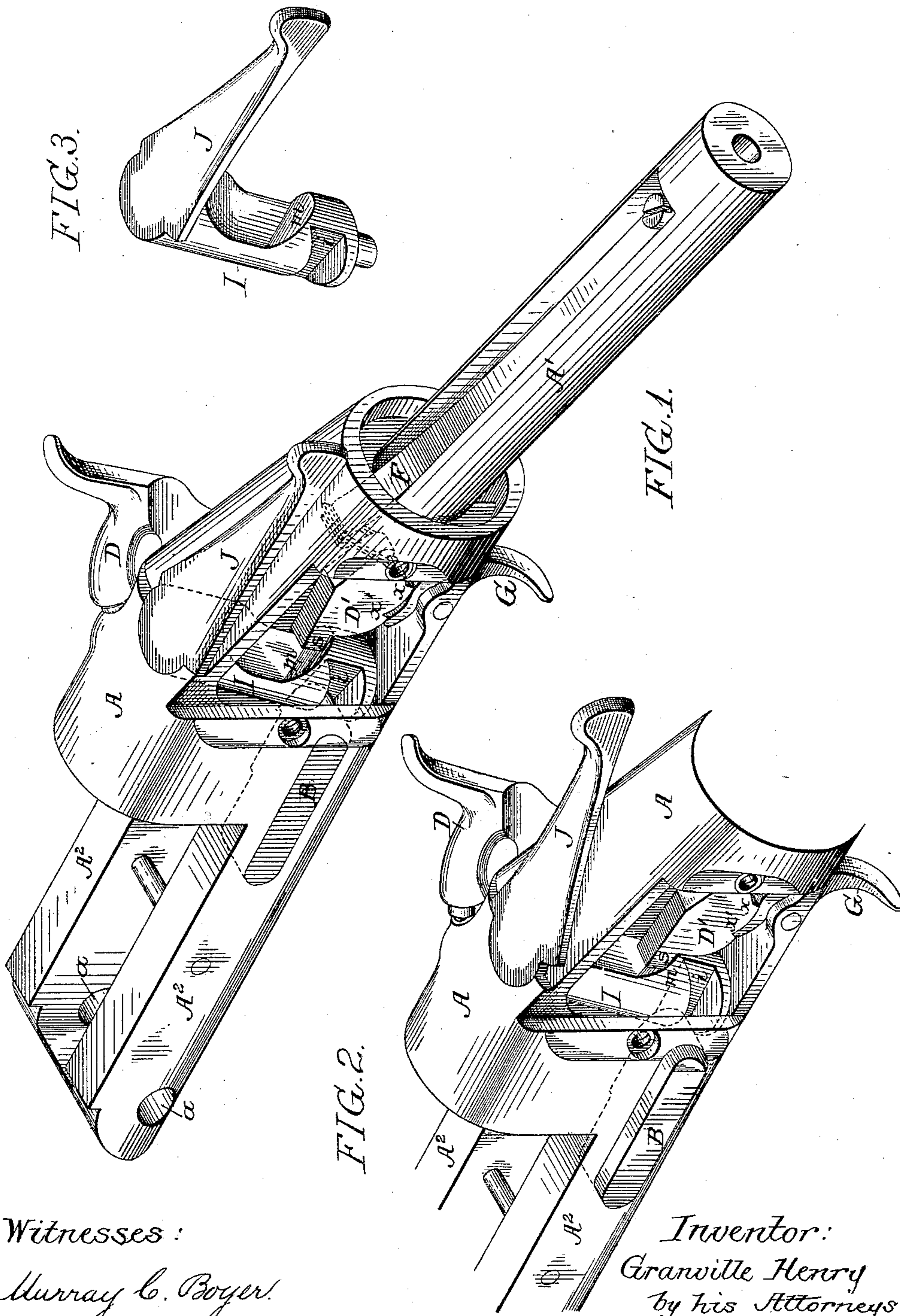


G. HENRY.  
BREAKDOWN GUN.

No. 461,679.

Patented Oct. 20, 1891.



Witnesses:  
 Murray C. Boyer.  
 Fred L. Goodwin.

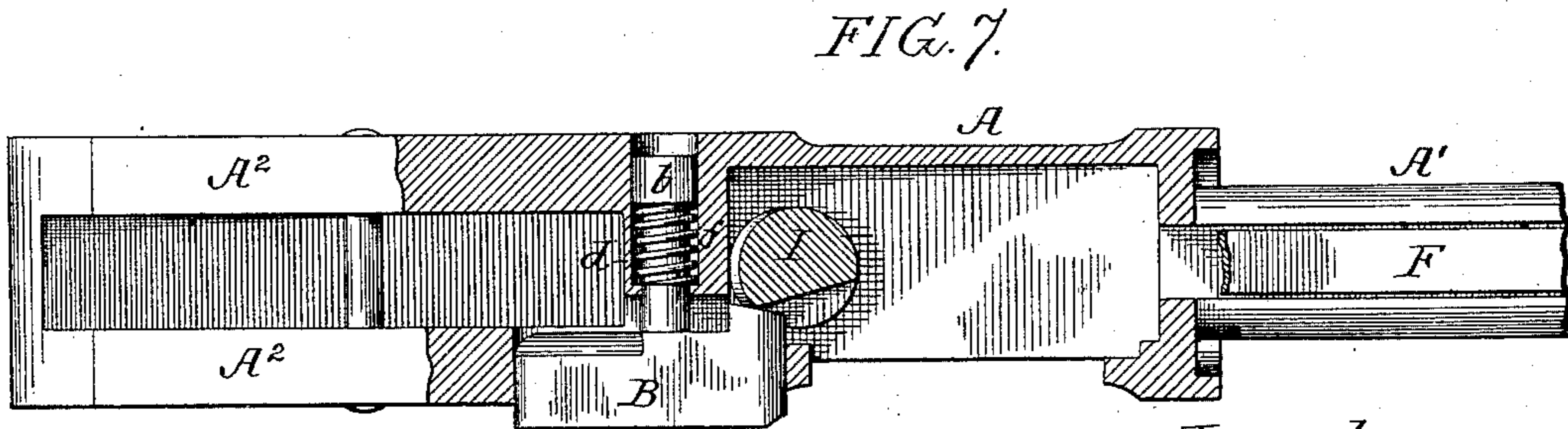
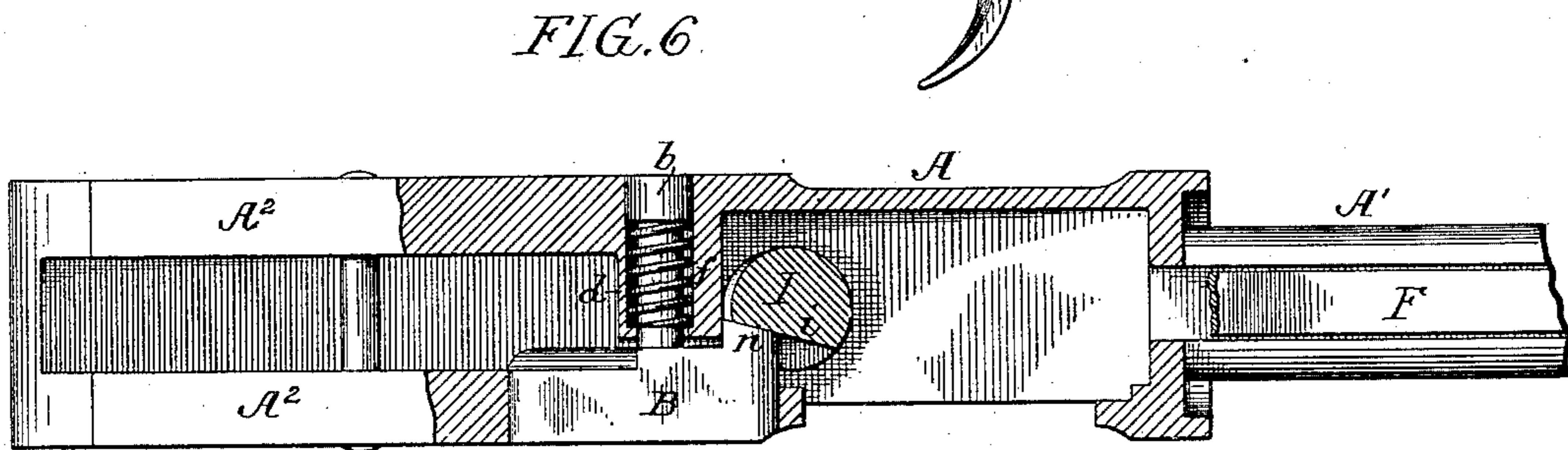
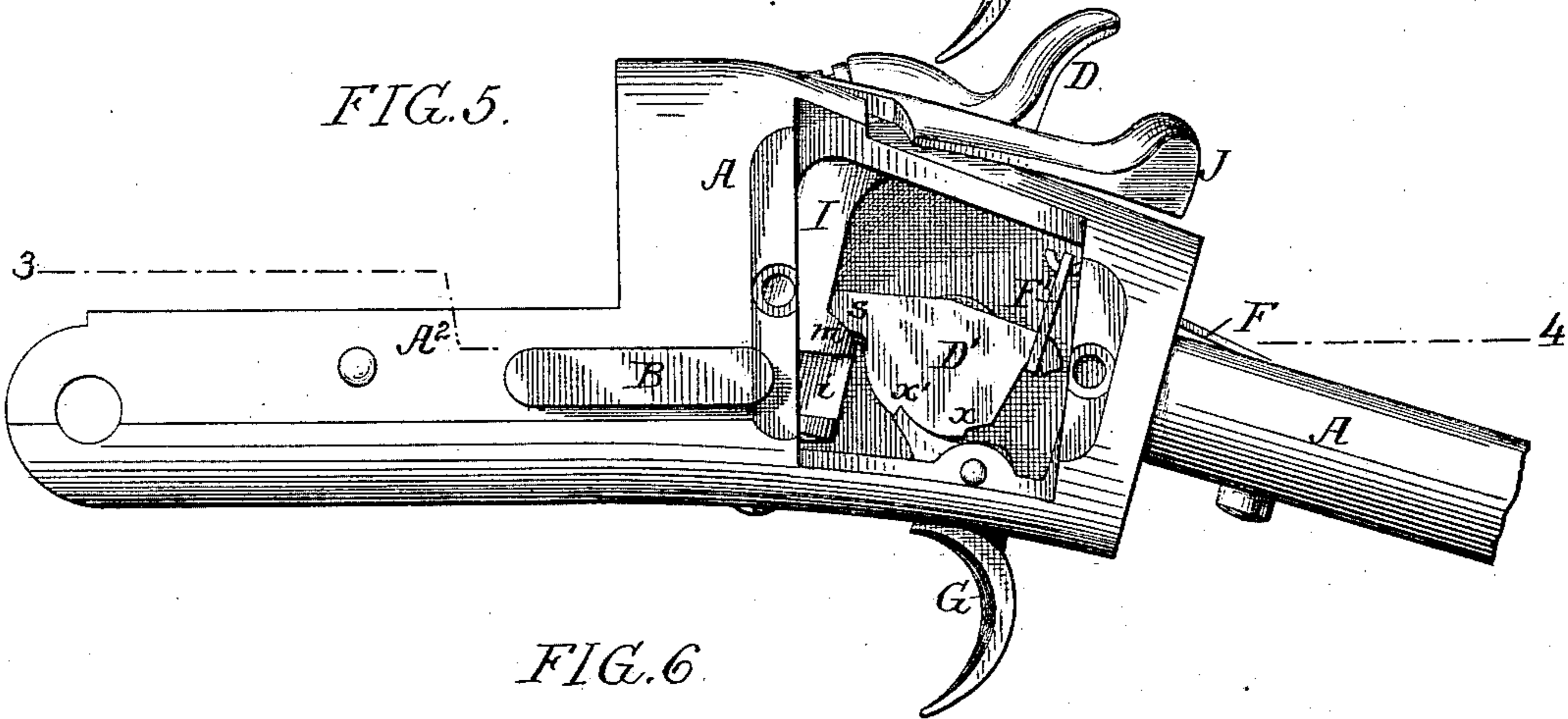
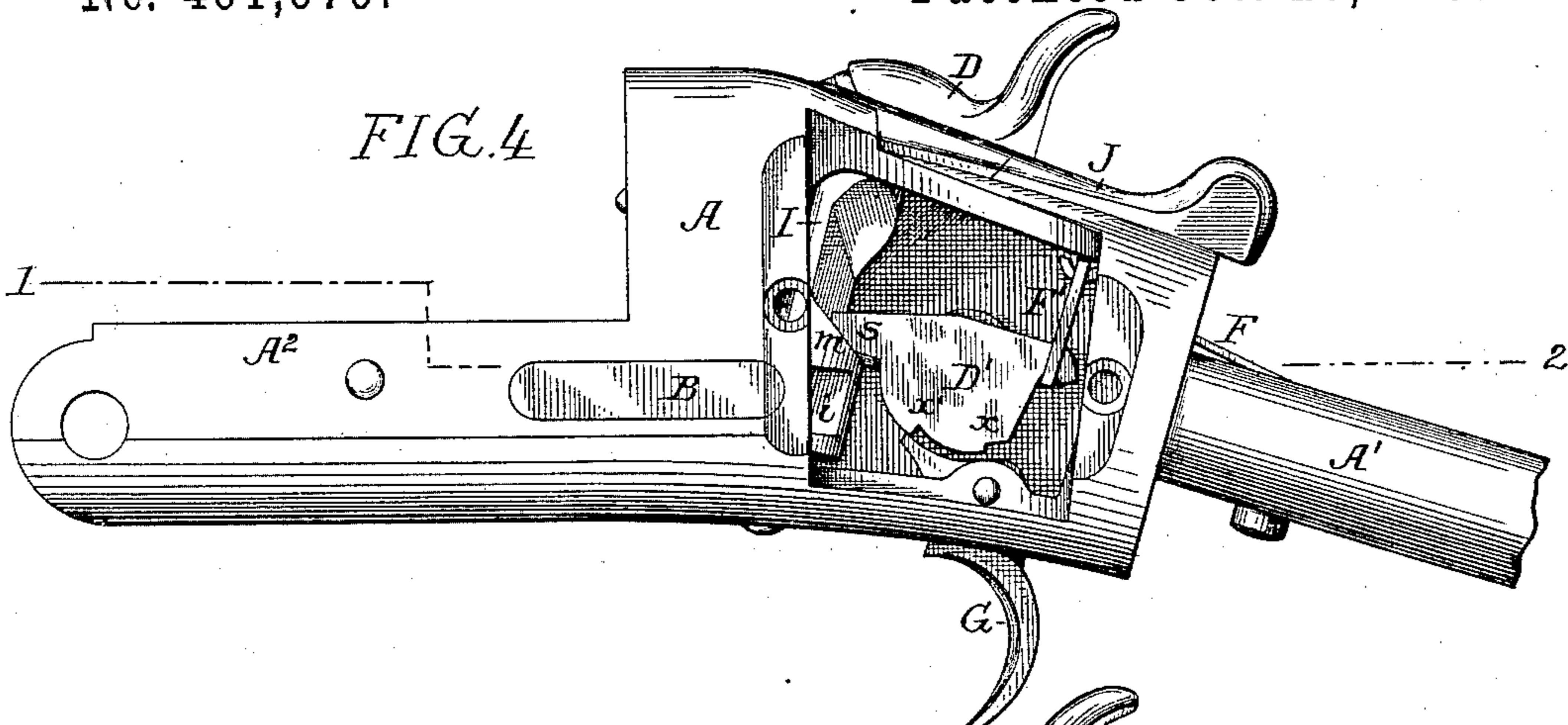
Inventor:  
 Granville Henry  
 by his Attorneys  
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# UNITED STATES PATENT OFFICE.

GRANVILLE HENRY, OF NAZARETH, PENNSYLVANIA.

## BREAKDOWN GUN.

SPECIFICATION forming part of Letters Patent No. 461,679, dated October 20, 1891.

Application filed January 12, 1891. Serial No. 377,457. (No model.)

To all whom it may concern:

Be it known that I, GRANVILLE HENRY, a citizen of the United States, and a resident of Nazareth, Northampton county, Pennsylvania, have invented certain Improvements in Breech-Loading Fire-Arms, of which the following is a specification.

My invention relates to that class of breech-loading fire-arms in which a side-acting bolt is used for locking the barrel, the object of my invention being to provide a simple device for moving the bolt so as to unlock the barrel, and for moving the hammer to the position of half-cock simultaneously with the unlocking of the barrel. This object I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of the lock mechanism of a breech-loading gun constructed in accordance with my invention, the side plate being detached to show the internal parts. Fig. 2 is a perspective view of part of the lock mechanism, showing some of the devices in a different position from that represented in Fig. 1. Fig. 3 is a detached perspective view of that part of the mechanism to which my invention specifically relates. Fig. 4 is a side view of the lock mechanism, showing the parts in a position similar to those shown in Fig. 1. Fig. 5 is a like view showing the parts in a position similar to those represented in Fig. 2. Fig. 6 is a view partly in plan and partly in section on the lines 1 2, Fig. 4; and Fig. 7 is a like view, the section being on the lines 3 4, Fig. 5.

A represents the lock-casing, which has a rearwardly-projecting portion A' for entering the stock of the gun and forwardly-projecting cheek-pieces A<sup>2</sup>, between which fits the pivot-plate of the barrel structure, said cheek-pieces having openings a for the reception of the pivot-pin of the barrel.

The barrel is locked in position by means of a laterally-sliding bolt B, suitably guided in an opening in one side of the lock-casing and having a stem b projecting into a socket d in the other side of the lock-casing, as shown in Figs. 6 and 7, a spring f being interposed between the head of the stem and the base of the socket, and this spring having a tendency to draw the bolt B inward, so as to cause

it to engage with the usual slot in the pivot-plate of the barrel, and thus locking said barrel. The hammer D of the gun has within the lock-casing the usual hammer-lever or tumbler D', which is acted upon by the main spring F, connected to the tumbler by a link F', said tumbler having the usual full-cock notch  $\alpha$  and half-cock notch  $\alpha'$  for engagement with the toe of the trigger G. The unlocking-lever J occupies a position on the top of the lock-casing and is secured to or forms part of a stem I, which is free to turn in suitable bearings in the top and bottom of the lock-casing, and has two cam-surfaces  $i$  and  $m$  formed upon it. The cam-surface  $i$  is formed by cutting away one side of the stem I near the lower end of the same, and this cam acts upon a toe  $n$  on the rear end of the locking-bolt B, as shown in Figs. 6 and 7, so that movement of the unlocking-lever J from the position shown in Fig. 1 to that shown in Fig. 2 effects movement of the stem I from the position shown in Fig. 6 to that shown in Fig. 7, thereby moving the locking-bolt B laterally to such an extent as to unlock the barrel of the gun, the spring  $f$  tending to restore the bolt to locking position as soon as pressure is removed from the lever J. The cam  $m$  consists of the beveled base of a recess formed in the rear of the stem I, and this cam acts upon a forwardly-projecting tongue  $s$  on the tumbler D', so that the same movement of the stem I which effects the projection of the locking-bolt B will effect a lift of the forward end of the tumbler, so as to permit the trigger to engage with the half-cock notch of the same, the hammer being thereby lifted to the position of half-cock. (See Figs. 4 and 5.) An effective but extremely simple device for the purpose is thus provided, which does not require any material change in the other parts of the lock as now constructed.

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

1. The combination of the lock-casing and the laterally-sliding locking-bolt therein, having a laterally-projecting stem contained in a recess in said casing and having an enlarged head, a spring surrounding said stem and acting upon the head of the same, the top lever, and the lever-stem having a side cam

acting upon the locking-bolt to laterally project the same against the action of the spring, substantially as specified.

2. The combination of the lock-casing, the  
5 laterally-sliding locking-bolt, the hammer, the tumbler, and the trigger with the top lever and its stem, the latter having a side cam acting upon the locking-bolt to laterally project the same, and a lifting-cam acting on the tum-

bler to move the hammer to the position of 10 half-cock, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GRANVILLE HENRY.

Witnesses:

WILSON E. BECK,  
JACOB H. BECK.