

(No Model.)

4 Sheets—Sheet 1.

D. W. JANSEN.
BREECH LOADING GUN.

No. 341,751.

Patented May 11, 1886.

Fig-1-

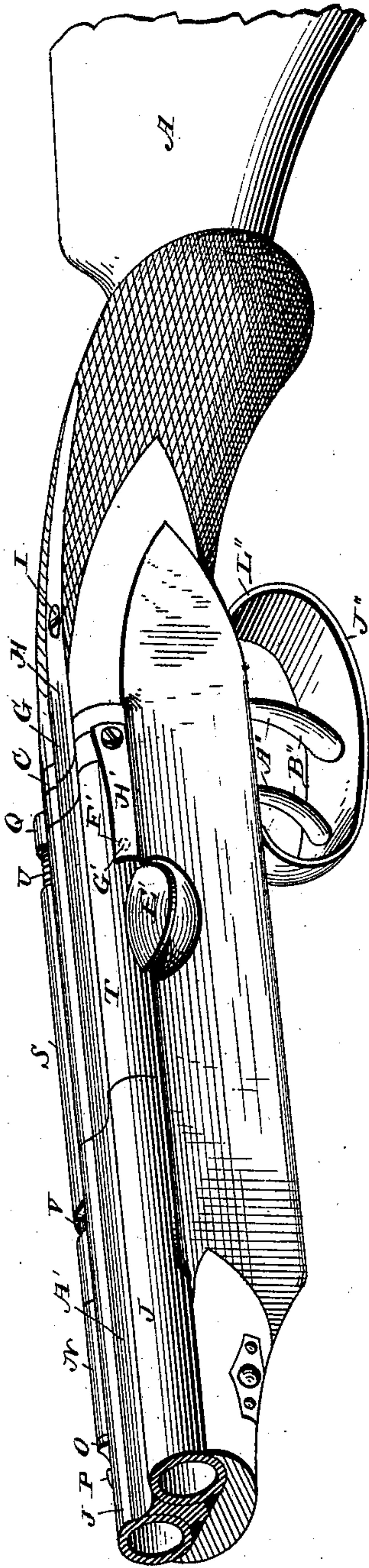
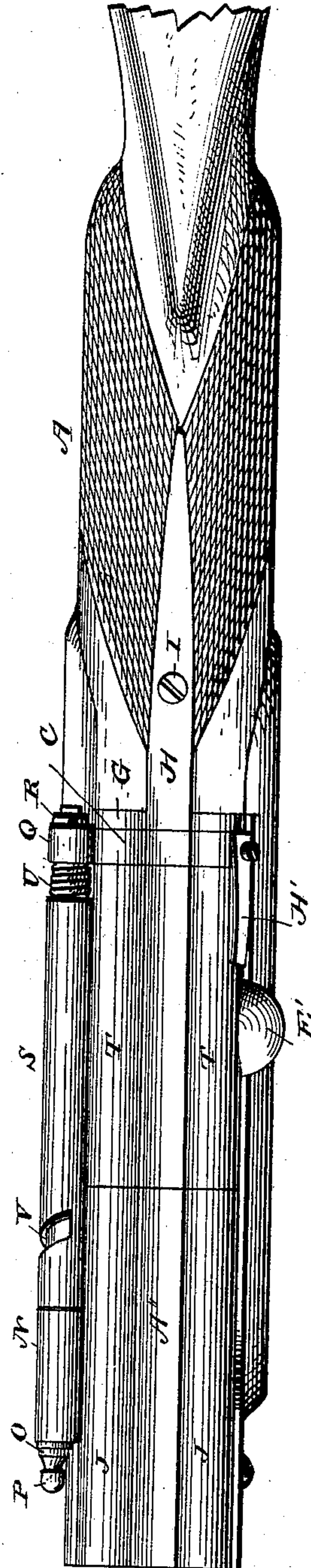


Fig-2-



WITNESSES

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INVENTOR

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(No Model.)

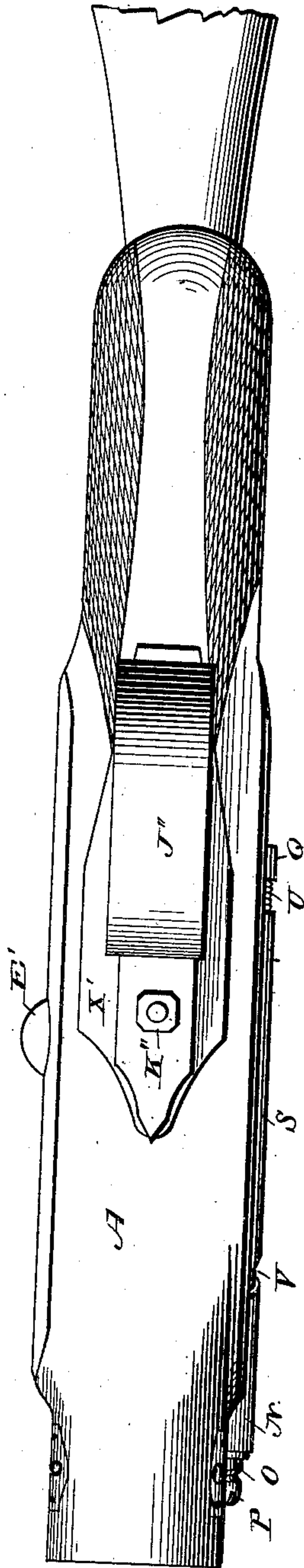
4 Sheets—Sheet 2.

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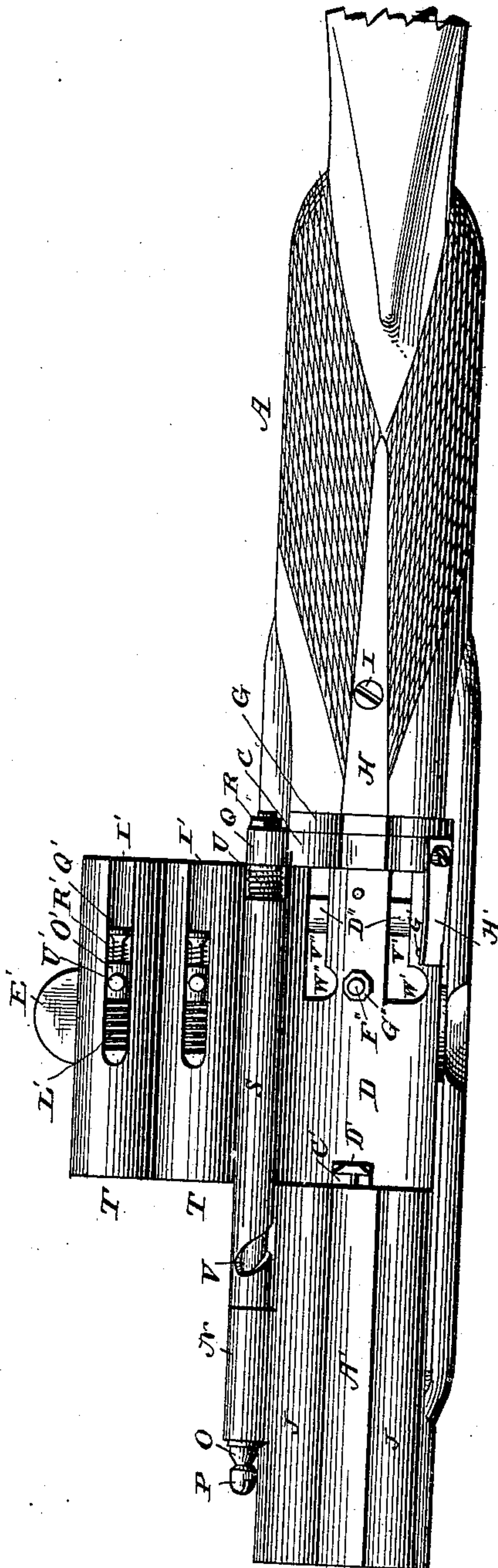
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FIG. 3.



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FIG. 4.



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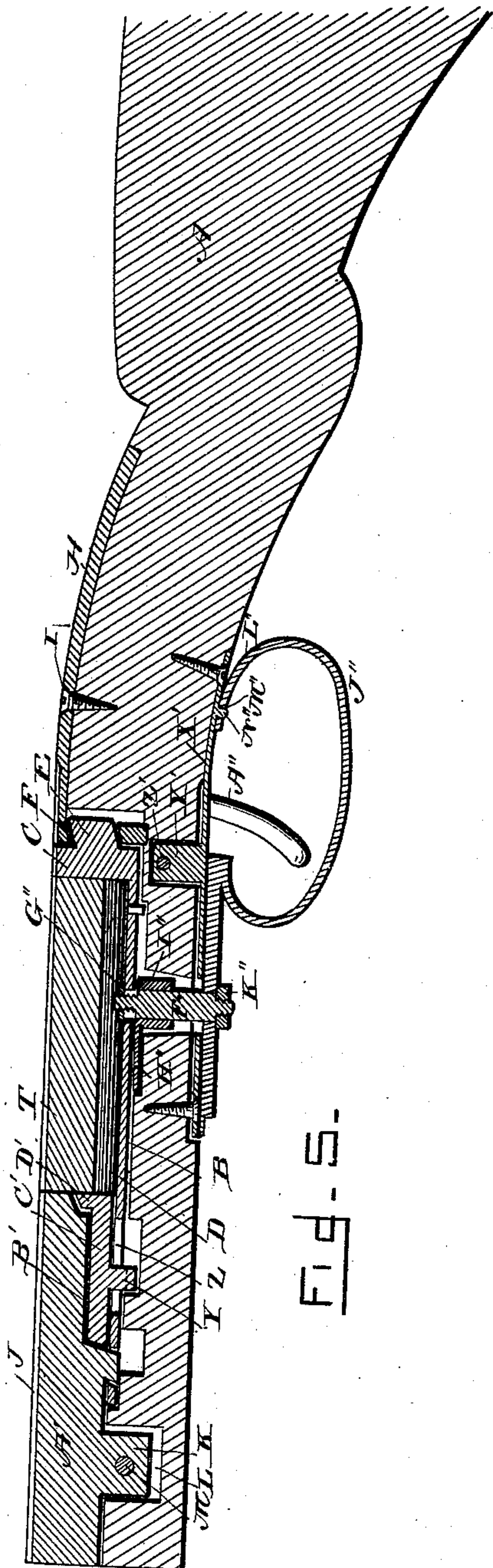


Fig. 5.

Fig. 7.

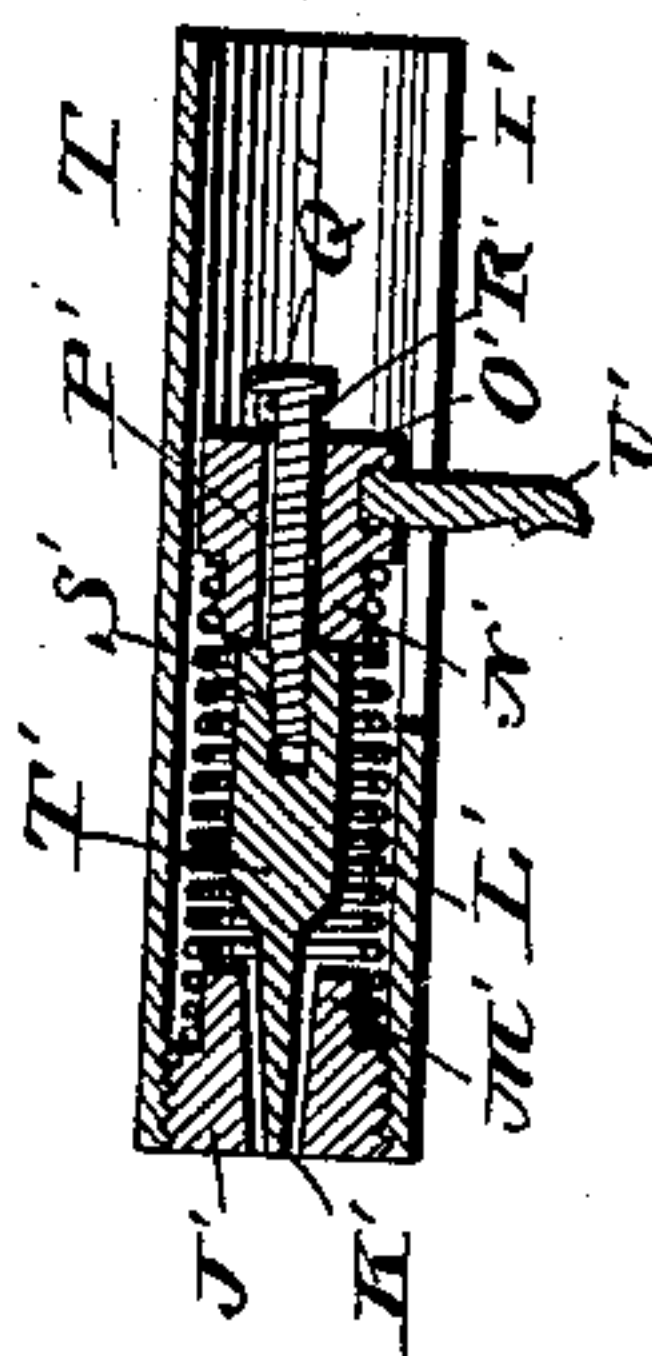
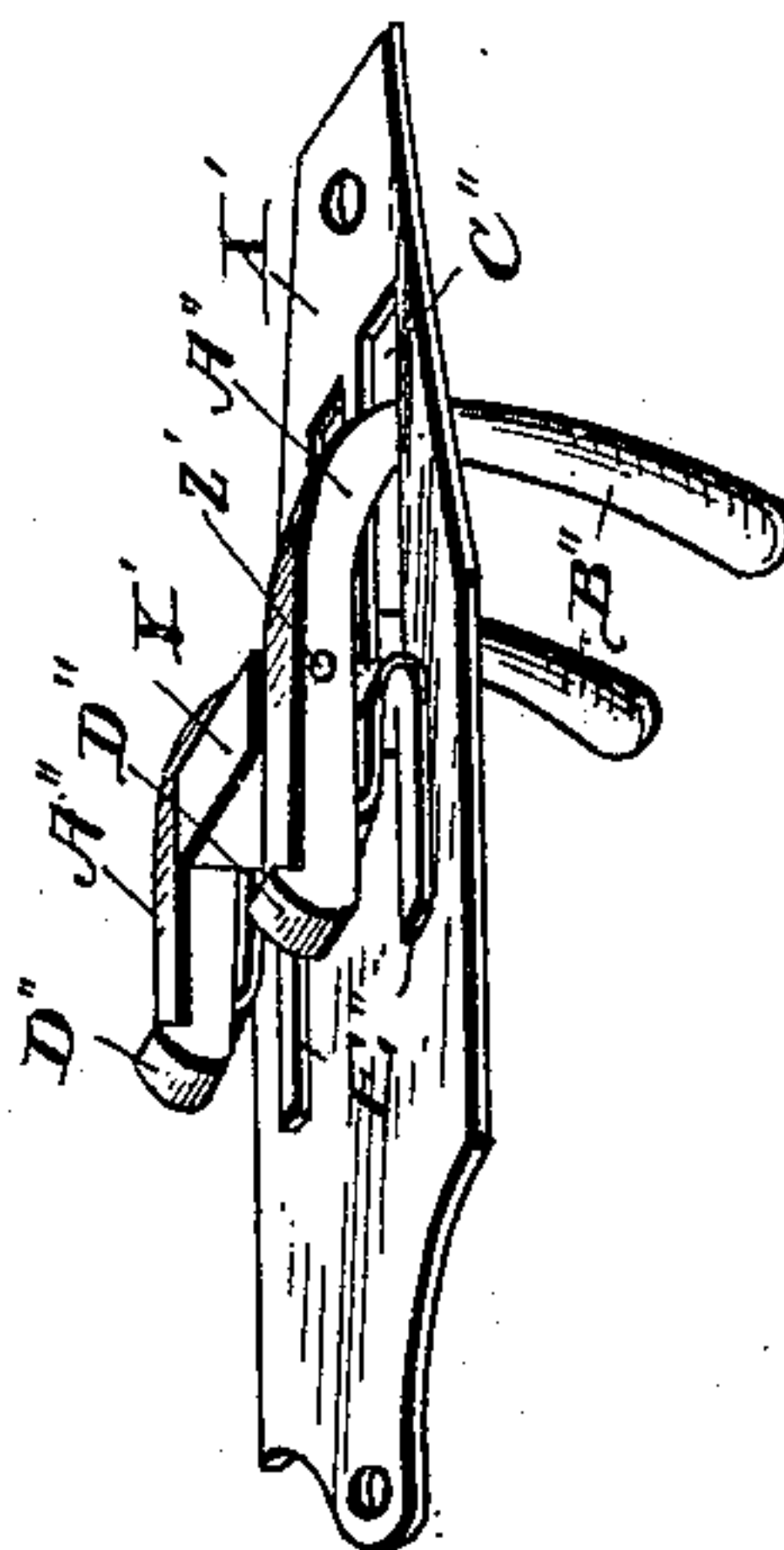


Fig. 6.



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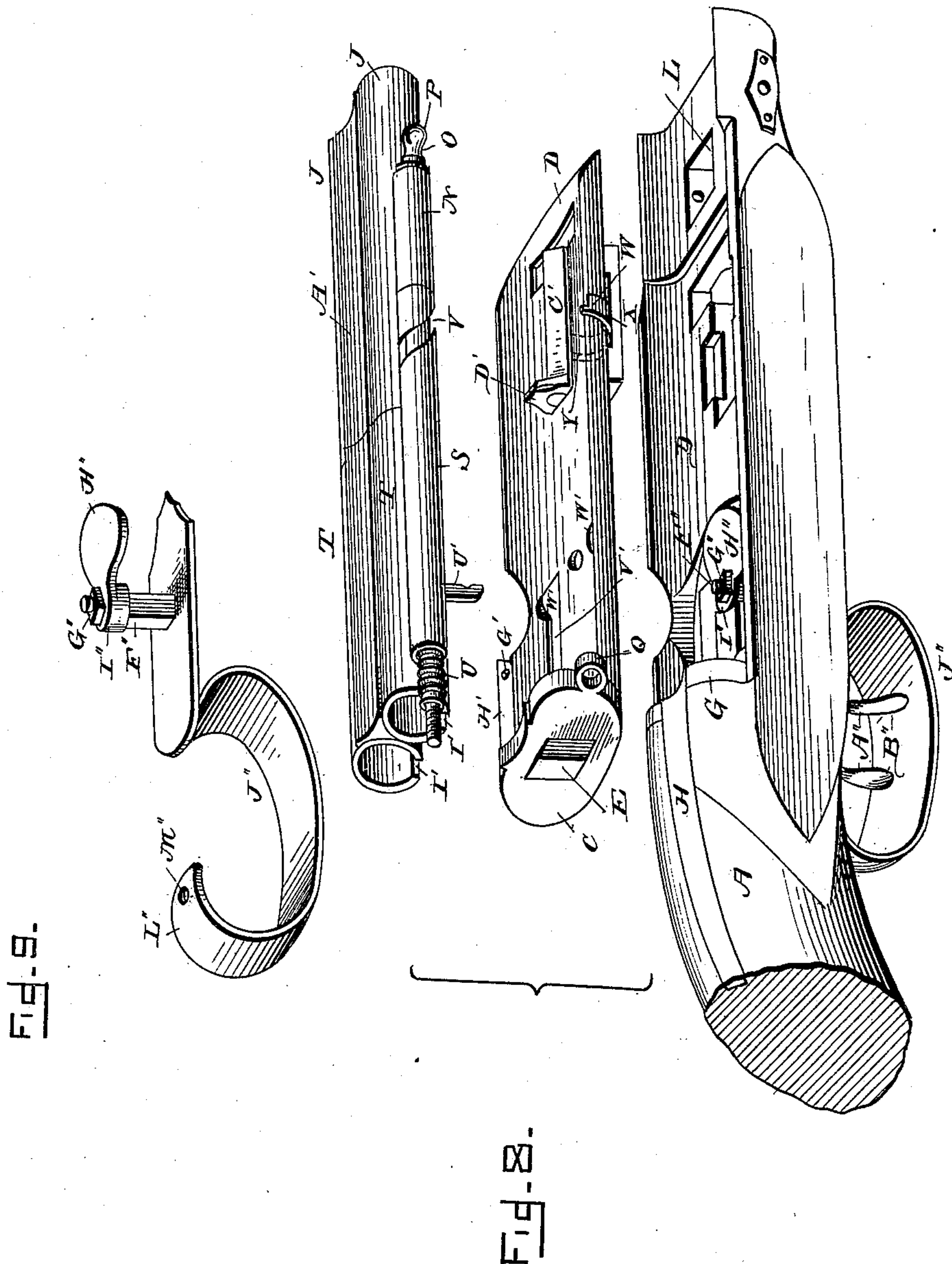
(No Model.)

4 Sheets—Sheet 4.

D. W. JANSEN.
BREECH LOADING GUN.

No. 341,751.

Patented May 11, 1886.



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UNITED STATES PATENT OFFICE.

DIEDERICH W. JANSEN, OF JOPLIN, MISSOURI.

BREECH-LOADING GUN.

SPECIFICATION forming part of Letters Patent No. 341,751, dated May 11, 1886.

Application filed March 15, 1886. Serial No. 195,190. (No model.)

To all whom it may concern:

Be it known that I, DIEDERICH W. JANSEN, a citizen of the United States, and a resident of Joplin, in the county of Jasper and State of Missouri, have invented certain new and useful Improvements in Hammerless Breech-Loading Guns; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved breech-loading hammerless gun. Fig. 2 is a view of the upper side of the gun. Fig. 3 is a view of the under side of the gun. Fig. 4 is a view of the upper side of the gun, showing the lock-casing opened. Fig. 5 is a longitudinal vertical sectional view of the gun. Fig. 6 is a perspective detail view of the trigger-plate and the triggers removed from the gun. Fig. 7 is a longitudinal sectional view of one of the lock-chambers. Fig. 8 is a view of the gun with the barrels removed and the lock and barrel seat removed and shown above the stock, and Fig. 9 is a perspective detail view of the guard and its bolt with the eccentric disk.

Similar letters of reference indicate corresponding parts in all the figures.

This invention relates to breech-loading guns in which the hammers are concealed; and it consists in the improved construction and combination of parts, as will be hereinafter more fully described, and pointed out in the claims.

In the accompanying drawings, the letter A indicates the stock, which may be of any suitable construction, and which is formed with a recess, B, in its upper side for the reception of the lock and barrel seat D. The rear end of this seat is provided with a block, G, the rear face of which is formed with a heavy upwardly-pointing hook, E, which engages a recess, F, shaped for its reception in a block, G, having a rearwardly-projecting curved tongue, H, which is secured to the upper side of the stock by means of a screw, I.

The barrels J J are connected in the usual manner, and are provided near their breech

ends with a downwardly-projecting perforated tongue, K, which is secured in the recess L in the stock by means of a pin, M, passing through the stock and through the recess and perforation of the tongue. The breech ends of the barrels rest upon the forward end of the seat, which is thus held in place by them at its forward end, while the rear end is held in place by the hook at its rear end. The side of one of the barrels is provided with a long cylindrical eye, N, through which passes a long pintle, O, the forward end of which is provided with a head, P, which bears against the forward end of the eye, and the rear end of the pintle is inserted through an eye, Q, projecting from the side of the block at the rear end of the lock and barrel seat, where it is provided with a nut, R, which bears against the rear end of this eye.

A tube, S, is secured to the side of one of the lock-casings, T, which are shaped similarly to the barrels, and fill the space between the breech ends of the barrels and the block at the rear end of the seat, and this tube turns upon the pintle and bears with its rear end against a spring, U, coiled around the pintle, the said spring forcing the tube forward. The forward end of the tube is formed with a slot, V, forming a portion of a coil, and the upwardly-projecting outer end, W, of an arm, X, projects into this slot. The arm slides below the forward end of the lock-seat, and has the lower end of a pin, Y, secured to its inner end, which pin slides in a longitudinal slot, Z, in the forward end of the lock-seat.

The portion A' which connects the barrels is formed with a groove, B', in its under side, corresponding to the longitudinal slot, and a bar, C', slides in this groove and has a cartridge-extracting lip, D', projecting upward from its rear end, portions of the said lip projecting into the breech ends of the barrels and forming portions of the cartridge-seats at the said ends of the barrels. The twist of the slot in the tube of the lock-casings is such that when the lock-casings rest in their seat the pin in the slot and the extractor will be in its forward position, the lip of the extractor resting in its notches in the breech ends of the barrels, and when the lock-casings are swung out to the side the pin will be forced rear-

ward, drawing the arm and extractor rearward with it, throwing out the empty shells from the breech ends of the barrels.

The outer lock-casing, or the casing which is not hinged, is provided with a laterally-projecting lip, E', which projects out through a notch in the edge of the lock-seat, and the said casing is also provided with a small notch or recess, F', to the rear of the lip, into which notch the inwardly-projecting stud G' upon the free end of a flat spring, H', secured to the block of the lock-seat, may project, holding the lock-casings in place when they are turned down in their seat, and allowing them to be tilted out to the side when the lip upon them is engaged.

The lock-casings are tubular, and have longitudinal slots I' in their under sides, extending from the rear ends to slightly past their middles, and screw-threaded caps J' fit in the forward screw-threaded ends of the casings, and are formed with central perforations, K', the rear ends of which expand. Coiled springs L' fit with their forward ends upon the rear reduced and screw-threaded portions, M', of the screw-caps, and the rear ends of these springs fit upon the forward reduced and screw-threaded ends, N', of two blocks, O', which fit and slide within the lock-casings. These blocks are formed with axial perforations P', in which slide the smooth inner portions of two screws, Q', which are provided with small coiled springs R', wrapped around them and placed between their heads and the rear ends of the blocks, while the forward screw-threaded ends of the said screws fit into axial screw-threaded perforations S' in the rear ends of the firing-pins T'. The reduced forward ends fit into and may project slightly through the perforations of the screw-caps. Pins or sears U' project from the sliding hammer-blocks through the slots in the lock-casings, sliding in the same.

The rear end of the bottom of the lock-seat is formed with two longitudinal slots, V' V', which register with the slots in the lock-casings, and the forward ends of these slots are formed with enlargements W' toward the free side of the lock-casings, allowing the sears to enter the slots when the casings are tilted into the lock-seat.

The trigger-plate X' is secured to the under side of the gun stock, and is formed with an upwardly-projecting post, Y', through the upper end of which passes a pin, Z', having its ends projecting at both sides of the post. The upper ends of the triggers A'' are pivoted upon the ends of this pin and project forward, while the rear or lower portions, B'', of the triggers are bent at right angles, or nearly so, to the upper portions and project downward through longitudinal slots C'' in the trigger-plate, one trigger projecting down slightly behind the other, so that each trigger may be drawn without disturbing the other.

The forward ends of the triggers are formed with upwardly-projecting lips D'', beveled at

their forward faces, so that the lower beveled ends of the sears may be drawn over the said lips and thereupon be engaged by the same, the forward ends of the triggers having springs E'' forward of their fulcra, which springs force the lips of the triggers upward.

A shaft, F'', is journaled with its upper end, which is provided with a nut, G'', in the lock-seat at the forward ends of the longitudinal slots between the same, the nut bearing against the upper side of the said seat, and immediately below the under side of the seat this shaft is provided with a round disk, H'' secured to the shaft by a lip, I'', projecting from its periphery, and this disk or arm is capable of being turned with the shaft to both sides toward the beveled lips of the triggers. The lower end of the shaft projects through the forward end of the trigger-plate, being journaled in the same, and the forward end of the trigger-guard J'' is secured by means of a nut, K'', to the said lower end. The rear upwardly and forwardly curved end, L'', of the said guard is formed with a perforation, M'', which may fit over a round stud, N'', projecting from the rear end of the trigger-plate, so as to hold the guard in its position, the springiness of the metal in the guard forcing the perforation upon the stud and allowing it to slip off from the stud when the guard is drawn to either side.

It will now be seen that when the guard is turned to one side, and thereupon to the other side, the disk or round arm, which projects forward when the guard is in its normal position, will be forced against the ends of the sears, which project down through the slots in the lock-casings and in the lock-seat, and the sears will be forced back sufficiently against the springs of the hammer-blocks to engage the lips of the triggers, which will hold them back cocked. When now the triggers are pulled, the sears and hammer-blocks will be drawn forward by the springs, and the impetus given to the blocks and the firing-pins by these springs will cause the firing-pins to fly out through the perforations in the screw-caps, striking the fulminate or cap of the cartridges, which have been inserted into the barrels, and firing them, whereupon the small spiral springs between the heads of the screws in the rear ends of the firing-pins will draw the said screws back, and the firing-pins with them, drawing the forward ends of the firing-pins into the perforations of the screw-caps, so that the lock-casings may be tilted out by the lip upon them turning with the tube upon the hinge-pintle. This opening of the breech end of the barrels by turning the lock-casings will cause the cartridge-extractor to be forced rearward, drawing the empty shells with it, and the gun may be reloaded and the firing-pins and blocks cocked by means of the guard and the round disk or arm after the lock-casings have been closed down into the seat.

It follows that the barrels may be rifled or smooth, as may be desired, and that the mech-

anism may as well be employed to a single-barreled fire-arm as to a double-barreled fire-arm as long as the principle remains the same, and various changes may be made in the construction of the several parts, as well as portions of the mechanism may be used in connection with portions of other similar mechanisms without departing from the spirit of my invention.

10 The triggers and the sliding hammer-blocks, with their downwardly-projecting sears, may be used with different means for forcing the blocks back, and hammer-blocks with downwardly-projecting sears may be used with different firing-pins, and all such changes may be made in the construction of the mechanism without departing from the general principles of the mechanism.

20 The coiled spring at the rear end of the tube, which projects from the lock-casings and is hinged upon the pintle, serves to allow the lock-casings to be moved slightly rearward while being closed, for the purpose of yielding to any slight obstruction which might be met with from the inserted shells in the breeches of the barrels, or to enable the lock-casings to yield if the cartridge extractor should meet with resistance in withdrawing the cartridge-shells.

30 Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a fire-arm, the combination of a lock-seat having a longitudinal slot in its forward end, barrels secured over the forward end of the lock-seat with their breech ends and having a longitudinal groove in the under side of the portion connecting them at the said end, a pintle secured longitudinally at the side of one barrel, a breech-piece or lock-casing having a tube at one side hinged upon the pintle, and having a twisted slot at the forward end of the tube, and an extractor-bar sliding in the groove in the under side of the connecting-piece of the barrels, and having an upwardly-projecting extractor tongue or lip at its rear end, and formed with an arm projecting through the slot in the forward end of the lock-seat and passing under the same to the side of the barrels, with its end projecting into the twisted slot, as and for the purpose shown and set forth.

2. In a fire-arm, the combination of the barrels, a breech-piece or lock-casing having a tube at one side pivoted upon a pintle at the side of the barrels, and formed with a twisted slot at its forward end, and a cartridge-extractor sliding longitudinally under the barrels and having a lip projecting into the breech ends of the barrels, and provided with a laterally-projecting arm having its outer end projecting into the twisted slot, as and for the purpose shown and set forth.

3. In a fire-arm, the combination of the lock-seat having a longitudinal slot in its forward end, and having a block at its rear end provided with a laterally-projecting eye, the barrels se-

cured with their breech ends over the forward end of the seat, and having a longitudinal groove in the rear end of the connecting portion of the barrels, and provided at the side of one barrel with a long eye, a pintle secured through the eye upon the barrel and through the eye upon the block, a breech-piece or lock-casing having a long tube at one side turning upon the pintle and formed with a twisted slot at its forward end, a spring wrapped around the pintle and bearing against the rear end of the tube and the eye upon the block, and a cartridge-extractor having a bar sliding in the groove in the connecting portion of the barrels, and having an arm projecting through and sliding in the barrels and projecting upon the side into the twisted slot of the tube, as and for the purpose shown and set forth.

4. In a breech-loading fire-arm, the combination of the barrels, two cylindrical lock-casings having the firing mechanism within them and hinged at one side to the side of the stock, forming continuations of the barrels, and provided with a projecting lip at the free side, and with a small recess or notch, and a flat spring secured to the stock of the arm and having an inwardly-projecting lug upon its end engaging the recess or notch of the lock-casings when the casings are closed down, as and for the purpose shown and set forth.

5. In a breech-loading fire-arm, the combination of two tubular lock-casings having longitudinal slots in the under sides, firing-blocks within the casings, having firing-pin, and springs for forcing them forward, and having sears projecting downward through the slots, triggers having upwardly-projecting beveled lips upon their forward ends for engaging the ends of the sears, and a shaft having a suitable handle at its lower end, and having a laterally-projecting round disk or arm for forcing the sears back, as and for the purpose shown and set forth.

6. In a breech-loading fire-arm, the combination of two tubular lock-casings having longitudinal slots in the under sides, firing-blocks within the casings having firing-pins, and springs for forcing them forward, and having sears projecting downward through the slots, triggers having upwardly-projecting beveled lips for engaging the ends of the sears, and a shaft having the forward end of the trigger-guard secured to its lower end, and having a round disk projecting from one side for forcing the sears rearward, as and for the purpose shown and set forth.

7. In a breech-loading fire-arm, the combination of two tubular lock-casings hinged at the side of one casing and having longitudinal slots in their under sides, a lock-seat having registering-slots in its rear end formed with enlargements at the forward ends to the side of the free side of the lock-casings, firing-blocks sliding in the lock-casings and having springs for forcing them forward, and provided with downwardly-projecting sears sliding in the slots of the casings and of the seat, triggers

having upwardly-projecting lips upon their forward ends for engaging the sears, and a shaft journaled in the stock, and with its upper end in the lock-seat between the forward ends of the slots, and having the forward end of the guard secured to the lower end as a handle, and having a round disk projecting from it toward the forward end of the fire-arm between the stock and the lock-seat, serving to force the sears and blocks rearward to engage the lips of the triggers, as and for the purpose shown and set forth.

8. In a breech-loading fire-arm, the combination of two lock-casings having the side of one casing hinged to the side of the stock, and having longitudinal slots in their under sides, a lock-seat having longitudinal slots in its rear end registering with the slots, and formed with enlargements at the forward ends toward the free side of the lock-casings, firing-blocks sliding in the lock-casings and having downwardly-projecting sears sliding in the slots, a trigger-plate having an upright post provided with a transverse pin projecting at both sides of the upper end, triggers pivoted with their forward portions upon the ends of the pin and having the forward ends formed with beveled lips for engaging the sears, springs forcing the forward ends of the triggers up, and a shaft having the trigger-guard secured to its lower end with its forward end and having a round disk or arm projecting forward from the shaft under the lock-seat, as and for the purpose shown and set forth.

9. In a breech-loading fire-arm, the combination of a lock-casing having a slot in its under side, and having its forward end screw-threaded upon the inner side, a screw-threaded cap fitting in the forward end of the casing and having a reduced threaded inner end, a

block sliding in the casing and having a sear projecting through the slot, and having a forward reduced screw-threaded end and an axial perforation, a coiled spring secured to the forward end of the block and to the inner end of the cap, and a firing-pin having its forward end projecting through the cap, and having a pin at its rear end passing through the block and formed with a head at the rear end, and having a spring coiled around it between the head and the block, as and for the purpose shown and set forth.

10. In a breech-loading fire-arm, the combination of a tubular lock-casing having a slot in its under side, and having the interior of its forward end screw-threaded, a screw-cap fitting in the said end and having an inner reduced threaded end, and an axial perforation flaring toward the inner end, a hammer-block sliding within the casing and having a sear projecting through the slot and a forward reduced and screw-threaded end and an axial perforation, a coiled spring secured at its ends upon the threaded reduced ends of the block and of the cap, a firing-pin having a conical forward end and a female threaded perforation in its rear end, a screw sliding with its smooth portion in the perforation of the block and fitting with its threaded forward end in the perforation of the firing-pin; and a coiled spring wrapped around the screw between the block and its head at its rear end, as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

DIEDERICH W. JANSEN.

Witnesses:

JACOB WEYLAND,
W. H. PRICE.