(No Model.)

2 Sheets—Sheet 1.

A. BURGESS.

MAGAZINE FIREARM.

No. 478,222. Patented July 5, 1892.

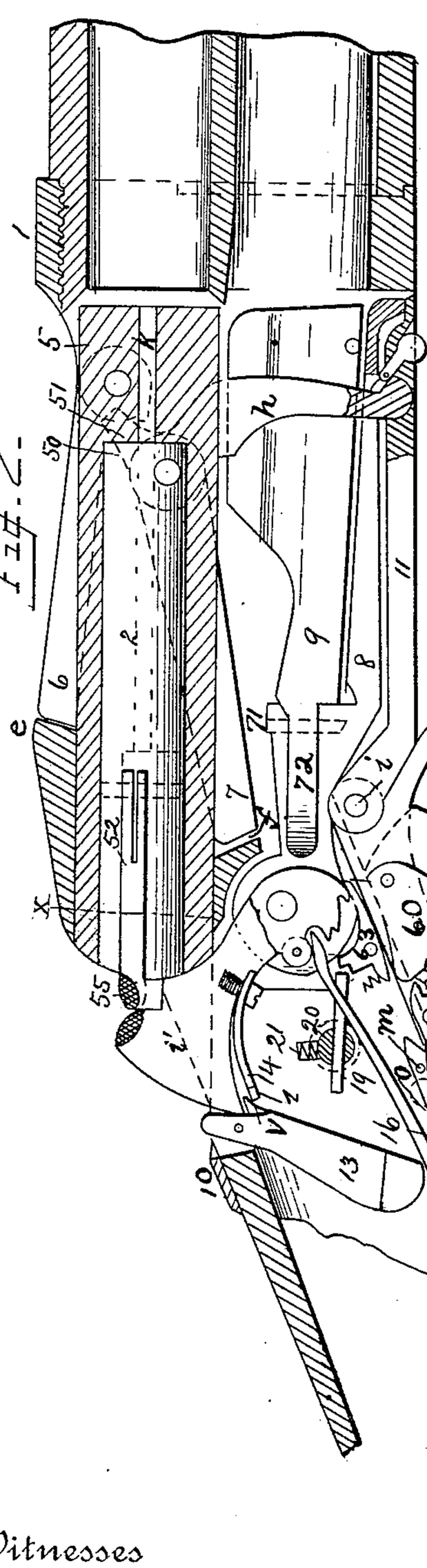

Fig. 2.

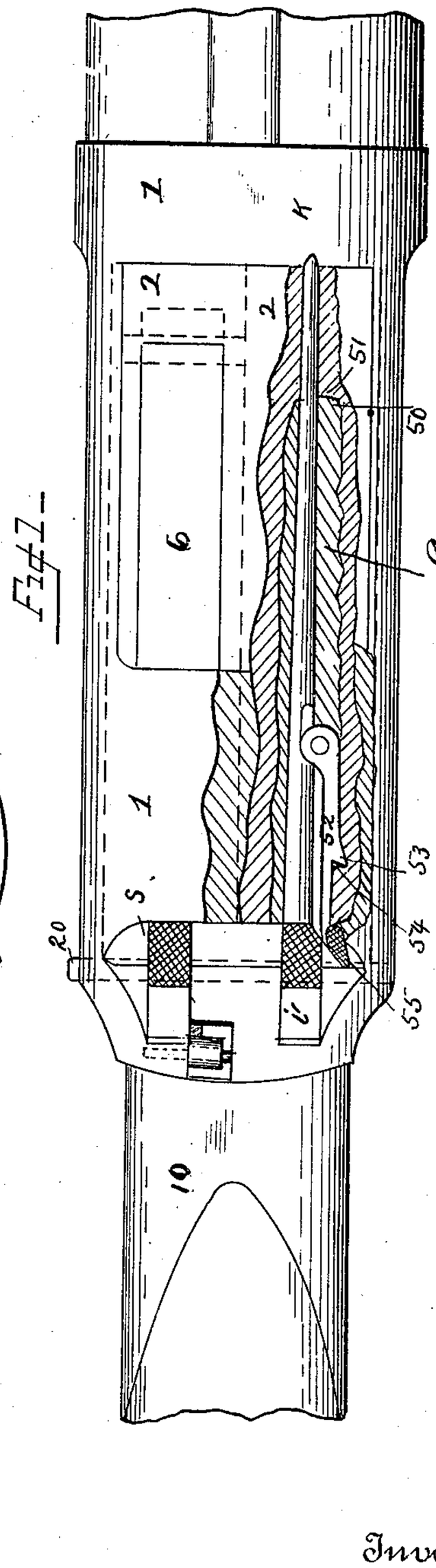

Fig. 1.

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(No Model.)

2 Sheets—Sheet 2.

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Fig. 4.

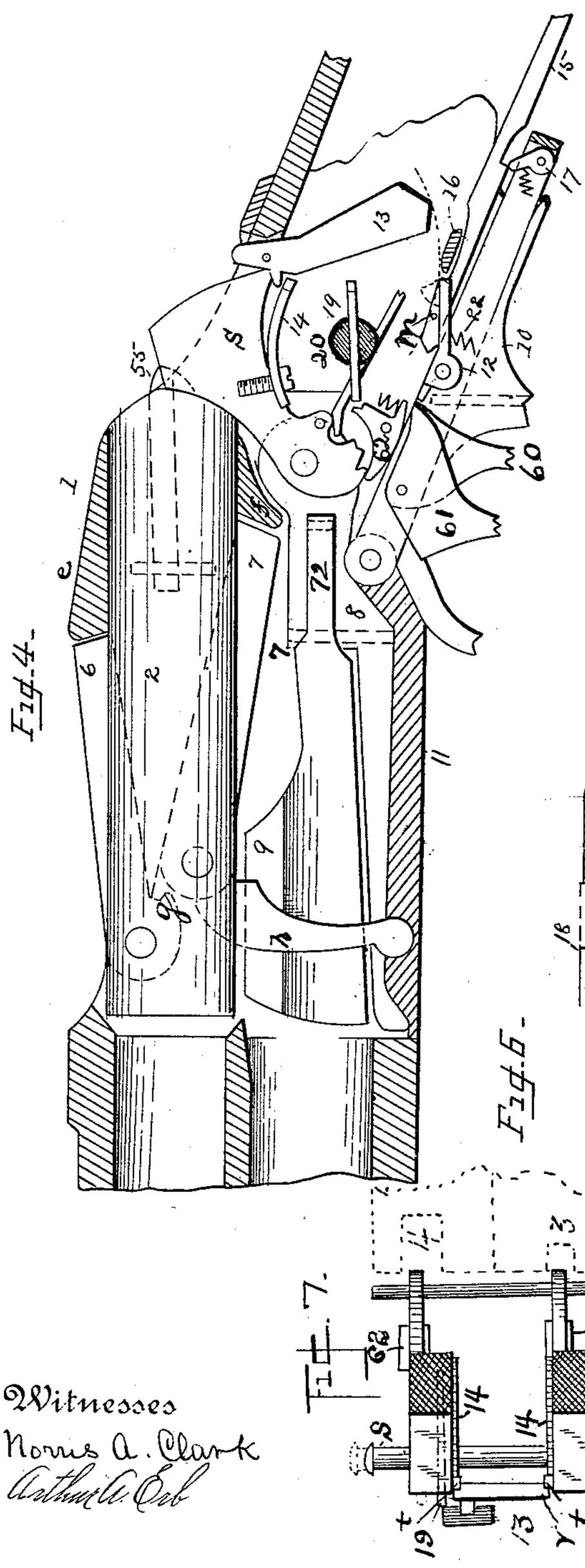


Fig. 3.

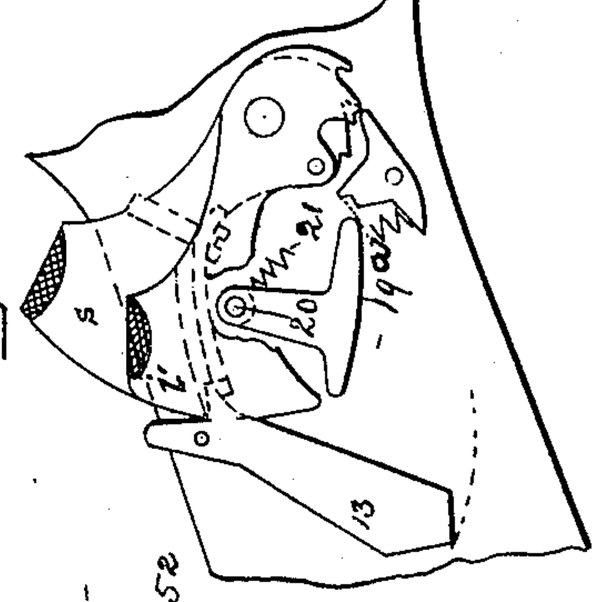


Fig. 5.

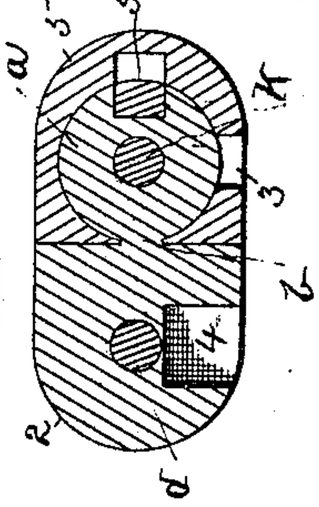


Fig. 6.

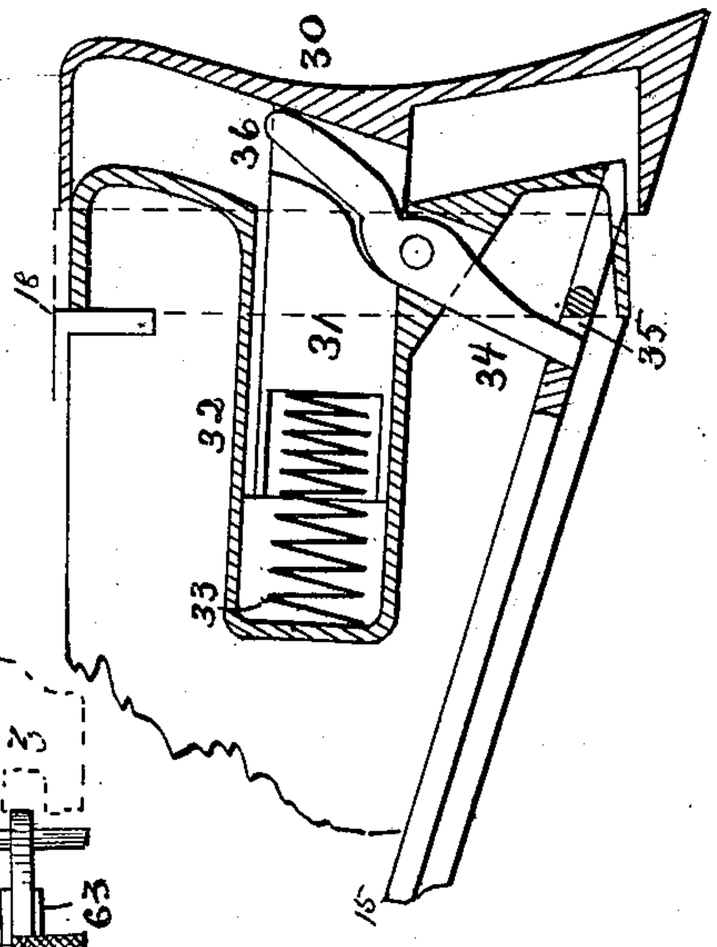
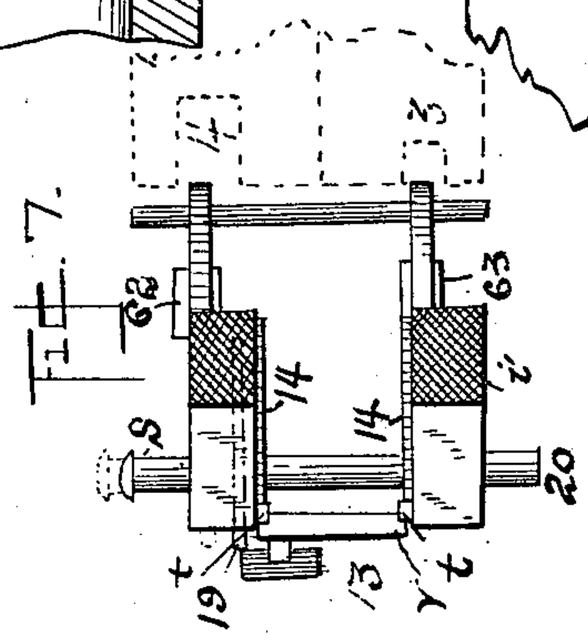


Fig. 7.



Witnesses
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UNITED STATES PATENT OFFICE.

ANDREW BURGESS, OF OWEGO, NEW YORK.

MAGAZINE-FIREARM.

SPECIFICATION forming part of Letters Patent No. 478,222, dated July 5, 1892.

Application filed May 13, 1889. Serial No. 310,660. (No model.)

To all whom it may concern:

Be it known that I, ANDREW BURGESS, a citizen of the United States, residing at Owego, in the county of Tioga and State of New York, have invented certain new and useful Improvements in Magazine-Firearms; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to breech-loading and magazine-firearms, and especially to double magazine-guns.

The object of the invention is to produce a double-barrel magazine-gun having a peculiar breech system; also, to improve the breech system, so that while there is practically a double bolt, only one set of bolt-operating mechanism is required; also, to lock one of the bolts by connections from the other bolt; also, to connect the firing devices, so that one striker or hammer may fire its own cartridge, and, if desirable, may actuate mechanism to fire the other cartridge; also, to improve the construction of magazine-guns in various particulars.

Figure 1 is a top plan of that part of the gun which contains the breech mechanism, parts of one bolt being broken away and parts indicated in dotted lines. Fig. 2 is a longitudinal section through the center of the right-hand bolt, the right-hand carrier omitted and the left-hand carrier in central section and the firing mechanism in elevation. Fig. 3 is a side elevation of the hammers and firing connections, the firing connection slightly modified from that shown in Fig. 2. Fig. 4 is a longitudinal section through the left-hand system, the bolt being in elevation and parts indicated in dotted lines. Fig. 5 is a cross-section of the bolts on the line $x\,x$, Fig. 1. Fig. 6 is a section of the butt, stock, and connections, being a connection on reduced scale from Fig. 4. Fig. 7 is a partial plan detail and partial diagram of the hammers, sears, foil, and connections, the abutments and bolt position being indicated in dotted lines.

The numeral 1 indicates the frame of suitable construction to receive the operating mechanism.

2 denotes the left-hand bolt, which reciprocates longitudinally in the frame. The bolt 2 is large enough to cover the breech of the left-hand barrel, and has an extension *a* at its right-hand side, which extension is preferably a cylinder, connected to the bolt proper by a rib or spline *b*. The extension does not reach forward as far as the front of bolt 2.

The bolt 2 is slotted lengthwise and contains a firing-pin *d*. It also carries locking-braces 6 and 7, which fold into the slot in the bolt to unlock, but extend out to lock against the abutments *e* and *f* in the frame in locking the bolt. The braces 6 and 7 are connected so as to extend out or fold into the bolt simultaneously, as by means of a toothed connection *g*. (Indicated in dotted lines, Fig. 4.) This bolt-locking system is old and equivalents may be substituted.

The locking-brace 7 is pivoted in the bolt and has a rigid arm *h*, with which the slide 11 engages. Slide 11 is connected to a sliding sleeve or handle 10 by a pivot *i*. The longitudinal reciprocation of sleeve or handle 10 will unlock and reciprocate the bolt 2 through the connections stated.

The right-hand bolt 5 is a shell bored out longitudinally from the rear to receive the extension *a* of the bolt 2, but having an abutment 51, against which the front end 50 of the bolt extension *a* rests when the two bolts are closed; but bolt 2 and its extension *a* may slide back without necessarily carrying back the bolt 5 with it. Of course it will be understood that both bolts are suitably guided in frame 1 in any manner common in the art.

The right-hand firing-pin *k* extends lengthwise through the extension *a* of bolt 2 and through the portion of bolt 5 in front of said extension. The extension *a* of the left-hand bolt, as shown, carries a coupling-dog 52, which is pivoted in the said extension, and its end 53 may be turned into engagement with notch 54 in bolt 5 by means of a thumb-piece 55. When thus coupled together, the two bolts will move together as one bolt; but when uncoupled the backward movement of bolt 2 will not move back the bolt 5. The forward movement of bolt 2 will necessarily

nove forward the bolt 5 if the latter be open, and the locking of bolt 2 necessarily locks bolt 5 in closed position. Thus both bolts may be moved and locked by one handle and locking mechanism, or one bolt only may be manipulated, permitting the other, as 5, to remain closed, rendering the right-hand magazine inoperative. Of course it will be understood that a reverse arrangement of the parts would be no departure from my invention.

The thumb-piece 55 of the coupling-dog 52 extends outside the bolts and has a beveled face in the path of movement of the hammer *i'*, which fires the right-hand barrel. The hammer *i'* when it falls will thus strike the dog into position to couple the bolts together, and unless uncoupled by hand the bolts will remain coupled; but to uncouple the bolts the hammer *i'* is lifted to half or full cock and the dog 52 swung out of notch 54 by pressure on the thumb-piece 55. The dog 52 is split near its pivot-pin 56, so as to have a frictional bearing against the sides of the slot in which it is hung, and by this means the dog will be held in any position to which it is adjusted. Such frictional holding devices are common.

The sliding sleeve or handle 10 is held forward in position for locking the bolt by means of a dog 12, pivoted in said handle. Said dog is pressed by a spring 22, so as to engage abutment 16 in the frame and lock the handle forward. A sliding pin 23 in the handle may be pressed in by hand to unlock said dog when desirable.

A slide-rod 15 extends lengthwise of the stock from near the butt-plate 30. This rod 15 has a cross-pin *m* above the dog 12, and a hook *o* in position to engage the abutment 16 when the rod is forward. The spring 22 forces dog 12 against pin *m*, and thus lifts the rod so that its hook *v* engages the abutment 16 when the parts are in proper position for such engagement.

The butt-plate 30 has a pintle 31 entering a socket 32 in the stock and is pressed out by a spring 33, so as to have a telescopic movement on the stock. A lever 34 is pivoted in the stock and enters sockets, slots, or grooves 35 and 36 in the butt-plate and slide-rod. The lever 34 is for the purpose of reversing the direction of movement of the butt-plate. Thus the closing of the butt-plate onto the stock by means of the lever connection draws back on the slide rod 15; but when rod 15 is hooked to the fixed abutment 16 said rod cannot move back, and consequently the butt-plate is held against forward movement with reference to the stock.

A foil or striker 13 is hung in the frame in position to swing against the top of the bar 15 and unhook the same from abutment 16 when the gun is fired. The foil 13 may be actuated by a hammer or by the recoil, as will be explained. When it is swung to strike the top of bar 15, it unhooks said bar and also throws down the dog 12 from abutment 16. The handle is now free to move back and the recoil-pressure will close butt-plate 30 onto the stock, draw back on rod 15, and thus start back the handle by means of a pawl 17 in the handle engaging a hook or abutment *p* in the rod. When pressure is taken off the butt-plate, spring 33 will throw said plate back and move rod 15 forward, the rod riding over spring-pawl 17, so as not to carry the handle forward. The rod 15 may be rendered inoperative and locked in its rearmost position by turning the button 18, which then holds the butt-plate back. The foil 13 will then strike directly on dog 12 to unlock the same whenever the foil swings forward.

The hammers *i'* and *s* have separate mainsprings and separate triggers 60 and 61 and sears 62 and 63. Each hammer carries a spring 14, secured thereto, and thus spring 14 has a projection *t*, which is in position to engage a projection *v* on the foil 13 as the hammer falls. This engagement of the hammer swings the foil forward, (see dotted lines;) but as the spring 14 will compress a little before it fully acts and as foil 13 has a little distance to swing, and as spring 22 must also be compressed there will be a little delay between the firing of the gun and the unlocking of the handle. The spring 14 may be removed and the foil 13 will then swing under the influence of the recoil to unlock the handle. The hammers are cocked by the backward movement of the compound bolt. A projection or abutment 3 from the bolt engages one hammer and cocks it, when a second abutment 4, farther forward on the compound bolt, engages and cocks the other hammer, thus minimizing the resistance of the hammers to the bolt movement.

A sliding piece or pin 20 extends across the frame, having a projection outside the frame by which the piece or pin may be shifted. This pin 20 supports a push-piece 19, which may be moved into position to engage with sear 62, or may be moved out of such engaging position. When shifted to so engage, the push-piece will be in position to be struck by foil 13, and when so struck the blow of the foil will unlock the sear and the second hammer *s* will thus be released immediately after the first hammer *i'* and by the pull of a single trigger 60.

In Fig. 3 the push-piece 19ª is shown as pivoted to pin 20, instead of having a sliding bearing therein. The friction-spring 21 holds pin 20 in any position to which it may be adjusted. The push-piece 19 or 19ª can be made of such length as to stop the forward movement of foil 13 before said foil swings far enough to unlock dog 12. In such case the foil will not unlock the handle and the breech mechanism will remain locked after firing both barrels; but of course the breech can be subsequently unlocked by means of pin 23. The cocking of either hammer brings spring 14 of a projection on the hammer into engagement with foil 13 to swing said foil back and permit the locking of dog 12 onto abutment 16.

Only one carrier is shown in the drawings. The other carrier may be like it or of any usual construction for bolt-guns. The carrier-floor 8 is raised by the backward movement of bolt, as is common. The floor 8 has side wings 9 connected thereto by vertical pivots 71. Arms 72 of the wings extend behind said pivots and have rounded or inclined faces. When the handle is drawn back, the piece *h* strikes said arms 72 and rocks the wing 9 toward the cartridge-body, thus grasping the cartridge.

One wing 9 may be fixed, if desirable. The wings or ears grasp the cartridge and also eject the empty shells by the usual carrier movement.

Many parts of the gun not essential to the operation of my improvements are not referred to herein.

It will be understood that in my claims I do not limit myself to the precise construction illustrated, but intend to cover modifications and equivalents so far as may be proper in view of the state of the art.

I claim—

1. In a double-barreled breech-loading gun, two breech-pieces, an operating-handle connected to one of said breech-pieces to operate it, and an abutment on said breech-piece to engage and lock the other breech-piece, in combination, substantially as described.

2. In a double-barreled breech-loading gun, two breech-pieces, an operating-handle connected to one of said breech-pieces to operate it, and an abutment on said breech-piece to engage and lock the other breech-piece, in combination with a movable dog to couple the two breech-pieces together.

3. In a double-barreled breech-loading gun, two breech-pieces, an operating-handle connected to one of said breech-pieces to operate it, and an abutment on one breech-piece to engage and lock the other breech-piece, in combination with a coupling-dog having a projection by which it may be operated, substantially as set forth.

4. In a double-barreled breech-loading gun, two breech-pieces, an operating-handle connected to one of said breech-pieces to operate it, and an abutment on said breech-piece to engage and lock the other breech-piece, in combination with a coupling-dog having a projection by which it may be operated and a hammer arranged to operate said coupling, substantially as described.

5. In a breech-loading firearm, two hammers in combination with a breech-piece, with connections to operate it back and forward, and two shoulders moved by said breech-piece to first cock one hammer and then the other by the continued movement of the breech-piece, substantially as specified.

6. In a magazine-firearm, a vibrating carrier hung in the frame, arranged to raise a cartridge to the axis of the barrel, and a lever hung at the side of the carrier, the forward part of said lever constituting a raised ear guided to swing laterally inward above the floor of the carrier and an arm of the lever rearward of its pivot, by which it is engaged by a connection of the breech-piece, all in combination, to turn the forward part of lever to hold the rising cartridge and serve to eject the extracted shell, substantially as described.

7. In a breech-loading firearm, a sliding handle connected to the breech mechanism to operate it, a locking-dog forming engagement between the handle and the frame of the gun to lock the handle, and a foil-piece arranged in the frame of the gun and having a path of movement to the locking-dog, in combination with a hammer and a spring operated by the hammer to engage the foil-piece in the striking movement of the hammer and throw said foil-piece against the dog to unlock the sliding handle, substantially as set forth.

8. In a breech-loading firearm, a starting-rod having reciprocating movement in the butt-stock of the gun, and means for engaging said rod to the breech mechanism and means for engagement of said rod to the frame of the gun to lock it in operative position, and a foil-piece arranged in the frame and having a path of movement to the starting-rod, in combination with a spring operated by the hammer to engage the foil-piece in the striking movement of the hammer, and thereby release the starting-rod from its inoperative engagement with the frame and to throw it into operative engagement with the breech mechanism, substantially as specified.

9. In a breech-loading firearm, a hammer and usual operating mechanism therefor, a foil or striker adjacent to the hammer, and a spring connected to the hammer in position to engage and actuate the foil, and thus communicate an impulse to adjunctive mechanism by the striker, the parts combined substantially as described.

10. In a double gun, two hammers and usual operative connections, a foil-piece or striker in proximity to one hammer, a connecting-piece by which the hammer may be made to actuate the foil, and operative connections between the foil and the detent of the second hammer, all substantially as described.

11. In a double gun, two hammers and usual operative connections, a foil near one hammer and in position to be actuated thereby, and a pin movable by the gunner into position to be struck by the foil and when so struck to release the sear of the other hammer, all combined substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ANDREW BURGESS.

Witnesses:
PHILIP MAURO,
F. B. BROCK.