

No. 841,670.

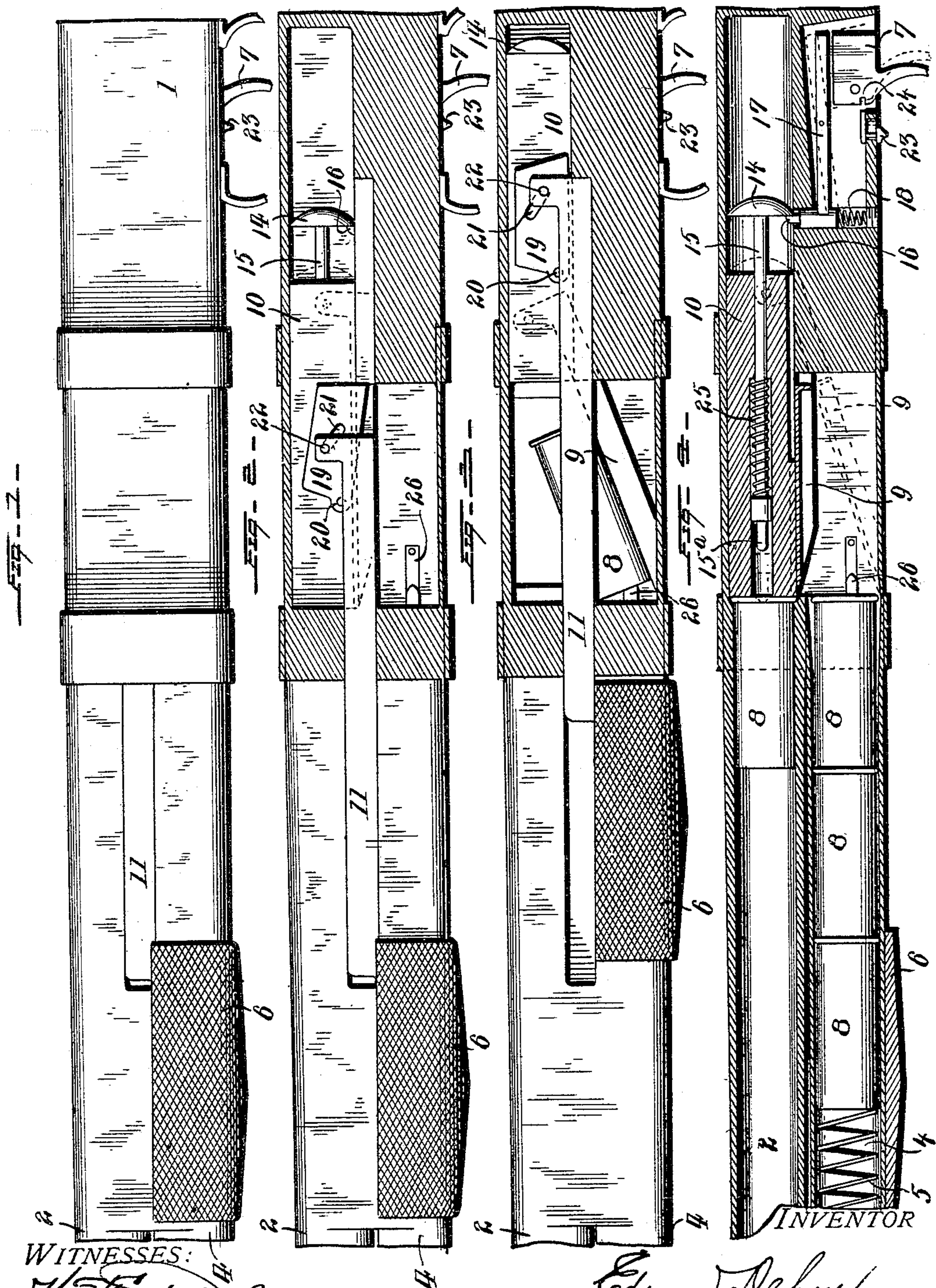
PATENTED JAN. 22, 1907.

E. DEHM.

MAGAZINE REPEATING FIREARM.

APPLICATION FILED DEC. 7, 1905.

2 SHEETS—SHEET 1.



WITNESSES:
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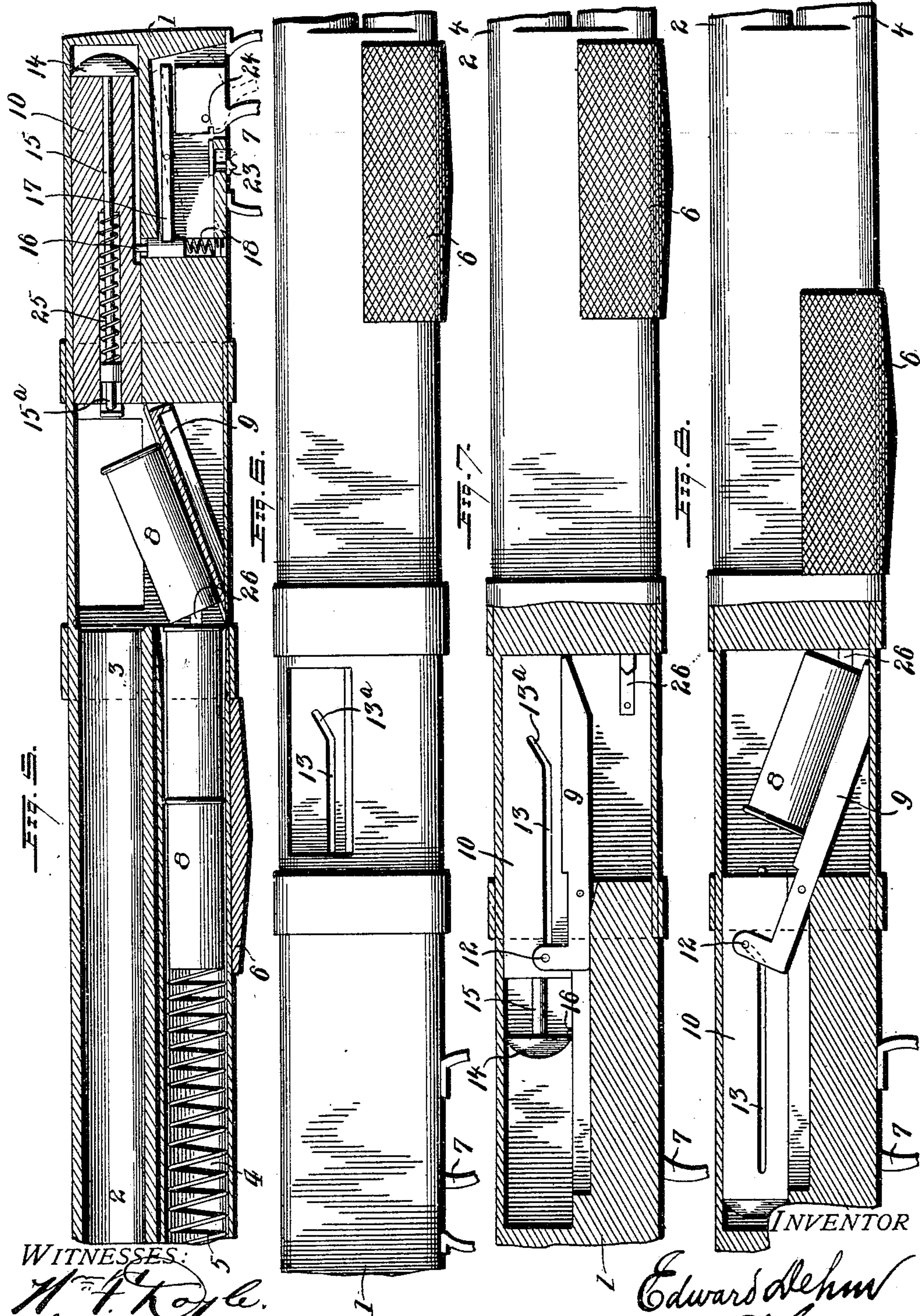
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W. F. Kyle
E. O. Langworthy

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UNITED STATES PATENT OFFICE.

EDWARD DEHM, OF FRUITA, COLORADO.

MAGAZINE REPEATING FIREARM.

No. 841,670.

Specification of Letters Patent.

Patented Jan. 22, 1907.

Application filed December 7, 1905. Serial No. 290,730.

To all whom it may concern:

Be it known that I, EDWARD DEHM, a citizen of the United States, residing at Fruita, in the county of Mesa and State of Colorado, have invented certain new and useful Improvements in Magazine Repeating Firearms, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to firearms, and particularly to magazine repeating hand-arms in which a number of charges are carried in reserve in the arm and fed to the firing-chamber successively by the operator as the previous charge is fired and shell ejected.

The object of the invention is simplicity in construction and operation, whereby are attained economy in manufacture, ease of repair or renewal of parts, certainty and efficiency in action, sightliness, and other advantages, which will be obvious to those accustomed to the manufacture, sale, and use of firearms.

My invention having these objects in view resides in the features of construction hereinafter described and claimed in connection with the accompanying drawings, in which the invention is illustrated as embodied in a repeating shotgun, and in which—

Figure 1 is a partial view of the left-hand side of such a gun. Fig. 2 is a similar view with the side plate removed to show the action in position for firing. Fig. 3 is a similar view with the action thrown back to transfer a shell from the magazine to the firing-chamber. Fig. 4 is a central longitudinal section in the forward position. Fig. 5 is a similar view in the position shown in Fig. 3; and Figs. 6, 7, and 8 are views corresponding to Figs. 1, 2, and 3, but of the right-hand side of the gun.

Like reference-numerals designate corresponding parts in all the figures of the drawings.

The gun, as illustrated, comprises the usual frame, of which the forward extremity only is shown at 1; the barrel 2, with the firing-chamber 3; the magazine 4, provided with the spring 5; the sliding fore-arm 6, and the trigger 7.

Assuming the firing-chamber 3 to be empty, the fore-arm 6 is retracted to the position shown in Figs. 3 and 5, pushing a shell 8 onto the inclined carrier 9. As the fore-arm is thrown forward the breech-bolt 10 is carried forward with it by means of the action-

bar 11, secured to the fore-arm and connected with the breech-bolt in a manner hereinafter more particularly described. The carrier 9 is slidably connected with the breech-bolt on the side opposite the action-bar by a pin 12, Figs. 7 and 8, working in a slot 13, which extends for the greater portion of its length parallel to the axis of movement of the breech-bolt, but is deflected at the forward end, as shown at 13^a. It follows, therefore, that as the breech-bolt begins its forward movement the pin 12, resting in the deflected portion 13^a, as shown in Fig. 8, the pin is forced downward, elevating the carrier to a horizontal position, with the shell carried thereby in line with the firing-chamber and in front of the breech-bolt. The horizontal reach of the slot 13 holds the carrier in this position while the breech-bolt forces the shell into the firing-chamber 3. In the course of its movement from the rear position, as shown in Fig. 5, the head 14 of the firing-pin 15 is caught by the detent 16, carried by the trigger-arm 17, and pressed upwardly by the spring 18. The forward movement of the firing-pin 15 is thus arrested in the position shown in Fig. 4 with its point 15^a out of contact with the head of the shell 8. To one side of the breech-bolt 10 the bolt-lock 19 is pivoted at 20. This bolt-lock is provided with an oblique slot 21, in which plays the pin 22, fixed in the end of the action-bar 11. The bolt-lock 19 thus acts as a link connecting the breech-bolt with the sliding fore-arm. As the breech-bolt reaches its foremost position the slight continued forward movement of the fore-arm acting by the pin 22 in the slot 21 throws the lock 19 downward into the position shown in Fig. 2, with its rear end in engagement with the edge of the gun-frame, thus securing the breech-bolt locked against recoil. In the frame, just forward of the trigger 7, is movably mounted a safety-slide 23, the rear end of which engages in a recess 24 in the trigger, preventing unintentional discharge, as shown in Figs. 4 and 5. If the slide be retracted, the trigger can be pulled, the firing-pin will dart forward under the tension of the firing-pin spring 25, and the shell 8 in the firing-chamber will be discharged. The shot having been fired, the fore-arm 6 is again drawn backward, the lock 19 lifted out of engagement with the frame, the bolt 10 recedes, carrying the shell with it by means of the usual extractor. As the breech-bolt reaches its rearmost position the

shell clears the firing-chamber and is ejected from the gun by an ejector of any usual kind.

At this point the carrier 9 is dropped by the deflected portion 13^a of the slot 13 into position to receive another shell from the magazine. Shells are prevented normally from leaving the magazine by the spring-clip 26; but this clip is pressed laterally out of the way by the carrier 9 in its downward movement, leaving the first shell free to emerge from the magazine onto the carrier, and springs back as the carrier rises to place the shell in the chamber, as heretofore described.

From the above description and from the drawings it will be seen that the entire mechanism is exceedingly simple, absolutely certain in operation, and is readily adaptable to other firearms than shotguns and to repeating arms using the lever instead of the sliding-fore-arm movement, the lever being the full equivalent of and being included in the term "sliding fore-arm" as used in the claims.

Having thus described my said invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a firearm, a firing-chamber, a magazine, a breech-bolt longitudinally movable at the rear of the chamber and provided at its side with a slot substantially straight to a point near its end and then deflected, a carrier pivoted intermediate its length at the rear of the magazine below the bolt, a pin connecting the rear end of the carrier with the slot in the bolt, a sliding fore-arm, an action-bar extending from the fore-arm to the side of the bolt, and a link connection between the bar and bolt to allow a slight movement of the fore-arm independent of the bolt.

2. In a firearm, a firing-chamber, a magazine, a breech-bolt longitudinally movable at the rear of the chamber and provided at its side with a slot substantially straight to a

point near its end and then deflected, a carrier pivoted intermediate its length at the rear of the magazine below the bolt, a pin connecting the rear end of the carrier with the slot in the bolt, a sliding fore-arm, an action-bar extending from the fore-arm to the side of the bolt, a bolt-lock pivoted to the side of the bolt and provided with an oblique slot, and a pin fixed to the action-bar and engaging in the slot.

3. In a firearm, a firing-chamber, a magazine, a breech-bolt longitudinally movable at the rear of the chamber and provided at its side with a slot substantially straight to a point near its end and then deflected, a carrier pivoted intermediate its length at the rear of the magazine below the bolt, a pin connecting the rear end of the carrier with the slot in the bolt, a sliding fore-arm, an action-bar extending from the fore-arm to the side of the bolt, a bolt-lock pivoted to the side of the bolt and provided with an oblique slot, a pin fixed to the action-bar and engaging in the slot, a firing-pin longitudinally movable in the bolt and provided at its rear end with a head, a spring pressing the pin forward in its slot, a spring-pressed detent to catch the head of the firing-pin in the forward movement of the bolt and retain the same against the tension of its spring, a trigger-lever controlling the detent, a trigger arranged to tilt the lever to withdraw the detent, a recess in the trigger, and a safety-slide mounted in the gun-frame and arranged to engage the recess to prevent unintentional discharge.

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

EDWARD DEHM.

Witnesses:

W. A. MERRIELL,
O. J. BOLINGER.