T. C. JOHNSON.

BOLT ACTION SHOULDER ARM.

APPLICATION FILED DEC. 14, 1916.

1,218,263. Patented Mar. 6, 1917.

Fig. 1.

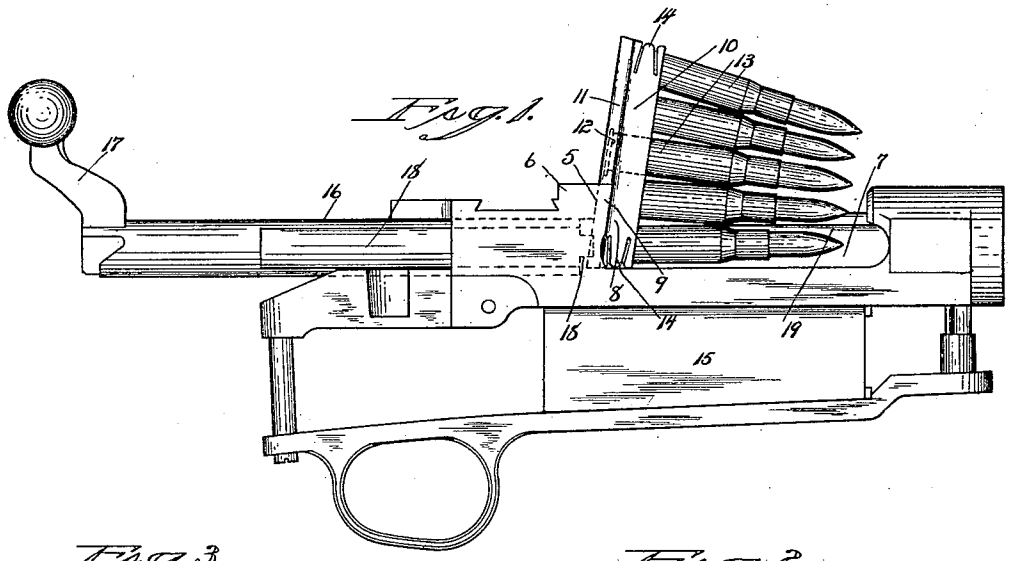


Fig. 3.

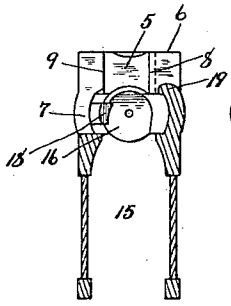


Fig. 2.

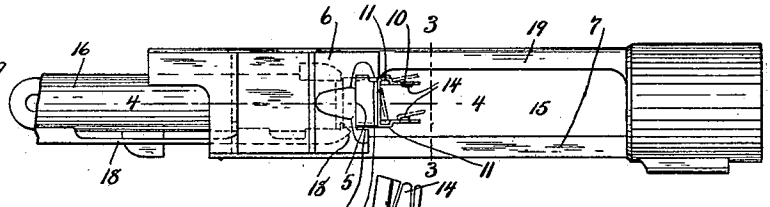


Fig. 4.

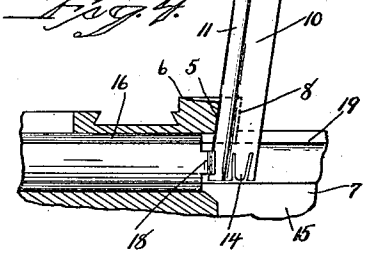
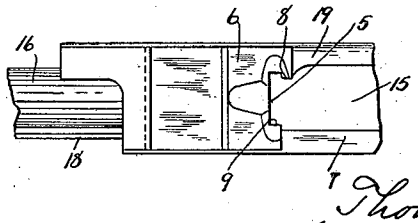


Fig. 5.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

THOMAS C. JOHNSON, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO WINCHESTER REPEATING ARMS CO., OF NEW HAVEN, CONNECTICUT, A CORPORATION.

BOLT-ACTION SHOULDER-ARM.

1,218,263. Specification of Letters Patent. Patented Mar. 6, 1917.

Application filed December 14, 1916. Serial No. 136,898.

To all whom it may concern:

Be it known that I, THOMAS C. JOHNSON, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Bolt-Action Shoulder-Arms; and I do hereby declare the following, when taken in connection with the accompanying drawings and the characters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this application, and represent, in—

Figure 1 a broken view in right hand side elevation of the receiver portion of a bolt-action shoulder arm constructed in accordance with my invention, the bolt being shown in its upturned and pulled back position, and a charger, filled with cartridges, being shown as applied to the receiver in position for loading them into the magazine.

Fig. 2 a plan view thereof with the rear portion of the bolt broken away, the charger, stripped of its cartridges, being shown by full lines in its charging position and by broken lines in the position into which it is canted preparatory to its automatic ejection by the forward movement of the bolt.

Fig. 3 a detail view in vertical section on the line 3—3 of Fig. 2 with the charger removed from the arm.

Fig. 4 a broken detail view in vertical section on the line 4—4 of Fig. 2 with the parts in the same position as in that figure.

Fig. 5 is a broken plan view of the receiver and bolt, showing the guideway formed in the receiver for the reception of either end of the charger.

My invention relates to an improvement in that class of bolt-action shoulder arms in which rim-cartridges are loaded into the magazine from light sheet-metal box-like chargers having oppositely projecting rim-receiving channels extending throughout their length, the object being to provide for the purely automatic ejection of such chargers by the first forward movement of the bolt after the magazine of the gun has been charged, whereas heretofore it has been necessary to manually remove the chargers of this particular type from the gun.

With these ends in view my invention consists in certain details of construction as will be hereinafter described and pointed out in the claim.

In carrying out my invention as herein shown, I form a transversely arranged forwardly inclined charger-receiving guideway 5 in the top of the body of the receiver 6, the said guideway 5 opening forwardly into a long upwardly and laterally opening cartridge-charging and cartridge-ejecting opening 7 formed in the top and right hand side wall of the said receiver. The left hand wall of the said guideway 5 projects laterally inward to form a charger-retaining shoulder 8, while its right hand wall 9 of the guideway is formed straight, as clearly shown in Fig. 5. The said guideway 5 is designed to receive either end of a resilient box-like sheet-metal charger 10 characterized by its provision at its rear corners with laterally projecting rim-receiving channels 11 which receive the circular rims 12 at the extreme rear ends of the cartridges 13. The charger, which is reversible end for end, is also formed at each end with yielding cartridge-retaining fingers 14 which engage with the end cartridges and hold the entire group or charge of cartridges in the charger during the handling thereof and from the time it is loaded to the time the cartridges are stripped from it into the magazine 15 of the arm. The left hand rim-receiving channel 11 of the charger enters the left hand side of the guideway 5 so as to take a position directly back of the shoulder 8 before mentioned, while the corresponding right hand rim-receiving channel 11 of the charger engages with the straight right hand wall 9 of the guideway, the said wall 9 holding the charger against lateral displacement but not interfering with its forward movement. The bolt 16 is provided at its rear end with a handle 17 by means of which it is rotated and reciprocated, and at its forward end and upon its right hand side with a cartridge-extractor 18 the hooked forward end of which extends sufficiently forward from the face of the forward end of the bolt, to engage with the right hand edge of the charger before the face of the bolt thereof has an opportunity of engaging therewith.

When the charger, filled with cartridges, is inserted into the guideway 5 preparatory to loading the gun, the bullet ends of the cartridges are prevented from swinging to

the right by the co-action of the left hand rim-receiving channel 11 of the charger with the charger-retaining shoulder 8, and from swinging to the left, by the left hand wall 19 of the opening 7.

In using my improved gun, a charger filled with cartridges is manually inserted into the guideway 5 in which it assumes the forwardly tilted position in which it is shown in Fig. 1. The soldier then presses downward upon the topmost cartridge with his thumb, using sufficient force to cause the spring-fingers 14 of the charger to yield and permit the column of cartridges to be stripped downward into the magazine 15, leaving the charger upstanding in the receiver as shown in Fig. 4. Now when the bolt 16 is moved forward, the projecting forward end of its extractor 18 engages with the rear face of the charger close to the right hand corner thereof, whereby the charger is turned, as it were, by the revolution of the forward edge of its laterally projecting left hand channel 11 upon the shoulder 8 which acts as a fulcrum for it. In this manner and during the very first portion of the forward movement of the bolt, the charger is partly revolved upon its longitudinal axis and twisted, as it were, out of the guideway 5, being thus left free to fall out of the gun by the action of gravity, or to be "kicked" from the gun by the rapid forward movement of the bolt which is likely in such movement to spring the resilient charger sufficiently to cause it to "bounce" out of the receiver, whereby its discharge is made purely automatic and the extra movement and time required for its manual removal from the gun by the soldier, saved.

I claim:

A bolt-action shoulder arm having its receiver formed at the rear end of its cartridge-charging and cartridge-ejecting opening, with a charger-guideway adapted to receive a charger formed with laterally projecting rim-receiving channels extending throughout its length; the left hand wall of the said guideway being flanked by a charger-retaining shoulder, and the right hand wall of the guideway opening directly into the said cartridge-charging and cartridge-ejecting opening of the receiver, whereby when the bolt is moved forward the charger is turned on its axis and so twisted out of the said guideway and ejected from the gun.

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

THOMAS C. JOHNSON.

Witnesses:
FREDERIC C. EARLE,
C. L. WEED.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."