March 21, 1950 J. A. MINASOLA 2,501,137

BREECH BOLT RECIPROCATING MECHANISM

Filed Nov. 20, 1946 2 Sheets-Sheet 1

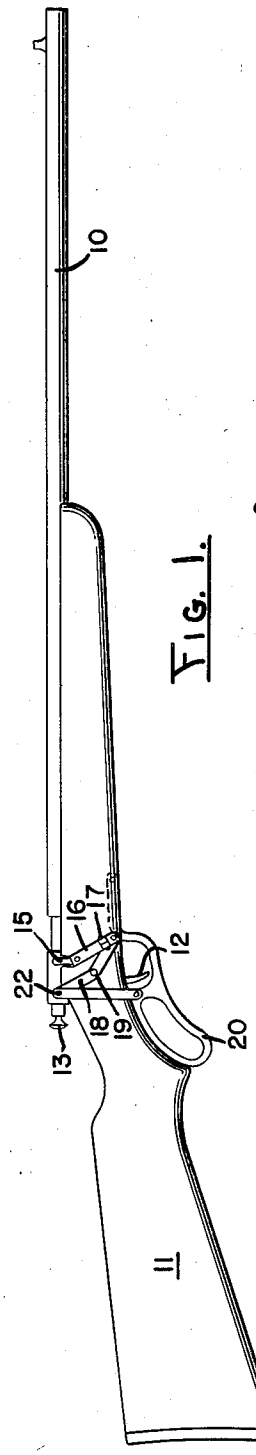


FIG. 1.

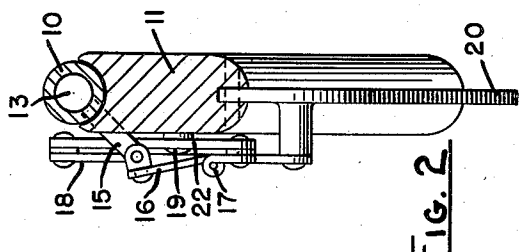


FIG. 2.

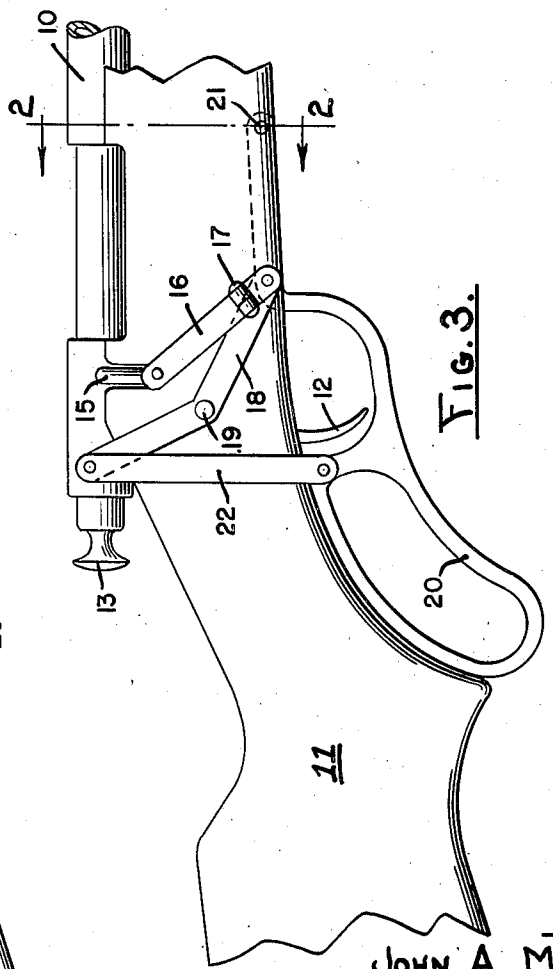


FIG. 3.

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BREECH BOLT RECIPROCATING MECHANISM

Filed Nov. 20, 1946 2 Sheets-Sheet 2

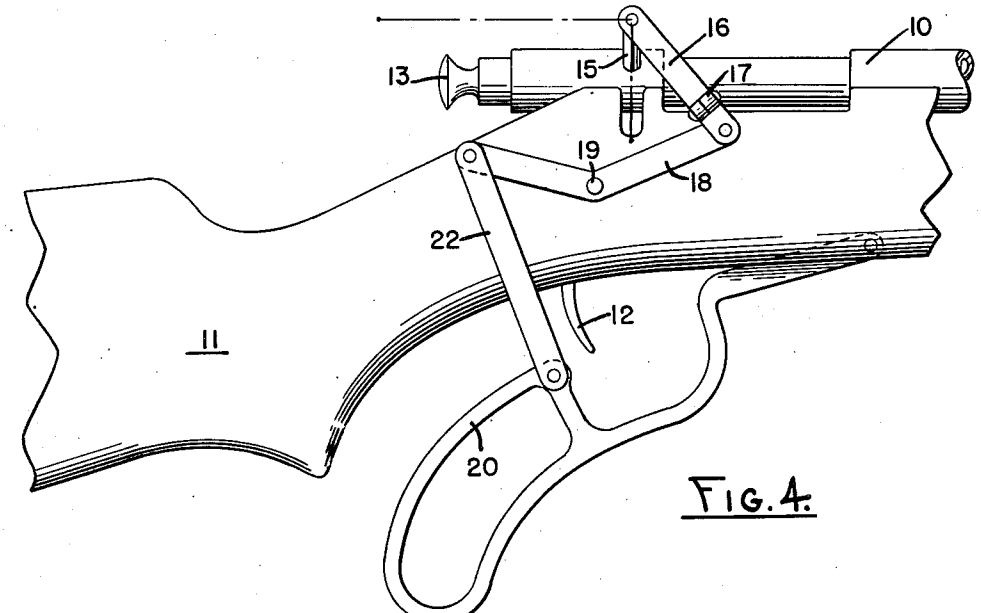


FIG. 4.

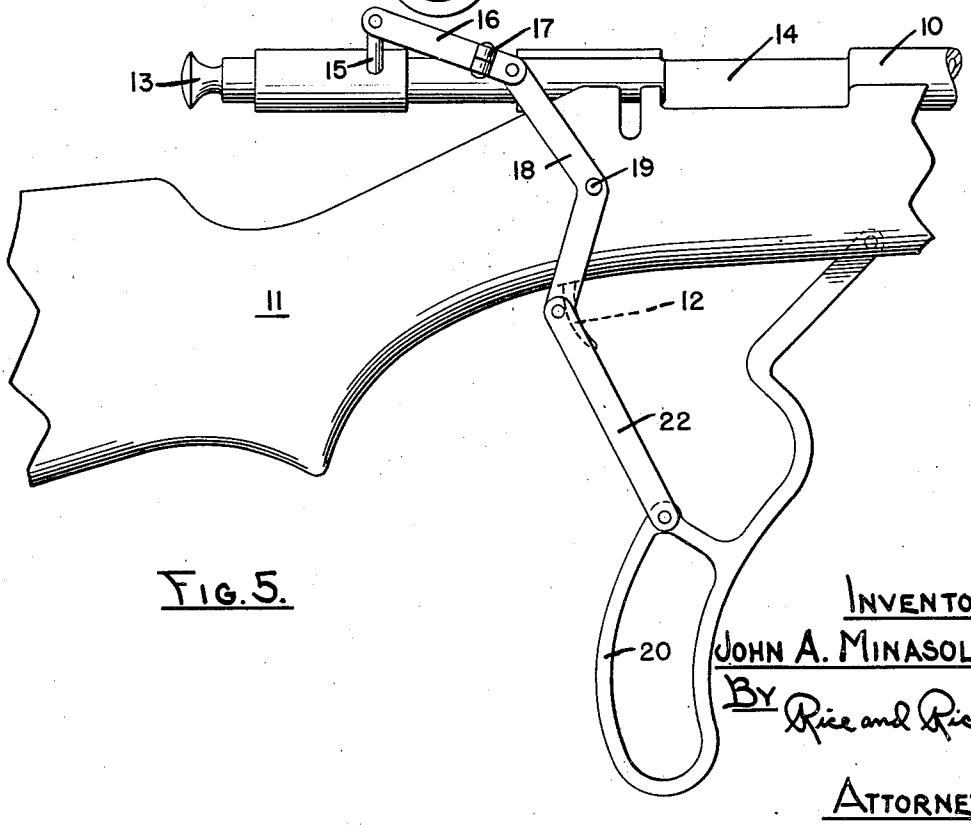


FIG. 5.

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BREECH BOLT RECIPROCATING MECHANISM

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Application November 20, 1946, Serial No. 711,055

2 Claims. (Cl. 42—16)

1

The present invention relates to rifles and more particularly to the breech bolt reciprocating mechanism thereof.

The primary objects of the instant invention are to provide a rifle having novel breech bolt reciprocating mechanism for ejecting spent cartridges; to provide such a rifle whose breech bolt reciprocating mechanism is simple yet rugged and sturdy in construction; to provide such a rifle whose breech bolt reciprocating mechanism is efficient in use; and, to provide such a rifle whose breech bolt reciprocating mechanism is reasonably economical in manufacture.

An illustrative embodiment of the invention is shown in the accompanying drawings, wherein:

Figure 1 is a side elevational view of a rifle provided with the novel breech bolt reciprocating mechanism;

Figure 2 is a sectional view on line 2—2 of Figure 3;

Figure 3 is an enlarged fragmentary side elevational view showing the breech bolt reciprocating mechanism in its normal position before the rifle is fired;

Figure 4 is a view similar to Figure 3 but showing the breech bolt reciprocating mechanism in its position immediately prior to the retraction of the reciprocable breech bolt; and

Figure 5 is a view similar to Figures 3 and 4 but showing the reciprocable breech bolt in its retracted spent cartridge ejecting position.

Referring then to the drawings wherein like parts of the rifle shown are designated by the same numerals in the several views, the same comprises a conventional barrel 10, stock 11, trigger 12, reciprocable breech bolt 13 and cartridge emitting opening 14 through which the spent cartridge is ejected when the breech bolt is retracted.

The reciprocable breech bolt 13, adapted to be partially rotated when retracted in ejecting a spent cartridge, is provided with a laterally projecting stud 15 fixedly secured thereto and a link 16 provided with a transverse hinge 17 pivotally secured at one end to the outer end of the stud 15 is pivotally connected at its other end to a bell crank lever 18 which is pivotally secured to the stock 11 by means of a pivot pin 19.

A lever handle 20 pivotally connected to the stock 11 forwardly of the pivot pin 19 is pivotally connected to a link 21 whose other end is pivotally connected to the bell crank lever 18 by the

2

pivot pin 22 whereby movement of the lever handle 20 from its position shown in Figure 3 through its position shown in Figure 4 to its position shown in Figure 5 rotatingly retracts the breech bolt 13 ejecting the spent cartridge through the cartridge emitting opening 14 and reverse movement of the lever handle 20 returns the breech bolt to normal firing position for the firing of a newly inserted unspent cartridge.

It will thus be seen that the rifle herein shown and described has novel breech bolt reciprocating mechanism for ejecting spent cartridges, is simple yet rugged and sturdy in construction, is efficient in use, and is reasonably economical in manufacture.

While but one specific embodiment of the invention has been shown and described, it will be understood that certain details of the construction shown may be altered or omitted without departing from the spirit of the invention as the same is defined by the following claims.

I claim:

1. A rifle having a reciprocable breech bolt, a stock mechanism for reciprocating the breech bolt comprising a bell crank lever pivotally connected to the rifle stock, a hinged link pivotally connected at one end to the bolt and pivotally connected at its other end to the bell crank lever, a handle lever pivotally connected to the stock, and a link pivotally connected at one end to the handle lever and at its other end to the bell crank lever.

2. A rifle having a partially rotatable reciprocable breech bolt, a stock mechanism for partially rotating and reciprocating the bolt comprising a bell crank lever pivotally connected to the rifle stock, a hinged link pivotally connected at one end to the bolt and pivotally connected at its other end to a bell crank lever, a handle lever pivotally connected to the stock, and a link pivotally connected at one end to the handle lever and at its other end to the bell crank lever.

JOHN A. MINASOLA.

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