E. G. REISING.

EJECTOR FOR FIREARMS.

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1,309,338.

Patented July 8, 1919.

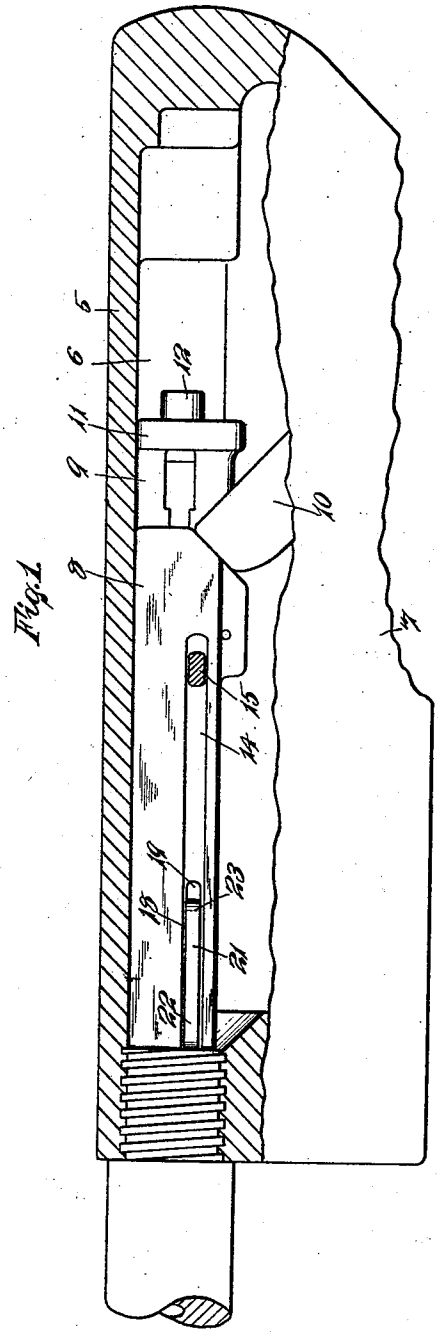


Fig. 1.

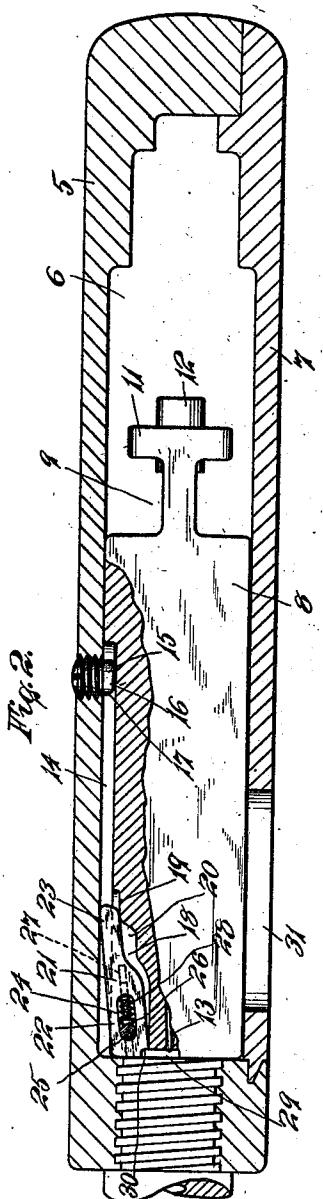


Fig. 2.

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EUGENE G. REISING, OF EAST HARTFORD, CONNECTICUT, ASSIGNOR TO THE HARTFORD MACHINE GUN COMPANY, OF HARTFORD, CONNECTICUT, A CORPORATION OF CONNECTICUT.

EJECTOR FOR FIREARMS.

1,309,338. Specification of Letters Patent. Patented July 8, 1919.

Application filed January 2, 1917. Serial No. 140,176.

To all whom it may concern:

Be it known that I, EUGENE G. REISING, a citizen of the United States, residing at East Hartford, in the county of Hartford and State of Connecticut, have invented a new and Improved Ejector for Firearms, of which the following is a specification.

My invention relates to the class of devices employed to remove a cartridge shell from the grip of the extractor and throw it out of the chamber in the receiver of a firearm after said shell has been withdrawn by the breech-bolt and extractor from the breech chamber in the barrel, and an object of my invention, among others, is to provide an ejector that shall be particularly efficient in its operation and so constructed that it shall be extremely strong and durable.

One form of ejector embodying my invention, and in the construction and use of which the objects herein set out, as well as others, may be attained, is illustrated in the accompanying drawings in which—

Figure 1 is a view in side elevation of the receiver of a firearm with parts broken away to show construction and illustrating a breech-bolt provided with my improved ejector.

Fig. 2 is a top plan view of the same with parts broken away to show my improved ejector in place in the breech-bolt.

In the accompanying drawings the numeral 5 indicates the receiver of a firearm that may be of any suitable construction and that contains a chamber 6 closed by a side plate 7 and within which chamber a breech-bolt 8 is longitudinally movable. This bolt has openings 9 at its rear end and on opposite sides thereof within which openings the forked arms 10 of an actuating lever are received, said lever acting upon lips 11 forming the rear walls of said openings to move the breech-bolt backwardly, said lever also acting upon the head 12 of the firing pin 13 to move it backwardly in the breech-bolt. All of the parts thus far described may, so far as the invention forming the subject matter of this application is concerned, be of any construction, the construction herein specifically shown forming the subject matter of a copending application filed by me concurrently herewith. The illustration and description contained herein, however, are sufficient for a clear understanding of the invention forming the subject matter of this case, and many parts not having directly to do with the ejector mechanism are omitted from the illustration.

The breech-bolt 8 has a groove 14 extending longitudinally in one side and within this groove an ejector actuator 15 projects. Preferably this actuator is a screw fitting a screw threaded opening in the side walls of the receiver and with its end 16 projecting into the groove 14 and having a cam shaped edge 17 to receive the ejector.

An ejector groove 18 is located in the side of the breech-bolt at its forward end, this ejector groove opening at the bottom of the groove 14. This ejector groove comprises a rest 19 for the tail of an ejector and a recess 20 into which said tail may retreat during the operation of the ejector.

Said ejector 21 is preferably formed of a flat piece of metal comprising a body portion 22 and a tail 23. A slot 24 extends through the body of the ejector to receive a retaining pin 25 secured in the breech-bolt and projecting across the groove 18 and through said slot. A plunger 26 has a shank extending into a hole 27 formed in the body of the ejector and opening into one end of the slot 24. A spring 28 located on the shank of the plunger presses with one end against the head of the plunger and with its opposite end against the end of the slot 24 to force the plunger normally into engagement with the pin 25, this causing the ejector to be held normally in its rearward position as shown in the drawings.

In operation as the breech-bolt is moved backward by the action of the forks 10 of the actuating lever, the end of the tail 23 strikes the cam 17 on the ejector actuator, this causing the ejector to be forced forward against the end of the cartridge shell that is located in a recess 29 in the end of the breech-bolt and that is retained in said recess by the extractor (not shown herein) in the ordinary manner. A shoulder 30 in the end of the ejector is thus forced against the end of the cartridge shell and the latter is by this action of the ejector snapped from the grasp of the extractor and thrown out of the

breech-bolt chamber in the receiver through an opening 31 in the side plate 7 of the receiver.

I claim—

1. In a firearm embodying a receiver, a breech bolt movably mounted in the receiver, said structure embodying a groove, an ejector carried by the breech bolt and movable longitudinally thereof, said groove having a cam shaped to force said ejector forward when the latter is pressed laterally against the cam, and means on the receiver to engage the ejector and press it laterally against the cam, whereby the ejector is forced forward in an ejecting movement.

2. In a firearm including a receiver, a breech bolt movably mounted therein, an ejector actuator located on the receiver, said bolt having an ejector recess, an ejector located in said recess and movable longitudinally therein, a tail on the ejector positioned to strike said actuator to force it forwardly in an ejecting movement, said tail being adapted to pass into said recess and under said actuator, and means for forcing the ejector backwardly on the breech bolt.

3. In a firearm including a receiver, a breech-bolt movably mounted therein, an ejector actuator projecting from the receiver, said bolt having an ejector recess, an ejector located in said recess, means for retaining the ejector in said recess to permit swinging and longitudinal movement thereof, said recess having a cam surface, a tail on the ejector positioned to strike said actuator and to engage said cam surface when the ejector is in a forward position to force the ejector to its forward position, said tail being adapted to pass into said recess and under said actuator, and means for forcing the ejector backwardly in the breech-bolt.

4. In a firearm including a receiver, a breech-bolt movably mounted in the receiver and having an ejector recess with a cam surface and a rest therein, an ejector located in said recess, means for retaining the ejector in said recess to permit longitudinal and swinging movement thereof, means for forcing the ejector backwardly in said recess, a tail on the ejector positioned to make contact with said cam surface and to pass under said actuator and to lie on said rest, and an actuator projecting from the receiver into the path of movement of said tail.

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