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FIP8303 OR 2,198,610
Examiner

April 30, 1940. J. C. GARAND 2,198,610

EXTRACTOR FOR FIREARMS

Filed Nov. 22, 1938

Fig-1-

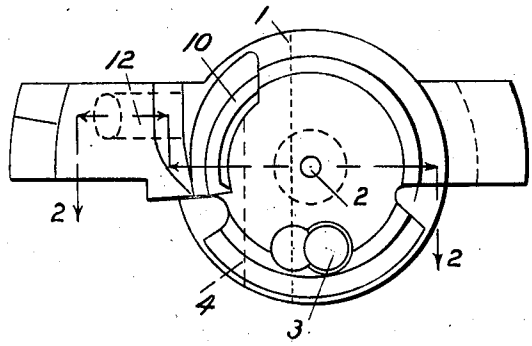


Fig-2-

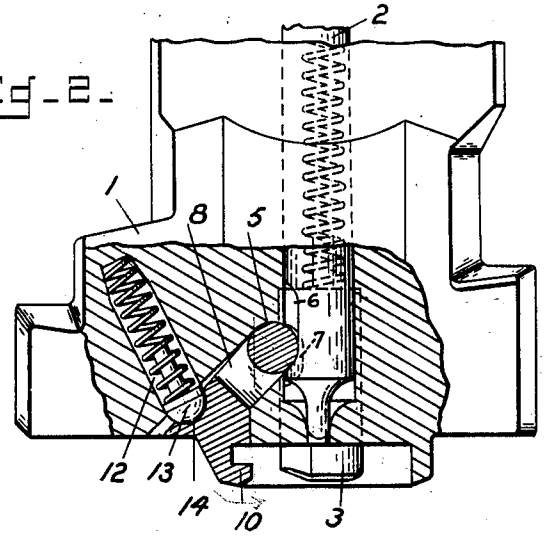


Fig-3-

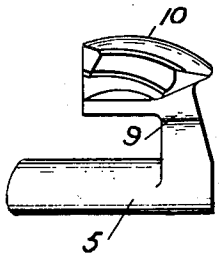


Fig-4-

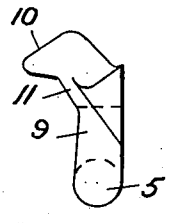


Fig-5-

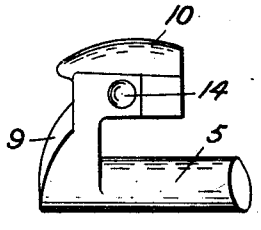
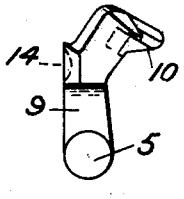


Fig-6-



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2,198,610

EXTRACTOR FOR FIREARMS

John C. Garand, Springfield, Mass.

Application November 22, 1938, Serial No. 241,822

4 Claims. (Cl. 42—25)

(Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757)

The invention described herein may be manufactured and used by or for the Government for governmental purposes, without the payment to me of any royalty thereon.

The subject of this invention is an extractor for firearms and the invention relates more especially to an extractor which is well housed in the bolt thereby rendering the structure more compact and less liable to injury, which contains no attenuated spring members as a part of the extractor proper, and which is so constructed and situated as to limit the play of the firing pin and ejector.

To these and other ends, the invention consists in the construction, arrangement and combination of elements described hereinafter and pointed out in the claims forming a part of this specification.

In the accompanying drawing in which a preferred embodiment of the invention is shown by way of illustration:

Fig. 1 is a view in front elevation of a bolt with an extractor constructed in accordance with the invention in place therein;

Fig. 2 is an enlarged fragmentary plan view of the bolt partly in section to show the situation of the extractor;

Figs. 3, 4, 5 and 6 are detail views of the extractor.

The bolt 1 is bored axially to receive the firing pin 2 and also bored longitudinally to receive the ejector 3.

A transverse bore 4 is formed in the bolt communicating with the axial bore and longitudinal bore and is adapted to receive the trunnion or pivot arm 5 of the extractor, which arm extends through grooves 6 and 7 in the firing pin and ejector respectively, thereby limiting the movement of the firing pin and ejector and holding these elements against rotation.

At its upper end the bore 4 communicates with an angularly disposed slot 8 in the peripheral bolt adapted to receive the arm 9 of the extractor with a fit sufficiently free to allow the curved lip 10 of the extractor head 11 to snap by and engage in front of the head of a cartridge.

A resilient element herein shown as a coiled spring 12, is housed in a recess in the bolt and urges a hemispherical member 13 into contact with a depression 14 in the head of the extractor thereby urging the extractor toward cartridge engaging position.

I claim:

1. A bolt mechanism for a gun including a bolt having a firing pin reciprocable therein, said firing pin provided with a groove, an ejector mounted in said bolt and formed with a groove, an extractor mounted in said bolt embodying a trunnion extending through the grooves to limit the movement of the firing pin and ejector, an arm extending laterally from the trunnion nested in the bolt, a head formed on the arm and provided with a depression, a resiliently actuated member seated in the depression to urge the extractor toward cartridge engaging position, and a cartridge engaging lip formed on the head.

2. The combination with a bolt having a firing pin and an ejector reciprocable therein, said pin and ejector each provided with a groove, of an extractor embodying, a trunnion journaled in the bolt and extending through the grooves to limit the movement of the pin and ejector, an arm extending laterally from the trunnion and nested in the bolt, a head on the arm, a cartridge engaging lip formed on the head, and means for forcing the lip into engagement with a cartridge.

3. A bolt mechanism for a gun including a bolt, a reciprocable firing pin axially in the bolt and having a groove, a reciprocable cartridge ejector in the bolt parallel to the firing pin and having a groove, and an extractor having a trunnion journaled in the bolt and disposed in the grooves of the firing pin and ejector to limit their reciprocable movement and hold them against rotation.

4. A bolt mechanism for a gun including a bolt having an axial firing pin bore and a transverse bore intersecting the axial bore, said bolt also having a peripheral slot extending angularly from the transverse bore to the front end of the bolt, an extractor having a trunnion journaled in the transverse bore, an arm integral with the trunnion and nested in the slot, and an arcuate cartridge engaging head integral with the arm.

JOHN C. GARAND.

4/2-25

CERTIFICATE OF CORRECTION.

Patent No. 2,198,610. April 30, 1940.

JOHN C. GARAND.

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction as follows: First column, line 41-42, strike out the word "peripheral" and insert the same before "slot" in line 41; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 25th day of June, A. D. 1940.

Henry Van Arsdale,
Acting Commissioner of Patents.

(Seal)