

No. 830,510.

PATENTED SEPT. 11, 1906.

H. LEHMANN.

CARTRIDGE EXTRACTING AND EJECTING MECHANISM FOR GUNS.

APPLICATION FILED AUG. 24, 1905.

FIG. 1.

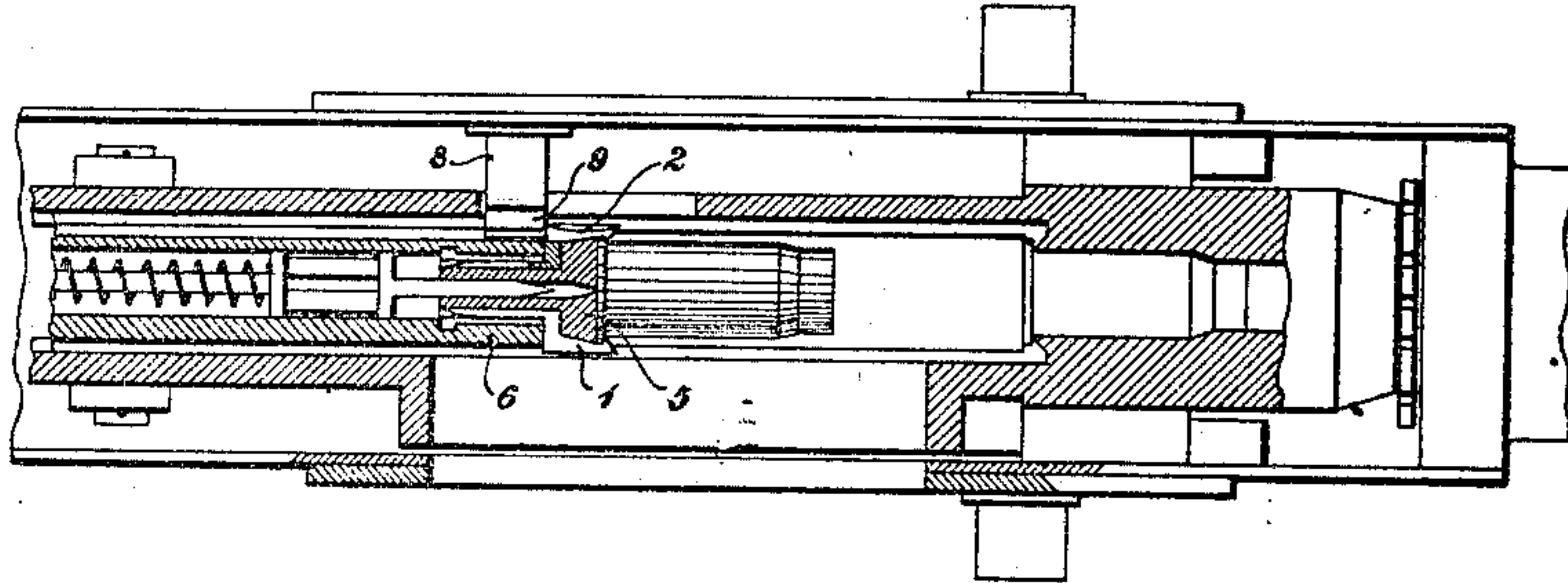


FIG. 2.

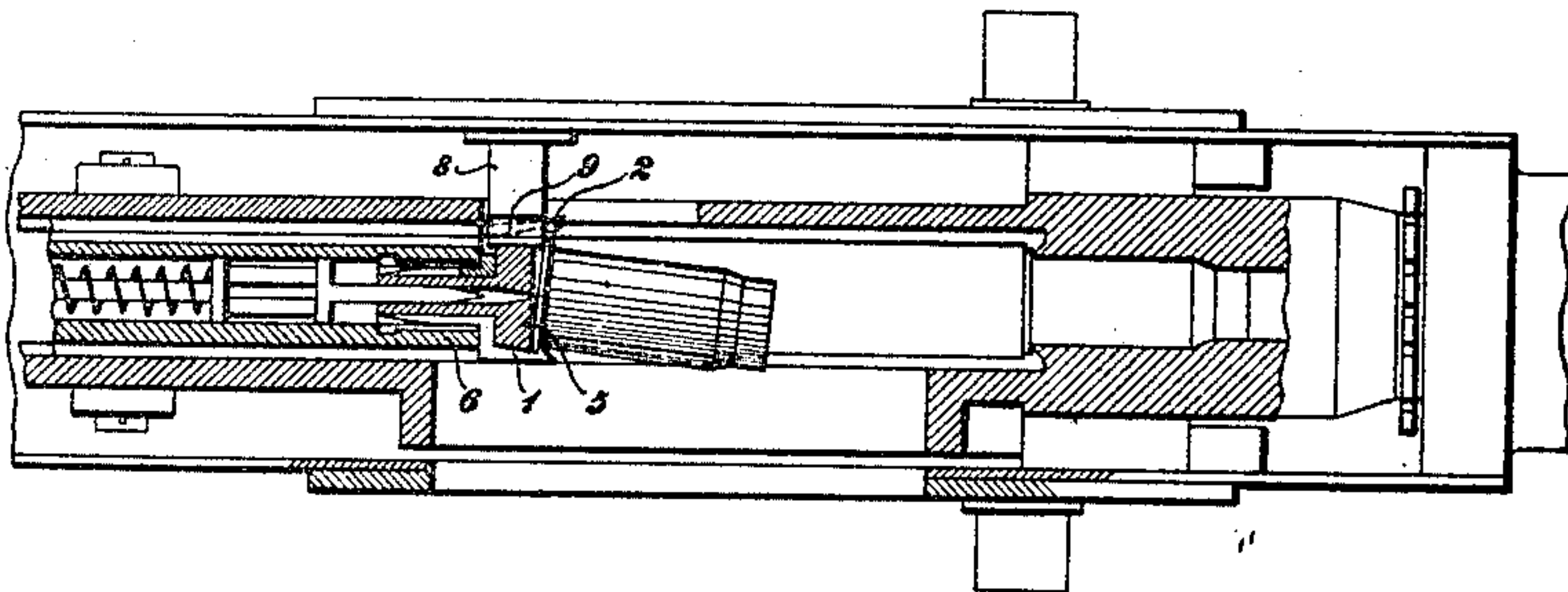


FIG. 3.

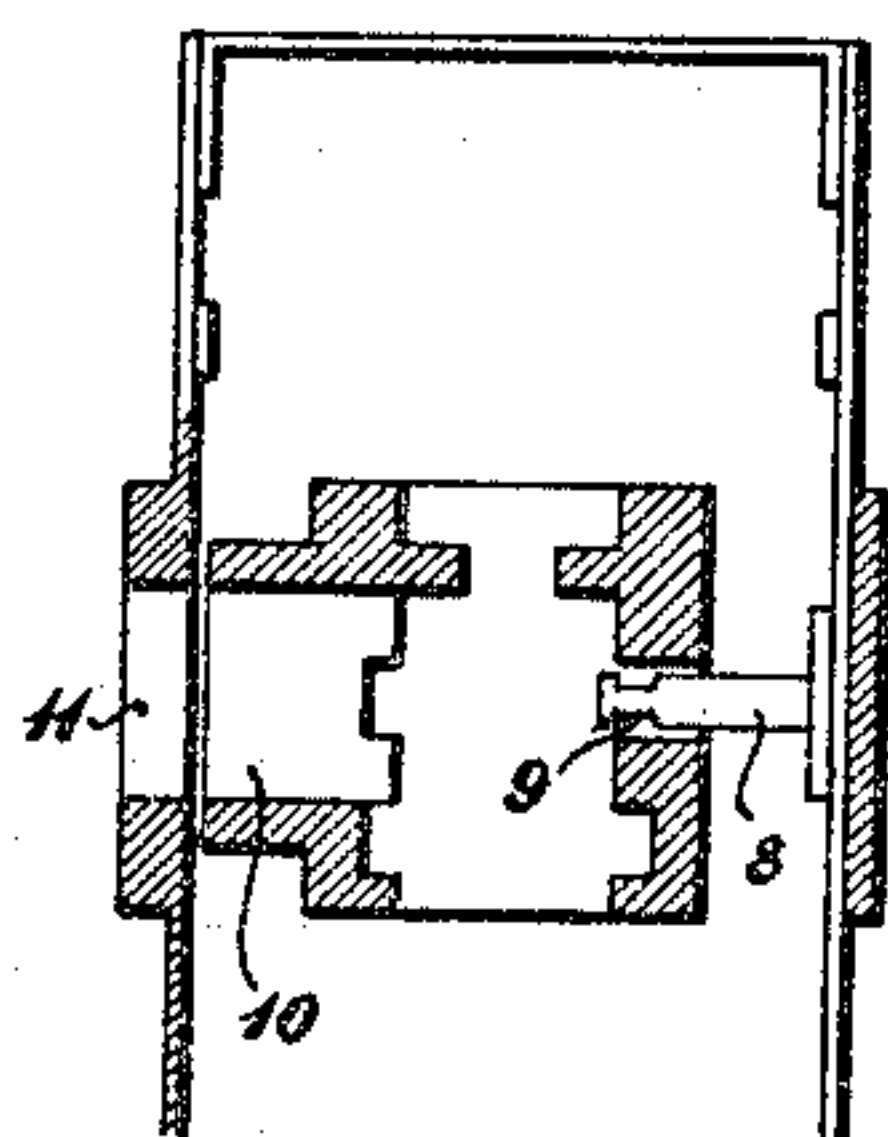


FIG. 4.

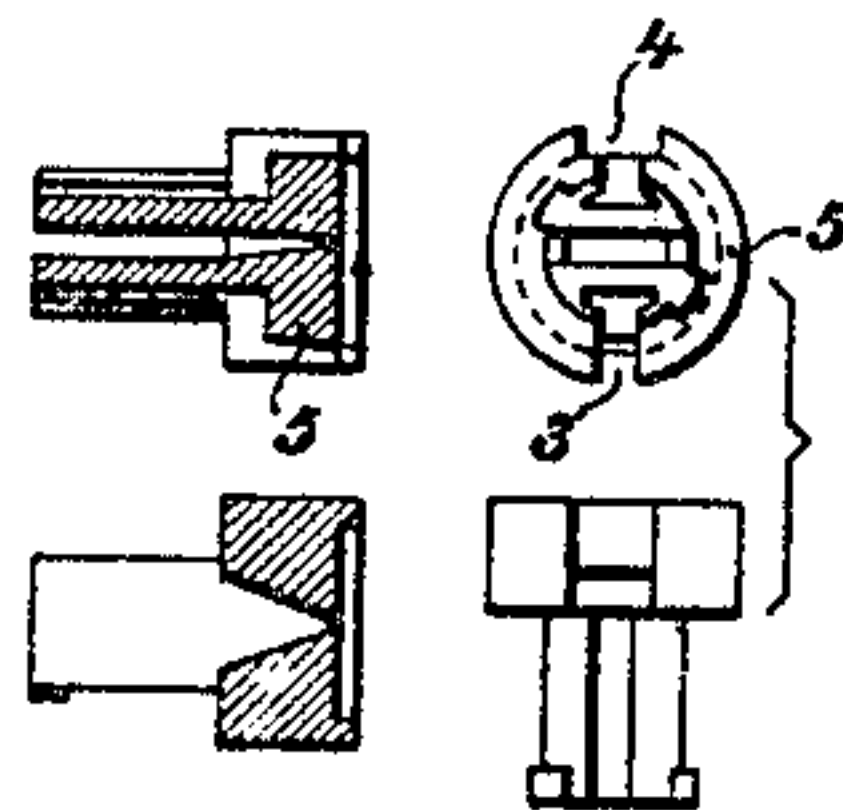


FIG. 5.

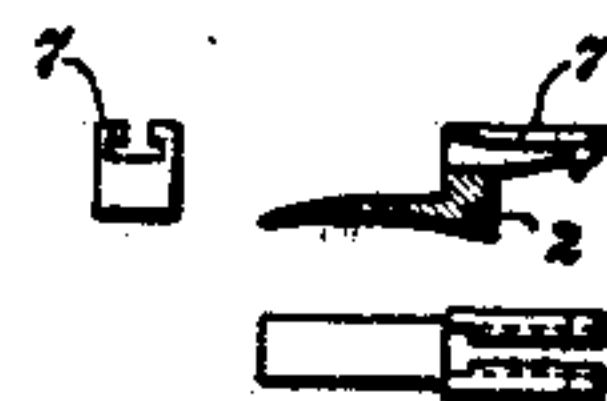


FIG. 6.

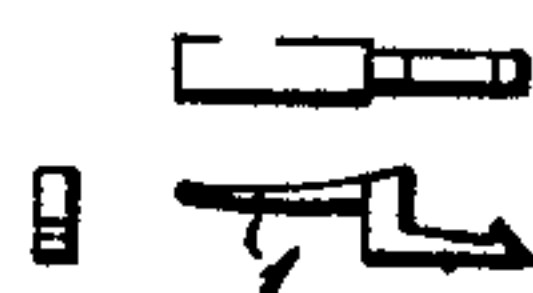


FIG. 9.

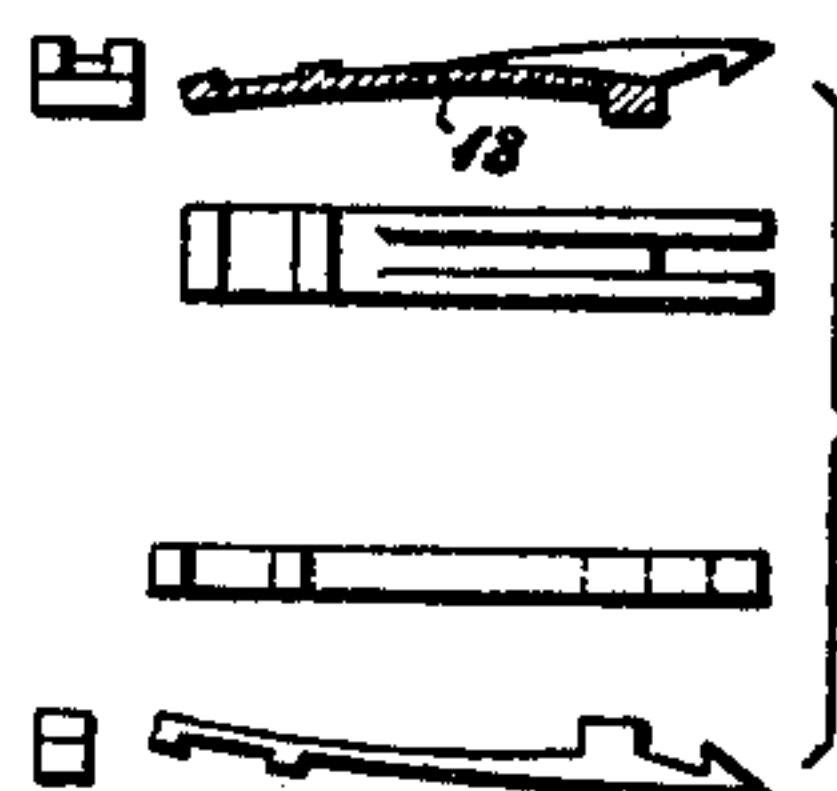


FIG. 8.

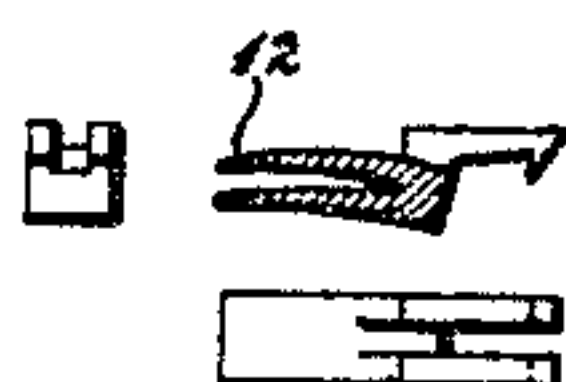
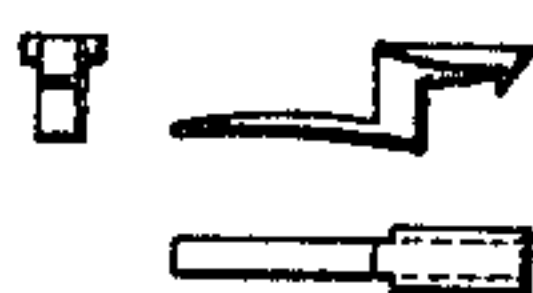


FIG. 7.



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CARTRIDGE EXTRACTING AND EJECTING MECHANISM FOR GUNS.

No. 830,510.

Specification of Letters Patent.

Patented Sept. 11, 1906.

Application filed August 24, 1905. Serial No. 275,630.

To all whom it may concern:

Be it known that I, HERMANN LEHMANN, a subject of the King of Prussia, German Emperor, and a resident of Magdeburg, Kingdom of Prussia, Empire of Germany, have invented certain new and useful Improvements in Cartridge Extracting and Ejecting Mechanism for Guns, of which the following is a specification.

10 This invention relates to mechanism for extracting and ejecting the empty cartridge-cases from firearms or guns. By the said invention the disadvantages of the premature turning aside of the cartridge-cases in their
15 extraction is avoided by employing two extractors, both of which cooperate to maintain the cartridge in an axial position until its base has nearly reached a fixed ejector or other fixed stop, whereupon the second or
20 auxiliary extractor is moved away from the rim of the cartridge by the ejector or other fixed stop, so that the cartridge-case striking against the ejector is caused to tilt or turn around the other extractor and is there-
25 by ejected from the breech-casing.

In the accompanying drawings, Figure 1 is a horizontal longitudinal section through the breech, showing the cartridge already extracted from the barrel, but still held axially.
30 Fig. 2 is a similar section showing the commencement of the ejection. Fig. 3 is a cross-section through the gun-casing and shows the ejector and the ejector-opening. Fig. 4 shows various views of the head or breech piece of the reciprocating breech-block 6.
35 Fig. 5 shows various views of the movable auxiliary extractor. Fig. 6 shows similar views of the usual extractor. Figs. 7, 8, and 9 illustrate modifications of details.

40 Both the extractors 1 and 2 are placed in recesses 3 and 4 of the breech-piece 5 and remain therein secure from accidental displacement when the said breech-piece is attached to the breech-block 6 by its bayonet-joint.
45 The extractor 1 is of the usual form; but the auxiliary extractor 2 is provided with two claws, each having on its inner side a projection or cam-face 7, formed with a curved edge, directed toward the axis of the barrel or ex-
50 tending longitudinally of the extractor.

In the forward movement of the breech-block 6 both extractors spring apart and seize the rim as soon as they strike against

the base of the cartridge. On the retraction of the breech-block they carry the cartridge- 55 case axially until the base of the cartridge-case strikes against a cooperating part on the ejector 8 shortly before the projections 7 of the auxiliary extractor enter the grooves 9 of the ejector. By this means the claws of 60 the auxiliary extractor 2 are pressed outward so far that they release the rim of the cartridge-case. The extractor 1, however, continues to hold the rim of the cartridge-case while moving farther back, so that the car- 65 tridge-case slides against the ejector and tilts or turns around the extractor 1, thus being ejected from the gun through the ejecting-opening 10 in the breech-guide and the opening 11 in the casing by reason of the velocity 70 with which the breech-block moves backward.

If a special stop is provided for the displacement of the auxiliary extractor, this stop carries the necessary devices for effecting 75 such displacement in the required manner.

In Figs. 7 to 9 various constructional forms are represented, in all of which, in common with that above described, the ejector is fixed to the wall of the breech-casing, and one of 80 the extractors holds the cartridge-case firmly until it is ejected, the other extractor releasing it by being forced away from the rim of the cartridge-case by the ejector or by some other fixed stop before the cartridge-case 85 strikes against the said ejector. Fig. 7 represents a modification of the above-described construction, in which the auxiliary extractor has only one claw. In this case the ejector is forked. The grooves forming the cam- 90 faces corresponding to the extractor projections 7 are carried by the ejector in the slot of the fork. In Fig. 8 the auxiliary extractor has an arm 12, having a longitudinal cam-face and so formed that it can be pressed 95 down by the ejector on the retraction of the breech-block, so as to force the claws away from the rim of the cartridge-case, as above described. When the breech-head and the breech-block are made in one piece, the con- 100 struction represented in Fig. 9 may be employed. In this instance the ejector presses upon the cam-faced spring-back 13 of the auxiliary extractor, and thereby forces its claws away from the rim of the cartridge-case. 105

I claim—

1. In a gun, the combination with the breech-block, of a pair of extractors mounted upon opposite sides thereof, one of said extractors being immovable due to pressure by the cartridge-rim when the latter is gripped, and an ejector engaging the other extractor to effect its movement and positioned to engage the cartridge on the side adjacent the movable extractor to turn the cartridge on the first extractor as a pivot.

2. In a gun, an extractor and an ejector having cooperating portions to cause the movement of the extractor.

3. In a gun, an extractor and an ejector each having a pair of cooperating portions to cause the movement of the extractor.

4. A forked extractor having a cam-face on each member thereof extending longitudinally of the extractor.

The foregoing specification signed this 9th day of August, 1905.

HERMANN LEHMANN.

In presence of—

WILHELM FLEISCHHACK,
MARIA SCHNEIDER.