

M. W. H. BROWN.
 BOX MAGAZINE FOR FIREARMS.
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1,044,983.

Patented Nov. 19, 1912.

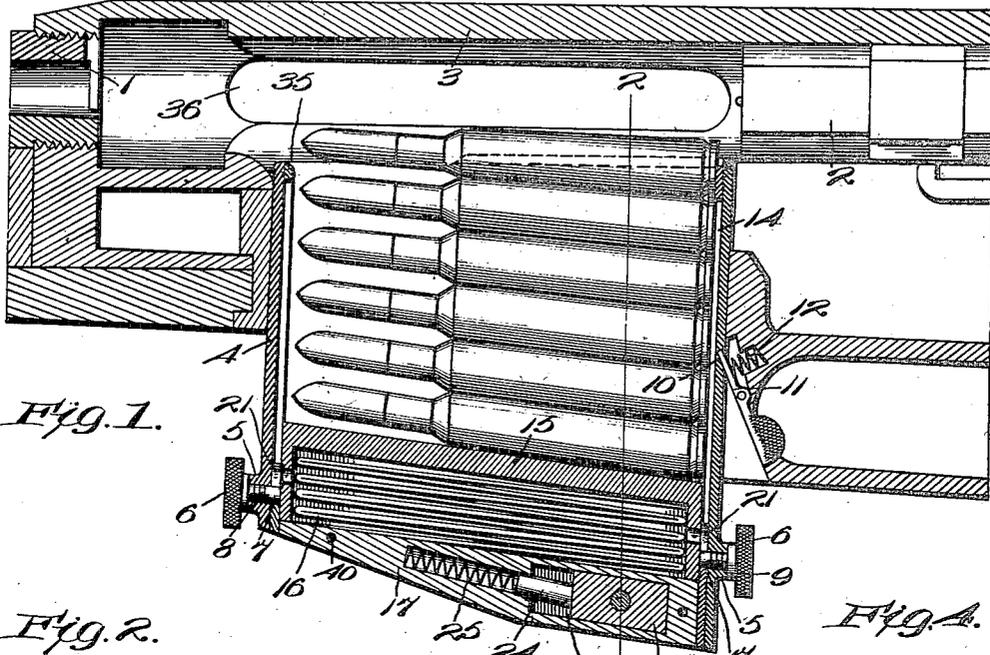


Fig. 1.

Fig. 2.

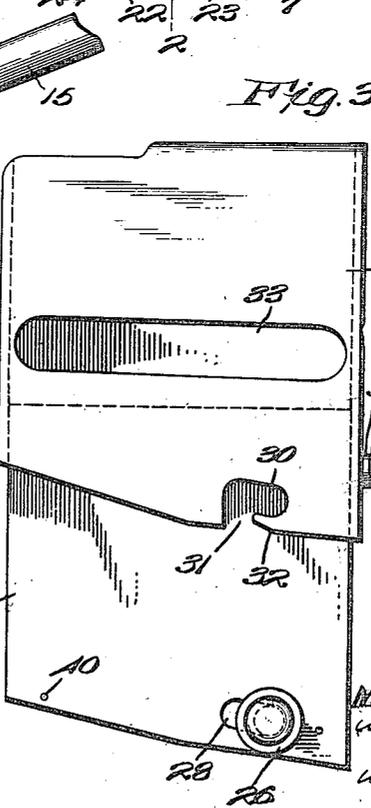
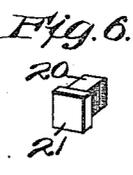
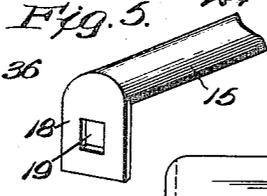
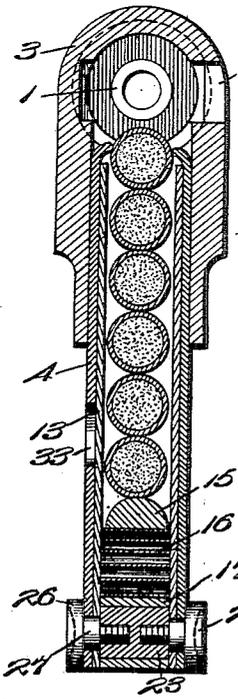
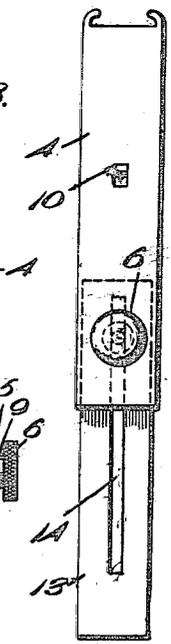


Fig. 3.

Fig. 4.



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BOX-MAGAZINE FOR FIREARMS.

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To all whom it may concern:

Be it known that I, MILTON W. H. BROWN, a citizen of the United States, residing at Trenton, in the county of Mercer and State of New Jersey, have invented certain new and useful Improvements in Box-Magazines for Firearms; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to magazines of the box type especially adapted for fire arms, and has for its object to provide a magazine of this character into which the cartridges may be loaded with great rapidity, and which will possess other advantages to be described below.

With these and other objects in view, the invention consists in the novel details of construction and combinations of parts more fully hereinafter disclosed and particularly pointed out in the claims.

Referring to the accompanying drawings forming a part of this specification in which like numerals designate like parts in all the views:—Figure 1 is a longitudinal sectional view through the rear portion of a fire arm and its magazine, and illustrating the relation of the magazine and breech bolt; Fig. 2 is a cross sectional view taken on the line 2—2 of Fig. 1; Fig. 3 is a side elevational view of the magazine detached from the gun showing the cartridge holding portion in its lowermost position ready for receiving cartridges through the feed opening; Fig. 4 is an end elevational view of the parts shown in Fig. 3; Fig. 5 is a perspective view showing one end of the follower; and, Fig. 6 is a perspective view of a T-shaped lug fitting said follower.

I indicates the barrel, 2 the breech bolt, 3 the receiver, 4 the outer casing of my box magazine provided with lugs or bosses 5 through which pass the thumb screws 6 having the stems 7 provided with screw-threaded portions 8 only on that portion of the said stem 7 which engages the lugs or bosses 5, and said thumb screws are also provided with the shoulder portions 9 which

take against the said lugs 5, as will be clear from Figs. 1 and 3. The said outer casing 4 is further provided with a notch 10 into which fits a thumb catch 11 controlled by the spring 12, as shown. Slidingly fitting the said casing 4 is the inner casing 13 provided at each end with the slots 14 through which the stems 7 pass. Fitting within said inner casing 13 but not carried thereby, is the cartridge follower 15 controlled by the spring 16, resting between said follower and the bottom 17 of said inner casing. The said follower 15 has downwardly extending ends or lugs 18 having openings 19 into which fit the T-shaped lugs 20, as best shown in Figs. 1, 5 and 6. The heads 21 of these lugs slide in said slots 14, as shown, and are adapted to rest, when the follower is in its lowest position, upon the extreme ends of the stems 7, as illustrated in Fig. 1. The said bottom 17 of the inner casing 13 is provided with an elongated slot 22 into which fits the sliding block 23 associated with the friction pin 24 controlled by the spring 25 carried by said bottom 17. Fitting the block 23 are the serew-threaded ends of the thumb nuts 26 having the enlarged stem portions 27 passing through the said outer and inner casings, as shown. The inner casing 13, as best shown in Fig. 3, is further provided with slots 28, one on each side to limit the movement of the stems 27 therein, when the block 23 is moved. The outer casing 4 is further provided on each side with a bayonet slot 30 having openings 31 adapted to be entered by the said stem portions 27 of the thumb screws 26, and on one side of said openings 31 are the cam surfaces 32 adapted to be struck by said stem portions 27 when the inner casing 13 is raised and to thereupon force the said stem portions 27 and block 23 toward the left, as seen in Fig. 1. The outer casing 4 is further provided with an opening 33 through which cartridges may be fed when the said inner casing is in its lowermost position, as shown in Fig. 3, and said cartridges may be placed one below the other until an entire column is formed in the magazine whereupon the said inner casing

may be raised to the position shown in Fig. 2 and forced past the cartridges in the outer casing, as will be clear from the drawings.

The top portion 35 of the inner casing is beveled off as shown in Fig. 1, in order that the cartridges may not catch thereon when the inner casing is being pushed home.

36 represents a cartridge feed opening through the receiver which may be used when the magazine is out of action.

The operation of my improved box magazine is as follows:—The outer casing 4 is normally fixed to the fire arm by the thumb catch 11, and is therefore not intended to be detached from the arm except at rare intervals when it is necessary to clean the magazine. The follower 15 lifts the cartridges upwardly into the path of the bolt 2 in the usual manner, and when the last cartridge is fired, the heads 21 carried by said follower, strike the upper ends of the slots 14, of the inner casing, and cause the follower 15 to stop in the path of the bolt 2.

When it is desired to reload the magazine, the thumb screws 26 are pushed toward the left as seen in Fig. 3, which disengages their stem portions 27 from the bayonet slots 30 and allows said stem portions to descend through the openings 31, and the inner casing to occupy the position shown in Fig. 3.

When in this position, the follower 15 will occupy a position about even with the bottom of the opening 33 in the outer casing 4, and cartridges may be inserted one at a time through the said opening 33 until a column of cartridges occupies the said outer casing 4. When the magazine has been thus filled the bottom casing 13 may now be forced upwardly whereupon its side walls will slide past the column of cartridges in the outer casing 4 and the stems 27 of the thumb screws 26 will contact with the cam surfaces 32 whereupon the slide block 23 will be automatically forced against the tension of the spring 25 toward the left, as seen in Fig. 1.

As soon as the opening 31 is passed, however, the said spring 25 will force the block 23 back into the position shown in Fig. 1, and thereupon cause the stems 27 to occupy the slot 30 and the inner casing 13 to be secured to the outer casing. When the said inner casing is thus locked, the parts will be in the position shown in Figs. 1 and 2, whereupon the heads 21 of the follower will contact with the stems 7 of the set screws 6, and cartridges may be fed one at a time from the top of the magazine by the bolt 2 in the manner well known. As the cartridges are taken from the magazine, the spring 16 forces the follower upwardly, and the said heads 21 will ride in the slots 14 of the inner casing and thereby steady the said follower and cartridges. Also, the shoulders 9 of the thumb screws 6 fit tightly against

the lugs or bosses 5 so as to prevent the said thumb screws from working loose. Further, when the inner casing 13 is lowered into the position shown in Fig. 3, the upper ends of its slot take against the heads 21 and the said heads rest upon the said stems 7, and therefore the said thumb screws 6 prevent the inner casing from being withdrawn and possibly lost.

The floor 17 of the inner casing is conveniently held in place as by pins 40, and need not be removed except upon very rare occasions.

The thumb screws 26 may be set up tightly while permitting the inner casing to move freely at all times. Further, the walls of the inner box 13 extend a distance over the slide block 23 in order to make the movement of the slide certain and accurate. It, therefore, follows from the foregoing that by merely pushing forward or toward the left, as seen in Fig. 3, the locking thumb screws 26 until they reach the limit of their forward movement, and then drawing the inner casing downwardly, the magazine may be unlocked and loaded, while the mere pushing of the said inner casing 13 upward, will bring the parts of the loaded magazine into operative relation. The pushing of the inner casing home will place the spring 16 under tension, and the cartridges will be held in the magazine by the turned over lips of the outer casing 4, as illustrated, the uppermost cartridge lying in the path of the bolt 2 ready to be forced forward into the chamber of the barrel. When the last cartridge is fired, the follower rises into the path of the bolt and stops the motion of the latter.

The thumb catch 11 preferably extends into the trigger guard, as shown, so that it may be readily operated when desired.

In assembling the parts, the follower is first inserted into the inner casing 13 and the lugs 20 are inserted in the holes 19 through the slots 14 of the said inner casing.

The advantages of my present invention will be apparent when it is remembered that the usual detachable magazines are mainly used in arms having a solid breech and side ejector. Therefore, the only means of loading is by detaching said magazines from the arm and fitting the cartridges into them one at a time. Not only is this a tedious operation, but it is liable to require considerable time at a crisis when such time is of the utmost value. In my device, on the other hand, it will be seen that the loading is effected without detaching the magazine at all. Further, it is well recognized that the most practical type of box magazine is the type known as the fixed type, while, on the other hand, the great objection to a detachable magazine as proved, in actual practice, is the fact that the box being separable from

the arm is very liable to get lost. Now, my magazine possesses all of the advantages of the fixed type, and yet it has the ready loading advantages of the detachable type without the disadvantages of the latter. In other words, although the outer casing 4 is not positively fixed to the arm, yet it need not be removed therefrom except at long intervals for the purpose of cleaning. Also, my entire magazine is so constructed that it can be taken apart entirely by hand without the use of any tool.

It is obvious that those skilled in the art may vary the details of construction and the arrangement of parts without departing from the spirit of my invention, and therefore I do not wish to be limited to the above disclosure except as may be required by the claims.

What I claim is:—

1. In a box magazine for fire arms, the combination of an outer casing; an inner casing telescopically associated with said outer casing; a slot and pin connection between said inner and outer casings preventing the separation of the same while permitting a free relative movement; said outer casing also provided with a cartridge feed opening, and said inner casing adapted to normally close said opening, but to uncover the same for the admission of cartridges when in its extended position; and means for detachably attaching said inner and outer casings together when said inner casing is in its closed position, substantially as described.

2. In a box magazine for fire arms, the combination of an outer casing; an inner casing provided with slots telescoping in said outer casing; pins passing through said outer casing and slots normally preventing the complete separation of said inner casing from said outer casing; said outer casing provided with a cartridge feed opening below which said inner casing is adapted to move; and a follower over which said inner casing moves supported by said outer casing, substantially as described.

3. In a box magazine, for fire arms, the combination of an outer casing; an inner casing provided with slots telescoping in said outer casing; pins passing through said outer casing and slots normally preventing the complete separation of said inner casing from said outer casing; said outer casing provided with a cartridge feed opening below which said inner casing is adapted to move; a slot and pin connection between said inner and outer casings for detachably locking the same together when said inner casing is in its closed position; and a follower over which said inner casing moves supported by said outer casing, substantially as described.

4. In a box magazine for fire arms, the combination of an outer casing; an inner casing provided with slots telescoping in said outer casing; pins passing through said outer casing and slots normally preventing the complete separation of said inner casing from said outer casing; said outer casing provided with a cartridge feed opening below which said inner casing is adapted to move; means for detachably securing said inner and outer casings together when said inner casing is in its closed position; a follower over which said inner casing moves supported by said outer casing; and lugs carried by said follower resting on said pins and adapted to slide in said slots, substantially as described.

5. In a box magazine for fire arms, the combination of an outer casing; an inner casing provided with closed slots telescoping in said outer casing; pins passing through said outer casing and slots normally preventing said inner casing from being detached from said outer casing; a follower provided with lugs sliding in said slots adapted to rest on said pins; a bottom in said inner casing; a spring between said follower and bottom; and a spring controlled catch associated with said bottom adapted to detachably secure said inner and outer casings together, substantially as described.

6. In a readily attachable and detachable box magazine for fire arms, the combination of an outer casing extending transversely of the piece and provided with a cartridge feed opening; an inner casing telescoping in said outer casing, adapted to cover and uncover said opening; a follower in said outer casing over which said inner casing also telescopes; means for detachably securing said inner casing to said outer casing; and a catch for detachably securing said outer casing to the piece, substantially as described.

7. In a readily attachable and detachable box magazine for fire arms, the combination of an outer casing extending transversely of the piece and provided with a cartridge feed opening; an inner casing telescopically associated with said outer casing adapted to cover and uncover said opening and provided with means normally preventing its complete detachment from said outer casing; a follower over which said inner casing is adapted to telescope; and a pivoted catch for securing said outer casing to the piece, substantially as described.

8. In a readily attachable and detachable box magazine for fire arms, the combination of an outer casing extending transversely of the piece and provided with a cartridge feed opening; an inner casing telescopically associated with said outer casing adapted to

cover and uncover said opening and provided with means normally preventing its complete detachment from said outer casing; a follower over which said inner casing moves; a spring between said follower and said inner casing for actuating said follower; and a spring controlled catch associated with the trigger guard for securing

said outer casing to the piece, substantially as described.

In testimony whereof, I affix my signature, in presence of two witnesses.

MILTON W. H. BROWN.

Witnesses:

MARY E. CASSERLY,
JOHN T. TEMPLE.