(No Model.)

A. BURGESS.

DETACHABLY SECURING BARRELS TO STOCKS.

No. 517,024. Patented Mar. 27, 1894.

Fig. 1.

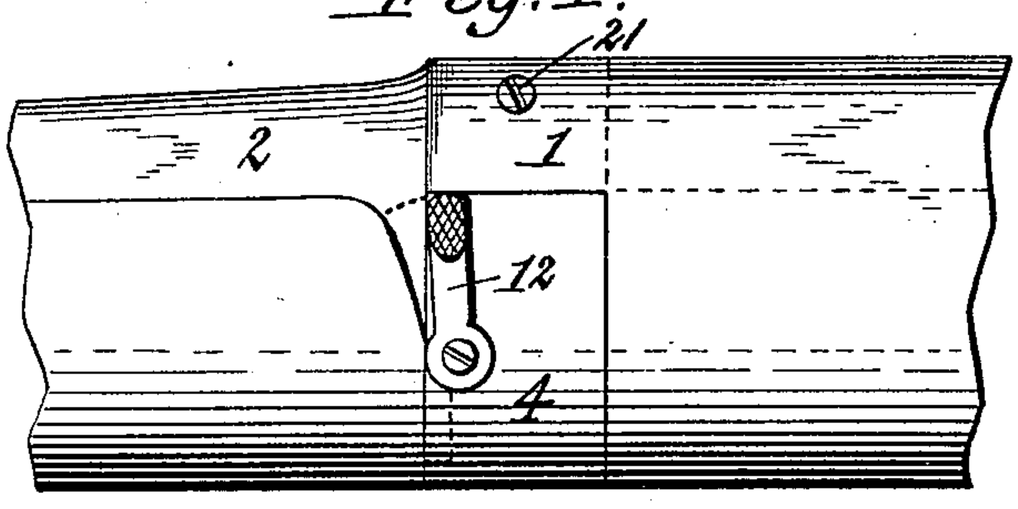


Fig. 6.

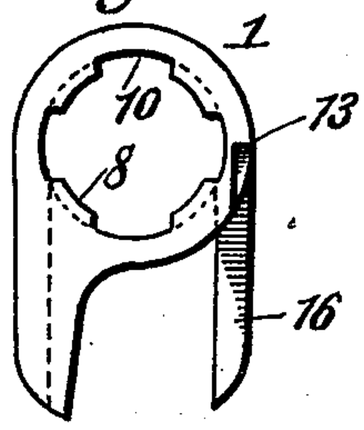


Fig. 2.

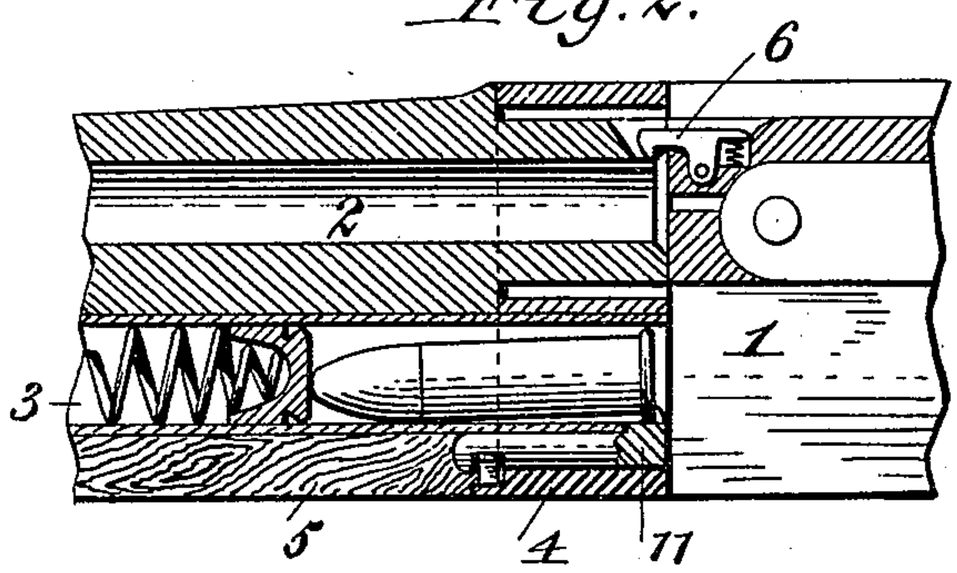


Fig. 4.

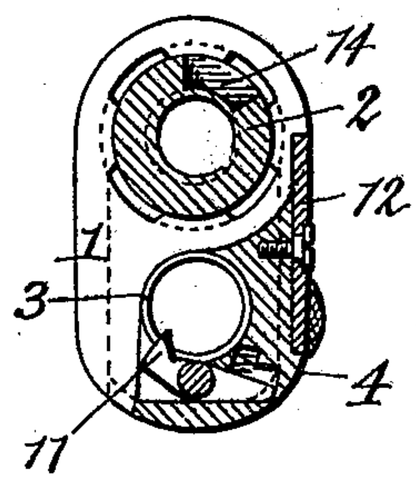


Fig. 5.

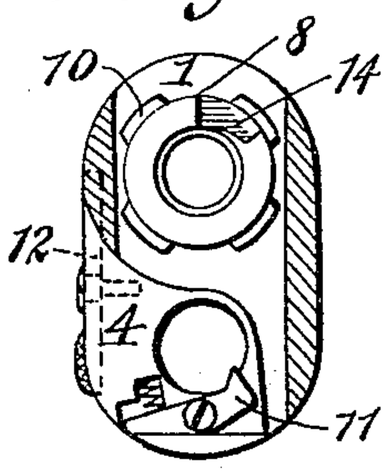


Fig. 3.

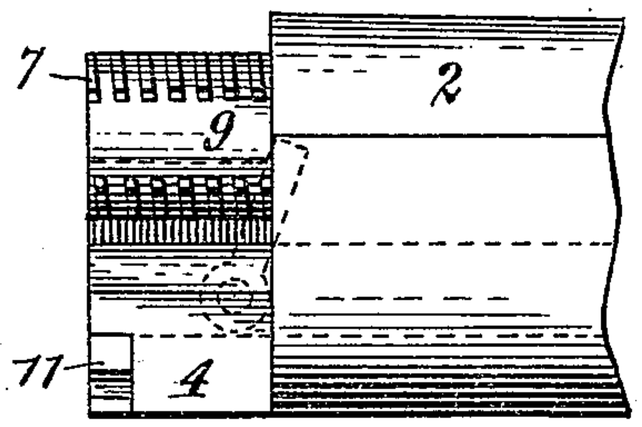


Fig. 7.

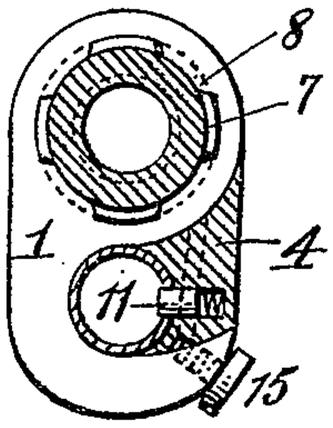


Fig. 8.

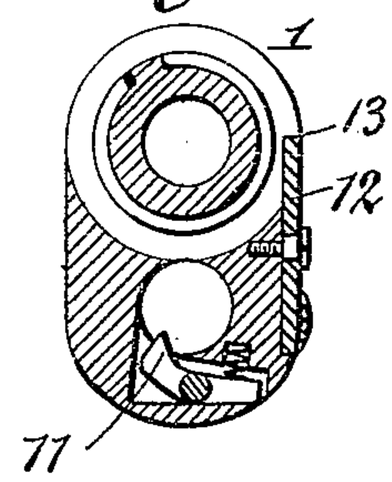


Fig. 9.

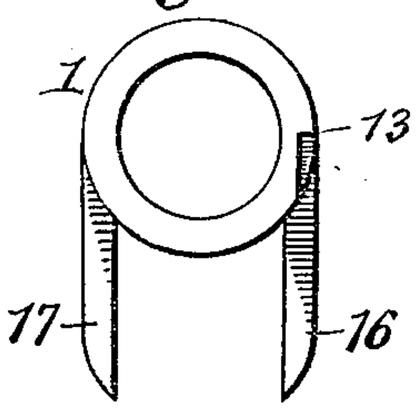
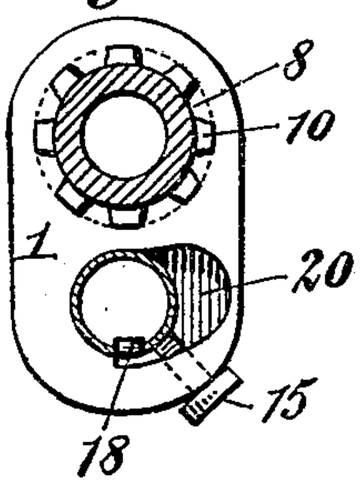


Fig. 10.



Witnesses:
Thos. L. Ogle
Edward C. Laudin

Inventor.
Andrew Burgess

THE NATIONAL LITHOGRAPHING COMPANY,
WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ANDREW BURGESS, OF BUFFALO, NEW YORK.

DETACHABLY SECURING BARRELS TO STOCKS.

SPECIFICATION forming part of Letters Patent No. 517,024, dated March 27, 1894.

Application filed November 26, 1893. Serial No. 492,025. (No model.)

To all whom it may concern:

Be it known that I, ANDREW BURGESS, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Magazine-Firearms, of which the following is a specification.

Figure 1. is a side view of a portion of the gun, showing part of the frame, barrel and forestock, and the joint connecting the barrel portion to the frame. Fig. 2. is a longitudinal vertical section, showing the joint, connecting the parts. Fig. 3. shows the right hand side of the rear of the barrel portion of the gun, detached. Fig. 4. shows the forward face of the frame in elevation, and the rear of barrel, magazine, and magazine lug, cut in cross section, looking back. Fig. 5. is a rear end view of the barrel, magazine, and lug, looking forward. Fig. 6. shows the front face of the frame, looking back. Fig. 7. is a view similar to Fig. 4. but is a modification, with lug reduced, and attached to only one side, of the magazine. Fig. 8 is another modification in which the lug 4. extends around the magazine, and occupies all the lower part of the rear face of the barrel portion of the gun. Fig. 9. represents the front face of the receiver of Fig. 8., showing the manner of cutting it away at the bottom, to accommodate the magazine lug. Fig. 10. represents a modification showing front of receiver in elevation, and magazine in section, in which the magazine lug is omitted.

This invention relates to an improvement in magazine fire arms, and its object is to provide a convenient method of detaching the barrel, and magazine part of gun, from the frame, and stock portion, and consists in the construction and combination of threaded connections, binding stop, and other parts hereinafter (in connection with the annexed drawings), more fully described.

1. represents the frame or receiver, to which is attached the barrel 2. The barrel has firmly fixed thereto the magazine 3.; and a lug 4. is so fixed to the magazine as to render the said magazine, barrel, and lug, practically integral, in a manner well known in the art. The forestock 5. is also attached to the barrel in the usual manner. These parts as specified mainly constitute the forward or barrel, portion of the gun.

The receiver may be fitted with any known mechanism and an extractor as 6. and the butt stock, may be attached to the receiver in any known manner; to form the rear or receiver portion of the gun. The receiver has the usual threaded opening in its front face, to receive the rear screw threaded end of the barrel. The screw threads may be continuous in the receiver, and around the barrel, or cut away to form segments which match when turned into position, to hold the parts together, and mis-match when turned to allow the parts to be separated. The use of the continuous threads is desirable for greater strength, as shown in Fig. 8. but this necessitates several revolutions of the barrel to fix, or separate the parts.

In Figs. 2, 3, 4, 5, 6, and 7, I show the receiver provided with four groups of segment threads 8, arranged to interlock with four corresponding groups of segment threads 7, on the barrel, when said barrel is entered into the frame, and turned to its fixed or firing, position; as shown partly in cross section in Figs. 4. and 7. Turning the barrel portion one eighth revolution, will move its groups of threads into the cut out spaces 10. of the frame, and the segment threads of the frame into the spaces 9. of the barrel, thereby releasing all engagement between the segment threads of the barrel and frame, and allow the barrel portion to be pulled forward and out, to release and separate it from the butt portion of the gun. A stop 21, Fig. 1, consisting of a screw seated in the frame, which enters a cut in the barrel, or the space between the segment threads and limits the turning movement of the barrel.

It is obvious that a more or less number of groups of segment threads may be provided in the frame and on the barrel, as it may be desirable to attach or remove the barrel, with a less or a greater part of a turn.

In the vertical section Fig. 2. the magazine 3. and lug 4. are shown fixed to, or integral with, the barrel and magazine.

A magazine stop 11. is arranged in the lug to hold the cartridges in the magazine. By this arrangement the stop is carried by the

barrel portion of the gun and operates equally as well to hold the cartridges in the magazine, whether the barrel portion be in its fixed, or detached position; and the great advantage of carrying the cartridges in the magazine when the parts are separate, is attained.

A detailed description of the cartridge stop is not here given as it is not *per se*, a part of this invention, and it is obvious that many well known kinds, could be used in the connection shown.

Any known extractor as 6. may be used, but heretofore when the barrel has been arranged to be turned in the receiver, it has been necessary to first open the breech of a gun, to withdraw the extractor from its notch in the barrel. To avoid this inconvenience, I widen the notch laterally and incline it outward (to retain the strength of the barrel), as shown at 14 in Figs. 4. and 5., to allow the barrel to move and cam the extractor outward, without injuring it.

To hold the barrel firmly in its fixed or screwed in, position I pivot a dog or catch 12. to the side of magazine lug, with its upper cam end in position to swing rearward and engage in a notch under the abutment 13. of the frame. By this construction the cam engagement of catch 12 and abutment 13 assists to turn the parts to their extreme locking position and then holds them firmly there.

The lug on the barrel portion of the gun may be constructed of various shapes, or occupy more or less of the front face of the frame. In Figs. 3. 4. and 5. to enable it to enter, all the lower left front of the frame is cut away, as shown in Fig. 6, and in the modification Fig. 8. it occupies all the face of the lower front of frame.

In the modification Fig. 7. the lug only occupies a space in the frame front the width of the magazine tube, and it is there shown fixed only to the side of the magazine, and curved to allow it to turn into and out of, a curved opening in the face of the frame.

A modified fastening consisting of a thumb screw 15, in the frame, in position to be turned in against the lug, is also shown in Fig. 7.

The construction shown in Figs. 8. and 9, where all but a circular top of the frame front, is cut away, is especially designed for a continuous threaded screw, and the barrel may there be turned complete revolutions to unscrew it, the concave part of the magazine lug moving around the circle of the projecting top of the frame. If the segment spaces are formed in the frame and barrel, as shown in Figs. 3, 7 and 10, it will not then be necessary to give the barrel portion, only a part of a turn to separate it as in the others; but it will be at the expense of a loss of strength in the joint as only half of its circumference then obtains threaded engagement.

In Fig. 6. a part of the front of the receiver is shown, so cut away that the left part 16. remains on a plane rearward of the face of the receiver, the distance which the barrel may enter. The shoulders 16. and 17. are shown on a like plane in Fig. 9. to allow space for the full magazine lug, shown in the modification of Fig. 8.

The magazine lug is desirable in this invention, as it fills the space formed in receiver to allow the magazine to turn, and is convenient to carry the magazine stop, but it may be omitted as shown in Fig. 10. and the cartridge stop as 18. be formed of a segment of the magazine tube.

In Fig. 10. I represent the threads of the receiver and barrel, divided into a greater number of groups of segment threads, to allow the parts to separate by a less turning movement of the barrel, and that the cut out 20. in the face of the frame may not extend out of its side, or make a side opening, and the wall thus retained, will stop the turning of the magazine, and barrel, in proper position for their removal from the receiver.

I claim—

1. In a magazine gun, a barrel, a magazine under the barrel and attached thereto, in combination with a receiver having an opening to receive the rear end of the barrel, a continuous wall around said opening, the receiver cut away below said wall, to form a path for the turning movement of the attached magazine, and means for holding the barrel in the receiver, and a cartridge stop arranged in the magazine to hold the cartridge therein, whether the barrel be in its fixed, or removed position.

2. In a magazine gun, a barrel threaded at its rear, a magazine attached to the barrel and extending substantially to its rear end, but separate therefrom, beneath the threaded part of said barrel, in combination with a receiver with a threaded opening in the upper part of its projecting front to receive the barrel threads, and an open space below said projecting front to allow the movement of the magazine, substantially as specified.

3. In combination in a magazine gun, a barrel threaded at its rear, a receiver with a threaded opening at its front end to receive the threads of the barrel, a magazine attached to the barrel and extending rearward, substantially to the rear end of the barrel, and a part of the front face of the receiver cut away below the barrel to allow the magazine to move while the barrel turns into and out of, its holding position, and a cartridge stop arranged in the magazine to hold the cartridges therein, whether the barrel be in its fixed or removed position.

4. In a magazine gun, a barrel segment threaded at its rear, a magazine under the barrel which extends rearward under the threaded end of the barrel, in combination with a receiver provided with a segment threaded opening at its front end to receive the threads of the barrel, and a recess to re-

ceive the magazine, said recess being extended to allow the turning movement of the magazine, substantially as described.

5. In a magazine gun, a barrel threaded at its rear, a magazine under the barrel which extends rearward under the threaded end of the barrel, a lug on the magazine and a cartridge stop carried by the lug and magazine, all in combination substantially as specified.

6. In a magazine gun, a barrel threaded at its rear, a magazine under the barrel which extends rearward under the threaded end of the barrel, a lug on the magazine and a cartridge stop carried by the lug and magazine, a cam catch to cam the parts to their extreme fixed position and hold them, in combination with a receiver having threads to receive the threads of the barrel, and a shoulder for the engagement of the catch, substantially as described.

7. In a magazine gun, a barrel threaded at its rear, a magazine fixed to the barrel and without relative longitudinal movement to said barrel, a cartridge stop in the delivery orifice of the magazine, in position to hold the cartridges whether the barrel part be fixed to or detached from the frame; in combination with a frame having a threaded opening to receive the barrel, and a recess into which the magazine debouches; a lateral path of movement at the lower part of the frame to allow the magazine to partake of the turning movement of the barrel, and a catch to hold the barrel from turning, substantially as described.

8. In a separable gun, a barrel part cut out in its rear periphery to receive an extractor, said cut out being extended laterally as described; a receiver part and an extractor in said receiver part, a magazine provided with a cartridge retaining stop; all in combination whereby the barrel part may be turned and separated from the receiver part, while the extractor is in its forward position, and the magazine and its stop, in its normal position relatively to the barrel, substantially as specified.

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

ANDREW BURGESS.

Witnesses:
THEO. L. POPP,
EDWARD C. RANDALL.