(No Model.) 3 Sheets—Sheet 1.

B. BURTON.

MAGAZINE BOLT GUN.

No. 594,853. Patented Dec. 7, 1897.

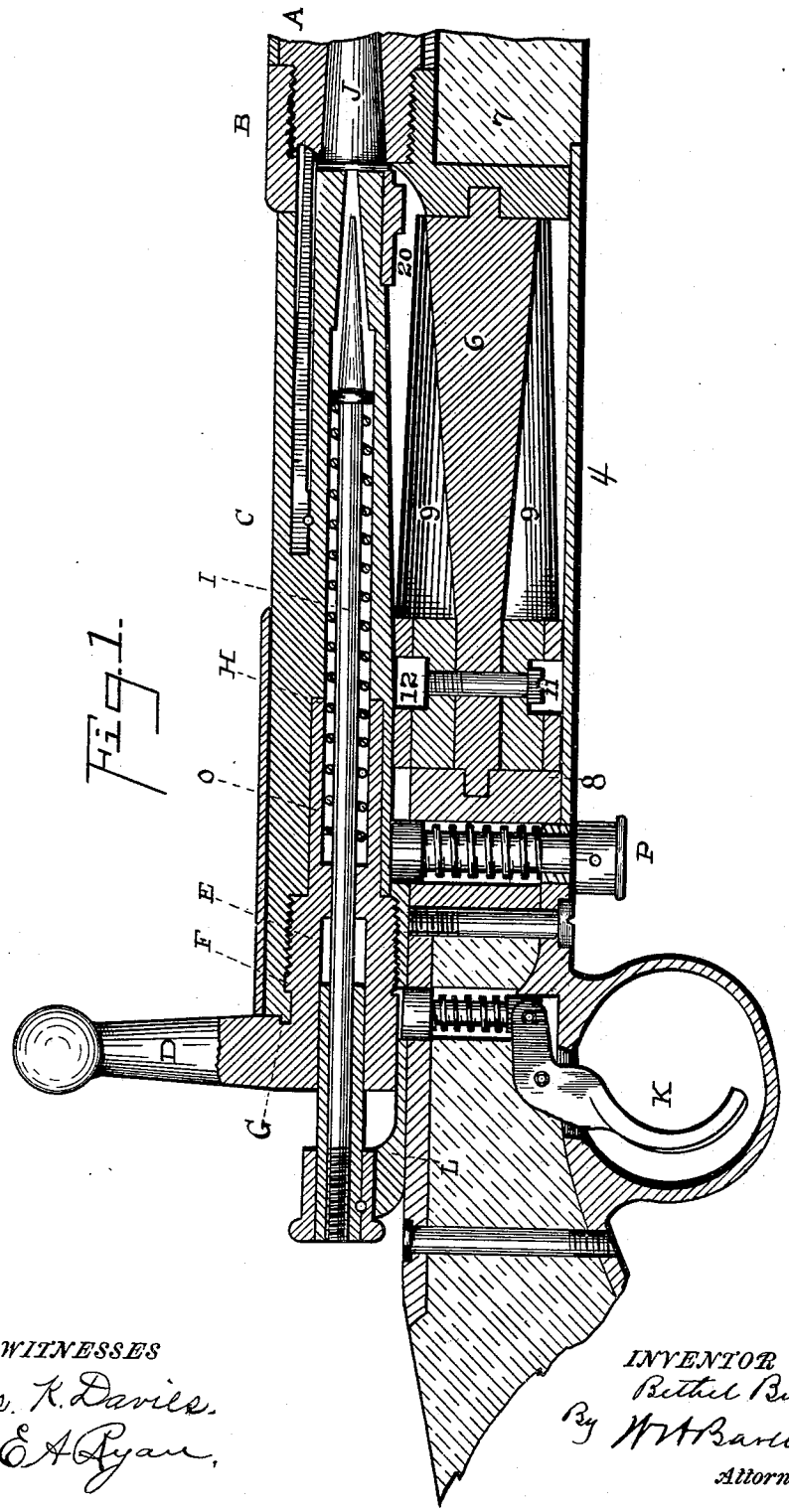


Fig. 1.

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B. BURTON.

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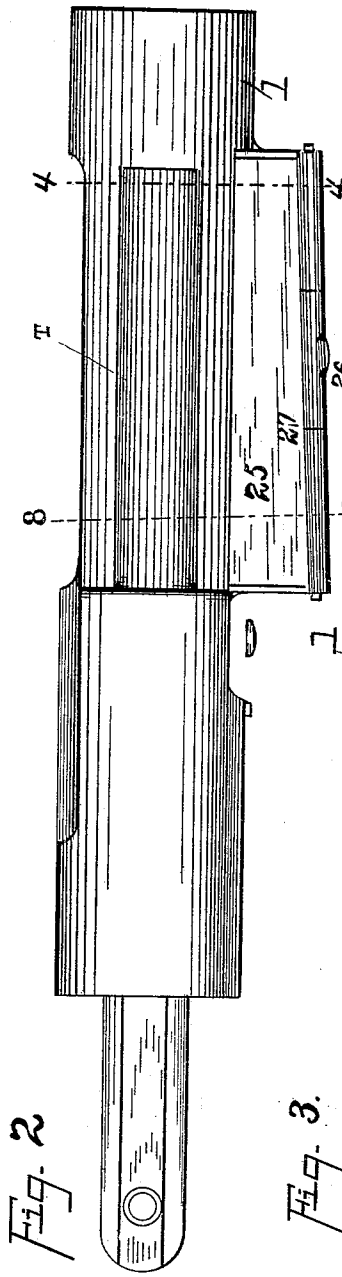


Fig. 2.

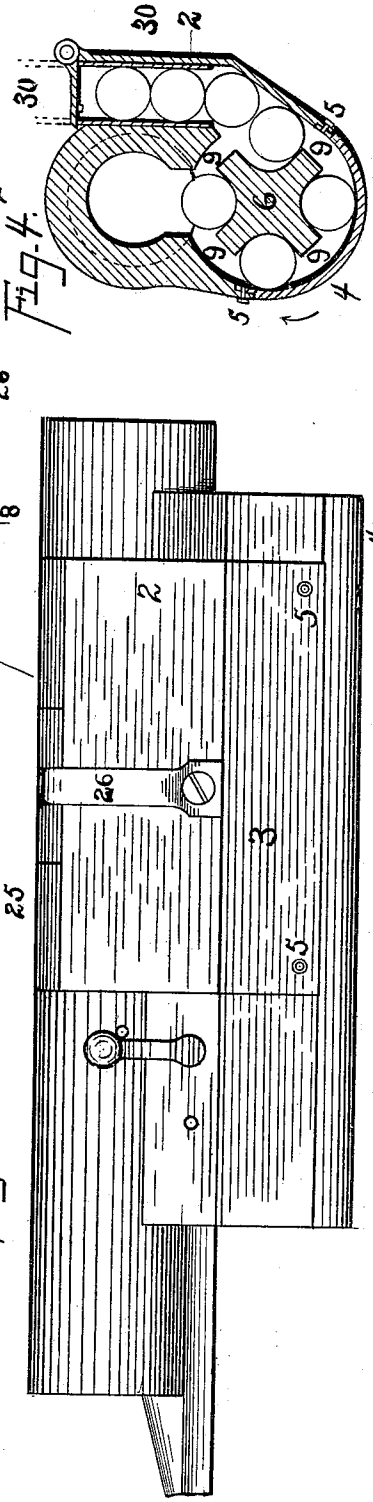


Fig. 3.

Fig. 4.

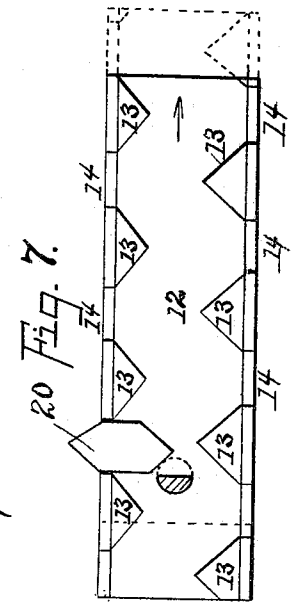


Fig. 7.

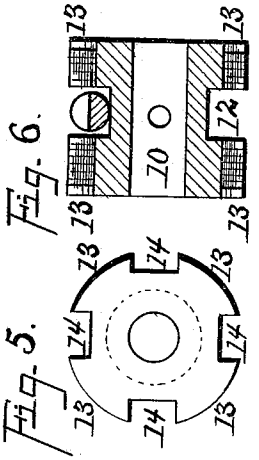


Fig. 6.

Fig. 5.

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MAGAZINE BOLT GUN.

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Fig. 8.

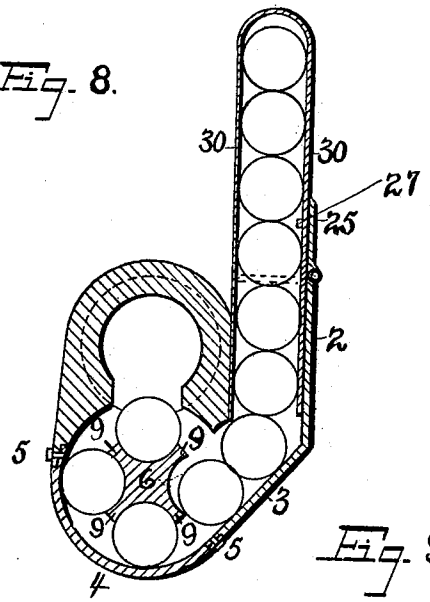


Fig. 9.

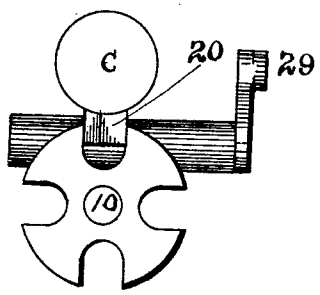


Fig. 9a.

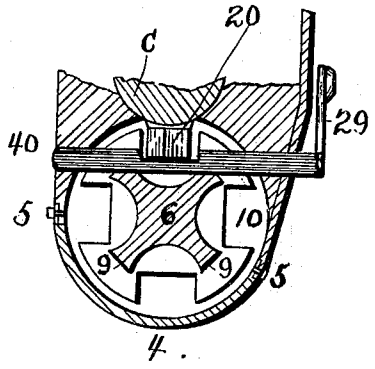
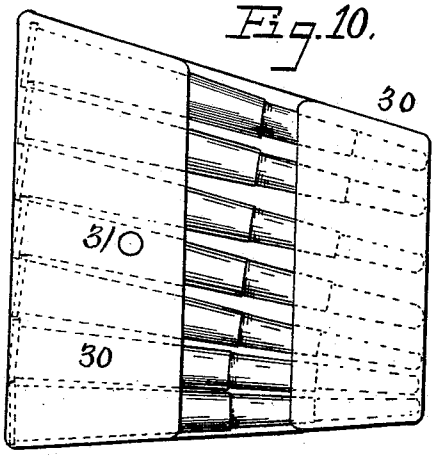


Fig. 10.



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UNITED STATES PATENT OFFICE.

BETHEL BURTON, OF BROOKLYN, NEW YORK.

MAGAZINE BOLT-GUN.

SPECIFICATION forming part of Letters Patent No. 594,853, dated December 7, 1897.

Application filed September 19, 1896. Serial No. 606,386. (No model.)

To all whom it may concern:

Be it known that I, BETHEL BURTON, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Magazine-Guns, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in magazine-guns.

The object of the invention is to produce a magazine-gun into which a feeding-clip may be emptied or the feeding-clip may be permitted to remain in the magazine and form an extension thereof, so as to retain an additional number of cartridges in position for feeding; also, to improve the magazine and rotary feeder and insure the regularity of the feed; also, to improve magazine-guns in various particulars, substantially as hereinafter described and claimed.

Figure 1 is a vertical central longitudinal section of a gun, parts being omitted except where considered necessary to illustrate the invention. Fig. 2 is a top plan of the breech-frame and magazine, the bolt being removed. Fig. 3 is a side elevation of Fig. 2. Fig. 4 is a section on line 4 4, Fig. 2. Fig. 5 is an end elevation, and Fig. 6 a longitudinal section, of the device by which the magazine-feeder is caused to rotate; and Fig. 7 is a diagram showing the face of the rack-wheel reduced to a plane and showing the operating push-piece. Fig. 8 is a section about at line 8 8, Fig. 2, but having a clip inserted in the magazine. Fig. 9 is a diagram of bolt, spool, and magazine cut-off. Fig. 9^a is a detail cross-section near the rear of the magazine, showing a cut-off attachment modified. Fig. 10 is an elevation of a cartridge-clip with side passages for pressing the cartridges quickly out of the clip or holder.

The gun-barrel A may be of usual construction and screws into the frame B in the usual manner, as shown. The bolt C does not rotate, but may reciprocate in the frame B, being locked when in closed position by turning the handle D, which handle D is connected to a sleeve E, having external segmental threads, which threads engage threads in the frame in a manner well known in this art. The sleeve and bolt are connected together by means of the segment F on the sleeve extending into a groove in the bolt and the projection G extending into a curved recess in the handle, as is common. The forward extension H of said sleeve E extends into a chamber in the bolt proper and furnishes an improved bearing in locking the bolt, and also a means for retaining the mainspring about the firing-pin I.

The trigger K and its sear, surrounded by a coiled spring, engage an extension L, connected to the firing-pin. The spring-pin P serves to disconnect the bolt and permit its removal, as is usual.

The magazine 1 has its mouth at the side of the receiver and extends downward, being provided with a side plate 2, which by an incline 3 is merged into the well under the bolt in the receiver. This well is provided with a removable curved plate 4, which may be held in place by screws 5 5, or in other suitable manner, to enable the rotary carrier 6 to be inserted.

The rotary carrier 6 has its bearings in the frame 7 at the front of the well and in a block 8 at the rear thereof. It should be held against undesired rotation by a tightness of fit or by a friction-spring or by any other means usual to prevent a false movement of a mechanical part. The carrier 6 is provided with wings 9, which divide the cartridges in the well one from the other and carry the cartridges to the position under the bolt, as will be understood.

The rotary carrier 6 has a spool 10 firmly secured thereto, as by screw 11. This spool 10 has a circumferential groove 12, and at each side of said groove projections 13, with inclined surfaces, are separated by passages 14, through which passages a projection 20 from the bolt can move, as will be described. The inclines 13 form a zigzag. The outer surface of the spool 10 is indicated as a diagram in Fig. 7. The inclined faces of the projections 13 extend toward the central passage, and the inclines at front and rear of the spool alternate.

The rigid projection or push-piece 20, formed on the bolt, is of a width to pass between the projections 13 of the spool and is provided with inclined front and rear faces. When the bolt is drawn backward for loading the gun,

the projection 20, entering the passage 14, moves back until its inclined face encounters the rear projection 13 and causes the projection and the spool to move in a rotary direction. On reversing the bolt movement to close the bolt the inclined side of 20 encounters one of the front projections 13, which this partial rotation of the spool has carried in front of the projection 20, and thus causes a further movement of said spool. The inclines at the side of the push-piece 20 are uneven, so that they come into engagement always with the faces of the inclines 13 in such manner as to cause rotation in the direction indicated by the arrows, Figs. 4 and 7. As the bolt moves forward the piece 20 presses the cartridge into the barrel. When the bolt is in its closed position, the carrier may be rotated in either direction when sufficient force is applied to overcome the friction heretofore referred to.

The magazine has a hinged cover 25, which cover will be held in either open or closed position by a spring 26 in the same manner that the blade of a pocket-knife is held either open or closed by its spring.

Fig. 10 shows a clip of well-known form in which cartridges are stored for transportation, and said clip or others of somewhat similar construction may be used for filling the magazine, or the cartridges may be dropped into the mouth of the magazine when the cover is lifted. The cartridges are held in the clip by slightly turning in the edges of the sheet metal of which the clip is made or by a light fastening which may be easily broken. The cartridges may be pressed from the clip by the finger or thumb of the operator entering the slot in the side of the clip. The clip 30 may have a hole or depression 31 in its side into which a boss 27 on the magazine-cover projects to hold the clip in the mouth of the magazine.

To fill the magazine from the clip, the magazine-cover is lifted and the end of the clip inserted into the magazine, where it will take the position shown in Fig. 8. The cartridges, being now pressed down, will enter the magazine, as in Fig. 4, when the clip may be withdrawn and thrown away.

The magazine may be partly filled, say to the extent of four cartridges, in the rotary carrier in the construction shown, and the clip may be then applied to the gun, as in Fig. 8, and the clip, being held in place by the magazine-cover, will permit the cartridges to feed down by gravity to the carrier as they are exhausted by the operation of the gun.

A bolt-stop 29 may be applied, so as to prevent the complete backward movement of the bolt. The bolt-stop shown is simply a pin with one side cut away, so that when turned in one position it stops the backward movement of projection 20 of the bolt at such time as the said projection enters the front passage 14 in the spool. The bolt will thus be prevented from moving back far enough to cause the inclines on projection 20 to rotate the carrier, and the carrier will then lie in the position of Fig. 4. The gun may then be used as a single-loader by feeding cartridges through the bolt-opening T. The bolt-stop indicated is well known in guns of this class, and other forms of bolt-stop might be used with the same effect.

No special form of bolt is claimed other than the sleeve improvement. Usual coöperating parts well known in gun construction may be employed. Such changes as are usually made by mechanics to adapt the device to special circumstances are contemplated in this invention.

What I claim is—

1. In a magazine-gun, the magazine having a hinged cover, a spring to hold said cover in open or closed position, and a loading-clip having an interlocking projection engaging with said cover when the cover is in open position to hold the clip in the gun, all combined substantially as described.

2. In a magazine-gun, the receiver and reciprocating bolt, the magazine in the frame and having an opening at the top and a hinged cover therefor, and a side passage at the bottom, a well communicating with said magazine and a rotary carrier in said well provided with inclines engaged by a projection from the bolt, whereby the said carrier may be intermittingly rotated as the bolt reciprocates, substantially as described.

3. In a magazine-gun, the magazine inclosed in the frame of the gun, the well in the frame and a rotating carrier in said well, the spool on said carrier having zigzag inclines, and the reciprocating bolt having a projection to engage directly with said inclines on the spool, all combined substantially as described.

4. In a magazine-gun, the bolt having an inclined projection thereon, the rotary carrier having a spool with inclines arranged in zigzag to be rotated by the engagement of said bolt projections as described, and the bolt-stop movable into position to prevent the engagement of the bolt-incline with the inclines of the carrier to rotate said carrier, all combined substantially as described.

5. In a bolt-gun, the receiver, the non-rotating bolt having a projection for engagement with the carrier, the rotary carrier, and the bolt-handle having a partially-rotating sleeve, and a supporting-sleeve, O, integral therewith and extending into the chamber of the bolt proper, all combined substantially as described.

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

BETHEL BURTON.

Witnesses:
W. A. BARTLETT,
CHAS. K. DAVIES.