

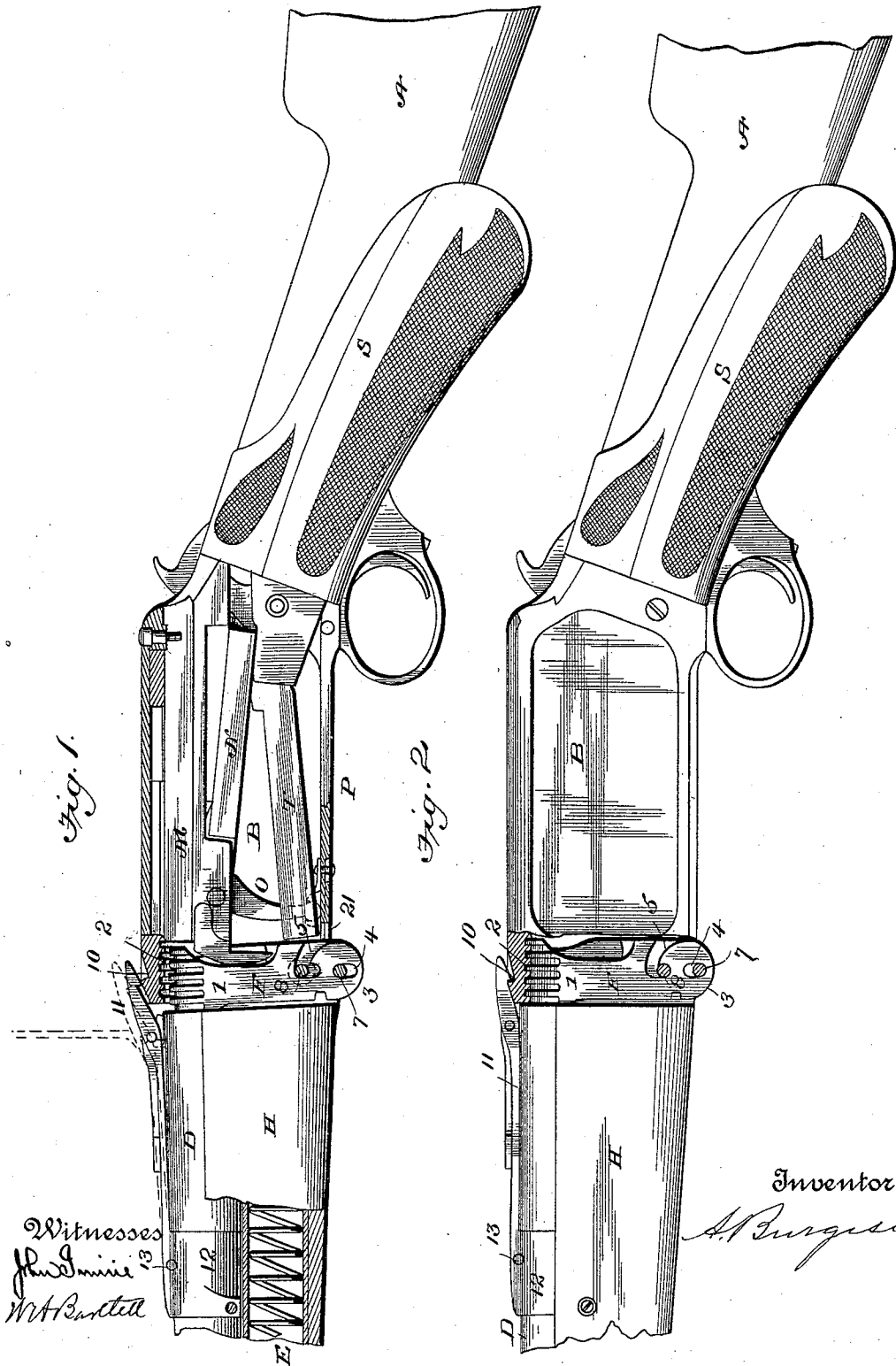
(No Model.)

2 Sheets—Sheet 1.

A. BURGESS.
FOLDING MAGAZINE GUN.

No. 524,800.

Patented Aug. 21, 1894.



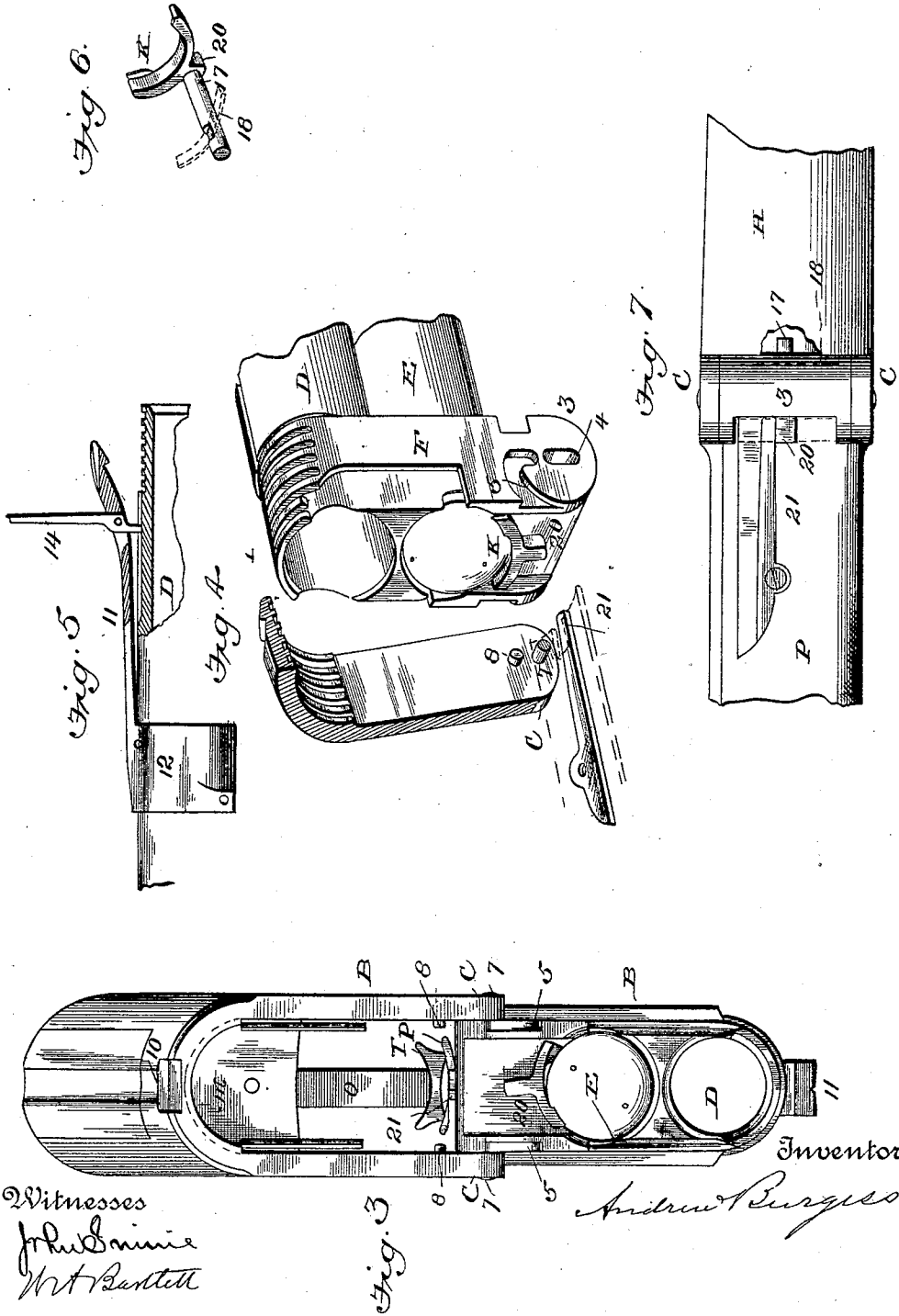
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FOLDING MAGAZINE GUN.

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Patented Aug. 21, 1894.



Witnesses
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UNITED STATES PATENT OFFICE.

ANDREW BURGESS, OF BUFFALO, NEW YORK.

FOLDING MAGAZINE-GUN.

SPECIFICATION forming part of Letters Patent No. 524,800, dated August 21, 1894.

Application filed May 8, 1894. Serial No. 510,509. (No model.)

To all whom it may concern:

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

This invention relates to magazine fire-arms, and most of the features are specially intended for a folding gun, designed for police and cavalry use.

The object of the invention is to construct a folding gun which will in closed position be no longer than the length of the barrel; also to have a magazine connected to the barrel or stock, and provided with a cartridge detent which will retain the cartridges in the magazine when the gun is in folded position, but will release them to be fed to the gun as soon as the gun is extended. Also to improve the joint and securing mechanism of the character described. Also to improve certain details and combinations of mechanism of a gun, substantially as described.

The gun is a modification of and improvement on the invention described in my application, Serial No. 459,775, filed January 26, 1893, patented June 12, 1894, No. 521,202.

Figure 1 is a broken side elevation and longitudinal section showing parts in elevation and parts in section, to give a general idea of the joint and preferred form of breech mechanism, but omitting both the stock end and muzzle end of the gun, and other details which are known or common. Fig. 2 is a side elevation of about the same portion of a gun, the frame being broken away to show the joint more fully. Fig. 3 is an end view of the stock and barrel in folded position. Fig. 4 is a broken perspective of the rear end of the barrel and magazine and one member of the hinge joint, and showing a broken part of the frame, in section, near the rear of the barrel. Fig. 5 is a broken side elevation of the spring catch and detaching lever. Fig. 6 is a perspective of the cartridge stop and spring detached. Fig. 7 is a bottom view of part of the gun near the joint.

The preferred form of breech mechanism is a reciprocating bolt connected to a handle which slides on the small of the stock, and which has a cartridge carrier actuated from

the bolt or breech mechanism. But as will be apparent to an expert in this art the folding construction of gun and magazine is adapted for use with many forms of "bolt" guns, and other breech loading mechanism.

The stock A may be of any approved construction in its general details. As in most guns, the stock and metallic frame B which carries the breech mechanism, are connected in usual manner, as by screws or rivets. The frame B at its front has a housing or receptacle for the barrel portion.

At the front of the frame B there are depending lugs or ears C, which form one knuckle or member of the hinge.

The barrel D, of the gun, has at its rear end, (either on the barrel or the binder) a series of ridges and depressions, as indicated at 1. These ridges or ribs extend across the upper part of the barrel, and a little way down the sides. The front of the frame B has a complementary set of ridges and depressions, or ribs and grooves 2, so that when the barrel is entered into the frame from below, these ribs on the stock portion and barrel interlock, as shown in Fig. 2.

The barrel preferably has a tubular magazine E attached, and barrel and magazine are held firmly together by the binder F, to which the barrel is firmly attached. The binder F is extended below the magazine to form one lug or knuckle 3 of the hinge, and this knuckle is perforated laterally with an oblong perforation 4. The binder F has curved or cam guide grooves 5 in the cheeks of the knuckle, which curved or cam grooves terminate in a vertical groove 6 directly over the aperture 4, as shown in Fig. 4.

The hinge is formed by passing a pin or pintle 7 through the lugs C of the rear frame, and through the oblong opening 4 in the binder attached to the barrel. The frame or housing B has short studs or pins 8 projecting inward to enter the guide grooves when the gun is straightened, as in Figs. 1 and 2, but these pins swing out of the guide grooves when the gun is folded, as shown in Fig. 3. The ends of the grooves 5 are wider than the body of the grooves so that the pins 8 will enter the grooves when the gun is straightened out from folded position, no matter what may be the position of the pintle 7 in the hole 4. When the pins 8 are in the main

part of the grooves 5, however, they force the knuckle 3 to take such position that the pintle 7 is at one side of the hole 4.

The frame B has a notch 10 in its upper portion. The barrel D has a spring latch 11 attached, preferably by means of a ring 12 integral with said spring 11, and surrounding the barrel, and held firmly to the barrel in any suitable way, as by a pin 13 passing through the ring and partly lying in a notch in the barrel, as is common in fastening rings or bands to gun barrels. This ring affords a convenient means of attachment for the fore-stock H.

The hooked end of the spring latch 11 is beveled on its under surface, and the top of the frame may be also beveled. When the gun is straightened, as in Figs. 1 and 2, from the folded position, Fig. 3, the pins 8 in the grooves 5 guide the members of the hinge, and hold the pintle 7 at one end of the opening 4, so that as the barrel reaches the position of Fig. 1, the catch of the spring latch rides over the top of the frame, ready to drop into the notch 10.

When the barrel reaches its extended position, the ribs 1 in the barrel portion are in line with the grooves 2 in the frame or stock portion, and the pins 8 are directly over the straight part of grooves 5. The spring 11 being firmly attached to the barrel, then lifts the barrel so that the ribs and grooves 1 and 2 interlock, and at the same time the pins 8, moving in the straight part of the grooves 5, firmly hold the barrel against longitudinal movement (see Fig. 2). The spring hook on the latch 11 engages the notch in the housing at the instant the barrel reaches its extended position. This is essential to prevent a rebound of the parts.

The latch 11 as illustrated would serve as a holding latch, but this is not necessary, as the interlocking ribs give sufficient strength. The spring acts to prevent the rebound and to shift these interlocking parts into locked position as soon as they are in line with each other.

When the parts are in the position of Fig. 2, the resistance to longitudinal movement of the barrel equals the strength of the interlocking ribs, and the pins 8 in the grooves 5, added to the strength of the pintle in the opening 4, and may easily be as great as that of a gun barrel screwed into a frame in the ordinary manner.

A convenient means for loosening the latch so as to allow the hinged barrel to turn on the pintle, is shown in Figs. 1, 2, and 5. This is a lever 14, which is pivoted in a slot in the spring latch 11, the short end passing through said slot. When the long arm of the lever is raised it lifts the hook end of the spring latch out of notch 10. A slight blow on the top of the barrel will then disengage the ribs, and the barrel may then swing on its pintle, and fold against the stock. Said lever can be folded down to insert the gun in its case,

and the spring will retain it in such position, and will then be in position to act as a latch. When the lever is turned up the spring latch is inoperative as a catch.

If the folded gun be held by the stock, as is convenient, and the barrel be quickly swung to extended position, the catch 11 will drop into notch 10 the instant the gun is extended, and no rebound of the barrel can take place.

The spring latch can be notched on its upper portion thus forming the rear sight of the gun.

The magazine E has the usual spring and follower, and a cartridge stop K at the mouth of the magazine, is normally held by a spring 18 in position to retain the cartridges in the magazine. The cartridge stop illustrated is a segment of a ring having a spindle 17 which extends parallel with the tube of the magazine, and a small spring 18, bearing on a flattened part of the spindle, tends to rock one end of the segment slightly in front of the magazine (as shown in Fig. 3) when the gun is folded. This cartridge stop has been heretofore described and used by me in connection with magazine guns.

A projection 20, connected to the stop K, is in such position as to strike an abutment on the stock portion, when the gun is extended, so that the act of straightening the gun causes the magazine to feed. This abutment as shown in the illustration is a spring piece attached to the sliding cover at the bottom of the frame.

The breech system I have illustrated is substantially one heretofore patented to me. Only the essential features are shown herein.

M indicates the reciprocating bolt. N, the locking brace. O, the connection from the brace to the sliding cover P, at the bottom of the frame, which cover is connected to the handle S. The handle S reciprocates to operate the bolt, and the carrier T, in manner well known in guns manufactured by me. While this is my preferred system, it will be readily understood by the expert in this art that the magazine stop may be tripped by extending the barrel to firing position, or by the operation of closing the breech, whether this or some other form of breech operating mechanism be adopted.

While the trip 21 in the form shown is a spring of greater strength than the spring 18 of the cartridge stop or detent, said trip 21 might be a rigid abutment. I prefer the yielding spring trip, as the carrier stop is liable to become obstructed and a rigid trip then injure or break something, while the spring trip will adapt itself to the work to be done.

The spring trip operates by the unfolding of the gun and the movement of the breech mechanism, or may be operated by the breech mechanism alone in guns of other construction.

It will be seen that the projection 20 of the

cartridge stop is elongated to pass the trip 21 with sufficient movement to allow the shifting described for the interlocking and unlocking of the ribs of the barrel and frame.

5 From the foregoing, I desire it to be understood that my present invention may be applied to guns having what is known as the Burgess breech mechanism, or to many other guns. That my gun if a magazine gun may
10 be carried with a full magazine and a cartridge in the barrel, and with the stock folded against the barrel, so that the gun is shortened (to substantially the length of the barrel) by the full length of the stock. That
15 when folded the stock portion carries the entire breech closing and operating mechanism, while the barrel portion hinged to said stock portion, can be swung in an instant of time to extended position and firing can then begin at once.

20 The gun illustrated embraces the best form of the invention now known to me, but is capable of many modifications, and in my broad claims I do not limit myself to the precise
25 construction. Of course the reversal of parts would not be a departure from the invention.

What I claim is—

30 1. In a hinged gun, the combination of the stock portion and barrel portion hinged together by a yielding joint, the overlapping housing, the curved guide grooves in one portion and projections in the other in position to enter said grooves as the gun is extended, and an offset in said grooves acting as a locking
35 detent, all combined substantially as described.

40 2. In a magazine fire-arm, the stock portion and barrel portion connected by a hinge joint, the magazine carried by one of said portions and provided with a cartridge retaining stop, the other portion having a trip relatively arranged to said joint and cartridge stop to release said stop and cause the magazine to feed
45 as the parts of the gun are swung on the hinge from folded to extended position, all combined substantially as described.

50 3. In a magazine fire-arm, the stock portion and magazine portion connected by a hinge joint, the magazine attached to one of said portions and carrying a cartridge-retaining stop, and the other portion carrying a spring of greater strength than that of the magazine stop adjacent to the joint and arranged to act on the magazine stop to release the cartridges when the gun is extended, substantially
55 as described.

60 4. In a magazine fire-arm, a magazine provided with a spring cartridge retaining stop, and an abutment on said stop, in combination with breech mechanism, and a spring releasing shoulder operated thereby, said releasing spring being strong enough to overcome the spring of the cartridge stop, but yielding to greater obstruction, substantially
65 as described.

5. In a magazine fire-arm, a stock portion

and a barrel portion connected by a hinge, the stock portion having a movable breech piece and mechanism for operating and locking the same, and the barrel portion having
70 a magazine and magazine stop, and means for automatically tripping the magazine stop when the gun is extended, and for tripping the stop by working the breech mechanism, all combined substantially as described. 75

6. In a hinged magazine fire-arm, a stock portion carrying a reciprocating breech piece, locking mechanism, and operating handle, and one leaf or member of the hinge, and the barrel portion having the other hinge member, one of the hinged parts having a magazine provided with a magazine stop, and the other portion having a trip to act on said stop, whereby when the gun is folded the cartridges are held in the magazine, and when
80 the gun is extended the trip releases a cartridge and the magazine becomes instantly operative, all in combination substantially as described. 85

7. In a folding gun, the barrel portion and
90 the stock portion connected by a hinge to allow the gun to fold or to be extended to operative position, interlocking parts on the two portions, and a spring mounted on one portion and operating directly on the other to
95 catch and prevent rebound and move the parts to interlock automatically, when the gun is extended, all substantially as described.

8. The combination with a barrel portion and the stock portion hinged together as described, of the spring latch attached to one
100 portion in position to engage the other, and a separate lever operating on the latch and latch support to disengage said latch, all substantially as described. 105

9. The stock portion and barrel portion provided with downwardly projecting knuckles, connected by a pintle which permits a yielding of one part with reference to the other, guide grooves in one part and projections in
110 the other to enter therein, and a spring operating on the parts to shift the yielding joint at the completion of the movement of extension, all substantially as described.

10. In a gun, the combination with the barrel, of the spring latch connected thereto by an integral ring surrounding the barrel and secured thereto, substantially as described. 115

11. In a folding gun, the barrel portion, the spring latch connected to said barrel by an
120 integral portion curved about and secured to said barrel, and the stock portion having a notch with which said latch engages when the gun is in extended position, and means for releasing said latch, all combined substantially as described. 125

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

ANDREW BURGESS.

Witnesses:

W. A. BARTLETT,
CHAS. L. DU BOIS.