(No Model.)

A. T. BROWN.

AIR GUN.

No. 381,109. Patented Apr. 17, 1888.

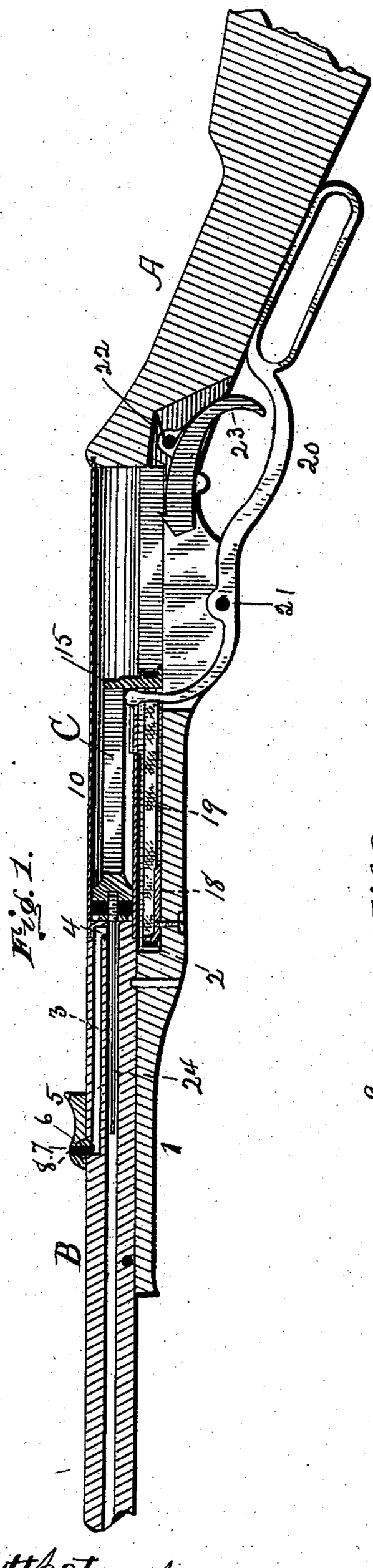

Fig. 1.

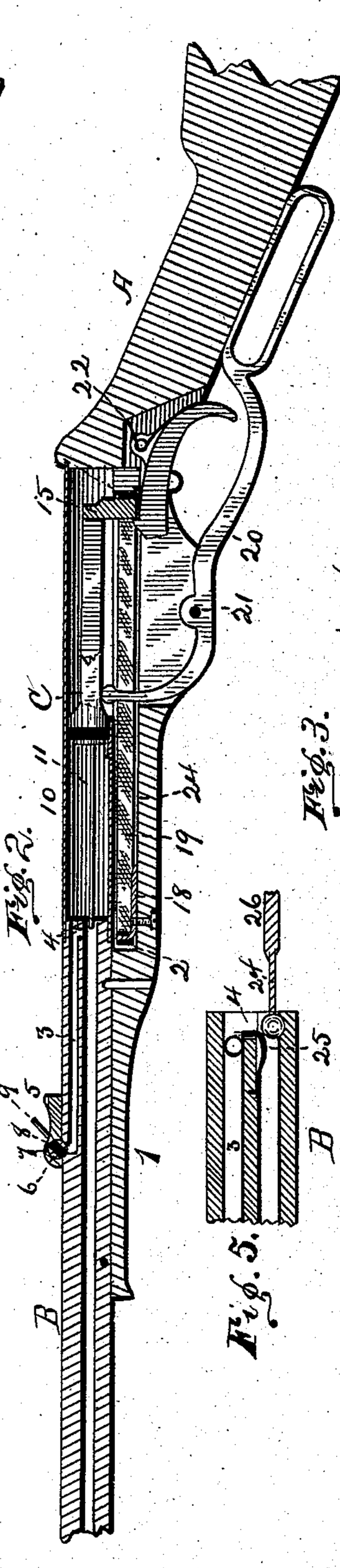

Fig. 2.

Fig. 5.

Fig. 3.

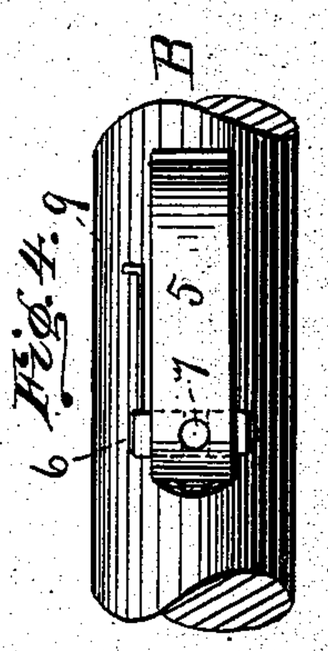

Fig. 4.

Witnesses:
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Dwight McEntire

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UNITED STATES PATENT OFFICE.

ALEXANDER T. BROWN, OF SYRACUSE, NEW YORK.

AIR-GUN.

SPECIFICATION forming part of Letters Patent No. 381,109, dated April 17, 1888.

Application filed September 5, 1887. Serial No. 248,884. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER T. BROWN, of Syracuse, county of Onondaga, in the State of New York, a citizen of the United States, have invented certain new and useful Improvements in Air-Guns, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a longitudinal section of the gun discharged. Fig. 2 is a like section of the same ready to be discharged. Fig. 3 is a detail of the piston. Fig. 4 is a plan view of the feed-aperture opening into the magazine; Fig. 5, an enlarged section of the rear end of the barrel.

My invention relates to that class of air-guns in which a spring-actuated piston forces the air in a receiving-chamber against the projectile in the barrel; and my object is to produce a magazine or repeating air-gun provided with a reservoir to receive a number of projectiles which are automatically and in regular sequence fed into the barrel.

It consists in the several novel features of construction and operation and combinations of elements, which are hereinafter described, and which are specifically claimed herein.

It is constructed as follows: A is the stock, provided with a fore-end, 1, in which I cut a longitudinal slotway, 2, forward from the breech-block.

B is the barrel mounted upon the fore-end, provided with the regular bore and also with another bore, 3, opening out at the rear end of the barrel and also communicating with the regular bore by the opening 4. This bore 3 constitutes the magazine. Upon the top of the barrel, above the front end of the magazine, I secure the block 5, which may also be the rear-sight block, and in the front end thereof I insert a transverse pin, 6, and drill a hole, 7, vertically and opening into the pin-hole. This pin is also provided with the diametric hole shown at 8, and the magazine opens out through the top of the barrel directly under the pin 6, so that when the pin is turned so that the hole through it is vertical a shot or projectile inserted into the hole 7 passes through into the magazine, and then when I turn the pin around, so that the hole 8 is horizontal, (by the rod 9 connected to the pin,) the magazine is closed air-tight, so that no compressed air can escape therefrom through the feeding or filling mechanism.

Between the barrel and the stock, and connected to both by an air-tight joint, I place a single tube, 10, the front end of which constitutes the receiver or air-compression chamber 11, and in its rearward lower side I cut a longitudinal slot, as is clearly illustrated in the drawings, to receive the stem of the piston C. This piston consists of a head, 12, provided with suitable flexible packing to fit the bore of the receiver, a body, 13, provided with a longitudinal slot, 14, and at its rear end with an offset stem, 15, which is constructed with a flat front, a convex back, 16, and flanges 17, of proper width to fit in the slotway 2 in the fore-end. In the front end of the slotway 2 I secure the holder 18, which holds one end of the rubber band 19, the other end of which is held upon the convexity of the stem of the piston. In the fore-end I also cut a vertical slot opening into the slotway 2, and in this slot I mount the lever or guard 20 upon a pivot-pin, 21. The front end of this lever passes up through the fore-end, and when the gun is not cocked engages with the front face of the piston-stem, and its rear end is of substantially the form shown in the drawings.

The stock is recessed to receive the sear-spring 22 and trigger 23, the front end of which projects into the slotway in the fore-end, and the lip shown thereon engages with the front face of the piston-stem, when the piston is drawn back, by throwing the rear end of the lever forward, when the front end thereof carries or draws the piston backward until the trigger engages with the piston-stem.

In the front end of the piston I secure a rigid projectile-starting rod, 24.

In Fig. 4 I show a countersunk cavity in the bottom of the bore of the barrel to receive a spherical projectile and hold it from slipping or rolling in this bore, and also a recess in the top of this bore, in which I secure a spring, 25, the rear end of which bends upward into the opening 4, connecting the barrel-bore with the magazine, and also the starting-rod provided with a top and bottom enlargement or widening out, 26, so that when the piston is thrown forward the rod will force the pro-

jectile out from the countersink and through under the spring; and just as this is accomplished the enlarged part of the rod will pass under the spring and hold its rear end up, as shown by the dotted lines, as a stop to prevent another projectile from entering the bore of the gun before the rod is withdrawn.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with the trigger-guard lever pivoted in the fore-end and extending upward and engaging directly with the piston in the receiving-chamber forward of the stock, of the piston having a solid head, a slotted body, and a rearward and downward stem, and the spring connected to the piston-stem and to the fore-end, and the trigger, substantially as shown and described.

2. In an air-gun, a barrel provided with a bore, in combination with a magazine wholly within the barrel and communicating with the bore at one end, and at the other end having a loading-aperture opening out through the barrel, provided with a transversely-rotating perforated bolt adapted to close the loading-aperture air-tight, substantially as described.

3. The combination, with the barrel having a magazine wholly within the body thereof and the magazine communicating with its bore and having a rotating closer in the loading-aperture, of a receiver between the stock and barrel and in line therewith, a piston within the receiver, having a solid head in which a starting-rod is secured, a slotted body and a stem upon the rear end, and a spring connected to the piston-stem and fore end, substantially as described.

4. The combination, with the barrel, the magazine wholly within it, and the opening connecting the magazine to the bore, of a starting-rod secured in the piston-head and having an enlargement of its body adjacent to the piston-head, substantially as described.

5. In combination with a barrel having a magazine wholly within it connected to its bore, a receiver between the stock and barrel, having a longitudinal slot for part of its length, a piston fitting therein and having a stem extending down through the slot, a spring connecting the piston-stem to the fore-end, and a trigger-guard pivoted in the fore-end and extended upward and engaging directly with the piston, substantially as described.

6. A pivoted trigger-guard extending upward and engaging directly with the body of the piston in the receiving-chamber, in combination with the piston, substantially as described.

In witness whereof I have hereunto set my hand this 22d day of August, 1887.

ALEXANDER T. BROWN.

In presence of—

C. W. SMITH,

DWIGHT MCINTIRE.