G. R. CAREY.

SPRING AIR-PISTOL.

No. 184,698. Patented Nov. 28, 1876.

Fig. 1.

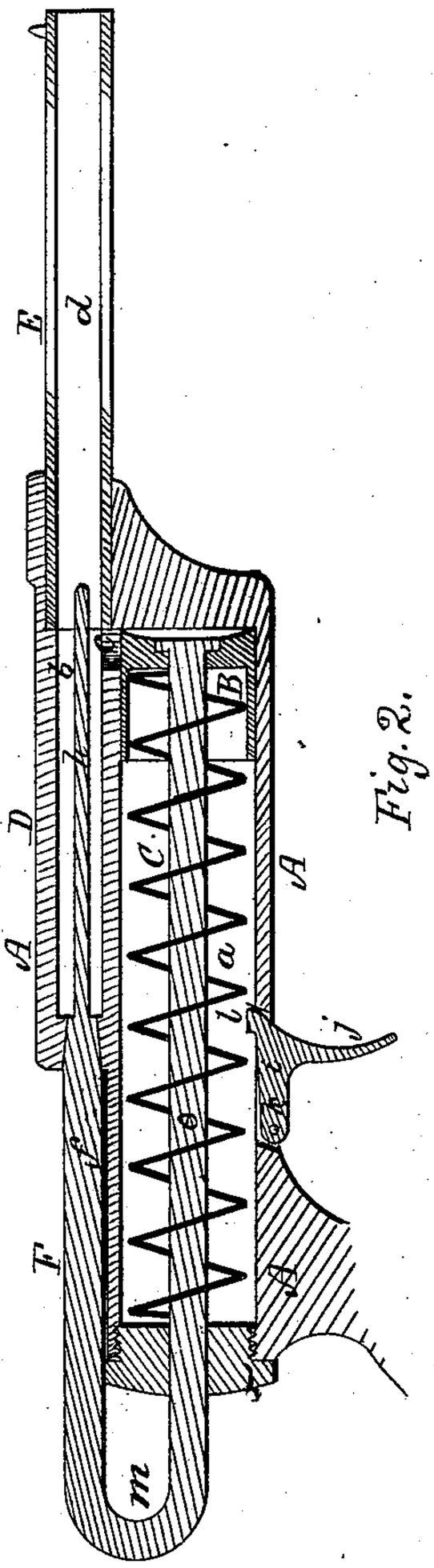
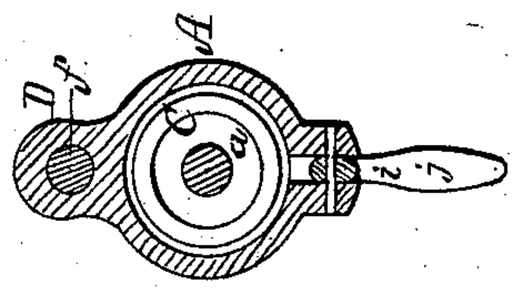



Fig. 2.




Witnesses.
J. A. Heuser.
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# UNITED STATES PATENT OFFICE.

GEORGE R. CAREY, OF MALDEN, MASSACHUSETTS.

## IMPROVEMENT IN SPRING AIR-PISTOLS.

Specification forming part of Letters Patent No. **184,698,** dated November 28, 1876; application filed July 17, 1876.

*To all whom it may concern:*

Be it known that I, GEORGE R. CAREY, of Malden, Middlesex county, Massachusetts, have invented certain Improvements in Air-Pistols, of which the following is a specification:

In this pistol an air-magazine is employed, the outlet of which is at its forward end, and at that point communicates with the rear end of the barrel, which is received within an extension of the frame or stock surmounting the magazine.

A piston, impelled forward by a powerful spring, is disposed within the magazine in the usual manner, and serves to impel air forward from such magazine through the bore of the barrel.

To perform the double function of retracting the piston, and of closing the rear end of the barrel or the small chamber over the magazine, which constitutes a continuation of the bore of the barrel, I employ a bent or yoke-shaped rod, one arm of which is connected with the plunger and the other operates with the barrel, as hereinafter explained, while the bend of the rod serves as a convenient handle, whereby the plunger is easily pulled rearward and "cocked" against the stress of the spring.

The manner of combining the trigger and plunger in this pistol is also novel, and will be hereinafter explained.

The drawings accompanying this specification represent, in Figure 1, a longitudinal section, and in Fig. 2 a cross-section, of an air-pistol embodying my improvements.

In these drawings, A represents the general frame or stock of the pistol as a straight cylinder, whose interior *a* constitutes the air-magazine, and in which magazine is disposed a close-fitting plunger, B, impelled forward by the stress of a powerful spring, C, disposed behind it after the manner of many air-pistols now in use.

In carrying out my improvement, I cast upon the top of the stock A an extension, D, whose interior *b* is hollow, and constitutes a small chamber, which communicates with the forward end of the air-magazine by a passage, *c*, the forward end of the said chamber *b* being filled by the barrel E, whose bore *d* thus constitutes, by means of the said chamber *b* and passage *c*, the only outlet of the magazine. F represents a bent or ⊂-shaped rod, the lower arm *e* of which extends through the rear end of the magazine *a*, and is connected with the plunger B in such manner as when drawn back to retract such plunger, and to be capable of being pushed forward without effect upon the latter. The upper arm *f* of the rod F enters the rear end of the chamber *b*, and serves to close the latter with an air-tight joint, while the extreme forward end *h* of such arm *f* is reduced in diameter, and of such a length as to extend forward to the rear end of the barrel, and serves to push the dart or other projectile into the bore of such barrel. The trigger of this pistol is a bell-crank lever, *i*, pivoted by a pin, *a'*, within a slot in the lower part of the stock A, the lower arm *j* of which constitutes the finger-pull, while the horizontal arm *k* is formed with a spur or hook, *l*, to intercept the plunger B when the latter is retracted, and hold it in its cocked position until released by a pull upon the portion *j*, the forward end of the plunger being concave or provided with a concave groove, in order that the hook *l* shall take firm hold of it.

In the use of this pistol one of the fingers of the right hand is inserted in the bend *m* of the rod F, and such rod is pulled backward to its greatest extent, or until its portion *h* is withdrawn entirely from the chamber *b* and the forward end of the plunger has passed in rear of and rests against the hook *l*. The rod is now turned upon its lower part as an axis until the rear end of the chamber *b* is unobstructed, and a dart or other projectile inserted in the mouth of such chamber, when the rod is turned back to place and then pushed forward to its extreme limit, the result being that the spur or teat *h* intercepts and drives forward the dart into the rear end of the barrel, and the rear end of the chamber *b* is closed against escape of air, it being understood that as the rod is pushed forward its head leaves the plunger and offers no resistance to the sudden advance of the latter. The pistol is now loaded, and a pull upon the trigger *j* releases the plunger B, the latter is driven suddenly forward by its spring, in its flight expelling the air in the magazine upward through the passage *c*, and into and

through the bore of the barrel, and expelling the dart from the latter.

This pistol represents, as I believe, the minimum of simplicity and low cost. It is very durable, and is effective in action, and great power is readily exerted to retract the plunger.

I claim—

The bent or -shaped rod, in combination with the magazine *a* and barrel F, substantially as herein shown, whereby one arm of such rod inserts the projectile and closes the rear end of the barrel, or the approach thereto, and the other arm operates the plunger, the whole being substantially as and for purposes stated.

GEORGE R. CAREY.

Witnesses:
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