C. F. LEFEVER.

SPRING GUN.

APPLICATION FILED APR. 7, 1916.

1,206,865. Patented Dec. 5, 1916.

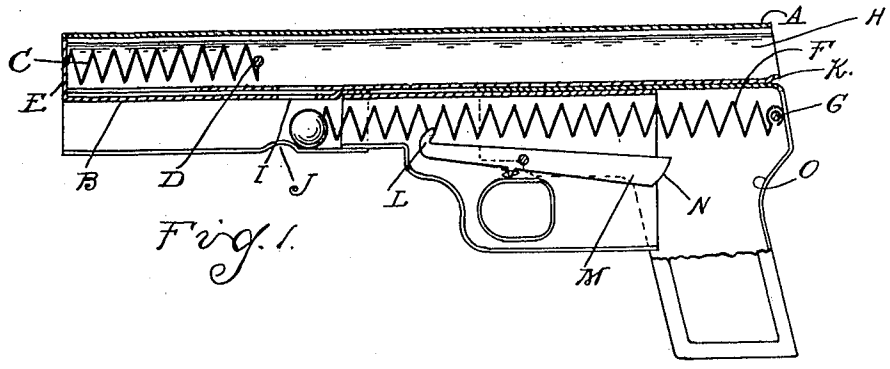


Fig. 1.

Fig. 2.

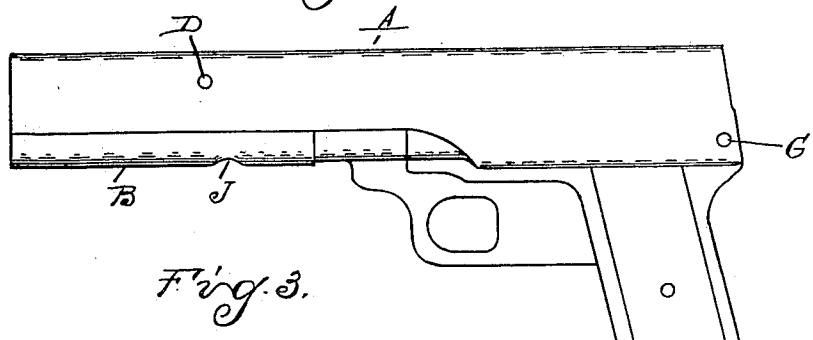
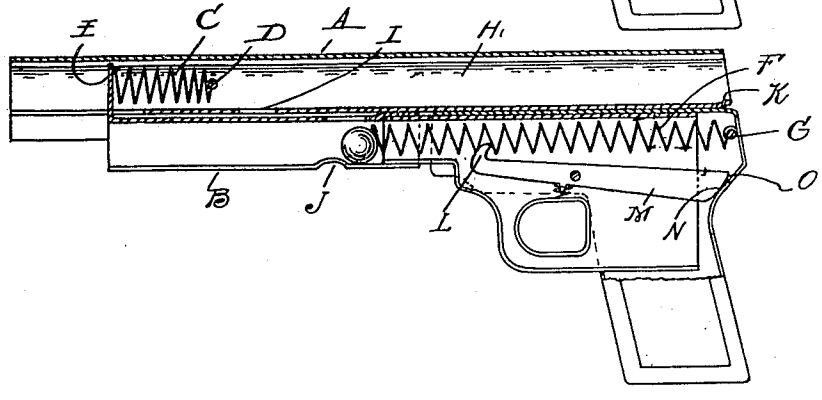


Fig. 3.



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UNITED STATES PATENT OFFICE.

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SPRING-GUN.

1,206,865. Specification of Letters Patent. Patented Dec. 5, 1916.

Application filed April 7, 1916. Serial No. 89,605.

To all whom it may concern:

Be it known that I, CHARLES F. LEFEVER, a citizen of the United States of America, residing at Plymouth, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Spring-Guns, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to spring guns and is more particularly designed for use in guns for shooting rubber balls.

The invention comprises the novel features of construction as hereinafter set forth.

In the drawings: Figure 1 is a longitudinal section through the gun; Fig. 2 is a side elevation thereof; and Fig. 3 is a view similar to Fig. 1 showing the operation of firing the gun.

A is an outer section formed of a sheet-metal stamping having complementary abutting side portions and constituting the handle, frame and false barrel.

B is an inner section also formed of a sheet-metal stamping and constituting the true barrel and trigger section. The section B is telescopically engaged with the section A and is yieldably held in its extended position by a spring C, preferably arranged in the forward portion of the false barrel and above the true barrel. This spring is anchored by abutting against a cross-pin D, while the member B is provided with an upwardly-extending lug E for bearing against the forward end of the spring. Thus when the trigger section is drawn back the spring C is compressed and upon the release of the trigger will return the parts to normal position.

The gun as shown is designed for the shooting of soft rubber balls which are ejected from the true barrel by the direct action of a spring F therein. This spring is anchored at its rear end by suitable means such as the pin G, while its forward end forms a seat for the ball. The balls are preferably introduced into the true barrel so as to seat against the spring by placing them, first, in a magazine H formed by the rear portion of the false barrel, and an aperture I at the forward end of this magazine opening into the true barrel will permit the balls to successively enter the latter. The ball is held in contact with the seat on the spring by a detent J preferably an indentation in the true barrel, over which the ball may be forced when propelled by the spring. There is also a detent or indentation K at the loading end of the magazine, which retains the balls from falling out but permits them to be forced into the barrel.

The expulsion of the ball is effected by compression and release of the spring F, which in turn is accomplished by the pull on the trigger section and telescopic collapsing of the true barrel into the frame. The spring is held during this collapsing movement by a sear L which is on a pivoted lever M mounted in the trigger section and engages the spring slightly in rear of the seat for the ball. The rear end of the lever M is inclined or cammed at N and at the completion of the rearward movement of the trigger section this cam engaging a bearing O on the frame will withdraw the sear and release the spring, which having been compressed during the rearward movement will expand and eject the ball.

While I have described a construction particularly designed for shooting rubber balls it is obvious that it may be adapted for the use of other projectiles.

What I claim as my invention is:—

1. In a gun, the combination of telescopically-engaged sections, one constituting a true barrel and trigger and the other a handle, frame and false barrel, the false barrel being parallel to and above the true barrel, and a spring arranged in the forward portion of said false barrel for yieldably holding said true barrel section in extended position and the portion of said false barrel in rear of said spring constituting a magazine.

2. In a gun, the combination of telescopically-engaged sections, one constituting a handle, frame and false barrel and the other a trigger section and true barrel, the true barrel being arranged below the top of the false barrel to leave a channel therebetween open at its rear end and forming a mazazine, a spring in said true barrel, and a sear mounted on said trigger section for engaging said spring and compressing the same in the rearward movement of said trigger section, said magazine communicating with said true barrel in advance of the spring.

3. In a gun, the combination of telescopically-engaged sections, one constituting the handle, frame and false barrel and the other

a true barrel and trigger section, said false barrel extending above said true barrel to form a channel open at its rear end and constituting a magazine, a spring in the true barrel having its forward end in rear of an aperture between said magazine and true barrel, and an indentation in said true barrel in advance of said aperture forming a temporary retainer for the projectile.

4. In a gun, the combination of telescopically-engaged sections, one constituting the handle, frame and false barrel and the other a true barrel and trigger section, said false barrel extending above said true barrel to form a channel open at its rear end and also communicating with said true barrel to form a magazine, a spring in said true barrel in rear of the communicating aperture with said magazine, and detents in said true barrel in advance of said aperture and at the rear end of said magazine for retaining resilient compressible projectiles.

5. In a gun, the combination with telescopically-engaged sections, one constituting the handle, frame and false barrel and the other the true barrel and trigger section, said false barrel extending above said true barrel to form a channel open at its rear end and communicating with the true barrel intermediate its end, a spring in said true barrel in rear of said communicating aperture, means for compressing and releasing said spring upon the telescopic collapsing movement of said trigger and true barrel section, and a spring in said false barrel in advance of said communicating aperture forming a means for returning said true barrel and trigger section.

6. In a gun, the combination of telescopically engaged sections, one constituting the handle, frame and false barrel and the other a true barrel and trigger section, said false barrel extending above said true barrel and forming a channel open at its rear end and communicating with the true barrel through an aperture intermediate its ends, a spring in said true barrel in rear of said communicating aperture, a spring in said false barrel in advance of said communicating aperture, and abutments in said false barrel of the true barrel for engaging opposite ends of said last-mentioned spring, for the purpose described.

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

CHARLES F. LEFEVER.

Witnesses:
W. B. LOMBARD,
E. C. HOUGH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."