W. B. GREENLEAF & E. S. ROE.

AIR GUN.

APPLICATION FILED JULY 17, 1916.

1,250,304. Patented Dec. 18, 1917.

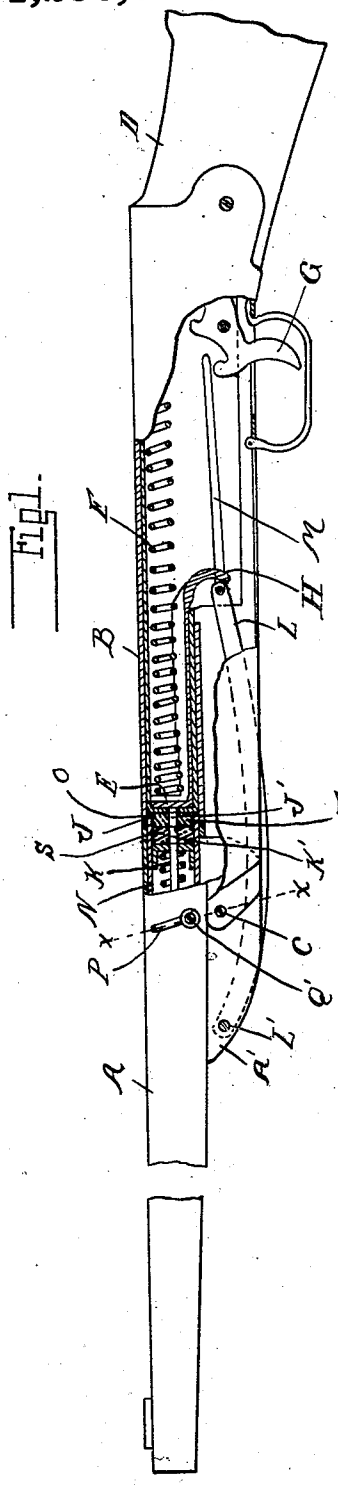


Fig. 1.

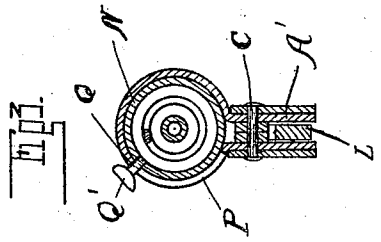


Fig. 3.

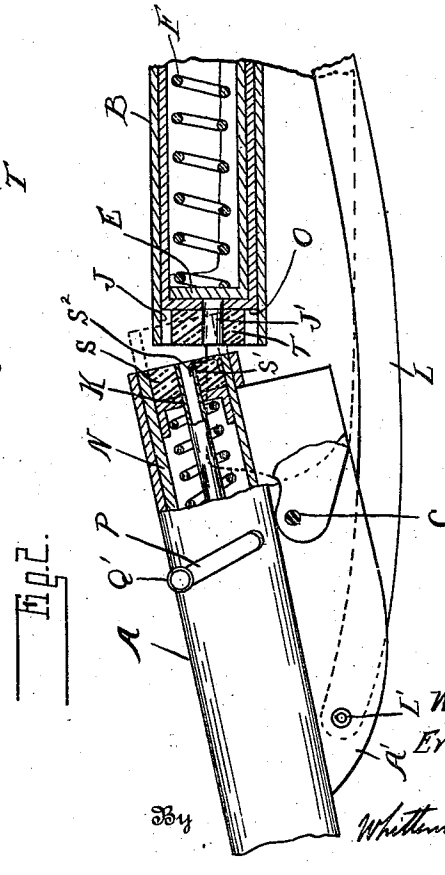


Fig. 2.

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UNITED STATES PATENT OFFICE.

WILLIAM B. GREENLEAF AND ERNEST S. ROE, OF PLYMOUTH, MICHIGAN, ASSIGNORS TO THE MARKHAM AIR RIFLE COMPANY, OF PLYMOUTH, MICHIGAN, A CORPORATION OF MICHIGAN.

AIR-GUN.

1,250,304. Specification of Letters Patent. Patented Dec. 18, 1917.

Application filed July 17, 1916. Serial No. 109,776.

To all whom it may concern:

Be it known that we, WILLIAM B. GREENLEAF and ERNEST S. ROE, both citizens 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 Air-Guns, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to air guns of what is known as the break-down type of guns or rifles.

In guns of this type, it is necessary to provide means for locking the two sections of the gun in alinement so that the parts will be in rigid relation when the gun is fired. It is among the objects of the invention to provide an improved locking mechanism for holding the barrel and plunger casing sections in proper relation after the gun is cocked; to provide a simplified means for adjusting this locking member to an inoperative position so that the break-down movement can be accomplished; to provide an air gun which can be easily cocked and then locked in operative position, and in general to provide an improved and simplified air gun construction which can be economically manufactured.

The invention also resides in such details of construction and arrangements and combinations of parts as will more fully hereinafter appear.

In the drawings:

Figure 1 is a side elevational view of a gun embodying our invention;

Fig. 2 is an enlarged section through the rear portion of the barrel of the gun;

Fig. 3 is a cross section on the line *x*—*x* of Fig. 1.

Describing in detail the construction shown in the drawings, A designates the barrel of the gun and B the plunger casing, these parts being pivoted together at C, while at the rear end of the casing there is provided the usual stock member D. The gun is of the type in which a spring actuated plunger E is adjusted back against the action of a spring F and the latter is held under compression until the trigger G is pulled, thus releasing the catch H and allowing the plunger to spring forward in the plunger chamber J. At its forward end the plunger chamber J is provided with an opening J′ registering with a corresponding opening K′ at the end of the inner or true barrel K of the barrel.

For cocking the gun by forcing back the plunger E, I preferably utilize a lever L which is pivoted at L′ to a flange A′ on the barrel, the rear end of this lever extending through a slot M in the casing B so as to carry the catch member H rearwardly with the lever when the barrel is rocked about its pivot to the position shown by dotted lines in Fig. 1. The catch member H in turn is connected to the plunger E so that the latter is locked in its rearward position until the trigger is released. After cocking the gun in the manner above described, the barrel is returned to a position substantially in alinement with the plunger casing and is locked in rigid relation thereto in the following manner.

Positioned in the rear end of the barrel A, is a longitudinally and rotatably adjustable member N, the end of which can be projected into a seat O formed in the end of the casing B. For adjusting this locking member N longitudinally, the rotative movement of this member is utilized as follows. The barrel A is provided near its rear end with a slot P, the longitudinal direction of which is inclined with reference to the axis of the barrel. Projecting through this slot is a screw Q which carries an operating member or a thumb button Q′, the inner end of which screw is fastened to the locking member N. When the thumb button is drawn downwardly it will also be forced rearwardly, carrying with it the locking member N. This will adjust the locking member into the seat and thus prevent any pivotal movement between the barrel and the casing until after the locking member is withdrawn by adjusting the thumb button in the opposite direction.

For holding the bullet or dart in position to be propelled through the bore of the barrel, the end of the latter is provided with an abutment member S swaged or otherwise suitably secured on the inner or true barrel K, and having an opening S′ at one side of which there is a light spring member S^2. The abutment S and the corresponding abutment T in the end of the casing B are preferably formed of leather or other yielding material. The abutment S together with the true or inner barrel K

is also free to move a slight distance longitudinally of the barrel and is normally spring pressed rearward so that when the member N is adjusted into locking position there will be a tight connection between the abutment members S and T.

In a gun constructed as above described the desired leverage for cocking the gun is obtained and the locking member so arranged that it can be conveniently adjusted into and out of locking position. Moreover these objects are accomplished by construction which can be economically manufactured and which will be free from complicated parts.

What we claim as our invention is:

1. In an air gun, the combination with a plunger casing and a barrel section, of means for locking said casing and barrel section in alinement, comprising a locking member, and an adjusting member for said locking member extending through an inclined slot in said barrel section.

2. In an air gun, the combination with a plunger casing and a barrel section, of means for locking said sections in alinement, comprising a locking member positioned in one of said sections and adapted to be projected into the other, a stationary abutment on one of said sections and a cooperating yieldable abutment carried by said locking member.

3. In an air gun, the combination with relatively movable sections, of a longitudinally-adjustable member for locking said sections in fixed relation to each other, and a yieldable abutment carried by said locking member.

In testimony whereof we affix our signatures.

WILLIAM B. GREENLEAF.
ERNEST S. ROE.

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