O. SCHNEELOCH.

Breech-Loading Fire-Arm.

No. 165,031. Patented June 29, 1875.

Fig: 1

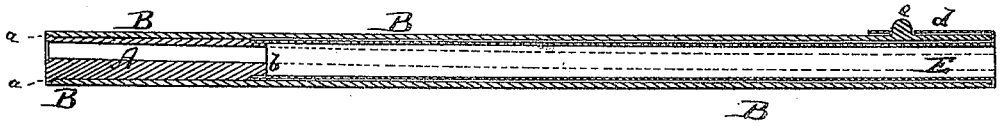


Fig: 2

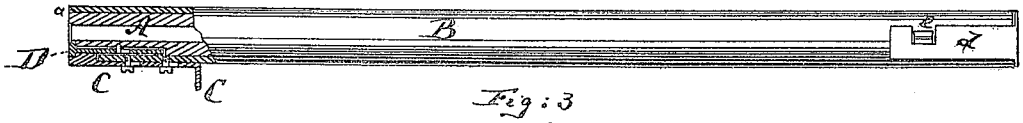
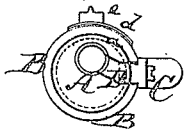


Fig: 3



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UNITED STATES PATENT OFFICE.

OTTO SCHNEELOCH, OF WILLIAMSBURG, NEW YORK.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. **165,031**, dated June 29, 1875; application filed January 16, 1875.

To all whom it may concern:

Be it known that I, OTTO SCHNEELOCH, of Williamsburg, in the county of Kings and State of New York, have invented a new and Improved Convertible Fire-Arm, of which the following is a specification:

This invention has for its object to provide means for the more economical practice by soldiers in times of peace with fire-arms. The breech-loading fire-arms now employed in the arsenals of States, and also by the army of the United States, for infantry purposes are usually made with barrels having a bore measuring about one-half inch in diameter, and the cartridges which are fired through such barrels are expensive, too expensive, indeed, for mere practice. Moreover, the explosion of such large cartridges produces, in the narrow limits of an arsenal or closed room, reports unnecessarily and disagreeably loud. And, again, the arms carry too high in the short distance to which the soldiers are mostly confined for target practice in their narrow quarters, because the sights of their arms are arranged for use in the field, and to adapt them for use in an arsenal they would have to be filed down. These objections my invention is destined to overcome.

My invention consists in supplying a breech-loading musket or rifle of ordinary construction with an attachment whereby, without in any way changing, or moving, or displacing any of the parts of a common rifle or musket, the same can be adapted, in times of peace, to the reception of a cartridge of very small caliber, much smaller, indeed, than the regular cartridge adapted for such arm. The attachment is arranged, furthermore, in such a way that the arm will, in firing a small cartridge, not carry too high, and also so that the regular barrel of the arm will not in the least be injured by any use of such attachment. Finally, my attachment is so arranged that the cartridge-extractor of the main barrel will serve to operate a separate extractor of the attachment, all as hereinafter more fully described.

In the accompanying drawing, Figure 1 is a longitudinal section of the barrel of an ordinary breech-loading rifle or musket provided with my attachment. Fig. 2 is a top view, partly in section, of said barrel. Fig. 3 is a breech-end view of the same.

Similar letters of reference indicate corresponding parts in all the figures.

Before describing the details of my invention, I would like to call attention to the fact that the cartridges employed in military arms are mostly center-firing cartridges—that is to say, they are exploded by a pin striking their closed ends in the center, in contradistinction to rim-firing cartridges, that are exploded by striking their projecting flanges. This is for the reason of economy, because the shell of a center-firing cartridge can be used over and over again for a new charge quite a large number of times, whereas the shell of a rim-firing cartridge, which becomes indented at the flange by the first fire, can never be used with safety nor conveniently recharged for a second cartridge. The smaller cartridges, however, which are fired from revolvers and small-arms, are inexpensive and mostly adapted to rim-firing; and it is the object of my invention to so adapt my attachment that a rim-firing small cartridge can be discharged in the same arm in which a center-firing large cartridge is normally discharged.

In carrying this object into effect it is, of course, necessary that the rim of the smaller cartridge shall be brought to the center of the main barrel, at the breech end of the same, and such, indeed, is the effect of my attachment, which consists of a cylindrical block, A, which I will term the secondary barrel, placed into the breech end of the main barrel B, the secondary barrel A having at its breech end a projecting flange, *a*, to fit the customary recess at the breech end of the main barrel, the same as a large cartridge would fit such main barrel. The bore of the secondary barrel is of such diameter as is required for the reception of the smaller cartridges, as stated, and commences at the breech end eccentric to the axis of the barrel B, in a line with the vertical diameter of and above the axis of such main barrel; that is to say, the centers of the two bores are in the same vertical line, the smaller above the larger, and the smaller bore, moreover, so adapted that the lower part of its circumference will fall in the center of the larger bore, all as indicated in Fig. 3. Thus, if a car-

tridge is placed in the secondary barrel, the same pin which is employed for exploding the larger cartridge in the main barrel by center-firing will also serve to strike the rim of the small cartridge, and explode the same in the proper manner. The secondary barrel A is considerably shorter than the main barrel B, as shown in Fig. 1, the length being in proportion to the diameter of the cartridge employed, and no more than necessary to properly guide such small cartridge.

As I have already stated, arms of the style described usually carry too high for garrison practice; and to overcome this defect, in my attachment I bore the secondary barrel A, not horizontally—that is to say, not parallel to the axis of the barrel B—but incline it in such a way that if the axis of the bore of A be continued to the muzzle of the larger barrel B, it would reach near the center thereof. The dotted lines continuing the bore of the barrel A (indicated in Fig. 1) show this feature, the inclination of bore being just sufficient to permit the convenient use of the arm with the ordinary sights, and to prevent it from carrying too high at a short distance. The cartridge-extractor C of the main barrel B, and which is operated by the firing mechanism in the customary or suitable way, and made of suitable construction, would not, of course, directly affect the shell of the smaller cartridge in the secondary barrel A; and in order to use the same mechanism which is employed for extracting the cartridge-shell of the main barrel, I have supplied the auxiliary or secondary barrel A with an independent sliding cartridge-extractor, D, (shown in Figs. 2 and 3,) that extends inwardly along the breech end of the secondary barrel sufficiently far to be partly overlapped by the flange of the smaller cartridge, and also extends outwardly sufficiently far to be taken hold of by the main extractor C during the operation of the same. Thus it is that when the main extractor C is drawn or moved backward by the firing mechanism after discharge has taken place, it will carry with it the extractor D of the secondary barrel, and thereby withdraw the small shell from such barrel A.

Being considerably shorter than the main barrel B, the secondary barrel forms a shoulder, *b*, at its front end within the barrel B, which shoulder serves, during firing, to collect a large amount of sediment and dirt, resulting from frequent discharges of cartridges in the arm, and without protection the main barrel B would soon become blocked directly in front of the secondary barrel A by the dirt collecting in front of the shoulder *b*. To avoid this I have put a tube, E, into the barrel B, which tube lines said barrel B from the muzzle to the end of the secondary barrel A, and overlaps the rabbeted end of the secondary barrel, substantially as shown in Fig. 1, so that the tube E will protect the barrel B from any dirt collecting therein, and will facilitate cleaning, because readily withdrawn and washed, or otherwise cleaned. At the muzzle of the barrel B the tube E can be fastened either by a projecting lip, *d*, extending around the front sight *e*, or by any other suitable means.

If the arm is to be used for firing small cartridges, the attachment A is readily put into the breech end of the main barrel, and all parts are then in condition for firing the small cartridges. The attachment is to be withdrawn when the arm is to be used for the larger cartridges.

I claim as my invention—

1. In combination with the barrel B of a breech-loading fire-arm, the secondary interior barrel A, made with a bore which is eccentric to the bore of the main barrel, substantially as and for the purpose herein shown and described.

2. The secondary barrel A, provided with a cartridge-extractor, D, and combined with the extractor C of the main barrel B, substantially as and for the purpose set forth.

3. The tube E, placed in the main barrel B, in combination with the secondary barrel A, as specified.

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