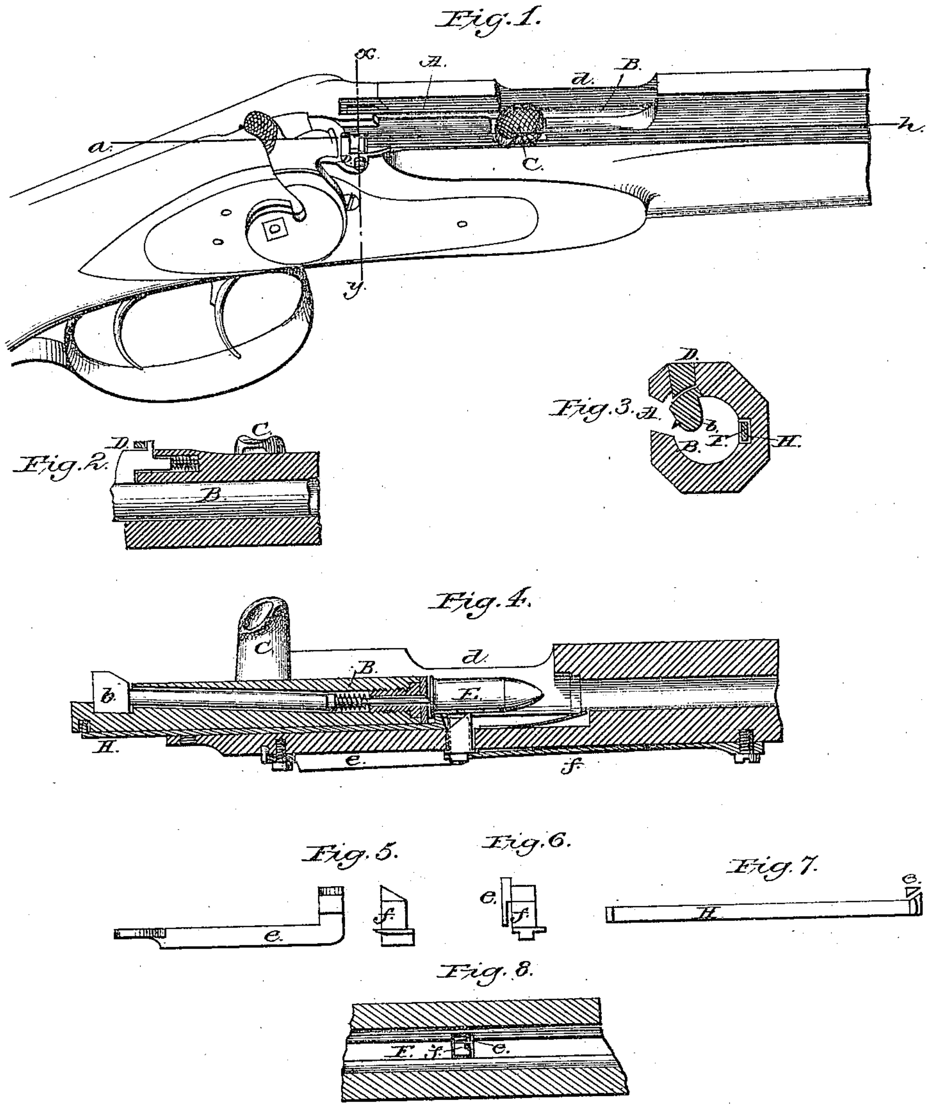
J. FIEDLER.

BREECH-LOADING FIRE-ARMS.

No. 181,830. Patented Sept. 5, 1876.



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JOSEF FIEDLER, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 181,830, dated September 5, 1876; application filed July 7, 1876.

To all whom it may concern:

Be it known that I, JOSEF FIEDLER, of the city of Pittsburg and State of Pennsylvania, have invented an Improvement in Breech-Loading Fire-Arms, of which the following is a true specification:

One of the most important points of my improvement consists in the construction by which the same can be readily attached to ordinary fire-arms by using the old barrel, lock, and cock; and furthermore, my mechanism can be made by any gunsmith without requiring special machinery.

Aside from the above consideration, my improvement relates to two main points: First, the arrangement of the needle-hammer to explode the cartridge; second, the combination of the springs which throw out the cartridge after the gun is discharged.

Figure 1 is a perspective view, showing the gun in a locked position ready to shoot. D is the intermediate bolt, having its front plate removed; B, the cylinder; C, its handle; A, the slot; *d*, the opening or the enlargement of the slot to receive the cartridge.

Fig. 2 is a sectional view of a section, taken in the line *a h*, showing intermediate bolt D and needle-butt *b* on cylinder B.

Fig. 3 is a transverse sectional view, with the gun-stock removed, taken in the line *x y*, showing slot A, needle-butt *b*, intermediate bolt D, and the groove at the bottom F, in which the cartridge-extractor H moves under cylinder B.

Fig. 4, a sectional view taken in the line of slot A, with cylinder B pulled back, showing the needle *b*, cartridge E, cartridge-extractor H, lateral spring *e*, and vertical spring *f*, which throws out the cartridge, (gun-stock removed.)

Figs. 5, 6, 7, and 8 show sectional detached parts.

First of all, the manner of fastening the barrel to the stock needs no explanation, because it is done in the old way well known.

The only difference required is to make an opening in the stock on the side of the cock deep enough to give play-room for the cylinder B, so that the same can be drawn back to receive the cartridge E at *d*, Fig. 4. Immediately in front of the cock I enlarge the bore of the gun-barrel about one-third, about three inches long, to receive cylinder B, and on top of the barrel I cut a slot, A, Figs. 1 and 3, for the cylinder-handle to slide in, and which slot is enlarged to receive the cartridge at *d*, Figs. 1 and 4. The construction of the needle which explodes the cartridge is shown by *b*, Fig. 4, which works on a spring to force it back when the force of the cock is released. Beginning at the rear and on top of cylinder B, and running to the center in front, so that when the cylinder is turned to the right the cylinder-handle C down in the notch, Fig. 1, the said needle will run rather obliquely from the side to the center. Intermediate bolt D in front of the cock, when ready to shoot, fits against the needle-butt *b* in cylinder B, as shown by Fig. 2. Intermediate bolt D is located on the side of slot A, as shown by Figs. 1 and 3, and works likewise on a spring like the needle, as shown by Fig. 2. When the cartridge E is put in at *d*, Fig. 4, the needle-butt *b* will be on the same line of slot A, and after the cartridge has been pushed in the main barrel, cylinder B is turned to the right, the cylinder-handle down in the notch, Fig. 1, which turns the needle-butt *b* underneath, and also in front of the catch of intermediate bolt D, as shown by Figs. 2 and 3. In this position the cock will strike D, and D will strike *b*, and needle *b* will strike cartridge E to explode it. To prevent cylinder B from turning by the force of the explosion, the under side of D and the upper side of *b* are slightly beveled to insure a tight fit when pressed together by the force of the cock, as shown, Fig. 2. The cartridge-extractor slides in a groove at the bottom of the barrel F, Figs. 3 and 8, and is held in its true position to move with the cylinder lengthwise by reason of its rear end having a projecting lug or catch which works in a circular slot in the rear end of the cylinder, so that the cylinder can turn while the extractor must remain in the groove. Said slot is shown at H, Fig. 4. The inner end of the extractor has a hook or catch to hold the rim of the cartridge, as shown by Fig. 4. When the cartridge is pushed in the barrel the tip end of the extractor H bears against the beveled edge of vertical spring *f*, Fig. 4, to push or press the same down, and which said spring *f* is held down by means of the lateral spring *e*, so that when the cylinder

is pulled back the lateral spring *e* will release spring *f*, so the same will fly up with a sudden twitch or jerk to thrust or fling out the cartridge E. Spring *e* holds down spring *f* with a catch or offset, as shown by the face or side view, Fig. 5, spring *f* being turned the contrary, as by Fig. 4, to show the notch or offset on its inner face. Said springs *e* and *f* will lock when *f* is pressed down, as shown by the sectional view, Fig. 6. Lateral spring *e* has a beveled edge near the side of the extractor H, and said extractor likewise has its tip end projecting in a slant, as shown by Fig. 7, to meet the bevel of *e*, so that when the extractor is pulled back it will press spring *e* sidewise to release spring *f* to fly up with a sudden jerk.

Fig. 8 is a horizontal sectional view, showing the groove F and the opening at the bottom of the barrel, Fig. 4, in which said springs *e* and *f* reach up. The said opening is enlarged on the side so that spring *e* will be out of the way of the extractor H to slide in the groove F.

What I claim as my improvement in breech-loading fire-arms is—

1. Intermediate bolt D, located on the side of the bore of the barrel, in combination with needle *b*, in revolving cylinder B, constructed substantially in manner described, and for the purposes named.

2. Vertical spring *f*, placed in groove F, having an inclined beveled edge next to extractor H, in combination with lateral spring *e*, having a bevel on its vertical side, constructed substantially as described, and operating in manner explained.

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Witnesses:
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