(No Model.)

2 Sheets—Sheet 1.

F. C. DIMITT.

SHOT GUN.

No. 306,593. Patented Oct. 14, 1884.

Fig. 1.

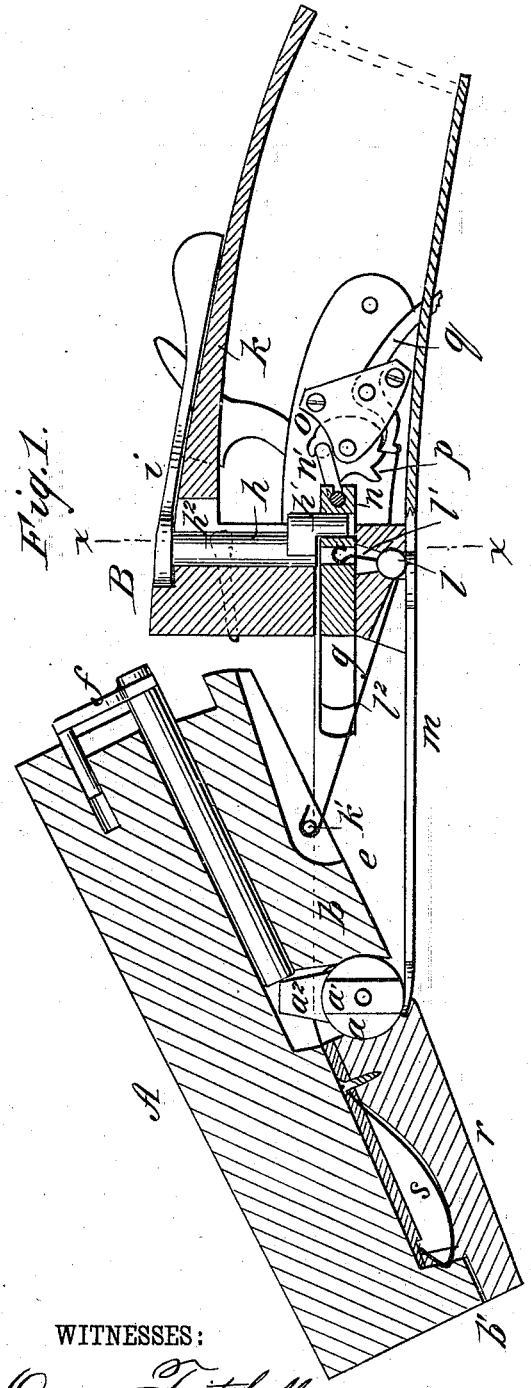
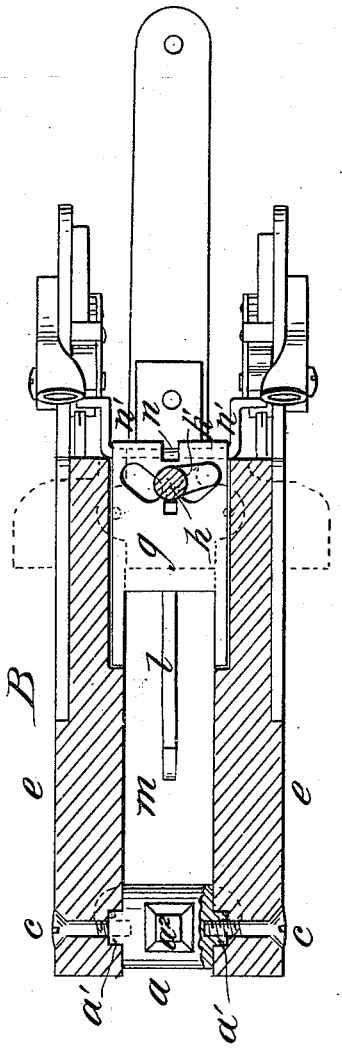


Fig. 2.



WITNESSES:

Donn Twitchell

C. Sedgwick

INVENTOR:

F. C. Dimitt

BY Munn & Co

ATTORNEYS.

(No Model.) 2 Sheets—Sheet 2.

F. C. DIMITT.

SHOT GUN.

No. 306,593. Patented Oct. 14, 1884.

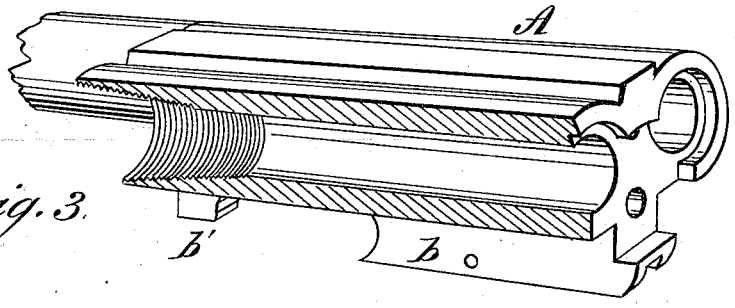


Fig. 3.

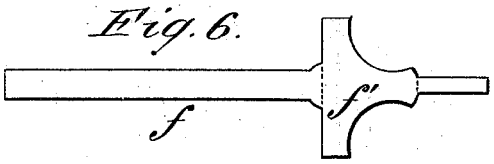


Fig. 6.

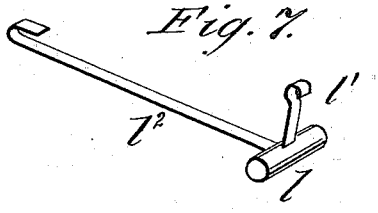


Fig. 7.

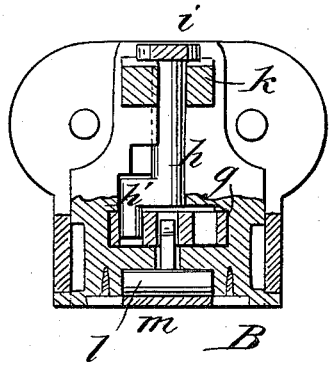


Fig. 4.

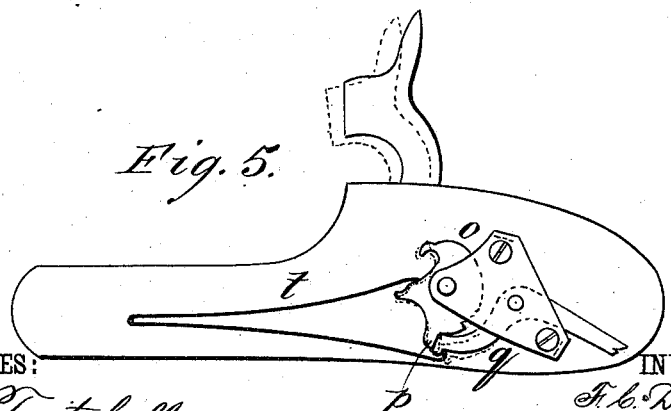


Fig. 5.

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UNITED STATES PATENT OFFICE.

FRANK C. DIMITT, OF ROCHEPORT, MISSOURI.

SHOTGUN.

SPECIFICATION forming part of Letters Patent No. 306,593, dated October 14, 1884.

Application filed June 2, 1884. (No model.)

To all whom it may concern:

Be it known that I, FRANK C. DIMITT, of Rocheport, in the county of Boone and State of Missouri, have invented certain new and useful Improvements in Shotguns, of which the following is a full, clear, and exact description.

My improvements relate to shotguns of the class having barrels hinged to tip down so as to raise the breech; and the invention consists in certain features of construction, having the object to overcome practical objections to guns of that class as now made, and to produce a gun that is simple, strong, and durable, inexpensive to manufacture, without intricate or odd-shaped parts, and with such proportion and relation of parts as shall secure the greatest possible immunity from breakage or trouble of any kind, as hereinafter specified.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal section of a gun of my improved construction shown with the breech open. Fig. 2 is a horizontal section through the breech, and with the stock removed. Fig. 3 is a sectional side perspective view of the breech end of the barrels. Fig. 4 is a cross-section on line *x x* of Fig. 1. Fig. 5 is a side view of the lock-plate and mechanism. Figs. 6 and 7 are detail views.

A is the breech portion of the barrels hung by hinge-pin *a* on breech-block B. This portion A is of a length of about six inches, and is made solid, including the lug *b*, by forcing semi-molten metal of proper kind into molds by strong pressure, so that the walls around the chambers are in one piece. The metal is more dense than in ordinary barrels, and the partition between the chambers may be narrower. The chambers are screw-threaded, as shown in Fig. 3, to receive the barrels, so that the expense of joining the barrels and brazing on the lug is saved, and the barrels proper, being shorter and lighter, are less expensive, and barrels of different metals and grades may be inserted in breeches of best material.

The hinge-pin *a* is made of large size, so as to wear as long as possible. It is held in place by two screws, *c c*, passing in from the sides *e* of the bed, so that when the screws are turned out the pin may be turned end for end to present a new surface to the lug *b* on the barrels, and lateral wear may be compensated by filing down the ends of the hinge-pins and drawing in the sides of the bed by the screws. The pin is kept from turning by ribs *a'* taking in grooves in the sides *e*, and it is made with projection a^2, for operating the extractor-rod *f*.

The extractor-rod *f* and plate *f'* are made by stamping them from sheet metal in the form shown in Fig. 6, and then bending the plate and pin on the dotted lines, so that the whole device is in a single piece without joints that are liable to become loose.

g is the bolt locking the barrels when closed. *h* is a post formed with a finger, *h'*, engaging the bolt, and *i* is the lever for turning the post to draw back the bolt. The lever *i*, post *h*, and finger *h'* are formed in one piece, and the post is set in a recess at the back of the breech-block B, so as to be easily accessible, and these parts can be all drawn out together through the opening h^2, in the tang *k*, when the stock and locks are removed. The bolt can also be taken out and turned over when worn. The tang *k* extends back far enough to cover and re-enforce the stock at its weakest point just behind the breech-block.

In a recess beneath the bolt is a loose pin, *l*, Figs. 1 and 7, provided with a short spring-arm, *l'*, engaging the bolt, and it has also a long spring-arm, l^2, that hooks at its outer end over a pin, *k'*, at the under side of barrels A. This spring l^2 limits the movement of the barrels, and by its connection to pin *l* causes the pin to partially turn when the breech opens, thereby bringing the shorter spring *l'* to a position where it serves to hold the bolt back, in addition to its function as a spring to carry the bolt forward when the breech is closed. The space between the sides *e* is covered by a strap or tang, *m*, that also retains the pin *l* in place. The bolt *g* is fitted with a transverse pin, *n*, having crank ends *n'*, that engage notches in the tumbler *o*, so that when the bolt *g* is moved back the hammers will be pushed back to full-cock. This crank-pin *n* may be removed when the self-cocking fea-

ture is not needed, or it may be set out of action by a suitable device.

I provide for causing rebound of the hammer after firing by providing the tumbler *o* with a beveled shoulder, *p*, that is acted on by the end of the sear *q* to force the hammer back slightly. Usually the rebound is caused by the reaction of the mainspring, so that much of the force of the mainspring is conteracted at the half-notch. I use but one spring swiveled to the tumbler, as shown most clearly in Fig. 5, and the beveled notch touches the sear at the end of the movement after the trigger is released, so that the entire force is utilized in delivering the blow, and a much weaker spring will answer.

In order to prevent the barrels opening too suddenly I provide the fore pieces *r* with the bow-spring *s*, set in rear of a mortise with its end projecting for engaging lug *b*, so that while it holds the fore piece in place it also forces it against the hinge-joint, thereby causing friction on the pin.

These improvements simplify the construction of this class of guns. All the wearing parts are easily accessible and adjustable to compensate for wear, and may be replaced by new ones when necessary without requiring a skilled workman to do the work, and the duration of the gun is thus extended indefinitely.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A double-barrel shotgun having the breech portion or cartridge-chamber of its barrels made integral with each other and separate from the barrels proper, and having their outer ends screw-threaded to receive the barrels, substantially as shown and described.

2. In a breech-loader, the combination, with the sides *e*, of the bed having grooves and apertures, and the barrels, of the pivot-pin *a*, provided with ribs *a'*, and the screws *c*, substantially as shown and described.

3. In a breech-loader, the combination, with the hinged barrels A, and the sliding locking-bolt *g*, of the pin *l*, pivoted in the breech-frame, and provided with the spring-arms $l' l^2$, engaging, respectively, with the sliding bolt and a pin on the barrels, substantially as herein shown and described.

4. In a breech-loader, the combination, with the hammer and the tumbler *o*, provided with the beveled shoulder *p*, of the sear *q*, pivoted in the rear of the tumbler, and adapted to engage the beveled shoulder *p*, and the spring *t*, swiveled to the tumbler and engaging the forward end of the sear, substantially as herein shown and described, and for the purpose set forth.

5. In a breech-loader, the combination, with the sliding locking-bolt *g*, provided with the crank-arm *n'*, and means for operating said bolt, of the recessed tumbler *o*, having beveled shoulder *p*, the sear *q*, engaging the beveled shoulder, and the mainspring *t*, swiveled to the tumbler and engaging the forward end of the sear, substantially as herein shown and described.

FRANK C. DIMITT.

Witnesses:
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C. M. PATTERSON.