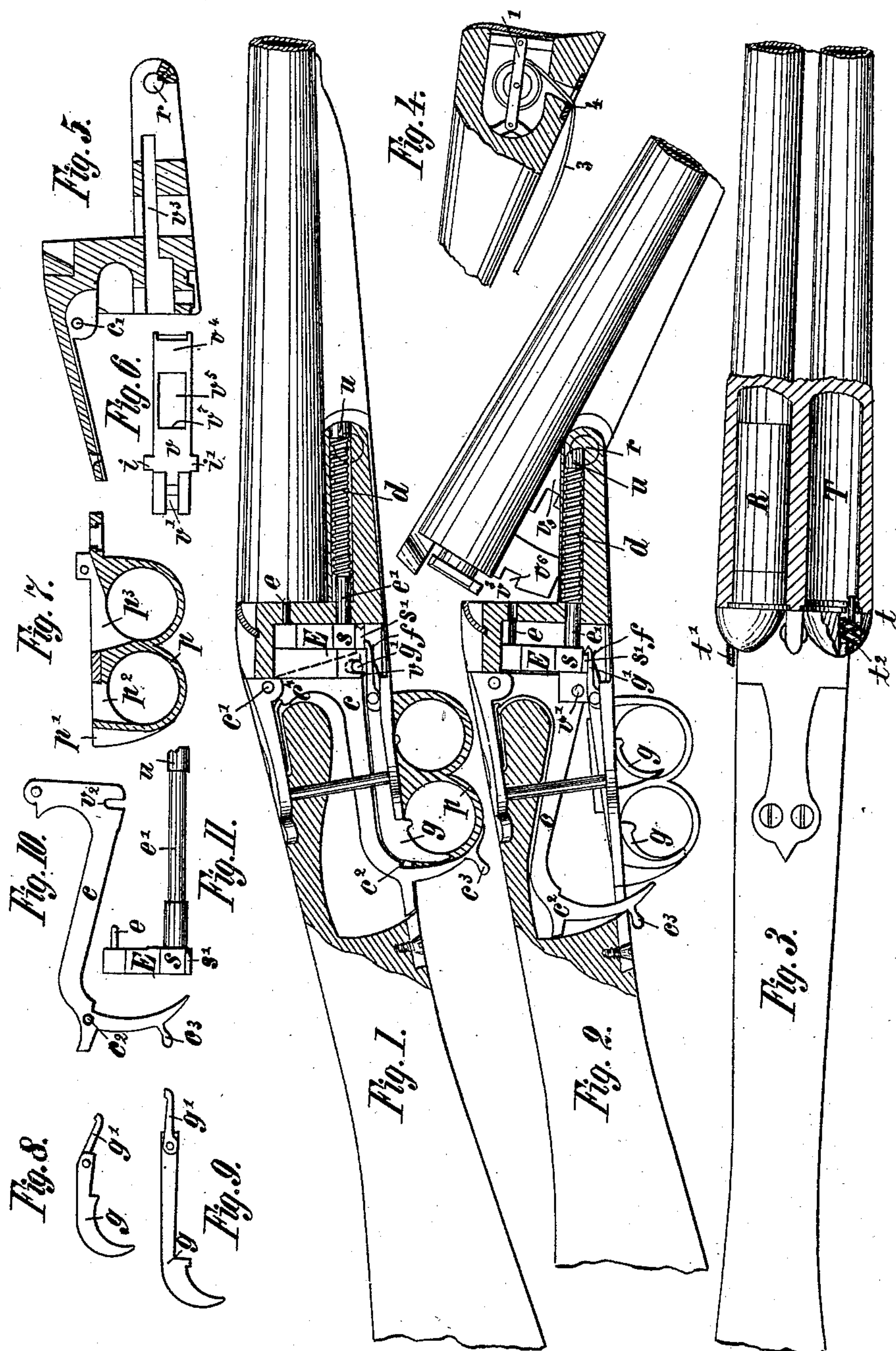


(No Model.)

P. BLACHON & E. MIMARD.  
BREECH-LOADING GUN.

No. 444,574.

Patented Jan. 13, 1891.



Witnesses:

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# UNITED STATES PATENT OFFICE,

PÉTRUS BLACHON AND ETIENNE MIMARD, OF ST. ETIENNE, FRANCE.

## BREECH-LOADING GUN.

SPECIFICATION forming part of Letters Patent No. 444,574, dated January 13, 1891.

Application filed January 2, 1890. Serial No. 335,721. (No model.) Patented in France October 27, 1887, No. 186,977; in Belgium April 24, 1888, No. 81,549; in England May 9, 1888, No. 6,936, and in Italy July 30, 1889, No. 25,915.

*To all whom it may concern:*

Be it known that we, PÉTRUS BLACHON and ETIENNE MIMARD, citizens of the French Republic, both residing at St. Etienne, in the Department of Loire, France, have invented certain new and useful Improvements in Hammerless Fire-Arms, (Letters Patent for the said invention having been granted to us in France October 27, 1887, No. 186,977; in Belgium April 24, 1888, No. 81,549; in England May 9, 1888, No. 6,936, and in Italy July 30, 1889, No. 25,915,) of which the following is a specification.

Our invention relates to improvements in that class of so-called "hammerless fire-arms" which are generally used for sporting purposes; and the objects of our invention are, first, to avoid all projecting movable parts, which frequently cause accidents in handling the fire-arm, and, second, to provide means for facilitating the manipulation of the arm and for indicating automatically if either of the barrels is charged with a cartridge. We obtain these objects by the mechanisms and arrangements illustrated in the accompanying drawings, in which—

Figure 1 is the rear part of the arm, showing the lock in a longitudinal section and in the position wherein the barrels are locked and the firing-pin at rest. Fig. 2 is the same sectional view, showing the barrels elevated and the firing-pin cocked. Fig. 3 is a top view of the rear part of the fire-arm with the indicating device, the barrels being partly in section. Fig. 4 is the butt-end, partly in section, showing a device for automatically stretching the gun-belt close to the stock as soon as the arm is removed from the shoulder. Figs. 5 to 11 illustrate the lock parts in details.

The motions for charging the arm are made by means of the pivoted lever *c*, which laps over the trigger-guard *p* and locks the barrels in firing position by engagement of its notch *v*<sup>2</sup> with a pin *v*<sup>1</sup>, passing through a sliding piece *v*. This sliding piece *v* is guided within a cavity *v*<sup>3</sup>, Fig. 5, of the lock-frame, and receives in a slot *v*<sup>5</sup> the lugs *v*<sup>6</sup>, projecting beneath the barrels, which it allows to elevate or depress when the sliding piece *v* is retracted by means of the lever *c*, Fig. 2.

For locking the barrels the lever *c* needs to be depressed, whereby the sliding piece *v* is pushed forward, so that suitable projections *v*<sup>4</sup> *v*<sup>7</sup> of the latter will enter the recesses *v*<sup>9</sup> and *v*<sup>8</sup>, Fig. 2, of the lugs. While the sliding piece *v* is retracted by the lever *c*, it simultaneously acts by means of its lateral projections *i* *i*<sup>1</sup> upon corresponding lugs *s* of the traverses *E*, situated at both sides of the sliding piece *v* and carrying at their upper end the firing-pin *e* for each barrel. At their lower end each of these traverses is provided with a rod *e*<sup>1</sup>, extending within a prolongation of the frame beneath the barrels, and being adapted to receive between the head *u* and the inwardly-projecting annular part of the boring of the frame a helical driving-spring *d*, which tends to draw the traverse with the firing-pin into the firing position, Fig. 1. As soon as the lever *c* is elevated into the position Fig. 2, and thereby the sliding piece *v* withdrawn against the tension of the driving-spring *d*, the firing-pins of both barrels are cocked by the aid of the short arm *g*<sup>1</sup> of each trigger *g*, which engages under the action of a spring *f* over the projection *s*<sup>1</sup> of the traverse *E*, Fig. 2. In this position of the firing-pins *e* the lever *c* and the sliding piece *v* may be moved independently from the action of the spring *d* and the barrels elevated or depressed, as may be required.

The triggers *g*, forming with the prolongations *g*<sup>1</sup> double-armed levers, are pivoted to the frame separate from another in the usual manner. The trigger-guard *p* is provided with suitable cavities *p*<sup>2</sup> *p*<sup>3</sup>, for the reception of the triggers in such a manner that the latter may entirely recede within the cavities of the trigger-guard unless the firing-pins have been cocked before. At the rear end the trigger-guard is also suitably formed to receive the rear branch of the lever *c*, so that only the handle *c*<sup>3</sup> will project beyond the trigger-guard when the barrels are depressed.

In order to indicate whether the barrels are charged, the pins *t* *t*<sup>1</sup> are passed through that part of the frame which forms the breech of the barrels, and they are adapted to recede under the action of a spring *t*<sup>2</sup>, so as to disappear when no cartridge is introduced in the barrel *T*. However, as soon as the barrel is



charged with a cartridge R the rear end of the latter will press said pins  $t$   $t'$ , respectively, backward, so that it will appear at the outside of the frame next to the stock of the arm, as shown by the pin  $t'$ , Fig. 3.

The last part of our invention relates to a device for automatically stretching the gun-belt, so that the latter may be drawn close to the stock as soon as the arm is taken from the shoulder; and it consists of a spiral spring 3, wound upon a disk 2 within the butt of the arm and journaled between suitable bars 1. The free end of said spring 3 is passed through a guide-plate 4 and connected to the gun-belt, so that the latter will be stretched straight under the action of the spring; but as soon as the arm is hung over the shoulder by means of the gun-belt the spring 3 is accordingly unwound.

From the foregoing explanation it will be easily understood that provisions have been taken to the utmost possible degree and that the subject-matter of our invention is based upon the idea to obviate any movable part to protrude from the arm in order to combine easy operation with a high degree of safety against accidents in handling the arm.

Having now particularly described and ascertained the nature of our invention and in what manner the same is to be performed, we declare that what we claim is—

1. In a fire-arm, the combination of the pivoted lever  $c$  with the sliding piece  $v$ , the barrel or barrels of the arm having lugs  $v^6$  underneath to engage with the former, and the firing pin or pins attached to the traverse or traverses E, engaging with the corresponding trigger and actuated by a spring or springs  $d$ , substantially as and for the purpose specified.

2. In combination with cavities located in the gun-stock, a trigger-guard having slits  $p'$   $p^2$   $p^3$  for the reception of the triggers and lever  $c$ , the former pivoted in the lower part of the stock and lying round inside of the trigger-guard, the latter pivoted within the stock at  $c'$  and adapted to close round the outside of the trigger-guard, substantially as and for the purpose specified.

3. In combination with a fire-arm, the spring-barrel with a spiral spring journaled within the butt and connected to the rear end of the gun-belt, substantially as and for the purpose hereinbefore described.

In testimony that we claim the foregoing as our invention we have signed our names, in presence of two witnesses, this 26th day of November, 1889.

PÉTRUS BLACHON.  
ETIENNE MIMARD.

Witnesses:

EDMOND DELORME,  
FERNAND AULANIER.