

(No Model.)

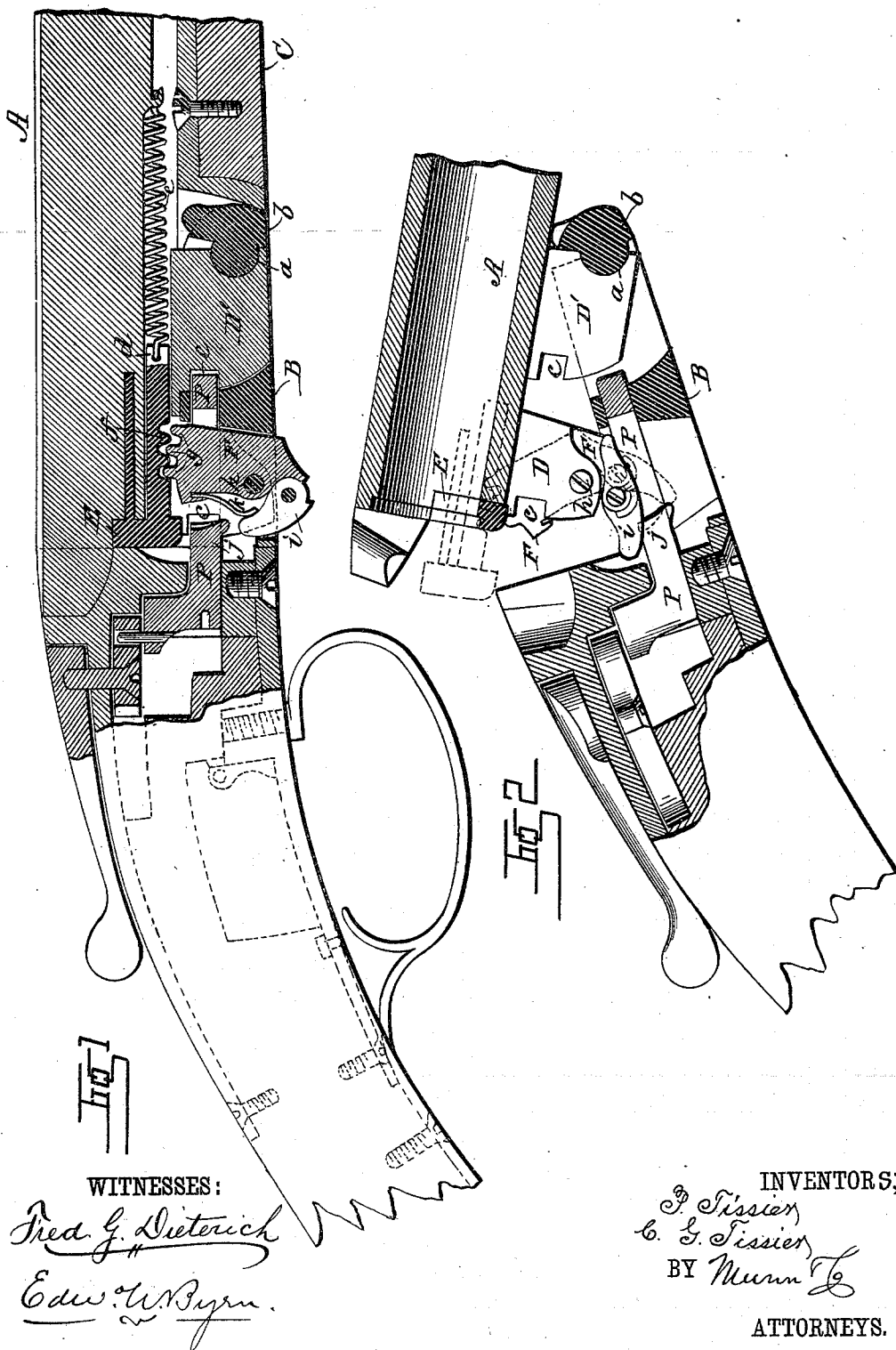
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P. & C. G. TISSIER.

CARTRIDGE EXTRACTOR FOR BREECH LOADING GUNS.

No. 289,787.

Patented Dec. 4, 1883.



WITNESSES:

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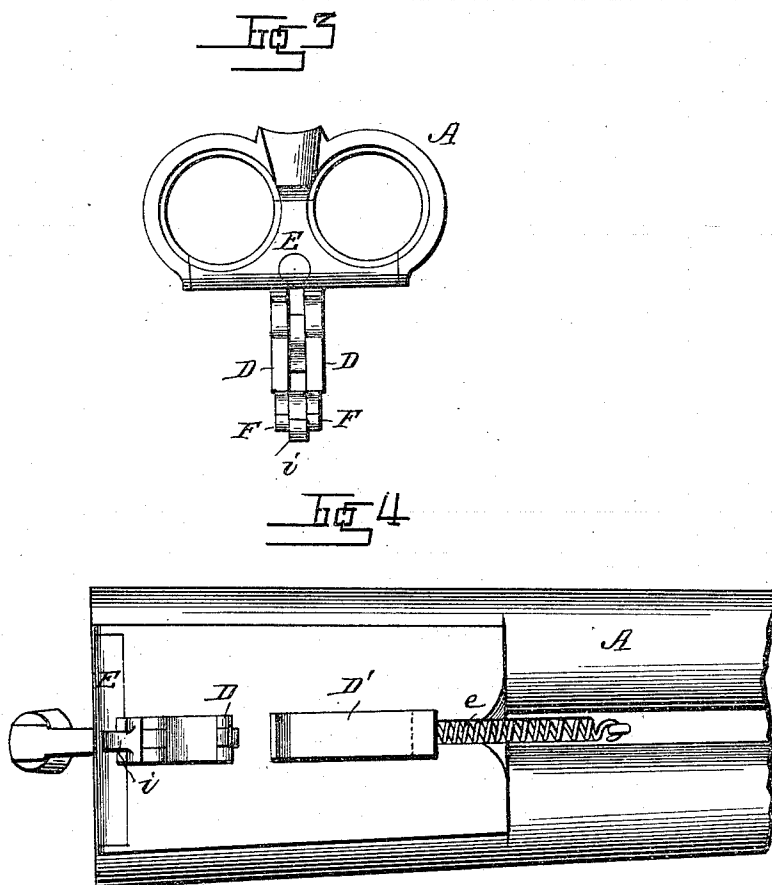
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UNITED STATES PATENT OFFICE

PETER TISSIER AND CHARLES G. TISSIER, OF SELMA, ALABAMA.

CARTRIDGE-EXTRACTOR FOR BREECH-LOADING GUNS.

SPECIFICATION forming part of Letters Patent No. 289,787, dated December 4, 1883.

Application filed August 14, 1883. (No model.)

To all whom it may concern:

Be it known that we, PETER TISSIER and CHARLES G. TISSIER, of Selma, in the county of Dallas and State of Alabama, have invented a new and useful Improvement in Cartridge-Extractors for Breech-Loading Guns; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a central longitudinal section of the middle portion of the gun, showing the barrels closed; Fig. 2, a longitudinal section taken through one of the barrels, and showing the barrels open. Fig. 3 is an end view of the barrels, and Fig. 4 is an underneath view of the butt-end of the barrels.

In most breech-loading shot-guns the extractor is in the nature of a T-shaped plate on the lower edge of the barrels, which is connected to a pin or stem extending to the joint or fulcrum of the barrel, and which is operated upon by a cam to force the extractor out. This arrangement involves the keeping of the extractor out as long as the gun is open, and is subject to many objections. Our invention is designed to obviate said objections, and to that end causes the extractor to be withdrawn by a spiral spring, and projected by mechanism located in one of the locking-lugs of the barrel, whereby the operation of the extractor is made independent of the fulcrum-joint, and the extractor is withdrawn immediately after the gun is opened and before closing it, as hereinafter more fully described.

In the drawings, A represents the barrels, B the breech-plate, and C the fore end of an ordinary breech-loading shot-gun. The butt-end of the barrels is provided with two lugs, D D', one of which, D', has a curved seat, a, that turns on an abutment, b, in the breech-plate, and forms the fulcrum upon which the barrel turns in breaking down or opening the breech, and both these lugs have on the front side a slot or opening, c, into which move the cross-bars of a sliding plate, P, to lock the gun closed, which sliding plate is carried into the locking position by a spring and is withdrawn by what is known as the "top snap action" or any other desirable means for opening the

gun. As so far described, the parts do not differ from the usual construction of breech-loading guns. Instead, however, of pushing out the extractor E by a projection or teat on the front of the breech-plate, near the fulcrum, and pressing against the stem d of the extractor, as is the usual method, we fasten the stem of the extractor to a spiral spring, e, whose longitudinal axis is in line with said stem, and the other end of said spring we fasten to the gun-barrels, so as to keep the spring under a tension and hold the extractor normally withdrawn or close up to the barrel. On the under side of the stem of the extractor we also form several notches or cog-teeth, f, Fig. 1, and into them meshes the small cogged or toothed segment g on the end of a lever, F. To locate this lever in proper relation to the extractor, we divide (see Fig. 3) the front lug, D, longitudinally with the barrel, and between the two parts of the divided lug we secure the lever F by a fulcrum-pin or screw, h. To the lower part of the lever is jointed an articulated tongue or catch, i, which, when pressed from above, becomes rigid with the lever and deflects the latter, but which tongue, when pressed from below, folds upon its articulation. This tongue plays in a slot in the breech-plate, and co-operates with the cross-bar j of the sliding locking-plate, as follows: When the gun is shut up, this tongue folds upwardly between the division of the lug D until the tongue is below the locking part j of the sliding plate, where it rests until the gun is to be opened. When the gun is opened by the withdrawal of the sliding plate P from the notches of the lugs, the tongue i is still beneath the part j of the plate, and, as the gun-barrels are deflected on their fulcrum, this tongue i catches beneath the part j of the plate P, and by deflecting lever F the latter, through its teeth, pushes out the extractor against the tension of the spiral spring, as shown in dotted lines, Fig. 2. As soon, however, as the tongue passes the part j, and before the gun-barrels are deflected again to shut them, the spiral spring at once draws back the extractor. On the front of the lever F there is a spring, k, whose function is to throw the articulated tongue down below the part j of the sliding plate as soon as the gun is closed. Our extractor forces the car-

tridge out farther than usual, projecting it a half-inch, and thus permitting, after a discharge of the gun, the pulling out of the cartridge with the fingers without trouble.

5 Our improvement is so arranged that, even after long use, it will be impossible for the cartridge to slip under and lodge under the extractor, because the spring attached to the extractor-rod keeps it firmly in place, while
10 by the old mechanism, when the gun has been two or three months in use, the extractor-rod wears smaller, causing the extractor to play too much, which gives away to the cartridge and causes it to slip by, or to either side, or
15 underneath, causing trouble, the sportsman often having to cut the cartridge out with his knife or instrument. Our extractor is furthermore automatic. After throwing the cartridge-shell out twice as far as the old style, it
20 then leaves the shell extended, and flies back into the socket flush or even with the barrels. By flying back, as above described, it prevents dirt and burnt powder, &c., from clogging or accumulating. Furthermore, the firing-pins
25 very often catch the extractor when the barrels are forced down while closing the gun, and render it impossible often to shut the gun, especially if rusted a little. Our extractor obviates all the above by flying back into its
30 place and passing the firing-pins without touching, no matter how far the firing-pins project out. Our arrangement is also an advantage in cleaning the gun, as the extractor is even or flush with the barrel, and consequently out

of the way, and it is more easy to take the gun³ 35 apart or to put it together.

Having thus described our invention, what we claim as new is—

1. The combination, with a breech-loading gun, of an extractor for the shells, and means 40 for both projecting and retracting the extractor during the operation of opening the gun and before it is closed, as set forth.

2. The combination, with the barrels of a breech-loading gun, of an extractor, a spring 45 for retracting the extractor, and a mechanism for projecting the shell located in a slot in the first lug and operated by contact with a portion of the breech, as described.

3. The combination, with the gun-barrels, of 50 the extractor having a toothed or notched stem and a spiral spring for retracting it, the lever F, located in a slot in the first lug, and having teeth at its upper end and an articulated tongue below, and the sliding locking- 55 plate P, substantially as shown and described.

4. The combination, with the sliding locking-plate P, having part *j* and the extractor, of the lever F, having articulated tongue and a spring for throwing the tongue below the 60 cross-bar of the sliding plate when the gun is closed, as set forth.

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Witnesses:

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