

(No Model.)

C. SLOTTERBEK.  
Breech Loading Fire Arm.

No. 233,034.

Patented Oct. 5, 1880.

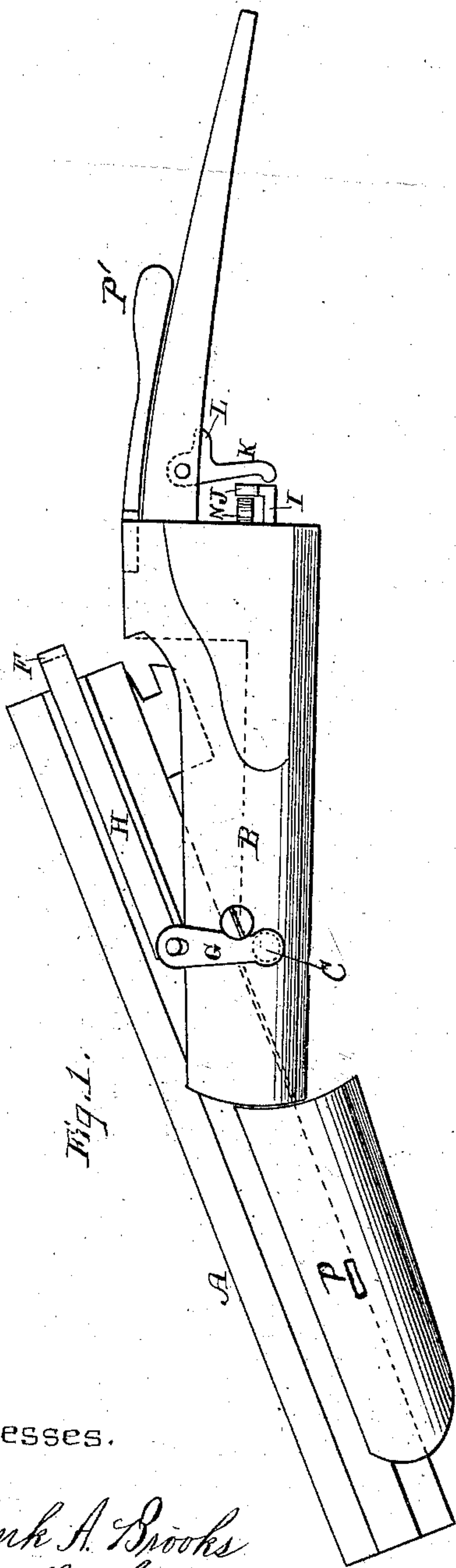


Fig. 1.

Fig. 2.

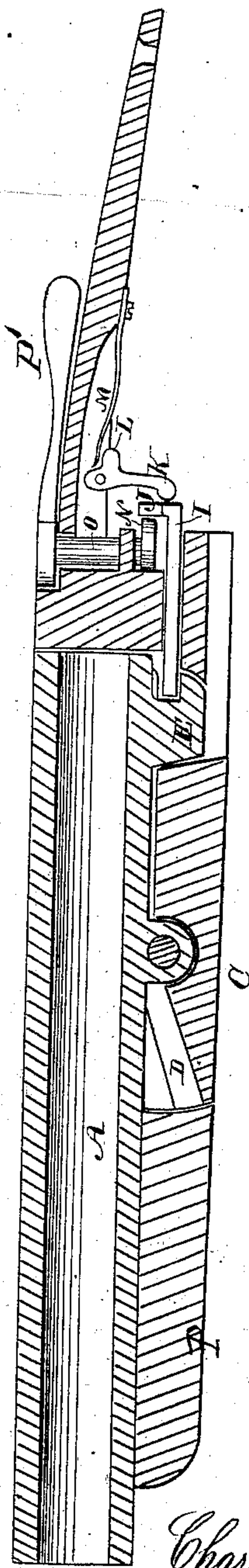
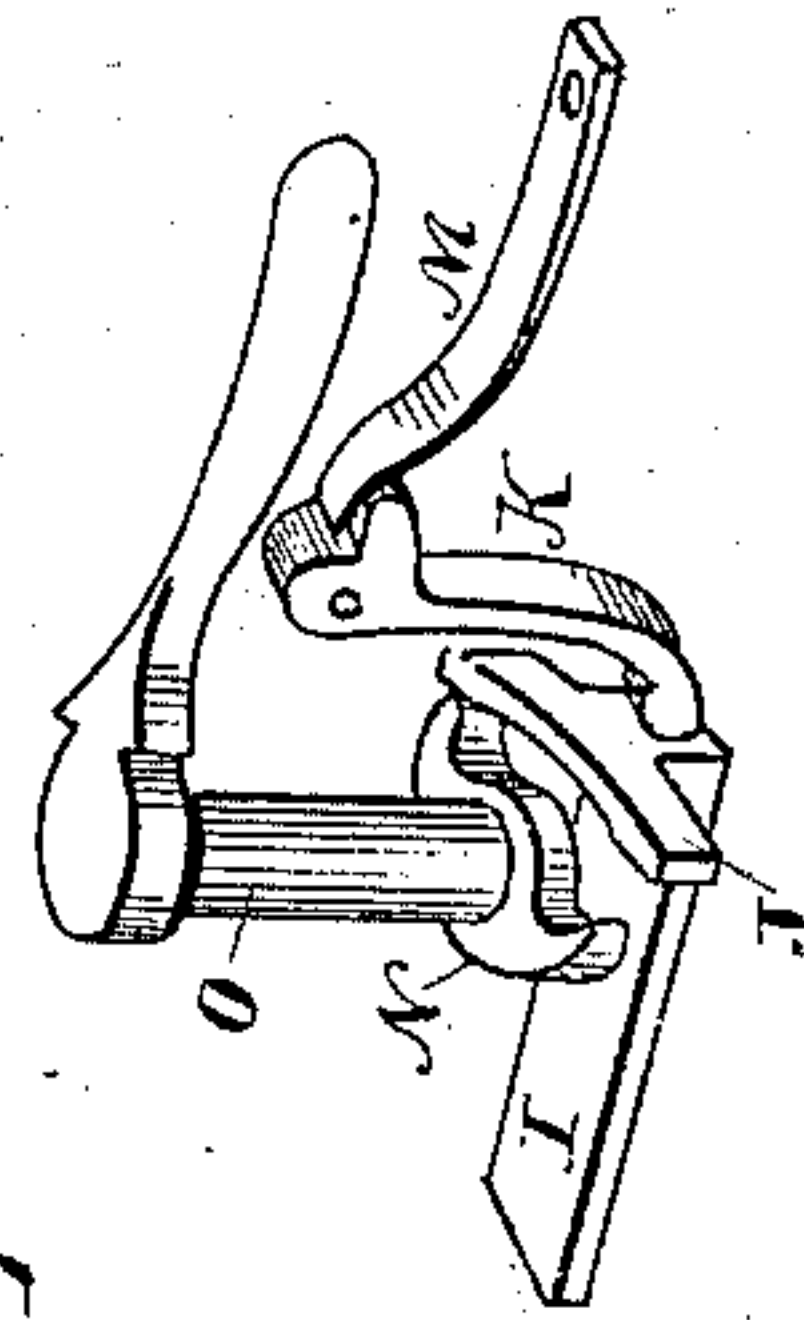


Fig. 3.



Witnesses.

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# UNITED STATES PATENT OFFICE.

CHARLES SLOTTERBEK, OF LAKEPORT, CALIFORNIA.

## BREECH-LOADING FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 233,034, dated October 5, 1880.

Application filed March 17, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES SLOTTERBEK, of Lakeport, county of Lake, and State of California, have invented an Improved Breech-Loading Rifle; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to certain improvements in breech-loading guns of that class in which the barrel is hinged to the fore end of the stock, so that when unlocked it tilts in a vertical plane.

My invention is especially adapted to be used for a single-barreled breech-loading rifle, in which great solidity of action is necessary to prevent derangement in the accuracy of its shooting.

It consists in certain improvements in the construction of the fore-end joint, by which I secure a neater appearance, a joint which is stronger and less liable to become loose with use, and which supports the barrel, when open, upon a solid surface of considerable length. The pin which forms the joint has an arm upon one end which projects up by the side of the barrel, and a slide which carries the shell-extractor is connected with this arm, by which it is actuated.

The device by which the parts are locked in position to be fired consists of a bolt sliding longitudinally into a notch beneath the barrel, and actuated by a double arm or cam secured to a vertical shaft, which is turned in either direction by the top lever to retract the bolt, but is at the same time independent from it. The bolt is latched by the action of a spring upon a bell-crank lever, one end of which presses against the end of the bolt.

The frame is entirely independent of the lock, which may be of any form, and the firing-pin which strikes the primer in the cartridge stands at an angle, so that a side-action lock operates nearly in a right line with the bore of the gun.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a side view of my gun with barrel opened. Fig. 2 is a longitudinal section through the barrel and locking mechanism. Fig. 3 is a view of the bolt and the double cam which operates it.

A is the barrel of my gun, and B is the frame into which the barrel fits and within which it swings, and P is the fore end. In the present case the barrel is octagonal in shape, and the bed in the frame within which it rests is of exactly the same shape, so that the barrel is held perfectly solid in its place when closed ready for firing.

The pivot-pin C passes through the frame and through a lug upon the under side of the barrel, so that the barrel may turn about the pin. This pin passes through the frame at a point one-third the distance between the front end of the frame and the rear end of the barrel, so that this proportion of the frame extends beneath the barrel in front of the pin.

In order to allow the barrel to drop or "break down," as it is called, when unlocked, this front portion of the frame has its bed cut down at an angle with that portion of the bed behind the pin, as shown at D. When, therefore, the barrel is released and tilts downward about the pin, that portion in front of the pin is supported and steadied by this octagonal inclined groove D, into which it exactly fits, (in the same manner that the rear portion of the barrel fits that portion of the groove behind the pin when it is closed,) and the fore end is in nowise affected by the weight of the barrel.

This construction makes the motion of the barrel around the pin very exact, and prevents all side shake and greatly lessens the strain and friction on the pin and fore end when the barrel breaks down. The front end of the frame is curved in the arc of a circle having the pin C as its center, and the fore end, P, is secured beneath the barrel forward of the frame, having its rear end formed with the same curve, so that it moves over the end of the frame when the barrel breaks down without leaving any opening between them. This preserves the symmetry of the stock when opened as well as when closed, and it prevents any possibility of the fingers becoming caught by the movement of the barrel.

In order to actuate the shell-extractor F, I employ an arm, G, which extends upward from one end of the pin C to a point opposite the slide H, which carries the extractor. A pin projects from the slide into a slot in the arm G, and, as this pin is situated some distance



above the pivot-pin C, it will be seen that when the barrel turns about the pin C the slide and the extractor will be forced backward, thus throwing the shell out.

5 The extractor being operated by a stationary arm while itself and the end of the barrel are moving about a fixed pivot causes the extractor to describe a small segment of a cycloidal curve, and its movement is uniformly accelerated as  
10 the barrel drops.

The locking or latching of the barrel when closed is effected by a sliding bolt, I. This bolt slides through a slot in the lower part of the frame, and has a plate, J, formed upon or  
15 secured across the rear end. The bolt is held forward in position to lock the barrel by means of a bell-crank lever, one arm, K, of which presses against the plate J, while the other arm, L, is pressed downward by a flat or other spring,  
20 M, fixed beneath the tang of the standing breech, as shown. In order to withdraw the bolt I and release the barrel so that it may be opened, I employ a double-armed lever or cam, N, which is secured to the foot of a vertical  
25 shaft, O, and just in front of the plate J, so that when the shaft is turned in either direction one end or the other of the cam will press against this plate and force it and the bolt back against the resistance of the bell-crank  
30 lever and spring M; but when released the spring acts to force the bolt forward again, and the cam will resume its normal position in front of the plate and independent of it. The shaft O is turned in either direction by means  
35 of a tip-lever, P, which is secured to its upper

end and extends a short distance down the small of the stock, in a manner similar to this form of lever as applied to shot-guns for a similar purpose.

The lever and the vertical shaft for the purpose of actuating a locking mechanism for guns are not new; but the whole combination of mechanism is different from others.

In my construction the lever may be turned in either direction and withdraw the bolt with  
45 equal facility. Only one spring, M, is required in the whole gun outside of the lock, and when in its normal position the lever, shaft, and cam are entirely independent of the locking bolt and mechanism, so that the latter is latched  
50 by the simple movement of forcing the barrel into its place, the bolt moving back entirely independent of the lever and cam, which are not moved at all.

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

The pivot-pin C, provided with an arm, G, projecting upwardly at the side of the barrel, and provided with a slot at its upper end, in  
60 combination with the dovetail sliding bar H, carrying extractor F at one end, and at the other a pin engaging in the slot in arm G, all constructed, arranged, and operated as set forth.

In testimony whereof I have hereunto set  
65 my hand.

CHARLES SLOTTERBEK.

Witnesses:

L. H. BOGGS,

C. F. McHARVEY.