

(No Model.)

J. H. GRAMPS.
BREECH LOADING FIRE ARM.

No. 245,813.

Patented Aug. 16, 1881.

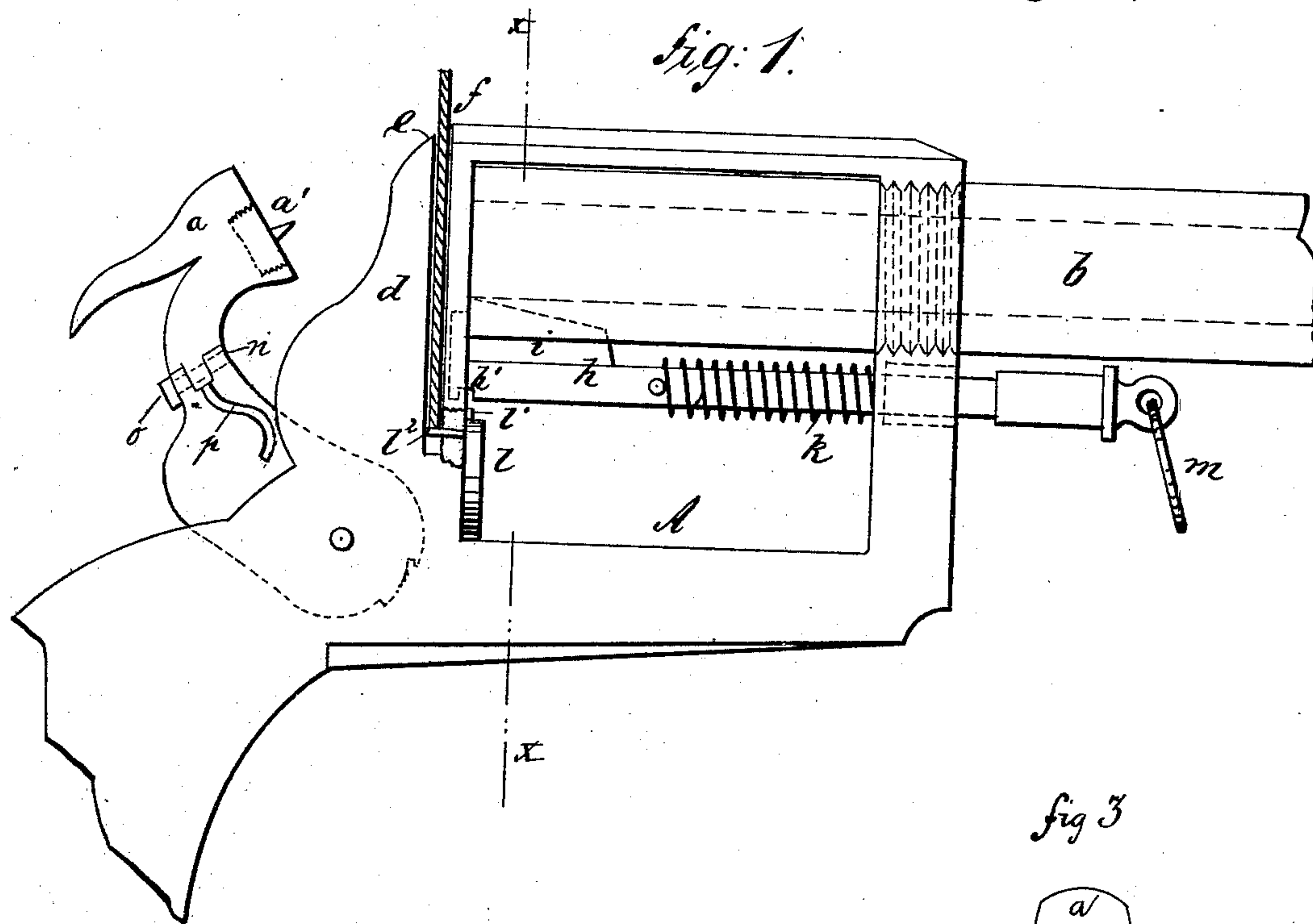


fig. 2.

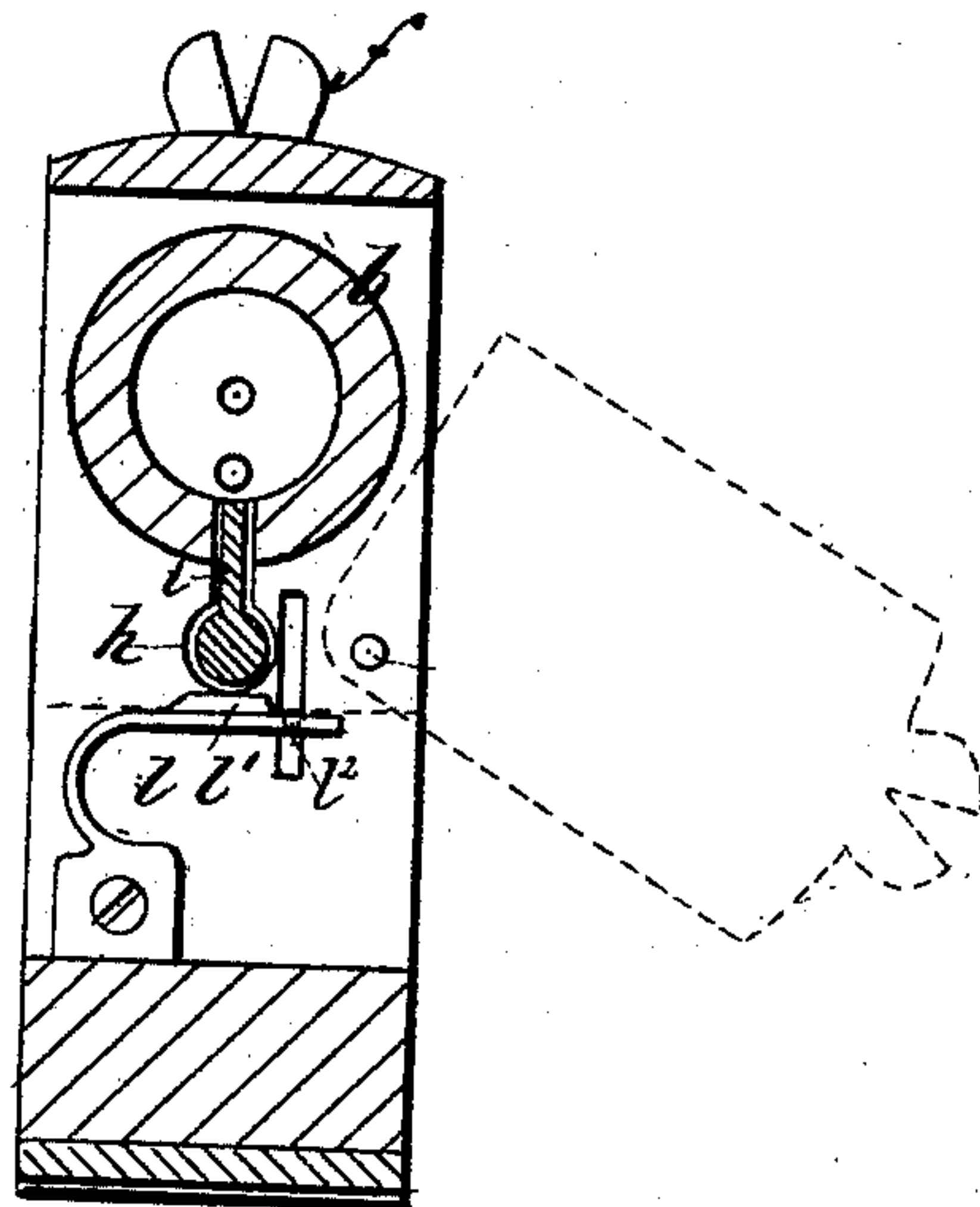


fig. 3.



WITNESSES:

A. Schehl.
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UNITED STATES PATENT OFFICE.

JOHN H. GRAMPS, OF STONE ARABIA, NEW YORK.

BREECH-LOADING FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 245,813, dated August 16, 1881.

Application filed April 28, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. GRAMPS, of Stone Arabia, in the county of Montgomery and State of New York, have invented a new and useful Improvement in Breech-Loading Fire-Arms, of which the following is a specification.

The object of my invention is to construct breech-loading mechanism of simple form especially adapted to revolver-frames without requiring extensive alteration of the frames.

The invention consists in a breech-plate pivoted to swing transversely to the barrel, and in a spring-extractor combined with the breech-plate, as hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a sectional side view of my improved arm, and Fig. 2 is a transverse section on line *xx* of Fig. 1. Fig. 3 is a detail view of the hammer and screw-plug bearing the firing-pin.

Similar letters of reference indicate corresponding parts.

A is the breech, which, as shown, is the ordinary revolver-frame provided with hammer *a* and fitted with barrel *b*, which extends through the frame into the abutment *d*. The abutment *d* is apertured to correspond with the barrel *b*, and is also formed with a transverse slot, *e*.

f is the breech-plate, shaped to fit the slot *e*, and pivoted therein by a pin, *g*, which, as will be seen, is at one side of the center line. The plate *f* is of a length to extend above the abutment, so that the projecting end can be used in moving the plate, and the projection is preferably notched to serve as a sight. The plate *f* is centrally apertured for center-fire cartridges, or it may be suitably apertured for rim-firing cartridges, and the hammer *a* is formed with a firing-pin, *a'*, to correspond.

The cartridge-extractor consists of a pin or bolt, *h*, fitted in the breech A, and formed with a lug or flange, *i*, that projects through a slot formed in the barrel, so that the end of the lug can take behind the flange of the cartridge-shell. Around the bolt *h* is a spiral spring, *k*, tending to move the bolt backward as far as permitted by a shoulder formed on the end of the bolt projecting in front of breech A.

l is a plate-spring attached beneath the bolt *h* to the abutment *d*, and formed with a lug, *l'*,

for entering a notch, *h'*, that is cut in bolt *h*, for the purpose of holding bolt *h* in place while the cartridge is being placed in position and until the plate *f* is returned to its place. The spring *l* has also a side lug, *l''*, which extends through a slot in the abutment into the slot *e*. The spring *l* presses upward so that its lug *l'* will enter the notch of bolt *h*, and the lug *l''* rises above the bottom of slot *e* when the plate *f* is turned back and the bolt *h* drawn outward. A ring, *m*, is fitted on the end of bolt *h*, for convenience in moving it.

The firing-pin of the hammer is upon a screw-plug, *a'*, that is tapped into the face of the hammer. The pin is eccentric to the axis of the plug, so that by turning the plug the pin can be brought to position for either a center or rim fire cartridge.

To facilitate loading and extraction of the cartridge, the hammer is formed in two portions with lugs *n* connected by a screw-pin, *o*, thus forming a knuckle-joint that allows the upper part of the hammer to be turned down. The lower portion is formed with a slot, *p*, from the joint, so that one lug, *n*, serves as a spring, which can be drawn by the screw to give more or less friction at the joint, as required to retain the hammer unbent. In case the hammer is made of iron the spring-lug may be a separate piece of spring-metal attached to the hammer.

The operation of the invention is as follows: The hammer is drawn backward to a half or whole cock and its jointed upper portion thrown down to the right. The plate *f* is then thrown down to the left, thus exposing the breech. In this position the flange of the extractor extends beyond the entrance of the breech and prevents the cartridge from being pushed home. The extractor therefore is drawn forward until the notch *h'* is brought above the lug *l'*, when the latter, acted upon by the spring *l*, holds the extractor in this forward position. The cartridge is then pushed in the breech, the upper part of the hammer raised, and the plate *f* raised to its normal position. The latter, in this operation, presses upon the lug *l''*, which, through the medium of spring *l*, depresses the lug *l'*, thus releasing the extractor, which is pushed slightly backward by spring *k* until it rests upon the plate. The piece is now ready for firing, which being done,

the hammer is cocked and the top thrown down, as aforesaid, the plate *f* turned down, and the extractor, being now free, casts out the shell.

5 This mechanism applied as shown forms a most complete single breech-loading fire-arm of simple construction, and which can be easily manipulated and rapidly fired.

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

1. The combination, with the barrel *b*, the ejecting-bolt *h*, having notch *h'*, and the spring *l*, having lugs *l'* *l''*, of the pivoted breech-plate

f, substantially as described, whereby, when 15 the plate is turned down, the bolt, after being drawn out, is locked in that position, and when the plate is restored to its place the bolt is released, for the purposes set forth.

2. The combination of the spring *l*, formed 20 with lugs *l'* *l''*, with the sliding cartridge-extractor *h*, slotted abutment *d*, and swinging breech-plate *f*, as and for the purposes set forth.

JOHN HENRY GRAMPS.

Witnesses:

H. V. BORST,
C. S. TANNER.