

HOWLAND & ELLIOT.
Hammer for Fire-Arms.

Patented Feb. 9, 1864.

No. 41,510.

Fig. 3.

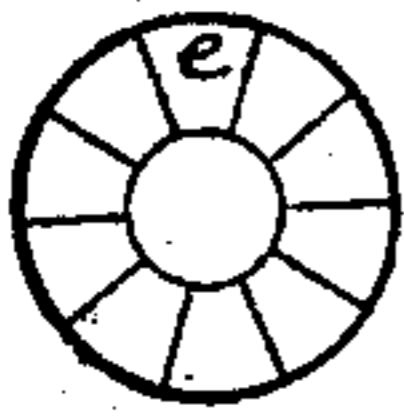


Fig. 1.

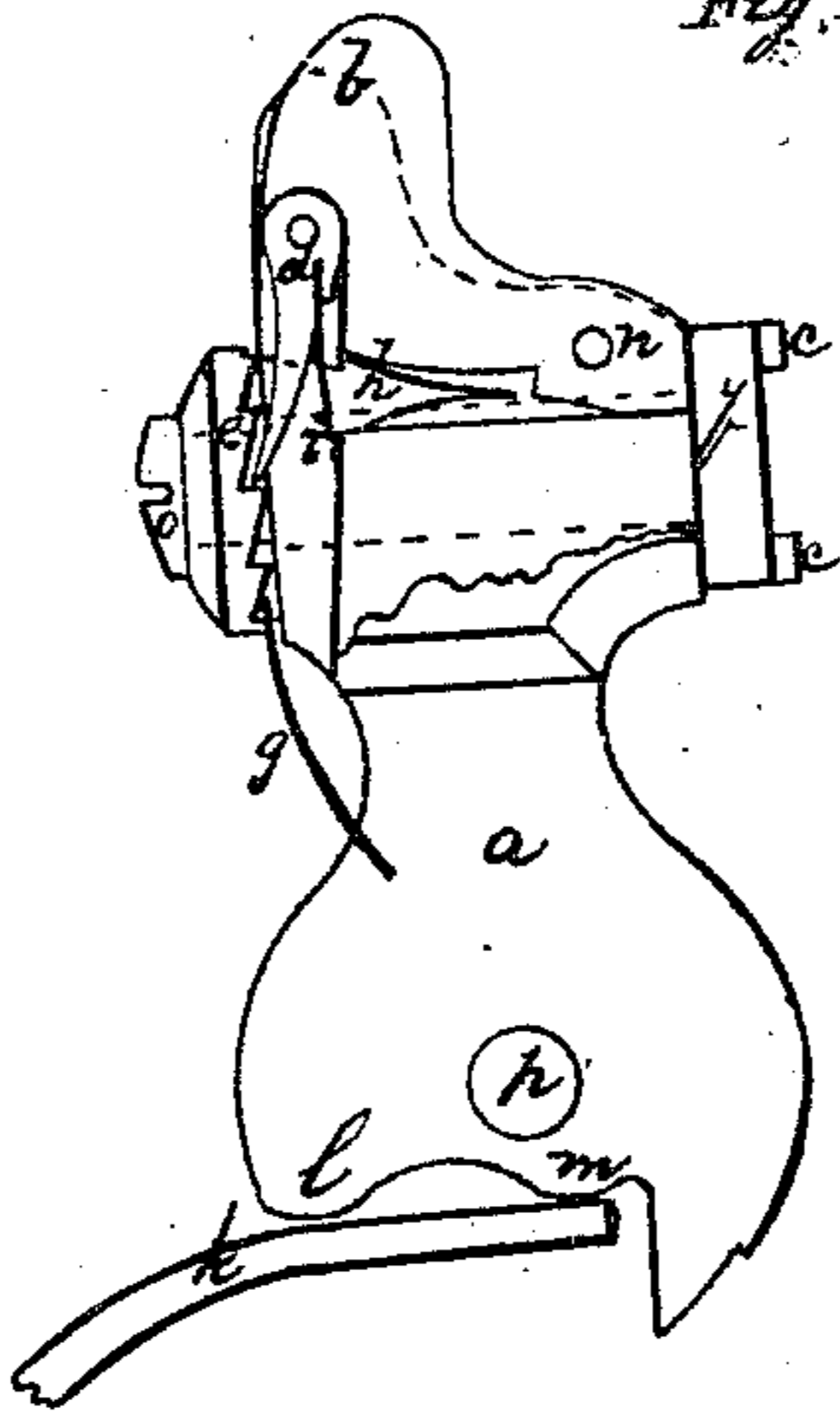
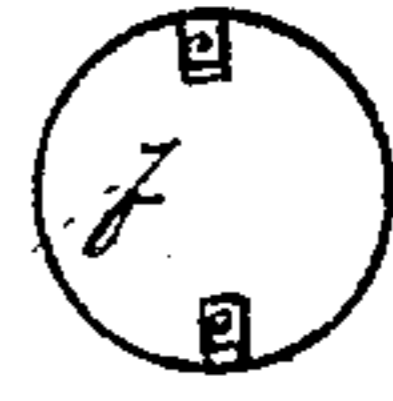


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN ADJUSTABLE HAMMERS FOR MANY-BARRELED FIRE-ARMS.

Specification forming part of Letters Patent No. 41,510, dated February 9, 1864.

To all whom it may concern:

Be it known that we, R. J. HOWLAND and W. H. ELLIOT, of Ilion, county of Herkimer and State of New York, have invented a new and Improved Hammer for Firing Stationary Barrels of Fire-Arms; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

To enable others skilled in the art to comprehend, make, and use our invention, we will proceed to describe its nature, construction, and operation.

The nature of our invention consists in the employment of a movable piece attached to the hammer, which may be moved by the thumb for the purpose of giving motion to a firing-point to fire several stationary barrels.

It also consists in the employment of two revolving firing-points for firing a series of barrels arranged around a common center, said points being so arranged as to strike the cartridge alternately. While one strikes a cartridge the other strikes between two cartridges.

Figure 1 is an elevation of our improved hammer with a portion of the hammer removed, showing the movable pin, revolving pawl, springs, &c. Fig. 2 is an elevation of the disk, showing the two firing-points. Fig. 3 is an elevation of the ratch.

A is the body of the hammer; *b*, movable piece or lever; *c c*, firing-points; *d*, revolving pawl; *e*, ratch; *f*, disk; *g*, stop-spring; *h*, lever-spring; *i*, revolving pawl-spring; *k*, mainspring; *l* and *m*, points upon the hammer upon which the mainspring rests; *n*, pivot of the lever; *o*, screw which fastens the ratch *e* to the stem of the disk; *p*, pivot of the hammer. Disk *f* has a stem which passes through the top of the hammer, and is shown by dotted lines. To the rear end of this stem ratch *e* is fastened by means of screw *o*, so that the disk with its firing-points *c c*, ratch *e*, and screw *o* all revolve together.

When the thumb is placed upon the top of the hammer it first comes in contact with lever *b* and depresses it, causing pawl *d*, which is attached to the lever, to act upon ratch *e* to revolve it the required distance before any mo-

tion is given to the hammer, and as often as lever *b* is depressed the ratch will be revolved one notch, carrying with it the two firing-points *c c*. Thus the two firing-points may be revolved without any movement of the hammer, and by applying the thumb to the thumb-piece of the hammer only it may be cocked without revolving the firing-points. Spring *g* is depressed by the teeth of the ratch, and as it falls between the teeth prevents the ratch from being carried backward by the operations of pawl *d*.

By the employment of two firing-points instead of one it is only necessary to give the disk half a revolution to fire all the barrels. If five barrels be used with two firing-points, the ratch must have ten notches, so that the points will revolve only one-tenth of a revolution, thus requiring only one-half the revolving motion to be imparted to it by lever *b* that it would require if only one point were used. This is a great advantage gained, as it is difficult to obtain motion enough in the manner above described to move the ratch one-fifth of a revolution.

The axis of the disk being in the common center around which the barrels are arranged, either or both points will strike all the cartridges in making a complete revolution; but when an odd number of barrels is used only one of the points can strike a cartridge at the same time, the other point falling between two cartridges. In case five barrels be employed with a ratch of ten notches, when one point strikes a cartridge the opposite point strikes between two cartridges. One-tenth of a revolution brings the former point between two cartridges and the latter one upon a cartridge, and so on till all the cartridges are fired, each point striking a cartridge and the space between two alternately, and the two points fire a cartridge alternately.

It is not necessary that movable piece *b* should be a lever. A slide with pawl *d* attached to it would operate with equal facility. Nor is it necessary that the ratch should be upon the rear side of the hammer. Teeth cut upon the rear face of disk *f* would serve the same purpose.

We make no claim to revolving a firing point or points by the movement of the hammer;

nor do we confine ourselves to any particular arrangement of the parts herein described; but

What we do claim, and wish to have secured to us by Letters Patent of the United States, is—

1. The employment of movable piece *b* for giving motion to one or more revolving firing-points, when said movable piece and points are attached to and swing back and forth with the

hammer, and operating in the manner herein described.

2. The employment of two revolving firing-points for firing a series of barrels arranged around a common center, as herein described.

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W. H. ELLIOT.

Witnesses:

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