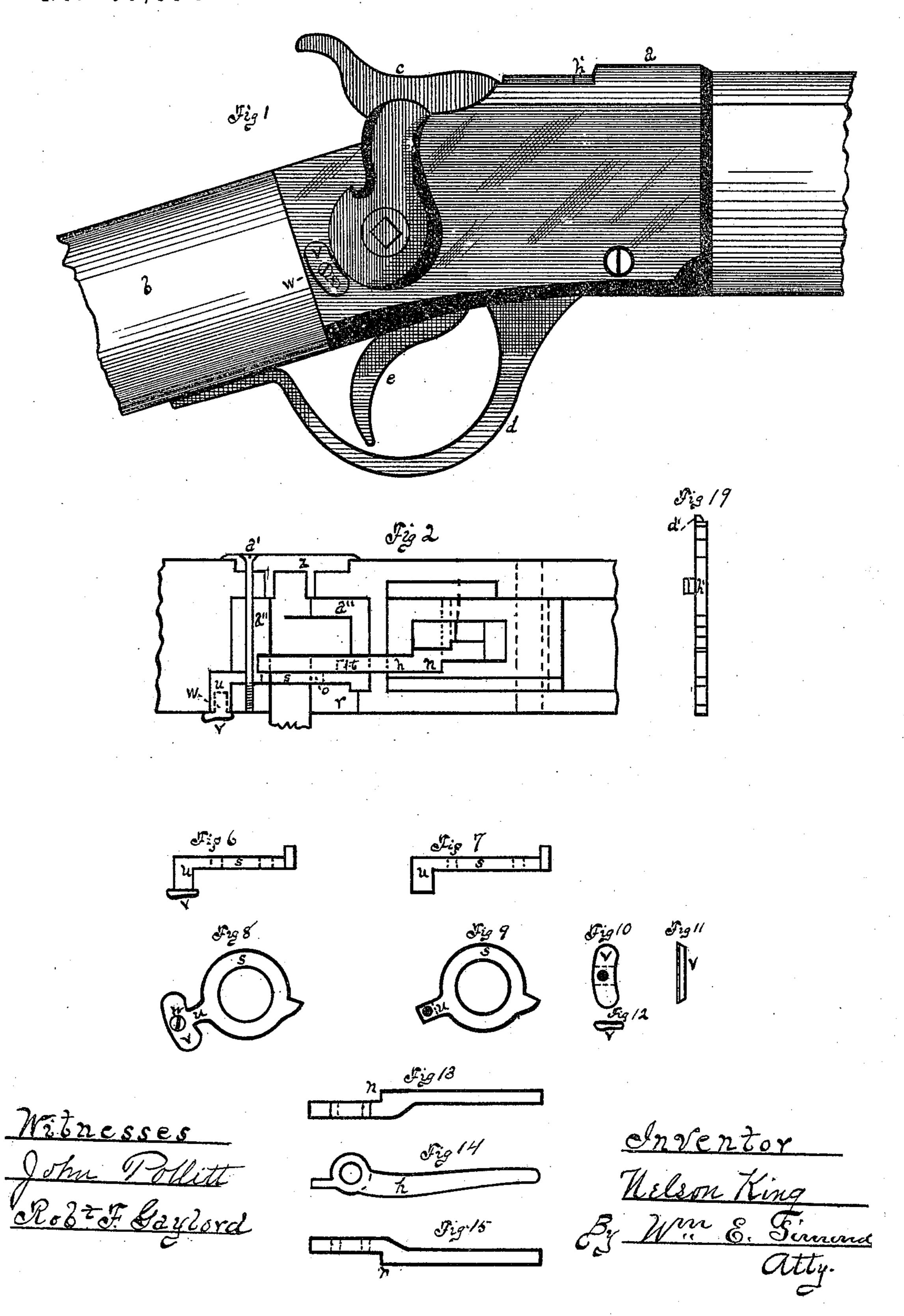
N. KING. BREECH-LOADING FIRE-ARM.

No. 177,852.

Patented May 23, 1876.

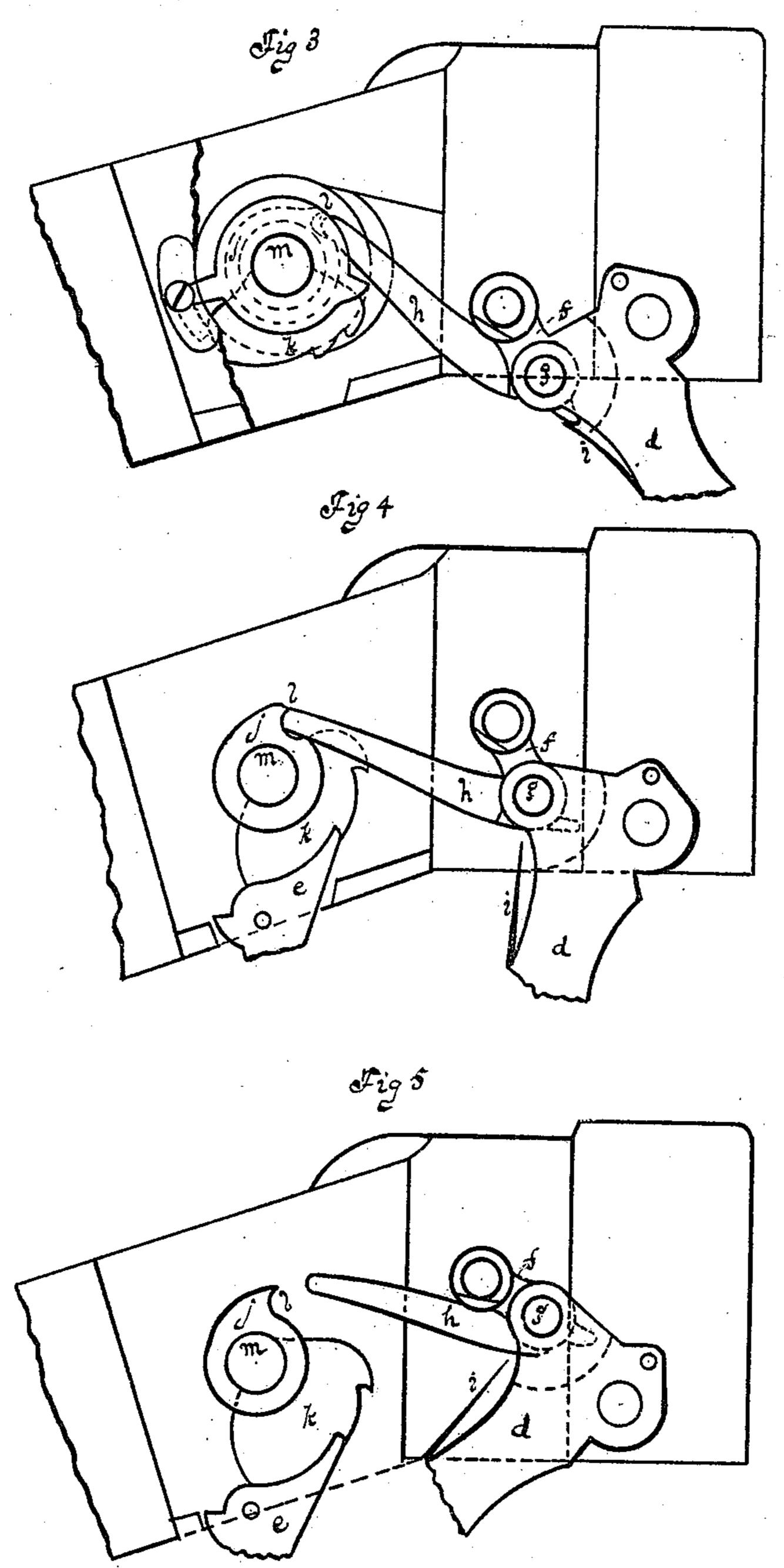


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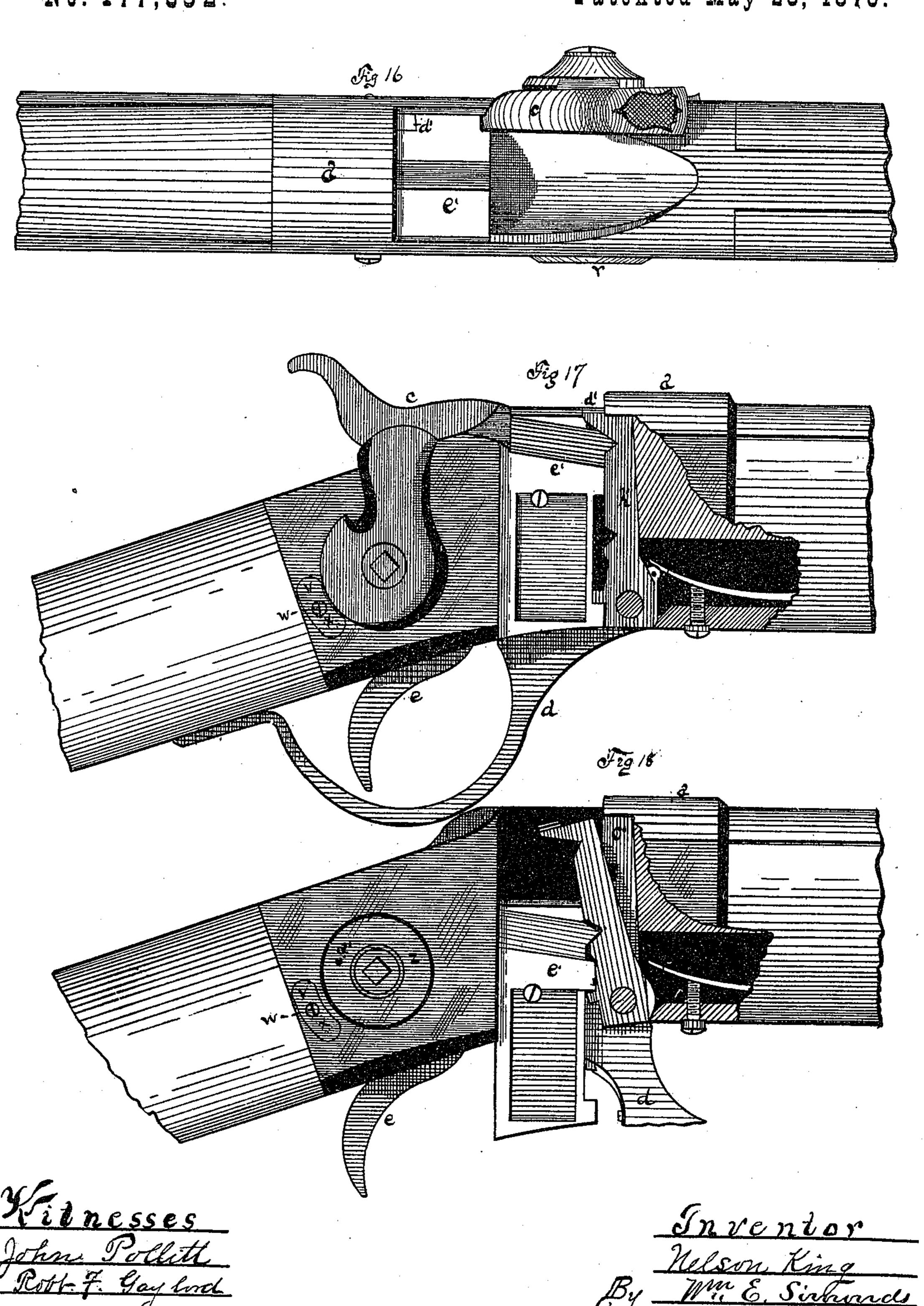
Witnesses
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UNITED STATES PATENT OFFICE.

NELSON KING, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO THE SHARPS RIFLE COMPANY, OF SAME PLACE.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 177,852, dated May 23, 1876; application filed March 4, 1876.

To all whom it may concern:

Be it known that I, Nelson King, of Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements Pertaining to a Breech-Loading Fire-Arm, of which the following is a specification, reference being had to the ac-

companying drawings, where-

Figure 1 is a side view of a part of the gun. Fig. 2 is a top or plan view, with full lines showing interior parts. Fig. 3 is a side view, with lines indicating the position of operating parts when the guard is thrown forward to its farthest limit of play. Fig. 4 is a view similar to Fig. 3, showing the position of parts when the guard is partially returned to its normal position. Fig. 5 is a view similar to Figs. 3 and 4, showing the position of parts when the guard has fully returned to its normal position. Figs. 6, 7, 8, 9, 10, 11, 12, 13, 14. and 15 are detail views of parts hereinafter referred to. Fig. 16 is a top view of the gun. Fig. 17 is a side view of the gun, breech closed, with the side of the frame broken out. Fig. 18 is a view similar to Fig. 17, with breech opened. Fig. 19 is a detail view from the rear of the extractor.

One main feature of the invention is the self-cocking device. Another is a device for making the gun self-cocking or not, at pleasure. Another is a novel construction of the breech-piece. Another is such a construction of the cartridge-extractor, and such a combination thereof with the other parts, that when the breech is closed the whole joint thereabout

is closed.

The improvements are shown as applied to

a Sharp's rifle.

The letter a denotes the breech-piece; b, the wooden stock; c, the hammer; d, the swinging guard; e, the trigger; f, the pitman, running from the guard to the vertically-sliding gate. On the same pivot-pin g is pivoted the cocking-finger h, which, when the guard is thrown forward, as shown in Fig. 3, being thereto pressed by spring i, falls upon the periphery of tumbler j, which is fast upon, and in one piece with, tumbler k, ready to engage with notch l. As the guard is swung back to

its normal position, as shown in Fig. 4, the point of this finger engages with said notch l_{i} thereby pressing back tumbler j, and, through the medium of shaft m, raising the hammer until the sear upon the trigger e drops into the cock-notch in tumbler k. After the hammer has been cocked the still continued backward motion of the guard to position of rest, as shown in Fig. 5, carries the cocking-finger h forward and out of contact with tumbler j, as shown in Fig. 5, leaving the hammer free to be tripped by a pull on the trigger. The cocking-finger is kept from falling down after being thus moved from tumbler j by the shoulder n resting against a corresponding shoulder or abutment on the guard.

From this description it is seen that when the guard is thrown forward the hammer is not disturbed, but that the cocking of the hammer is effected by the returning of the

guard to its normal position.

This self-cocking arrangement may be rendered inactive by a device which I will now describe. On the hammer-shaft m, or preferably, as shown in Fig. 2, on an annular boss, o, (shown in dotted lines,) on the inside of the button r, is hung the shipper-ring s, having at the front a side spur, t, (shown in dotted lines,) underlying the cocking-finger h, and having at the rear a side spur, u, connecting with the finger-cap v, which is on the exterior, by the screw wrunning through the slot x. By means of this finger-cap the shipping-ring s can be rotated back and forth. When the finger-cap is pushed down, the side spur t raises the cocking-finger h, so that it cannot come in contact with tumbler j, and thereby the cocking device is rendered inactive.

So far as this shipping ring is concerned I do not limit myself to the precise thing shown, for there are many obvious equivalents which may be made to engage with the cocking-fin-

ger and raise it off the tumbler.

The cavity a'', which contains the tumbler, is open on both sides, it being in the solid breech-piece, and the openings are closed by the buttons r z, held in place by the screw a', running from one to the other.

Heretofore, in the gun known as "Sharp's,"

where the breech was closed, there were various openings about the breech, both on the top and bottom of the gun, which allowed the

entrance of sand and rain.

I have, in the present instance, so shaped all the parts that when the breech is closed no opening is left in top or bottom. As the extractor (denoted by letter h') is pivoted at its foot, and has a rotary reciprocation thereon, throwing out the cartridge by its backward movement, it necessarily requires a space to vibrate in, and in the former models of this gun this space extends to the top of the sliding gate e', so that when the breech was closed this space was open, and rain and sand could get in. By a peculiar construction and combination I have attained the closing of this vibrating-space when the gate is "up" and the breech is closed. Let me explain that it is necessary that this space or mortise should extend to the top of the gate, in order to allow the proper backward vibration of the extractor, as will be understood by a study of Figs. 16, 17, 18, and 19. I have attained the closing of this mortise by so hanging the extractor that it will lie in the mortise c' in the breech-piece a when the gate is up, and providing it with the lng d', extending into and filling said mortise in the gate, with its top shaped to conform to the contour of the top of the adjacent parts.

The model deposited with the application on which this patent issues shows the firingpin so shaped and so combined with the hammer that the hammer is or may be forced backward to the safety-notch, or, in common parlance, to "half-cock," by the opening or closing of the breech. As such feature forms the subject-matter of another and prior application of mine, no claim is made to it in these present Letters Patent.

I claim as my invention—

1. In combination with the hammer and trigger, the swinging guard d, the cockingfinger h, pivoted to the guard, and the tumbler j, when these last three elements are so arranged relatively that the finger first partially rotates the tumbler, and then, passing on, swings free from the tumbler, substantially as described, and for the purpose set forth.

2. In combination, guard d, finger h, tumbler j, and shipper-ring s, all substantially as de-

scribed, and for the purpose set forth.

3. In combination, the breech-piece a, provided with the mortise c', and the vibrating extractor h', provided with the mortise-closing lug d', all substantially as described, and for the purpose set forth.

NELSON KING.

Witnesses:

E. ROCKWELL, GEO. M. BEERS.