J. C. DAY.

Priming Cocks.

No. 14,095.

Patented Jan. 15, 1856.

Fig. 1

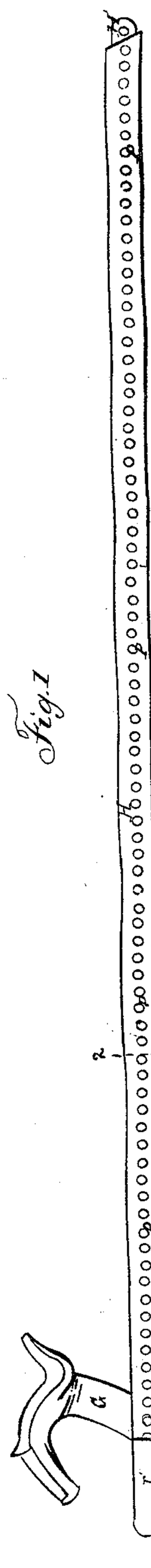

Fig. 2

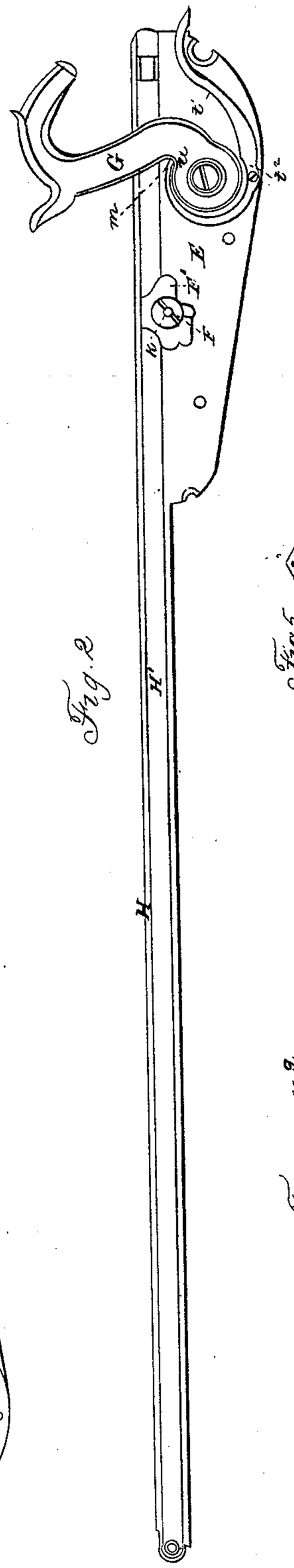

Fig. 3

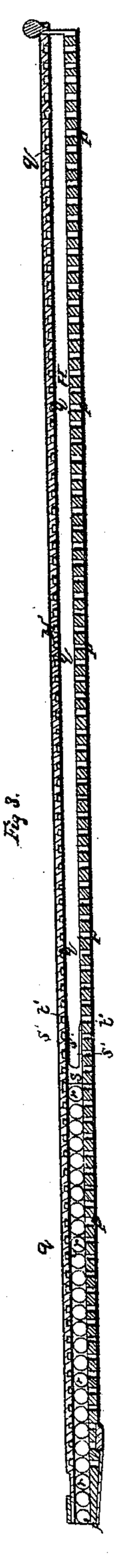

Fig. 4

Fig. 5

UNITED STATES PATENT OFFICE.

JOS. C. DAY, OF HACKETTSTOWN, NEW JERSEY.

FIREARM.

Specification of Letters Patent No. 14,095, dated January 15, 1856.

To all whom it may concern:

Be it known that I, JOSEPH C. DAY, of Hackettstown, in the county of Warren and State of New Jersey, have invented certain new and useful Improvements in Firearms; and I do hereby declare that the following is a full and exact description thereof, reference being had to accompanying drawings, making part of this specification, in which—

Figure 1, is an inner side view of the lock and cap tube, the hammer being at full cock; Fig. 2, an outer, side view of the same; Fig. 3, a horizontal, longitudinal section of the cap tube, through the center; Fig. 4, a transverse section of the same, in the line 2, 2, Fig. 1; Fig. 5, a perspective view of the cap follower.

Like letters designate corresponding parts in the several figures.

To enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

The cap tube H, is cast together with the lock plate E. It consists of three sides, the front being open. A slide H′ moving in dovetail grooves covers this front and performs the operation of the ratchet bar described in my former Letters Patent. It is provided with a row of small holes *q*, at equal distances from each other. The opposite side of the tube H, is also furnished with small holes *p;* the distance from center to center of these holes being equal to the diameter of a cap. There is a follower *s*, with two spring tongues, *s′*, which terminate, each of them, in a projection *t*, of the shape of a pawl. When this follower is inserted in the tube H, its projections *t*, *t*, will catch in holes *p*, and *q*, and prevent it from returning with slide H′, as clearly shown in Fig. 3. The slide H′, receives a reciprocating motion by the tumbler *h*, of the lock, which is made with a short arm *h′*, above its fulcrum, and there jointed to a straight arm, or bar, *i*, one end of which terminates in a spring *i*, which slides in a slot *a;* and the other end terminates in a pin *k*, which passes through a slot in lock plate E, and enters, at the outside, a notch in the projecting piece F, of slide H′, and transfers the motion of the tumbler to the slide H′. Now when the hammer G, is brought back to full cock, slide H′, moves backward with it, and follower *s*, catches in the next hole of slide H′. The hammer must be brought some distance beyond full cock to cause the follower *s*, to catch and make a new connection; this allows the hammer to be raised to full cock, and to return to the nipple without affecting the primer. By discharging the hammer G, slide H′, moves forward and follower *s*, catches in the next hole of the row *p*, *p*, where it remains when slide H′, returns.

In order to fill the tube H, with caps, it is necessary to withdraw the slide H′, only part way from the tube; this can be done when the hammer is at full cock. Pin *k*, which terminates in a button F, at the outside, can be forced out of the notch in piece F′, by the fingers, as the slot in back plate E is, for this purpose, enlarged at the lower side; and then slide H′, is drawn out just enough to bring its inner end behind the follower, and then again pushed in. This action drives the follower out of the tube H, which is then filled with caps, and the follower inserted behind them. The apparatus is then ready for action. Where the tube H, terminates in front of the nipple, there is a spring *r′*, fastened at the rear side of the tube; and the front projects into the inside of the tube, and prevents the foremost cap from falling out, but will give way when the cap is forced out by the follower.

In order to remove the exploded cap from the nipple, I employ a finger *t*, extending forward to the side of the nipple, with a fulcrum at t^2, and an elastic, curved arm, at the rear of said fulcrum, terminating in a small head, or knob, *m*, which fits in a little recess *n*, on the hammer, when cocked, as shown in Fig. 2. When the hammer falls, the knob *m* rubs upon the raised portion of the hammer behind the recess *u*, and thereby depresses the forward end of the finger, to the foot of the nipple; and when the hammer is again raised to full cock, it suddenly pushes back the curved end of the finger, and consequently lifts the forward end thereof; which movement throws off the exploded cap.

I construct the lock somewhat different from the common way, as I dispense with the sear spring, and make the main spring to perform the operation of the sear spring. I attach the main spring *l*, at only one point at *l′*, to the lock plate E; one end of it being jointed to the stirrup and the other end

l^2 resting upon the sear n, just enough behind its fulcrum to give the proper pressure thereto. This resting point of the sear, is so nearly over its center of motion, that it constitutes a firm support to the end of the main spring, thereby enabling one to dispense with a stud for that purpose; and at the same time enables the lower half of the main spring to be made as strong as, or stronger than, the upper half, and still to perform the office of a sear-spring without exerting too much pressure upon the sear. The lower half of the main spring is also extended to nearly the same length as the other half, and by dispensing with the supporting stud, acquires greater pliability and motion, since the lower half moves slightly as well as the upper half, without diminishing its strength. The sear can also be made as strong as desired, without occupying additional room; while the force of its pressure can be made as great or as little as desired, without varying the strength of the main-spring.

I am aware that the sear-spring has before been constructed in a single piece with the main-spring, merely for convenience of construction. But its action is entirely distinct from that of the main spring, while my arrangement unites the two springs in the same motion.

What I claim as my invention and desire to secure by Letters Patent, is,

1. The improved construction of the cap-feeding tube H, with a slide H′, on one side, a row of holes q, in said slide, and another row of holes p, in the side opposite, the one for the purpose of moving the follower along, and the other to prevent the follower returning with the slide, substantially as herein described.

2. I also claim communicating the motion from the tumbler to the slide H′, by a vibratory arm i, or its equivalent, and also adding a spring thereto, in combination with the elbow slot k; whereby said slide may be readily connected with, and disconnected from, the lock and cap-tube, substantially as specified. I also claim, extending the lower part of the main-spring from its pivot to, and causing it to rest upon, the sear, at a point very nearly over its center; in order to dispense with a separate supporting stud, and sear-spring, and also to enable the lower part of said main-spring to be made nearly equal in length and strength, to the upper part, substantially as described.

JOSEPH C. DAY.

Witnesses:
J. S. Brown,
E. P. Hudson.