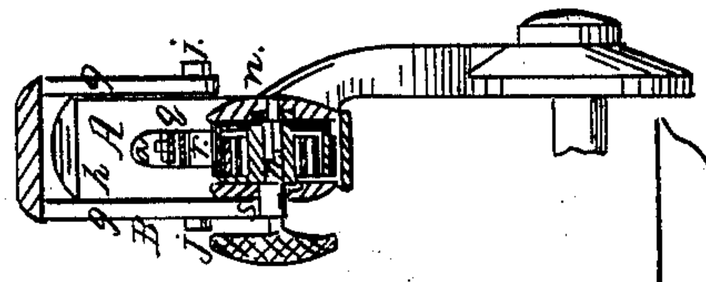
J. RUPERTUS.

Priming-Cock.

No. 23,952 Patented May 10, 1859.

Fig. 2.



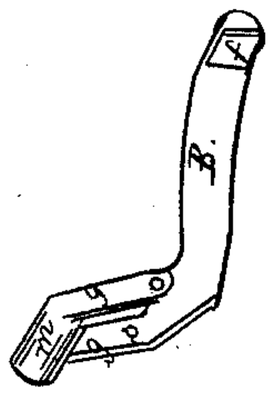
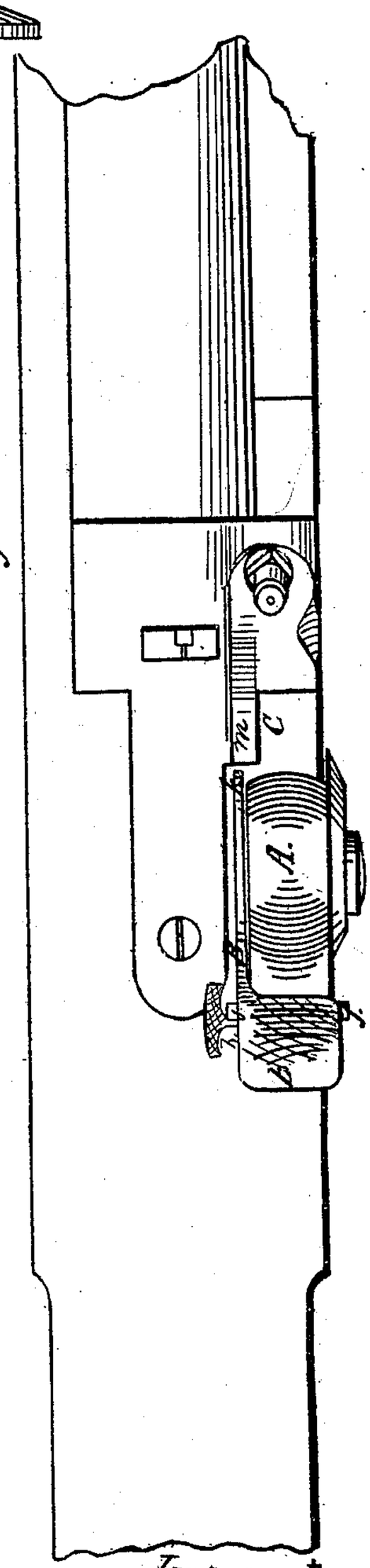


Fig. 1.

Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

JACOB RUPERTUS, OF PHILADELPHIA, PENNSYLVANIA.

AUTOMATIC PRIMER FOR FIREARMS.

Specification of Letters Patent No. 23,952, dated May 10, 1859.

To all whom it may concern:

Be it known that I, JACOB RUPERTUS, of the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and Improved Automatic Primer for Firearms; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 exhibits a section of my improved primer taken in a plane parallel with the plane in which the hammer moves, and shows its application to a gun. Fig. 2, is a transverse section of the primer in the plane indicated by the line *x*, *x*, of Fig. 1. Fig. 3, is a top view corresponding with Fig. 2. Fig. 4, is a perspective view of the feeding slide and the lever to which it is attached.

Similar letters of reference indicate corresponding parts in the several figures.

My invention relates to that class of primer which supplies the priming from a magazine within the hammer. It consists in a certain mode of applying a feeding slide lever and spring in combination with the hammer head and the priming slide whereby the delivery of the priming by the act of cocking and letting off the hammer is rendered very certain and whereby provision is made for letting down the hammer after cocking when desired without the delivery of any priming; also in a certain mode of applying and operating a piston to push forward the caps or pellets remaining in the magazine after every delivery made by the feeding slide, whereby I am enabled to obtain the greatest length of magazine that the size of the hammer admits of.

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

In applying my invention I construct the hammer head A somewhat deeper than has been customary, more especially in front, in order to make room for the magazine within it.

The magazine consists of a cavity *a*, *a*, formed within the head by drilling or other means and extending from the back to a point slightly in advance of and below the face *b*, as shown in Fig. 1, or to a point in advance of and above or one side thereof; said cavity having an opening in the back of the hammer but being closed in front and being intersected close to its front by a slot *c*, Fig. 1, whose width is equal at least to the diameter of the magazine and whose thickness is sufficient to allow one of the caps or pellets *i*, *i*, or other priming with which the magazine is charged, to pass through it. This slot whose back is flush, or nearly so, with the face of the hammer, is fitted with a slide *f*, of similar character to the feeding slides employed in primers which are arranged in the lock plates or stocks of firearms. This slide is attached to or made in the same piece with a lever B, the form of which is best illustrated in Fig. 4, but which is shown in all the figures. The said lever is made to cover the front of the thumb piece *h*, of the hammer and provided with lugs *g*, *g*, which fit to the sides of the thumb piece and through which pass the two fulcrum screws or pins *j*, *j*, which attach it to the hammer, and the said lever extends forward on one side of the hammer to carry the slide *f*, and also extends forward beyond the said slide, as shown at *k*, in the form of a toe, which, as the hammer falls when let off travels down a curved guide *m*, *m*, formed on the lock plate C, and so causes the front portion of the lever to rise and carry up the feeding slide *f*, into the magazine.

Between the front of the thumb piece *h*, of the hammer and the upper portion of the lever B, there is placed a spring *l*, the object of which is to press forward the upper portion of the lever as far as permitted by the stop piece m^1, on the lever and thus to pull down the feeding slide *f*, of the magazine.

Below the thumb piece and the magazine the back of the hammer is mortised out to receive a spring barrel *n*, which is attached to a pin or axle *p*, inserted transversely through the mortise. To the exterior of this barrel the feeding piston *q*, of the magazine is attached by a piece of watch spring *r*, or by any other suitable connection, which, while being flexible enough to wind up on the barrel *n*, to draw back the piston *q*, is stiff enough to push the piston forward in the magazine. The piston consists of a roller of as large a size as the magazine will admit of, as it is not required to fit tightly to the magazine and by being made of this form it is enabled to work easier and prevented jamming or bending in the magazine.

The spring *s*, within the barrel *n*, exerts its elasticity to turn the barrel in a direction to unwind the connection *r*, and force forward the piston.

The lower part of the rear of the magazine is deepened, as shown in Fig. 1, to allow the connection *r*, to pass from the magazine to the spring barrel with an easy curve and to allow the piston to run down out of the way of the mouth of the magazine to permit the introduction of the pellets therein. By this method of applying and operating the feeding piston it is obvious the greatest possible effective length of magazine is obtained as the piston, which is short, is enabled to run almost close up to its extreme rear, while in all other magazines for a similar purpose, much room is occupied either by the feeding spring being within the magazine or by the piston having applied to it a rack which works within the magazine.

The rear of the magazine is closed by a shutter D, which is connected with and moves upon the pin *p*, of the spring barrel and this shutter may be kept closed either by a spring or by friction.

The primer operates in the following manner: To fill the magazine the shutter D is to be opened, and the piston *q*, is to be drawn back into the deepened rear portion of the magazine, by turning the spring barrel either by a head provided on its pin *p*, or by a key temporarily attached to the said pin for the purpose, and the pellets are then dropped into the magazine until it is filled as far as will permit the proper entrance of the piston, after which the spring barrel is liberated to allow the piston to press forward against the pellets, and the shutter D closed.

I will now suppose the hammer cocked, as shown in black outline in Fig. 2, in which condition the toe *k*, of the lever B, is free of the guide *m*, *m*, and the slide *f*, pushed out of the magazine by the pressure of the spring *l*, against the back part of the said lever B, and the front pellet is resting against the front of the magazine, directly over the slide *f*. When the hammer is let off the toe *k*, of the lever B, coming in contact with and running down the guide *m*, *m*, causes the front portion of the lever B, to move upward relatively to the hammer and the slide *f*, to be forced up through its slot *c*, into the magazine and to expel the front pellet through the upper part of the said slot to a position in front of the face *b*, of the hammer where it arrives just before the hammer comes near enough to the nipple *t*, for the pellet to touch the latter so that it is caused to be driven by the face *b*, against the nipple and exploded.

In recocking, the pressure of the thumb against the upper part of the lever B, to draw back the hammer, keeps the slide *f*, up within the magazine, but when the pressure of the thumb is removed, the spring *l*, forces forward the upper part of the lever B, and forces down the slide *f*, out of the magazine and permits the whole of the remaining pellets to be pushed forward in the magazine, thus bringing the front one over the slide *f*, ready for delivery the next time the hammer is let off. After cocking, the hammer may be lowered again without the delivery of a pellet, provided the lever B, is never released from the pressure of the thumb.

I have before stated that the magazine may be arranged above or at one side of the face of the hammer, instead of below, as represented in the drawing. In revolvers, I propose generally to arrange the magazine below the hammer face, and in that case the lever B, will require to be arranged for the slide *f*, to deliver the caps in a downward direction, but the principle of operation will be essentially the same.

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

1. The feeding slide lever B, applied in combination with the hammer to constitute a portion of the thumb piece thereof and with an interposed spring *l*, substantially as herein described.

2. Constructing and applying the feeding piston *q*, to roll within the magazine, substantially as and for the purpose herein set forth.

3. Attaching the feeding piston *q*, which drives the priming forward in the magazine to a spring or flexible driver which winds on and off a spring barrel, substantially as and for the purpose herein described.

JACOB RUPERTUS.

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