B. F. JOSLYN.
Revolving Fire-Arm.

No. 204,334. Patented May 28, 1878.

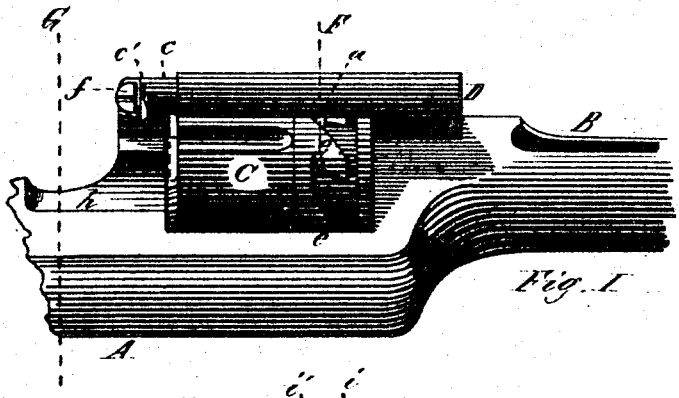

Fig. I

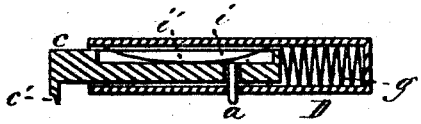

Fig. IV

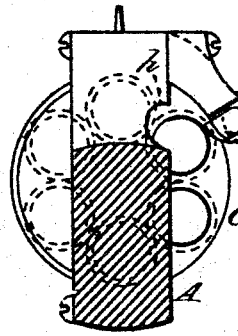

Fig. II

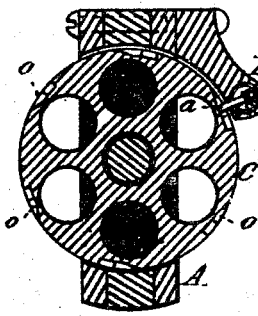

Fig. III

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UNITED STATES PATENT OFFICE.

BENJAMIN F. JOSLYN, OF WORCESTER, ASSIGNOR TO DANIEL B. WESSON, OF SPRINGFIELD, MASSACHUSETTS.

IMPROVEMENT IN REVOLVING FIRE-ARMS.

Specification forming part of Letters Patent No. **204,334**, dated May 28, 1878; application filed February 23, 1878.

To all whom it may concern:

Be it known that I, BENJAMIN F. JOSLYN, of Worcester, in the State of Massachusetts, have invented a new and useful Improvement in Revolving Fire-Arms; and that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, and to the letters of reference marked thereon.

My invention relates to extractors for removing the shells of cartridges from the chambers of the cylinder of a revolving fire-arm; and it consists of a sliding rod operating in a socket attached to the frame or upper part of the barrel, and moving in a line parallel with the axis of the barrel or each chamber of the cylinder, said rod being provided with a wedge-shaped projection on its outer end, adapted to pass between the flange of the shell and the end of the cylinder when the rod is brought into position for that purpose as the cylinder revolves.

The rod may be actuated by a spring to throw it rearward, and by a series of cams on the cylinder, in connection with a pin in the rod, to move it in or forward.

Figure I is a perspective view of a portion of a revolving fire-arm, showing my invention as applied thereto. Fig. II is a transverse section at line G, showing an end view of the extractor. Fig. III is a transverse section at line F; and Fig. IV is a longitudinal section through the extractor-rod and its socket at line H of Fig. III.

In the drawings, A represents the frame of a revolving fire-arm; B, the barrel; C, the cylinder; and attached to that part of the barrel above the cylinder, or to any convenient part of the arm, is the socket D, within which is a sliding bolt, *c*, having on its outer end a wedge-shaped projection, *c'*, which is sufficiently sharp on its extreme end to enter between the flange of the cartridge and the rear end of the cylinder. A longitudinal slot, *i*, is made in the rod, into which is placed a bent spring, *i'*, and a spring, *g*, is placed behind the rod, in the inner end of the socket, to keep the rod always thrown out; and a pin, *a*, is inserted into a hole in the rod, said pin projecting out through a slot made in the socket lengthwise. A stop, *f*, is attached to the side of the arm a little in the rear of the socket D, to limit the rearward movement of the rod *c*.

When the shells are to be extracted the rod *c* is forced in until the wedge-shaped projection *c'* is up against the rear end of the cylinder, and as the latter revolves the projection *c'* enters between the flange of the shell and the rear end of the cylinder, and starts the shell out from the chamber; and when this takes place the rod is released and flies rearward, quickly ejecting the shell entirely clear from the chamber. Each shell is ejected in precisely the same manner as the cylinder is rotated.

As a means of forcing the rod *c* into the socket, and the projection *c'* against the rear end of the cylinder, I use a series of cams, *e*, made on the exterior of the cylinder, and a pin, *a*, projects through a longitudinal slot in the socket, and is sufficiently long to strike against the edge of one of the cams *e*; and as the cylinder is rotated, the cam forces the pin *a* and rod *c* forward, compressing the spring *g* and moving the projection *c'* against the rear end of the cylinder. As soon as the pin passes over the extreme forward end of the cam it is instantly released, and the rod flies quickly rearward, as before described.

If it should be desired to revolve the cylinder backward, or in the opposite direction, the edge of the cam, at *o*, is made on an incline, so that the pin rides up onto the cam, the pin being forced into or through the rod *c* and against the spring *i'*, and bending it upward, and the pin is quickly forced out again by the spring as the cam has passed the pin.

It will be seen by the above description that the projection *c'* first passes behind the flange of the shell and operates to start the shell by a positive force, which is exerted in a direct line parallel with the axis of the chamber, and that after the shell is started it is forced out quickly and thrown clear of the arm by the elastic power of the spring behind the rod.

A part of the frame is cut away at *h* for the purpose of inserting the cartridges, and for

throwing them clear of the arm, as they strike against the shoulder at the rear part of the recess *h* when they are thrown out, and are thereby deflected to one side.

I am aware that revolving fire-arms have heretofore been made in which the cylinder was used as a portion of mechanism for operating the extractor, as shown in patent to S. W. Wood, No. 178,824, June 13, 1876, and I do not claim the same, nor any part thereof, irrespective of my construction.

Having thus described my invention, what I claim as new is—

In a revolving fire-arm, the combination, with the extractor-rod *c*, operating in a guide-socket and provided with a pin or projection, *a*, of the cams *e* on the cylinder and a spring, *g*, as a means of automatically extracting the shells from the chambers by the rotation of the cylinder, substantially as described.

BENJAMIN F. JOSLYN.

Witnesses:
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