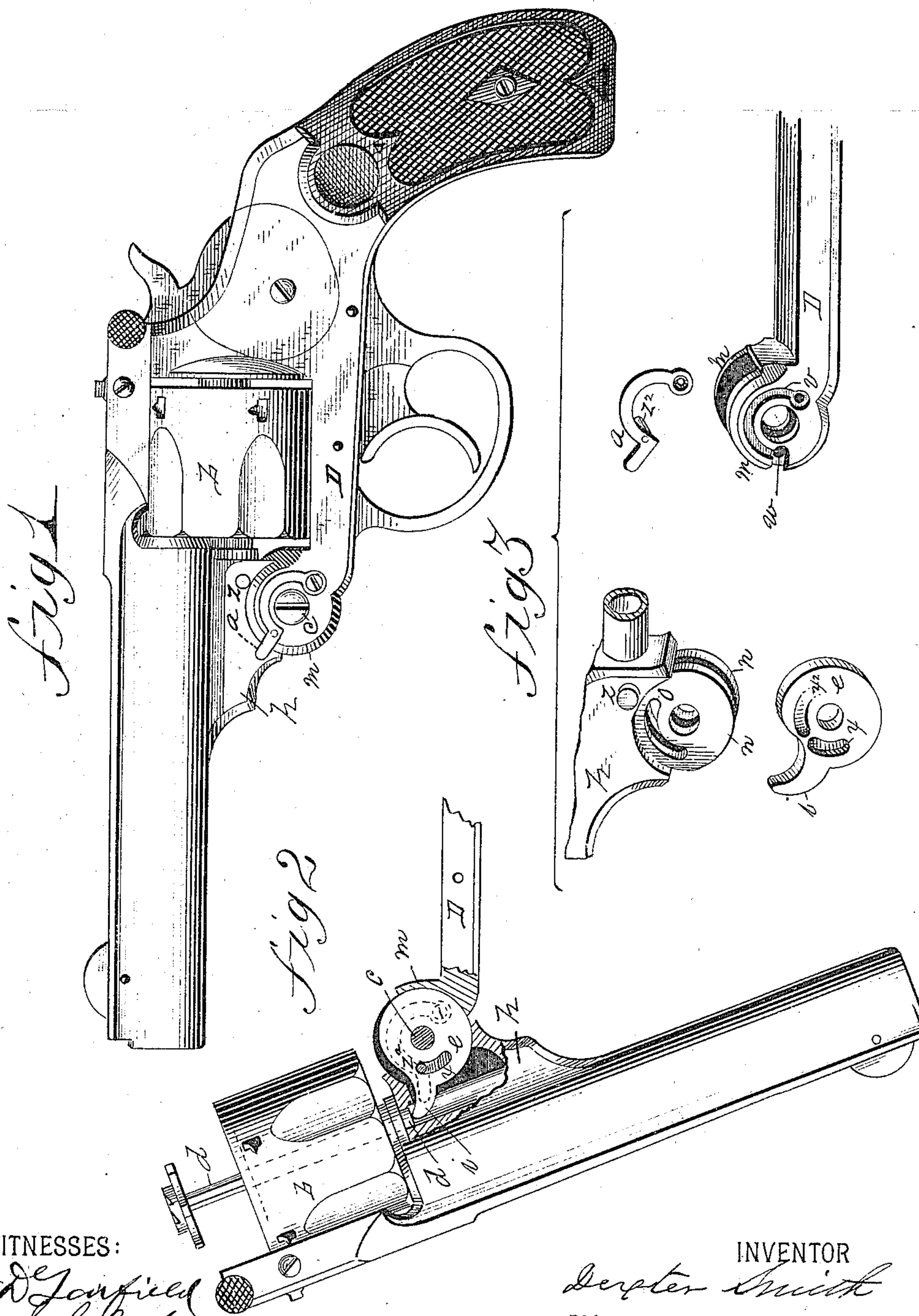


(No Model.)

D. SMITH.
REVOLVING FIRE ARM.

No. 315,352.

Patented Apr. 7, 1885.



WITNESSES:

J. D. Sanford
E. S. Chapin

INVENTOR

Dexter Smith

BY

Henry A. Chapin
ATTORNEY

UNITED STATES PATENT OFFICE.

DEXTER SMITH, OF SPRINGFIELD, MASSACHUSETTS.

REVOLVING FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 315,352, dated April 7, 1885.

Application filed February 5, 1885. (No model.)

To all whom it may concern:

Be it known that I, DEXTER SMITH, a citizen of the United States, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Revolving Fire-Arms, of which the following is a specification.

This invention relates to improvements in revolving fire-arms, and pertains to the ejector-operating mechanism of such arms, the object being to provide improved devices connected with and operating by the action of the frame and barrel-joint for operating the shell-ejector.

In the drawings forming part of this specification, Figure 1 is a side elevation of a revolving fire-arm embodying my invention. Fig. 2 is a view of the barrel, partly broken away at the joint, the cylinder and ejector, and a section of the frame, showing a portion of my improvements applied thereto. Fig. 3 illustrates detail parts of the joint parts of the barrel and frame and the parts embodying my improvements.

In the drawings, D indicates that part of the pistol-frame extending under the cylinder *b*, and having the exterior cheek-pieces, *m m*, of the frame and barrel joint. One of said cheek-pieces has a curved groove, *v*, therein having an opening therefrom to the border of the cheek-piece at one end, as shown in Fig. 3. A pin-hole, *w*, is made through the said grooved cheek-piece. A curved spring, *a*, is fitted into the groove *v* in the cheek-piece *m* and secured there by a screw through one end, as shown in Fig. 1, said spring *a* having a pin, *z*², projecting from its under side, which passes through the aforesaid pin-hole *w* and through the curved slot *o* in one of the interior joint parts, *n*, of the part *h* of the barrel, projecting beyond the inner face of said part *n*. A pin, *z*, is placed in said part *h* of the barrel near the periphery of the cheek-piece *m*, to which spring *a* is attached, the end of said pin having a face inclining toward the muzzle of the barrel.

Between the joint parts *n n* of the part *h* of the barrel is fitted the ejector-operating disk *e*, having the curved arm *i* thereon. The disk *e* is hung on the joint-pin *c*, as shown in Fig.

2. Said disk *e* has a curved groove, *x*, in one side thereof, which, when the disk is in operative position between said parts *n*, is directly under the curved slot *o*, through one of said parts. At one end of the groove *x* in disk *e*, and separated slightly therefrom, is formed a shallow groove, *x*².

When the above-described joint parts of the frame and barrel and the spring *a* and disk *e* are assembled in operative positions, as in Fig. 1, the end of the arm *i* on disk *e* is in position against the end of the ejector-stem *d*, the ejector then being against the face of the cylinder *b*, and not in the position shown in Fig. 2; and when the disk *e* and its arm are in the position just stated, the end of pin *z*² on spring *a* is in the curved groove *x* of disk *e*, at the end thereof farthest from the arm *i*. Upon disconnecting the barrel from the frame to swing the former to the position shown in Fig. 2 the end of the pin *z*² on spring *a* follows the groove *x* without turning disk *e*, until the ejector has swung high enough above the frame to let that and the ejected shells move freely out, and then the end of pin *z*² strikes the end of groove *x* near arm *i*, swinging the disk *e* and carrying its arm *i* against the end of the stem *d*, and driving the ejector out, as shown in Fig. 2.

In swinging the parts *m m* upon the joint of the barrel part *h*, in which is fixed the pin *z*, the end of spring *a* is, when the ejector is thrown out far enough, carried onto the end of said pin, and is thereby, with pin *z*², lifted up, drawing said pin out of the groove *x* in disk *e*, freeing the latter and letting the usual retracting-spring on stem *d* within the cylinder draw back the ejector and swing disk *e* back to the point of starting. When disk *e* is swung back, as just stated, that part of its face beyond and in a line with the curved slot *x* passes under the end of pin *z*² on spring *a*, and to somewhat free the disk from the pressure of spring *a* when it starts to rotate backward and let the ejector return quickly against the end of the cylinder, the shallow groove *x*² is formed in the side of disk *e*. The face of the end of pin *z*² on spring *a* is slightly inclined toward its rear side, so that when it moves back from slot *x*² to be again dropped into slot *x* it easily rides over

the slight bridge between these two slots. In swinging the barrel and frame into line again after operating the extractor the parts reassume the position above described, ready to repeat the operation of the parts, as set forth.

What I claim as my invention is—

1. In a revolving fire-arm, the combination, with the frame and barrel joint parts and the extractor-stem thereof, of a disk hung in the joint to reciprocally rotate on the joint-pin, said disk having an arm thereon engaging with the extractor-stem, a spring attached to one of the cheek-pieces of said joint having a pin thereon engaging with said disk, and means, substantially as described, for disengaging said pin from the disk by rotating the joint parts, substantially as set forth.

2. In a revolving fire-arm, the grooved and perforated cheek-piece *m*, the joint part *n*, having a slot therein, the disk *e*, pivoted in the joint and having an arm thereon and the groove *x* therein, the spring *a*, lying in the groove in said cheek-piece and having a pin

thereon engaging with the groove in said disk, and the pin *z*, combined with the extractor-stem of the arm, substantially as set forth. 25

3. In combination with the barrel and frame joint of a revolving fire-arm having the pin *z* near said joint, the grooved and armed disk *e*, and the spring *a*, secured to the frame and having an arm in the line of movement of pin *z*, and also having a pin thereon engaging with said disk, substantially as set forth. 30

4. In combination with the barrel and frame joint of a revolving fire-arm having the pin *z* near said joint, the disk *e*, pivoted in said joint and having arm *i* and the grooves *xx'*, and the spring *a* on the frame, having an arm in the path of movement of pin *z*, and having a pin thereon engaging with said disk, substantially as set forth. 35 40

DEXTER SMITH.

Witnesses:

H. A. CHAPIN,
J. D. GARFIELD.