J. WARNER.

Revolver.

No. 15,202

Patented June 24, 1856.

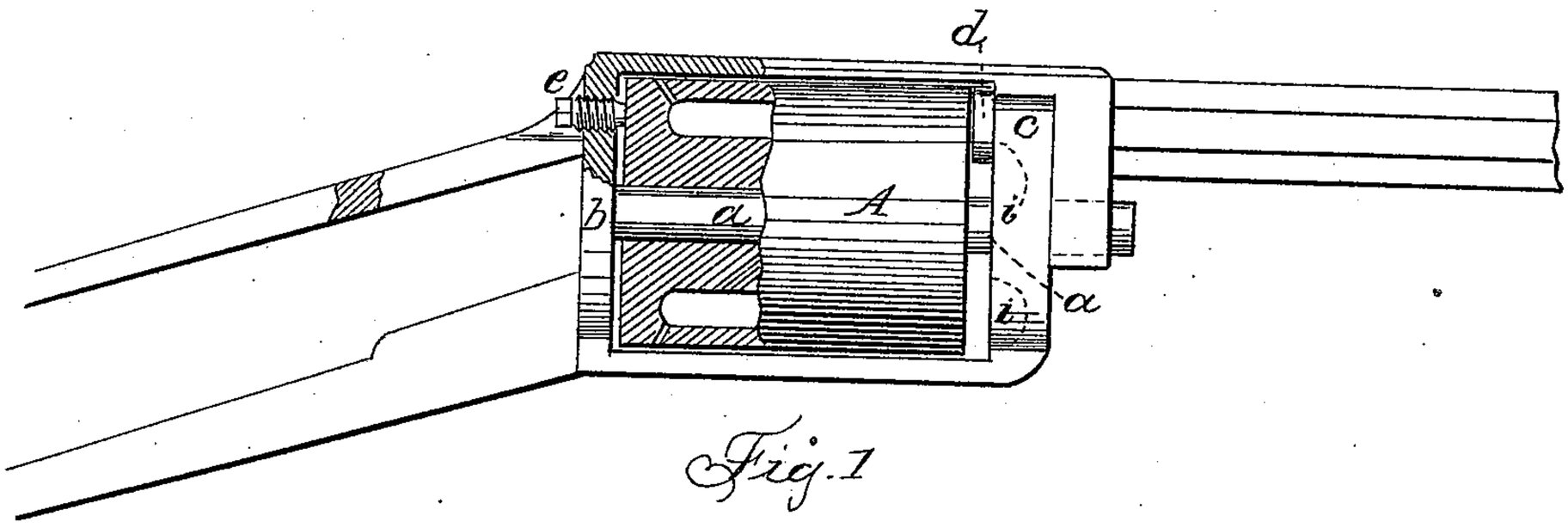

Fig. 1

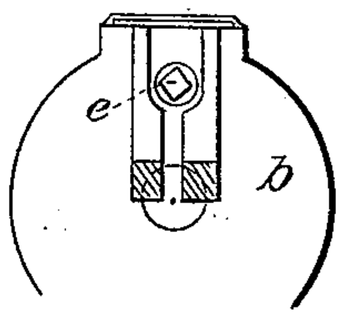

Fig. 2

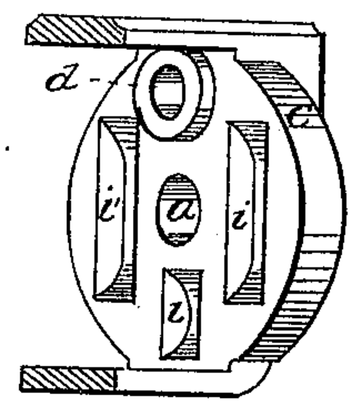

Fig. 3

UNITED STATES PATENT OFFICE.

JAMES WARNER, OF SPRINGFIELD, MASSACHUSETTS.

IMPROVEMENT IN FIRE-ARMS.

Specification forming part of Letters Patent No. **15,202**, dated June 24, 1856.

To all whom it may concern:

Be it known that I, JAMES WARNER, of Springfield, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Revolving-Chamber Fire-Arms; and I do hereby declare that the following is a full, clear, and exact description of my said invention, reference being made to the annexed drawings, forming part of this specification, in which similar letters indicate similar parts, and in which—

Figure I is a view of the revolving breech, partly in section. Fig. II is an end view of the back or shield plate of the breech-frame, showing the bearing-pin or adjusting-screw; and Fig. III a perspective view of the battery safety-guard plate.

My said improvement in the construction of fire-arms consists in the following particulars:

First, in the formation of a set of peculiarly-shaped cavities in the battery-plate, placed a little in front of and covering all the openings in the revolving breech, whereby in case of an accidental firing of any of the charges in said breech the ball will be caught and retained within one of the said cavities, and thereby prevented from inflicting injury either upon the person firing the gun or upon any one who may chance to be in the vicinity.

Secondly, in the application of an adjustable recoil-bearing, whereby the recoil of the revolving breech shall be received upon a point placed in the direct line of the fire, and not upon the general surface of the plate forming the back frame, nor upon the spindle upon which the breech rotates, as in the old mode. The advantage of this latter improvement lies in the ability to keep the joint between the barrel and breech in proper adjustment at all times. If the joint be made perfectly close before beginning to fire, a few discharges will so expand the breech that it will become set or locked. Thus, were no provision made in this respect, the joint would have to be left sufficiently open, in the first instance, to allow for such expansion. Hence when beginning to fire, and until fully heated, there would always be discharges of fire from said joint, to the increase of danger and discomfort, as well as loss of effect. By means of my adjusting-pin, however, the joint may be kept tight from the beginning and yet leave the chamber always free to turn by easing off the point of the stud as the expansion increases.

The revolving breech is shown at A, and is of the usual construction, revolving upon a stationary pin, *a*, as an axis. At the back of the breech-frame is the shield-plate *b*, and in front, at *c*, is the battery-plate. On the inside face of the said battery-plate, where the barrel is to be joined, is a circular projection or rim, *d*, surrounding the opening which leads to the barrel. The face of this rim is made smooth in order to face evenly upon the flush end of the revolving breech, which is pressed always against it by the action of the adjusting and recoil pin, which latter is shown at *e*, Fig. I, where it will be seen as placed directly in central line of the bore of the barrel. By reason of the projecting rim *d* a space is thereby left between the battery-plate and the face of the revolving breech, the object of which space is to allow of the free escape of the fire and smoke in case of an accidental discharge from any of the chambers other than the one in adjustment with the barrel.

The improvement in the battery-plate consists in forming a set of cavities in its surface opposite to the mouths of the breech-chamber, said cavities being, first, of such capacity as to be capable of containing the metal of the ball, and, secondly, of such shape as to insure the holding of it when driven in by an accidental discharge. These cavities are seen at *i* and *i'*, Fig. III, and in dotted line, Fig. I. There may be as many cavities as there are charge-chambers, less the one regularly opposite to the barrel, or, as shown in the figure, their shape may be such as to embrace two or more. As represented, the bottom one is for a single charge, while the two side ones cover the mouths of two charge-chambers each, and are intended for a breech having six charge-chambers. In case of there being more or less the arrangement would be different. These cavities are either straight-sided or beveled, but it is essential that the shape be such as to act on the principle of a wedge. It will now be seen that the object of the cavities is not only to receive the lead in case of accidental communication of fire to the charge, but to hold the whole of it, the lead, in consequence of the flat or wedging sides of the cavities, becoming firmly jammed and compacted therein.

I am aware that the battery-plate, both flat and concave, has been used; but these do not hold and retain the lead of the shot or ball. On the contrary, it is scattered about laterally in all directions. In fact, the concave form is actually dangerous, often throwing the shot backward.

The recoil and adjusting pin *e* is important in several particulars. In the first place, by reason of the ability to have the point of contact between the face of the revolving breech and the barrel always tight, the danger from communicated fire is greatly lessened. At the same time the bad effects from inaccurate workmanship are overcome in consequence of the bearing-surfaces being so much reduced, for it will be seen that the least irregularity in the set of the pin *a* or unevenness in the surfaces of the shield-plate *b* and breech-chambers, or both combined, would prevent the possibility of forming a good joint with the end of the barrel. Now, by my improvements a certain amount of play may be allowed on the pin or axis *a*, while no particular accuracy is required of the surface of either the shield-plate *b* or inner end of the barrel to make my gun work satisfactorily, since neither come in contact.

I claim, therefore, as my improvement—

1. The combination of the recoil and adjusting pin with the revolving breech, placed in the shield-plate in such position that the point shall be in line with the barrel, as described.

2. Forming cavities in the battery-plate in such position and of such form as to receive and hold the ball or balls in case of the accidental discharge of any of the chambers not in adjustment with the barrel, as described.

JAMES WARNER.

Attest:
EPHRM. W. BOND,
A. A. WHITE.