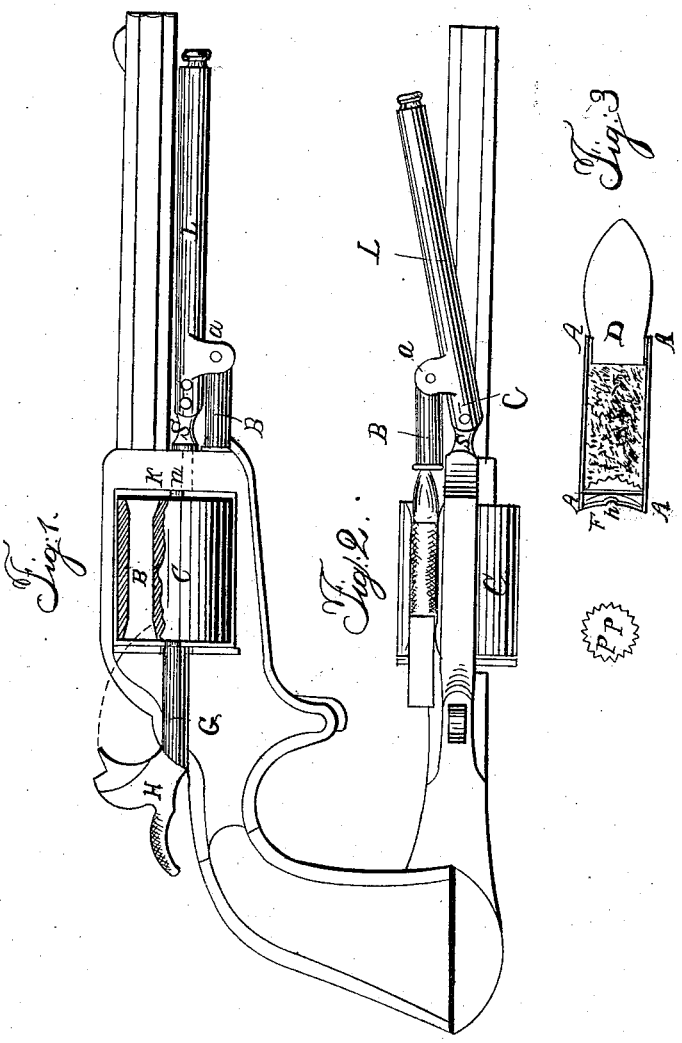
F. D. NEWBURY.

Revolver.

No. 46,131. Patented Jan. 31, 1865.



Witnesses:
Andrew Todd
John J. Lyon.

Signed F. D. Newbury

UNITED STATES PATENT OFFICE.

FREDERICK D. NEWBURY, OF HUDSON CITY, NEW JERSEY.

IMPROVEMENT IN RAMMERS FOR REVOLVING FIRE-ARMS.

Specification forming part of Letters Patent No. **46,131**, dated January 31, 1865.

To all whom it may concern:

Be it known that I, FREDERICK D. NEWBURY, of Hudson City, State of New Jersey, have invented a new and useful improvement in the construction of that class of fire-arms known as "Revolvers," in which metallic cartridges whose charges are fired by detonating-powder contained within them are employed—such as the well-known Smith & Wesson's fire-arms; and I declare the following specification, with the drawings forming part of the same, to be a full and complete description of my invention.

Figure 1 represents, in profile, a pistol fitted with my improvements; Fig. 2, one reversed to give a view of the apparatus lying underneath the barrel and stock; Fig. 3, a sectional view of the cartridge (on an enlarged scale) to be used with my improvement.

Similar letters in the figures denote the same parts of the apparatus.

The drawings exhibit so plainly the form and arrangement of a revolver-pistol that it is unnecessary to specify its particular parts.

My improvements have reference to the form of the chambers of the cylinder and the arrangement and service of the rammer.

The cylinder C is represented in Figs. 1 and 2 as having a portion removed in order to show the form of one of the charge-chambers B, and differs from other cylinders only in the form of the chambers, which are bored through the cylinder with an equal diameter, and then have each end for a short distance slightly tapered, for the purpose of facilitating the introduction of the cartridge at one end and its removal from the other end of the cylinder.

The cartridge is made of thin copper or other suitable metal, shaped as shown in section at Fig. 3. The body of it A A is a true cylinder, (fitted to enter B,) to one of end of which is attached the bullet D. This, as shown in the drawings, has a neck fitted to enter snugly within the metal shell, but its body is a trifle larger in diameter than the shell, so that when it is inserted, with the cartridge, within the chamber B and pressed into it, it will remain so firmly there that it cannot be started outward by the recoil of the piece when any of the chambers are fired; also, that it may not be easily started forward when the hammer impinges upon the rear of the cartridge, and thus its effect upon the detonating-powder be lessened. The other end of the case is closed in by the metal in the form of a shallow funnel, F, as shown in the drawings, having a small hole, *h*, in its apex. Just in front of this funnel (leaving a small space between them) a metal partition, P, is fixed, shaped as shown at P *p*, being a disk with notched edges. Between this disk P and the bullet the charge of gunpowder is placed. Between P and F the detonating-powder is placed. When the cartridge is in its place in the cylinder F lies close to the back end of chamber B, and the hammer H is fitted so as to strike, when it falls forward, upon the center or opening *h* at the end of the cartridge, when by compression upon the disk P it explodes the detonating-powder, which fires the gunpowder charge through the interstices between the notches of P. The cartridge is inserted from the front end of the cylinder. When it has been fired and the chamber is to be charged again a new cartridge is to be inserted and pressed in by the finger till it meets the empty shell of the fired cartridge. It then requires a greater force to expel the shell and drive it to its place. For this purpose my next improvement is in the arrangement of the rammer to adapt it to that work.

In order to make a passage-way for the expelled shell, it is necessary to make a groove on the side plate of the frame at G, and a corresponding passage made through the recoil-shield. The rammer R is placed under the barrel, as in Colt's arrangement, being pivoted to its lever L at *a*. The lever itself is pivoted to a standard, S, at *e*. The standard S is arranged to turn around upon an extension, *n*, of its axis, entering within bar K of the frame, which holds the barrel and carries the axis of cylinder C, so that the lever L can be turned so as to bring it into the position shown in Fig. 2, placing the rammer opposite the chamber, which has been brought into range with groove G. The lever L can then be brought into play, and the fresh cartridge forced to its place, the empty shell being at the same time expelled from the chamber along the groove G.

The advantage of the above-described construction will be seen to be this: Since from the form of the cartridge it can be entered from

the front of the cylinder, which cannot be done with the flanged cartridge, the new cartridge can be used to expel the shell of the expended one in the act of loading without removing the cylinder for the purpose, as in the Smith & Wesson class of revolvers. The arrangement of the ramrod upon a revolving standard, so as to bring it in line with the chamber to be loaded, saves the use of a loose ramrod as now used with pieces whose cylinders cannot be removed for the purpose of loading. The whole combined arrangement permits the loading to be done in less time and with much less trouble than by any arrangement of apparatus now in use.

I do not claim the use of chambers bored through the cylinder as a new device; but

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

The method of attaching the ramrod to the frame of the piece by the use of a revolving standard, S, in order to permit the employment of the same, in combination with a cylinder constructed, arranged, and operated substantially as set forth in this specification.

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Witnesses:

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