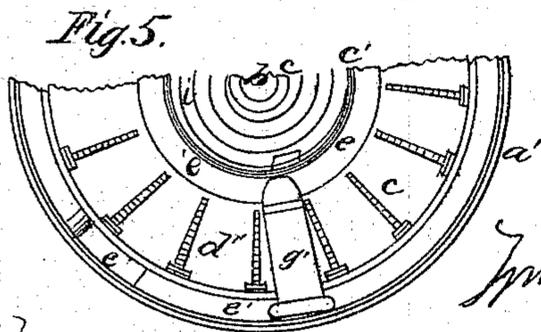
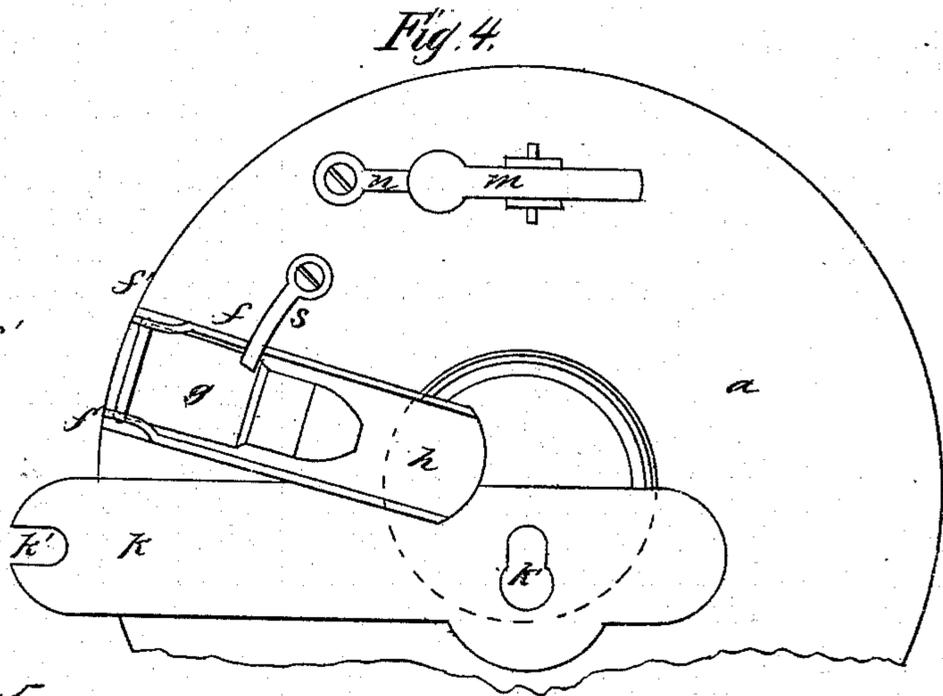
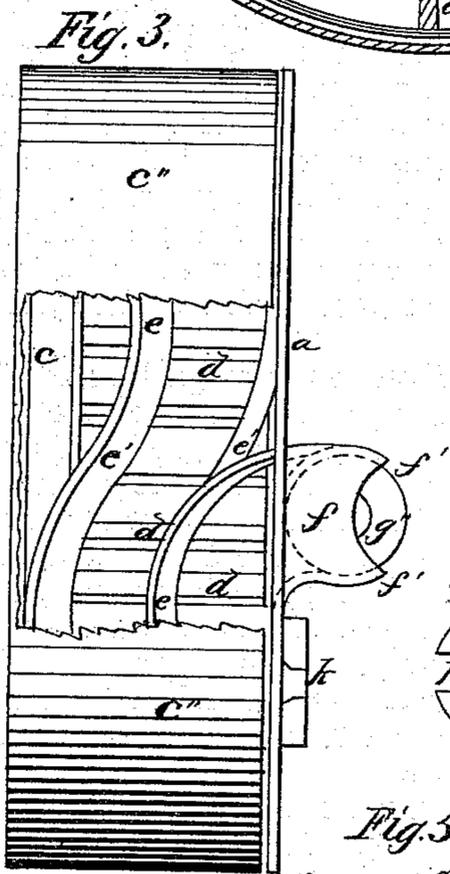
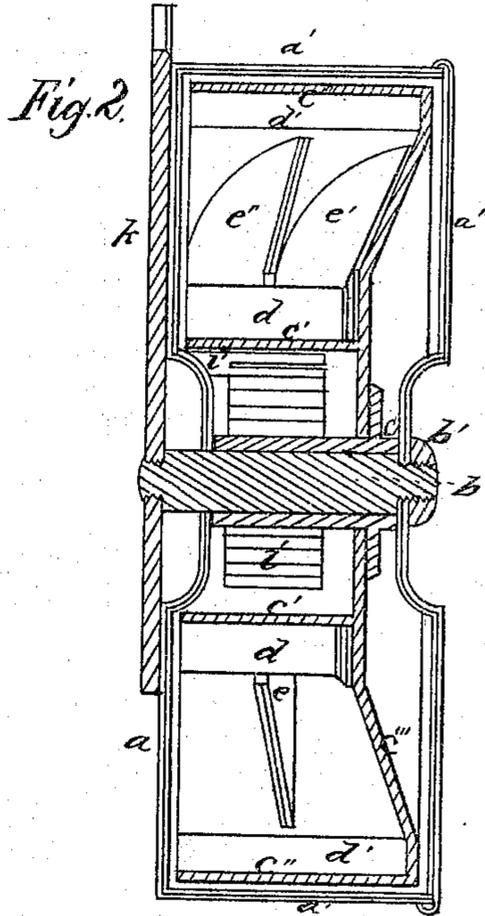
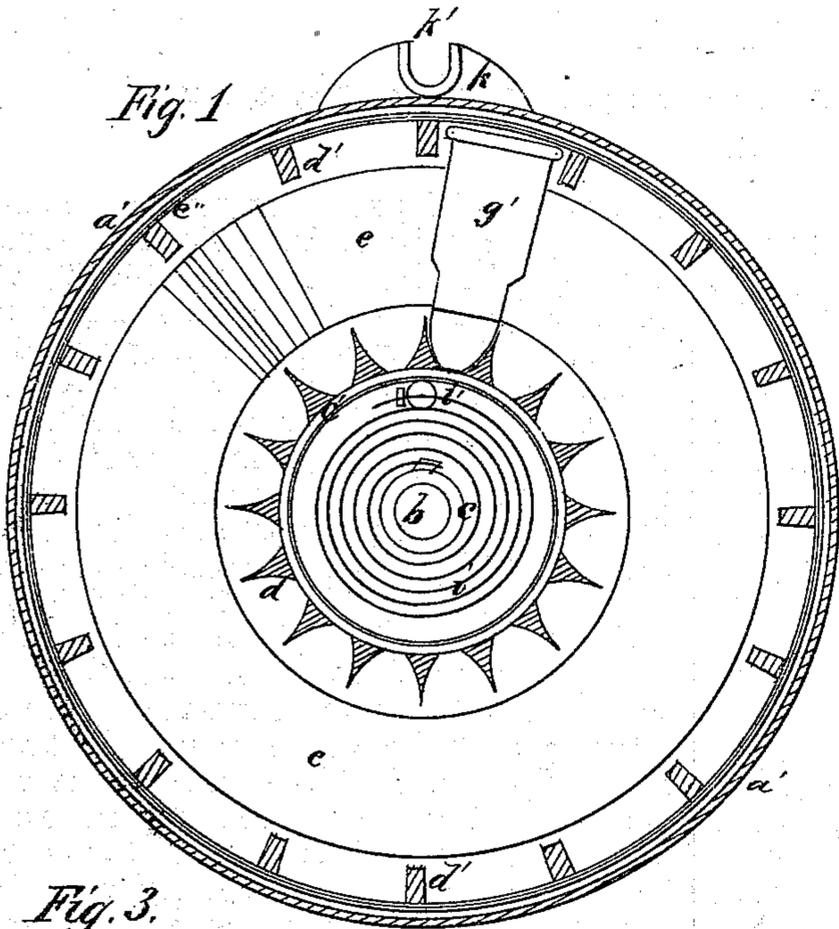


WILLIAM H. ELLIOT.

Improvement in Magazine for Fire-Arms.

No. 127,323.

Patented May 28, 1872.



Witnesses:

C. D. Gordon
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Inventor:

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UNITED STATES PATENT OFFICE.

WILLIAM H. ELLIOT, OF NEW YORK, N. Y.

IMPROVEMENT IN MAGAZINES FOR FIRE-ARMS.

Specification forming part of Letters Patent No. 127,323, dated May 28, 1872.

To all whom it may concern:

Be it known that I, WM. H. ELLIOT, of the city, county, and State of New York, have invented a new and Improved Magazine for Fire-Arms; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

Similar letters of reference indicate the same devices in all the figures.

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

The nature of my invention consists in the arrangement of the circular and radial partitions of my improved magazine, whereby the cartridges are held in a position radial to its axis with their heads presented to the outer band or circular case of the same; in revolving partitions, which prevent the cartridges from coming in contact with the stationary parts of the magazine in their movement toward the mouth of the same; and in stops in the mouth of the magazine for stopping the cartridges in their lateral movement, and guides for directing them out of the mouth of the same by a longitudinal movement toward the chamber of the arm.

Figure 1 is a vertical section of my improved magazine parallel with the plane of its revolution and at right angles to the axis of the magazine. Fig. 2 is a vertical section through the middle of the magazine parallel with its axis. Fig. 3 is an elevation of my improved magazine without a portion of the outer case, and broken away so as to show the circular or spiral partitions and the inner section of radial partitions. Fig. 4 is an elevation of a portion of the magazine, showing the mouth of the same. Fig. 5 is a section of a modification of the same invention, showing the circular partitions divided through the middle and the radial partitions arranged between the two parts of the same.

a, plate forming the face of the magazine; *a'*, band surrounding the magazine; *a''*, plate serving as a cover of the same. These plates form the outer case of the magazine, and should be made of steel, and *a* and *a'* should be made in one piece. *b*, center-pin, upon which the

hub and radial partitions revolve; *b'*, nut of the same; *c*, tube or hub, which revolves on center-pin *b* and supports the disk *c'''*; *c'*, revolving cylinder or cylindrical partition attached to the disk; *c''*, revolving cylinder or cylindrical partition attached to the disk at its outer edge; *d*, inner radial partitions attached to the revolving partitions *c'*; *d'*, outer radial partitions attached to the revolving partition *c''*; *d''*, radial partitions, Fig. 5; *e*, circular or spiral partitions or guide; *e'*, offset in the same to change the cartridges in the second circle to the first; *f*, mouth of the magazine; *f'*, contraction in the mouth of the magazine to stop the lateral movement of the cartridge; *g*, cartridge in the mouth of the magazine; *g'*, cartridge held between the radial partitions; *h*, guide for the cartridge to direct it in its longitudinal movement into the chamber of the arm; *i*, main spring; *i'*, pin supported by plate *a*, and to which the outer end of the main spring is attached; *k*, plate which attaches the magazine to the arm; *k'*, openings in the same to receive button-headed screws on the side of the arm; *m*, stop-pawl to prevent the recoil of the magazine; *n*, spring of the same; *o*, inner end of circular partition *e*, which passes around the cylinder *c'* for support.

My invention relates to magazines for fire-arms of the kind shown in my patents of February 14, 1871, September 12, 1871, and in a pending application; and for the better understanding of this specification and drawing I make special reference to said patents. The combination of devices herein shown as belonging to the interior of the magazine may, with one exception, all be found in the before-mentioned patents. The principal novelty of this invention consists in a peculiar arrangement of old devices.

By the arrangement of the circular and radial partitions herein set forth the cartridges are held in such position that their axial lines form right angles or nearly right angles with the axial lines of the magazine, so that in a magazine containing a given number of cartridges their diameter and length determine the diameter of the magazine, and the diameter of the heads of the cartridges determine the thickness of the magazine, instead of the thickness of the magazine being determined

by the length of the cartridges, as shown in the above-mentioned patents and application. In those cases the sides of the cartridges are presented to the outer and inner cylinder, but by the arrangement herein shown the heads of the cartridges are presented to the outer cylinder and the ball or small end to the inner cylinder, the cartridges standing around the axis of the magazine like the spokes of a carriage-wheel around its axis.

By the arrangement of cartridges above described a much larger number can be put in the same space than by any other arrangement.

The radial chambers in my improved magazine are formed by the radial partitions d and d' , the disk c'' , and the outer and inner cylinder c' and c'' . These chambers are divided through the middle into an outer and inner series, the heads of the cartridges being protected from contact with the outer case of the magazine by the cylinder c'' , while the ball end is protected by cylinder c' . Between the outer and inner series of radial chambers I place the circular or spiral partition e . For two circles of cartridges this partition passes once completely around the magazine, being fastened at its inner end by a loop around cylinder c' , and at its outer end to the face a of the magazine, through which it passes and forms a part of the mouth f , as seen at Fig. 3. By dividing the series of radial chambers into two parts, one part supporting the large ends and the other part supporting the small ends of the cartridges, I provide room between these two parts for the circular or spiral partition. I am also able to employ cylindrical partitions c' and c'' over the ends of the cartridges, and so avoid friction by preventing them from touching the outer case or any of the stationary parts of the magazine, except the face a and the circular partition e . The circular passage of the magazine, formed by the circular partition e , disk c'' , on one side, and face a on the other side, terminates at the mouth f , which is contracted at f' , so as to prevent the cartridge from passing out at the mouth by the same lateral movement which brings it to the mouth, but at the same time permits it to pass out of the mouth by a longitudinal movement in the direction of the chamber of the arm. The mouth of the magazine is provided with a guide, h , which is so arranged upon it in relation to the arm that when the cartridge is pushed forward by the thumb applied to the head at g'' it is guided directly into the chamber of the arm. While the contraction f' effectually stops the cartridge, the spring s prevents the ball end from being displaced by accident. This method of constructing the mouth of the magazine dispenses with a movable stop for the cartridges and a tripper for operating the same, as shown in my pending application; and the guide h renders the operation of passing the cartridge from the magazine into the chamber as simple as that of passing it into

the arm from the loading-chamber, as set forth in the before-mentioned patents.

To prevent the recoil of the arm from turning the revolving portion of the magazine upon its bearing when only a few cartridges remain in it, I employ stop-pawl m , with its spring n . The nose of this pawl passes through face a and engages upon the radial partitions d' . This effectually prevents any backward movement of the radial chambers by the recoil of the arm. The pawl m may be placed upon the band a' and engage upon notches cut in cylinder c'' .

My improved magazine is charged by passing the cartridges into its mouth with sufficient force to turn the chambers backward, the pawl m being held up by the finger during the operation. The operation of charging the magazine is considerably facilitated by cutting an opening through plate a'' in a convenient position for turning the revolving portion of the magazine by the fingers as the cartridges are placed into the mouth.

In a magazine of one circle of cartridges the circular partition would be very short, but in either case its function is the same—viz., that of guiding the cartridge to the mouth of the magazine. Fig. 3 represents a magazine without the parts of the outer case marked a' and a'' . A magazine constructed in this way would be much lighter and would work equally as well, though it would lack the protection of the outer case.

The revolving parts of the magazine should be provided with a stop to prevent the spring from running entirely down. When the stop takes effect the spring should still have sufficient power left in it to throw out cartridges. Any of the stops in common use may be employed for this purpose.

Fig. 5 represents a modification of the invention shown in the other figures. In this case the revolving cylinders c' and c'' are wanting, and the radial partitions are arranged between the circular partitions, as shown in my patent of February 14, 1871, but the arrangement of the cartridge in relation to the outer case and axial line of the magazine is the same as in Fig. 1. The circular partitions e are divided, one half being attached to the outer case a' and the other half to the stationary cylinder c' , and between these two parts of the circular partitions the radial partitions d'' revolve. These radial partitions are attached to the disk and revolve with it. The principal difference between the invention as shown in Fig. 5 and that shown in the other figures is, in Fig. 5 the radial partitions are arranged between the outer and inner circular partitions, while in the other figures the circular partition is arranged between an outer and inner series of radial partitions.

Having described my improved magazine, I desire to have secured to me by Letters Patent of the United States the following claims, viz.:

1. The arrangement of the radial and circu-

lar partitions, whereby the cartridges are held as specified, in relation to the outer case, and to the axial line of the magazine.

2. The revolving partitions c' and c'' , in combination with the radial partitions d and d' , whereby the cartridges are prevented from coming in contact with the outer case and other stationary parts of the magazine, as set forth.

3. The construction of the mouth of the magazine, whereby the cartridges which have been brought to it by a lateral movement must leave it by a longitudinal movement, substantially as specified.

WM. H. ELLIOT.

Witnesses:

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JNO. E. HILTON.