

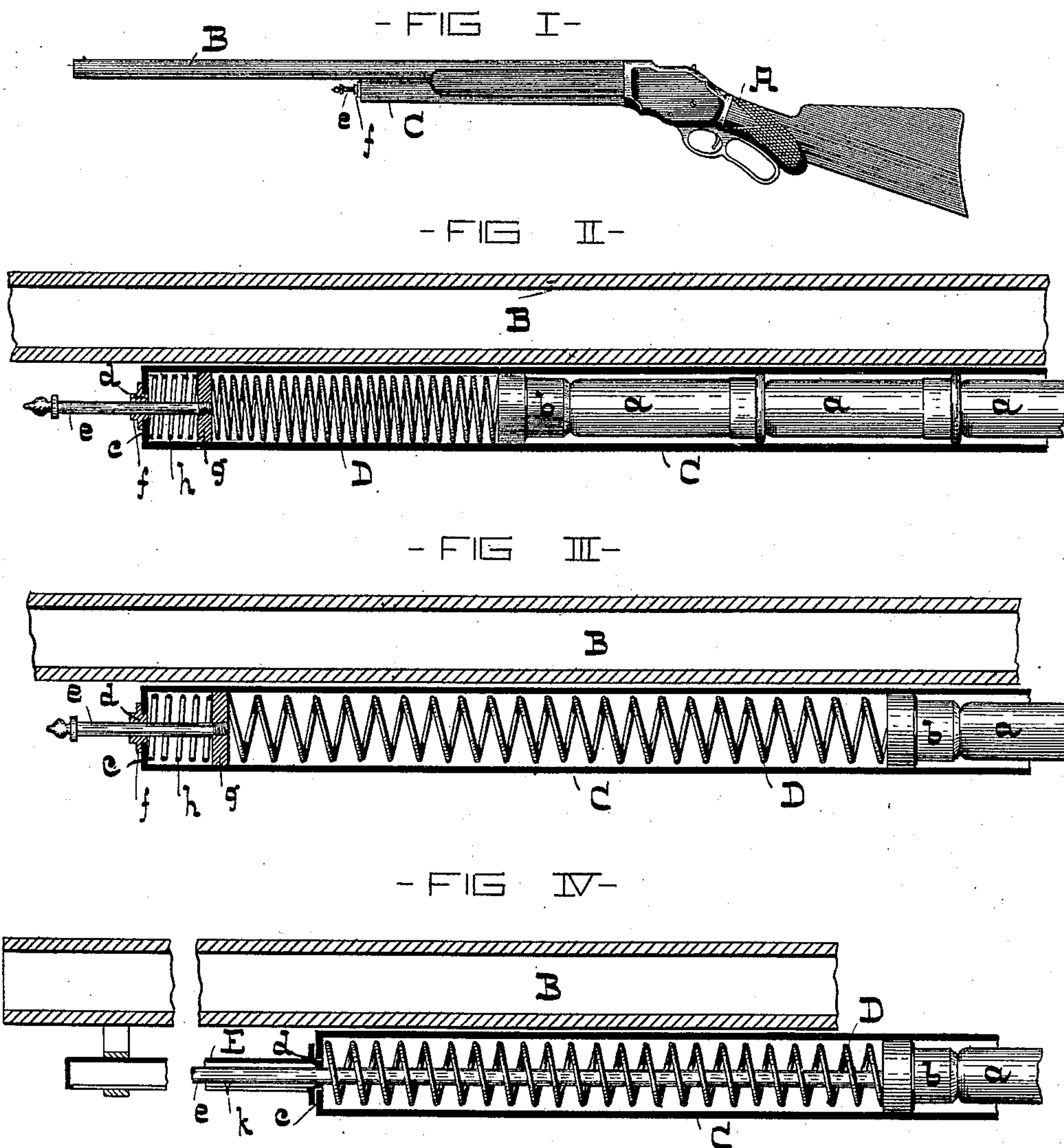
(No Model.)

W. R. MILLER.

CHARGE INDICATOR FOR MAGAZINES OF GUNS.

No. 387,531.

Patented Aug. 7, 1888.



- WITNESSES -

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# UNITED STATES PATENT OFFICE.

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## CHARGE-INDICATOR FOR MAGAZINES OF GUNS.

SPECIFICATION forming part of Letters Patent No. 387,531, dated August 7, 1888.

Application filed May 14, 1888. Serial No. 273,809. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM R. MILLER, of the city of Baltimore, in the State of Maryland, have invented certain Improvements in Repeating Fire-Arms, of which the following is a specification.

This invention consists, primarily, in perforating the head of the magazine and inserting through the hole thus formed a stem, the inner end of which is brought in contact with the magazine-spring or its head, and moves longitudinally as the cartridges or shells are discharged, and, by the length of the exposed part thereof, indicates the number of cartridges or shells contained in the magazine.

In the further description of the said invention which follows, reference is made to the accompanying drawings, forming a part hereof, and in which—

Figure I is an exterior side view of a magazine shot-gun provided with my improvements. Fig. II is an enlarged longitudinal section of a part of the barrel and magazine, showing the latter as fully charged with shells. Fig. III is a similar view to Fig. II, except that two shells have been discharged from the magazine. Fig. IV illustrates a modification of the invention, as will hereinafter fully appear.

Similar letters of reference indicate similar parts in all the figures.

Referring to Figs. I, II, and III of the drawings, A, B, and C are respectively the stock, barrel, and magazine of the improved fire-arm.

D is the magazine-spring, which feeds the cartridges or shells *a*. The head of the magazine-spring is denoted by *b*. The head of the magazine *c* is perforated, and through the hole, which is represented by *d*, is inserted a stem, *e*. If the head *c* of the magazine is not sufficiently thick to form a proper and effective guide for the stem *e*, a bushing, *f*, is used, as shown. To the inner end of the stem *e*, I attach a plate, *g*, against which the magazine-spring presses, and between this plate and the head *c* of the magazine is situated a coiled spring, *h*. This spring is much shorter than the magazine-spring; consequently its extension and compression are less than the latter with a given pressure, and the movement of the stem when, say, one cartridge is discharged is about in proportion to the difference between the lengths of the two springs.

In other words, if the length of the short spring *h* is, say, one-tenth that of the one D, and the cartridge is two and a half inches long, at each discharge the stem *e* will move in two tenths of an inch. The distance moved by the stem at each discharge, may, however, be further reduced by making the spring *h* slightly stronger than the one D. The stem may, if desired, be marked or graduated; but to a person accustomed to use the arm the number of cartridges contained in the magazine can be approximated without such marks.

It will be understood that the result above described could be produced by attaching the stem to the magazine-spring at a short distance from its end; but the two springs with the interposed plate are preferred.

In Fig. IV the simplest form of the invention is illustrated, and the stem at each discharge of a shell has a movement equal to the length of a shell. With this construction, which is not the preferred one, a suitable guide, independently of the head *c* of the magazine, will be required for the stem. The additional guide herein shown consists of a casing, E, which is slotted longitudinally to admit of the free movement of the indicating-pin *k*, which projects from the stem.

With the arrangement shown in Fig. IV the guiding-casing would be graduated or marked instead of the stem.

I claim as my invention—

1. In a repeating fire-arm, the head or end of the magazine perforated and combined with an indicating-stem which enters the magazine through the said perforation, is parallel to the magazine and within it, and is in contact with the contained magazine-spring or an attachment operated thereby, whereby the length of the exposed portion of the stem indicates the number of cartridges contained in the magazine, substantially as specified.

2. In a repeating fire-arm, the magazine thereof provided with a projecting stem which has a plate at its inner end, combined with a spring situated between the said plate and the head of the magazine, substantially as and for the purpose specified.

WILLIAM R. MILLER.

Witnesses:

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