DeW. C. FARRINGTON.

Cartridge-Feeders for Machine Guns.

No. 198,368. Patented Dec. 18, 1877.

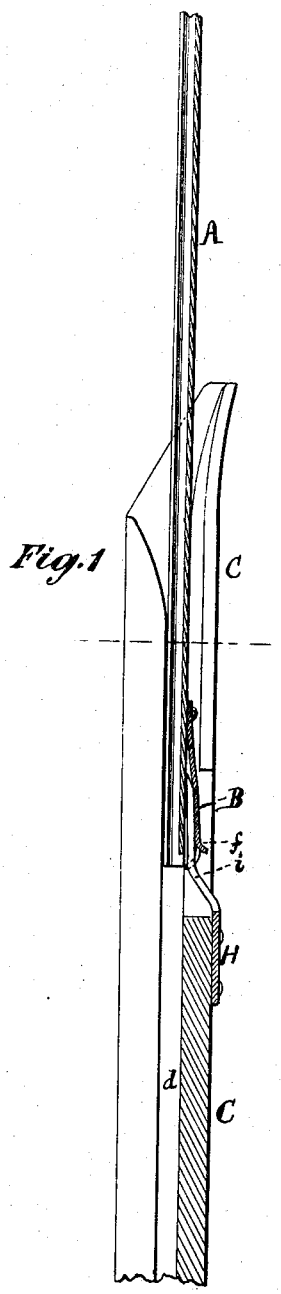

Fig. 1

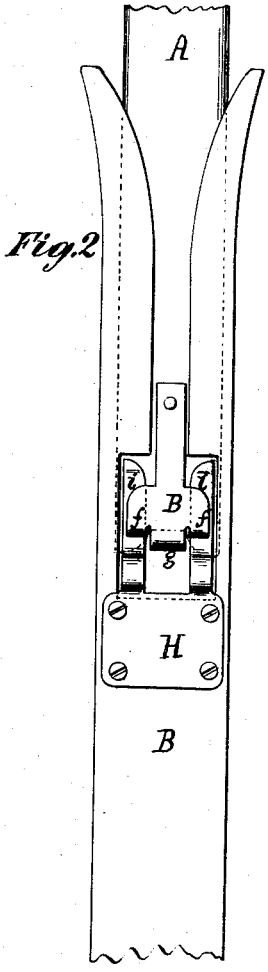

Fig. 2

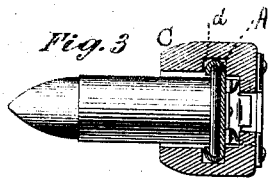

Fig. 3

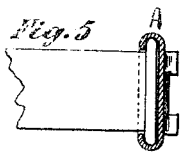

Fig. 5

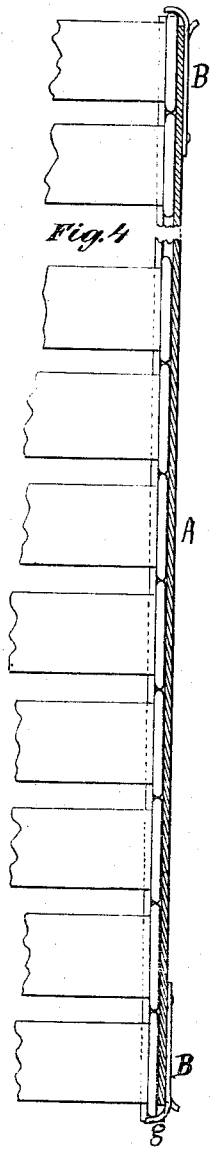

Fig. 4

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UNITED STATES PATENT OFFICE.

DE WITT C. FARRINGTON, OF LOWELL, MASSACHUSETTS.

IMPROVEMENT IN CARTRIDGE-FEEDERS FOR MACHINE-GUNS.

Specification forming part of Letters Patent No. **198,368**, dated December 18, 1877; application filed May 31, 1877.

To all whom it may concern:

Be it known that I, DE WITT C. FARRINGTON, of Lowell, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in the Feed Mechanism of Machine-Guns, of which the following is a specification:

The object of this invention is to provide a cheap and secure mode of packing metallic cartridges for transportation, and at the same time an easy and rapid mode of feeding them to a magazine or machine gun; and it consists of a cartridge-holder and a grooved feeding tube or hopper specially adapted to operate together.

The invention is fully illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section of the hopper, (here shown as open in front,) the cartridge-holder being shown inserted in the throat of the hopper. Fig. 2 is a rear elevation of the parts occupying the same relative position. Fig. 3 is a horizontal section of the hopper and cartridge-holder, on the dotted line of Fig. 1, showing a cartridge in position for feeding. Fig. 4 is a broken vertical section of the cartridge-holder detached, and Fig. 5 is a vertical section of the same.

The cartridge-holder A, as is shown in Figs. 4 and 5, consists of a strip of metal, or other suitable material, shaped so as to form grooves or channels for the reception of the flange of the cartridges, the cartridges being allowed sufficient play in these grooves to descend easily by the force of gravity when the holder is placed in an upright position.

To prevent the cartridges from dropping out accidentally, a bent spring, B, is secured to the back of each end of the holder, the toe of which reaches in under the bottom of the cartridge, and thus sustains the entire column.

In filling the holder, one of these springs, of course, must be pressed back, and so, also, when it is desired to let the cartridges run out of the holder into the hopper, through which they are fed into the gun.

C is the hopper or feed-tube, which, when in use, is to be so placed as to feed the cartridges down to the carrier, by which they are conveyed into the barrels. This tube is made slightly trumpet-shaped at its top, to facilitate the introduction of the holder or cartridge-case; and it has, on its interior and opposite each other, two narrow longitudinal grooves, *d d*, constructed to hold the cartridge by its flange, while it descends freely by its own weight.

If the cartridge-case A, filled with cartridges, be inserted in the tube C, and the spring B upon the lower end of the case be thrown back, the cartridges will immediately run out of the case into the tube C, and through that into the gun below, and a ready mode of thus unlocking the cartridges is provided in the peculiar form given to the spring B.

As shown in Figs. 1 and 2, this spring is provided with two ears, *f f*, one on each side of the toe *g*, and turning outward from the back of the case.

Attached to the back of the feed-tube or hopper is a plate, H, from which two arms, *i i*, project through an opening into the interior of the tube, in such position that the points thereof will catch under the ears on the spring B as the cartridge-case descends, and thus, acting as an inclined plane, force the spring back and release the cartridges. If this spring is of the proper strength, the simple weight of the loaded case will be sufficient to operate it.

Instead of the arms *i i*, any equivalent device acting as a stop and catching under the ears *f f* may be used.

As soon as the last cartridge has passed from the case, the case is to be thrown out and a new one, with a fresh supply of cartridges, inserted in its place.

It is not necessary to the use of the improvements herein set forth that the hopper

or feed-tube be open in front, as shown in the drawings. If closed, it would, if made of the proper shape, admit of the entrance of the cartridge-holder and the cartridges with the same facility as now.

What is claimed as new is—

1. The grooved cartridge-holder, provided with springs, attached to its rear side, for holding the cartridges in place, substantially as and for the purpose set forth.

2. The grooved hopper or feed-tube, provided with arms, or equivalent devices, projecting inwardly at its rear side, for releasing the cartridges from the cartridge holder or case.

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Witnesses:

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