

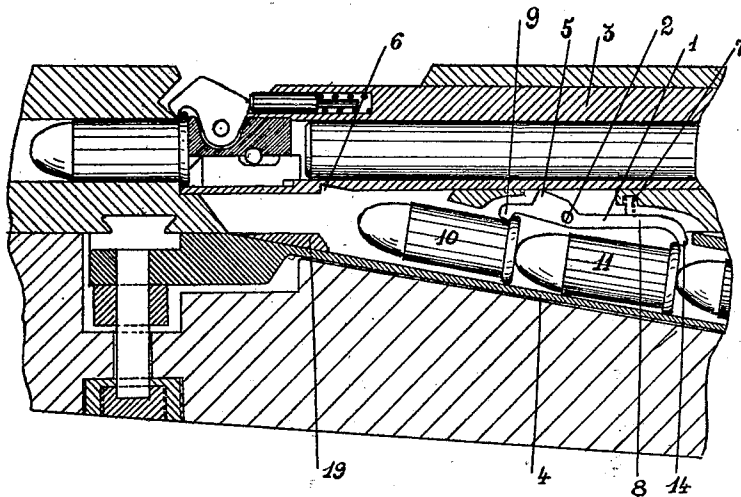
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 CARTRIDGE STOP LEVER FOR TUBULAR MAGAZINES OF SMALL ARMS.  
 APPLICATION FILED SEPT. 10, 1920.

1,435,282.

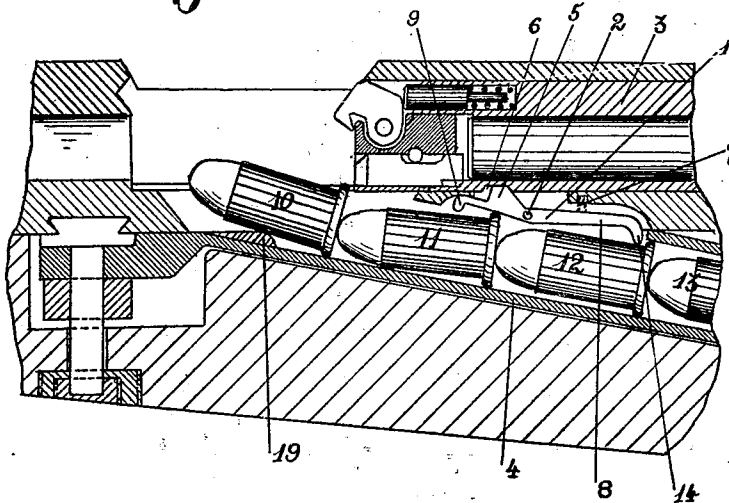
Patented Nov. 14, 1922.

2 SHEETS—SHEET 1.

*Fig. 1.*



*Fig. 2.*



*Inventor:*

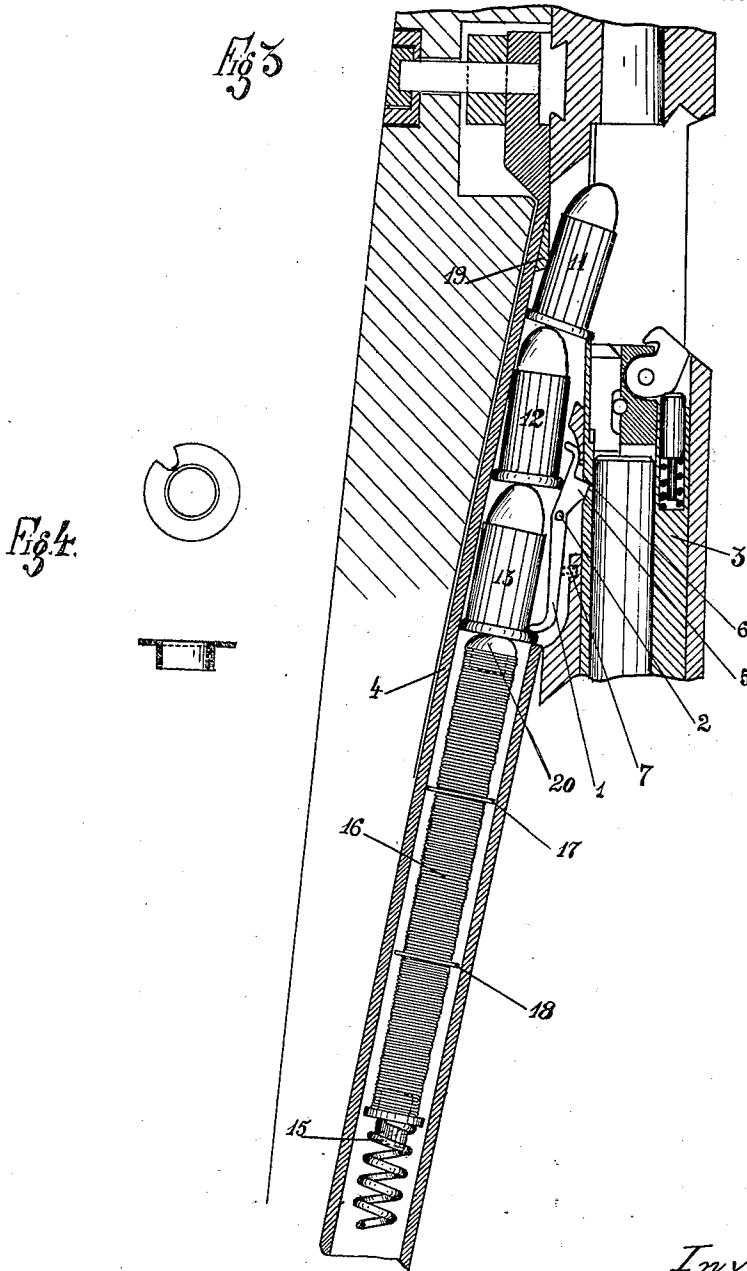
*Joseph Declaye*  
 By *Lawrence Langner*  
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 Attorney

## UNITED STATES PATENT OFFICE.

JOSEPH DECLAYE, OF LIEGE, BELGIUM.

CARTRIDGE STOP LEVER FOR TUBULAR MAGAZINES OF SMALL ARMS.

Application filed September 10, 1920. Serial No. 409,382.

*To all whom it may concern:*

Be it known that I, JOSEPH DECLAYE, a subject of the King of Belgium, and resident of Liege 32 Rue Adolphe Borgnet, Belgium, have invented certain new and useful Improvements in or Relating to Cartridge Stop Levers for Tubular Magazines of Small Arms; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked therein, which form a part of this specification.

This invention relates to a cartridge stop lever for tubular magazine of fire arms, which is actuated by the motions of the breech bolt so as to cause the checking of the cartridges and their releasing.

According to the invention the bolt is provided with a groove in which may engage the end of a finger of the stop lever. The motions of the bolt cause the rotation of the stop lever by the engagement and disengagement of the end of said finger in the groove of the breech bolt.

In a particular form of the invention the stop lever is pivoted under the bolt and has at each end a nose for checking the cartridges, and works in such a way that when the front nose is releasing a cartridge, the rear nose, although it allows the passing of a second cartridge pushing the first, checks the third cartridge, thus relieving the first and second cartridges from the action of the spring.

The accompanying drawings illustrate an application of the invention.

In these drawings:

Fig. 1 shows the positions of the parts when a cartridge is engaged in the breech ready for firing;

Fig. 2 shows the positions of the parts when the breech bolt which is recoiling has brought about a rotation of the cartridge stop lever;

Fig. 3 shows a position of the parts similar to the position shown in Fig. 2 but when the stop lever is releasing one of the last cartridges of the magazine; and

Fig. 4 shows a detail in front view and in section.

The stop lever 1 pivoted at 2 under the breech bolt 3 is arranged near the top end of the tubular magazine 4, and is constantly

under the action of a spring 7 acting on an arm 8 of the said lever 1. This lever is provided with a finger 5 always kept against the breech bolt 3 by the action of the said spring 7 and becomes engaged in a groove 6 of the bolt, when said bolt has sufficiently recoiled.

When the end of the finger 5 engages in the groove 6 of the bolt, the lever 1 is displaced and the nose 9 provided at its front end releases the cartridge 10 which was held in the position illustrated in Fig. 1. The spiral spring 15, shown in Fig. 3 acting on the cartridges in the magazine, then thrusts the cartridge 10 forward, together with the whole column of cartridges. When the cartridge 10 is in a position such that it may be pushed forward into the breech by the front part of the breech bolt, this cartridge 10 is isolated from the pushing action of the spring 15. This isolation is obtained by the nose 14 provided at the rear end of the lever 1 engaging the rim of the cartridge 12.

In order that the two last cartridges may be properly moved out of the magazine, the extremity of the spring 15 constituted of a flexible rod 16, is provided with two projections 17 and 18 distanced from each other by the length of a cartridge. The first projection 17 is distanced from the end of the said flexible rod 16 also by a cartridge length. Thus, when the last but one cartridge 12 is within the reach of the breech bolt, that is in the position of the cartridge 10 of Fig. 2, the nose 14 isolates the said cartridge from the action of the spring 15 by checking the projection 17.

When the last cartridge (13) is in the position of the cartridge 10 of Fig. 2, the nose 14 checks the projection 18. When finally the breech bolt comes forward again, thus causing a further displacement of the stop lever 1, and the pushing of the cartridge 13 in the breech, the nose 9 of the lever 1 checks the projection 17.

The inserting of cartridges into the breech is facilitated by a slope 19 arranged at the end of the magazine.

In the construction shown in the drawings, the flexible rod 16 is formed of a metallic coil.

The projections 17 and 18 are formed by means of pieces such as the piece represented in Fig. 4. These pieces are arranged at suitable places, between two turns of the flexible rod 16.

While the invention has been illustrated

in what is considered its best application it may have other embodiments without departing from its spirit and is not therefore limited to the structures shown in the drawings.

What I claim is:

1. A cartridge stop mechanism, comprising the combination with a tubular magazine for the cartridges and a breech bolt having a groove therein, of a stop lever adapted to act upon the cartridges in said magazine, said lever being provided with a finger arranged to engage in the groove in said bolt, said breech bolt being arranged to actuate said stop lever to stop and release the cartridges, the movements of the stop lever being caused by the movement of said finger into and out of said groove and said groove being located in the front portion of said breech bolt whereby a cartridge is released only when said bolt is in its rear position.

2. A cartridge stop lever for tubular magazine actuated by the movements of the breech bolt so as to cause the checking of the cartridges and their releasing provided with a finger the top of which may engage in a groove of the bolt, the rotations of the stop lever being caused by the extremity of said finger going into the groove of the breech bolt and out of it, this stop lever having its two ends provided each with a nose for checking the cartridges and operating in such a way that when the front nose is re-

leasing a cartridge, the rear nose, although it allows the passing of a second cartridge pushing the first, checks the third cartridge thus causing the second cartridge and consequently the first to be isolated from the action of the spring of the magazine.

3. A cartridge stop lever for tubular magazine actuated by the movements of the breech bolt, the two ends of said lever being provided each with a nose for checking the cartridge and the spring of the magazine acting on the last cartridge by means of a flexible rod provided with two projections distanced from each other of a cartridge length the first projection being distanced from the end of the said flexible rod also of a cartridge length, this device operating in such a way that the last two cartridges may regularly go out of the magazine.

4. In a cartridge stop magazine, the combination with a tubular magazine for the cartridges, of a movable stop lever, the two ends of which are each provided with a nose for engaging the flange of a cartridge and a breech bolt controlling said stop lever to release the flange of the cartridge when the breech bolt is in its rear position.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH DECLAYE.

Witnesses:

ALFRED VANDER HARGKEN,  
CH. MERCHIE.