W. D. ASHWORTH.

CARTRIDGE CLIP.

APPLICATION FILED OCT. 23, 1918.

1,379,075. Patented May 24, 1921.

Fig. 1.

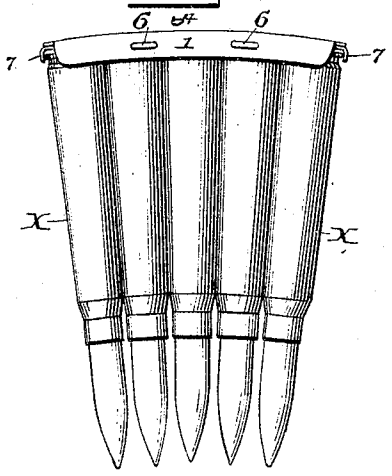


Fig. 2.

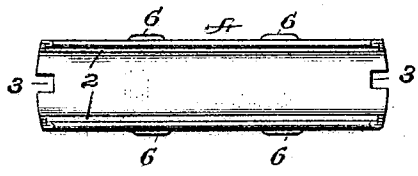


Fig. 6.

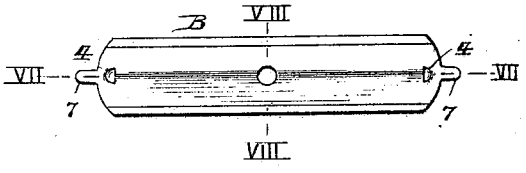


Fig. 3.

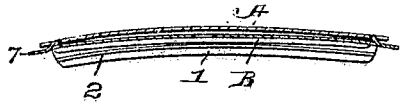


Fig. 7.

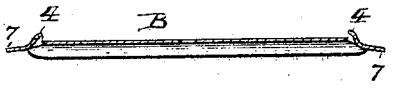


Fig. 4.

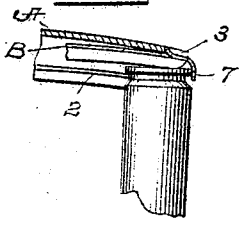


Fig. 5.

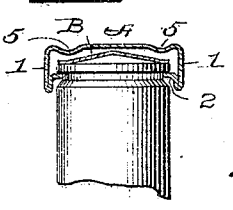
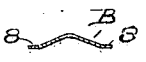


Fig. 8.



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CARTRIDGE-CLIP.

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Application filed October 23, 1918. Serial No. 259,423.

(FILED UNDER THE ACT OF MARCH 3, 1883, 22 STAT. L., 625.)

To all whom it may concern:

Be it known that I, WILLIAM D. ASHWORTH, a citizen of the United States, and a resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented an Improvement in Cartridge-Clips, of which the following is a specification.

The invention described herein may be used by the Government, or any of its officers or employees in prosecution of work for the Government, or by any other person in the United States, without payment of any royalty thereon.

This invention relates to cartridge clips for temporarily holding a number of cartridges for filling the magazine of a gun, packed together for transportation and in such a manner as to be readily and accurately inserted into the magazine, by direct transference from the holder or clip.

The clip or holder is, as usually, constructed of two parts, a trough like frame or case open at both ends and having flanges projecting internally from its sides to engage the flanged bases of the cartridges, and a spring adapted to press the cartridges into such engagement.

An object of this invention is to provide a cartridge clip having a spring in which the retaining tongue on each end will yield readily, rather than shear when pressure is applied to the cartridges to transfer them to the magazine of the rifle.

Another object is to provide a clip having a spring of such character that two independent spring actions take place to hold each cartridge by frictional contact with uniform pressure in the clip case or frame and which is incapable of longitudinal movement when once inserted in the frame.

A further object is provision of the spring permitting the ready stripping of the blanks from the punches used to make the incisions therein.

Still another object is to provide a clip with a spring so designed that the individual springs will not stick together in the assembling machines.

In the accompanying drawings, illustrating the invention, in the several figures of which like parts are similarly designated,

Figure 1 represents a side elevation of the clip embodying the invention showing the cartridges in place;

Fig. 2 is an interior view of the clip case or frame;

Fig. 3 is a longitudinal sectional view of the frame with the spring inserted;

Fig. 4 is an enlarged detailed sectional view illustrating the tongue of the spring bent over the edge of the end cartridge;

Fig. 5 is an enlarged cross sectional view through the clip body and spring showing the action between spring and cartridge flange;

Fig. 6 is a top plan view of the spring;

Fig. 7 is a longitudinal sectional view on the line VII—VII of Fig. 6; and

Fig. 8 is a cross sectional view on the line VIII—VIII of Fig. 6.

The clip made in accordance with this invention comprises two parts, a case or frame member A which is trough like or substantially U shaped in cross section, and spring member B.

The sides 1 of the frame are doubled on themselves and provided with inwardly projecting engaging flanges 2 for engaging the flanges on the base of the cartridges X. The frame, as shown is open at both ends for ready insertion into the magazine well of the rifle, in the act of transferring the cartridges, and each end is provided with a central notch 3. This notch coöperating with the abutments or lugs 4 of the spring B retain the same fixedly in the frame. The usual stiffening ribs or beads are formed in the bottom of the frame and the usual protuberances 6 are provided on the sides to act as guides when the clip is placed in position for loading the magazine of the gun.

The spring B as shown in Figs. 6, 7 and 8 is of a shallow V shape in cross section and is straight in the direction of its length. Each side of the V is provided with a narrow out-turned flange 8 which coöperates with the flange 2 of the case to retain the inserted cartridges in place. The rounded ends of the spring are formed with central flexible projecting tongues 7. The abutments 4 of the spring B are on the longitudinal center of the same near the base of the tongue 7.

Instead of being in the form of holes in the spring or in the form of upwardly pro-

jecting pieces cut from the spring on parallel sides and one end, these lugs are made by slitting the spring transversely and punching up the adjacent metal without rupture so as to form hollow convex lips or lugs. Making the lugs in this manner enable the punches used in cutting and forming the springs to withdraw from the metal freely with a ready stripping of the blanks.

When the clip is assembled by inserting spring B into frame A, these convex lugs 4 lock into the notches 3 of the frame. At the same time the case A being formed on a radius so as to be curved in the direction of its length and the spring B being straight in the same direction causes the spring to bear on the base flange of any inserted cartridge with two separate pressures, one acting transversely of the axis due to the V shape of the spring, and the other acting along the length of the clip due to the difference in the shape between the edge of the spring and engaging flange 2 of the frame.

When the clip made in accordance with this invention is filled with cartridges each cartridge will be held in place at 90° from base of cartridge clip due to these spring pressures and no one cartridge however, such as the end and middle one, will be held in any greater degree than the others as is sometimes the case in connection with clips provided with a spring that is curved or S shaped.

After the clip has been filled the tongue 7 of the spring is turned or bent at an angle to the body of the same against the flange of the end cartridge to retain the cartridges in the clip until such time as it is desired to remove them. As shown in Fig. 4 it will be noted that the contact between the cartridge base flange and retaining tongue is near the tip of the tongue and not near the heel of the tongue as in clips of other types, that is, the tongue is not bent into the groove of the cartridge base. This is due because the V shape of the spring causes the axis of the spring to remain in proximity to the bottom of the clip. This construction facilitates the release of the cartridges with less exertion than is required in clips now in use inasmuch as the tongue 7 is merely straightened and not sheared when the cartridge is forced out of the clip.

Having thus described the invention what is desired to secure by Letters Patent is:

1. In a cartridge clip a case and a normally straight spring having parallel edges and formed to bear against head of cartridge substantially at edge of cartridge head.

2. In a cartridge clip a case and a normally straight spring having parallel edges formed to bear against head of cartridge substantially at the edges of the cartridge, supplied with means for preventing longitudinal motion.

3. A curved cartridge clip comprising a curved case having a centrally located recess at either end thereof, and a normally straight spring having parallel edges and formed to bear against cartridge head at substantially the edges of cartridge head, and having centrally located projections of the spring metal protruded and coöperating with recesses in the curved cartridge clip case to form a means of preventing longitudinal motion of cartridge clip spring.

4. A straight spring for cartridge clips V-shaped in cross section having transverse slits near its opposite ends and the metal of the spring raised integrally adjacent the slits to form convex abutments.

5. A cartridge clip, comprising a case having a recess at each end and provided at each side with a cartridge base engaging flange, a spring disposed within the case having a raised portion forming spring sides to bear upon the head of the cartridge and having lugs engaging the recesses of the case for retaining the spring in proper relation to said case.

6. A cartridge clip, consisting of a case having a recess in each end, a spring fitted in said case having a raised portion forming a pair of spring cartridge base engaging portions, having lugs engaging the recesses in the ends of the case and provided with a pair of tongues adjacent the lugs for normally retaining the cartridges in the case.

WILLIAM D. ASHWORTH.