Dec. 1, 1931. J. D. PEDERSEN 1,834,638

METHOD OF FORMING AMMUNITION CLIPS

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Fig. 1.

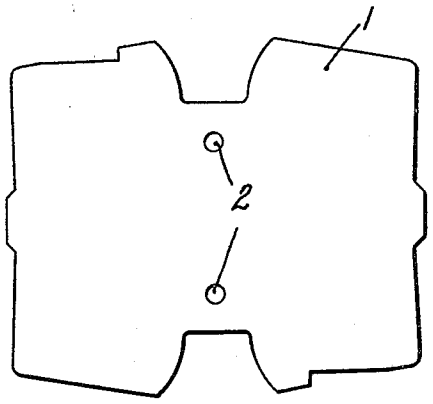


Fig. 2.

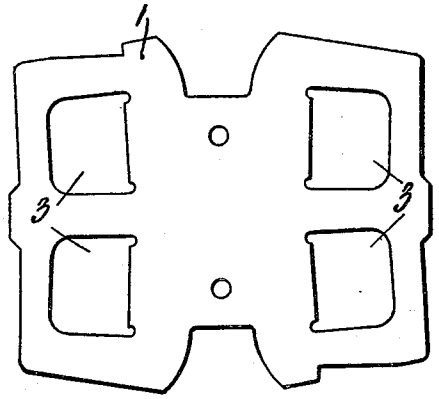


Fig. 3.

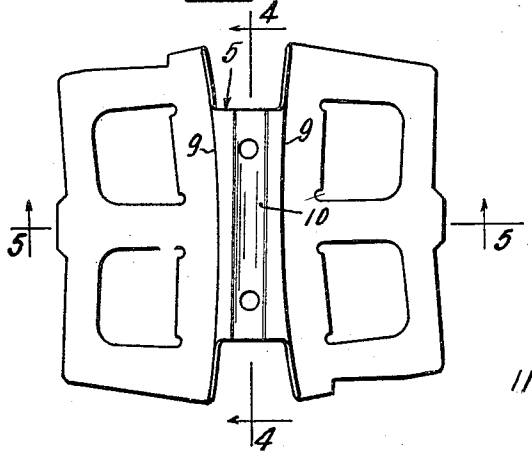


Fig. 5.

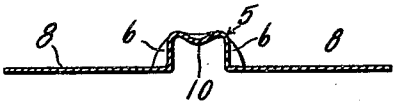


Fig. 6.

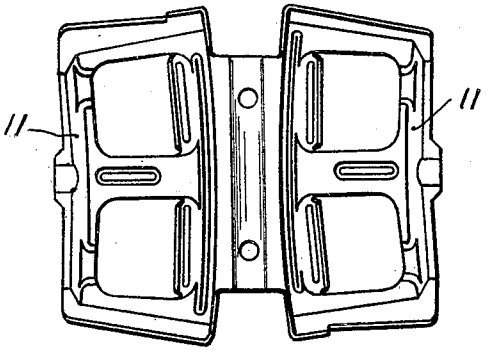
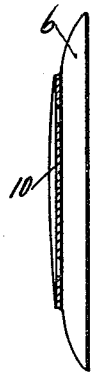


Fig. 4.



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Fig. 7.

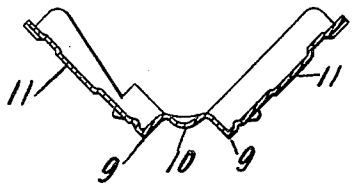


Fig. 8.

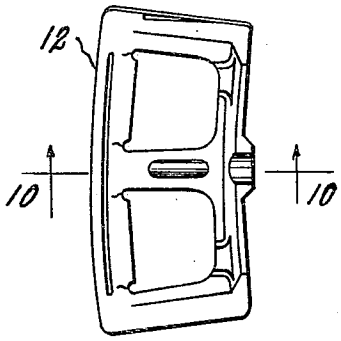


Fig. 10.

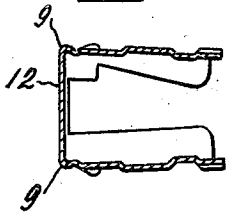


Fig. 9.

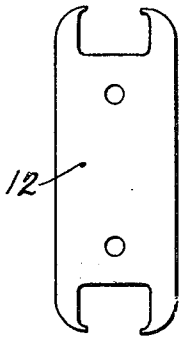


Fig. 11.

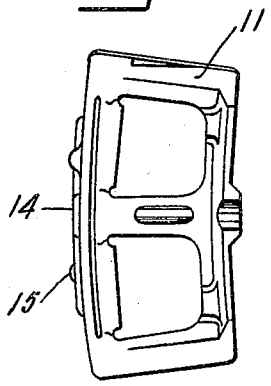
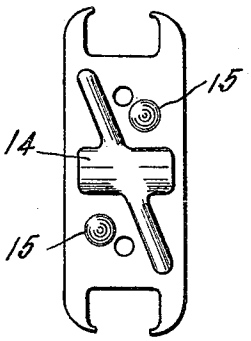


Fig. 12.



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UNITED STATES PATENT OFFICE

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METHOD OF FORMING AMMUNITION CLIPS

Application filed November 29, 1930. Serial No. 499,031.

This invention relates to a method of forming ammunition clips, having a curved back plate and forwardly extending integral side walls, from plane blanks. The invention is preferably illustrated as applied to the formation of the en bloc type of clip wherein a receptacle is provided for a stack of cartridges open at the top, bottom and front end and wherein the side walls extend a substantial distance from the back plate for embracing the stack. The invention, however, may be applied to other types of clips.

An ammunition clip having a curved back plate has certain advantages over a flat backed clip but has heretofore been more difficult and costly to make. It is the object of this invention to provide a method by which clips having a curved back plate may be formed from flat metal blanks with substantially the same facility as clips having a flat back plate and at substantially no greater cost.

In the accompanying drawings which illustrate one way of carrying out the method:

Fig. 1 is a plan view of the blank from which the clip is formed;

Fig. 2 is a similar view showing the blank pierced at the side wall portions;

Fig. 3 is a similar view showing an intermediate step in forming the back plate;

Fig. 4 is a sectional view on line 4—4 of Fig. 3;

Fig. 5 is a sectional view on line 5—5 of Fig. 3;

Fig. 6 is a plan view showing the further formation of the side portions;

Fig. 7 is a transverse sectional view showing the blank of Fig. 6 bent into partial clip form;

Fig. 8 is a side view of the blank of Fig. 6 bent into clip form;

Fig. 9 is a rear view of the clip as in Fig. 8;

Fig. 10 is a cross sectional view on line 10—10 of Fig. 8; and

Figs. 11 and 12 are respectively side and rear views of the finished clip.

Referring to the drawings, 1 indicates a metal blank of suitable thickness cut to the proper outline shape and provided with apertures 2. Further apertures 3 are cut in the side portions of the blank to form the side walls of the clip. The central portion of the blank is now arched out of the plane of the blank as shown at 5 in Figs. 3 and 5, the sides 6 of the arch joining the side portions 8 of the blank at right angles (as best shown in Fig. 5) and along oppositely curved lines 9, as best shown in Fig. 3. In forming the arch 5, the center part of the crown of the arch is fulled as at 10 so that a uniform width of metal exists between all opposite points on curved lines 9. While in this condition the blank may be further treated as by shaping the side portions to provide the various features of the side walls of the clip as indicated at 11 in Fig. 6.

The blank is now ready to be shaped to clip form which is accomplished by flattening or reshaping the arched portion 10 to form the curved back plate of the clip, as indicated at 12 in Figs. 8, 9 and 10. This reshaping of the back plate is performed without disturbing the right angular relation previously established along the lines 9 between the sides of the arched portion and the unarched portions 8 of the blank, with the result that as the arch is flattened the portions 8 swing towards each other as shown in Fig. 7, finally assuming the finished position shown in Fig. 10. The fulling of the material at 10 which provided a uniform width of metal in the arched portion preserves curves 9 in the planes of the side portions 8 although the latter have been moved through angles of substantially 90°. The clip may now be finished as by providing the back plate with embossed reinforcing ribs 14 and latch lugs 15.

While the drawings show a reversible type of clip and specific details of clip construction, these are not essential features of the present invention and it will be understood that the method of the invention is equally applicable to any clip construction where a curved back plate is desired in the finished clip.

What I claim is:

1. The method of forming an ammunition clip, having a curved back plate, from a plane blank which comprises arching the central

portion of the blank out of the plane of the blank with the sides of the arch joining the unarched portions of the blank at substantially right angles along outwardly curved lines, fulling the arched portion to provide a substantially uniform width of material between said curved lines, and reshaping the arched portion to a single curved surface defined by said curved lines to constitute the back plate of the clip, thereby causing the unarched portions of the blank to swing towards each other to constitute the side walls of the clip.

2. The method of forming an ammunition clip, having a curved back plate, from a plane blank which comprises arching the central portion of the blank out of the plane of the blank with the sides of the arch joining the unarched portions of the blank at substantially right angles along outwardly curved lines and simultaneously fulling the arched portion to provide a substantially uniform width of material between said curved lines, and thereafter reshaping the arched portion to a single curved surface defined by said curved lines to constitute the back plate of the clip, thereby causing the unarched portions of the blank to swing towards each other to constitute the side walls of the clip.

3. The method of forming an ammunition clip, having a curved back plate, from a plane blank which comprises arching the central portion of the blank out of the plane of the blank with the sides of the arch joining the unarched portions of the blank at substantially right angles along outwardly curved lines and simultaneously fulling the arched portion to provide a substantially uniform width of material between said curved lines, shaping the unarched portions of the blank to desired clip formation and reshaping the arched portion to a single curved surface defined by said curved lines to constitute the back plate of the clip, thereby causing the unarched portions of the blank to swing towards each other to constitute the side walls of the clip.

4. The method of forming an ammunition clip, having a curved back plate, from a plane blank which comprises arching the central portion of the blank out of the plane of the blank with the sides of the arch joining the unarched portions of the blank at substantially right angles along outwardly curved lines and simultaneously fulling the arched portion to provide a substantially uniform width of material between said curved lines, shaping the unarched portions of the blank to desired clip formation, reshaping the arched portion to a single curved surface defined by said curved lines to constitute the back plate of the clip, thereby causing the unarched portions of the blank to swing towards each other to constitute the side walls of the clip, and forming reinforcing ribs and latch lugs on the curved back plate.

In testimony whereof I have affixed my signature.

JOHN D. PEDERSEN.