March 1, 1927. 1,619,533

C. P. NOURSE

METHOD OF MANUFACTURING BUCKLES

Filed July 20, 1925

Fig. 1

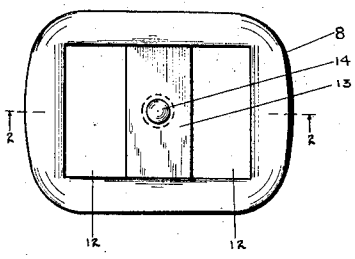


Fig. 2

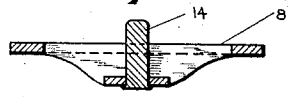


Fig. 3

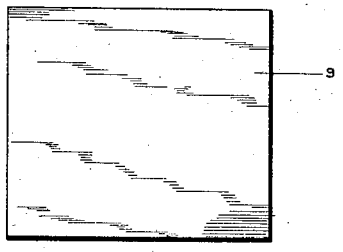


Fig. 4

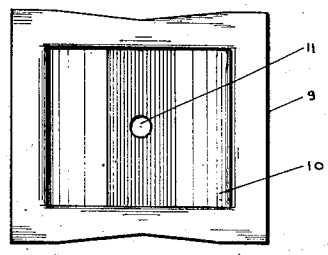


Fig. 5

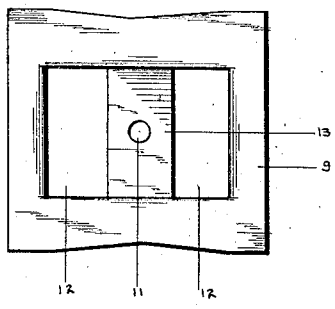
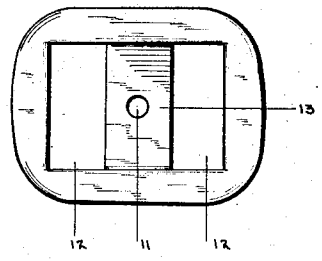


Fig. 6



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UNITED STATES PATENT OFFICE.

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METHOD OF MANUFACTURING BUCKLES.

Application filed July 20, 1925. Serial No. 44,799.

This invention relates to improvements in the method of manufacturing buckles, and particularly harness buckles.

It is the principal object of the present invention to provide an improved method for the manufacture of buckles of a certain type known in the trade as the "Hanisch economy".

Heretofore, buckles, and particularly the "Hanisch economy" type have been made by being cast. This method, however, requires expensive patterns, numerous operations, and other things incident to casting and, therefore, materially increases the cost of the buckles.

The present invention contemplates eliminating the above objections in connection with the manufacture of buckles by a method of manufacture whereby the buckles may be entirely stamped.

A further object of the invention is the improved method of manufacturing buckles whereby the blank is first drawn to the correct shape and then openings are stamped therein, so that the blank will not become distorted.

A further object of the invention is the provision of a novel, simple, and inexpensive method of manufacturing buckles.

With the above and other objects in view, the invention consists of the improved method of manufacturing buckles, and the steps and operations incident thereto, as set forth in the claims and all equivalents thereof.

In the accompanying drawing in which the same reference characters indicate the same parts in all of the views;

Fig. 1 is a plan view of a completed buckle;

Fig. 2 is a sectional view thereof taken on line 2—2 of Fig. 1;

Fig. 3 is a plan view of the blank used;

Fig. 4 is a plan view of the blank after the first operation;

Fig. 5 is a plan view of the blank after the second operation; and

Fig. 6 is a plan view of the blank after the third operation.

Referring now more particularly to the drawing it will be seen that the numeral 8 designates the improved buckle which is of the type commonly known as the "Hanisch economy" and is preferably formed of steel or sheet metal. According to the improved method of manufacture the buckle is entirely stamped in a minimum number of operations, whereas formerly buckles have been cast due to the shape thereof.

In the improved method of manufacture a blank 9 of a predetermined size is first provided, the size of the blank being determined by the size of the completed buckle desired, due allowances being made for the drawing operation which will be explained.

The blank 9 is then put into a compound die which draws the mid-portion of the blank to form a depressed portion 10 or pocket. The compound die is also provided with a punch which punches a hole 11 in the center portion of the pocket. It will be evident that the drawing operation draws the metal from the sides of the blank in order to make the depression and considerable experimentation is necessary to determine the correct size for the blank. If too large a blank is used the metal will not draw correctly but will tear in the bottom of the depression, while if too small a blank is provided after the drawing operation there will not be sufficient metal to form the frame sides.

In the next operation openings 12 are cut by a pair of cutting dies, leaving a central transverse band 13. In this and successive operations the opening 11 serves to center the blank in the dies.

The outside of the buckle is trimmed to the proper size and shape in the next operation and after that an upright pin 14 is positioned in the opening 11 and riveted.

The completed buckle can then be polished and have the rough edges worn off by any of the well-known expedients as for instance by being thrown into a tumbling barrel.

From the foregoing description it will be seen that the improved method of manufacturing buckles is simple, novel and inexpensive.

What I claim as my invention is:

1. The method of manufacturing a buckle which consists in drawing the mid-portion of a blank to form a pocket and simultaneously cutting a small opening in the center of the pocket, utilizing the small opening thus formed to center the blank in a die and stamping a pair of openings in the end portions of the pocket, the medial portion of the same containing the small opening form-

ing a transverse strip, and inserting a pin through said small opening and riveting it to said transverse strip.

2. The method of manufacturing a buckle of the class described which consists in forming a relatively thin sheet metal blank of a predetermined size, inserting the blank in a compound die and drawing the mid-portion of the blank to form a depressed portion and cutting a small opening in the center of the depressed portion in the same operation, utilizing the opening thus formed to center the blank in a die and stamping a pair of openings in the end portions of the depressed portion, the medial portion of the same containing the small opening forming a transverse strip, trimming the edge portions of the buckle, riveting a pin vertically within the pocket and through the small opening in the transverse strip, and polishing the buckle.

In testimony whereof, I affix my signature.

CLAIR P. NOURSE.