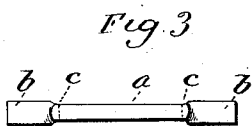
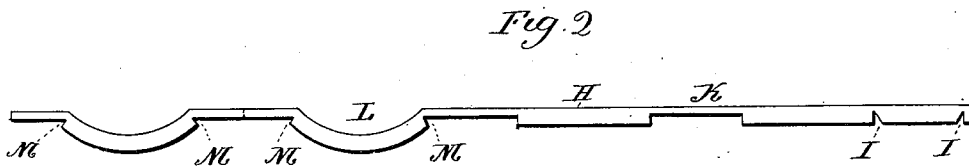
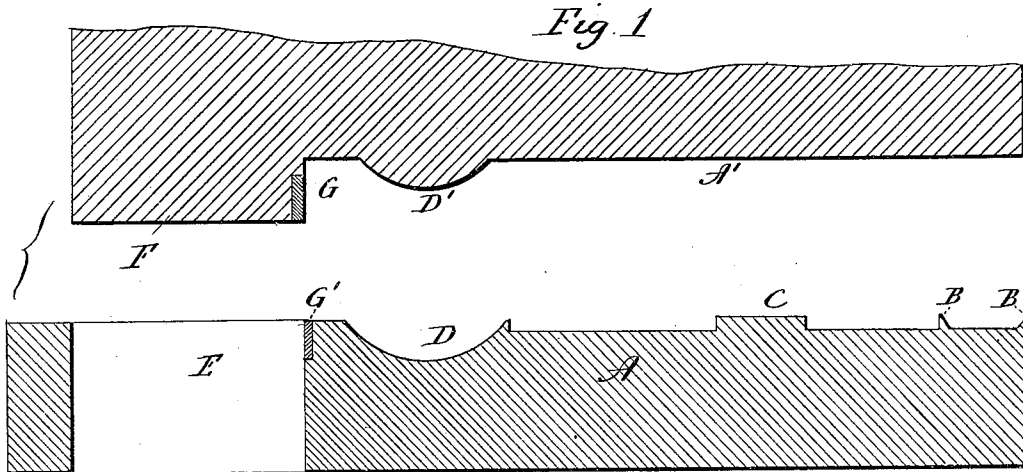


(No Model.)

I. G. PLATT.
METHOD OF FORMING BUTTON BARS.

No. 480,032.

Patented Aug. 2, 1892.



Witnesses:
J. H. Shumway
William D. Hickey

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By atty
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UNITED STATES PATENT OFFICE.

IRVING G. PLATT, OF WATERBURY, CONNECTICUT.

METHOD OF FORMING BUTTON-BARS.

SPECIFICATION forming part of Letters Patent No. 480,032, dated August 2, 1892.

Application filed December 21, 1891. Serial No. 415,775. (No specimens.)

To all whom it may concern:

Be it known that I, IRVING G. PLATT, of Waterbury, in the county of New Haven and State of Connecticut, have invented a new Improvement in Methods of Forming Button-Bars; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a sectional view of two dies such as may be used in carrying out my invention; Fig. 2, a view in side elevation of a stock-strip showing the different steps in the method, and Fig. 3 a detached plan view of one of the button-bars.

My invention relates to an improved method of forming button-bars, the object being to produce a superior cheap article.

With these ends in view my invention consists in flattening the stock-strip to form walls standing at a right angle to the face thereof and bending the strip between two of such walls whereby they are set to form, virtually, undercut shoulders.

My invention further consists in first forming two notches near together in the same face of a stock-strip, the outer walls of the notches standing at a right angle to the face of the said strip, then flattening the bar between the said notches, then bowing the unflattened wire between two places so notched and flattened and cutting up the strip midway of the length of the flattened places.

As shown by Fig. 1 of the drawings, the lower die A is provided upon its upper face with two tooth-like projections B B, having vertical outer and beveled inner walls, and separated from each other a distance equal to twice the length of an end *b* of one of the completed button-bars, one of which is shown by Fig. 3, and consists of a bowed central portion *a*, flattened ends *b b*, and virtually undercut shoulders *c c*, located between said ends and central portion. The said face of the die A is also provided with a table-like projection C, corresponding in height to the height of the projections before mentioned and in width to the distance of their separation.

The said die has also formed in it a curved depression D, conforming in its curvature to the curvature of the bowed central portion *a* of the finished button-bar. The corresponding portion of the upper die A' is made with a flat face, except that it is provided with a depending boss D', which fits into the curved depression D, before mentioned. The die A is also constructed with a vertical opening E, into which the completed button-bars drop, and which receives a follower F of corresponding shape, formed upon the die A', which is provided with a knife G, co-operating with a corresponding knife G', secured to the die A near the curved depression D. I do not, however, limit myself to any particular way of constructing the dies so long as they are adapted to carry out my invention. For stock I prefer to employ round wire.

When dies such as shown are used, the steps in my improved method have the following order: The stock-strip H, Fig. 2, being fed between the dies, first has two notches I formed in its lower face by means of the tooth-like projections B B, the outer walls of these notches standing at a right angle to the said face of strip, which is then moved along to bring the said notches over the table-like projection C of the lower die. The dies are now brought together again, with the effect of flattening the strip between said notches, as at K, leaving the outer walls of the notches undisturbed. The strip is now moved along to bring the unflattened portion of the strip between two places notched and flattened, as described, over the depression D and under the boss D'. When the dies come together again, the unflattened portion of the strip will be bowed, as at L, and the said end walls of the notches set with reference to the bowed and straight portions of the strip, so as to virtually constitute undercut shoulders M M. The next time the strip is moved its flattened portion, which was in the rear of the depression D during the last operation, is brought between the knives G and G', so that upon the next operation of the dies a complete button-bar is severed from the strip.

Although I have for convenience described

the method as if only one thing was done at a time, it will be clear from an inspection of the drawings that, in fact, every operation of the dies notches, flattens, bows, and cuts off, making the capacity of the dies very large.

The article thus produced is very cheap and superior to what has been made before, in that the edges of the button-back take under the undercut shoulders and prevent the bar from being moved either longitudinally or laterally.

I do not limit myself to conducting the process as described, as the undercut shoulders might be formed in some other analogous way.

I do not in this case claim the article produced by my improved method, having made the same the subject-matter of another application, which was filed April 27, 1891, and received the Serial No. 390,591.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A method of forming button-bars, consisting in flattening the stock-strip to form walls standing approximately at a right angle

to the face thereof and bending the unflattened strip between two of such walls, whereby they are set to form, virtually, undercut shoulders, substantially as described.

2. A method of forming button-bars, consisting in first forming two notches near together in the same face of the stock-strip, the outer walls of the notches standing approximately at a right angle to the faces of the said strip, then flattening the strip between the notches, then bowing the unflattened strip between two places so notched and flattened, and then cutting up the strip midway of the length of the flattened places, substantially as described, and whereby by notching and bending the strip as described virtually undercut shoulders are formed in the bar between its ends and bowed central portion.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

IRVING G. PLATT.

Witnesses:

MARY WINFIELD,
JAY H. HART.