

No. 607,452.

Patented July 19, 1898.

F. G. NEUBERT.

BUTTON.

(Application filed Aug. 24, 1897.)

(No Model.)

Fig. 1.

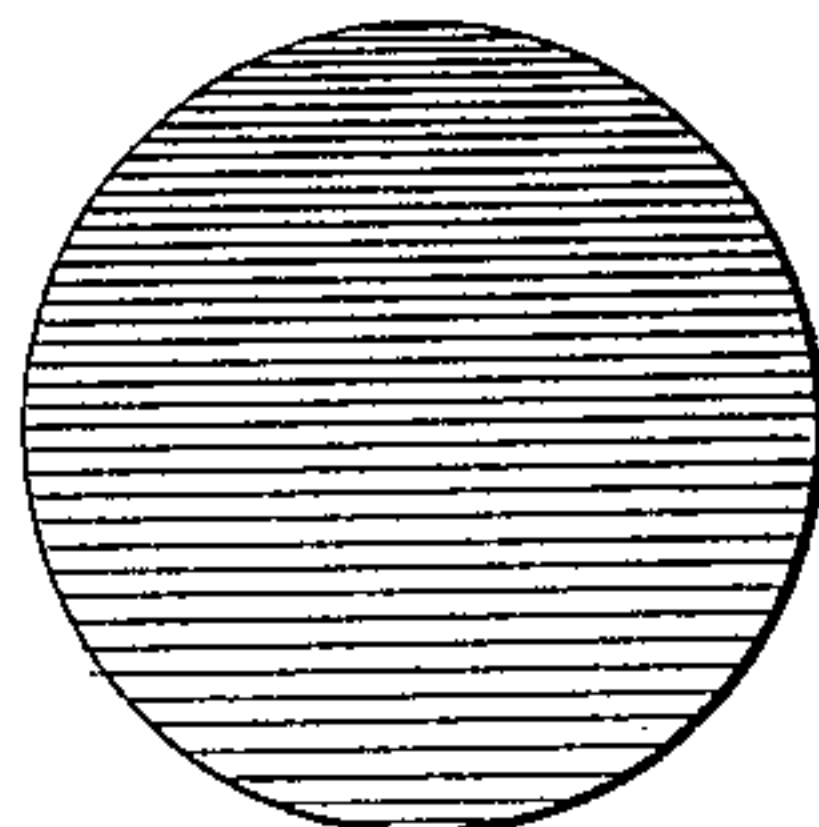


Fig. 2.



Fig. 3.

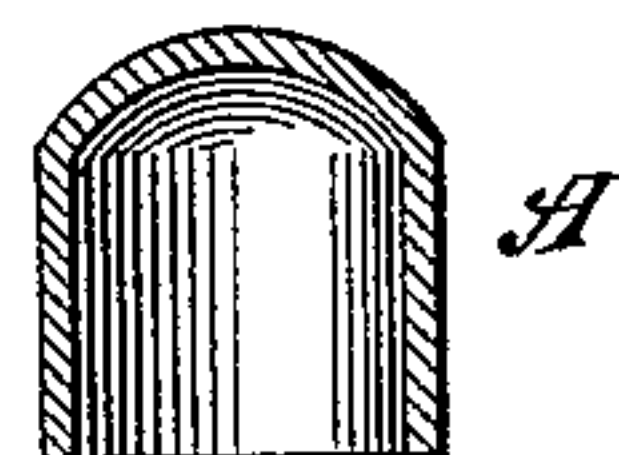


Fig. 4.

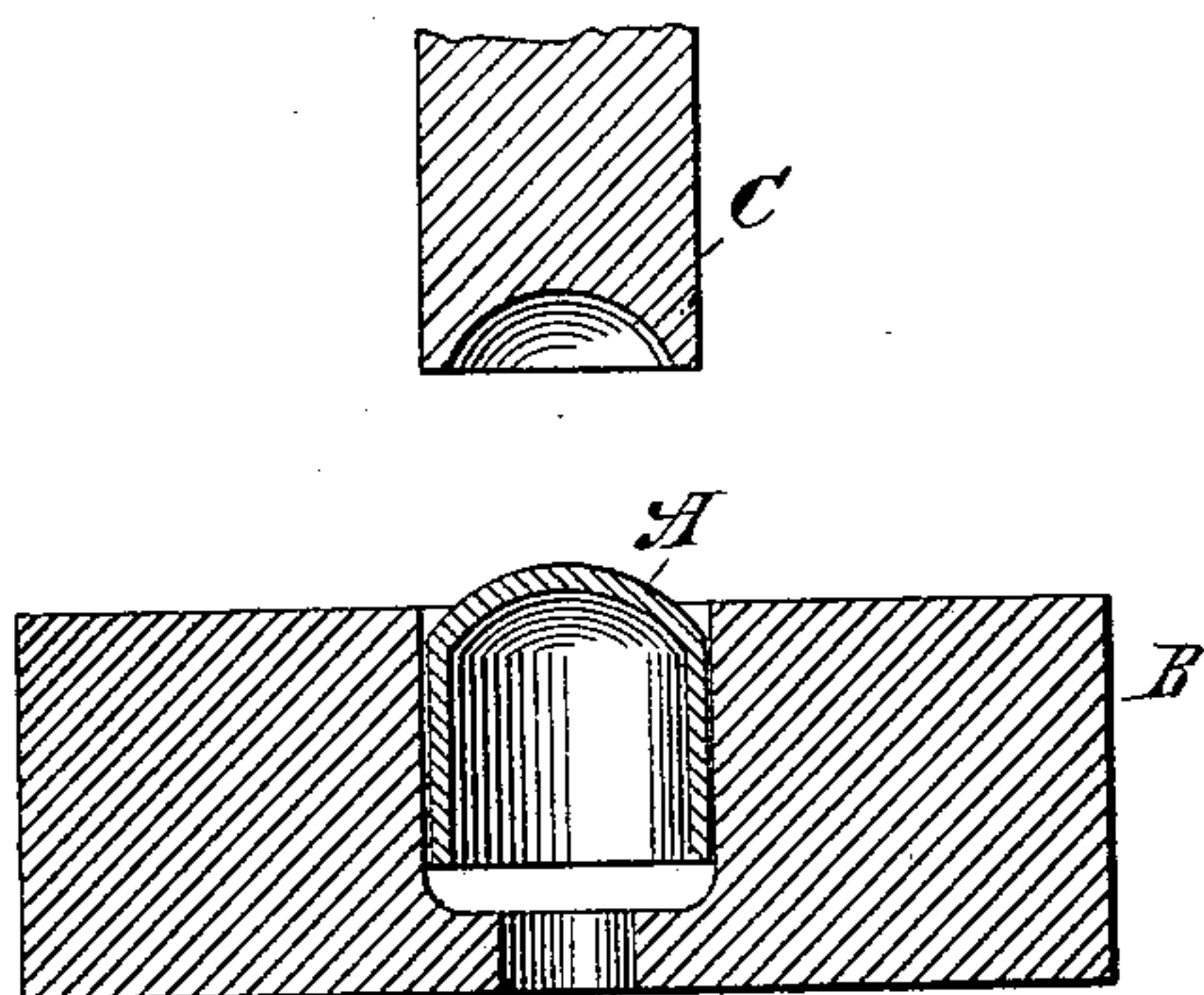


Fig. 5.

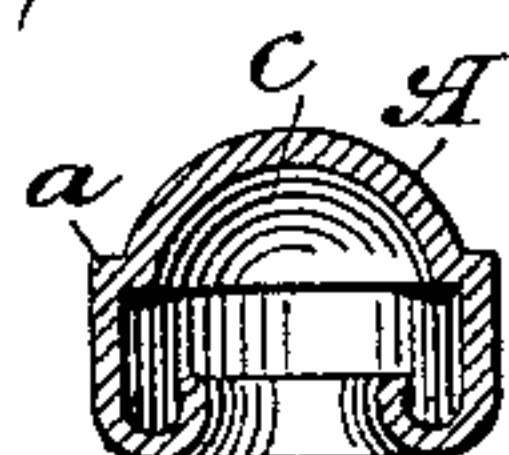


Fig. 6.

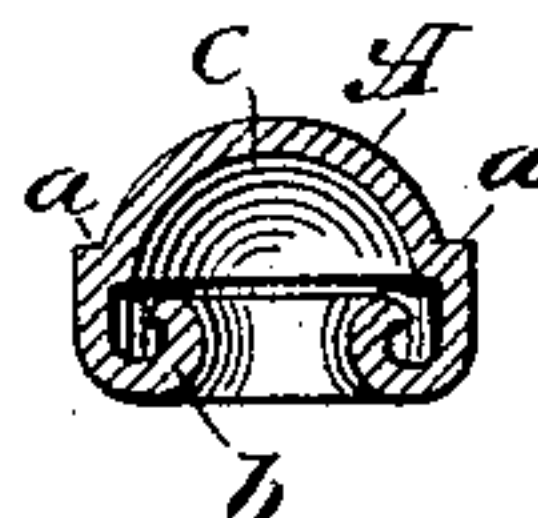


Fig. 7.

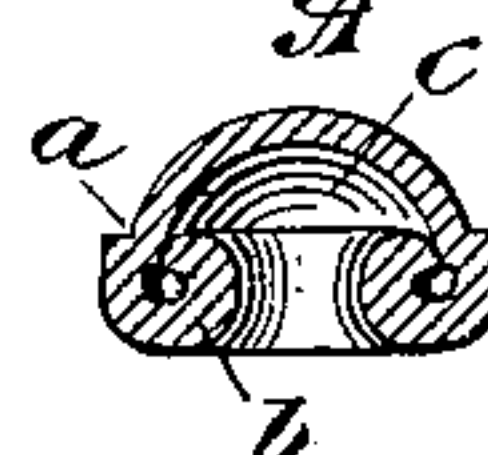


Fig. 8.

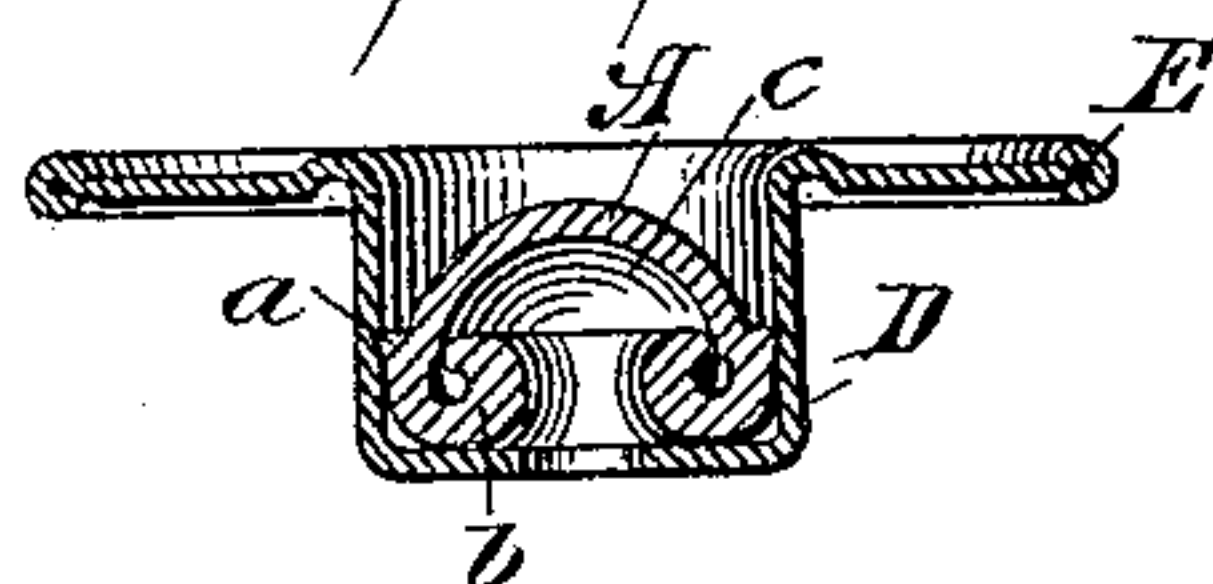
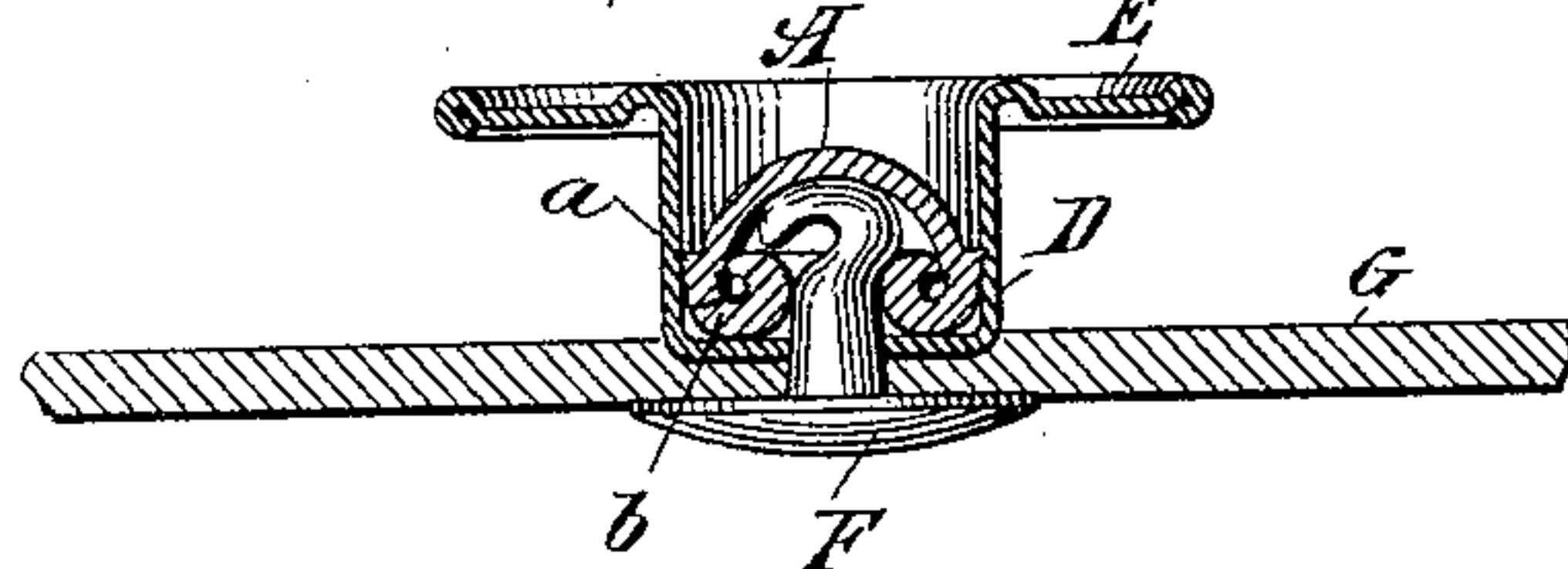


Fig. 9.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

FRANKLIN G. NEUBERT, OF WATERBURY, CONNECTICUT, ASSIGNOR TO  
THE PATENT BUTTON COMPANY, OF SAME PLACE.

## BUTTON.

SPECIFICATION forming part of Letters Patent No. 607,452, dated July 19, 1898.  
Application filed August 24, 1897. Serial No. 649,306. (No model.)

*To all whom it may concern:*

Be it known that I, FRANKLIN G. NEUBERT, a citizen of the United States, and a resident of Waterbury, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Buttons, of which the following is a specification.

My invention relates to an improvement in buttons, and more particularly to that kind or class thereof usually termed "tack" or "rivet" buttons—that is, a button adapted to be secured to cloth or fabric by means of a metal tack or fastener. This style or character of button is usually constructed with a contained die so placed or situated in the button as to overturn or upset the piercing end of the tack or fastener, said curled or upset end more or less filling the chamber of the die. I have found in practice, however, that in many instances the metal of the upset end of the tack or rivet is not sufficient to completely fill the die, the consequence being that the tack or fastener has more or less play therein and will therefore not withstand the same amount of strain as when the die is completely filled and the tack or fastener held rigid or stationary. Several methods have been devised to overcome this defect—as, for instance, by filling the die with soft metal, paper, or other material, also by inserting a shot within the die, &c.—with more or less advantage.

My invention consists in dispensing with such material or materials, which largely increase the cost of the button and the cost of assembling the several independent parts, by partially filling the die with the metal of the die itself and in such a way that the strain imposed upon the button will be exerted upon the thickened portion of the metal.

With these and other ends in view the invention consists in certain novel features of construction, as will be hereinafter fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view of a blank from which the die is formed. Fig. 2 shows the first step in the formation of the die, and Fig. 3 the second step. Fig. 4 shows the partially-formed button-die located within a forming-die. Figs. 5 and 6 show the die in its several stages of forma-

tion as it is acted upon in the forming-die. Fig. 7 shows the button-die completed, but detached from the button. Fig. 8 shows the same properly inserted in a button, and Fig. 9 shows the completed button attached to cloth or fabric.

Referring to the drawings, Fig. 1 shows a circular blank or disk made of any desired metal and of any suitable size, the latter of course depending upon the size or dimension of the finished button-die to be formed therefrom. By means of proper forming-dies this blank is drawn or shaped as shown in Figs. 2 and 3, it being possible, however, as I have found in practice, to dispense with that step of the process for forming the die of the shape as shown in Fig. 2 and to form it of the shape shown in Fig. 3 directly from the blank in one operation. The button-die A after assuming the shape as shown in Fig. 3 is then inserted in a forming-die B, as shown in Fig. 4, whereupon by means of a die C, the diameter of which is slightly smaller than the diameter of the button-die A, it is crowded or forced downwardly within said die B, the effect being to form a shoulder *a* on the button-die and at the same time bend or curl the lower edge of the button-die inwardly, as shown in Fig. 5. As the die C continues to descend, or the die B to ascend, the lower portion of said die A continues to slightly curl and thicken, as shown at *b*, Fig. 6, which operation continues until the metal assumes the shape as shown in Fig. 7—that is, until the portion *b* is curled and enlarged to such an extent as to leave but a comparatively small opening *o* and a small space or chamber *c* within the die A. The complete button-die is then inserted within the depressed center D of a button E, said button having an opening in the bottom thereof for the entrance of a tack or fastener. By means of a suitable tool the metal forming the shoulder *a* of the die A is struck outwardly at several points, causing the same to hold tightly within the depressed center of the button and prevent its becoming disengaged therefrom.

To secure the completed button to the cloth or fabric, the tack or fastener F is forced through the fabric G and through the opening in the bottom of the button into the die A,



whereupon the piercing end of said fastener is curled or upset, practically filling the space within the die, said curled or upset end resting upon the thickened portion *b* of the die A, thus forming, as I have found in practice, a button capable of withstanding a far greater strain than when the die A has simply the bottom thereof bent inwardly to rest flat upon the bottom of the button, as has hereinbefore been done.

By thus forming a die with a bent or curled and thickened lower portion to partially fill the space within the die a filler in the form of paper or lead shot is entirely dispensed with, and as the button is formed of two parts only the cost and labor of assembling the same are much smaller than where an independent shot or filler is employed.

I am aware that buttons have been constructed comprising a single-piece anvil the lower edge of which is inturned and upturned, said inturned edge forming an anchorage for the clenched or upset point of the tack, and hence I make no claim to such, my invention comprising a die having its lower edge curled inwardly and upon itself, as shown in Figs. 7, 8, and 9 of the drawings.

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

1. A button containing a die, the lower edge of which is curled inwardly upon itself, thereby partially filling said die with the metal of which the latter is made, and forming a contracted chamber for the upset end of a tack or fastener, substantially as described. 35

2. A button containing a die, the lower edge of which is curled inwardly upon itself and thickened, thereby partially filling said die and forming a contracted chamber for the upset end of the tack or fastener. 40

3. A button constructed with a depressed center, and a die located in said center, and having its lower edge curled inwardly upon itself and thickened, thereby partially filling said die and forming a contracted chamber for the upset end of a tack or fastener, substantially as described. 45

4. A button constructed with a die located therein having its lower edge curled and thickened, and provided on its outer side with a shoulder *a*, substantially as described. 50

Signed at Waterbury, in the county of New Haven and State of Connecticut, this 17th day of August, A. D. 1897.

FRANKLIN G. NEUBERT.

Witnesses:

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