(No Model.)

A. J. SHIPLEY & T. R. HYDE, Jr

TACK FASTENED BUTTON.

No. 598,022. Patented Jan. 25, 1898.

FIG. 1.

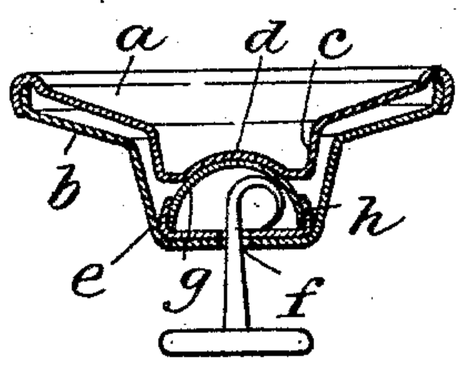


FIG. 2.

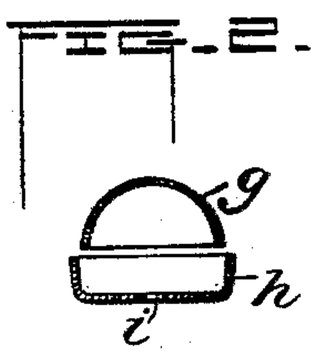


FIG. 3.

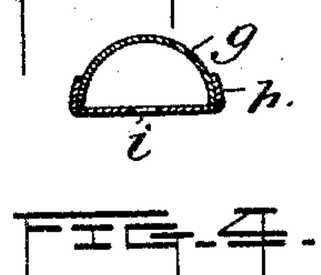


FIG. 4.

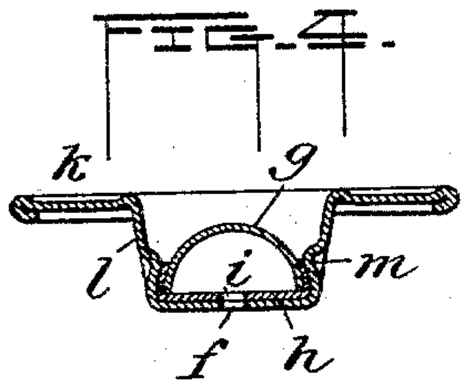
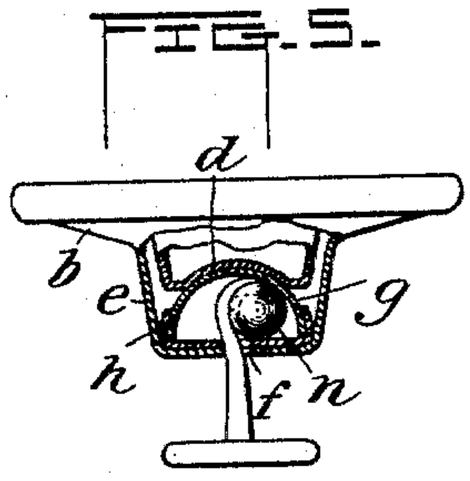


FIG. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

ALFRED J. SHIPLEY AND THEOPHILUS R. HYDE, JR., OF WATERBURY, CONNECTICUT, ASSIGNORS TO THE SCOVILL MANUFACTURING COMPANY, OF SAME PLACE.

TACK-FASTENED BUTTON.

SPECIFICATION forming part of Letters Patent No. 598,022, dated January 25, 1898.

Application filed August 24, 1894. Serial No. 521,193. (No model.)

To all whom it may concern:

Be it known that we, ALFRED J. SHIPLEY and THEOPHILUS R. HYDE, Jr., citizens of the United States, residing at Waterbury, in the county of New Haven and State of Connecticut, have invented a certain new and useful Improvement in Tack-Fastened Buttons, of which the following is a full, clear, and exact description.

In that class of buttons in which the head has been secured to the fabric by means of a tack driven through the fabric into the button and its point upset or clenched within the button it has been proposed to employ a tack-point-turning device, variously designated an "anvil," "die," or "plate," arranged within the button between its face and back or forming a portion of the face of the button. In some cases this anvil has been provided with an integral bottom flange turned inwardly to receive the turned point of the tack and resting against the back of the button. It has also been proposed to interpose a washer between the base or back of the button and the turned point in order to take off the action of the turned point from the base or back of the button.

We have found it desirable to employ an anvil of dome shape, preferably made of steel in the form of a segment or sector of a hollow sphere, for the purpose of turning the point of the tack and to attach a washer to the bottom of this anvil by bending its edges over the same, so that when in place the dome will project outwardly toward or into the face of the button and the washer will rest directly and immediately upon the base or back of the button to take the turned point of the tack and to relieve the base or back of the button of the action of the turned point in its turning and in the use of the button.

Our invention accordingly consists of a tack-fastened button having an anvil and an attached washer, substantially as hereinafter more particularly set forth, and finally claimed.

In the accompanying drawings, illustrating our invention, in the several views of which like parts are similarly designated, Figure 1 is a transverse section of one form of button containing our invention and having the tack applied as in use. Fig. 2 shows in cross-section the anvil and washer before they are united. Fig. 3 is a cross-section showing the anvil and washer united as in use. Fig. 4 is a transverse section of an open-faced button with our anvil applied, and Fig. 5 is a sectional elevation of a button containing the feature of the lead ball set forth in Patent No. 482,959, dated September 20, 1892, and granted to Charles A. Bryant.

So far as the button-heads themselves are concerned and the tack, we have illustrated ordinary forms.

In Fig. 1, *a* is the face of the button, and *b* the back, having their peripheries seamed together. The face *a* has the depression *c*, with the concavo-convex elevation *d* in its bottom. The back *b* has the shank *e*, the base of which is provided with the tack-opening *f*. Between the elevation *d* and the shank *e* is arranged the combined anvil and washer of this invention. This combined anvil and washer consists in the preferred construction of the segment or sector of a hollow sphere *g*, herein referred to as the "anvil." This anvil by preference is struck up or otherwise formed of mild steel. The washer or reinforce *h* is a cup-shaped piece of similar metal, by preference provided with a central hole *i* for the passage of the point of the tack through it. The upturned edge of the washer *h* is bent down over the outer surface of the anvil, so as to form a seam-like union between them, the anvil and washer thereby being united. A very considerable economy in production results from this construction of the combined anvil and washer.

In Fig. 4 the button-head *k* is of a single piece of metal and open-faced, its shank *l* being a depression in the center of the face, and within this shank is arranged the combined anvil and washer *g h* of this invention. In order to secure the combined anvil and washer within an open-faced button, the shank is upset or punched inward at a number of points, as at *m*, so as to crowd the metal of the shank about the combined anvil and washer and thus hold it securely in place in the bottom of the button.

In Fig. 5, which is a duplicate of Fig. 1 so far as the button is concerned, the combined

anvil and washer is supplied with the lead ball *n* of the Bryant invention, patented as hereinbefore mentioned. As will be understood by reference to that patent and to the drawings herein, the tack's point meets the anvil, and by contact with said anvil is turned over and is bent around the ball, the ball being interposed thus between the tack and the washer *h*.

In all these forms of our invention it will be seen that the washer rests directly upon the bottom of the shank and that it takes the strain of the turned point of the tack, both as said tack-point is turning and in use, and thus reinforces the back of the button.

Those hollow anvils having inturned bottoms have to be made of fine and expensive stock in order to stand the manipulations necessary to their production. By making the anvil with an attached bottom we are enabled to utilize scrap and other very less expensive stock. In bending in an integral bottom it is very difficult and practically well nigh impossible always to get the tack-hole in the center and to make it uniform, and if it be not in the center and uniform there is considerable difficulty in entering the tack. By making the tack-hole in an attached bottom or washer uniformity in size and position of the tack-hole is insured. By attaching the washer exteriorly to the anvil to form a bottom therefor both parts may be held firmly while being assembled and united, and thus the manufacture of the device is simplified and reduced in cost over those forms where the bottom or washer is within the anvil, and, finally, the flange or rim formed around the bottom edge of the anvil by the turning up of its washer affords a convenient abutment for engagement by the notches *m*. These, among other advantages, render this form of combined anvil and washer a very efficient device, capable of being manufactured very economically.

What we claim is—

1. In a tack-fastened button, a combined anvil and washer composed of an anvil formed as a segment or sector of a hollow sphere and a washer having its rim bent over upon the said anvil and securely united thereto, the said anvil being arranged within the button-head with its attached washer resting upon the bottom of the shank or back of the button, substantially as described.

2. In a tack-fastened button, the combination with the button-head, of a combined anvil and washer arranged within the shank of the said button-head, and consisting of an anvil, constructed in the form of a sector or segment of a hollow sphere, and a washer applied to the base thereof permanently by overlapping its rim upon the said anvil, and secured in the button by upsetting or punching the metal of the shank of the button over upon the combined anvil and washer, substantially as described.

3. A tack turning and receiving device for tack-fastened buttons, consisting of an anvil made in the shape of a sector or segment of a hollow sphere, and an attached base-washer having its rim overlapped upon the bottom of the anvil and thereby united therewith, substantially as described.

In testimony whereof we have hereunto set our hands this 22d day of August, A. D. 1894.

ALFRED J. SHIPLEY.
THEOPHILUS R. HYDE, JR.

Witnesses:
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