No. 679,823. Patented Aug. 6, 1901.

C. E. BAILEY.

ARTICLE PROVIDED WITH HEAD OF LEATHER.

(Application filed Dec. 27, 1897.)

(No Model.)

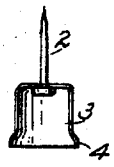


FIG. 1

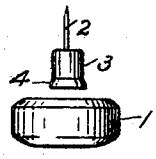


FIG. 2.

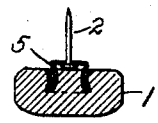


FIG. 3.

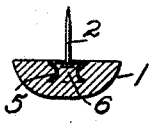


FIG. 4.

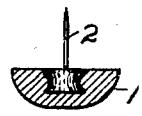


FIG. 5.



FIG. 6



FIG. 7

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ARTICLE PROVIDED WITH HEAD OF LEATHER.

SPECIFICATION forming part of Letters Patent No. 679,823, dated August 6, 1901.

Application filed December 27, 1897. Serial No. 663,521. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. BAILEY, of the city and county of Providence, State of Rhode Island, have invented certain new and useful Improvements in Articles Provided with Heads of Leather or other Suitable Material; and I do hereby declare the following specification, taken in connection with the accompanying drawings, forming a part of the same, to be a full, clear, and exact description thereof.

The invention relates more especially to the manner of securing to the head of the nail, button, or analogous article the device by which the article is to be attached, and has for its object to provide a simple and efficient means for securing this attaching device, be it a nail, shank, split pin, or of other form, to the head, so that the parts may be firmly held together.

While the invention is especially useful in the manufacture of solid leather-headed nails, buttons, &c., it may be used with advantage in the manufacture of similar articles the heads of which are formed from paper-board, pulp, imitation leather, or other material.

In carrying out the invention the point, prong, or shank, as the case may be, which forms the attaching device for the head is secured to the head by means of a cap the walls of which are formed of such shape and strength that they will partially collapse as they are forced into the material of which the head is formed and will be firmly embedded in said head. The cap is preferably cup-shaped, with substantially straight walls, which are curved outwardly and downwardly at their edges to form a slightly-flaring mouth for the cup-shaped cap. The lower edge of the flaring mouth should be nearly vertical, so that the edge of the cap may enter the material of the head when pressure is applied to said cap. With this preferred form of cap the partial collapse of the walls as the cap is forced into the head forms an annular groove about the cap into which the material of the head is forced by the pressure of the dies, and the cap is securely anchored in said head. The walls of the cap must have such strength that they will not collapse without entering the material of the head, yet should not be so strong that they will not partially collapse as they enter the material or after they have been forced part way into said material. The proper strength for the walls will of course vary according to the character of the material of which the heads are to be formed. The walls of the cup may be slit, if desired; but it is preferred to use a cup having continuous walls, as shown in the drawings.

Referring to the drawings, Figure 1 is an enlarged sectional view of the preferred form of securing-cap. Fig. 2 is an elevation of the cap and the head. Fig. 3 is a sectional view showing the shape of the cap after it has partially entered the blank or head. Fig. 4 is a sectional view of a completed article. Fig. 5 is a similar view, partly in elevation. Figs. 6 and 7 are views showing modified forms of attaching devices.

Referring to Figs. 1 to 5, inclusive, 1 indicates a head cut from leather, paper-board, or other suitable material, to which the attaching device is to be secured. In these views the attaching device consists of an ordinary wire nail 2, such as are commonly used in the manufacture of furniture-nails. The device for securing the nail 2 to the head in the form shown in these views consists of a cup-shaped cap 3, which is preferably formed with a slightly-flaring mouth 4. The cap is provided with a hole in its end, through which the nail 2 is passed, as shown in Figs. 1 and 2. In applying the cap to the head said cap is forced into the head, as shown in Fig. 3, and the strength of the walls of the cap is preferably such that after they have entered the head a certain distance, depending on the hardness and density of the head, said walls partially collapse and the cap-walls become distorted, bowing inward, and assume substantially the form shown in Fig. 3. As further pressure is applied to the cap and to the button-head by the usual dies to compress and shape said head the material surrounding the cap is pressed firmly into the groove 5 about the outer periphery of the cap and the material in the core 6 within the cap is spread out at the end of the cap, and the cap

is thus securely held in the head. The head of the nail 2 is clamped between the end of cap 3 and the head 1.

The form of the attaching device may also be varied without departing from the invention, and said attaching device may be a nail or point, as in Figs. 1 to 5, a split pin, as in Fig. 6, a shank, as in Fig. 7, or other forms of attaching devices may be used. It will also be understood that, if desired, the attaching device may be secured to the material of which the head is to be formed before the blanks for the heads are cut from the material, and the shape of the head may be varied as desired.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A device for securing an attaching device to a head of leather or similar material consisting of a cup-shaped cap provided with an opening in its end for the shank of the attaching device, and having a flaring mouth and substantially straight walls constructed to partially collapse as the cap is forced into the head, substantially as described.

2. An article of the character referred to consisting of a head, an attaching device, and a cup-shaped cap for securing said device having walls partially collapsed by being forced into the solid head, substantially as described.

3. An article of the character referred to consisting of a head, an attaching device, a cap for securing said attaching device to said head having inwardly-bowed walls formed by the partial collapse of said walls as they are forced into the solid head, substantially as described.

4. An article of the character referred to consisting of a head, an attaching device, and a cap for securing said attaching device to said head having a flaring mouth and substantially straight walls which partially collapse as the cap is forced into the head, substantially as described.

CHARLES E. BAILEY.

Witnesses:
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