

No. 817,170.

PATENTED APR. 10, 1906.

A. HALL.
BUTTON.

APPLICATION FILED JULY 27, 1904.

Fig. 1

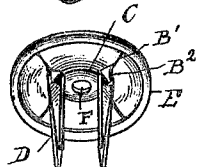


Fig. 2

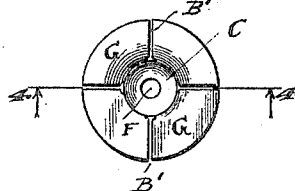


Fig. 3

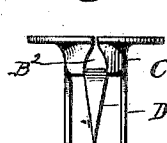


Fig. 4

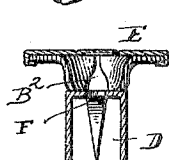


Fig. 5

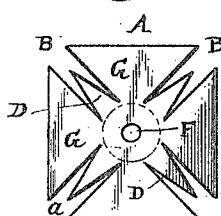


Fig. 6

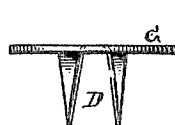


Fig. 7

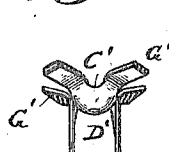


Fig. 8

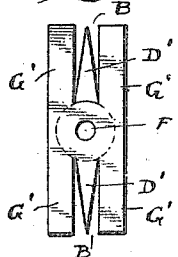


Fig. 9

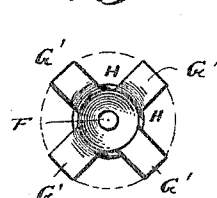


Fig. 11

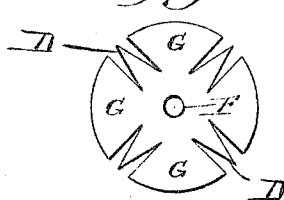
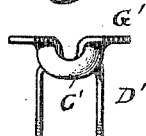


Fig. 10



Witnesses
C. M. Kille,
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A. Hall, Inventor
By his Attorney, Chas. F. Jones.

UNITED STATES PATENT OFFICE.

ALBERT HALL, OF JERSEY CITY, NEW JERSEY.

BUTTON.

No. 817,170.

Specification of Letters Patent.

Patented April 10, 1906.

Application filed July 27, 1904. Serial No. 218,314.

To all whom it may concern:

Be it known that I, ALBERT HALL, a citizen of the United States, residing at Jersey City, in the county of Hudson, State of New Jersey, have invented certain new and useful Improvements in Buttons, of which the following is a specification.

This invention relates to improvements in buttons, and especially buttons of that class which are punched out of sheet metal and provided with prongs for fastening them on fabric.

The object of my invention is to provide a new and improved button of this kind and the process of making the same, which button is simple in construction, cheap, strong, and durable and can be produced rapidly by means of simple machinery and at small expense.

In the accompanying drawings, in which like letters of reference indicate like parts in all the figures, Figure 1 is a perspective view of one construction of my improved button. Fig. 2 is a plan view of the button-shell without the cap. Fig. 3 is a side view, the cap being removed. Fig. 4 is a sectional view on the lines 4-4 of Fig. 2. Fig. 5 is a plan view of a rectangular blank with the prongs punched out. Fig. 6 is a side view of the blank shown at Fig. 5. Fig. 7 is a perspective view of a two-prong button. Fig. 8 is a plan view of the blank for making the same, showing the prongs punched out. Fig. 9 is a plan view of the button-blank without the cap, the cap being shown in dotted lines. Fig. 10 is a side view of the button, having two prongs. Fig. 11 is a plan view of a circular blank with the prongs punched out similar to Fig. 5.

I will first describe the four-prong button and the method of making the same, and then the two-prong button.

The button is made from the blank A of sheet metal, into which four tapering slots B are cut, which slots gradually decrease in width from their inner toward the outer ends. The slots are arranged radially and are separated ninety degrees from each other, so that lines passed longitudinally through the two opposite slots in line will cross each other at right angles, as clearly shown in Fig. 5. These slots do not meet at their inner ends, but their outer ends extend to the rim or border of the blank. The blank may be circular, as shown in Fig. 11, or may be rectangular, as shown in full lines in Fig. 5, but if made rec-

tangular must subsequently be punched out to be of circular shape, and when punched out the slots also extend to the circumference of this circular blank. In forming the slots B the metal is not severed from the blank at the inner ends of the slots, but only along the sides of the same, so as to form prongs which remain connected with the blank at the inner or wider ends of the slots, and these prongs D are bent down at right angles to the face of the blank, as shown in Fig. 6. Four arms G are thus formed between the prong-slots. Preferably the slots are made wider than the prongs toward the outer ends of said slots, as shown at *a* in Fig. 5. The central portion of the blank is forced down cup-shaped to form the shank C of the button, from which shank the prongs D project downward. By drawing or forcing down cup-shaped the central portion of the blank the arms G are bent rectangularly downward at their inner ends, and the sides of the slots B are drawn toward each other in that portion of the blank remaining flat and which forms the button-head, thus forming radial slots B' substantially uniform in width in the flat portion of the blank, as by this drawing operation the metal is crowded together. Four approximately triangular slots B² are formed in the sides of the shank and at the inner ends of the above-mentioned slots B', the base of the triangle being at the bottom, as clearly shown in the perspective view and in Fig. 3. The prongs D are always located between the inner ends of the two adjacent arms G. A cap E, of sheet metal or any other suitable material, is then placed upon the flat top portion of the button-shell thus formed, and its edges turned over and under the edges of the arms G or flat portion of the blank, whereby said head is clamped on the button-blank and the button is completed. This button is applied in the well-known manner of prong-buttons—that is to say, the prongs are forced through the fabric and then their free ends or points are turned over inward by means of a suitable anvil. A central hole F may be formed in the bottom of the shank C, and when the prongs are thus bent inward and clenched their points pass through said central hole into the bottom part of the shank, and thus hold the button firmly and securely.

In making a two-prong button only two slots B, opposite each other and in line, are cut out, so as to form two opposite prongs D'. This leaves four wings or arms G' G' G' G'.

G' in the blank, which blank, as shown in Fig. 8, is longer than it is wide. The central portion of the blank is also forced or drawn down to form the shank C', from which the two prongs D' project, and by forcing or drawing down the central part of this blank the wings or arms G' are forced from each other, so as to project radially from the center of the button—that is to say, the arms thus formed are ninety degrees from each other, and each of the button-prongs is formed between the inner ends of two adjacent arms G'—for example, as shown in Fig. 9 at H and H. A cap is applied on the arms G in the manner described above. This button may also be provided with a central hole at the bottom of the shank.

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

1. A pronged button struck up from sheet metal, having a head, a shank, and downwardly-projecting prongs, all made of a single and continuous piece of sheet metal, slots extending inward from the rim of the head, the upper ends of the prongs being coincident with the inner ends of said slots, substantially as set forth.

2. A pronged button struck up from sheet metal, having a head, a shank and prongs, projecting downward from the shank, all

made of a single and continuous piece of metal, the head and shank having radial arms extending inward from the rim to the prongs, coincident which latter are located between the inner ends of said arms, substantially as set forth.

3. In a metal button, the combination with a head, a shank and prongs projecting downward from the shank, composed of a single piece of sheet metal, the head having radial arms extending from the rim inward, the prongs being located between the inner ends of said arms, and a metal cap clamped on said head, substantially as set forth.

4. In a metal button, the combination with a head, a shank and prongs projecting downward from the shank, composed of a single and continuous piece of sheet metal the head having radial arms extending inward from the rim of the head, and the prongs projecting from between the inner ends of said arms, the shank having a central hole in its bottom, substantially as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 14th day of July, 1904.

ALBERT HALL.

Witnesses:

OSCAR F. GUNZ,
S. M. BAEDER.