

(No Model.)

J. F. THAYER.
METHOD OF MAKING BUTTONS.

No. 338,373.

Patented Mar. 23, 1886.

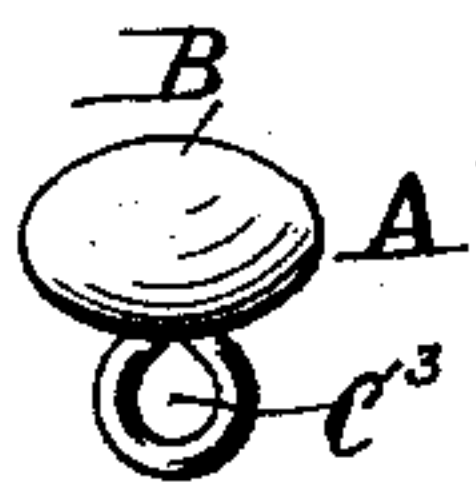


FIG. 1.

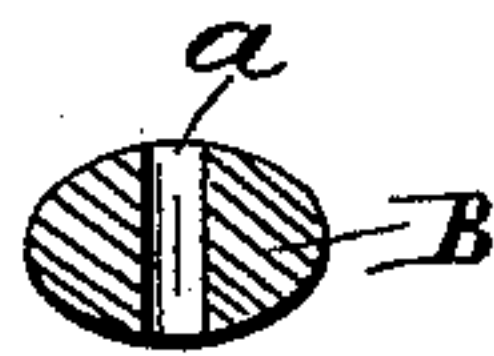


FIG. 2.

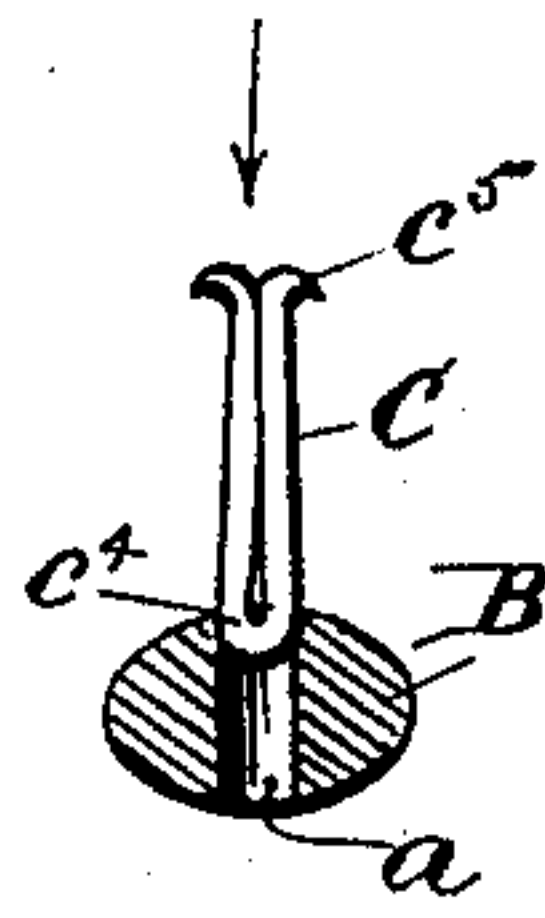


FIG. 3.

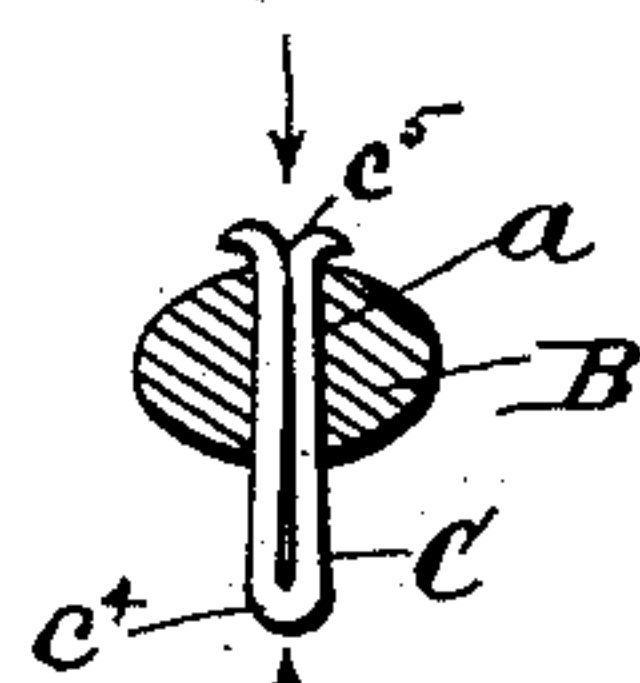


FIG. 4.

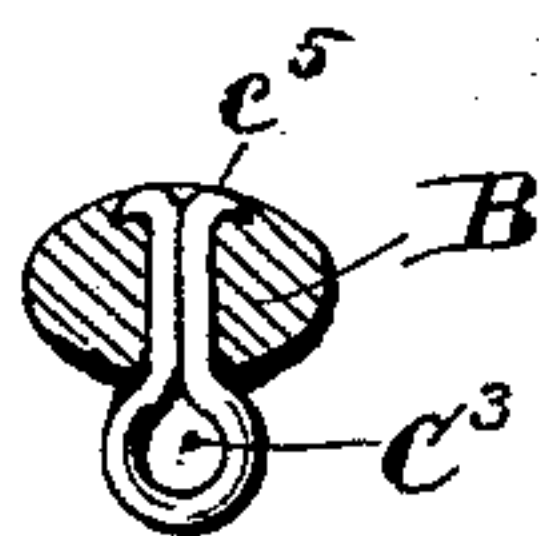


FIG. 5.

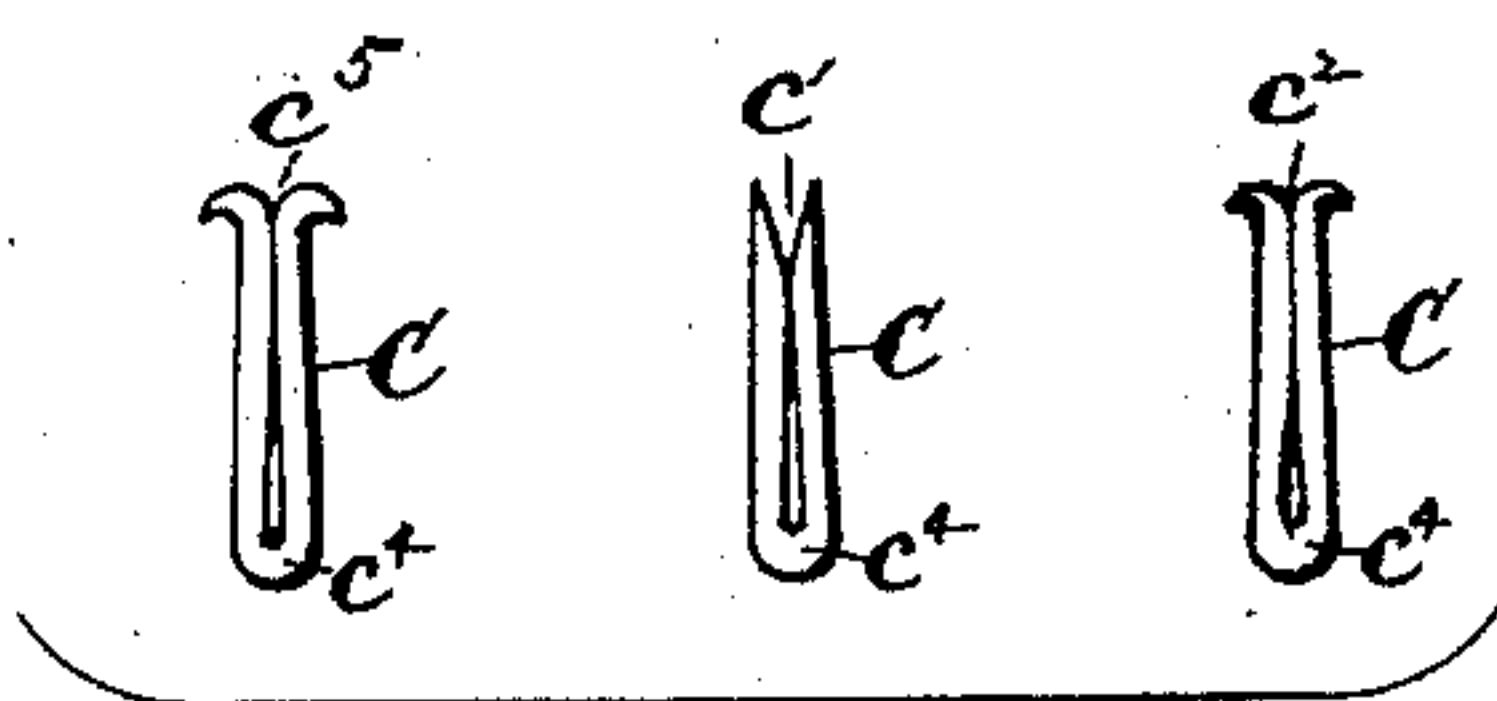


FIG. 6.

WITNESSES.

Charles Hannigan.
Frederic H. Gray.

INVENTOR.

James F. Thayer.
by Geo. H. Remington.
Atty.

UNITED STATES PATENT OFFICE.

JAMES F. THAYER, OF PROVIDENCE, RHODE ISLAND.

METHOD OF MAKING BUTTONS.

SPECIFICATION forming part of Letters Patent No. 338,373, dated March 23, 1886.

Application filed October 9, 1885. Serial No. 179,385. (No model.)

To all whom it may concern:

Be it known that I, JAMES F. THAYER, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in the Manufacture of Buttons; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to buttons provided with a depending loop or eye for the purpose of attaching it the fabric or other article of wear; and it consists in the improved method employed in the manufacture of such buttons, the same comprising a blank head or front, made of sole-leather or other suitable material which is elastic and compressible, having an opening extending through its shorter axis, within which a piece of wire or other metallic stock bent to form a closed staple having parallel legs is passed downwardly, the closed end of the staple then projecting below its bottom surface, while the top or cut end of the staple is flush, or nearly so, with the top surface of the blank, and, finally, in expanding the said lower portion of the staple by suitable means, so as to form a loop or eye, the opposite or open end at the same time being clinched and embedded into the top of the now completed button, the whole forming a very strong and neat button which is adapted to be attached to shoes, &c., all as will be more fully hereinafter set forth and claimed.

In the accompanying sheet of drawings illustrating my invention, Figure 1 represents a perspective view of a button as constructed according to my improved method. Fig. 2 is a vertical sectional view taken through the center of the solid leather blank, showing the central hole therein. Fig. 3 is a similar sectional view showing a piece of bent wire or metallic staple having closed legs in position to be pressed down into the opening formed in the blank. Fig. 4 is a sectional view of the same after the staple has been inserted therein, the closed portion thereof now projecting be-

low the under side of the blank, and the opposite end of the staple extending slightly above the top surface, said staple being in position to have the attaching eye or loop formed therein, and also at the same time to be permanently secured to the blank by clinching and embedding the open or free end of the staple into the head, the completed button then being as represented in Fig. 5; and Fig. 6 represents detached views of staples adapted to be used herewith.

The construction of the button may be described substantially as follows:

B, again referring to the drawings, designates the blank or head which is to form the button proper, the same being made from sole-leather, pulp, or any other suitable material which is somewhat elastic and compressible, said blank having a hole, *a*, extending through its shorter axis.

C, Fig. 6, indicates the shank of the button, the same consisting of a piece of metallic stock bent short at *c*¹, having the parallel legs or prongs extending upwardly therefrom (in contact with each other) and terminating in beveled or bent ends *c*² *c*³, substantially as shown.

The manner of securing the said parts B and C together is practically as follows: The blank is first formed in a suitable die or mold, the opening *a* being made therein at the same time, or subsequently, if desired. The blank is then placed in the holding-die of a suitable machine. A staple or shank, C, is next forced or passed down through the blank, as shown in Fig. 4, when, finally, suitably-formed upper and lower dies are made to move in the arrow direction respectively, the former to clinch and embed the points of the staple into the top of the blank or head, and also serving to produce the desired shape and finish to the upper portion of the button, while the latter or said lower die is so formed that in moving upwardly it (the die) causes the portion of the staple projecting from the under side of the button to be bent or expanded laterally to form the loop or attaching-eye *c*³, its (the loop's) upper part being partially embedded in the blank, as fully shown in Fig. 5, thus securing both rigidly together.

It is obvious that mechanism for expanding and clinching the staple will readily suggest

itself to a person ordinarily skilled in mechanics, therefore I do not claim any specific device for the purpose herewith. It is further evident that in the use of pulp or other analogous material the staple C may be readily forced through the button-head while the latter is in a plastic state, without first making the opening *a* therefor. Buttons thus produced, or as hereinbefore described, may be subsequently colored, dyed, lacquered, or otherwise finished, as common.

I do not claim a button made by forcing the prongs of a U-shaped staple up through the blank from the under side and clinching the same, as such manufacture is old; neither do I claim, broadly, passing a piece of wire down through the back or disk of a metallic button, and subsequently forming the eye and bending the ends of the wire for the purpose of attaching the wire to said disk; but a button made as hereinbefore described and shown, wherein the closed end of a metallic staple is passed down through the sole-leather head or other suitable compressible material forming the solid front of the button, and the said closed end then expanded to form the attaching loop or eye, the same being partly embedded into the under side of the front, while the top or free end of the staple is embedded into the top

thereof, I believe to be new and useful; therefore

I claim and desire to secure by United States Letters Patent—

1. The method herein described of making a leather or analogous button having an eye, the same consisting in passing a doubled wire through the leather or compressible front, then embedding the prongs into the top or face of said front and shaping the latter at one and the same operation, and, finally, enlarging or expanding the doubled wire to form an eye, substantially as set forth.

2. The method herein described of making a leather or analogous button having an eye, the same consisting in passing the closed end of a doubled wire, C, having bent ends *c*⁵, down through the leather blank or front, and embedding said ends *c*⁵ therein, then forming or shaping the head B, and subsequently expanding the doubled end *c*⁴, to produce an eye, substantially as set forth.

In testimony whereof I have affixed my signature in presence of two witnesses.

JAMES F. THAYER.

Witnesses:

GEO. H. REMINGTON,
CHARLES HANINGAN.