(No Model.)

C. BEHER.

HORN BUTTON AND MODE OF MANUFACTURING THE SAME.

No. 304,252. Patented Aug. 26, 1884.

FIG. 1.

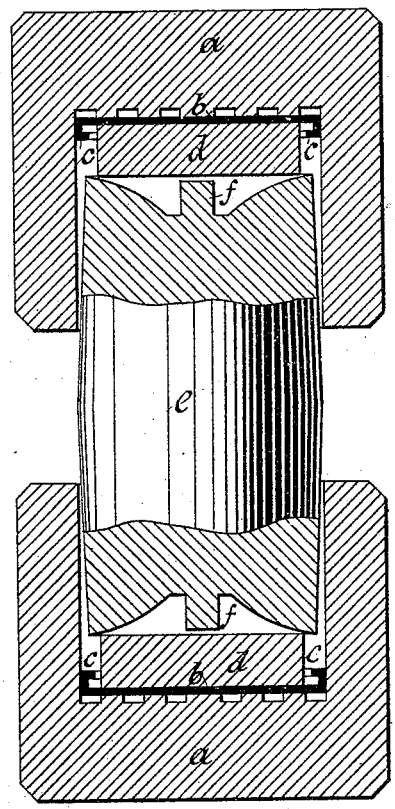


FIG. 2

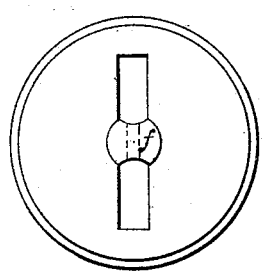


FIG. 3.

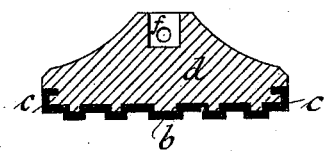


FIG. 4.

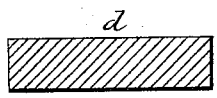
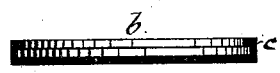


FIG. 5.



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Atty

UNITED STATES PATENT OFFICE.

CARL BEHER, OF KÖNIGSTEIN, SAXONY, GERMANY, ASSIGNOR TO EMILIAN MAYER, OF SAME PLACE.

HORN BUTTON AND MODE OF MANUFACTURING THE SAME.

SPECIFICATION forming part of Letters Patent No. 304,252, dated August 26, 1884.

Application filed May 9, 1884. (No model.)

To all whom it may concern:

Be it known that I, CARL BEHER, of the town of Königstein, in the Kingdom of Saxony and German Empire, have invented certain new Improvements in the Method of Manufacturing Horn or other Buttons having Metal Plates Stamped or Pressed on the Same, of which the following is a specification.

This invention relates to a method of manufacturing horn and other buttons, so that the same can be covered by a metal or metallic plate or so that a metallic plate can be pressed in or onto the said button of horn or other material. The difficulties heretofore experienced in carrying out this apparently simple operation laid in the variation in the density inherent to horn, as the said horn must be taken from different parts of the hoof, and varies considerably in hardness. In consideration of these circumstances, I employ a novel arrangement or device, which forms the characteristic part of the present invention.

Figure 1 represents my said improved device in section. Fig. 2 represents the rear side of the button. Fig. 3 is a section of the finished button; Fig. 4, a section of the horn disk; and Fig. 5, a section of the metallic plate *b*, showing the flange *c*.

The button or inner surface of the double form, die, or matrix *a a* is provided with a suitable engraved or other ornament, above or over which a thin sheet of metal, *b*, is laid, the edges of which said thin sheet of metal are so bent over that they form a kind of hook or inward-projecting flange, *c*. The disk or plate of horn, *d*, is of suitable size, so that little play is left between the edge *c* of the metallic plate *b* and the disk or plate of horn, *d*, which is now laid over the said metallic plate. The said double form, die, or matrix *a* is now closed by inserting the piston or anvil *e*, which is provided with suitable recesses, *f*, for forming the shanks of the buttons. The double form, die, or matrix with the metallic and horn plates or disks and the piston or anvil is or are now placed in a suitable stove or oven and heated up to about 90° centigrade or 194° Fahrenheit, in order to render the mass of the horn soft and pliant. The said double form, die, or matrix, piston or anvil, and the contents of the said form, die, or matrix is or are now placed in a suitable press, subjected to pressure, and the horn or horny mass so pressed between the hooked or flange-like edge *c* of the metallic plate *b*, and above the same, so that the said metallic plate is firmly fixed in the said horn or horny mass when the same has been allowed to cool. The design in the form, die, or matrix *a* presses itself simultaneously into the metallic plate *b* and the horn disk *d*, so that the said metallic plate is still further connected to the horn. The horn and metal parts are, as shown in Fig. 3, so firmly connected that they cannot be separated. If the metallic plates were to be provided with a simple edge bent over the periphery of the button, the various densities of the horn, which are rendered even more prominent by the heating operation, would render it probable that the pressed flange or edge would not set firmly on the horn mass, so that the metallic plate would readily separate itself from the horn and be lost.

What I claim as my invention is—

1. That improvement in the art of manufacturing buttons from horn and metal which consists in applying heat to the metal plates and horn disk or blank to soften the horn, then embedding the metal plate into the face and edges of the horn by pressure, all substantially as described.

2. As an improved article of manufacture, a button having a horn back and a metal face or front embedded into said horn at the front and at the edges, substantially as and for the purposes described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

CARL BEHER.

Witnesses:
OTTO WOLFF,
PAUL DRUCKMÜLLER.