## C. H. DEDERER. Manufacture of Horn Buttons.

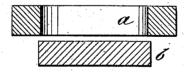
No. 224,399.

Patented Feb. 10, 1880.

Fig. 1



Fig. h



WITNESSES:

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INVENTOR:

G. H. Dederer

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## UNITED STATES PATENT OFFICE.

CHARLES H. DEDERER, OF JERSEY CITY, NEW JERSEY.

## MANUFACTURE OF HORN BUTTONS.

SPECIFICATION forming part of Letters Patent No. 224,399, dated February 10, 1880. Application filed December 19, 1879.

To all whom it may concern:

Be it known that I, CHARLES H. DEDERER, of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and 5 useful Improvement in the Manufacture of Horn Buttons, of which the following is a specification.

The object of my invention is to utilize a portion of the horn not heretofore used for 10 buttons, to render the buttons more ornamental, to manufacture large horn buttons, and to

produce them cheaply.

Heretofore in the manufacture of such buttons the tip or solid portion of the horn has 15 only been used for finest buttons by cutting the same across the grain of the horn, and to some extent the sides of the horn have been used; but the latter gives a button of inferior appearance on account of being cut in the di-20 rection of the grain.

My invention consists in making the button from the hollow portion of the horn by cutting the same transversely into rings and filling the center of the ring with a disk cut from 25 the tip or side of the horn, thus giving a but-

ton which presents the end grain on the surface of the ring, and on the center also, when the tip is used for filling.

This method will be more particularly de-30 scribed with reference to the accompanying drawings, wherein-

Figure 1 is a cross-section of the button in its complete form. Fig. 2 is a similar view of the two pieces as cut from the horn.

Similar letters of reference indicate corresponding parts.

The button A is formed of the ring portion a and filling-piece b. The ring a is obtained by cutting across the hollow portion of the 40 horn, while the filling-piece b is a disk cut

from the tip or solid part of the horn or from the sides. To connect these parts together they are first turned smooth, the piece b being left of slightly larger diameter than the aperture in ring a. The ring a is then heated 45 to expand it, preferably by dipping in hot oil, the piece b inserted in the ring, and the contraction of the ring when cool will retain the center firmly. The button is then to be finished by turning and polishing.

The ring b, being cut transversely of the grain, presents the end grain on the surface similarly to the center-piece when that is cut from the tip, and in case the center-piece is cut from the side of the horn a handsome con- 55 trast is given, which appearance will be made more striking by having the center-piece of a darker shade of the color.

It will be seen that the buttons may be made of any desired size by cutting the rings from 60 different portions of the horn, and as the hollow portion of the horn is larger than the solid portions generally used for buttons, larger buttons can be made.

The button made in this manner is cheap 65 and handsome, and the ring, being cut transversely of the grain, will not warp and bend.

Having thus described my invention, I claim as new and desire to secure by Letters Pat-

The method of manufacturing horn buttons, which consists in cutting rings from the hollow portion of the horn transversely of the grain and fitting the ring with a solid centerpiece cut from the tip or side of the horn, sub- 75 stantially as described.

CHARLES H. DEDERER.

Witnesses:

GEO. D. WALKER, C. SEDGWICK.