No. 631,216. Patented Aug. 15, 1899.

H. KINDMANN.

BUTTON.

(Application filed Jan. 31, 1898.)

(No Model.)

Fig 1

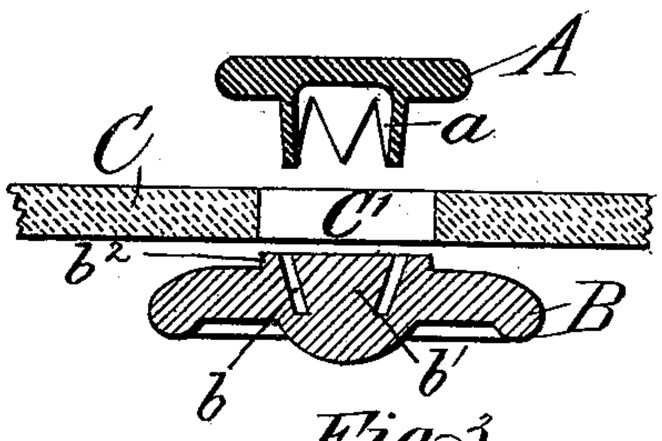


Fig 3.

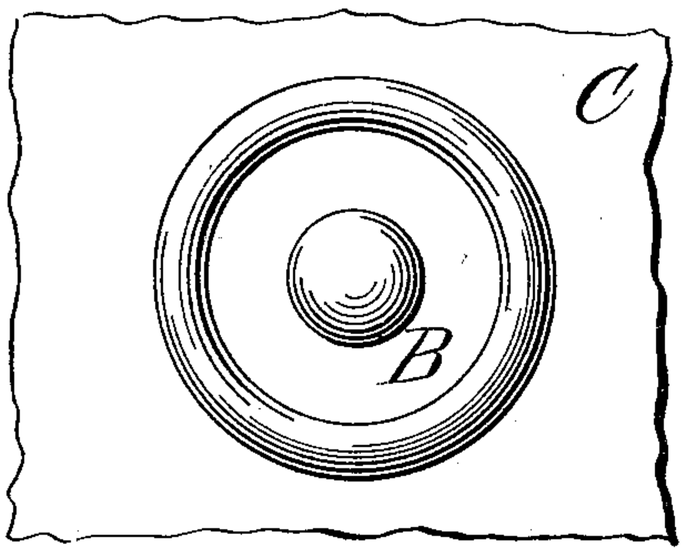


Fig 2.

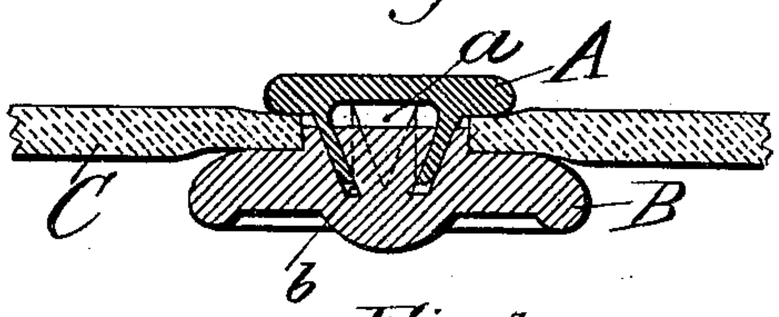


Fig 4.

Fig 5.

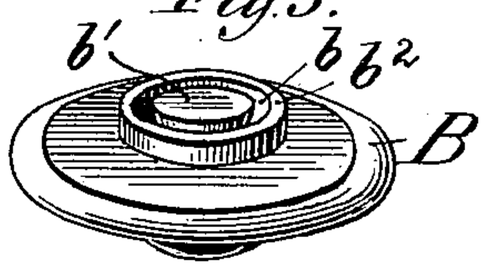


Fig 6.

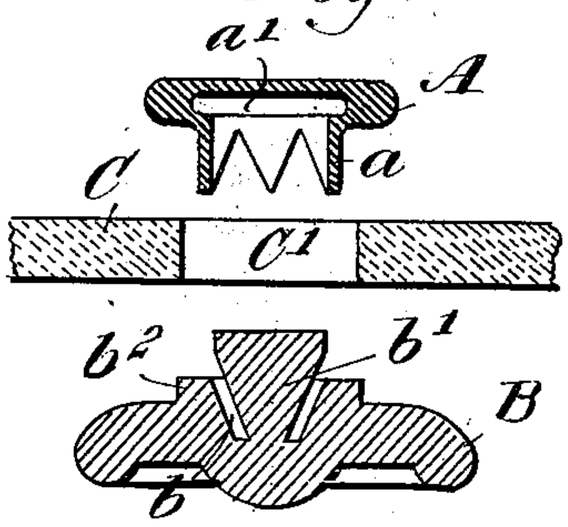
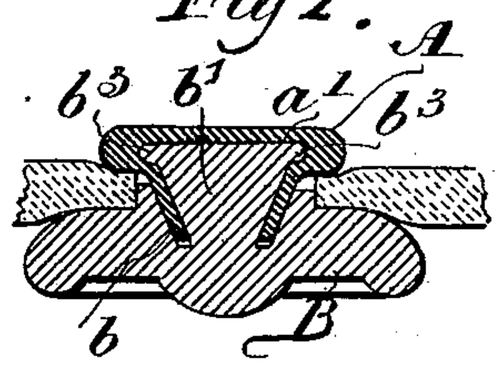


Fig 7.



WITNESSES:

Paul Jokel

John Lotka

INVENTOR

H Kindmann

BY

Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

HEINRICH KINDMANN, OF NEW YORK, N. Y.

BUTTON.

SPECIFICATION forming part of Letters Patent No. 631,216, dated August 15, 1899.

Application filed January 31, 1898. Serial No. 668,638. (No model.)

To all whom it may concern:

Be it known that I, HEINRICH KINDMANN, of New York, borough of Brooklyn, county of Kings, in the State of New York, have invented certain new and useful Improvements in Buttons, of which the following is a full, clear, and exact description.

My invention relates to that class of buttons which are intended to be fastened without the use of thread or like material.

To this end my improved button is made of two parts, constructed as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a cross-section showing an apertured piece of fabric and the two parts of the button before their insertion therein. Fig. 2 shows the same parts connected. Fig. 3 is a plan of the outer head of the button. Fig. 4 is a perspective view of the inner head or prong-head. Fig. 5 is a perspective view of the outer head, and Figs. 6 and 7 are views corresponding to Figs. 1 and 2 and showing the preferred form of prong-head used in my invention.

In the form of construction illustrated by Figs. 1 to 5 the button comprises an inner head A and an outer head B. The latter, being the normally visible part of the button, may be suitably ornamented upon its exterior surface, as shown in Fig. 3. The fabric C is apertured where the button is to pass through it, as at C'. The inner head A consists of a plate, from which projects an annularly-disposed series of prongs *a*, made of a suitable material, such as sheet metal, which is sufficiently flexible to enable them to be bent by the application of considerable pressure, yet stiff enough to prevent them from bending under ordinary strains. The prongs inclose between them a central cavity adapted to receive the central portion of the outer head, as will be described presently.

The outer head B is provided on its inner face with an annular frusto-conical or funnel-shaped groove *b*, which surrounds a central frusto-conical portion or stem *b'* of the outer head. The width of the groove corresponds to the thickness of the material forming the prongs *a*, and the diameter of the groove at the inner surface of the head B is the same as the diameter of the circumference at the points of the said prongs. As shown in Figs. 1, 2, and 5, the head B may have an annular flange b^2 surrounding the groove *b* and adapted to enter the opening C' in the fabric C, forming a guide for the edge of the fabric at the hole. This construction is especially appropriate for use with thick fabrics.

The button is fastened by forcing the prongs *a* (by means of suitable machinery) into the groove *b*, causing them to converge toward their points. (See Fig. 2.) The material of the prongs is of sufficient stiffness to render an accidental separation of the two heads or sections practically impossible.

As shown in Figs. 6 and 7, the outer head B may be constructed in accordance with Figs. 1 and 2. The inner head A is constructed substantially as hereinbefore described, but the space between the prongs *a* is provided at the base of said prongs with an enlargement or groove *a'*, extending outwardly and adapted to receive the circumferential rib b^3, which is formed upon the portion *b'*, when said stem or core *b'* is pressed into said central space of the prong-head. It will be obvious that in order to enable the core *b'* to be transformed by pressure from the shape shown in Fig. 6 to that shown in Fig. 7 it is necessary that the outer head should consist of a material of sufficient plasticity, such as bone or celluloid.

It will be understood that the term "prongs" will include pins, lugs, or any other suitable projections.

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

1. A button consisting of two sections or heads, one of which has an annular series of prongs projecting therefrom, while the other has within its body a central frusto-conical core or stem tapering toward the interior of the head, said stem being surrounded, parallel to its peripheral surface, by an annular frusto-conical groove adapted to receive the prongs of the other head, and an annular flange projecting from said grooved head exteriorly of the groove and immediately adjacent thereto, to enter the opening of the fabric.

2. A button consisting of two sections or heads, one of which has an annular series of prongs projecting therefrom and inclosing a central space, said head having an outward enlargement or groove communicating with said space at the bases of the prongs, while the other head has within its body a central frusto-conical core or stem tapering toward the interior of the head and adapted to enter by expansion, the groove of the other head, the stem being surrounded, parallel to its peripheral surface, by an annular frusto-conical groove adapted to receive the said prongs.

HEINRICH KINDMANN.

Witnesses:
PETER HOEFLER,
EMIL HESS.