

No. 631,581.

Patented Aug. 22, 1899.

C. RADCLIFFE.
BUTTON.

(Application filed Oct. 10, 1898.)

(No Model.)

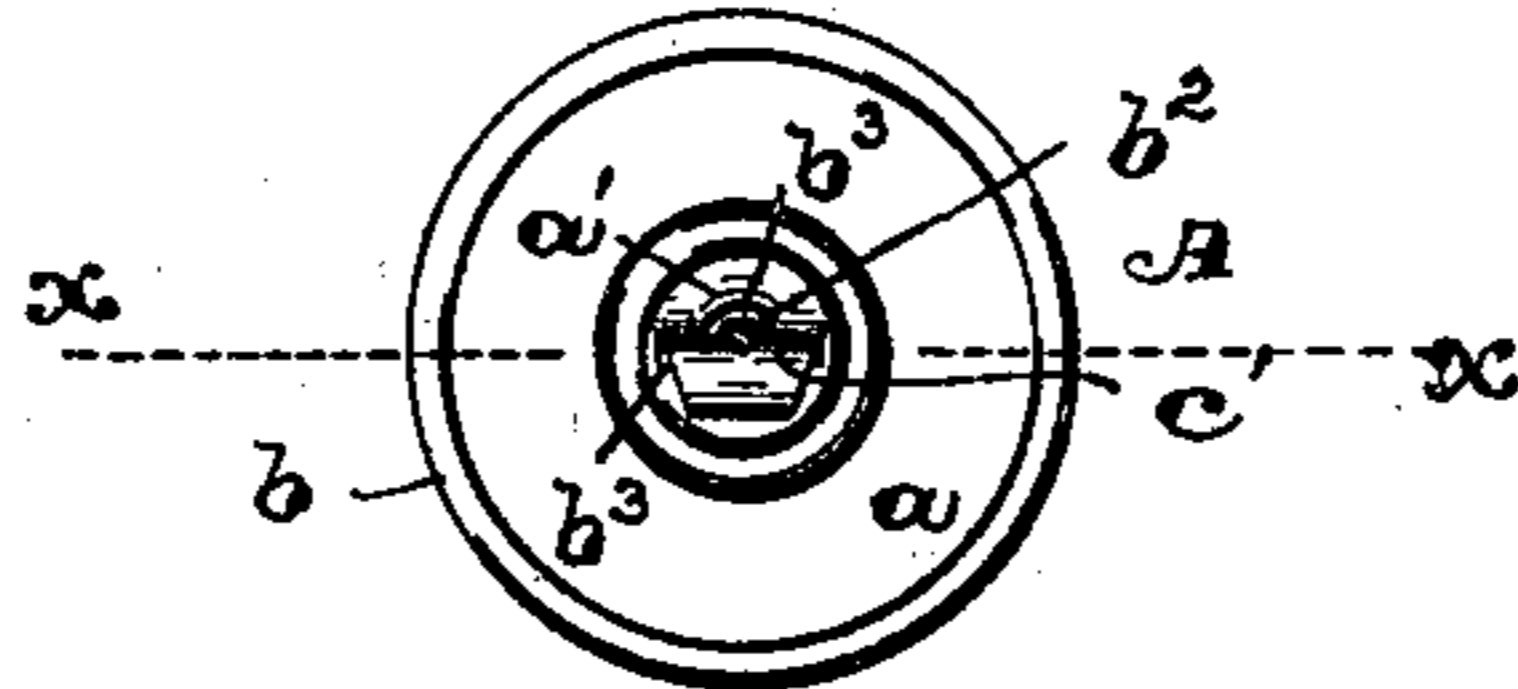


Fig. 1

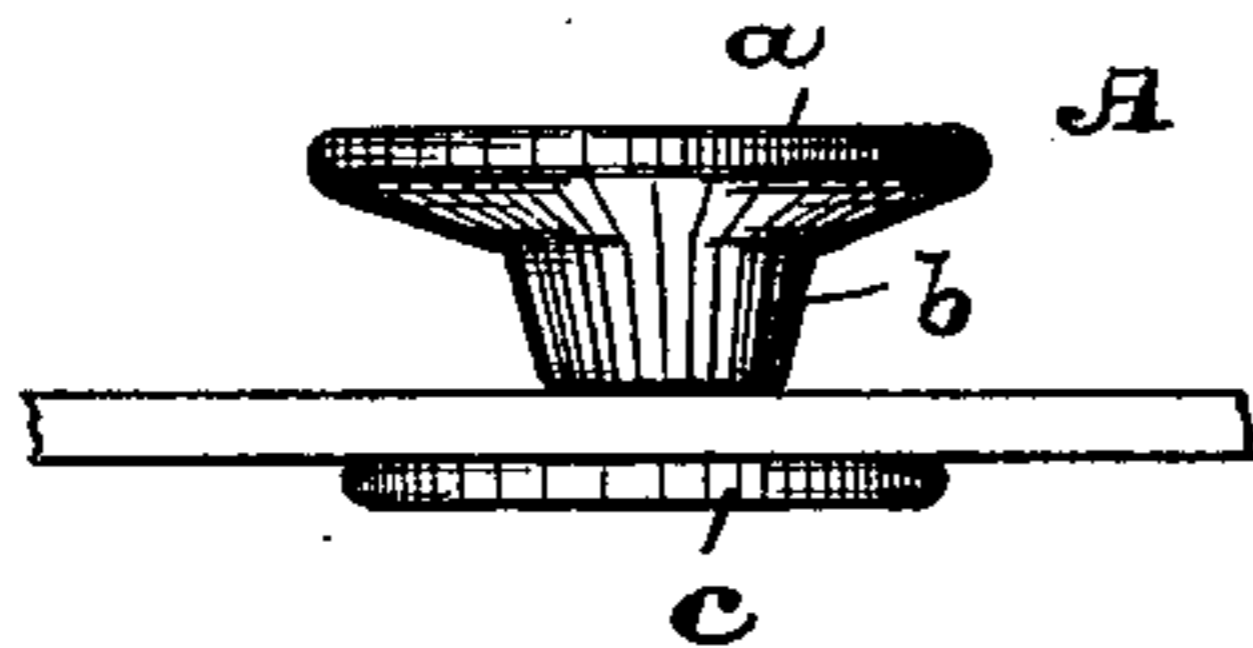


Fig. 2

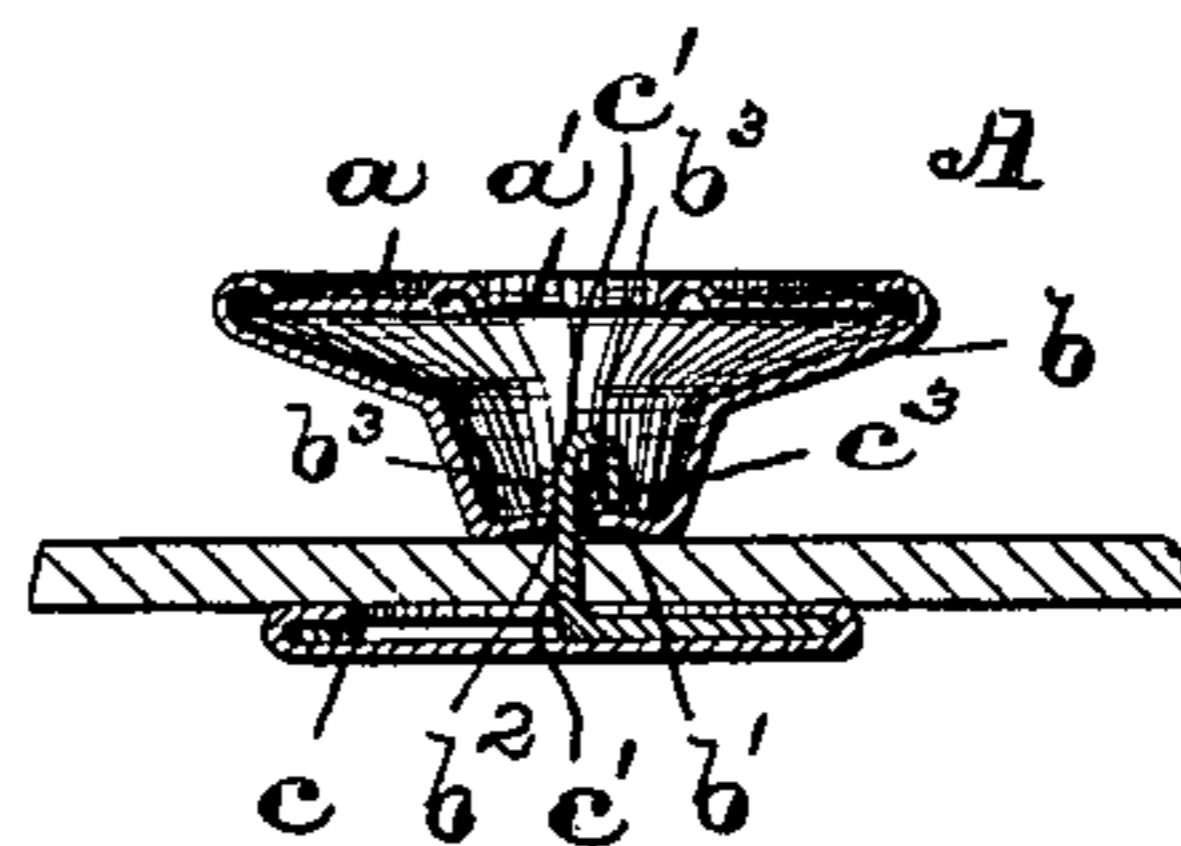


Fig. 3

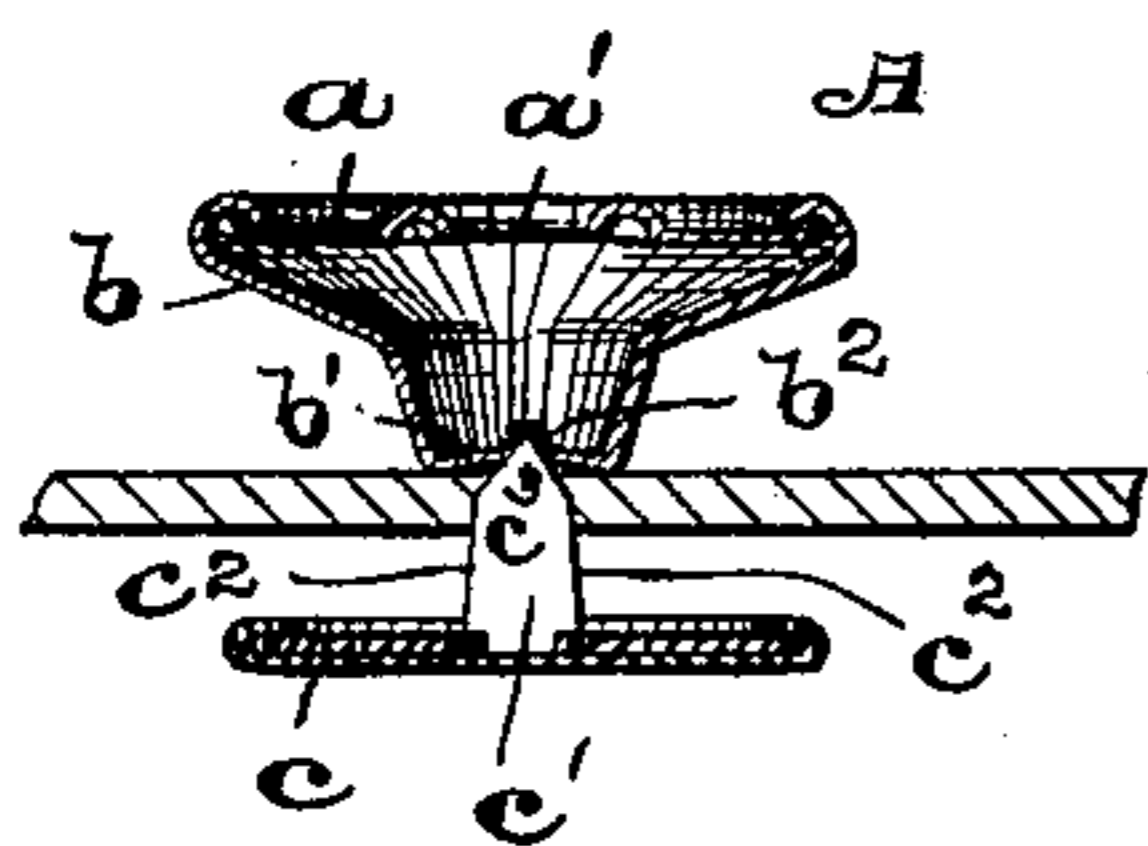


Fig. 4

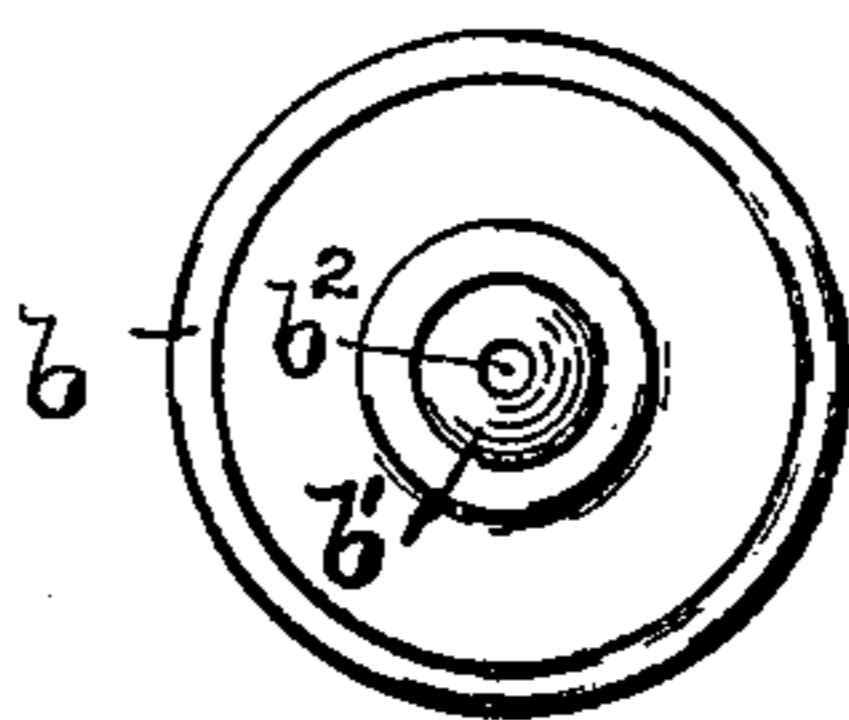


Fig. 6

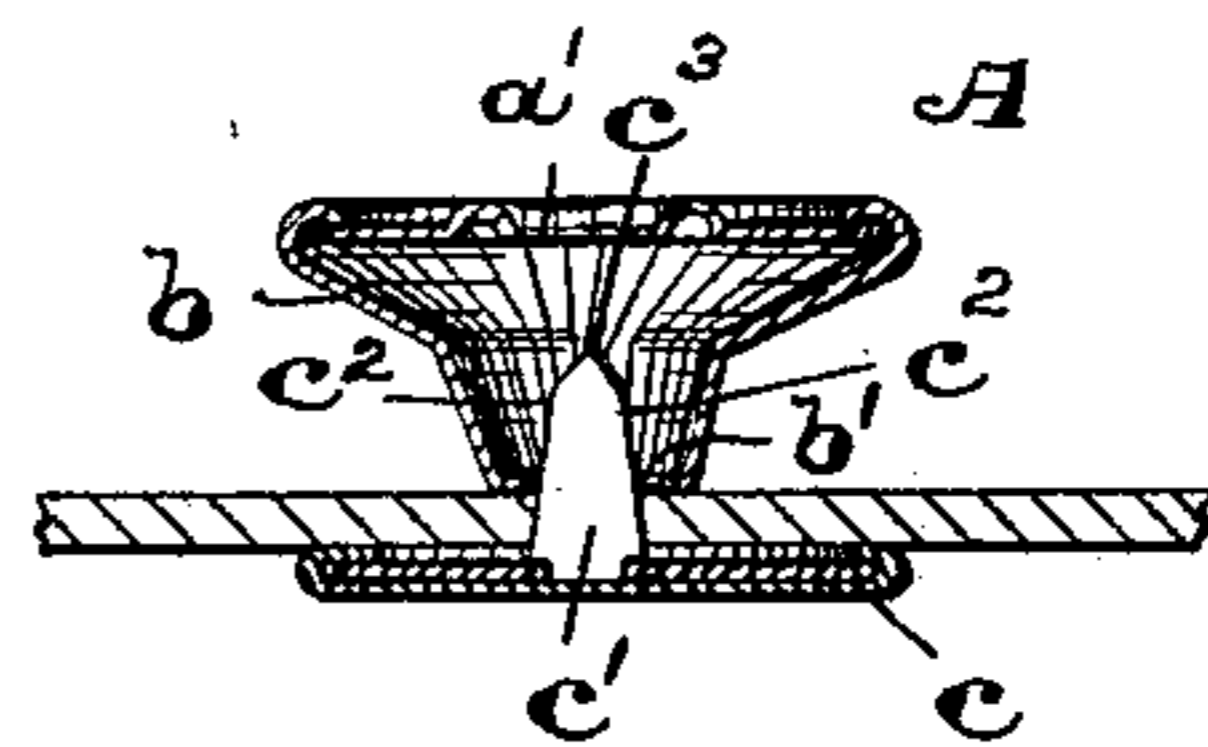


Fig. 5

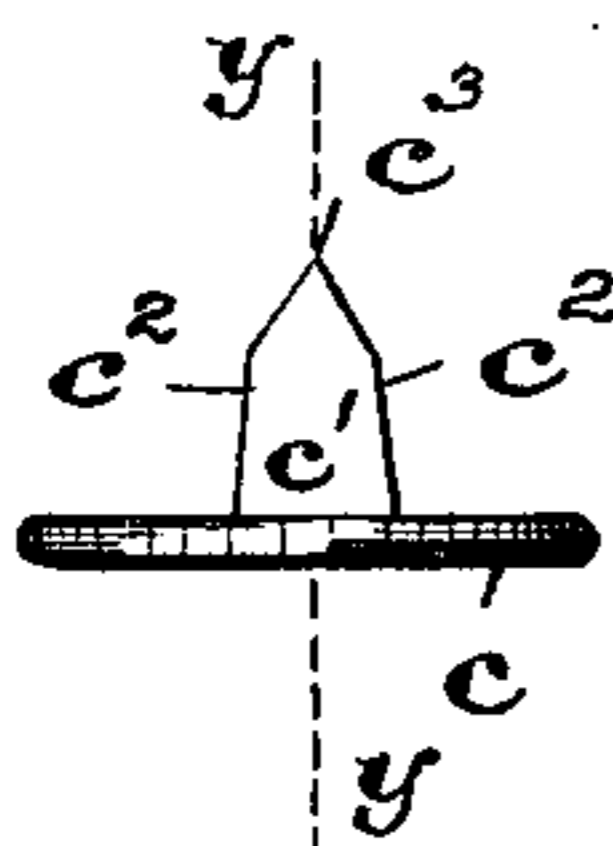


Fig. 7

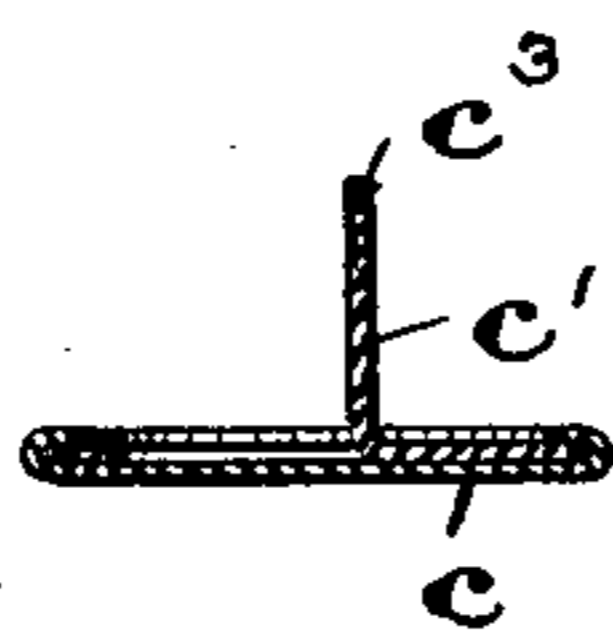


Fig. 8

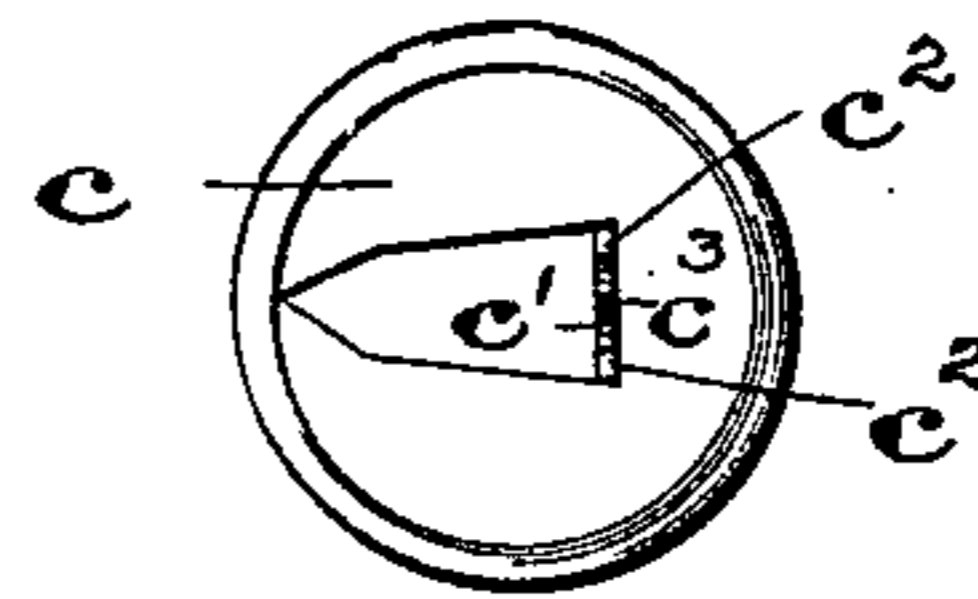


Fig. 9

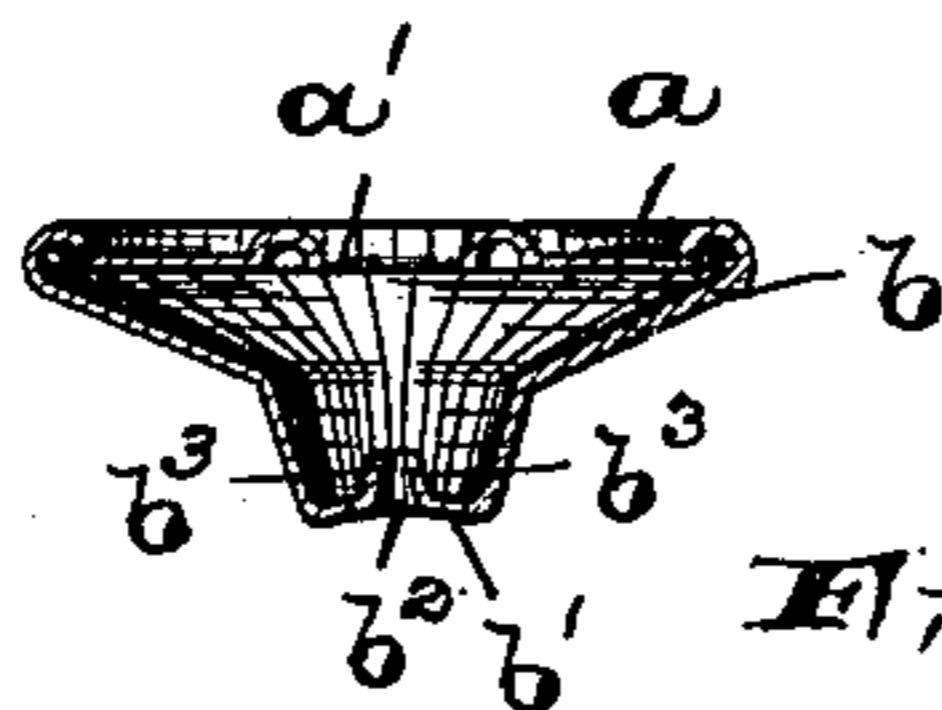


Fig. 10

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CHARLES RADCLIFFE, OF NEWARK, NEW JERSEY.

BUTTON.

SPECIFICATION forming part of Letters Patent No. 631,581, dated August 22, 1899.

Application filed October 10, 1898. Serial No. 693,092. (No model.)

To all whom it may concern:

Be it known that I, CHARLES RADCLIFFE, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in 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 of reference marked thereon, which form a part of this specification.

My present invention relates to improvements in that class of buttons which are to be attached to a garment without the use of thread and a needle, and has reference more particularly to a novel construction of face-plate or upper shell and a shoe or back-plate which is provided with a pointed post adapted to be forced through the solid or slightly-punctured hub of the shell or face-plate, said post having its upper portion bent over in the manner of an inverted letter U on one side of the slit formed in the hub by the post when it is forced through the metal to produce the completed button and causing the latter to lie closely against the fabric of the garment and to be firmly held in its operative position thereon.

The principal object of my present invention is to simplify the general construction of the button, to cheapen the cost of manufacture of the parts, and to more readily enable the assembling of such parts with a view of producing a better button.

The invention therefore consists in the novel construction of a button hereinafter described and in such novel arrangements and combinations of parts, all of which will be fully set forth in the accompanying specification and finally embodied in the clauses of the claim.

The invention is fully illustrated in the accompanying drawings, in which—

Figure 1 is a top view, and Fig. 2 is a side view, of a button embodying the principles of this invention. Fig. 3 is a vertical section of the completed button, the post connected with the shoe being represented in its operative position when secured against the inner surface of the hub of the face-plate or upper

shell of the button. Fig. 4 is a vertical section of the several parts of the button, the pointed post on the back-plate being represented in position about to puncture the base or curved portion of the hub of the button, said section being taken on line *x* in Fig. 1. Fig. 5 is a like view of the said pointed post forced entirely through the hub. Fig. 6 is a top view of said hub before it is pierced by the post connected with the shoe of the button. Fig. 7 is a side view of the shoe and its post. Fig. 8 is a vertical section of the same, taken on line *y* in said Fig. 7; and Fig. 9 is a plan view of said shoe or post. Fig. 10 is a cross-section of the upper shell, illustrating more particularly an arrangement of ribs formed adjacent to the long sides of the slit made by the insertion of the post on the back-plate through the hub during the assembling of the several parts which make up the button construction.

Similar letters of reference are employed in all of the above-described views to indicate corresponding parts.

In said drawings, A indicates the button, which is composed of a suitable face-plate or upper shell *a*, provided with a central perforation or hole *a'* and which is secured in the usual manner to the upper edge of the hub *b*. Said hub is usually provided with a centrally-arranged hole or perforation *b²* in the curved portion *b'*, as clearly illustrated in the several figures of the drawings, so that it can be easily punctured by the pointed portion of the flat post *c'* on the shoe *c*, as will be fully set forth. Integral with the said shoe or back-plate *c*, or separate therefrom, if desired, is formed or struck up thereon the said flat post *c'*, which has the slightly upwardly tapering edges *c²* and the pointed part *c³*, substantially as illustrated. In order to secure the hereinabove-described parts of the button directly to the fabric, said pointed post is pushed through the fabric and then forced through the curved part *b'* of the hub to form its own slot in said hub, at the same time providing a pair of inwardly-extending ribs *b³* contiguous to the longitudinal edge of the slot formed, which firmly bear against the flat sides of said post *c'*, as illustrated in Fig. 3. When the post *c'* has thus been forced through the hub *b*, the upper end of said post

will project above the edges of the said ribs b^3 . A bending-over tool is now inserted in the hole or perforation a' of the face-plate a , the lower surface of the tool being properly curved, so that when it comes in contact with the upper and pointed portion of the post c' said portion of the post will be bent over the edge of one of the said ribs b^3 and down along the outer side of said rib, whereby the said upper portion of the post c' and the said rib of the hub b are firmly connected to produce the completed button A, the parts of which, as will be evident, have thus been readily secured together in their proper positions upon opposite sides of the cloth, as illustrated in the several figures of the drawings.

In my previous Letters Patent, No. 520,897, granted June 5, 1894, I have found in many instances, owing to the limited downward motion of the twisting-tool for bending the upper parts of the post connected with the shoe in said Patent No. 520,897 across the slot formed in the bottom of the hub and thereby causing suitable incisions in said post, that when the twisting or torsional strain produced by the machinery upon said tool was greater than necessary the free end of said post would often be broken off, and thereby render the complete operation of assembling the parts useless. Furthermore, in some instances, owing to the varying thickness of the metal, the post when made as in said Patent No. 520,897 cannot be securely fastened to the hub of the button, and the parts will either become separated with use or they will rattle. In the present construction of providing the pointed end of the post with a bent part, no matter whether the metal does vary in thickness, the end portion of the post can always be bent over sufficiently to be securely clamped down over one of the ribs in the bottom of the hub of the button.

From the above it will be seen I have devised a construction of button the parts of

which can be quickly assembled and arranged in their holding position on fabrics of different thicknesses, without that the parts of the button are loosely secured thereon, which is an objectional feature, as it produces rattling of the parts and sometimes causes the shoe or back-plate to be pulled entirely through the material, especially when the button is attached to a very thin piece of cloth.

Having thus described my invention, what I claim is—

1. As a new article of manufacture, a button, comprising a face-plate or upper shell, and a hub connected therewith, provided in its bottom with a rectangular slot, a shoe or back-plate, a flat and pointed post on said shoe or back-plate, arranged in said rectangular slot in said hub to prevent lateral movement of said hub on said post, and a downwardly-extending end portion to said post bent to form a \cap -shaped upper portion on said post, having its free end bearing against one side of said slot in the hub and upon the base of said hub, substantially as and for the purposes set forth.

2. As a new article of manufacture, a button, comprising a face-plate or upper shell, and a hub connected therewith having in its bottom a rectangular slot or opening, and ribs b^3 contiguous to said slot, a shoe or back-plate and a flat and pointed post thereon, said post extending into and through the slot in said hub, and said ribs b^3 embracing the flat sides of said post, and a \cap -shaped upper portion on said flat post extending on opposite sides of one of said ribs b^3 , substantially as and for the purpose set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this 5th day of October, 1898.

CHARLES RADCLIFFE.

Witnesses:

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WALTER H. TALMAGE.