(No Model.)

R. J. KYLE.

BUTTON.

No. 567,834. Patented Sept. 15, 1896.

Fig. 1,

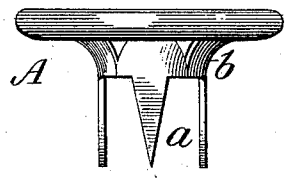


Fig. 4.

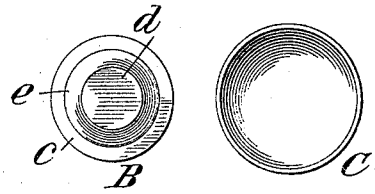


Fig. 2,

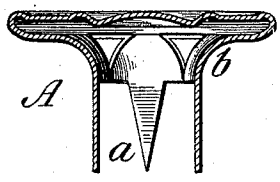


Fig. 5,

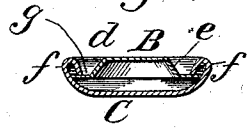


Fig. 3,

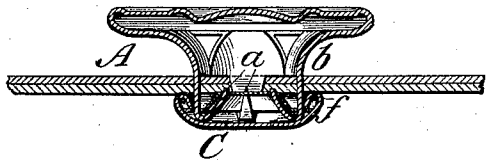


Fig. 6,

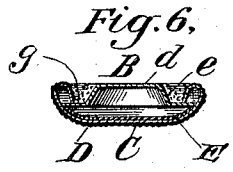
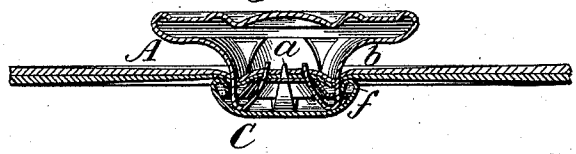


Fig. 7,



Witnesses:-

D. H. Hayward

Geo. W. Hills Jr.

Inventor:-

Robert J. Kyle
by his attorneys
Witter & Kenyon

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ROBERT J. KYLE, OF NEW YORK, N. Y.

BUTTON.

SPECIFICATION forming part of Letters Patent No. 567,834, dated September 15, 1896.

Application filed April 13, 1895. Serial No. 545,569. (No model.)

To all whom it may concern:

Be it known that I, ROBERT J. KYLE, a citizen of the United States, and a resident of New York city, in the county and State of New York, have invented certain new and useful Improvements in Buttons, of which the following is a specification.

This invention relates to buttons, and has for its object to provide for a secure attachment of the button to the fabric.

In the drawings forming part of this specification, and in which like letters denote corresponding parts in the several views, Figure 1 is a side elevation of a button provided with prongs. Fig. 2 is a transverse sectional elevation thereof. Figs. 3 and 7 are transverse sectional elevations of an embodiment of my invention, the button and fastener being secured together and to a piece of cloth. Fig. 4 shows a plan view of the back and a cap. Fig. 5 is a sectional elevation of the back and its cap assembled. Fig. 6 is a modification of the back and cap.

The button A is provided with prongs *a*, adapted to pierce the cloth or other fabric to which the button is to be attached, and in its best form has a neck *b*. The back B has a border *c* and preferably a raised portion *d*, joined to the border by a tapering portion *e*. To the back B a cap C, concave on its inner side, is secured by suitable means, as by swaging over the border of the cap upon the outer edge of the border *c*. The back and cap are in the best form so made as to form an annular depression *g* around the raised portion *d*, the border *c* forming the bottom of this depression. When the cap is swaged over upon the edge of the border *c*, it may form a bead *f*, constituting the outer wall of the depression *g*. When the button is secured to a fabric, the prongs *a* pierce the fabric, pass through the border *c*, and come in contact with the inner concave surface of the cap C, by which they are bent up into suitable engagement with the back B. The concave cap may in some cases be arranged so as to turn the prongs outward; but it is preferred to arrange the cap so as to turn the prongs inward, which, when made long enough for the purpose, may be also caused to pass upward and again through the back, as shown in Fig. 7. The neck of the button serves to force the fabric down into the annular depression *g*, thereby forming a bight in the fabric which the prongs pierce, affording a more secure attachment and preventing the fabric from being torn by lateral strain on the button. The raised central portion *d*, even in cases where the button is not provided with a distinct neck, as shown in the drawings, serves to hold the fabric securely against the body of the button, so as to prevent the prongs from pulling or tearing the fabric, as they would otherwise be liable to do. It is preferred to make the back imperforate and to cause the prongs of the button to pierce their own borders, but this is not in all cases essential. It is sometimes desirable to cover the cap with cloth, as shown at D in Fig. 6, to make a nice finish, and in such cases the cap should be made of zinc to prevent corrosion. Zinc is generally too soft to effectually turn the prongs of the button, and I therefore provide in this instance a concave plate E, generally of steel, and arranged inside the cap, so that the prongs will come in contact with it and be thus effectively bent.

Various changes which will readily suggest themselves to any one skilled in the art could of course be made without departing from the spirit of my invention.

What I claim as new, and desire to secure by Letters Patent, is—

1. A button provided with attaching-prongs in combination with a back having a concave cap made of zinc covered with cloth, and a thin metal deflecting-plate between the back and its cap, the prongs passing through the back and being bent up into engagement with the back, substantially as set forth.

2. A button provided with attaching-prongs, in combination with a back provided with a raised central portion and having a concave cap made of zinc covered with cloth, and a thin metal deflecting-plate between the back and its cap, the prongs passing through the back and being bent up into engagement with the back, substantially as set forth.

3. A button provided with attaching-prongs, in combination with a back provided with a concave cap, the prongs passing through the back and bending upward and passing through the back again near its center, substantially as set forth.

4. A button having a neck carrying attach-

ing-prongs in combination with a back having a concave cap, the back and cap united so as to form an annular depression corresponding with the neck, the prongs engaging the fastener and the neck entering the said depression whereby when the button is secured to a fabric the neck presses the fabric into the depression to form a bight in the fabric and the prongs pierce the bight of the fabric, substantially as set forth.

5. A button having a neck carrying attaching-prongs in combination with a back having a concave cap, the back and cap united so as to form an annular depression corresponding with the neck, the prongs passing through apertures which they themselves pierce or bore through the back, and the neck entering the said depression whereby when the button is secured to a fabric the neck presses the fabric into the depression to form a bight in the fabric and the prongs pierce the bight of the fabric, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ROBT. J. KYLE.

Witnesses:

NICHOLAS M. GOODLETT, Jr.,

EDWIN SEGER.