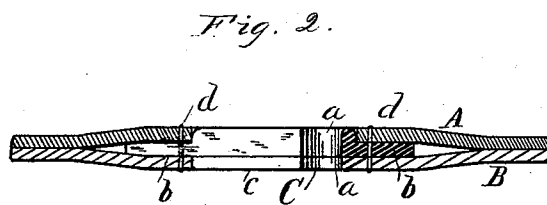
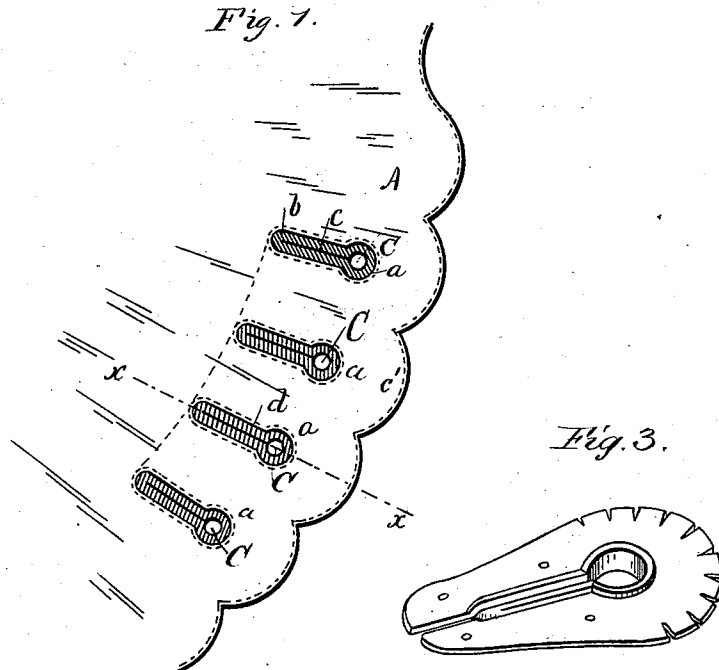


D. HARRIS.
Method of Forming Button Holes.

No. 236,155.

Patented Jan. 4, 1881.



Witnesses:

N. A. Low.
J. S. Barker.

Inventor:

David Harris
by W. H. S. Doubleday
att'y.

UNITED STATES PATENT OFFICE.

DAVID HARRIS, OF BROOKLYN, NEW YORK.

METHOD OF FORMING BUTTON-HOLES.

SPECIFICATION forming part of Letters Patent No. 236,155, dated January 4, 1881.

Application filed August 13, 1879.

To all whom it may concern:

Be it known that I, DAVID HARRIS, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Re-enforcement of Button-Holes; and I do hereby declare that the following is a full, clear, and exact description of the invention, which 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 invention relates to a new method of forming button-holes in flexible fabrics; and it consists, essentially, in interposing between two thicknesses of material, one thickness of which has a key-hole-shaped aperture in it, the button-hole lining or re-enforcement, formed of crimped leather and constructed with a bead surrounding the button-slit, the bead serving as a guide whereby to properly locate the crimped lining, hide the cut edges of the key-hole-shaped opening, and also to protect said cut edges from wear, as will be hereinafter fully explained.

In the drawings I have illustrated my invention as being applied to the button-fly of a shoe, in which drawings—

Figure 1 is a plan view of a portion of a shoe-upper, showing the button-holes. Fig. 2 is an enlarged view of the same, taken on line *xy*, Fig. 1; and Fig. 3 is a view, detached, of one of the button-hole linings or re-enforcements.

A is the upper, formed of any desired material, such as leather or some of the woven fabrics usually employed for that purpose.

a a a a are a series of key-hole-shaped openings, formed in the part A in proper position relative to the scalloped edge of the button-fly.

B is the button-fly lining, of cloth or leather.

C C C C are the crimped-leather button-hole linings or re-enforcements, such as may be conveniently made upon the machine patented by me June 18, 1878. These linings or re-enforcements are each constructed with a bead, *c*, extending in a continuous line around the button-slit *c'*, as is plainly shown in Fig. 3;

and in applying them I interpose them between the upper and the lining with the bead projecting through or into the key-hole-shaped openings *a*. After the upper, the lining, and the button-hole linings or re-enforcements have been secured to each other, I then cut or punch a slit, *b*, in the button-fly lining by means of a suitable instrument, which is inserted through the button-slit of the button-hole lining or re-enforcement, this slit *c'* serving as a guide to determine the position of the slit in the button lining or re-enforcement, as will be readily understood.

It will be readily seen that the bead on the button-hole lining serves as a guide to facilitate locating the re-enforcement in proper position relative to the key-hole-shaped opening in the upper or outer material, A, and also serves to hide the edges of the key-hole-shaped opening, and also protects these edges against being worn by the contact of the buttons, which latter feature becomes very important when the part A is made of cloth.

It will also be seen that, by my method of putting these parts together and subsequently cutting the button-slits in the button-fly lining by means of a cutting-tool introduced through the button-hole lining or re-enforcement, I insure absolute accuracy in the location of the button-slits *b*.

I usually secure the parts together by means of some adhesive material, and also by a row of stitching extending around outside the bead *c*; but either the adhesive material or the stitching may be dispensed with without departing from the spirit of my invention.

I am aware that I am not the first to interpose a tough inelastic re-enforcement between the upper and the lining of a button-fly; but as such device had been employed prior to the date of my invention it consisted of a thin piece of leather, flat upon both sides and imperforate, for which reason it is apparent that it contained nothing corresponding to my combination of the button-hole lining C, having the bead *c'* and slit *c*, with a button-hole provided with a key-hole-shaped opening, *a*. Hence it was impossible that in such earlier constructions the position of the button-slit in the lining B relative to the key-hole-shaped

opening *a* could be determined by the position of the button-hole re-enforcement, the position of which, in turn, is determined by the bead *c*.

What I claim is—

5 The herein-described method of making button-holes—that is to say, by interposing a button-hole lining or re-enforcement, C, having a bead, *c*, and button-slit *c'*, between an upper, A, having a key-hole-shaped opening, *a*, there-
10 in, and an imperforate lining, B, the bead be-

ing inserted in the opening *a*, and afterward making a button-slit in the lining B opposite the slit *c'*, substantially as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of 15 two witnesses.

DAVID HARRIS.

Witnesses:

H. H. DOUBLEDAY,
WILLIAM A. WELWOOD.