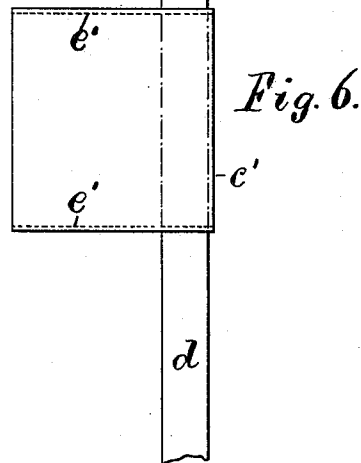
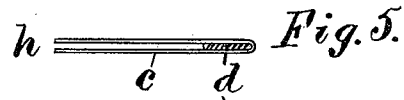
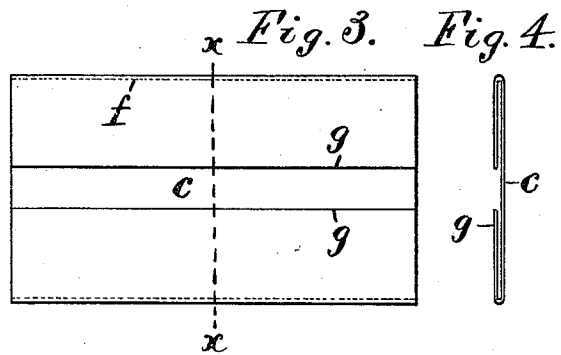
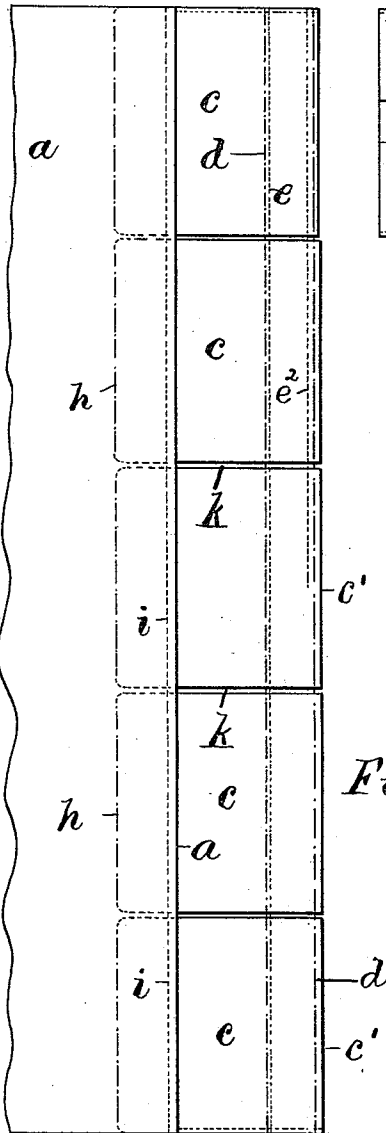


(No Model.)

J. K. ROSS.
BUTTON HOLE STRIP.

No. 437,457.

Patented Sept. 30, 1890.



Attest:
L. Lee.
Thos. W. Jackson.

Inventor.
John K. Ross, per
Crane & Miller, Atty.

UNITED STATES PATENT OFFICE.

JOHN K. ROSS, OF NEWARK, NEW JERSEY.

BUTTON-HOLE STRIP.

SPECIFICATION forming part of Letters Patent No. 437,457, dated September 30, 1890.

Application filed August 22, 1890. Serial No. 362,741. (No model.)

To all whom it may concern:

Be it known that I, JOHN K. ROSS, a citizen of the United States, residing at Newark, Essex county, New Jersey, have invented certain new and useful Improvements in Button-Hole Strips, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

10 The object of this invention is to form a button-hole strip along the edge of a garment by a cheap and simple construction and to secure a durability and flexibility not hitherto attained by other means.

15 In my construction the flaps are formed by doubling suitable pieces of fabric with their opposite ends together, securing such opposite ends in the margin of the garment, running a tape through the folds of the several
20 flaps and securing the flaps to the tape. Heretofore where such flaps have been applied to the edge of a garment to form a series of button-holes the outer ends of the flaps have been covered by a binding, which stiffened and
25 thickened the edge unpleasantly, or the edges of the flaps have merely been sewed together for a short distance at the outer end of each button-hole, which formed a weak and imperfect construction, liable to rip and yield.

30 My construction will be understood by reference to the annexed drawings, in which—

Figure 1 is an end view of the button-hole strip with a portion of the edge of the garment. Fig. 2 is a front view of the same.
35 Fig. 3 shows the inside of one of the flaps before it is doubled; Fig. 4, an end view of the same; Fig. 5, an end view of the flap when doubled and the tape applied to the fold; and Fig. 6 a side view, analogous to Fig. 2, of a
40 single flap with the tape inserted in the fold and projected on either side.

45 *a* represents the edge of a garment upon which the button-hole strip is required; *b*, the lining of the same; *c*, the flaps; *c'*, the fold at the middle of the flap; *d*, the strip of tape or fabric inserted in the folds, and *e* *e'* the lines of stitching for securing the flaps to the tape.

The line *e* in Fig. 2 is run along the inner edge of the tape, while the line *e'* in Fig. 6
50 is run transversely to the tape along the edge of the flap.

Each flap is formed of a piece of fabric with

the edges *g* turned in nearly or quite to the middle line, as shown in Fig. 2, and a line of stitching *f* preferably run along the edges to
55 secure the same. The body of the flap is thus made of double thickness, and it is then folded transversely at the middle, as at the imaginary or dotted line *x x* in Fig. 3.

The flaps are made of suitable width (with
60 the edges turned in) to form the button-holes at the desired distance from one another and from the ends of the button-hole strip, and the series of flaps is then connected by the tape or strip of fabric *d*, which is inserted
65 in the folds *c'* and secured therein by the lines of stitching *e* or *e'*. The ends of the flaps, indicated at *h* in Figs. 2 and 5 are then inserted between the edge of the garment *a* and its lining *b*, and secured therein by a row
70 of stitching *i* along the edge of the garment. The flaps are so proportioned that the space between the inner edge of the tape and the outer edge of the garment affords a button-hole *k* of the desired length.

75 The flaps are shown separated slightly upon the tape to indicate the location of the button-holes; but the flaps may be secured upon the tape and garment with their edges close together, as the material readily yields for
80 opening the button-hole thus formed.

It will be understood that the tape or equivalent strip inserted in the folds of the flaps holds them together at the outer ends of the button-holes in a far more substantial man-
85 ner than any mere stitching could do at the same point upon the flaps, and that the outer edge of the entire button-hole strip is much more flexible than if a binding or folded strip were applied over all the folded edges of the
90 flaps upon both sides of the same to secure them together.

As a straight continuous line of stitching is the simplest operation that can be performed in a sewing-machine, it is obvious that
95 the single row of stitches *e*, Fig. 2, extended through the flaps and the tape along the inner edge of the tape is much cheaper than a binding attached to both sides upon the exterior of the flaps. The single row of stitches *e* is
100 also much cheaper than it would be to secure the edges of the separate flaps together at the outer ends of the button-holes by mere stitching without a tape or binding.

The rows of stitching *f* are not shown in Fig. 2, as they are not essential to the construction, the folding of the flap across the line *x x*, and the stitching required to secure it in the edge of the garment and to tape *d* sufficing to hold it in the required shape.

The only advantage of the stitching *f* shown along the edges of the flap in Fig. 3 is to slightly harden and strengthen the material at the edges of the button-hole and may be applied in the act of connecting the flaps with the tape by the use of transverse lines of stitching, (shown in Fig. 6 at *e'*.) When such transverse lines are used, the line of stitching *e*, Fig. 2, parallel with the edge of the tape will not be required, and the transverse lines have the advantage of securing the several thicknesses of material in the flap (along each edge of the button-hole) firmly together, and thus render the same less liable to wear than the construction shown in Fig. 2.

A line of stitching *e*² is shown in Fig. 2 along a portion of the outer edge of the but-

ton-strip. Such line may be used for ornamentation only, but is not essential to my invention.

Having thus set forth my invention, I disclaim the mere use of separate flaps to form a button-hole strip, or the securing of the same together at the outer ends of the button-holes by external binding or mere stitching.

What I claim herein is—

The button-hole strip consisting in the series of adjacent flaps *c*, folded each transversely across its middle and having the tape or strip *d*, secured inside the folds *c'* of the flaps by stitching, substantially as herein set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN K. ROSS.

Witnesses:

THOS. S. CRANE,
L. LEE.