

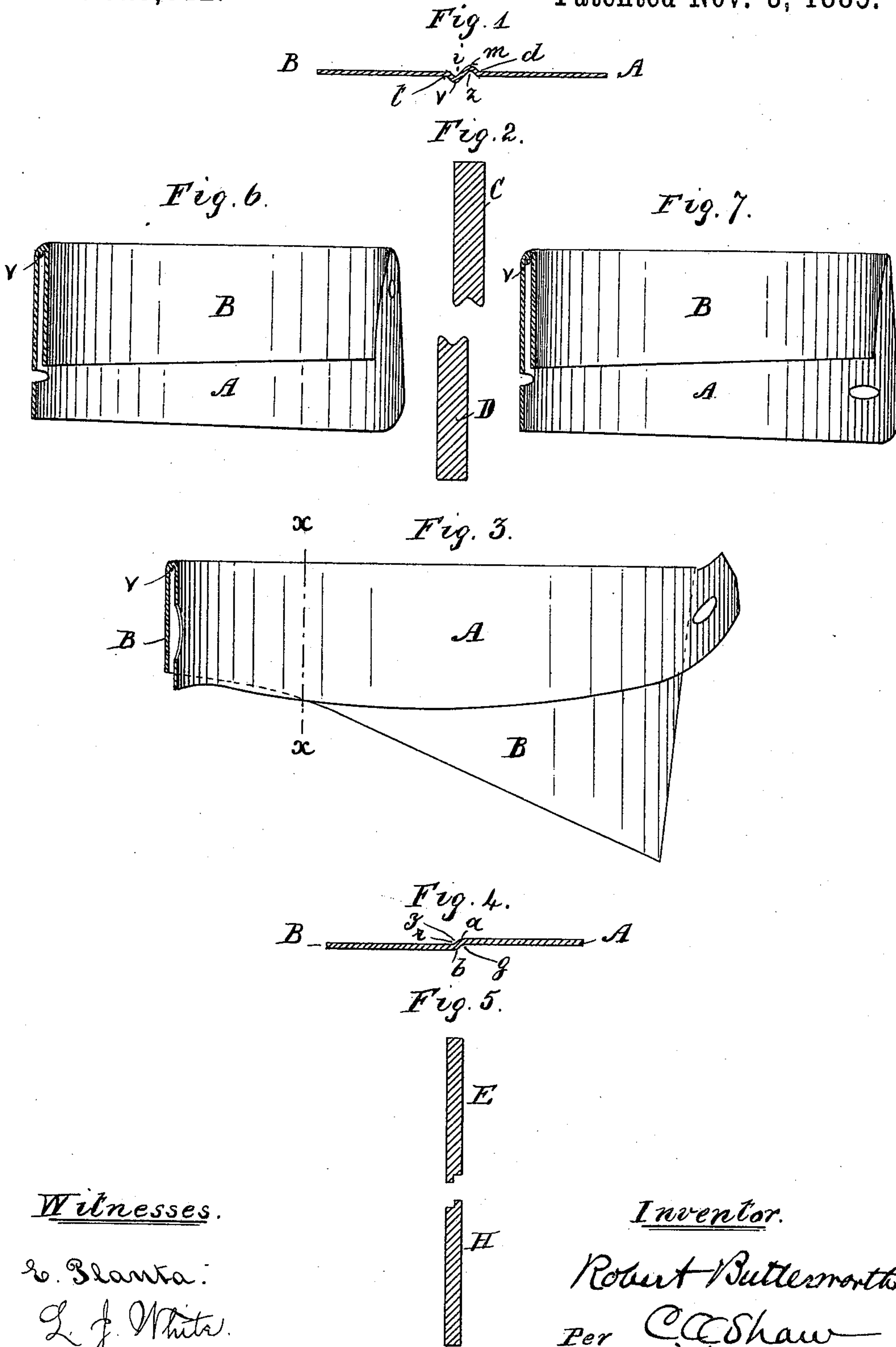
(No Model.)

R. BUTTERWORTH.

COLLAR.

No. 329,812.

Patented Nov. 3, 1885.



Witnesses.

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# UNITED STATES PATENT OFFICE.

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## COLLAR.

SPECIFICATION forming part of Letters Patent No. 329,812, dated November 3, 1885.

Application filed June 9, 1885. Serial No. 168,196. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT BUTTERWORTH, of Boston, (Somerville,) in the county of Middlesex, State of Massachusetts, have invented a certain new and useful Improvement in Collars, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is an enlarged transverse section of the collar shown in Fig. 3, taken on the dotted line *x x*, said collar being represented in Fig. 1 as unfolded, or in the form of a "blank;" Fig. 2, a vertical transverse section of the dies used for making the creases or indentations on the folding lines of said collar; Fig. 3, a side elevation of a gentleman's reversible turn-down collar embodying my improvement, viewed from the inner side; Fig. 4, an enlarged transverse section of an ordinary unfolded reversible collar provided with an offset between the flap and band; Fig. 5, a vertical transverse section of the dies used for producing the offset in the collar shown in Fig. 4; Fig. 6, a view showing a lady's reversible standing collar provided with my improvement; and Fig. 7 a like view of a gentleman's reversible standing collar, each of the collars shown in Figs. 3, 6, and 7 being represented with one half or side of the band and flap removed.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention relates more especially to that class of reversible collars which are provided with overturned flaps, or flaps adapted to be folded, and composed of paper, cloth-faced paper, or other suitable materials of like nature, being known to the trade both as "turn-down" and "standing" collars, according to the style in which they are made; and it consists in a collar composed of paper, cloth-faced paper, or any other suitable materials of like nature, and provided with two longitudinal creases or indentations, one on either side thereof, said creases being formed

at or near the junction of its flap and band and arranged in parallelism with each other, as hereinafter more fully set forth and claimed, the object being to produce a more perfect and desirable article of this character than is now in ordinary use.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation.

In the drawings, A represents the band, and B the flap, of the collar, these parts being integral, and composed of paper, cloth-faced paper, or any other suitable materials of like nature.

After the blank from which the collar is formed is cut from the stock in the usual manner, or at the time of cutting it, as may be most convenient, I indent or crease it longitudinally at or near the junction of the flap and band, as shown at *i z*, by means of the dies C D, (represented in Fig. 2,) or any other suitable device for that purpose, the creases or indentations being disposed on opposite sides of the blank, as shown in Fig. 1, and of sufficient depth to respectively emboss or raise the corresponding bosses or projections, *v m*, thus leaving the band A and flap B on or nearly on the same plane.

It has heretofore been common in the manufacture of paper or cloth-faced paper collars having overturned flaps, or flaps adapted to be folded, to make a single crease or indentation directly on the folding-line or dividing-line between the band and flap to enable the blank to be readily and properly folded; but in reversing such collars, after having been worn as originally folded, it is not only difficult to fold them properly, but a rough and unfinished edge is presented at the folding-line, which detracts materially from their appearance. In seeking to overcome this defect an inclined offset, *y*, has sometimes been formed in the collar-blank, as shown in Fig. 4, by means of the dies E H, (represented in Fig. 5,) the band A being raised thereby to a higher plane than the flap B, or vice versa. It has, however, been found that when a collar provided with an offset, as described, is reversed in wearing, the band and flap being on different



planes, it will, when bent anew, fold in such a manner as to present a rough or unfinished edge at the folding-line. For instance, when the flap B in Fig. 4 is bent downwardly and brought against the under side of the band A the collar will be folded on the angle  $g$ , and the boss or projection  $a$  will form the edge; but if, now, it is reversed and the flap B is bent upwardly and brought against the upper side of the flap A, the collar will be folded on the angle  $r$ , and the boss or projection  $b$  will form the edge, thus leaving the angle  $g$  exposed, and as the wearing of the collar always wrinkles and crimps the surface of the material on the under side of the fold, that portion which forms the angle  $g$  when exposed, as described, will give the collar an unfinished appearance at or near its upper edge and tend to disclose the fact that it has been reversed. It has also been found to be exceedingly difficult to fold such collars readily and properly, on account of the band and flap being arranged on different planes and the lack of indentations or creases on the folding-lines. My invention is designed to obviate these objections; and to that end I make use of the two well-defined or positive longitudinal creases or indentations  $i z$ , one on each side of the collar, as described, by means of which it may be readily folded, and may also be reversed, and still preserve the same or nearly the same finished appearance at and near its upper edge which it has in its normal condition. For instance, if the flap B in Fig. 1 is bent downwardly and brought against the under side of the band A, the collar will be folded on the angle  $z$ , instead of the angle  $t$ , and the boss or projection  $m$  will form the edge, and when the flap B is bent upwardly, in reversing the collar, and brought against the upper side of the band A, the collar will be folded on the angle  $i$ , instead of the angle  $d$ , and the boss or projection  $v$  will form the edge, thus concealing the under side,  $z$ , of the original fold, and presenting a smooth and finished upper edge both before and after the collar is reversed. It will of course be understood that the collar is to be properly embossed or stamped with imitation stitches, if the same are required, and otherwise so constructed and finished as to adapt it to be reversed, after the usual manner of making such collars; also that the creases or indentations  $i z$  may be curved or straight in accordance with the style of the collar.

I do not confine myself to the use of the im-

provement with ordinary turn-down collars—such as is shown in Fig. 3—as it is equally well adapted to standing collars provided with flaps, whether for ladies' or gentlemen's wear, the bands in such collars being extended upwardly to form the bodies, and the flaps usually made narrower than the bodies and folded inwardly, as shown in Figs. 6 and 7. Neither do I confine myself to folding the collars as shown respectively in Figs. 3, 6, and 7, as, for convenience and economy in packing and transportation, they may be cut out and creased or indented, as shown in Fig. 1, and then sold or disposed of "flat," or in the form of unfolded blanks, if desired, to be folded by the purchaser or user.

The indentations or creases  $i z$  may be varied in depth and distance apart in accordance with the thickness or nature of the stock being used, but should always be arranged in parallelism with each other, and one on either side of the collar. They may also be transposed, if desired, the crease  $i$  being formed on the opposite side of the collar from that shown, and the crease  $z$  likewise changed.

It will be obvious that the creases  $i z$ , when formed and arranged as described, are analogous in their operation or the function they perform to the double hinges of a door, such hinges permitting the door to be readily swung in either direction, and the creases enabling the flap of the collar to be turned down or folded with equal facility on either side of the band.

My improvement is also equally well adapted to the manufacture of reversible paper or cloth-faced paper cuffs; but as I have made the same the subject-matter of another application for Letters Patent I do not claim such cuffs herein. (*Vide* application Serial No. 168,197, filed June 9, 1885.)

Having thus explained my invention, what I claim is—

As an improved article of manufacture, a paper or cloth-faced paper collar provided with a longitudinal indentation or crease on each side, said indentations or creases being arranged in parallelism with each other and disposed at or near the junction of the band and flap of the collar, substantially as described.

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Witnesses:

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