Jan. 28, 1958 H. H. WOOD 2,821,002

FASTENING DEVICES FOR THE WAISTBANDS OF TROUSERS

Filed July 24, 1953

Fig. 1.

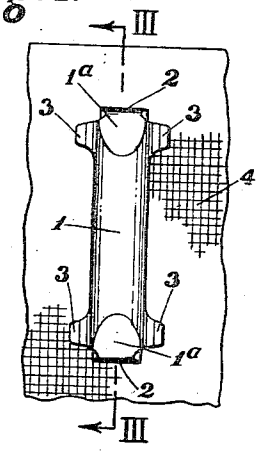


Fig. 2.

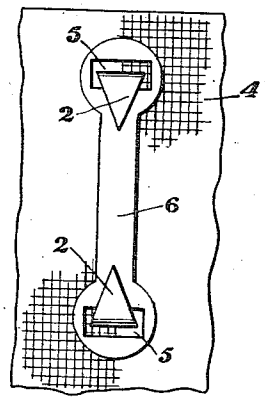


Fig. 3.

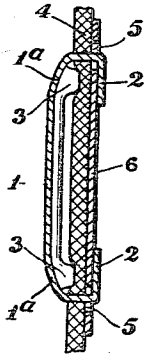


Fig. 4.

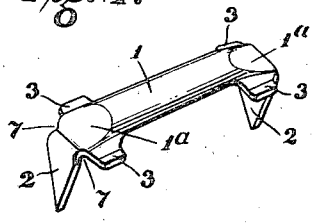


Fig. 6.

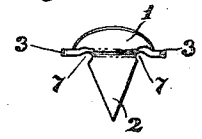


Fig. 5.

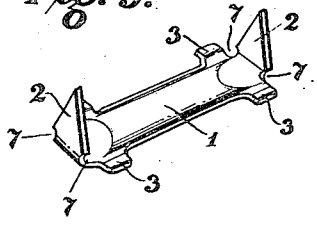
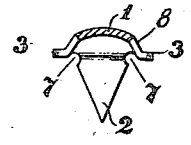


Fig. 7.



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FASTENING DEVICES FOR THE WAISTBANDS OF TROUSERS

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Application July 24, 1953, Serial No. 370,013

Claims priority, application Great Britain December 13, 1952

3 Claims. (Cl. 24—227)

This invention relates to fastening devices for the waistbands of trousers, said fastening devices being of the kind comprising a hook for attachment to one end of the waistband, and a staple member, forming a bar or loop, for attachment to the other end of the waistband and adapted for releasable engagement by the hook.

The present invention concerns the staple member, which is usually in the form of a flat sheet-metal strip having end portions forming a raised hook-engaging bar between them and being extended to form bent down end prongs adapted to be forced through the material of the waistband and to be clenched over on the under face of the latter usually upon a back plate applied to the said face of the band.

Staple members as hitherto employed are subjected to a lateral strain due to the pull of the hook and they are thus liable to rock sideways, causing the edge portion to cut into the material of the waistband. Also, as the bar portion is of flat sheet-metal, it is liable to become crushed, such as if the trousers to which the staple is fitted are treated in a machine, as during pressing, cleaning or the like.

One object of the present invention is to provide an improved staple member which is designed to resist lateral rocking under the pull of the hook. Another object is to construct the staple member so as to resist crushing more effectively.

According to the invention, the staple for a hook-and-staple fastening device for the waistbands of trousers comprises a bar provided with attachment prongs at opposite ends and having at each side, adjacent the prongs, lateral lugs or extensions adapted to bear upon the material of the waistband.

The bar is preferably of a corrugated or channel section in order to resist crushing, whilst notches may be provided at each side in the root portions of the prongs.

Figure 1 of the accompanying drawings represents a front view of a staple constructed in accordance with this invention and shown attached to a trouser waistband.

Figure 2 is a rear view, showing the back-plate employed.

Figure 3 represents a longitudinal section through the staple and through the waistband and back-plate to which it is attached.

Figure 4 shows a front perspective view of the staple only, before the prongs have been bent over.

Figure 5 is an underside perspective view of the staple only.

Figure 6 is an end view of the staple, and Figure 7 a transverse section through the same.

Referring to the drawings, the staple member of a hook-and-staple fastening device for the waistbands of trousers comprises a straight sheet-metal bar pressed to a channel formation of a curved cross-sectional shape, being in the form of a single corrugation with its convex face presented outwardly. The ends of the bar 1 are inclined at 1^a, as shown, and are contained into integral end prongs 2 disposed at right-angles to the bar. The main portion of the bar 1 between the inclined end portions 1^a is thus raised or set forward, whilst formed at opposite sides of the inclined portions 1^a of the bar, adjacent the prong roots, are integral lateral extensions which are bent and shaped to provide downwardly extending side wall parts 8 having at their lower ends integral outwardly extending flat feet or lugs 3 projecting from the general contour of the bar and lying in a plane parallel to the main forwardly-set portion of the bar but in a plane at right angles to that of the prongs 2. The prongs 2 are adapted to be passed through the material of the band 4 of the trousers and through holes 5 in a back plate 6, the prongs 2 being then clenched over in the manner indicated in Figure 3. It will be seen that the lateral feet or lugs 3 bear upon the face of the waistband 4 and provide an extended lateral bearing to resist the tendency of the bar 1 to rock laterally when subjected to the pull of the hook (not shown).

In the root portions of the prongs 2, at points adjacent the lateral lugs 3, inwardly-extending notches 7 are provided at opposite sides. The notches 7 are located so as to weaken the metal at the points where the prongs are to bent during the clenching operation, thus facilitating this operation and ensuring accuracy in bending.

As the main portion of the bar 1 is of channel or corrugated section, it cannot readily be crushed if subjected to pressure, as, for example, when the trousers to which the staple is attached are passed through or treated in a machine for pressing, cleaning or other operations.

I claim:

1. A staple for a hook-and-staple fastening device for the waistbands of trousers, said staple comprising: a straight bar provided at opposite ends with attachment prongs bent at right-angles to the bar, said bar having at opposite ends and sides, adjacent the prongs, integral extensions shaped to provide downwardly-extending side wall parts having at their lower ends integral outwardly-extending lugs forming flat feet lying in a plane parallel to the main portion of the bar but in a plane at right-angles to that of the attachment prongs, the said outwardly-extending lugs being adapted to bear upon the outer face of the waistband when the staple is attached to the latter by bending over the prongs after their insertion through the material of said waistband.

2. A staple for a hook-and-staple fastening device for the waistbands of trousers, said staple comprising: a bar of channel section having a convex face presented outwards and having a straight middle portion and inclined end portions, the latter terminating in bent-down attachment prongs at right-angles to the bar, said inclined end portions being provided at opposite sides with integral extensions shaped to provide downwardly-extending side wall parts having at their lower ends integral outwardly-extending lugs forming flat feet lying in a plane parallel to the main middle portion of the bar but in a plane at right-angles to that of the attachment prongs, the said outwardly-extending lugs being adapted to bear upon the outer face of the waistband when the staple is attached to the latter by bending over the prongs after their insertion through the material of the waistband.

3. A staple for a hook-and-staple fastening device for the waistbands of trousers, said staple comprising a straight sheet-metal bar provided at opposite ends with V-shaped attachment prongs bent down at right angles to and in line with the bar, said bar having, at positions inwards of but adjacent the prongs, integral lugs extending downwardly from the side edges of the bar in planes at right-angles to the planes of the prongs and having their

free end portions bent outwardly from the bar to form flat feet having a flat bearing on the outer face of the waistband over four spaced areas, said lugs also serving as struts for supporting the elevated end portions of the bar.

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