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L. ROSEMAN ET AL

3,046,564

ARTICLE HAVING HOOK FASTENER TAPE STITCHED THEREON

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Fig. 1.

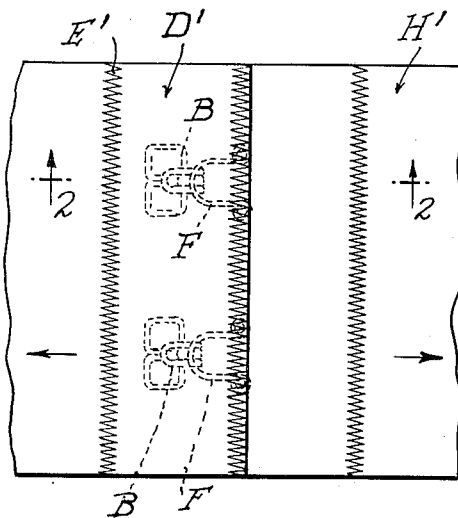


Fig. 3.

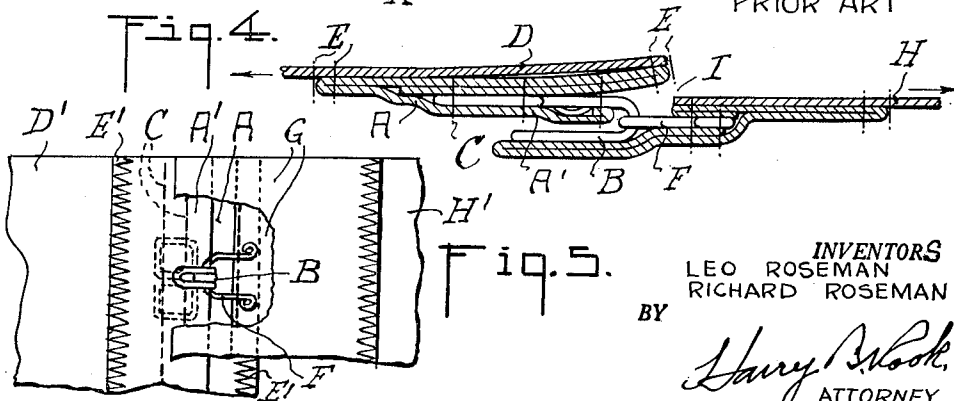
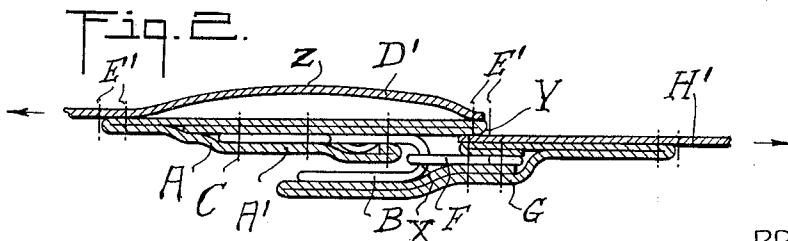
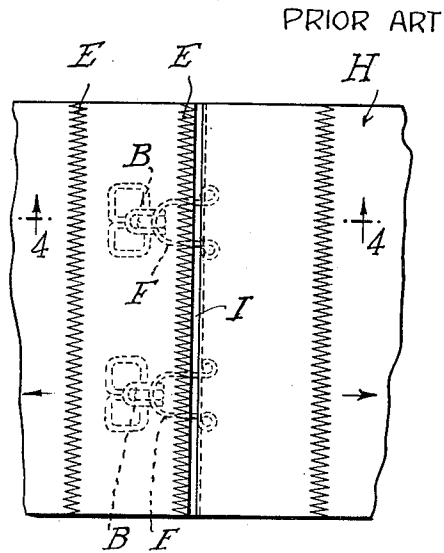
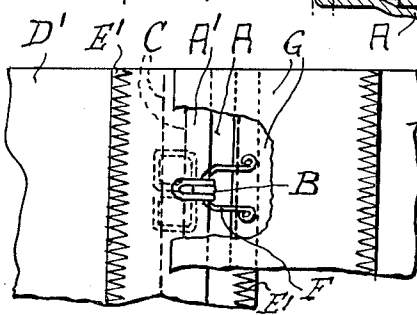


Fig. 5.



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ARTICLE HAVING HOOK FASTENER TAPE STITCHED THEREON

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1 Claim. (Cl. 2—338)

This invention relates in general to garments or other articles, for example, elastic straps, having stitched on portions thereof fabric hook fastener tapes on which are secured at least one hook fastener element and usually a plurality of wire hook fastener elements disposed in spaced relation longitudinally of the tapes each to cooperate with a complemental eye fastener element secured on another portion of the garment or other article for connecting said two portions together.

The generally known manner of stitching hook fastener tape on the edge portion of a garment such as a corset, girdle or brassiere, or on the end of an elastic strap such as is used in a brassiere, is objectionable in that when the portion of the garment bearing the hooks is connected to the portion of the garment bearing the eyes and tension is placed on said garment portions in substantially their own planes tending to pull them apart, the edge of the garment portion carrying the hook fastener elements is pulled upwardly and away from the edge of the other portion of the garment so as to form gaps between the two edges and sometimes expose the eyes. The connected edge portions of the garment are not only unsightly but the edge portion carrying the hook fastener element is uncomfortable to the wearer and, when appearing in an undergarment beneath a thin outer garment, causes unattractive projections and ridges in the outer garment.

Among the objects of the present invention are to provide a novel and improved manner of stitching a hook fastener tape on the edge portion of a garment, elastic strap or other article so as to prevent such gaping of the garment edge portion as hereinbefore described; and thus to stitch the hook fastener tape to the garment or other article so that the strain incident to tension on the connected portions is applied to the hooks and eyes in a novel and improved manner and substantially no tension is applied to the edge of the hook-carrying portions that might tend to pull them upwardly and away from the edges of the eye-carrying portions.

Other objects, advantages and results of the invention will be brought out by the following description in conjunction with the accompanying drawings in which

FIGURE 1 is a fragmentary schematic top plan view of two garment edge portions or two elastic straps connected together by hook and eye tapes, the hook tape of which is sewn onto the garment or strap in accordance with the invention, and illustrating the two garment edge portions under tension in their own planes tending to pull them apart;

FIGURE 2 is an enlarged fragmentary vertical sectional view approximately on the plane of the line 2—2 of FIGURE 1;

FIGURE 3 is a view similar to FIGURE 1 showing the two garment edge portions or elastic straps connected together by hook tapes and eye tapes wherein the hook tape is sewn onto the garment portion or strap according to the old practice, and illustrating the garment edge portions under tension;

FIGURE 4 is a view similar to FIGURE 2 taken on the plane of the line 4—4 of FIGURE 3; and

FIGURE 5 is a fragmentary bottom plan view of the garment portions or straps shown in FIGURE 1 with portions broken away.

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For the purpose of explaining the invention, we shall first describe the problem incident to the old practice. The hook fastener tape contemplated by the invention includes an elongated strip of fabric generally designated A having secured on one side thereof at least one hook fastener element B and usually a plurality thereof in spaced relation to each other longitudinally of the strip by longitudinal lines of stitches C with the bill of the hook exposed and projecting from one side and one longitudinal edge of the strip as shown in FIGURES 2 and 5.

According to known practice and referring particularly to FIGURES 3 and 4, the superposed garment portion D and fastener tape A are secured together along each longitudinal edge of the tape by a line of stitches E that may be straight stitches or zigzag stitches as shown, and the zone of the garment edge portions between the parallel lines of the stitches E is shorter than the underlying portion of the tape as shown in FIGURE 4. Therefore, when the fastener elements B are connected to their complemental eye elements F on the eye tape of another garment portion or strap H and tension is applied to the connected portions D and H in their planes tending to separate them as indicated by the arrows in FIGURE 3, the tension on the portion D is first applied to the right-hand line of stitches E in FIGURE 4 and the garment edge portion is pulled back or lifted upwardly as indicated at I until the full tension is transmitted through the left-hand line of stitches E through the tape and stitches C to the engaging point of the hook fastener element B and eye fastener element F. This lifting of the garment edge portion and the gaps formed thereby as indicated at I are objectionable and the connected edge portions of the garment or straps are unsightly.

We have discovered that this objection can be overcome by stitching the fastener tape on the garment portion or strap so that the portion of the garment or strap between the parallel lines of stitches shall be longer than the portion of the hook fastener tape between said lines of stitches, whereby when the connected portions are subjected to tension in their own planes the portion carrying the fastener tape will be pulled taut between the innermost line of stitches and the engaging point of the hook fastener elements and eye fastener elements and no tension will be applied between the corresponding edges of the garment portion and the fastener tape and all tendency for said edges to be pulled away from the edge of the portion carrying the eye fastener elements shall be eliminated.

This manner of stitching the fastener tape to the garment portion, strap or other article is illustrated in FIGURES 1, 2 and 5 of the drawings. The fastener tape A is secured to the garment portion or strap D' by lines of stitches extending along and through the longitudinal edge portions of the fastener tape A and the garment portion or strap D', with the zone of the garment portion or strap between the line of stitches substantially longer than the corresponding zone of the fastener tape so as to provide a fullness or slackness in the garment portion or strap between the lines of stitches D' as best shown in FIGURE 2. Preferably the stitches are zigzag stitches as shown but they may be straight stitches if desired.

With the construction, it will be readily understood that when the assembled and stitched together hook fastener tape A of the portion D' of the garment or strap are connected to a complemental garment portion or strap H' having a hook fastener tape G thereon and tension is applied to the two connected portions in their general planes as indicated by the arrows in FIGURES 1 and 2, the fastener tape will be pulled taut between the innermost or left-hand line of stitches E' and the engaging point X of the hook fastener elements and eye fastener elements without affecting the outer edges of the portion D' and

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the hook fastener tape, due to the slack or fullness Z in the portion D', as shown in FIGURES 1 and 2. No tension is applied to the corresponding edges of the portion D' and the fastener tape at Y so that there is no tendency for said edges to be pulled away from the edge of the portion H'. Thus the connected portions D' and H' appear substantially as shown in FIGURES 1 and 2 with the edges of the two portions disposed smoothly in substantially a common plane with no gaps between them such as appear at I in the old prior art structure illustrated in FIGURES 3 and 4. It will be understood that the extent of the slackness or fullness has been shown in an exaggerated manner in FIGURE 2 for the sake of clarity.

The stitching operation may be performed in any suitable manner but a preferred method and apparatus for performing the stitching operation is described and claimed in our copending application, Serial No. 46,610, filed August 4, 1960.

Various uses of the invention and modifications in the form of the stitching will occur to those skilled in the art as within the spirit and scope of the invention.

We claim:

A flexible needle-penetrable article having sewed thereon with one side thereof in abutting relation to one side of the article, a flexible needle-penetrable fastener strip having one longitudinal edge coincident with a longitudinal edge of the article and also having at least one hook fastener element secured thereto whose bill projects from

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and is in spaced relation to the other side of said fastener strip for connection to an eye fastener element secured on another article adjacent an edge thereof, and parallel lines of stitches running longitudinally of and penetrating all of the layers of said strip and said article at opposite sides of said hook fastener element, the width of the zone of said article between said lines of stitches being greater than the width of the zone of said fastener strip between said lines of stitches so as to form a slackness in the zone of said article between said lines of stitches, providing, when said hook of one article is connected to said eye of the other article upon exertion of tension on the connected articles in directions tending to separate them in their own planes, for transmission of strains incident to said tension to the point of engagement of said hook fastener element and said eye fastener element prior to the imposition of tension on said edges of the first-mentioned article and the fastener strip to thereby prevent said edges of the hook-bearing article from being pulled upwardly and away from the edge of the eye-bearing article.

References Cited in the file of this patent

UNITED STATES PATENTS

712,280	Famous	Oct. 28, 1902
791,471	Joseph et al.	June 6, 1905
1,960,218	Craig	May 22, 1934
2,166,092	Galloway	June 11, 1939
2,585,175	Rosenburg	Feb. 12, 1952