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TWISTABLE PLASTIC GARMENT STAY

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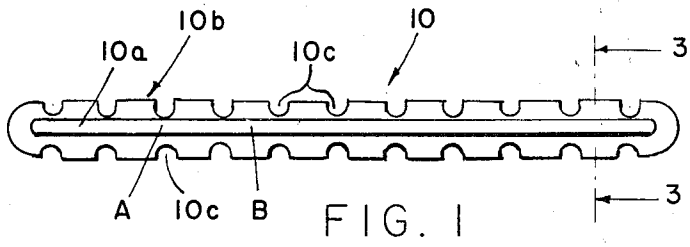


FIG. 1

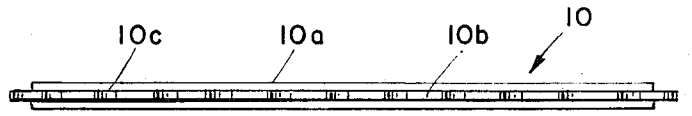


FIG. 2

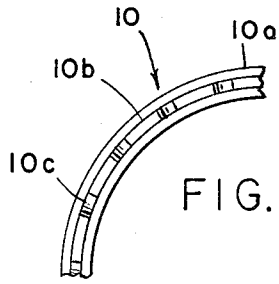


FIG. 4

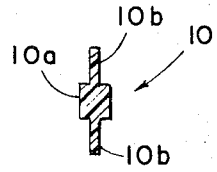


FIG. 3

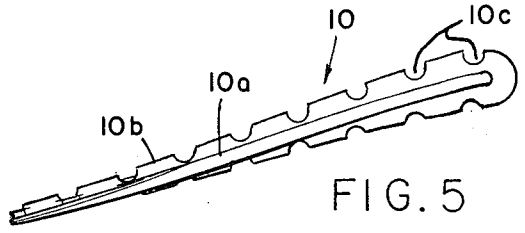


FIG. 5

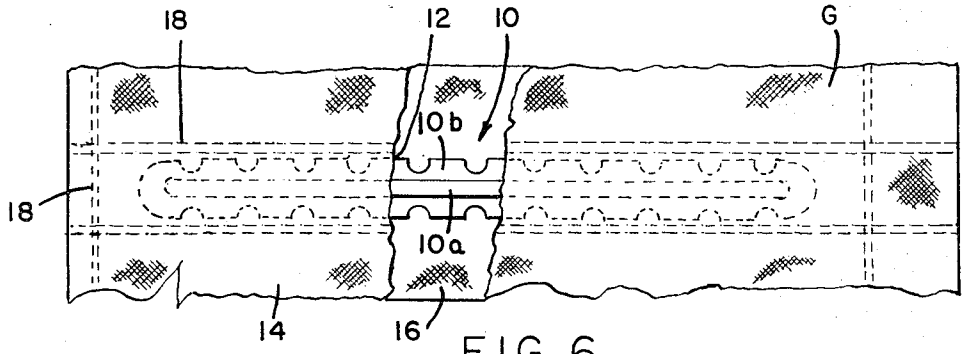


FIG. 6

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TWISTABLE PLASTIC GARMENT STAY

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U.S. Cl. 2—256 2 Claims

ABSTRACT OF THE DISCLOSURE

A plastic garment stay of the type confined in a pocket having a sufficiently thick, yet narrow central body portion to provide a desired controlled resistance to bending and twisting and an edging portion extending laterally therefrom of extent effective to minimize complete turning of the stap within the pocket but without inhibiting the partial turning or twisting thereof.

The present invention relates generally to garment stays, and more particularly to improvements in an injection molded plastic stay which, according to common practice, is confined in a pocket or enclosure and effectively serves as a garment stiffening or shaping member.

The use of garment stiffening or shaping stays is prevalent for a wide variety of garments, notably foundation garments. These stays are expected, during use of the garment, to offer a controlled degree of resistance to bending and twisting forces and yet have sufficient flexibility to withstand constant flexing without breaking. Moreover, it is also desirable to use a minimum amount of plastic for the stays in order that they can be economically mass produced. While presently known stays are generally satisfactory, there is no one known stay embodiment which meets all of the foregoing requirements and yet has a completely satisfactory performance. Exemplary of a typical shortcoming is a stay construction which to embody sufficient strength to withstand constant flexing is not fabricated of an optimum minimum volume of plastic and is therefore expensive.

A flexible or twistable plastic garment stay demonstrating objects and advantages of the present invention includes an elongated, strip-like central body of a sufficiently thick extent to offer the desired resistance to bending, yet comparatively narrow to minimize the volume of plastic required. Added to this narrowness, which ordinarily would contribute to undesirable complete twisting of the stay within its confining pocket, is the additional dimension of a laterally extending edging portion appropriately notched so as not to inhibit partial twisting of the stay while preventing, as just noted, the complete twisting thereof.

The above brief description, as well as further objects, features and advantages of the present invention, will be more fully appreciated by reference to the following detailed description of a presently preferred, but nonetheless illustrative embodiment in accordance with the present invention, when taken in conjunction with the accompanying drawings, wherein:

FIG. 1 is a plan view of a plastic garment stay according to the present invention;

FIG. 2 is a front elevational view of the stay showing further structural features thereof;

FIG. 3 is a side elevational view, in section taken on line 3—3 of FIG. 1, illustrating additional structural features thereof;

FIG. 4 is a partial view of the stay similar to FIG. 2 but illustrating the bending of the stay through a radius of curvature;

FIG. 5 is a perspective view of the stay somewhat similar to FIG. 1, but illustrating the partial twisting of the stay about its longitudinal axis; and

FIG. 6 is a plan view illustrating the stay in its operative position within a confining garment pocket, portions of the fabric being broken away to illustrate internal structural features.

Reference is now made to the drawings wherein there is shown a plastic garment stay, generally designated **10**, of the type which, as clearly illustrated in FIG. 5, is used as a garment stiffening or shaping member and, to this end, is usually confined in a pocket enclosure **12** in an interposed position between two plys of fabric **14, 16**. As generally understood, the pocket enclosure **12** is formed by peripheral stitching **18**. Also as is generally understood during wearing of the garment G, which may be a foundation garment or the like, the stay **10** is naturally subjected to flexing and bending forces due to movement of the wearer. While offering a controlled degree of resistance to bending and flexing it is important that the stay **10** does not completely turn or twist one hundred eighty degrees within the confined pocket enclosure **12** since such stay movement may result in discomfort to the wearer. Yet, partial twisting or turning of the stay **10**, in other words twisting or turning to a lesser extent than one hundred eighty degrees, is a degree of movement which the stay **10** must have in order to yieldingly respond to the twisting and bending forces to which it is subjected. Without this resiliency, the plastic stay would soon break.

Referring now to the structural details of the plastic stay **10**, as clearly illustrated in the drawings the same includes an elongated, centrally located strip-like body **10*a*** which will be understood to be fabricated of polyethylene or other such plastic by the injection molding process. The central strip **10*a*** is the thickest portion of the stay, in a preferred embodiment being approximately 1/16 of an inch thick and also 1/16 of an inch wide or approximately one-fourth of the transverse extent of the stay receiving pocket (note FIG. 6). This thickness of plastic has been found adequate to enable the stay **10** to offer the required degree or amount of resistance to bending or twisting necessary to achieve its function as a garment-shaping member. The comparatively narrow width or transverse extent of the strip **10*a***, however, contributes to the previously noted undesirable tendency towards complete twisting or turning of the stay within the enclosure **12**, but this is substantially minimized and for all practical purposes avoided by the additional noteworthy structural features of the stay **10** now to be fully described.

As clearly illustrated in the drawings, a comparatively thin edging portion, generally designated **10*b***, is molded as an integral part of the strip **10*a*** so as to extend laterally therefrom from a central location about the periphery of the strip **10*a***. This, in an obvious manner, substantially increases the overall transverse extent of the stay to a degree which, in an obvious manner, minimizes the complete twisting thereof through a one hundred eighty degree turn within the enclosed pocket **12**.

Apart from fabricating the edging portion **10*b*** as a comparatively thin, lateral extension of the strip **10*a*** such as is clearly illustrated in FIG. 2, the edging portion in a preferred embodiment does not exceed half the thickness of the strip **10*a*** and thus is sufficiently thin to contribute to the ability of the stay **10** to partake of partial twisting or turning movement. This movement is additionally facilitated by the provision in the edging portion of inwardly extending notches or voids, individually and collectively designated **10*c***, spaced longitudinally along opposite sides of the edging portion **10*b***. As a consequence, at each location of alignment of opposing notches **10*c***, such as for example at the location A of FIG. 1, the transverse extent of the plastic stay **10** is substantially the

transverse extent of the central strip **10***a* which, as already noted, is a comparatively narrow dimension which does not inhibit twisting or bending. On the other hand, at locations between the notches **10***c*, as at location B in FIG. 1, the overall transverse extent of the plastic stay **10** is that of the strip **10***a* plus that of the laterally extending edging portion **10***b* on opposite sides of the strip **10***a* which, also as already noted, is an overall transverse extent which minimizes complete twisting or turning of the stay **10** within an appropriate dimensioned enclosure or pocket **12**.

A latitude of modification, change and substitution is intended in the foregoing disclosure and in some instances some features of the invention will be employed without a corresponding use of other features.

What is claimed is:

1. In a garment having a stay receiving pocket of prescribed transverse extent, a twistable plastic garment stay having an operative enclosed position in said confining pocket of the garment, said stay comprising an elongated plastic body of a transverse extent which is approximately one-fourth that of said pocket and having a selected thickness sufficient to offer resistance to bending, and a comparatively thin edging portion extending laterally from a central location about the periphery of said body effective to provide an overall transverse extent to said stay which is approximately that of said pocket so as to minimize the complete twisting thereof within said pocket, said edging portion having notches in locations therein which are opposite each other and are spaced longitudinally therealong, to thereby promote partial twisting of the stay.

2. In the garment as defined in claim **1** wherein the thickness of said edging portion does not exceed half the thickness of said body.

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