Nov. 2, 1943. M. WALKER 2,333,603

WEIGHTING AND STIFFENING DEVICE

Filed Dec. 7, 1942

FIG_1

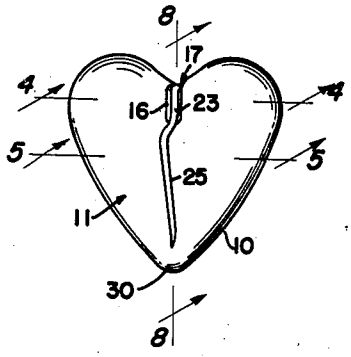
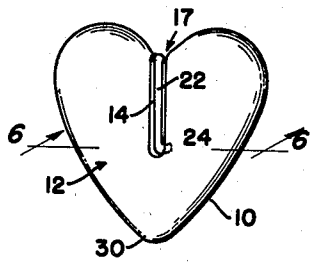


FIG_2



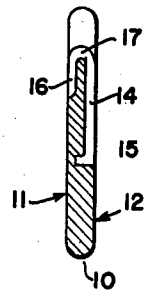


FIG_3

FIG_4

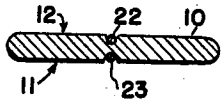


FIG_5

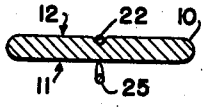


FIG_6

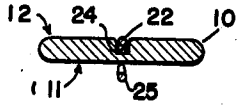
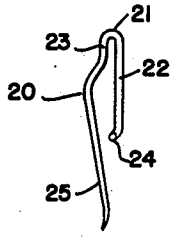


FIG_7



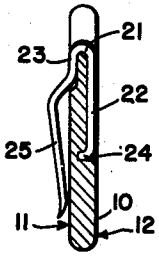


FIG_8

MATT WALKER
INVENTOR

BY Smith & Tuck
ATTORNEY

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WEIGHTING AND STIFFENING DEVICE

Matt Walker, Seattle, Wash.

Application December 7, 1942, Serial No. 468,124

3 Claims. (Cl. 2—132)

This invention relates to improvements in a weighting and stiffening device and more particularly pertains to a body having pin fastening means and for functional uses in weighting and for stiffening fabrics.

There is a need for a device that is readily attachable to fabric structures to simultaneously weight and stiffen the same. One such use pertains to men's collars, with particular reference to the points of such collars which, unless stiffly starched or reinforced, unattractively bend and curl in a manner to materially detract from an otherwise neat appearance. Many attempts have been made to provide anchors or stretching members for such purposes, but their use has been unsatisfactory, due to a rather unnaturally taut appearance that results. Other approaches to the problem have included the use of weights, detachable during laundering, which produce a fairly natural drape to the collar, but have elaborate fastening means that are bulky, difficult to attach, or do not lend themselves well to quantity production.

An important object of my invention is the provision of a weighting and stiffening device, for use in connection with collars, that does not destroy the natural drape of the collar and yet assures that the collar points lie against the shirt front.

Another object of the invention is to provide, in a device as described, means for attaching the same, which means is readily secured to the device as well as to the material on which the device is used, all without complicated structure, elaborate assembly steps, or requiring skill to use.

A further important object of my invention is the provision of a body having suspension means which is attached to the body formed by molding or casting operations and without the necessity of imbedding or otherwise rigidly securing the suspension elements together.

Another and further object of the invention is to provide, in an invention of the nature above set forth, of an anchoring pin for attachment to bodies, which pin can be formed and attached in a readly removable manner without requiring steps according to prior practices thought necessary.

The foregoing objects and others ancillary thereto I prefer to accomplish as follows:

According to a preferred form of my invention, I provide a pin body that is shaped to receive a pin for attaching the body to a fabric or other sheetlike base. Specifically, the pin body is provided with grooves on each of two opposed faces, each groove extending from the edge of the body to intermediate the area of one of the faces. One of the grooves has a socket formed in it for a purpose to be described. A clip of U-shape is provided with an inturned horn on one of the legs and a piercing pin on the other leg. The U-shaped clip is shaped of spring wire having a certain amount of tension to it. The legs of the clip are tensed to close toward each other. The leg with the horn on it is laid in the groove having the socket therein and the horn is inserted into the socket to retain the leg properly positioned. The other leg lies in the opposed groove on the other face of the body and the pin thereon lies alongside the body face and, by reason of the tension, a point is pressed toward said face. Since the two legs are pressed together, the horn is pressed at all times into the socket and the pin is similarly urged toward the body. In use the pin is inserted into a fabric, for example, so that the fabric lies between the pin and the body and the tension on the pin holds the body securely positioned on the fabric.

The novel features that I consider characteristic of my invention are set forth with particularity in the appended claims. The invention itself, however, both as to its organization and its method of operation, together with additional objects and advantages thereof, will best be understood from the following description of a specific embodiment when read in connection with the accompanying drawing, in which

Figure 1 is a rear view in perspective of my pin,

Figure 2 is a front view in perspective of my pin,

Figure 3 is a vertical sectional view through the body of my pin,

Figures 4, 5 and 6 are cross-sectional views taken on lines 4—4, 5—5 and 6—6 of Figures 1 and 2,

Figure 7 is an elevational view of the clip used in connection with my pin, and

Figure 8 is a vertical sectional view taken on line 8—8 of Figure 1.

Referring to the drawing, the body 10 of my pin is shown to be heart shaped in peripheral contour and to comprise a pair of opposed faces 11 and 12. In face 11, a groove 14 is formed. Socket 15 extends into the body below the depth of groove 14. On the opposed face 11 of the body is a second groove 16 that lies parallel to groove 14. Each groove extends from a point intermediate its related face to a point common with each groove on the edge of the body where there is a notch 17.

Clip 20 has a U-bent portion 21 from which extends the opposed legs 22 and 23. Leg 22, shown here to be slightly longer than leg 23, has a horn 24 that is inturned toward the other leg. Slightly off-set from leg 23 is the pin 25 that is pointed. The clip 20, being preferably formed of spring wire, is tensed so that the legs are normally urged toward each other.

The clip is assembled on the body so that the leg 22 lies in groove 14 with the horn 24 seated in socket 15. Similarly, leg 23 lies in groove 16 with the intermediate U-bend 21 resting in the notch 17. In this position the pin portion 25 from its offset joinder with leg 23 converges with face 11 of the body where it is under constant pressure due to the urgence of its spring. The tip of pin 25 is slightly upturned at the point to facilitate the entry of the pin into a fabric. The resilience of the clip maintains the horn seated in the socket 15 while the sides of the notch 17, which receives the U-bend portion, prevent twisting of the clip with respect to body.

One important construction of my invention is a body formed of a plastics base by injection molding according to the conventional practices. By this practice the grooves 14 and 16, the socket 15, and the notch 17 are all sharply and clearly defined in the opposed faces of the body so that when the elements of the clip are brought into couple therewith, the clip fits tightly, is securely retained and is held in proper position at all times.

One use of the pin of this invention is as a weight and stiffener for collar points, in which case the point of pin 25 is inserted through the rear or under layer of a collar to bring face 11 against the exposed face of that collar layer. Usually the pin is inserted from the top down so that the pointed end 30 of the body lies behind the usual point of the collar. In this position the collar tip is drawn toward face 11 and is stiffened and also weighted to present a neat and orderly draped appearance.

It will be obvious that the present pin is useful for other purposes where weight is desired or where a stiffening effect is wanted, such as in weighting curtains or similar sheet material.

Although I have shown and described certain specific embodiments of my invention, I am fully aware that many modifications thereof are possible. My invention, therefore, is not to be restricted except insofar as is necessitated by the prior art and by the spirit of the appended claims.

I claim:

1. A pin, comprising: a body having a socket therein and a groove extending from said socket to an edge of the body, a wire clip having a U-bend fitted to said body so that the U-bend straddles the edge thereof, a leg extending from said U-bend and lying in the groove, a horn on said leg and inserted in said socket, a pointed second leg extending from said U-bend in opposition to the first mentioned leg.

2. A pin, comprising: a body having a socket therein and a groove extending from said socket to an edge of the body, said body having a groove parallel to said first mentioned groove on an opposed face, a clip having a U-bend and opposed legs extending therefrom, said clip being astraddle the body so that the legs lie in the parallel grooves, a horn on one of said legs inserted in the socket, and a spring pin on the other of said legs tensed toward the body and lying contiguous thereto.

3. A pin, comprising: a body having opposed faces, one of said faces having a groove extending from an intermediate point to one edge, said body having a socket in the groove, its opposed face of said body having a second groove in alignment with the first mentioned groove and extending to the edge of the body from a point intermediate the socket location and the edge, a wire clip having a U-bend and parallel legs extending from said bend, said clip being mounted on said body so that the U-bend straddles the edge of the body and the legs lie in the parallel opposed grooves, a horn on one leg and inserted in the socket, and a pointed spring pin on the other leg tensed toward the body and lying contiguous thereto to be inserted in fabric or the like to retain the body thereon.

MATT WALKER.