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STRAPLESS SUPPORTER OR SHIELD

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Fig. 1



Fig. 2

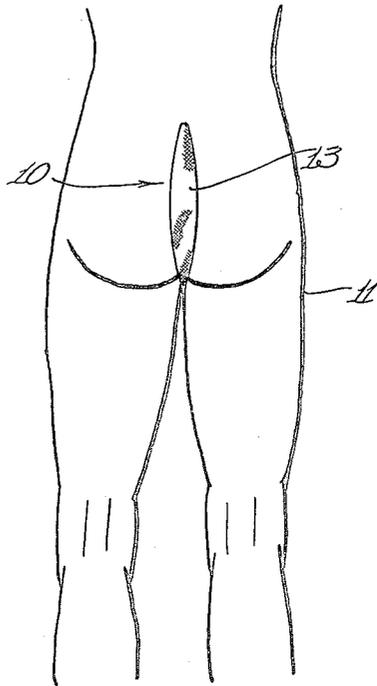


Fig. 3

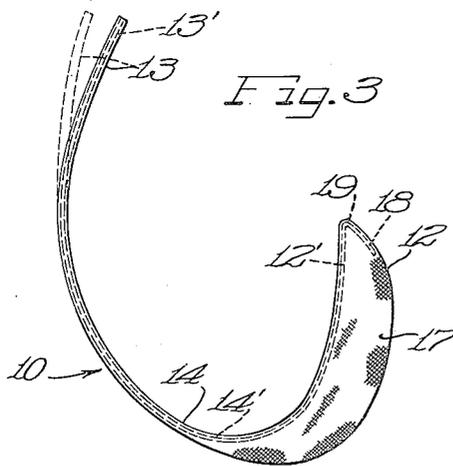
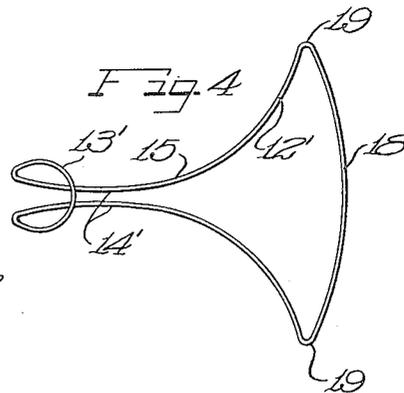


Fig. 4



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## STRAPLESS SUPPORTER OR SHIELD

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7 Claims. (Cl. 128—132)

1

The present invention relates to improvements in garments of the supporter or shield type and more particularly concerns a novel strapless supporter or shield.

Dancers, artists' models, and more particularly male models, and athletes have been substantially inconvenienced heretofore by the body or limb encircling straps, ties or cords that have been associated with the supporters or shields they have been required to wear.

In the case of those persons who have necessarily to be muscularly active while wearing the supporter or shield, there has been an undesirable restriction or impairment of movement or uncomfortable binding or chafing by the supporting straps. On the other hand, with respect to artists' models the supporting straps or strings have undesirably deformed the contours of the hips over which they have of necessity passed and being thus objectionable to the artists.

An important object of the present invention is to provide a strapless supporter or shield. Another object of the invention is to provide a supporter or shield that is self-retaining by engagement anteriorly with the pubic prominence and posteriorly with the sacral prominence and without the use of any supporting straps or strings.

A further object of the invention is to provide a strapless supporter or shield which is readily adaptable and self-adjustable with respect to the body of the wearer when being applied and also responsive to bodily movements while being worn.

Still another object of the invention is to provide a strapless supporter or shield of relatively simple and inexpensive construction.

Other objects, features and advantages of the present invention will be readily apparent from the following detailed description of a preferred embodiment thereof taken in conjunction with the accompanying drawings, in which:

Figure 1 is a fragmentary front elevational view of a human figure showing a strapless supporter or shield according to the present invention applied thereto;

Figure 2 is a rear elevational view of the human figure and the supporter or shield;

Figure 3 is an enlarged side elevational view of the supporter or shield; and

Figure 4 is a top plan view of the frame of the supporter or shield.

A strapless supporter or shield 10 according to the present invention is adapted to be worn as indicated in Figures 1 and 2 which disclose in fragmentary illustration a male figure 11, by engaging an anterior supporting pouch or shield

2

portion 12 over the pubis and a posterior portion 13 over the sacrum, while a narrow connecting portion 14 extends between the anterior and posterior portions within the crotch of the wearer. The anterior portion 12, as best seen in Figs. 1 and 3, is formed as a shield or supporting pouch.

Having more particular regard to details of structure of the supporter or shield 10, in a preferred form it comprises a resiliently flexible one piece frame 15 and a fabric covering 17 appropriately secured to the frame.

The frame 15 is constructed and shaped to afford a resiliently flexible structure generally conforming to and resiliently adaptable for snug engagement with the lower end of the torso. For this purpose an anterior portion 12' of the frame comprises generally diverging appropriately curved forward crotch and lower groin-engaging side portions joining with a pubis-engaging bar 18 appropriately curved to engage upon the pubic prominence. The anterior side portions and the cross bar 18 of the frame have laterally and upwardly extending converging wing-like junctures 19 adapted to engage at the sides of the pubic prominence and conforming generally to the groin contour in this region. It will thus be observed that the anterior portion 12' of the frame is so constructed and arranged that engagement thereof over the pubis is quite ample for the intended purpose and nevertheless avoids engaging any major muscular mass which might be resisted or impaired in its movements during physical activity of the wearer.

The posterior portion of the frame comprises an elongated loop 13' of appropriately curved plane to make positive but comfortable engagement over the sacrum. The width and position of the posterior loop portion 13' is such that the sacral prominence is substantially encircled to thus provide an effective posterior anchorage for the frame.

The connecting crotch portion of the frame is provided by closely adjacent frame strand portions 14' appropriately curved to follow the normal crotch folds. By reason of their length, the connecting strands 14' of the frame are relatively resiliently flexible so as to be readily adaptable to the torsal portions engaged and to permit of certain desirable relative flexure movement between the anterior and posterior portions of the frame. In fact, the connecting strand portions 14' serve in the nature of springs enabling the anterior and posterior portions of the frame to be sprung apart to the extent necessary for con-

veniently applying the supporter or shield in place and then to draw the anterior and posterior portions toward one another to effect a satisfactory clamping or gripping engagement with the respective pubic and sacral prominences. To enhance the retaining cooperation between the anterior and posterior portions of the frame, they are initially or normally disposed in more closely spaced relation than when on the wearer so that a tensioned gripping relation will necessarily result when applied to the wearer, the posterior portion being sprung rearwardly substantially as indicated in Figure 3 from the full line position to the dash line position. When viewed inside elevation, of course, the posterior portion of the device is at a higher position than the anterior portion as necessitated by anatomical requirements.

The fabric covering 17 is preferably secured over the entire frame although it is evident that it could be secured merely to the anterior portion of the frame to provide a pouch or shield. However, it has been found that certain advantages are inherent in having the covering over the entire frame since in that manner the front portion of the covering is maintained under tension or taut by the rear portion and the likelihood of the front portion of the covering slipping and becoming loose on the frame is avoided.

It will be understood, of course, that instead of fabric, the frame may be covered, especially in the anterior portion thereof with a suitable plastic material. Also, if preferred the entire anterior portion of the device may be formed as a metal or plastic panel and the posterior portion of wire or also of sheet metal or plastic, or the entire device may for suitable purposes be made of one piece plastic or sheet metal construction. The material of the frame may be either metal or plastic, as preferred.

It will be understood that modifications and variations may be effected without departing from the scope of the novel concepts of the present invention.

I claim as my invention:

1. A strapless supporter or shield having an anterior supporting or shield portion and a posterior portion, said anterior and posterior portions being connected by a crotch-engaging portion maintaining the anterior and posterior portions in operative relation to engage respectively the pubic and sacral prominences of a wearer, said anterior portion having side margins arranged to conform huggingly to the groin contours of the wearer and being relatively movable to one another so as to maintain the contour hugging relationship for adaptation to muscular movements of the wearer.

2. A strapless supporter or shield having an anterior supporting or shield portion and a posterior portion, said anterior and posterior portions being connected by a crotch-engaging portion maintaining the anterior and posterior portions in operative relation to engage respectively the pubic and sacral prominences of a wearer, said anterior portion having side contours arcuately shaped to follow the groin contours at the sides of the pubic prominence of the wearer.

3. A strapless supporter or shield having an anterior supporting or shield portion and a posterior portion, said anterior and posterior portions being connected by a crotch-engaging portion maintaining the anterior and posterior por-

tions in operative relation to engage respectively the pubic and sacral prominences of a wearer, the upper end of the anterior portion being bounded to extend across the top of the pubic prominence and terminating at opposite sides in wing-like side portions engaging with the sides of the pubic prominence.

4. In combination in a strapless supporter or shield, a one piece resilient frame comprising side strands and closed loop anterior and posterior portions, and a covering carried by the frame, the side strands of the frame being shaped to follow the crotch and lower groin folds of a wearer and the anterior loop portion comprising a cross bar contoured to engage over the pubic prominence of the wearer and joining the side strands at upwardly and laterally wing-like junctures engageable with the sides of the pubic prominence, the posterior loop being elongated to engage about the sacral prominence of the wearer.

5. In combination in a strapless supporter or shield, a one piece resilient frame comprising side strands and closed loop anterior and posterior portions, and a covering carried by the frame, the side strands of the frame being shaped to follow the crotch and lower groin folds of a wearer and the anterior loop portion comprising a cross bar contoured to engage over the pubic prominence of the wearer and joining the side strands at upwardly and laterally wing-like junctures engageable with the sides of the pubic prominence, the posterior loop being elongated to engage about the sacral prominence of the wearer, said side strands being flexible in the crotch-engaging portions thereof for resilient adaptation and adjustment of the anterior and posterior portions with respect to the wearer's anatomy.

6. A strapless supporter or shield comprising a frame having an anterior supporting or shield loop portion and a posterior loop portion, said anterior and posterior loop portions being connected by separate frame side portions providing a crotch-engaging portion maintaining the anterior and posterior loop portions in operative relation to engage respectively the pubic and sacral prominences of a wearer, the anterior and posterior loop portions being normally in more closely spaced relation than when worn so that they are necessarily placed under gripping tension when applied to the wearer, and a covering carried by said frame and covering all portions of the frame.

7. In combination in a strapless supporter or shield, a one piece generally arcuate resilient wire frame including an anterior pubic prominence-engaging and shield loop portion and a posterior sacral prominence-engaging loop portion and co-extensive strands providing a crotch-engaging connecting portion, and a covering carried by at least said shield loop portion of the frame.

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