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SHIELD FOR SANITARY NAPKINS

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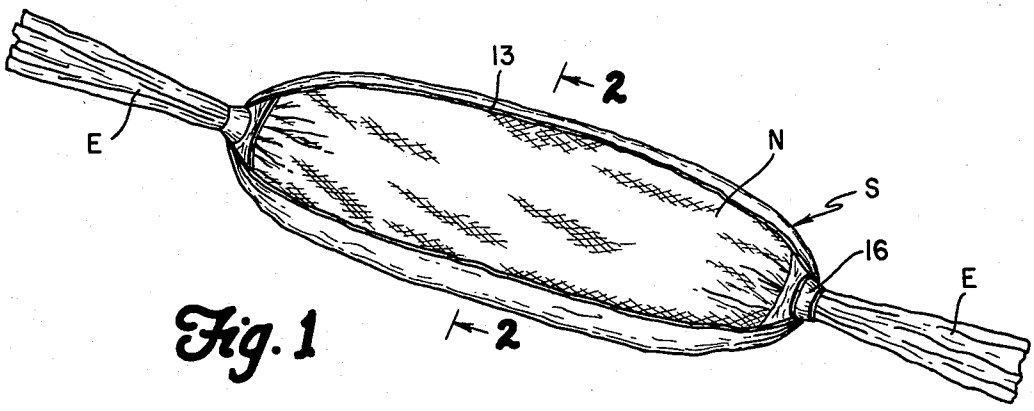


Fig. 1

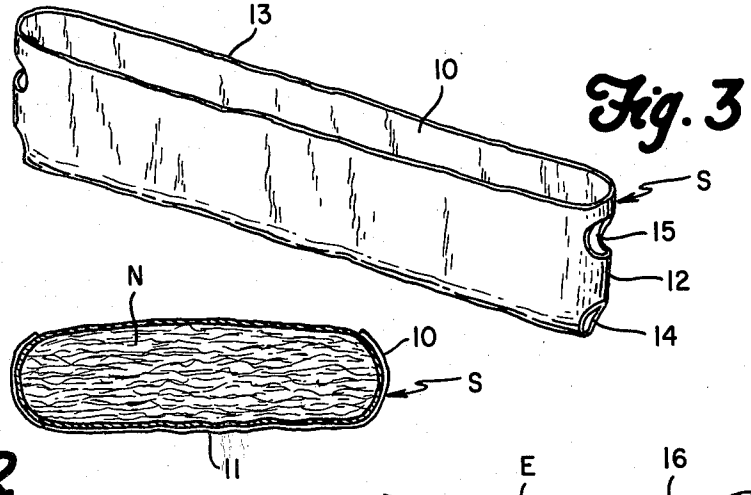


Fig. 3

Fig. 2

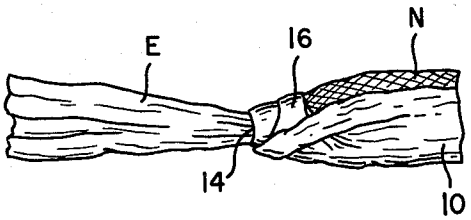


Fig. 5

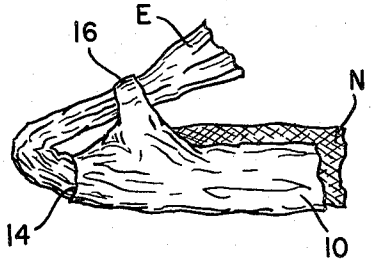


Fig. 4

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SHIELD FOR SANITARY NAPKINS

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This invention relates to shields for use with sanitary napkins, but more particularly to a pliable, moisture-proof shield or cover adapted to be attached to a sanitary napkin, bandage or the like and to be entirely supported thereon and disposable therewith.

Several protective undergarments, appliances, shields and covers have been devised to prevent escapement of excess fluid from a sanitary napkin to adjacent garments and the body of the wearer. However, these protective devices are primarily designed to be used over and over many times and, therefore, require washing and drying operations after each use. These reusable devices require the possession of at least two such appliances so that one can be worn while the other is being washed and dried. Also many of these devices are unduly bulky, causing discomfort to the wearer in the form of chafing and excessive perspiration.

An object of this invention is to produce an efficient, pliable and moisture-proof shield or cover for sanitary napkins which, because of its design, is sufficiently economical to manufacture so as to permit disposal of the shield along with the soiled napkin, thus eliminating the need for washing and drying operations.

Another object is to produce a disposable shield for sanitary napkins which can be quickly and easily attached to the napkin and becomes an integral part thereof without the use of pins or fasteners of any kind, said shield being entirely supported by the napkin which, in turn, is securely held in place on the body by the use of a conventional napkin support belt.

A further object is to produce a disposable shield for sanitary napkins which, when attached thereto entirely and securely envelopes all but the upper surface of the napkin, thus eliminating all possibility of fluid leakage from the napkin to adjacent clothing and the body.

A still further object is to produce a disposable shield for sanitary napkins which presents a minimum of exposed shield material to the body—actually no larger than the napkin—thus reducing chafing and perspiration to a minimum.

Other objects and advantages of the invention will hereinafter appear, and for purposes of illustration, but not of limitation, an embodiment of the invention is shown on the accompanying drawings, in which

FIGURE 1 is a top elevation of a sanitary napkin and enclosed by a shield;

FIGURE 2 is an enlarged sectional view substantially on the line 2—2 of FIGURE 1;

FIGURE 3 is a top perspective view of the shield;

FIGURE 4 is a fragmentary view in side elevation of one end of the assembly, showing the manner in which the straps of the sanitary napkin are threaded through the holes in the shield; and

FIGURE 5 is a view similar to FIGURE 4 but showing the completion of the strap threading and the position of the shield in position of use.

The illustrated embodiment of the invention comprises a shield S for enveloping a sanitary napkin N except for the top thereof, the sanitary napkin comprising an elongate relatively flat body of absorbent material being covered by gauze-like material, the ends of which are gathered to provide straps E at opposite ends for attachment for example to a supporting belt.

The shield S is a one-piece structure and is preferably made of relatively thin light-weight, moisture-proof, flexible material, such as polyethylene film. It is in the form of a pouch slightly longer and wider than the sanitary napkin S. As shown, it comprises a pair of flat parallel side panels **10**, a bottom wall **11**, end walls **12** and an open top **13**. Formed in each end wall is an aperture **14** closely juxtaposed to the bottom wall **11** and an aperture **15** near the free edge of the end wall but spaced therefrom sufficiently to form a constricting band **16**. In practice it is preferable that the aperture **15** be somewhat larger than the aperture **14**.

In use, the body of the napkin N is inserted in the pouch of the shield. Then the straps E are successively threaded outwardly through the respective lower apertures **14** and then by a reverse or inward motion, the straps are inserted through the respective upper apertures **15**. Both straps are pulled firmly in an outward direction which draws the portions surrounding the lower hole either through or against the edge of the hole **15** as shown in FIGURE 5, depending upon the relative size of these holes. Such outward pull on the straps E places the constricting bands **16** on the under sides of the straps E. A gentle pull exerted on the straps E, after being properly threaded through the holes in the shield, imparts a constricting force on the free edges of the side panels **10** of the pouch, causing these side panels intimately throughout their length to envelope and press lightly against the sides and the adjacent top portions of the sanitary napkin in a snug, wrinkle-free fashion. Thus the unique manner by which the straps are threaded through the apertures in the shield S results in the desired envelopment of the napkin automatically, presenting smooth, wrinkle-free surfaces to the wearer for militating against chafing and providing an effective barrier against the escape of moisture.

The shield S can be readily produced in large quantities at an extremely low cost due to the simplicity of design and choice of materials so that it is disposable after a single use. Its application to the sanitary napkin N can be accomplished easily and quickly and requires no particular training. In view of its lightness in weight, its smooth texture and its flexibility and absence from wrinkles, the shield is found decidedly comfortable to the wearer.

Numerous changes in details of construction, choice of materials and applications of use may be effected without departing from the spirit of the invention, especially as defined in the appended claims.

What I claim is:

1. A shield for sanitary napkins or the like comprising a unitary structure of relatively thin, flexible moisture-proof material having a pair of oppositely disposed flat side panels, the top and bottom edges of said side panels being substantially straight, parallel end walls joining the opposite ends of said side panels, said end walls being perpendicular to at least one of said top and bottom edges, there being an open top bounded by the top edges of the side panels and the end walls, there being a pair of apertures in each end wall, one being adjacent the lower or bottom end of each end wall and the other being spaced from the upper or free edge of each end wall, thereby providing constricting bands between the upper aperture and the free upper edge of the structure, whereby the straps of a sanitary napkin are threaded outwardly through the lower apertures, then inwardly through the upper apertures and then extended outwardly so that outward tension on the constricting bands imparts a pouch-like enveloping movement to the free edge portions of the side panels relative to the napkin.

2. A device of the class described comprising the combination of a pouch of thin, flexible, water-proof material having an elongate opening in the upper part and end

portions closed except for an opening near the bottom and an opening near the top but spaced therefrom a slight distance to provide constricting bands, said pouch having a pair of oppositely disposed flat side panels, the top and bottom edges of said side panels being substantially straight, parallel end walls joining the opposite ends of said side panels, said end walls being perpendicular to at least one of said top and bottom edges, there being an open top bounded by the top edges of the side panels and the end walls, a sanitary napkin having a body disposed in the pouch and exposed through said open top, and end straps, each end strap being first passed outwardly through

the lower opening, then inwardly through the upper opening and then outwardly over the constricting band so that a gentle pull on the straps causes the constricting bands to impart a pouch-like enveloping movement to the free edge portions of the side panels relative to a sanitary napkin.

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