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MOISTURE-PROOF SANITARY NAPKIN SHIELD

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FIG.-I

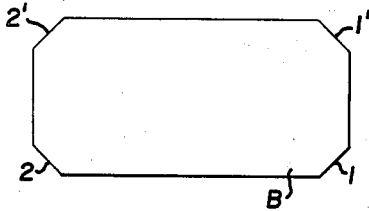


FIG.-II



FIG.-IV

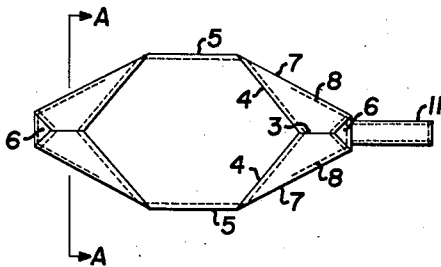
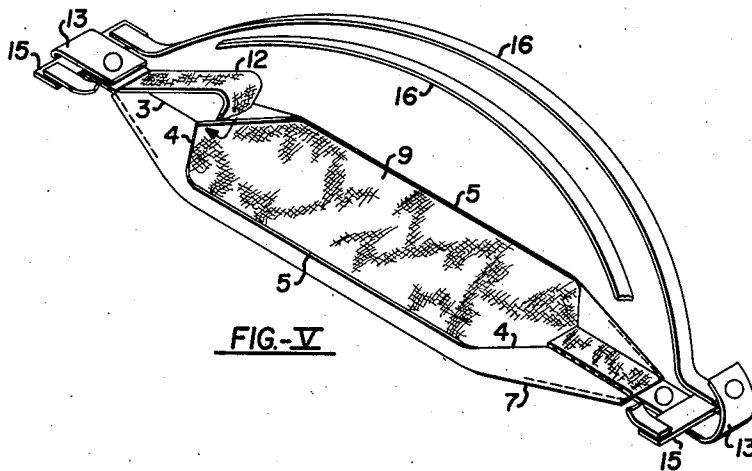


FIG.-III



FIG.-V



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MOISTURE-PROOF SANITARY NAPKIN SHIELD

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This invention relates to an improved moisture-proof sanitary napkin shield. It is more particularly concerned with a sanitary napkin shield of simple construction that provides effective protection, permits easy separation of the soiled napkin, and can be readily cleaned and quickly dried for reuse.

In brief compass, this invention proposes a moisture-proof sanitary napkin shield which comprises an elongated beveled cornered sheet of thin moisture-proof plastic material, the beveled corners at each end being joined together in an inwardly turned seam forming thereby an elongated casing characterized by elongated upright sides, an elongated V-ended top opening, and smaller triangular shaped end openings, the sheet being of predetermined size such that the casing formed therefrom will receive a conventional sanitary napkin.

In its simplest form, the shield of this invention in use encases a sanitary napkin with the tails or ties thereof extending through the triangular end openings of the shield, the ties being used to secure the shield and napkin firmly in position.

A commercial sanitary pad or napkin for women is usually formed of layers of absorbent fibrous material, such as cotton or some form of cellulosic material, enclosed in a loosely woven strip of cloth. The pads come in several different sizes. Such pads do not afford complete protection to the wearer, particularly when worn for an extended period of time as the menses may pass directly through the pad and stain the clothes before it is completely absorbed. Although waterproof shields have been previously proposed to increase the effectiveness of sanitary napkins, there has been a desideratum for one of simple construction, that is inexpensive, comfortable to use and easy to clean, while providing positive protection against staining.

This invention proposes a novel and effectively designed moisture-proof shield for sanitary napkins that meets this need. The sanitary napkin shield design of this invention provides a shield permitting ready insertion and removal of pads and easy cleaning for reuse. The shield firmly and evenly fits the sanitary pad even though there may be some shrinkage of the pad during use, and is not bulky or irritating to the user. It assures effective but flexible support of the napkin, and does not retain odors.

These and other features of this improved shield and the method of manufacturing it will become clear from the following description of the drawings attached to and forming a part of this specification wherein:

Figure I illustrates a blank of sheet plastic material from which the shield is formed.

Figures II and III are sectional end views of the shield illustrated in Figure IV, taken along section line A—A, and depict methods of forming the shield.

Figure IV shows a plan view of the fabricated shield in a flat position, not containing a sanitary napkin, and

Figure V illustrates a prospective view of the shield containing a conventional sanitary napkin, and further

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illustrates alternative embodiments of the invention as in combination with a support means for affixing it to the user.

In the simplest form of this invention, it is contemplated that tails of the sanitary napkin encased by the shield will serve as a means for fastening the shield and napkin to a sanitary belt or to the clothes of the wearer, as by safety pins. In certain preferred embodiments of the invention, however, simple tabs, snap tabs, elastic straps, etc. can be attached to the elongated ends of the shield to form support or fastening means. Although in its preferred form the shield is designed to accommodate one napkin of one size, it may be made to accommodate more than one napkin or to accommodate several sizes.

The shield can be made of any suitable thin moisture-proof plastic material such as vinyl plastic or similar commercially available soft sheet plastics. The material and thickness of the material is selected such that it is soft and pliable at body temperatures, but does not deform. Materials that stretch appreciably are not satisfactory, and more particularly rubber and rubber-coated materials are not satisfactory because they irritate or "burn" the skin of the user.

Referring to Figure I of the drawings, there is shown a beveled edge blank B of thin moisture-proof plastic material of predetermined size from which the shield is formed. To accommodate most sanitary napkins, the blank, before hemming the elongated edges, as described below, may range in length from about 8 to 12 inches, and in width from 4 to 7 inches, with beveled edges or corners (1, 1', 2, 2') of about 30° to 60°, preferably 45°, and 1 to 3 inches long, measured along the slant. Although it is not necessary, it is preferred to hem, as by sewing or by folding over and fastening with an adhesive, the elongated sides and the ends of the blank before forming the shield. In one embodiment of this invention, the hem on the elongated sides of the blank may be reinforced with a suitable reinforcing material such as plastic strips, cotton strings, or cloth cords, or be reinforced by double hemming. The hems may be 1/8 to 3/8 inch or more, preferably 1/4 inch, wide.

With reference now to Figures II and III, the shield is formed by bringing up and joining together the slanted or beveled edges at each end of the blank, i. e., edge 1 is joined with 1', and edge 2 with 2'. Preferably, the edges are joined to form an inwardly or downwardly turned seam 3 (Figure II) but may be simply overlapped (Figure III). To form the shield illustrated in Figure II, the beveled edges may simply be brought up together and stitched flat, the shield thereafter being turned "inside out" to arrive at the form illustrated.

Figure IV, along with Figure II, shows the form arrived at by joining the beveled edges. The edges at each end when joined form longitudinal seams 3, the original elongated sides of the blank being brought together to form inside slanted edges 4 and outside edges 5, and the original ends of the blank forming a triangular shaped end opening 6. Figure IV illustrates the shield, without a napkin, in the flat position, in which position it can conveniently be stored, being folded one or more times, and placed in a simple case, which also may be of the same plastic material as the shield.

As a further aid in prescribing the shape of the shield, particularly when laying flat, each of the folded outside slanted edges 7 of the shield are preferably at least partly joined, as by stitching 8, initiating at the triangular end openings.

The shield containing a sanitary napkin 9 is shown in Figure V. The ends of the napkin, in the simplest form of the invention, are pulled through the triangular end openings to form a fastening means for the combination,

The napkin is securely held in the shield by the wedging of the slanted sides 7. The thickness of the napkin causes sides 4 of the shield to shorten and draw up right outside edges 5, thereby securely encasing the napkin, and leaving an elongated V-ended top opening which is fitted against the body of the wearer in use. The legs of the wearer during use of the shield help keep the elongated sides of the napkin upright and around the napkin.

Figures IV and V also illustrate alternative embodiments of the invention. Instead of using the napkin tails as a means of support, a simple tab 11 (Fig. IV) can be attached to the end of shield and can be used to fasten the shield, as by safety pins, hooks, or snaps, to the clothes of the wearer or to a conventional sanitary belt. Preferably this tab is made of the same plastic material as the shield, and extends into and reinforces the ends of the shield. Alternatively the tabs, if desired, may be looped and adapted to receive a tie string or belt, and a snap fastener can be incorporated with the loop to permit ready opening. When a tab is used, the napkin tails can be simply tucked into the tapering ends of the shield, but preferably are brought out through the end openings, and tucked back around over the top of seam 3, as shown by napkin tail 12 in Figure V, as this makes the pad more comfortable.

Figure V depicts the shield of this invention encasing a sanitary napkin, in combination with a belt to support the shield. Snap loops 13 are affixed to each end of the shield, and are folded over and fastened as shown, enclosing short joining pieces 15. Elastic bands 16 of the proper length are joined to the ends of joining pieces 15 to form a suitable sanitary belt arrangement.

It should be understood that although it is preferred to stitch the hems and seams described above, they may be made by any suitable method, including the use of adhesives and/or heat.

Example

A moisture-proof shield, as shown by Figure IV, to fit a conventional large size sanitary napkin, was made by forming a blank out of commercially available thin vinyl sheet plastic having a length of 11 inches, a width of 5 inches, and 45° beveled corners, each 2 inches long. A ¼ inch wide hem was stitched on the elongated sides and end. The blank was then longitudinally folded and the beveled corners at each end were stitched together. The end stitched blank was then turned inside out and each of the tapering sides were stitched together for about ¾ of their length (approximately 2½ inches), initiating at the ends. A sanitary napkin was then inserted in the shield so formed, the tabs of the napkin

being pulled through the end openings. This shield was used on several occasions and was found to be comfortable, giving positive assurance against embarrassment and giving a sense of security and confidence. It was readily cleanable and easily reused and otherwise satisfactory even with heavy menstrual discharges.

It will be apparent that because the improved sanitary napkin shield of this invention is simply designed and made, it is inexpensive. It can then conveniently commercially be distributed as a sales promotional item or be included in boxes of sanitary napkins to induce purchasers. This shield will find particular use by those who have to undergo long trips or work during menstrual periods when a napkin must be worn for extended periods of time. It will also find use in hospitals wherein extremely heavy menstrual discharges may be encountered, and staining of the bed clothes is desirably avoided.

Having described this invention, what is sought to be protected by Letters Patent is succinctly set forth in the following claims.

What is claimed is:

1. A moisture-proof shield for sanitary napkins formed from an elongated moisture-proof thin plastic sheet of predetermined size, the corners of said sheet being cut at an angle to form slanted edges and the slanted edges at each end being permanently joined together in an elongated seam, thereby forming an elongated end tapering shield having a central opening in one side and smaller openings at each end, the folded tapering sides of said shield being at least partially joined to further prescribe the shape of the shield, particularly in a flat position.

2. A moisture-proof sanitary napkin shield which comprises an elongated beveled cornered sheet of thin moisture-proof plastic material, the beveled corners at each end being joined together in an inwardly turned seam forming thereby a casing characterized by elongated upright sides, an elongated V-ended top opening and smaller triangular shaped end openings, the folded outside slanted edges starting at said end openings being at least partially joined to further define the shape of the shield, said sheet being of predetermined size such that said casing will receive a conventional sanitary napkin.

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