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Hendricks

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[54] SANITARY NAPKIN

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[52] **U.S. Cl.** ..... **128/290 R**

[51] **Int. Cl.** **A61f 13/16**

[58] **Field of Search** ..... 128/290 R, 290 W, 296

[56] **References Cited**

UNITED STATES PATENTS

2,918,065	12/1959	L'Hommedieu et al.	128/290 W
3,454,008	7/1969	Hendricks	128/290 R
3,508,549	4/1970	Hendricks	128/290 R
3,575,175	4/1971	McGuire	128/290 R
3,595,237	7/1971	Sargent et al.	128/290 R

Primary Examiner—Charles F. Rosenbaum
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[57] **ABSTRACT**

A sanitary napkin having adhesive peel-off strips at the ends of the napkin for securing the napkin to an undergarment of a wearer. The peel-off strips with a pile or soft plastic surface finish are scored or cut to permit peel-off tabs on the garment side of an absorbent cover for the napkin to be removed by peeling toward the longitudinal center of the napkin. Thus, the napkin, whether in the form of a mini-pad or a regular size pad, is a relatively inconspicuous device that can be attached relatively indiscernibly to the undergarment of the wearer.

12 Claims, 6 Drawing Figures

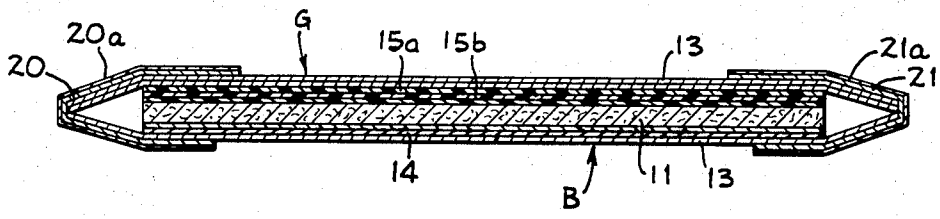


Fig_1

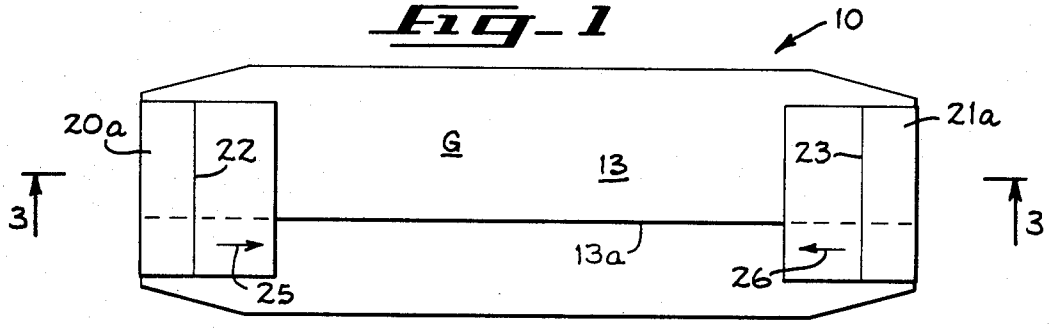
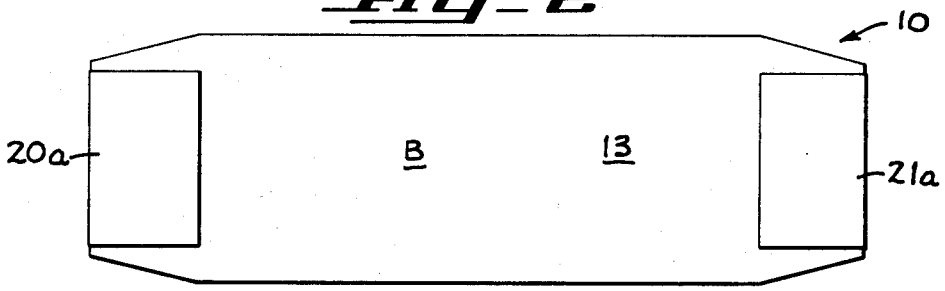


Fig_2



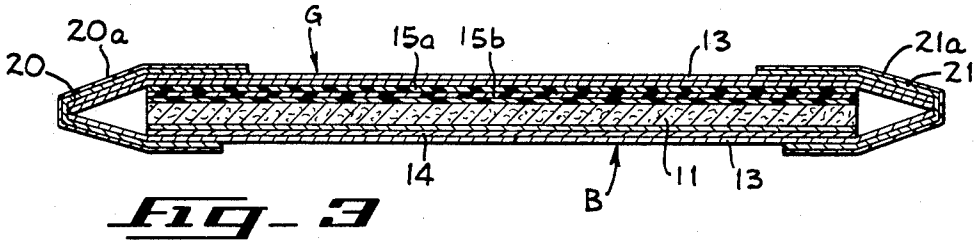


Fig_3

Fig_4

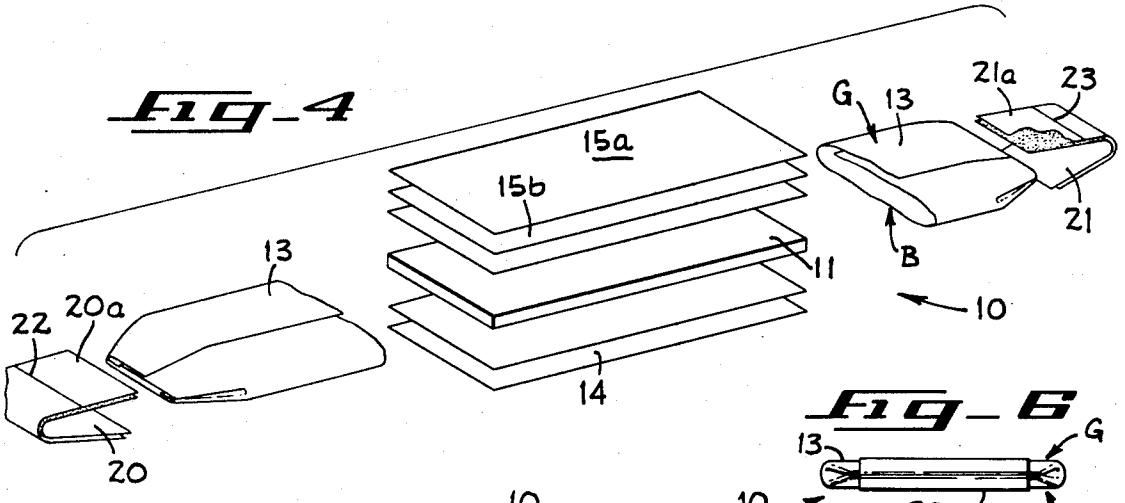


Fig_6

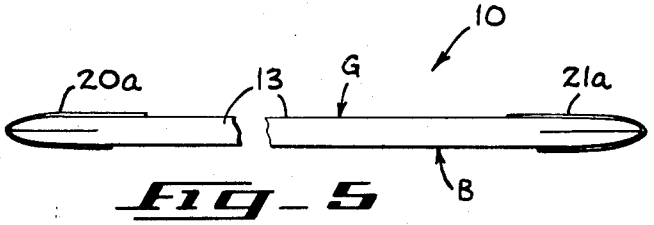


Fig_5

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SANITARY NAPKIN

BACKGROUND OF THE INVENTION

Adhesive tabs have been employed at the ends of sanitary napkins and panty shields as disclosed in the patents to Laurel A. Hendricks, U.S. Pat. Nos. 3,454,008, 3,463,154, and 3,508,549. Adhesive tabs have also been disposed along the center line of the napkin as disclosed in U.S. Pat. Nos. 2,295,016, 2,838,048 and along opposite longitudinal sides as disclosed in U.S. Pat. No. 3,315,677.

SUMMARY OF THE INVENTION

A sanitary napkin or the like in which peel-off adhesive strips are attached to the ends of the napkin to secure and seal the ends of the absorbent outer cover of the napkin. The peel-off strips are cut or scored at the garment side of the absorbent cover to permit peel-off of tabs on the garment side of the absorbent cover to be removed by peeling toward the longitudinal center of the napkin for permitting the attachment of the sanitary napkin to the undergarment of the wearer.

By virtue of the present invention, the sanitary napkin, mini-pad or the like provides a relatively inconspicuous device that can be attached relatively indiscernibly to the undergarment. The napkin is secured to the undergarment of the wearer so that the napkin is comfortable to the wearer and does not damage the undergarment. The sanitary napkin of the present invention is economical to manufacture, and can be produced and packaged with facility and ease of operation. The adhesive strips have either a soft cotton nap or plastic surface so as to reduce irritation to the skin of the wearer of the sanitary napkin.

DESCRIPTION OF THE DRAWINGS

FIG. 1 is a top view of the sanitary napkin embodying the present invention illustrating the garment contact portion of the sanitary napkin.

FIG. 2 is a bottom view of the sanitary napkin shown in FIG. 1 illustrating the body contact portion of the sanitary napkin.

FIG. 3 is a vertical sectional view taken along line 3—3 of FIG. 1.

FIG. 4 is a fragmentary exploded view of the sanitary napkin shown in FIGS. 1–3.

FIG. 5 is a side elevation view of the sanitary napkin shown in FIGS. 1–4.

FIG. 6 is an end elevation view of the sanitary napkin shown in FIGS. 1–5.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Illustrated in FIGS. 1–6 is the sanitary napkin 10 of the present invention which is caused to adhere to an inner surface of a panty or other suitable undergarment and is adapted to contact the body of a woman surrounding the vaginal area to absorb the discharge of the menses during menstrual period. While reference is made to a sanitary napkin, the inventive concept is equally applicable to mini-pads, panty shields and the like. In this regard, the device disclosed herein may also be employed at the beginning and at the end of the menstrual period and during periods of vaginal discharge.

The sanitary napkin 10 comprises a pad 11 of highly absorbent material, such as cotton gauze and tissue or a fluffy cotton filling. As shown in FIGS. 3 and 4, the sanitary napkin 10 is of a laminate construction and comprises a soft, highly absorbent cover 13, which preferably is made of rayon-cotton, light weight, nonwoven material. The cover 13 completely envelopes the sanitary napkin 10 in a wraparound manner and terminates in an overlapping longitudinal edge 13*a* at the garment contact side G (FIG. 1) of the sanitary napkin 10. The body contact side B (FIG. 2) of the cover 13 is smooth. In addition, the cover 13 extends outwardly at each end so that the free or terminal ends (FIG. 1) of the cover 13 are transversely disposed. In addition thereto, the free ends preferably have inverted side pleats as shown in FIGS. 5 and 6, or can be straight across especially in the minipad size. The cover 13 may also be of a relatively thin, absorbing, flexible material, such as cotton gauze. The absorbent gauze is sufficiently soft so as to be comfortable to the wearer and not irritate the skin. Yet, it is sufficiently strong so as not to wear away with contact.

Interposed between the body contact side B of the cover 13 and the pad 11 is a layer 14 of lightweight crepe-like or absorbent paper (FIGS. 3 and 4). Juxtaposed between the garment contact side G of the cover 13 and the pad 11 are layers 15*a*, and 15*b* of moisture barrier material, such as vinyl, polyethylene or combinations thereof (FIGS. 3 and 4). The layer may be of suitable absorbent material, such as tissue or cotton, which serves as a filler material for the laminated construction. The tissue filler material is very durable and yet highly absorbent. The layers of moisture barrier are liquid-repellent or moisture proof sheets which retain the liquid or menses discharged within the sanitary napkin 10 and prevent the same from soiling the undergarment of the wearer of the sanitary napkin 10. The moisture barrier layer and the filler tissue layer extend the full length of the sanitary napkin 10 and terminate at the extremities thereof contiguous with the terminal end flabs (FIG. 1) of the cover 13.

According to the present invention, pressure sensitive, adhesive strip 20 preferably has a soft cotton nap or a soft plastic surface to reduce irritation to the body of the wearer. The strip 20 begins on the body contact side B of the cover 13 and continues around the free end of the cover 13 and extends therebeyond to terminate on the garment side of G of the cover 13. In a like manner, a soft, cotton or soft plastic surfaced adhesive strip 21 is secured on the body contact side B of the cover 13 and extends therebeyond to cover the face of the cover 13 to terminate on the garment side G of the cover 13. Thus, the free or terminal ends as well as the overlapping edge 13a of the cover 13 are secured and sealed. Each adhesive strip 20 and 21 is preferably shorter on the body contact side than on the garment contact side.

The strips 20 and 21 are covered with peel-off sections or tabs 20*a* and 21*a*, respectively, so that initially the adhesive material is not exposed. The peel-off sections 20*a* and 20*b* begin at a scoring or cut lines 22 and 23, respectively, and extend in the direction of the arrows 25 and 26, respectively, (FIG. 1). It is to be observed that the peel-off sections 20*a* and 20*b* are on the

garment contact side G of the sanitary napkin **10**. The scoring or cut lines are located at or below the portion of the napkin where the filling ends and the free ends are aligned.

To use the sanitary napkin **10**, the peel-off sections or tabs **20***a* and **21***a* are removed by peeling toward the longitudinal center of the sanitary napkin **10** in the direction of the arrows **25** and **26**, respectively. After the peel-off taps **20***a* and **21***a* are removed, the napkin **10** is placed in the appropriate position and the fingers of the wearer cause the exposed adhesive of the strips **20** and **21** to contact the undergarment of the wearer, whereby the sanitary napkin **10** is secured to the undergarment of the wearer. More specifically, the non-adhesive tabs or backing **20***a* and **21***a* are removed to expose the adhesive on the strips **20** and **21**. Thereupon, the adhesive on the strips **20** and **21** are caused to adhere to the inner surface of the panty or other suitable undergarment so as to enable the body side B of the cover **13** to contact the body of the woman wearing the panty to surround the vaginal area of the user thereof and the garment contact side G of the cover **13** to be attached to the undergarment of the wearer.

While free ends are shown for the cover **13**, it is apparent that overlapping ends may be formed and secured by the adhesive strips.

I claim:

1. A sanitary napkin or the like comprising:

a. a pad;

b. a cover enveloping said pad, said cover being formed with a garment contact surface and a body contact surface, the ends of said cover extend freely; and

c. an adhesive strip at each end of said cover on the garment contact surface thereof, each of said adhesive strips having a peel-off tab for exposing adhesive material when said peel-off tabs are removed for attaching the garment contact surface of said cover to a garment through said adhesive strips, said adhesive strips begin from the body contact surface of said cover and continue over the respective free ends of said cover and terminate on the garment contact surface of said cover.

2. A sanitary napkin or the like as claimed in claim **1** wherein said peel-off tabs are removed in a direction toward the longitudinal center of the sanitary napkin.

3. A sanitary napkin as claimed in claim **2** wherein the free edges of the ends of said cover are disposed transversely across the garment contact surface of said cover and said peel-off tabs disposed over said free ends and are directed toward the longitudinal center of said sanitary napkin, said adhesive strips secure and seal said free ends.

4. A sanitary napkin or the like as claimed in claim **2** wherein one or more layers of moisture barrier material is disposed between said pad and said garment contact surface of said cover.

5. A sanitary napkin or the like as claimed in claim **4** wherein one or more layers of absorbent filler material is disposed between said pad and said body contact surface of said cover.

6. A sanitary napkin or the like as claimed in claim **5** wherein said cover is of gauze material.

7. A sanitary napkin or the like as claimed in claim **6** wherein said layer of absorbent filler is an absorbent paper.

8. A sanitary napkin or the like as claimed in claim **7** wherein said moisture barrier layer includes vinyl material.

9. A sanitary napkin or the like as claimed in claim **7** wherein said moisture barrier layer includes polyethylene material.

10. A sanitary napkin as claimed in claim **1** wherein said adhesive strip is made of a material of smooth finish so as to reduce irritation to the skin of the wearer.

11. A sanitary napkin as claimed in claim **1** wherein said free ends include inverted side pleats.

12. A sanitary napkin as claimed in claim **3** wherein said free ends include inverted side pleats.

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