

[54] **SANITARY NAPKIN**

[76] Inventor: **Joyce P. Cervantes**, 9815 C St.,  
Oakland, Calif. 94603

[22] Filed: **May 21, 1973**

[21] Appl. No.: **362,413**

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

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

[58] Field of Search ..... 128/286-287,  
128/289-291

[56] **References Cited**

**UNITED STATES PATENTS**

|           |         |                     |           |
|-----------|---------|---------------------|-----------|
| 1,967,859 | 7/1934  | Burns .....         | 128/290 R |
| 2,331,355 | 10/1943 | Strongson .....     | 128/290 R |
| 2,551,663 | 5/1951  | Fox .....           | 128/290 R |
| 2,731,014 | 1/1956  | Hollingsworth ..... | 128/290 R |
| 2,852,026 | 9/1958  | Karr .....          | 128/290 R |
| 3,364,931 | 1/1968  | Hirsch .....        | 128/290 R |

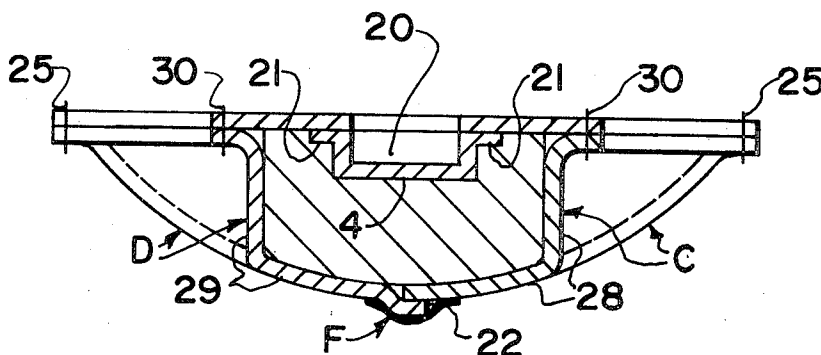
Primary Examiner—Charles F. Rosenbaum  
Attorney, Agent, or Firm—William R. Piper

[57]

**ABSTRACT**

My sanitary napkin has a filler of sponge rubber which is enclosed in a cover whose top piece covers the top of the filler and which has an elongated opening that registers with an elongated recess formed in the top of the filler. The bottom piece of the cover, which is treated with a waterproofing agent, is in two halves and the inner edges of these two halves overlap each other. The outer edges of both of the top and bottom pieces are stitched together so as to enclose the filler. A special liner covers the floor and side walls of the elongated recess in the top of the filler and this liner has tabs that are sewn to the undersurface of the top piece. The ends of the cover extend beyond the ends of the filler and are provided with snaps for attachment to a sanitary belt. The cover ends have transversely extending slots disposed near the ends of the filler and when the sanitary napkin is worn with panties, the outermost cover ends are looped back on themselves and inserted through the slots so as to underlie the napkin, and the snaps nearest the filler are used to attach the napkin to the panties.

**2 Claims, 8 Drawing Figures**



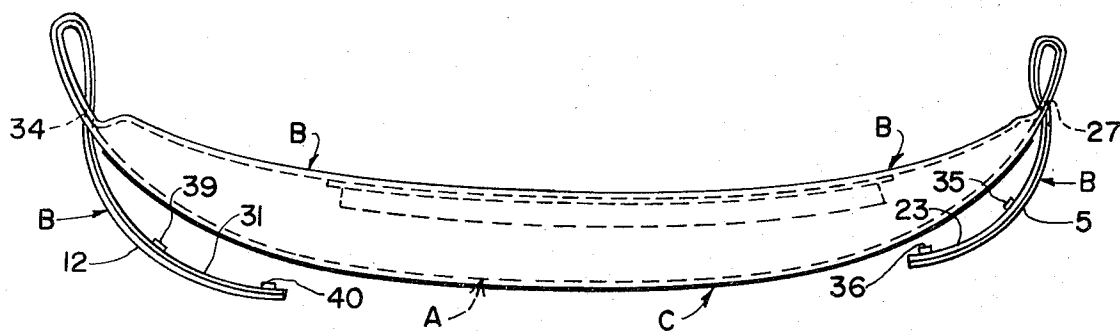


FIG.-1

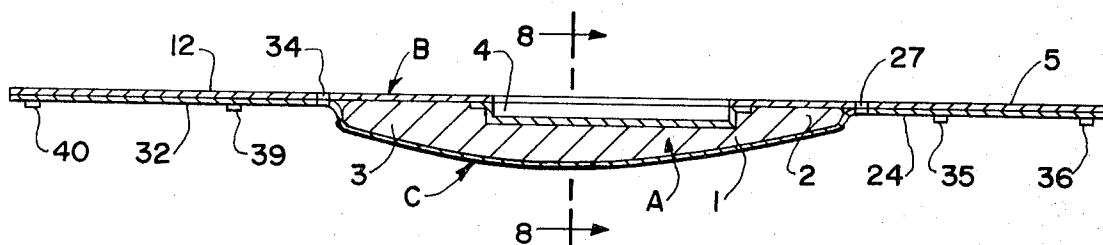


FIG.-2

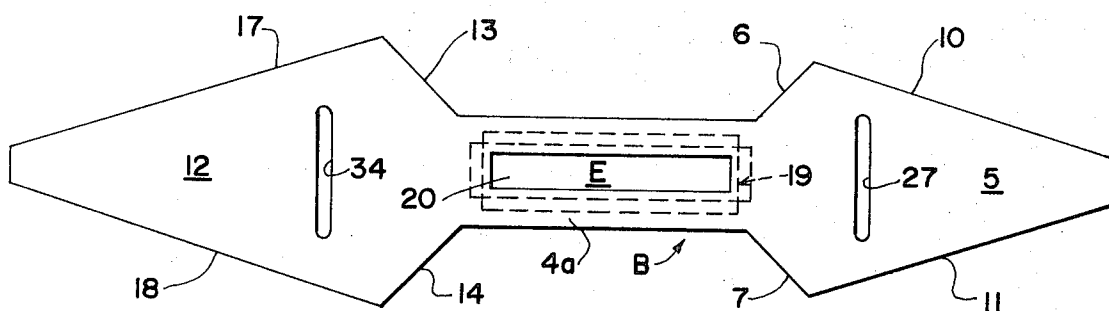


FIG.-3

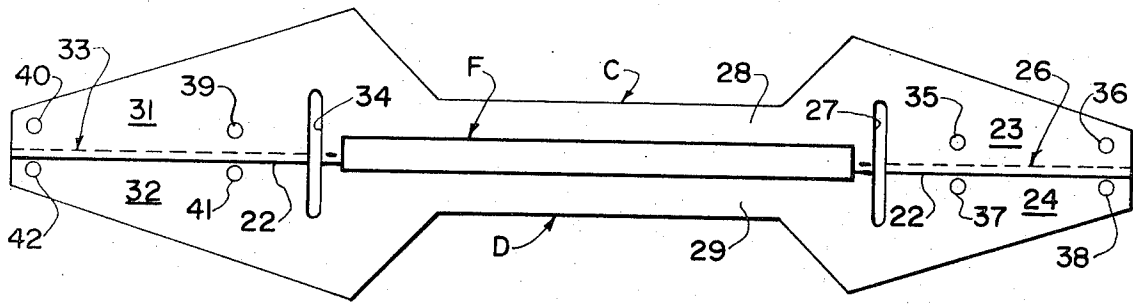


FIG.-4

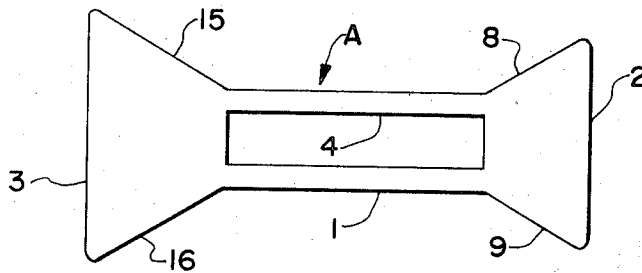


FIG.-5

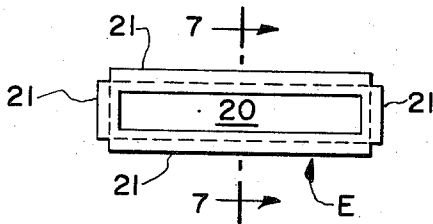


FIG.-6

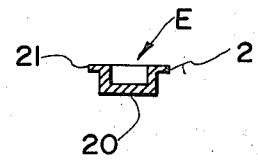


FIG.-7

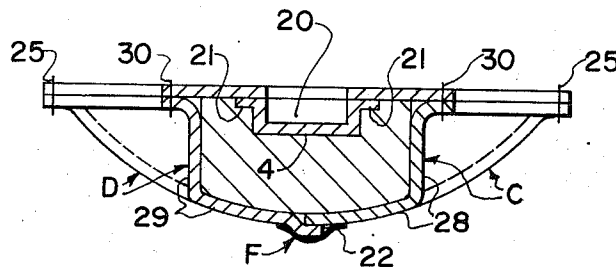


FIG.-8

## SANITARY NAPKIN

## BACKGROUND OF THE INVENTION

## 1. Field of the Invention

Sanitary napkins should be designed so as to be comfortable to the wearer and they should be absorbent. My sanitary napkin has a filler with a more narrow and thicker central portion and wider front and rear portions that are less thick. The cover encloses the filler and follows its contour.

## 2. Description of the Prior Art

The patent to Elizabeth Burns, U.S. Pat. No. 1,967,859, issued July 24, 1934, is for a catamenial pad and holder therefor in which the body is in the shape of a prism and it is made of sponge rubber. The body has a recess in which pieces of sea sponge are mounted. The top of the recess has a cover of sponge rubber with openings in it. The body and cover are then enclosed in a holder that covers the bottom and sides of the body but it does not cover the perforated top of the body.

The present invention differs from the patent in that the top piece of the cover has the elongated opening that registers with the elongated recess in the filler. Then the liner contacts the floor and side walls of the recess and it has tabs stitched to the underside of the top piece. A further difference lies in the fact that the filler in the present device has a more narrow and thicker central portion than the front or back portions and the cover is shaped so as to follow the same contours of the filler excepting that both ends of the cover are extended beyond the ends of the filler. Other differences between the two devices will be apparent when the details of the present invention are set forth.

## SUMMARY OF THE INVENTION

An object of my invention is to provide a sanitary napkin that has a filler shaped with a more narrow and thicker central portion and the front and rear portions being wider than the central portion, but less thick. A cover encloses the filler and follows its contours so that the device is more comfortable to wear, and the waterproof bottom piece of the cover offers further protection against spotting.

A further object of my invention is to provide a sponge filler that has an elongated recess in the top of the central portion thereof and to provide a cover wherein the top piece of the cover has an opening registering with the recess in the filler, with the cover opening being closed by a liner that conforms to the walls of the recess.

## BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a side elevation of the device and shows the ends of the cover which project beyond the ends of the filler, these cover ends are looped back on themselves and are inserted through transverse slots provided in the cover.

FIG. 2 is a longitudinal section through the device.

FIG. 3 is a plan view of the top piece of the cover.

FIG. 4 is a bottom plan of the bottom piece of the cover and illustrates how the bottom piece is formed from two halves whose adjacent edges overlap each other along the median line of the cover.

FIG. 5 is a top plan view of the sponge filler.

FIG. 6 is a top plan view of a liner used for lining the floor and walls of the elongated recess in the filler.

FIG. 7 is a transverse section taken along the line 7-7 of FIG. 6.

FIG. 8 is an elongated transverse section through the device and it is taken along the line 8-8 of FIG. 5.

## DESCRIPTION OF THE PREFERRED EMBODIMENT

In carrying out my invention, I will first describe the sponge filler shown in FIG. 5, and then will describe the cover for the filler which is shown in FIGS. 1 to 4 inclusive and in the enlarged cross sectional view of FIG. 8. The sponge filler A has a narrow middle portion 1, see FIG. 5, with a slightly wider, outwardly flared, front portion 2 and a considerably wider, outwardly flared, rear portion 3. A longitudinal section through the filler and cover is shown in FIG. 2 and it will be noted that the narrow middle portion 1 has more depth of material with the rear portion 3 tapering off to a lesser depth and, likewise, the front portion 2 tapering off to a still lesser depth of material. The central or mid-portion 1 of the filler A has a rectangularly shaped recess 4 provided in its upper surface.

The filler A is placed within an outer cover consisting of a top fabric piece B of the shape shown in plan view in FIG. 3, and a bottom portion formed from two halves C and D of the shape shown in the bottom plan view of FIG. 4. Referring to FIG. 3, it will be noted that the top fabric piece B has a narrow middle portion 4a that is as long as the middle portion 1 of the filler A, but is slightly wider so that the parallel side edges of the middle portion 4a of the top piece B will project beyond the sides of the mid-portion 1 of the filler in order that the side edges of the top cover piece B may be sewn to the adjacent side edges of the two bottom pieces C and D as will presently be described. The front portion 5 of the top piece B has outwardly flared edges 6 and 7 that extend forwardly from the mid-portion 4 and these edges overhang the outwardly extending sides 8 and 9, respectively, of the outwardly flared front portion 2 of the filler A, see FIG. 5. The front portion 5 of the top piece B then has inwardly extending edges 10 and 11 from the edges 6 and 7, respectively, for forming an elongated wedge-shaped tongue that extends beyond the outwardly flared front portion 2 of the filler A, see also FIG. 2.

The rear portion 12 of the top piece B has outwardly flared edges 13 and 14 that extend rearwardly from the mid-portion 4a and these edges overhang the outwardly extending sides 15 and 16, respectively, of the outwardly flared rear portion 3 of the filler A, see FIGS. 3 and 5. The rear portion 12 of the top piece B then has rearwardly and inwardly extending edges 17 and 18 from the edges 13 and 14, respectively, for forming an elongated wedge-shaped tongue that extends rearwardly beyond the rear edge of the outwardly flared rear portion 3 of the filler A. The mid-portion 4a of the top piece B has a rectangular opening 19 that is of the same size as the rectangular recess 4 in the filler and, therefore, the opening 19 will register with the recess 4 when the top piece B is placed down upon the top of the filler.

In FIGS. 6 and 7, I show a plan view and a transverse section through a liner E for lining the walls of the recess 4 in the filler A. The liner E is made of cloth and it takes the shape of a rectangular cup-shaped portion whose bottom 20 contacts the bottom of the recess 4 in the filler and whose four sides contact the four side

walls of the recess. The liner E has four tabs 21, see FIG. 6, and FIGS. 2 and 8 show these tabs secured to the undersurface of the top piece B by any means, such as stitching. The cup-shaped liner will retain any excess fluid and permit it to be absorbed through the material forming the liner and into the sponge filler A.

I will now describe the bottom of the cover for the filler A, and as already stated this bottom is composed of the two halves C and D, see FIG. 4, that are treated so as to be waterproof and are substantially identical to each other. The shape of the outer perimeter of the two halves, when they are facing each other as shown in FIG. 4, will closely resemble the shape of the outer perimeter of the top piece B of the cover. The inner straight edges 22 of the two halves extend throughout the lengths of both halves and they overlap each other to a slight extent. It will be noted that the front portions 23 and 24 of the halves C and D, respectively, are shaped so as to be similar to the shape of the front portion 5 of the top piece B. FIG. 2 shows the front portions of the halves C and D underlying the portion 5 and these two portions are stitched together along their peripheries as at 25 in FIG. 8. In addition, the overlapping edges 22 of the front portions 23 and 24 are sewn together and also to the front portion 5 of the top piece B, by stitching 26 that terminates at a transverse slot 27 which is formed in the portion 5 and in the front portions 23 and 24.

The middle portions 28 and 29 of the two bottom halves C and D, respectively, have a length equal to the length of the mid-portion 1 of the filler A, see FIGS. 4 and 5. The widths of the two middle portions 28 and 29 is such that the bottom and sides of the filler mid-portion 1 will be enclosed as is clearly shown in the enlarged transverse section of FIG. 8. Stitching 30 secures the outer edges of the mid-portions 28 and 29 to the outer edges of the mid-portion 4a of the top piece B. The adjacent inner edges 22 of the two bottom halves C and D overlap each other to a slight extent as is also shown in FIG. 8 and an adhesive tape F binds them together, see also FIG. 4.

The rear portions 31 and 32 of the halves C and D, respectively, are shaped so as to be similar to the shape of the rear portion 12 of the top piece B, see FIGS. 3 and 4. FIG. 2 shows the rear portions of the halves C and D underlying the portion 12 and these two portions are sewn together along their peripheries. In addition, the overlapping edges 22 of the rear portions 31 and 32 are sewn together and also to the rear portion 12 of the top piece B by stitching 33 that terminates at a transverse slot 34 which is formed in the portion 12 and in the rear portions 31 and 32. Again referring to FIGS. 1, 2 and 4, it will be seen that I provide the front portion 23 of the bottom piece C with a pair of spaced apart snaps 35 and 36. I also provide the front portion 24 of the bottom piece D with a pair of spaced apart snaps 37 and 38. In like manner, I provide the rear portion 31 of the bottom piece C with a pair of spaced apart snaps 39 and 40 and I also provide the rear portion 32 of the bottom piece D with a pair of spaced apart snaps 41 and 42.

In assembling the various parts of the sanitary napkin, I first sew the tabs 21 of the liner E to the underside of the top piece B so that the liner extends across the rectangular opening 19 in the mid-portion 4a of the top

piece, see FIGS. 3, 6 and 7. Next, I sew the two bottom halves C and D to the top piece B, by stitching along lines 25 and 30 along the perimeter of the top piece, see FIG. 8. The filler A is now placed inside the cover and the liner E will be received in the recess 4 in the filler so as to act as a liner for the recess, see FIG. 2. Stitching 26 secures the overlapping edges of the bottom front portions 23 and 24 to each other and to the top front portion 5 and another row of stitching 33 secures the overlapping edges of the bottom rear portions 31 and 32 to each other and to the rear portion 12. The stitching 26 extends to the transverse slot 27, while the stitching 33 extends to the transverse slot 34. The strip of adhesive tape F is applied to the overlapping edges of the bottom pieces C and D that lie between the two transverse slots 27 and 34.

If the sanitary napkin is worn with panties, the front end portion 5 with its attached front bottom portions 23 and 24 are looped back on themselves, as shown in FIG. 1, and are inserted through the transverse slot 27 so as to underlie the body portion of the napkin with snaps 35 and 37 used to fasten the napkin in place. In like manner, the rear end portion 12 of the top piece B, with its attached rear bottom portions 31 and 32 are looped back on themselves and are inserted through the transverse slot 34 so as to underlie the body portion of the napkin with snaps 39 and 41 used to fasten the napkin in place. If a sanitary belt is worn, the pair of snaps 36 and 38 are used for securing the front portions 23 and 24 to the belt and also the snaps 40 and 42 are used for securing the rear portions 31 and 32 to the belt, not shown.

I claim:

1. A sanitary napkin comprising:

- a. a cover having top and bottom portions secured together along their perimeters with the bottom portion being made waterproof, said cover having a narrow middle portion with outwardly flared front and rear portions; and
  - b. a filler receivable in said cover and having a narrow middle portion occupying the narrow middle portion of said cover and having outwardly flared front and rear portions occupying the outwardly flared front and rear portions of said cover;
  - c. the outwardly flared front and rear portions of said cover having inwardly extending edges lying beyond said outwardly flared front and rear portions and forming wedge-shaped integral front and rear tongues for the cover, each tongue having a transverse slot therein disposed near the widest part of the tongue and permitting the outer end of each tongue to be doubled back on itself with the end of the tongue being threaded through the adjacent slot.
2. The combination as set forth in claim 1: and in which
- a. the bottom portion of said cover is divided into two longitudinally extending halves with their adjacent longitudinal edges overlapping each other slightly; and
  - b. an adhesive tape securing together the overlapping edges of the two halves of the bottom portion of said cover that lie between said transverse slots.

\* \* \* \* \*