United States Patent

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[73] Assignee **Edward Brosler**
a fractional interest

[54] **SANITARY NAPKIN ASSEMBLY**
5 Claims, 3 Drawing Figs.

[52] **U.S. Cl.** **128/290**
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[50] **Field of Search** 128/290

[56] **References Cited**

UNITED STATES PATENTS

1,003,487	9/1911	Miller-Jones	128/290
1,724,111	8/1929	Richter	128/290

FOREIGN PATENTS

88,529	6/1958	Netherlands	128/290

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ABSTRACT: A pair of sanitary napkins of approximately half normal thickness, and each having a body contacting wall and opposite flow barrier wall, are assembled in alignment with the body contacting wall of one covering the flow barrier wall of the other, the two napkins being hingedly connected at one side to maintain a connection between the two while permitting a reversal of the order of arrangement thereof.

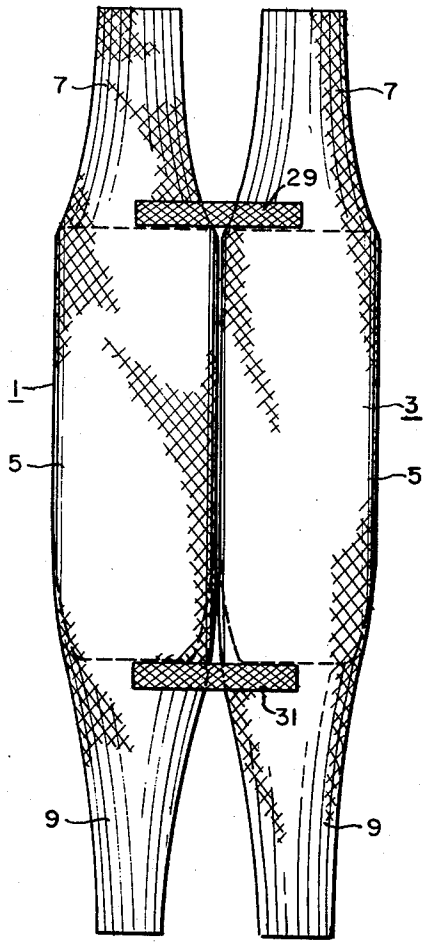


FIG. 1

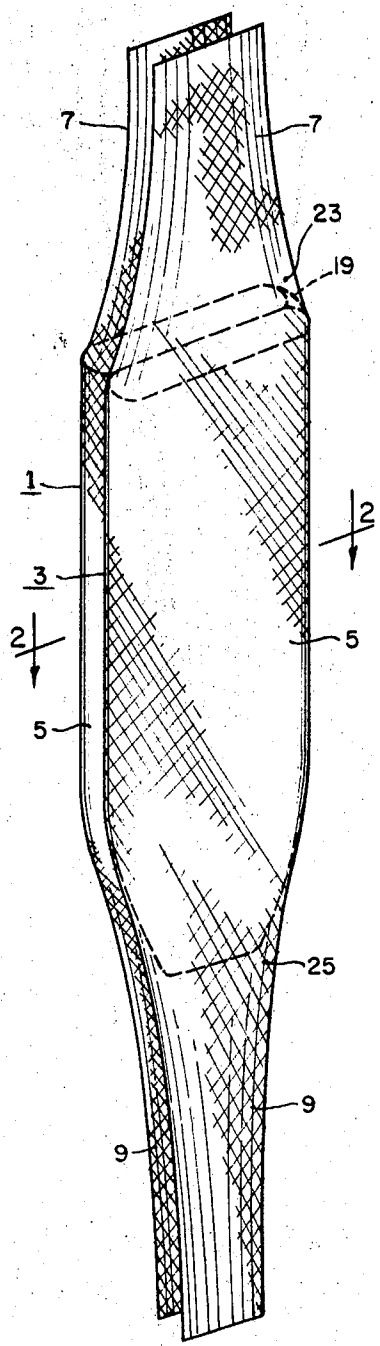


FIG. 2

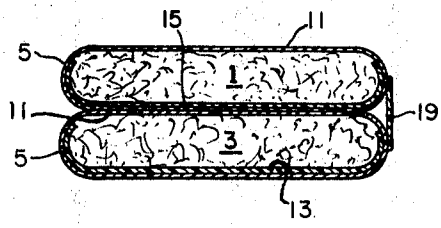
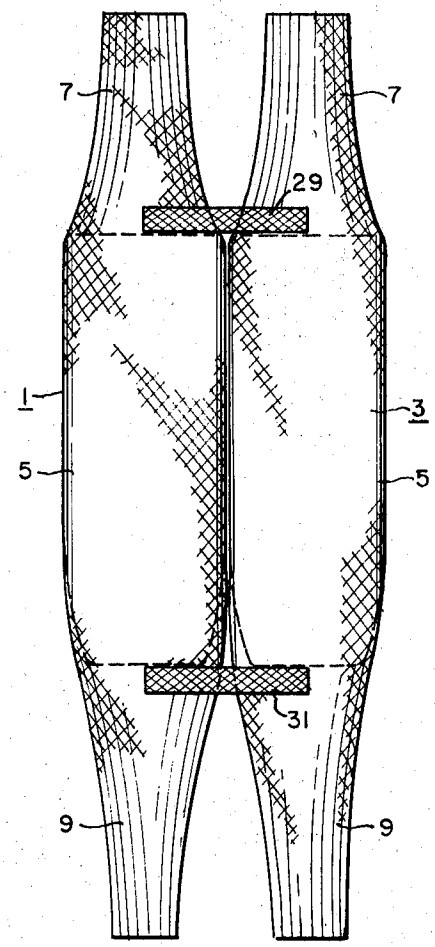


FIG. 3



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SANITARY NAPKIN ASSEMBLY

My invention relates to sanitary napkins for feminine hygiene.

During those periods when sanitary napkins are required, one finds it desirable or necessary to change one or more times a day. should one overlook carrying a fresh supply to take care of such situation, and none are otherwise conveniently available, the individual suffers discomfort, both physically and mentally. The teenager, in particular, is more apt to find herself in such a situation, since their purses are, more often than not, limited in capacity and will not conveniently hold one or more of such napkins in reserve, along with the many and varied items normally carried in one's purse, and teenagers, furthermore, prefer not to risk the contents of their purses being exposed to others, particularly to members of the opposite sex.

Among the objects of my invention are:

1. To provide a novel and improved sanitary napkin in the form of an assembly;

2. To provide a novel and improved sanitary napkin assembly having a greater effective absorption capacity than a sanitary napkin of conventional construction and comparable volume of absorbent material;

3. To provide a novel and improved sanitary napkin assembly, providing comfortable use over longer periods of time than others of conventional design;

4. To provide a novel and improved sanitary napkin assembly having the foregoing attributes, and which may employ any of the ancillary features of construction and design currently available in sanitary napkins; and

5. To provide a novel and improved sanitary napkin assembly which may make use of conventional machines and methods in the fabrication thereof.

Additional objects of my invention will be brought out in the following description of a preferred embodiment of the same, taken in conjunction with the accompanied drawings wherein:

FIG. 1 is a view in perspective of the sanitary napkin assembly of the present invention;

FIG. 2 is a view in section through the assembly of FIG. 1; and

FIG. 3 is a view depicting another embodiment of the invention.

Referring to the drawings for details of my invention in its preferred form, the sanitary napkin assembly involved, comprises a pair of napkins 1 and 3, each of which may be of any conventional structure, involving an absorbent pad 5 having a pin or belt tab 7 of fabric extending from the upper end of the pad, and a somewhat similar pin or belt tab 9 extending from the lower end. In addition to the body contact wall 11 of the pad, the pad should preferably include a flow barrier wall 13 opposite thereto which involves a thin layer of plastic 15 curved into the edges of the pad.

The two napkins are arranged with the front body contact wall of one covering the rear flow barrier wall of the other, and connected one to the other by hinge means which, in the form illustrated, involves a connecting strip 19 of flexible material such as paper, cloth or the like, joining the pads 5 along one edge, the hinge strip being preferably sufficiently narrow to be under tension or devoid of slack, when the two napkins are in aligned contact, as depicted in FIGS. 1 and 2.

Such hinge means not only maintains a connection between the two napkins, but, what is of considerable importance to the present invention, it permits one napkin to be swung around on the hinge axis to bring about a reversal of the order of arrangement of the napkins, that is the napkin 1 which was previously in front, is now in the rear, and the other 3, which was in the rear, is now in front.

When put to use, the assembly is applied with the body contacting wall of the first or front napkin 1 in contact with the body. When the wearer feels the need for a change, she merely reverses the order of arrangement, which brings the rear fresh napkin 3 into position for use, while burying the saturated portion of the first napkin in the middle of the assembly, leaving the clothing of the wearer protected by the flow barrier wall of the used napkin, while seepage from the used napkin into the fresh napkin is precluded by the flow barrier wall of the fresh napkin.

Such reversal of the order of arrangement may be conveniently accomplished without the complete removal of the installed assembly, for merely unpinning or releasing the upper or front tabs, will free the assembly sufficiently to permit of the desired reversal, and the change can be effected cleanly and quickly.

To avoid any greater bulk than involved with a conventional type napkin, which measures approximately three-fourths of an inch in thickness, before use, each of the napkins involved in the assembly of the present invention, will, in its fresh state, preferably be of the order of half that thickness or approximately three-eigths of an inch in thickness.

With each napkin having a thickness of the order of half that of the conventional napkin, the overall effective or useable capacity of the assembly will greatly exceed that of the conventional napkin of comparable bulk, for at the time a user of a conventional napkin discards the same, a substantial portion of its absorbent capacity will not have been utilized. The ability to reverse the order of arrangement of the napkins in the assembly of the present invention, enables utilization of substantially the full capacity of each napkin of the assembly.

Thus, the assembly of the present invention may be worn for a longer period of time before the wearer finds it necessary to concern herself about a source of fresh supply. Such time period may be sufficient to avoid the necessity of carrying extras around in one's purse, and the probable necessity of discarding a used napkin at the home of a friend or host, where the probability of clogging the plumbing could result in an embarrassing situation.

The specific detail of construction of the individual napkins is not a critical factor in the present invention, except that, when each napkin has a built-in flow barrier wall, maximum utilization of the individual napkins may be realized. Inasmuch as each individual napkin may be fabricated along the lines of conventional napkins on the market, assembly line production machinery and methods available in the production of conventional napkins, may be utilized in the production of the individual napkins involved in the assembly of the present invention, the only change from the conventional napkin being in the reduction in thickness.

As a variation in the manner of use of the above described embodiment of the invention, the narrow flexible hinge strip 19 may be perforated or otherwise weakened longitudinally to permit tearing, whereby to sever the first or used napkin for disposal into a toilet, where the risk of clogging the plumbing is minimized due to the reduced bulk of the napkin.

The specific hinge means illustrated and described, does not necessarily constitute the only hinge means offering some or all the advantages of the present invention.

The upper or lower tabs, for example, may be sewed or glued together along their ends to form a hinge at this point; or in lieu of that, the upper tabs may be spot glued, stitched or otherwise connected together at a point 23 adjacent an upper corner of the pads, while the lower tabs may likewise be connected at a point 25 adjacent to the longitudinally opposite lower corner of the pads, whereby both spot connections will, together, constitute a hinge performing the functions of the hinge strip 19, it being noted in this connection, that the looseness and stretchability of the tabs 7 and 9 will permit of such hinge action.

Along somewhat similar lines in the embodiment of FIG. 3, wherein, in lieu of the hinge strip 19, the two napkins are hingedly connected by a pair of connecting hinge strips 29, 31, the strip 29 joining the upper tabs 7 adjacent the upper edges of the pads 5, with the strip 31 joining the lower tabs 9 adjacent the lower edges of the pads. A narrow space between the connected tabs may be provided, but due to the looseness and stretchability of the tab material, the proximate edges of

the connected tabs could actually be in contact or even in slight overlapping relationship without impairing the desired hinge action.

The manner of applying such strips **29** and **31** is incidental to the invention, as they may be applied by adhesive, gluing, sewing etc. and if severing of the hinge is desired, the strips may be of paper of other tearable material, or if not readily tearable, the hinge axis portion of each may be perforated or otherwise weakened to provide a tear line.

It is furthermore, within the contemplation of the invention, to incorporate within the pads, a deodorant of any suitable character, such being known to the prior art.

While I have illustrated and described my invention in considerable detail, it will be apparent that the same is subject to alteration and modification without departing from the underlying principles involved, and I accordingly do not desire to be limited in my protection to the specific details illustrated and described except as may be necessitated by the appended claims.

I claim:

1. A sanitary napkin assembly comprising a pair of sanitary napkins, each including a pad and a tab extending from each end thereof, with said pad having a body contact wall and a rear flow barrier wall, said napkins being arranged in alignment with the front body contact wall of one said pair covering the rear flow barrier wall of the other in removable relationship thereto, and means hingedly securing said napkins along a hinge line to maintain a connection between the two while permitting a reversal of the order of arrangement thereof.

2. A sanitary napkin assembly in accordance with claim **1** characterized by said hinge line being substantially along proximate longitudinal edges of said napkins.

3. A sanitary napkin assembly in accordance with claim a characterized by said connecting means being in the form of a hinge having a tear line therein to permit separation of said napkins by tearing, if desired.

4. A sanitary napkin assembly in accordance with claim **1** characterized by said connecting means comprising means connecting said napkins at corresponding locations adjacent one end of said pads and in the proximate tabs, and at corresponding locations adjacent the other end of said pads in the tabs proximate thereto and in substantially longitudinal alignment with the first locations.

5. A sanitary napkin assembly in accordance with claim **4** characterized by said connecting means comprising a hinge strip secured at each end to a different one of the proximate tabs at one end of said pad and a hinge strip secured at each end to a different one of the proximate tabs at the other end of said pad.