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SANITARY NAPKIN

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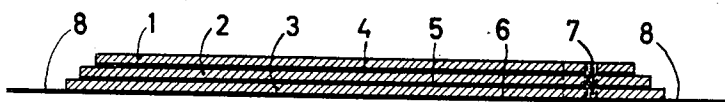


Fig. 1

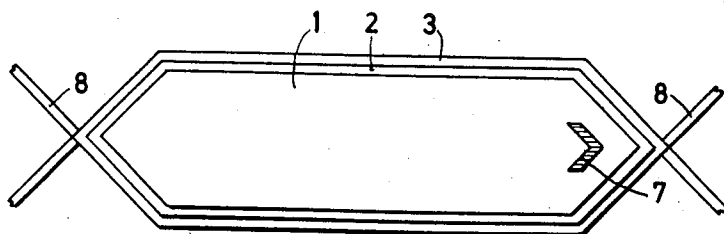


Fig. 2

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SANITARY NAPKIN

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1 Claim. (Cl. 128—290)

The invention relates to a sanitary napkin comprising a number of layers of liquid-absorbing material and being provided with liquid-proof protection.

In the period during which such napkin is being used, the user must ordinarily carry along some extra napkins. This is inconvenient, because the napkins take up some space, which often makes it difficult to keep the state externally secret as is ordinarily desired.

A particular embodiment of a carrying member has been proposed constituting a carrier for the napkin while in use and being constructed in such a manner that on either side of the carrying member, a conventional sanitary napkin can be attached one of them being thus worn by the user as a spare napkin. When one napkin has been used, it can be detached from the carrying member, the latter being then by the user fastened in reversed position so that the unused napkin comes into use.

This known construction possesses the considerable inconvenience that the two napkins take up, at the least the same space as two conventional napkins and may often be traceable through the clothes. Furthermore, the side to be used of the spare napkin is in contact with the clothes when the first napkin is being used, which must be regarded as unhygienic. Finally, the manner in which the napkins are secured to the carrying member makes it a somewhat cumbersome thing to remove a used napkin so that the change operation is rather unpleasant owing to the character of the used napkin.

The invention has for its purpose to remedy the said inconveniences and to obtain simultaneously more than a single possibility of exchange.

According to the invention this is obtained by the layers of absorbing material being separated by intermediate liquid-proof protective layers and being together with these protective layers detachably interconnected.

In such napkin only the innermost layer will in the first instance serve to absorb the menstrual discharge and, when convenient, the used layer can be torn off whereupon the subsequent layer will appear clean and ready for use, and if by way of example one imagines that the napkin consists of three layers with intermediate liquid-proof layers, it will, consequently, be possible to change twice without carrying a spare napkin along.

In the first instance, one might think that such sanitary napkin consisting of more layers would get a thickness being inconvenient to the user. This is, however, not the case. As a matter of fact it is possible without losing the advantages of the invention, to design the sanitary napkin with e.g. three absorbing layers with a total thickness corresponding to the thickness of a single conventional sanitary napkin.

This may be ascribed to the fact that in the conventional sanitary napkins, only a slight amount of the absorbing material is utilised. If, for some reason or other, it is required to remove the napkin, the user will almost invariably put on a new one. In such case the used napkin has often only superficially absorbed liquid and

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is capable of absorbing considerably more liquid. For safety reasons it is, however, not practical to give a single-layer napkin less thickness than that ordinarily used. Such safety reasons may be disregarded because the security is established by means of the total amount of the absorbing material whereas each of the layers need only have a thickness sufficient for the normal absorption purposes. Thus the total napkin will not be so thick as to be inconvenient to the user. It may also happen that even if it is not required to remove the napkin, the user may want to change owing to the unpleasantness of wearing the wet napkin even if the absorbing material has not been fully utilised, and also in such case, the use of the napkin according to the invention permits the change by removing the innermost layer.

The connection between the individual layers may be effected in any manner permitting a simple removal of the innermost layer. For example it is advantageous to connect the layers by means of an impression or penetration-attachment preferably at one end of the napkin.

Such connection is simple and cheap to provide and keeps the layers together with the required security and further the layers may be torn apart in a simple manner.

In an advantageous embodiment of the invention the layers are stepwise broader in outward direction.

In this manner the inconvenience for the user is substantially reduced even when the napkin has its maximum thickness, i.e. before any of the layers has been detached. Further, the security is thereby increased because excess liquid from the innermost layer is more easily absorbed by the outwards-projecting side edges of the following layers.

In the following the invention is explained with reference to the drawing in which

Fig. 1 diagrammatically shows an embodiment of a sanitary napkin according to the invention in longitudinal view, and

Fig. 2 a plan view of the same napkin.

The sanitary napkin shown consists of three layers of absorbing material designated 1, 2, and 3, respectively. The underside of each of these layers is provided with a thin layer 4, 5, and 6, respectively, of a material being impervious to liquid, for example, a sheet of cellulose hydrate or other plastic, such as cellophane. Each of these layers is preferably undetachably connected with the associated layer of absorbing material. The three layers are interconnected by an impression or penetration-attachment, diagrammatically shown by 7.

In the conventional manner, the napkin is provided with tape 8 secured on the underside of the layer shown at bottom of Fig. 1, e.g. sewn on along the edges and with the free ends projecting outwards at both ends.

From Fig. 2 it will appear that the layers are of increasing width.

When in use, the napkin is placed with the layer 1 innermost so as to serve as absorbing layer. When for some reason or other the napkin is removed, the said layer 1 is torn off together with the associated layer 4, whereupon the napkin may again be put on, and this time with layer 2 as the innermost layer which by next change is removed so that only layer 3 is left.

Instead of being composed of three layers as shown on the drawing, the napkin may be designed as a two-layer napkin. Likewise, it is also possible to design it with more than three layers.

The layers may be of equal widths instead of increasing widths as shown on the drawing, but otherwise one may particularly, if more than three layers are used, design the napkin with some layers of equal widths and some of increasing widths. However, it must as a rule be considered expedient that the layer being outermost during use is of greater width than the other layers.

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On the drawing the layers are shown with the same thickness which, however, is not necessary. Particularly it may be expedient that the layer being outermost during use is thicker than the other layers.

The connection between the layers may be performed in many different ways and instead of the connection shown on the drawing the layers may be kept together by some adhesive or other or by sewing them together, if only care is taken that the connection is sufficiently weak to permit an easy and simple tearing off of the layer.

I claim:

A sanitary napkin comprising a plurality of layers, means removably attaching said layers together at one end of the napkin, the bottom layer including supporting means for use in positioning the napkin in close asso-

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ciation with the body of a user including tapes projecting outwardly of said bottom layer from each end, each layer including a pad of fluid absorbing material with that side of the pad facing said supporting means being covered with a fluid impervious material, the upper pads being progressively smaller in peripheral dimensions.

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