

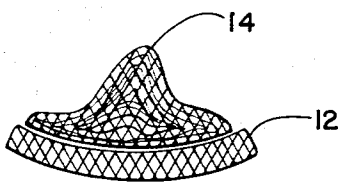
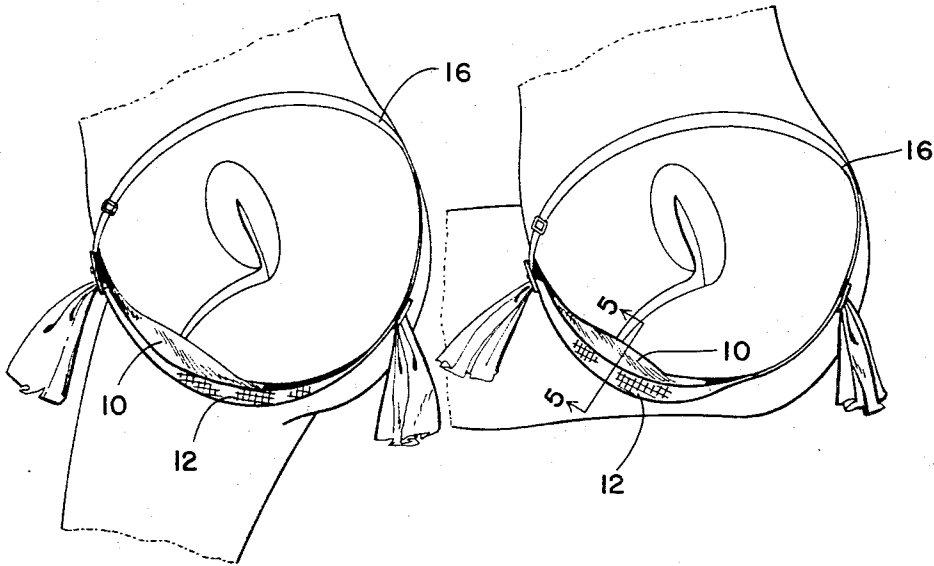
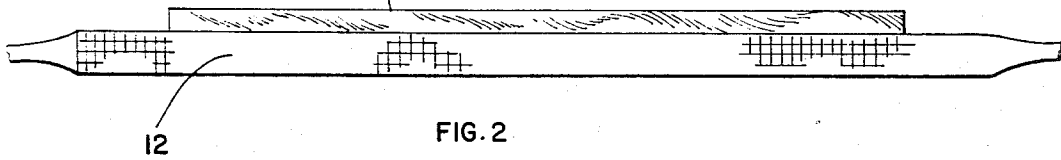
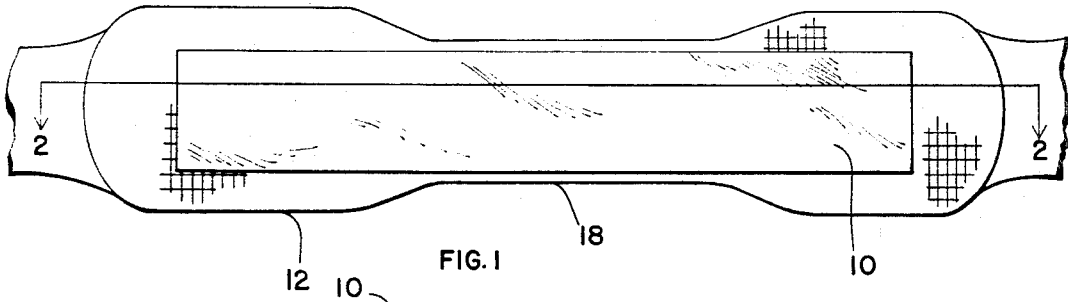
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SANITARY NAPKIN SYSTEM

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SANITARY NAPKIN SYSTEM
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ABSTRACT OF THE DISCLOSURE

An improved sanitary catamenial napkin is described in the specification. The napkin described herein actually is in two pieces, a replaceable highly-absorbent soft contact pad which actually contacts the body of the wearer; and a back-up sanitary napkin which is worn by the wearer to keep the contact pad in place, which is movable with respect to the contact pad, and which absorbs any excess menstrual discharge.

This invention relates to improvements in sanitary catamenial napkins and the principal object of the invention may be said to be that of providing a sanitary napkin of greater efficiency than those heretofore available.

Efficiency of a sanitary napkin as herein referred to, takes into account many factors and characteristics of the napkin, for example (1) the peace of mind afforded by knowledge that the body flow is controlled and that there is ample capacity for the need; (2) resistance of the tendency of the napkin to move from its proper place due to body movement and muscular action; (3) the weight and bulk of the napkin and its reaction to the pressures to which it is subjected when worn, and (4) comfort characteristics of the sanitary napkin when worn. Other characteristics and qualities will also have a significant bearing on the matter of efficiency within the framework of the foregoing specifically enumerated points.

The history of sanitary napkin development dates back to about the beginning of the twentieth century. After its original development to a reasonably useful construction, the industry became highly competitive and no significant developments have taken place within the last thirty years. The products generally available are compromises designed for manufacturing cost efficiency rather than user efficiency as outlined above.

This invention has been brought about by an analysis which reveals that an ideal napkin has a two-fold job to do. Primarily, it must be worn in a position to control all menstrual discharge and secondly to absorb all the discharge.

Currently-available products are a compromise in that they are generally of uniform shape although there are many issued United States patents which teach the superiority of a contoured shape. Thus, the available product must be crumpled and squeezed into a narrow space which causes chafing and discomfort. The most important function of the napkin is to maintain control and thereby prevent accidental soiling. In order to maintain control, the napkin must be in good and constant body contact. As long as body contact is maintained, control is constant and discharge is held back and limited to absorption. The keynote then is constant body contact, but body contact is lost with conventional napkins when a standing person sits down, or a sitting person stands up. When this occurs, the legs have a noticeable change of position relative to the body. The pad is usually squeezed and wedged between the legs so that it moves with the mo-

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tion of the legs. When the pad moves with the legs, it changes its position in relation to the body. At this change of position, it is quite possible that the napkin no longer fits in proper contact with the body. Control is lost and menstrual flow discharges too rapidly.

Accidental soiling usually occurs as a combination of two factors. The first factor is an accumulation of menstrual flow that is internally released for discharge faster than the absorption process can take place. As long as the pad maintains good body contact, discharge is held back and limited to the slow absorption. If, however, the wearer decides to stand up or sit down at the time there is some accumulation, then the shifting pad is the second factor as it loses control, and the discharge causes soiling as the absorptive pad is overwhelmed.

Although the industry has provided a teaching of different materials, shapes, sizes and parts, they all have much in common. Soft absorbent material is placed next to the body with stronger materials backing it up for strength. All of this, when assembled, is held in gauze or netting and is used as a one-piece pad.

The only appreciable alternative developed by the industry has been a tampon-type device. Tampons do provide control, but they are uncomfortable to most consumers and are generally frowned on by the medical profession. They have not proved successful and have very limited usage.

Accordingly, it is an object of this invention to provide a napkin system, rather than a one-piece structure, wherein an absorption material is held in a fixed location over the genitalia and is given back-up support by a somewhat conventional sanitary napkin.

A careful study of the female anatomy has led to the present invention and this invention provides a unique plan which was developed to gain the positive control of tampons, but without the discomfort thereof.

It is a further object of this invention, therefore, to provide a highly-absorbent contact pad for primary absorption, which pad remains external, but gives superior body contact for control, and is completely free from any shifting tendencies caused by leg movement.

According to this invention, in order to utilize certain natural anatomical conditions, a small compact style pad is provided. The small pad is designated as a "contact" or working pad and is formed from a mat of facial quality tissue or other suitable absorbent material. As the contact pad is placed by the fingers, it is held temporarily in place by two means; first, the material is fluffy and resilient, and, therefore, wedges easily in the space between the legs. Secondly, the skin between the legs, like the skin at the armpits, is invariably soft and moist. The moist condition of the skin is quite normal and holds the contact pad in place and does not allow it to slip easily. In this position and condition, the contact pad becomes a type of external tampon. Because no strength material is needed in the contact pad, it is exceptionally soft and contoured and fits itself to the body extremely well.

It is still another object of this invention to provide a sanitary napkin system wherein one portion of the system is an inexpensive and highly-absorbent separate pad which is releasable from the back-up pad by gravity upon dropping of the back-up pad.

A further object of the invention is to provide a napkin system wherein a somewhat more costly and comfortable back-up pad is made economically competitive with standard mass-produced items by reason of having an extremely low-cost disposable portion which may be

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replaced and thereby permit the continuing use of the more expensive portion for a longer period of time.

In accordance with these and other objects which will become apparent hereinafter, a preferred form of the present invention is disclosed in the accompanying drawings wherein:

FIGURE 1 is a top-plan view of a back-up pad with a contact pad placed thereon;

FIGURE 2 is a side elevation of the pad system of FIGURE 1;

FIGURE 3 is an illustration of the napkin system of this invention in position upon a standing user;

FIGURE 4 is an illustration of the napkin system of this invention in position upon a sitting user; and

FIGURE 5 is a section taken substantially along the line 5—5 of FIGURE 4.

FIGURES 1 and 2 are shown to illustrate the suggested proportion and relationship of the two members of the system, although in actual use they are not assembled as a unit in preparation for use. Rather, one pad is installed and the other one then placed in position as a back-up.

In the figures, a contact pad 10 is in position upon the face of a contoured back-up pad 12.

The pad 10 in its preferred embodiment is a loose roll of highly-absorbent facial quality tissue. There is no limit to the variety of materials which may be employed for such pad, and furthermore, the pad may be decorated by using an outer layer of printed tissue attractive to the feminine eye.

Pad 10, as previously stated, is intended to be fitted in place prior to covering with the back-up napkin 12. Although it is not possible to determine the exact shape of the contact pad 10 under such conditions, the FIGURE 5 is suggestive of what a cross-section form of the pad may be when installed. Note that it is pressed in place to form a central fold 14 which acts as a control closure in order to hold back the flow to the rate of absorption of the pad 10.

To hold the contact pad 10 up against the body, the napkin 12 is used as a back-up pad and is worn in the conventional manner and is attached to the usual sanitary belt, indicated in the drawing by the reference character 16. The back-up pad is the second half of the team concept and is contoured to a narrow central section 18 to eliminate chafing and provide maximum comfort.

The ultimate test of usefulness of the present invention is the prevention of accidental soiling. This invention meets this challenge with remarkable efficiency. The soft tissue of the contact pad 10 contours to the body exceptionally well, and if the user stands up or sits down, the back-up pad is the only part subject to possible shifting.

Such shifting of the pad 12 is illustrated in the comparison between FIGURES 3 and 4. Note that the standing figure has caused the pad to move rearwardly in comparison with the position of the seated figure. It is this change of position between seated and standing position that has caused soiling and embarrassment in the use of standard products.

A particular challenge to efficiency is to maintain control during sleep. At this time, the user must depend completely on efficiency of the product. The horizontal position of the person while asleep demands more than ever a properly fitting product. This invention provides that certainty of control and position stability which enables positive control and peace of mind.

It appears that the reason for the remarkable improvement in comfort, convenience, and dependability of this invention is two-fold. First, the contact pad 10 is all absorbent material with no strength material. It is so soft it contours to fit all users every time it is used and in a manner that none of the stiff, prior art one-piece pads could ever hope to achieve. Secondly, it is held in place in a manner that prevents it from being accidentally shifted out of position by body or leg movement. Therefore,

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the essential difference between this invention and the best of the prior art concepts is the two-piece system design. If the two pieces were attached to each other, the external movement of the back-up pad 12 would be translated to the contact pad 10 and subject this system to failure as prior art devices have failed.

The simple disposal method of the contact pad is luxury at a reasonable price. It is truly luxury when compared to the distasteful task of changing one of the prior art pads that is heavily soiled in the wrong place. The contoured design of the back-up pad 12 is more comfortable and more expensive than commercially-available products, but it is used for a far longer period of time because generally it becomes a little soiled. The user is instantly aware of excessive flow and can replace the contact pad 10 before the soil is transferred to any great degree into the back-up pad 12.

The contact pad 10 is completely disposable and usually will drop from its position simply by relieving the support given by the back-up pad 12. At this time, the contact pad is heavy and wet and, therefore, will drop from its position when the support is removed. Being of tissue material, the pad is properly flushable in standard sanitary systems.

To complete the meticulous comfort of the present invention, the sides of the contoured section 18 are treated lightly with a lanolin preparation. The lanolin, plus the contoured design, adds the last word in comfort. Thus, the quick and frequent change method of the disposable contact pad 10, plus the form and treated surface of the back-up pad keeps the user much more dainty and secure.

The disposable contact pad 10 is preferably made in a variety of lengths and layers of tissue to provide even more comfort. This is done by selecting the proper pad for the proper period of flow and the size of the user. Furthermore, the end sections and edges of the pad may be chemically treated to improve the non-slip tendencies and to reduce the moisture which comes in contact with the skin from the absorption process.

Finally, the contact pad 10 has proven very successful when used alone during the tapering off periods of the menstrual cycle. A girdle or tight-fitting underwear provides adequate back-up to hold the contact pad in place. The contact pad alone is a delightful boon to those women with kidney problems which cause incontinence.

While the instant invention has been shown and described herein in what is conceived to be the most practical and preferred embodiments, it is recognized that departures may be made therefrom within the scope of the invention which is, therefore, not to be limited to the details disclosed herein, but is to be afforded the full scope of the invention as hereinafter claimed.

What is claimed is:

1. A sanitary napkin system including:

first and second pads of different materials and serving different functions, said pads being separate from one another and freely movable with respect to one another without any tendency for mutual adhesion therebetween, said first pad constituting a contact pad formed of super-soft moldable absorbent tissue material to be pressed against the body of the user and to assume the shape thereof, and said second pad constituting a back-up pad of absorbent material having a length selected to extend over and beyond the genitalia and anal portions of the user and having an essentially flat and continuous inner face, said first contact pad being freely movable along said inner face of said second back-up pad for freedom of movement of said back-up pad with body movements of the user without affecting the position of said contact pad, thereby permitting said contact pad to remain stationary without chafing as movements of the user cause said back-up pad to move, and further permitting said contact pads quickly and easily to be disposed of by the release of said back-up pad when the user is seated.

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2. The sanitary napkin system defined in claim 1 and which includes a further contact pad similar to said first contact pad positioned over said first contact pad.

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