

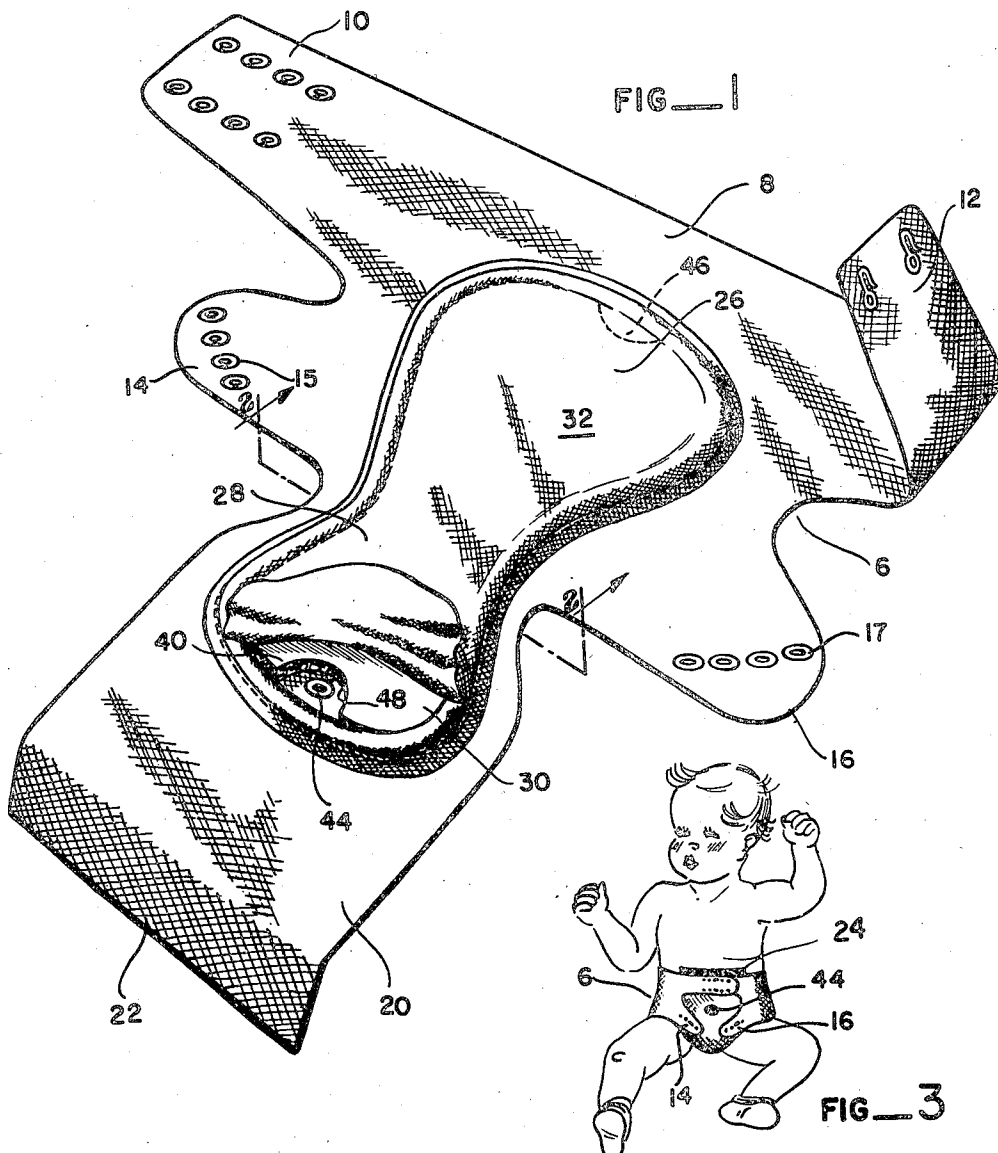
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F. K. RICKERSON

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DIAPER HAVING DISPOSABLE INSERT

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DIAPER HAVING DISPOSABLE INSERTS

Floyd K. Rickerson, Seattle, Wash., assignor of
one-fourth to Albert Lobe, Seattle, Wash.

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My present invention relates to the art of infants' diapers, and more particularly to a diaper having disposable inserts.

Diapers for infant children have for years posed a problem for the infant's mother. Good health and cleanliness are pre-requisites in infant rearing, and the gradual evolution of sanitary conditions is recognized as one of the large contributing factors to the lowering rate of infant mortality. For years the mother has been forced to employ a large number of fleeced diapers, of one shape or another, and to change them many times a day, as, owing to the delicate structure of an infant's skin, it is necessary to change the diaper each time it is soiled or wet, so that various skin irritations and the like can be prevented. The adequate laundering of these diapers has in itself created quite a problem, and the solution of this problem has brought about my present invention.

My invention consists essentially of an outer covering unit of any suitable type of material, which is adjustable, so that it can be successfully applied to the youngster through quite a period of normal growth. I then provide in the crotch area a disposable filler of limited extent, the size of which has been determined through long experiment, so as to insure that it is adequate, but no larger than necessary. Means are further provided to localize any soil or wetting.

The principal object of my present invention is to provide an adjustable infant's diaper, having an easily replaceable, absorbent filler.

A further object of my present invention is to provide means which encircle and hold in position the diaper filling material.

A further object of my invention is to provide a resilient rim around my filling material which will act as a dam to prevent any wetting or soil from passing out of the area covered by my disposable filler.

A further object of my invention is to provide means whereby a water-proof lining can be used with my filler, but of such limited area that it will not have any ill effect upon the infant's skin or skin respiration.

A further object of my present invention is to provide my disposable diaper pocket with ventilating means so arranged that the normal movement of the child tends to pump air through the protected area and to thus provide the ventilation so desirable.

Further objects, advantages and capabilities will be apparent from the description and disclosure in the drawings, or may be comprehended or are inherent in the device.

In the drawings:

Fig. 1 is a perspective view showing the inside of my diaper as it is spread out in the position to receive the infant.

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Fig. 2 is a vertical sectional view taken along the line 2—2 of Fig. 1.

Fig. 3 is a perspective view showing my diaper as applied to an infant.

Referring more particularly to the disclosure in the drawings, the numeral 6 designates, generally, my diaper. This is provided with a waistband portion 8 having the two end-securing portions 10 and 12. The securing means should be of the adjustable order. I have shown, in the accompanying drawings, hooks and eyes for this arrangement. It will be apparent, it is believed, that many forms of closures are acceptable, such as snap fasteners, or buttons, or even the lowly safety pin may be so employed. It is desirable, however, that an adjusting means be provided at the waist band. Disposed below the waistband portion are thigh tie portions, having the two tie end portions 14 and 16. The manner of using these tie portions is probably best illustrated in Fig. 3, and here again adjustable fasteners should be employed, as at 15 and 17, to the end that a snug, but not tight, fit can be made around the upper thighs.

Extending outwardly from the waistband and thigh tie portions of the diaper is a front flap 20. This should be of sufficient length so that the outer end 22 may be drawn up above the waistband, as is shown at 24 in Fig. 3.

Disposed medially of the diaper is an elongated filler-receiving area of modified hour-glass shape. The larger portion of this hour-glass shape, as 26, is positioned on the infant to cover generously the rectum area. The reduced, or neck portion 28 is intended for disposition between the legs of the infant, and there the area swells out to form the enlarged urinal area 30. The pad area, as designated generally by the reference character 32, is formed by a wall or dam of cellular or sponge rubber, probably best shown in cross section in Fig. 2 at 34. This rim or wall is held in place by material covering the same, as 36, which material is stitched down, or otherwise secured to the main body 6 of the diaper proper.

While the entire diaper proper 6 may be made of any suitable material, some mothers will prefer a water-resistant material, or possibly even a water-proof material. This, however, is not necessary, and in most cases not desirable. Consequently, a material of a nylon type that will shed water and dry quickly, but which is of a more or less porous weave, is believed to be the ideal. When a porous material is used, then I prefer to provide a water-proof insert for area 32, as shown at 38. This insert should be sufficiently larger than area 32, so that it can overlay the edges of wall 34, after the showing of Fig. 2.

On top of membrane 38, and within the confines of wall 34, I provide cut-to-shape layers of absorbent material, shown at 40. It will be recog-

nized that many forms of material might be used here. The cheaper, and most generally available, and most easily disposable, are the absorbent papers, which are supplied commercially in thin, somewhat crinkled sheets, so they do not lie tight together, and have a very high absorptive factor. The majority of these papers can be used directly against the infant's skin very satisfactorily. There are some cases where this may not be true, and there are many mothers who prefer not to have paper against the infant's skin, and to supply this need, I have provided a covering 42 of light, pervious material, similar to that used in the covering of sanitary napkins, and the like, which is generally like a very loosely woven cheesecloth. This material is inexpensive and will definitely prevent any bits of paper adhering to the wet skin of the infant. It further has the faculty of enclosing the paper which, when damp, tends to mat.

Wherever an impervious layer is placed in close proximity to the skin, it is very desirable to have ventilation. Further, it is desirable to have ventilation as a drying agent wherever moisture occurs close to the skin. Consequently, to achieve this end, I have provided two ventilators in my pad area 32, one at 44, and the other at the opposite end at 46. These I prefer to form in the outer material as grommets, one or more depending on the size, and to cut away the absorbent pad, as at 48, so as to insure free flow of air through. Now it will be understood that these two grommets are on the upper front and rear of the diaper when the same is in use, and it has been found that the normal twisting and squirming of an infant is sufficient to cause a pumped-through circulation of air. This is found to be of great value in maintaining a complete freedom from confined odors, and the circulation of air tends to prevent blistering or galling of the tender skin of the infant, if for any reason the diaper is left in place for extended periods after being soiled or wet. Also this feature is especially desirable when the diaper in larger sizes is used on bed-ridden adults. I have for simplicity of description referred to my diaper as for infants. However, it should be understood that it may be made in any desired size.

It is believed that it will be clearly apparent from the above description and the disclosure in the drawings that the invention comprehends a novel construction of a diaper having disposable inserts.

Having thus described my invention, I claim:

1. An infant's diaper, consisting of: a diaper body having an adjustable waist band portion; adjustable side enclosing portions; a front flap portion; a disposable pad-receiving area medially disposed with respect to the diaper body; a resilient wall extending around said pad-receiving area and forming a general hour-glass shaped enclosure; means for securing said wall fixedly in position with respect to the diaper body; an overlay of impervious material conforming to said hour-glass shape, but of sufficient extent to overlie the enclosing wall; an absorbent filler of generally hour-glass shaped pieces adapted to fit wholly within the said enclosed area; a pervious covering member for said hour-glass shaped area; and ventilating means disposed at each end of said hour-glass area adapted to form a ventilating means for said enclosed area when the same is applied to an infant's body.

2. An infant's diaper, consisting of: a diaper body having a waist band portion; side enclosing portions; a front flap portion; a disposable pad-receiving area medially disposed with respect to the diaper body; a resilient wall extending around said pad-receiving area and forming a general hour-glass shaped enclosure; means for securing said wall fixedly in position with respect to the diaper body; an overlay of impervious material conforming to said hour-glass shape, but of sufficient extent to overlie the enclosing wall; an absorbent filler of generally hour-glass shaped pieces adapted to fit wholly within the said enclosed area; and ventilating means disposed at each end of said hour-glass area adapted to form a ventilating means for said enclosed area when the same is applied to an infant's body.

3. An infant's diaper, consisting of: a diaper body having an adjustable waist band portion; adjustable side enclosing portions; a front flap portion; a disposable pad-receiving area medially disposed with respect to the diaper body; a resilient wall extending around said pad-receiving area and forming a general hour-glass shaped enclosure; means for securing said wall fixedly in position with respect to the diaper body; an absorbent filler of generally hour-glass shaped pieces adapted to fit wholly within the said enclosed area; a pervious covering member for said hour-glass shaped area; and ventilating means disposed at each end of said hour-glass area adapted to form a ventilating means for said enclosed area when the same is applied to an infant's body.

4. An infant's diaper, consisting of: a diaper body having an adjustable waist band portion; adjustable side enclosing portions; a front flap portion; a disposable pad-receiving area medially disposed with respect to the diaper body; a resilient wall extending around said pad-receiving area and forming a general hour-glass shaped enclosure; means for securing said wall fixedly in position with respect to the diaper body; an overlay of impervious material conforming to said hour-glass shape, but of sufficient extent to overlie the enclosing wall; an absorbent filler of generally hour-glass shaped pieces adapted to fit wholly within the said enclosed area; and ventilating means disposed at each end of said hour-glass area adapted to form a ventilating means for said enclosed area when the same is applied to an infant's body.

5. An infant's diaper, consisting of: a diaper body having an adjustable waist band portion; adjustable side enclosing portions; a front flap portion; a disposable pad-receiving area medially disposed with respect to the diaper body; a resilient wall extending around said pad-receiving area and forming a general hour-glass shaped enclosure; means for securing said wall fixedly in position with respect to the diaper body; an overlay of impervious material conforming to the said hour-glass shape, but of sufficient extent to overlie the enclosing wall; an absorbent filler of generally hour-glass shaped pieces adapted to fit wholly within the said enclosed area; and a pervious covering member for said hour-glass shaped area.

FLOYD K. RICKERSON.

No references cited.