June 18, 1957 M. GREEN ET AL 2,796,064

DIAPER COVER OR INFANT'S PANTY

Filed Feb. 27, 1956

FIG. 1

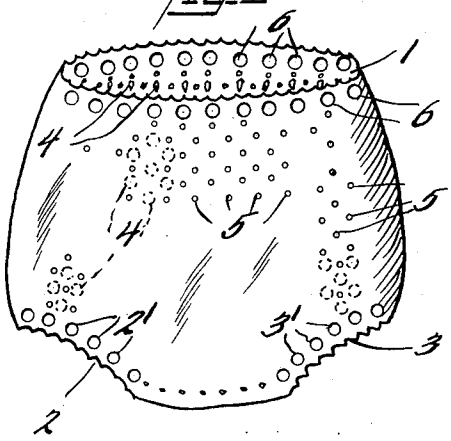


FIG. 2

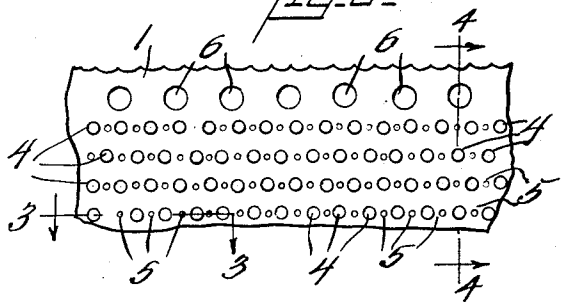
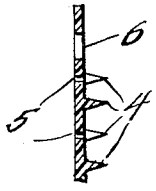


FIG. 3



FIG. 4



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DIAPER COVER OR INFANT'S PANTY

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1 Claim. (Cl. 128—288)

Our invention relates to a new and useful improvement in a diaper cover, or as more popularly known, an infant's panty.

As is well known babies up to say eighteen months of age wear diapers and over these diapers there is often placed a moisture-proof infant's panty so that any liquid discharge from the infant will be confined within the panty.

These panties are made of any desired form of plastic which is impervious to moisture and waterproof or water-repellent, and may easily be washed and again placed over the infant's diaper.

We have found, however, that if the panties are substantially air-tight, the gases from the urine being held within the diaper and about the infant over the area of the diaper surface, will cause either excorciation, chafing, or even a rash, to the great discomfort of the infant.

One of the objects of the present invention is to provide an infant's panty wherein the surface contacts of the panty will be greatly reduced with respect to the ordinary form of panty; and also to provide a means of ventilating the entire surface of the diaper so as to carry off the ammonia and other gases which are prevalent when the diapers are wet or otherwise fouled.

Still another object of the invention is to provide an infant's panty that is ventilated throughout the entire surface as well as having additional orifices about the upper periphery of the panty and about the leg openings, the openings or orifices through the entire garment being so small that only the gases can escape but not any excess of liquid that might saturate the diaper.

With these and other objects in view, the invention consists in certain new and novel arrangements and combinations of parts, as will hereinafter be more fully described and pointed out in the claim.

Referring now to the preferred form,

Fig. 1 is a face view of a baby's panty,

Fig. 2 is an enlarged fragmentary portion of the infant's panty, as viewed from the inside,

Fig. 3 is a sectional view taken on line 3—3 of Fig. 2, looking in the direction of the arrows, and

Fig. 4 is a sectional view taken on line 4—4 of Fig. 2, looking in the direction of the arrows.

Referring now for the moment to Fig. 1, there is shown the infant's panty of conventional shape, open at the top as at 1 and provided with conventional leg openings 2 and 3. However, the material from which the infant's panty is made is a light-weight plastic which might be of a natural plastic having elasticity, rubber or latex, or, it may be made of any of the hundred synthetic plastics now on the market which are relatively light in weight and relatively strong, and are water-repellent or impervious to moisture.

One of the principal features of the infant's panty is to form the panty out of a material on the inner surface of which are an infinite number of protuberances 4, such as may be clearly seen in Figs. 3 and 4. The purpose of these protuberances 4 is to provide a minimum contact of the infant's panty with the diaper (not shown) and to thus space the panty from the diaper.

I have shown these protuberances 4 as conical, but they might be hemispherical, cylindrical, or, in fact, any desired shape that will tend to hold the body of the material of the panty from the diaper.

Looking for the moment to Figs. 1 and 2, it will be seen that the entire surfaces of the infant's panty are provided with minute orifices or pin-holes 5, in what might be termed the valleys, through which gases may escape; but these pin-holes 5 are not large enough to permit any fluid to pass therethrough. Thus, the garment or infant's panty is well ventilated or aerated and permits the undesirable gases from the diaper to escape through these minute orifices 5.

It will also be noticed, in Figs. 1, 2 and 4, that around the circumference of the upper edge of the infant's panty, there are formed a plurality of larger orifices 6, so that if the gases can not escape through the pin-holes 5, or, if there is any changing of compression on the diaper due to the infant's motion, any gases that may not have escaped through the minute orifices 5 may pass out through these larger orifices 6.

In the same way, glancing at Fig. 1, it will be seen that about the rim of the leg openings 2 and 3, we provide another row of orifices 2' and 3' respectively, so that if the diaper becomes saturated some of the gases may escape also through these orifices 2' and 3'.

Thus we have provided an infant's panty that will have all the advantages of the present infant's panty plus a panty through which the air and gases may freely flow, to thus prevent the irritation, rash, and excorciation so prevalent when air-tight panties are placed over the infant's diapers, unless the infant's diaper is changed a few moments after it becomes wet or fouled.

It will be understood that the material with its protuberances may be molded or cast or extruded, as the specific method of making these protuberances or the specific plastic material does not enter into the concept of this invention.

We are aware that the idea of trying to ventilate an infant's panty is old, such as shown in the patent to Cutler, 2,544,069; but it will be understood that the present invention contemplates a plurality of protuberances on the inner surface of the garment so that the surface contact will be greatly reduced, plus the additional features of ventilating the panty throughout the garment, plus larger orifices to allow any gases to escape up around the waist and about the leg openings.

Having thus described our invention, what we claim is new and desire to secure by Letters Patent is:

An infant's panty of conventional shape, open at the top and provided with two leg openings, the panty made of a plastic material with a multitude of spaced protuberances on its inner surface so as to present a minimum surface area contact with the baby's diaper, the material also provided with a plurality of minute orifices located between the aforementioned protuberances so that the undesirable gases from the baby's diaper may escape from the body of the panty, the rim of the garment around the opening at the top provided with additional spaced orifices of larger diameter than the minute orifices in the body of the garment to further allow the escape of undesirable gases, and the rims about the leg openings also provided with spaced orifices of larger diameter than the minute orifices in the body of the garment to further allow the escape of any undesirable gases.

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