March 12, 1935. N. HOROWITZ 1,994,135

DIAPER

Filed Dec. 18, 1933

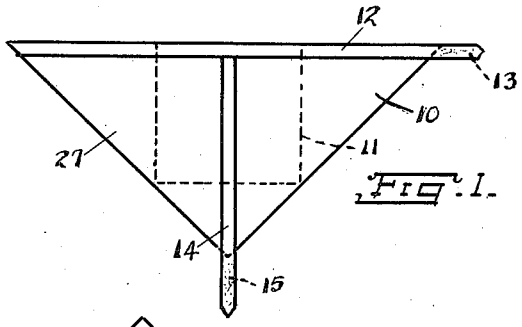


Fig. 1.

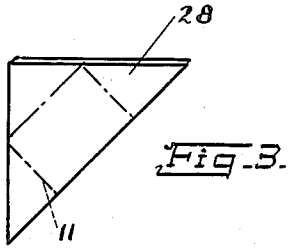


Fig. 3.

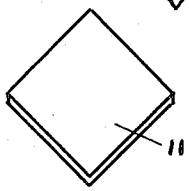


Fig. 4.

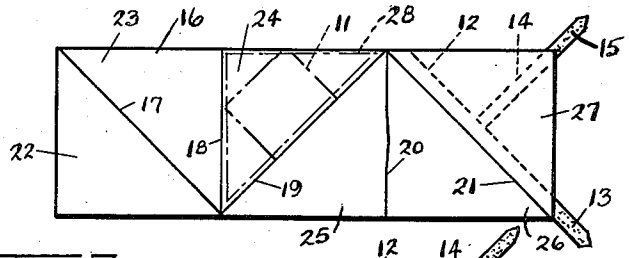


Fig. 2.

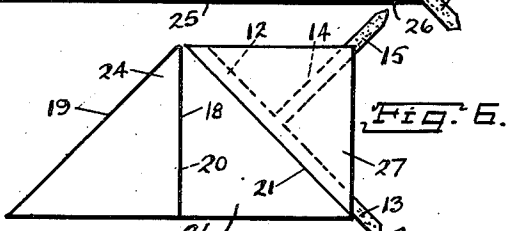


Fig. 6.

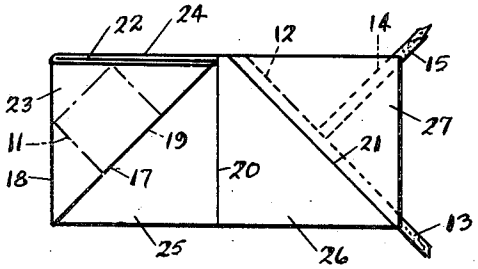


Fig. 5.

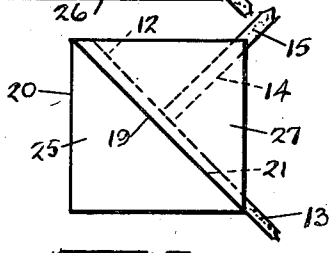


Fig. 7.

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# UNITED STATES PATENT OFFICE

1,994,135

## DIAPER

Nathan Horowitz, Brooklyn, N. Y., assignor of twenty per cent to John Schrott and twenty per cent to Henry Horowitz, both of New York, N. Y.

Application December 18, 1933, Serial No. 702,905

3 Claims. (Cl. 128—284)

This invention relates to new and useful improvements in diapers.

More particularly this invention relates to diapers constructed of cheap material such as paper, etc. so that they may be discarded after being used once.

The invention has for an object to construct a cheap diaper characterized by a folded sheet cover completely encasing a pad by the folded sections thereof.

Still further it is proposed to construct the diaper so that the folded sheet cover also encases a waterproof sheet.

As another object of this invention it is proposed to so fold the sheet cover that the diaper is of triangular shape with the pad at the center so that the center portion is thick and reinforced while the apexes remain thin.

Furthermore the invention also proposes an arrangement whereby tape is utilized for attaching the diaper upon a baby.

This invention still further proposes the provision of gummed tape for the attachment arranged so that portions thereof may be pasted down to hold the diaper in position when used.

Still further the invention contemplates a particular manner of folding the sheet cover so as to securely encase the pad and furthermore so as to cover up many of the edges producing a diaper with relatively few free edges.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawing, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawing forming a material part of this disclosure:

Fig. 1 is an elevational view of the diaper.

Fig. 2 is an elevational view of the sheet cover used in constructing the casing of the diaper.

Fig. 3 is a perspective view of a water-proof sheet used in the diaper.

Fig. 4 is a perspective view of the pad used in the diaper.

Fig. 5 is a view similar to Fig. 2 but showing the sheet cover partially folded during the manufacture of the diaper.

Fig. 6 is a view similar to Fig. 5 but showing the sheet cover in a further stage of folding.

Fig. 7 is a view similar to Fig. 6 but showing the diaper in the last stage of folding.

The diaper according to this invention comprises a folded sheet cover 10 of triangular shape with a rectangular pad 11 encased therein at the center forming a reinforced seat portion and having the apexes relatively thin. A tape 12 is extended across the hypotenuse of the triangular shape and has a gummed end 13 projecting for the purpose of being pasted down after the diaper is engaged around the waist of a baby. Another tape 14 extends along the altitude of the triangular shape and has a gummed projecting end 15 adapted to be pasted down for holding the lower corner of the diaper in position when the diaper is worn.

The cover 10 is formed from a rectangular sheet of material 16 bent along certain diagonal and altitude lines. This strip is folded by starting at one end and first folding along the diagonal 17 and then the altitude 18, the diagonal 19 the altitude 20 and finally the diagonal 21, always folding in the same direction. These diagonals and altitudes divide off triangular sections 22, 23, 24, 25, 26 and 27 constituting layers of the diaper. During the folding operation a water-proof sheet 28 of triangular shape and the rectangular shaped pad 11 is placed upon one of the intermediate triangular sections, preferably the section 24 so as to be encased by the strip when completely folded. The pad 11 may be made of soft paper or cotton padding or other material. The water proof triangular piece 28 may be waxed paper or other water proof paper. The strip 16 itself is of soft white crepe paper or other similar material.

The folding of the diaper can best be understood by examining Figs. 5–7 inclusive. The first step consists in folding the section 22 along the altitude 17 so as to be disposed immediately over the section 23. Then this double layer of material is bent along the altitude 18 to be disposed over the section 24 and over the water-proof sheet 28 and the pad 11 upon the section 24. Next this triple layer of material and the water-proof sheet 28 and pad 11 is bent along the diagonal 19 to be disposed upon the layer 25 as illustrated in Fig. 6. This four layer material is then bent along the altitude 20 to be disposed upon the triangular section 26 as illustrated in Fig. 7 and finally the five layer material is bent along the diagonal 21 to be disposed upon the section 27. This section 27 is equipped with the tapes 12 and 14 as previously described.

The feature of the diaper lies in the fact that it is formed from one strip of material which is folded into triangular layers one upon the other and in the same direction so as to wrap up the water-proof sheet 28 and the pad 11.

The diaper thus manufactured may be produced at a very low cost and has no objectionable elements such as eyelets etc. for holding the layers thereof together which would engage against the baby's body. The tape arrangement of securing the diaper upon the baby is also novel in the fact that it is merely necessary to wet the gummed ends and paste them down so as to hold the diaper in conventional position.

While I have illustrated and described my invention with some degree of particularity, I realize that in practice various alterations therein may be made. I therefore reserve the right and privilege of changing the form of the details of construction or otherwise altering the arrangement of the correlated parts without departing from the spirit or the scope of the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

1. In a diaper, a sheet cover of triangular shape folded from sheet material a sufficient number of times in the same direction so as to form an interior pocket closed on all sides with folds, and a pad in said pocket, and said cover being formed of a rectangular strip of greater length than width with triangular sections folded therefrom continuous in one direction with each succeeding section outside of the previous section.

2. A diaper, comprising a folded sheet cover of triangular shape with a rectangular pad within the cover at the center thereof leaving the corners thin while reinforcing the center seat portion thereof, said cover being formed from a rectangular strip having one corner folded upon a diagonal so that the bottom edge constitutes an altitude, said double triangular sections folded in the same direction upon the altitude of the strip and over said pad, said triple triangular sections folded upon a diagonal in the same direction so that the top constitutes an altitude, said four layers material folded upon the altitude in the same direction, and said five layer material folded upon the diagonal in the same direction

3. A diaper, comprising a folded sheet cover of triangular shape, with a pad therein at the center thereof, and said cover material being formed from a rectangular strip folded into triangular sections progressively from one end thereof to the other end, said pad being thus encased within the cover during the folding operation between sections of said strip forming a receiving and holding pocket with all sides closed with folds from said strip.

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