May 1, 1956 L. S. MATTHEWS 2,743,725

DIAPER

Filed Feb. 7, 1955 2 Sheets-Sheet 1

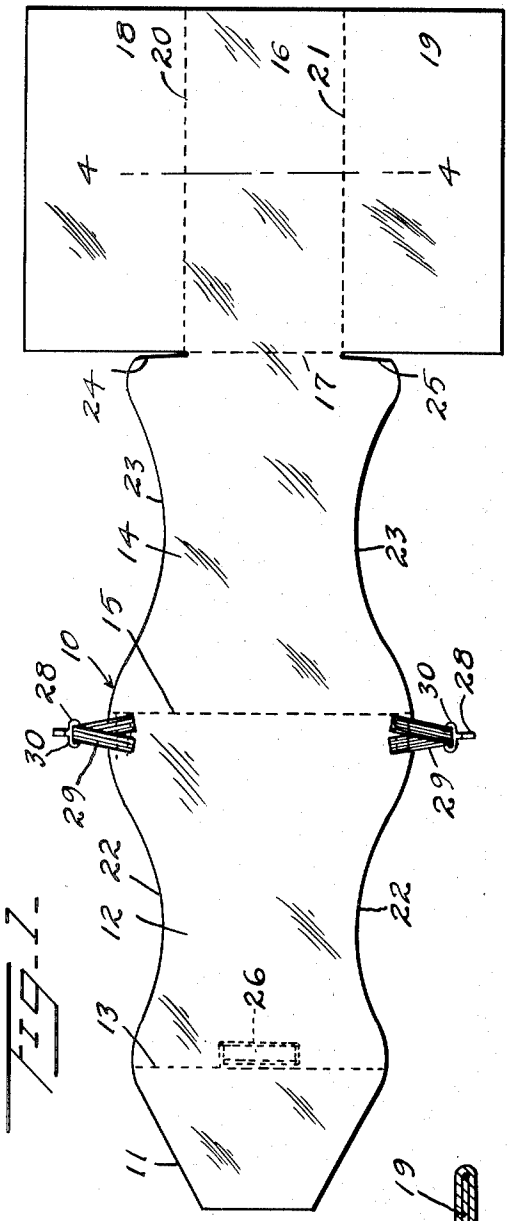

FIG. 1

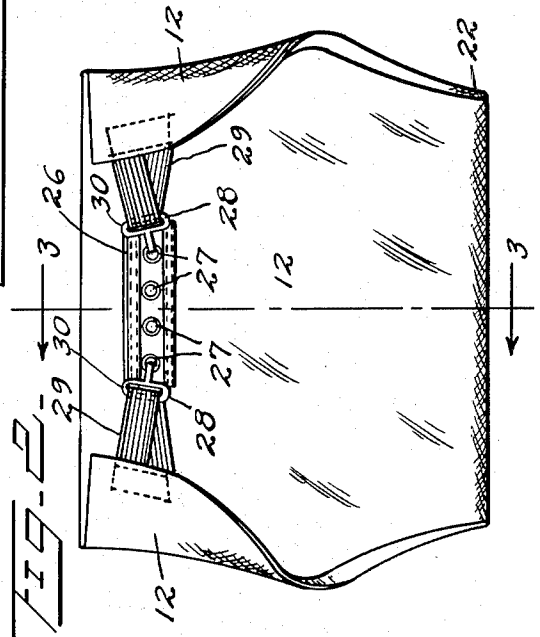

FIG. 2

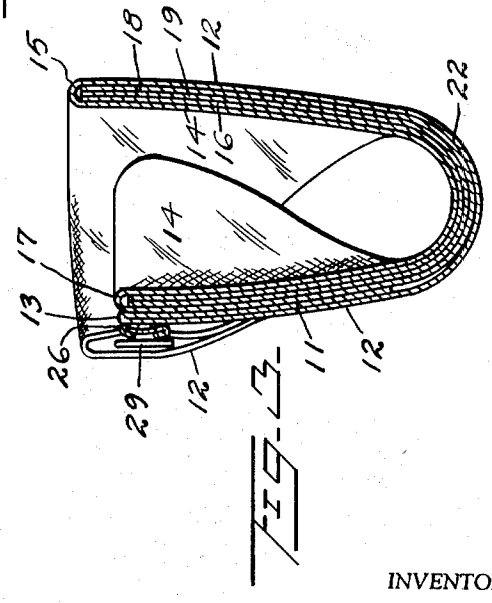

FIG. 3

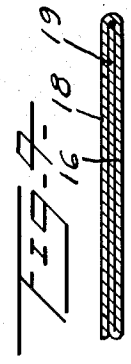

FIG. 4

INVENTOR

Loraine S. Matthews

BY Kimmel & Crowell

ATTORNEYS

May 1, 1956 L. S. MATTHEWS 2,743,725

DIAPER

Filed Feb. 7, 1955 2 Sheets-Sheet 2

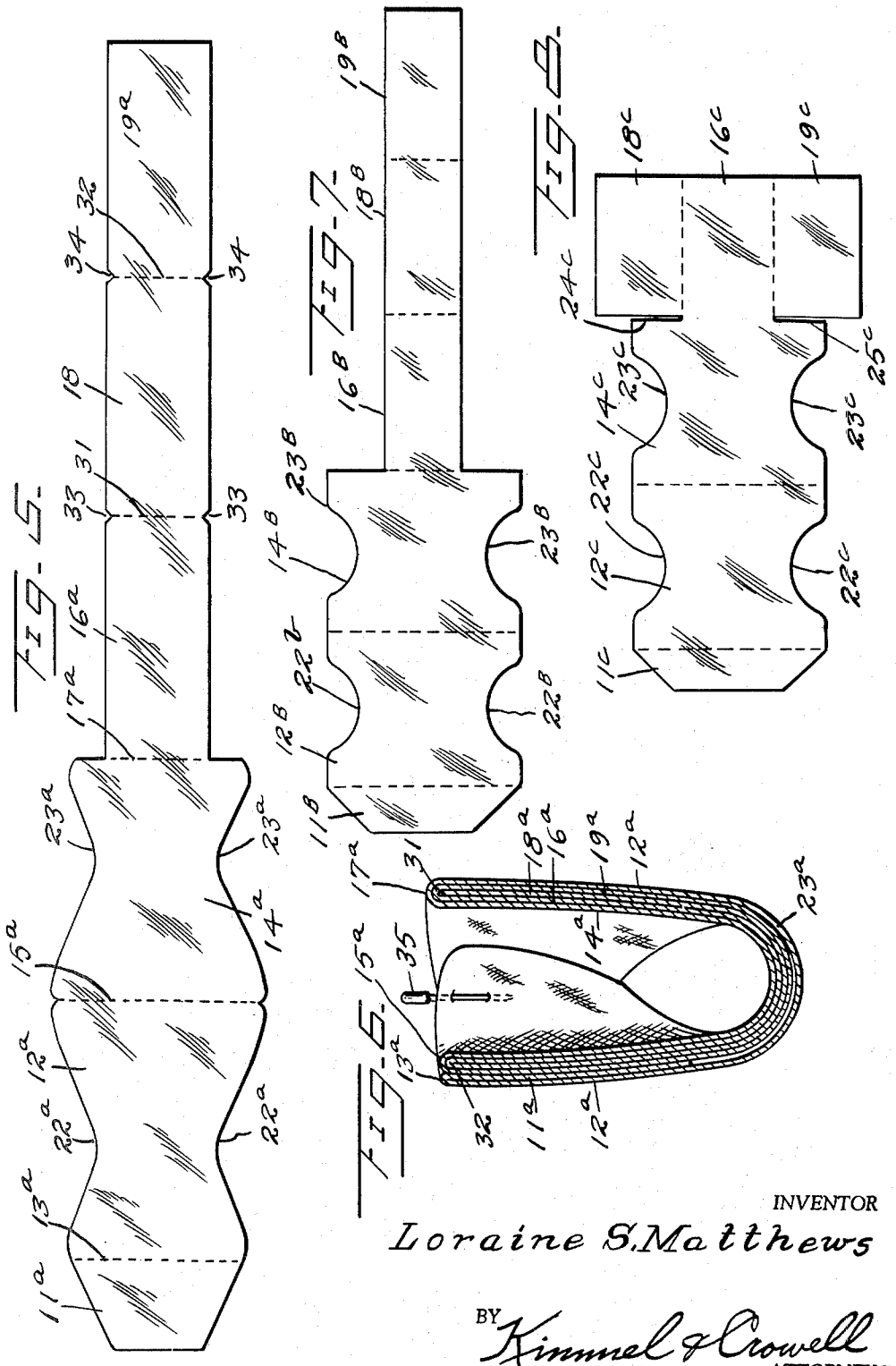

FIG. 5.

FIG. 7.

FIG. 8.

FIG. 6.

INVENTOR

Loraine S. Matthews

BY Kimmel & Crowell

ATTORNEYS

United States Patent Office 2,743,725 Patented May 1, 1956

2,743,725

DIAPER

Loraine S. Matthews, Silver City, N. Mex.

Application February 7, 1955, Serial No. 486,571

4 Claims. (Cl. 128—284)

The present invention relates to diapers, and more particularly to a baby diaper which is form fitting in character.

One of the primary objects of this invention is to provide a diaper which has considerably more absorbent material than the conventional diaper.

Another object of this invention is to provide a diaper of this character which has a form fitting shape to reduce the leg spread of the infant.

A further object of this invention is to provide a diaper of the type described which may be completely unfolded for laundering.

A still further object of this invention is to provide a diaper of the above described character with a fastening device which eliminates the use of safety pins.

Other objects and advantages will become apparent from the following specification when read in the light of the attached drawings, in which:

Figure 1 is a plan view of the diaper in completely unfolded position, and constructed in accordance with one embodiment of this invention.

Figure 2 is a front elevation of the diaper in folded position with the securing means supporting the diaper in position of wear.

Figure 3 is a cross-sectional view taken on the vertical plane of line 3—3 of Figure 2, looking in the direction of the arrows.

Figure 4 is a transverse cross-sectional view taken on the vertical plane of line 4—4 of Figure 1, with the flaps folded into position.

Figure 5 is a plan view of a modified form of the invention.

Figure 6 is a vertical cross-sectional view of the modified form of the invention disclosed in Figure 5, with the diaper folded into the position of wear.

Figure 7 is a plan view of another modified form of the invention.

Figure 8 is a plan view of still another modified form of the invention.

Now referring to the drawings in detail, the reference numeral 10 indicates generally a diaper constructed in accordance with this invention. The diaper 10 comprises a bib panel 11 having a generally isosceles trapezoidal configuration.

An outer panel 12 is integrally formed with the bib panel 11, and dotted line 13 indicates a fold line intermediate the two panels. A liner panel 14 is integrally formed with the outer panel 12, and dotted line 15 indicates the fold line separating the two panels.

A padding panel 16 is likewise integrally formed with the liner panel 14, and dotted line 17 shows the fold line separating these two panels. The fold lines 13, 15 and 17 are parallel to each other. The padding panel 16 has integrally formed therewith on opposite sides thereof additional padding elements 18 and 19 which are defined by fold lines 20 and 21, respectively. The fold lines 20 and 21 are parallel to each other and are disposed perpendicularly to the fold lines 13, 15 and 17. The padding panels 16, 18 and 19 are of substantially rectangular shape.

The outer panel 12 is provided with oppositely disposed arcuate indentations 22 which extend along the longitudinal sides thereof, and the panel 14 is likewise provided with similar arcuate indentations 23 formed in each of its longitudinal sides. The major transverse width of the outer panel 12 and the liner panel 14 occurs at approximately the fold line 15 which, in folded position, will be the top rear edge of the diaper. The fold lines 13 and 17 occur at approximately the top front edge of the diaper in folded position.

The liner panel 14 is separated from the padding member 18 by means of slot 24 and oppositely thereto is separated from the padding member 19 by means of slot 25. The slots 24 and 25 being in alignment with the fold line 17.

The outer face of the outer panel 12 has attached thereto a tape 26 having a series of female securing elements 27 which permit adjustable securing of the diaper upon the infant. The tape 26 is positioned adjacent the fold line 13 so that in folded position, the tape will be at the upper outer marginal edge of the outer panel 12.

A pair of male hook members 28 are secured to the inner face of the outer panel 12 adjacent the fold line 15 by means of elastic members 29 which extend through a loop 30 of the hook 28 and are secured to the panel 12 by means of stitching. In folded position the hook members 28 are adapted to engage with one of the female securing elements 27. As can be readily seen the waist size of the diaper can be varied by the attachment of the hooks 28 to different ones of the female securing elements 27.

To fold the diaper prior to its application to the infant, the padding members 18 and 19 are folded inwardly along the fold lines 20 and 21, respectively, with the panels 18 and 19 completely overlapping the panel 16. The bib panel 11 is then folded along fold line 13 so as to lie along the inner face of the outer panel 12. The padding panel 16 with its overlapping panels 18 and 19 are then folded along fold line 17 to overlie the center portion of the liner panel 14.

The outer panel 12 is then folded along fold line 15 so as to overlie the liner panel 14 with the padding panels 16, 18 and 19 lying between the outer panel 12 and the liner panel 14. With the diaper 10 in this folded position it is applied to the infant with the edge created by the fold along the fold line 15 centered under the back of the infant. The diaper 10 is then drawn through the legs of the infant with the cut out portions 22 and 23 being positioned directly between the legs of the infant.

The remaining portion of the diaper is then laid over the abdomen of the infant with the edges formed by fold lines 13 and 17 forming the top front edge of the diaper. When the diaper has been applied to the infant in the foregoing manner, the hooks 28 will be aligned with the female securing elements 27 and they are then secured by inserting the hooks 28 through the female elements 27. The diaper is now fully positioned on the infant in the normal position of wear.

Now referring to the modification illustrated in Figure 5, it is seen that a bib panel 11*a* is integrally formed with an outer panel 12*a* which has its longitudinally extending side portions reduced by arcuate cut outs 22*a*. A liner panel 14*a* is likewise integrally secured to the outer panel 12*a* and also is provided with reduced transverse width formed by arcuate cut outs 23*a*.

The bib panel 11*a* and the outer panel 12*a* are separated by fold line 13*a*, and the outer panel 12*a* and liner panel 14*a* are separated by fold line 15*a*. The three

panels 11*a*, 12*a* and 14*a* are each formed with the same shape and in the same manner as the panels 11, 12 and 14 of the preferred form of the invention disclosed in Figure 1.

A padding panel 16*a* is integrally secured to the liner panel 14*a* and fold line 17*a* designates the line separating the two panels. A second padding panel 18*a* is integrally formed with the padding panel 16*a* with the fold line 31 designating the juncture of panels 16*a* and 18*a*. A third padding panel 19*a* is integrally secured to the panel 18*a* with the fold line 32 indicating the juncture of these two panels. The fold lines 31 and 32 are parallel to the fold lines 13*a*, 15*a* and 17*a*.

Opposed V-shaped notches 33 extend inwardly of the panels 16*a* and 18*a* at the fold line 31 to reduce the edge bulk of the folded diaper. Likewise opposed V-shaped notches 34 extend inwardly of the panels 18*a* and 19*a* at the fold line 32.

As disclosed in Figure 6, the diaper is secured to the infant by means of a safety pin 35 passed through the overlapping portions of the diaper at each side edge. In folding the modified form of the diaper disclosed in Figure 5, the panel 19*a* is folded along fold line 32 so as to overlie the panel 18*a*. The panels 18*a* and 19*a* are then folded along fold line 31 so as to overlie panel 16*a*. The panels 16*a*, 18*a* and 19*a* are then folded along fold line 17*a* to overlie the liner panel 14*a*. Bib panel 11*a* is folded along fold line 13*a* to overlie the outer panel 12*a*, and the panels 12*a* and 14*a* are folded along the fold line 15*a* to bring each of the panels in folded relation to the others. The folded diaper is then applied to the infant in the same manner as disclosed in the preferred form of the invention set forth in Figure 1 with the overlying portions of the diaper secured by the pin 35 as illustrated in Figure 6.

In the modified form of the invention disclosed in Figure 7, bib panel 11*b*, outer panel 12*b*, liner panel 14*b*, with padding panels 16*b*, 18*b* and 19*b* are all integrally formed in the same manner as disclosed in Figure 5. However, the panels 11*b*, 12*b* and 14*b* are wider to fit a larger infant, and the arcuate cut out portions 22*b* and 23*b* are correspondingly deeper.

The diaper in the modification disclosed in Figure 7 is folded and applied in exactly the same manner as the modification disclosed in Figure 5.

Figure 8 discloses a modification having panels 11*c*, 12*c* and 14*c* all corresponding exactly with the panels disclosed in Figure 7. Cut out portions 22*c* and 23*c* are likewise of the same general shape as the cut out portions disclosed in Figure 7.

Padding panels 16*c*, 18*c* and 19*c* are attached to the liner panel 14*c* in the same manner as the padding panels

disclosed in Figure 1. The panels 14*c* and 18*c* are separated by slots 24*c*, again in the same manner disclosed in Figure 1, with the panels 14*c* and 19*c* separated by slot 25*c* in a like manner. The modification disclosed in Figure 8 is folded in the same manner as the invention disclosed in Figure 1, and after folding, is positioned upon the infant and then secured by pins 35 as disclosed in Figure 6.

It will be understood that as regards the use of safety pins, mentioned in connection with Figure 6, and as regards the use of the hooks and eyes in connection with the other constructions disclosed herein, or the elastic members, that these several elements are interchangeably usable in connection with any of the several forms of the invention, the reference to elastic being intended also to include elastic or other suitable materials.

Having described and illustrated several embodiments of this invention in detail, it will be understood that they are offered merely by way of example, and that the invention is to be limited only by the scope of the appended claims.

What is claimed is:

1. A diaper comprising an outer panel, a bib panel secured to said outer panel along one edge, a liner panel integrally joined to said outer panel oppositely to said bib panel, and a padding panel integrally formed with said liner panel, said liner panel and said outer panel being adapted to be folded upon each other with said padding panel lying therebetween.

2. A device as claimed in claim 1 in which said padding panel includes a center panel and oppositely disposed side panels adapted to be folded in upon the center panel to form a pad.

3. A device as claimed in claim 1 in which said padding panel comprises three end-to-end integrally formed panels which are adapted to be folded in upon said liner panel to form a pad.

4. A diaper comprising a liner panel, a padding panel secured to said liner panel, a pair of padding elements secured to opposed edges of said padding panel, an outer panel secured to the edge of said liner panel opposite said padding panel, and a bib panel secured to the edge of said outer panel opposite to said liner panel.

References Cited in the file of this patent

UNITED STATES PATENTS

2,471,048	Terchick	May 24, 1949
2,500,432	Ravkind et al.	Mar. 14, 1950
2,506,231	Meyer	May 2, 1950
2,660,172	Tittle	Nov. 24, 1953