May 23, 1950 E. E. BEST ET AL 2,508,811

DIAPER

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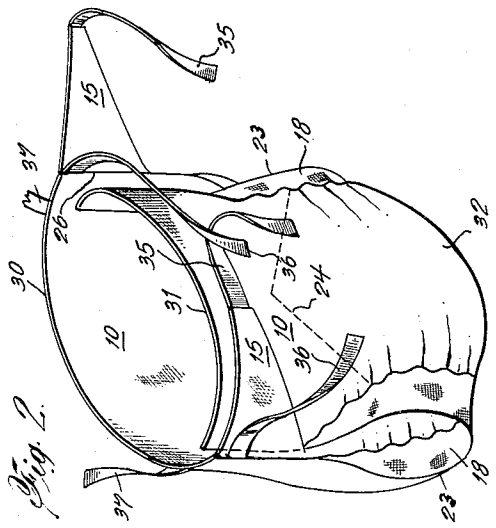


Fig. 2.

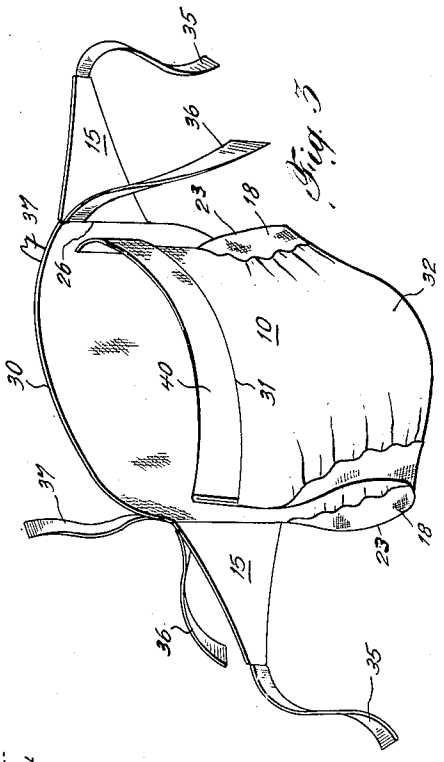


Fig. 3.

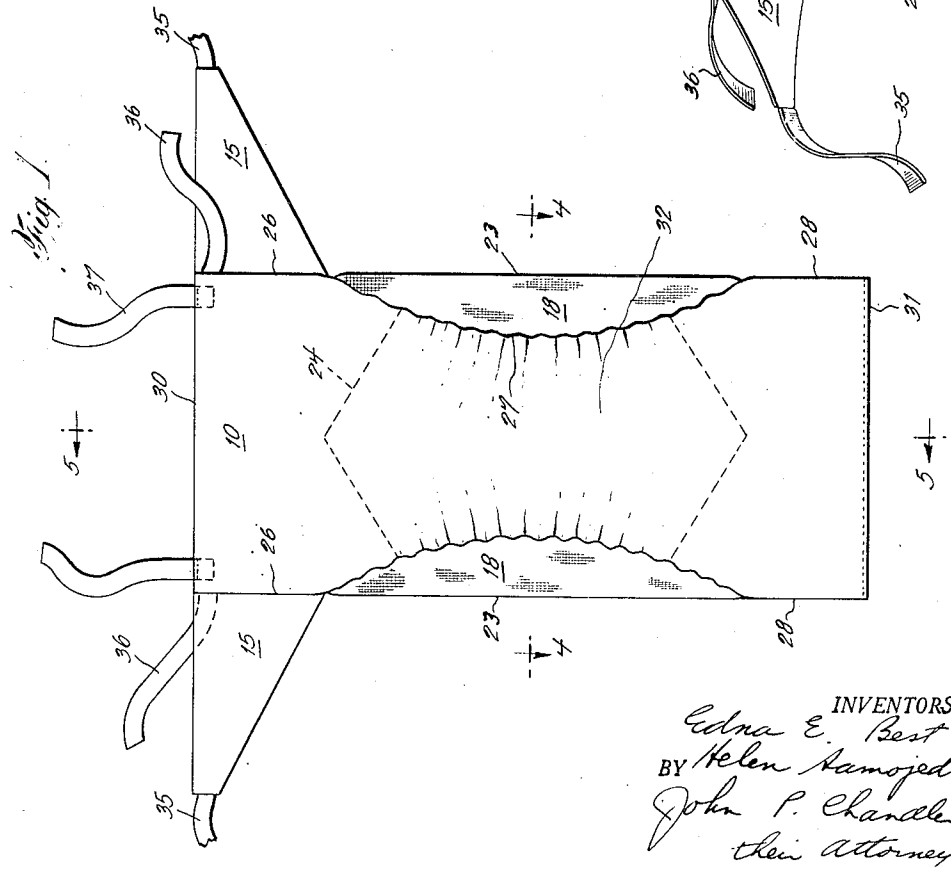


Fig. 1.

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Fig. 4

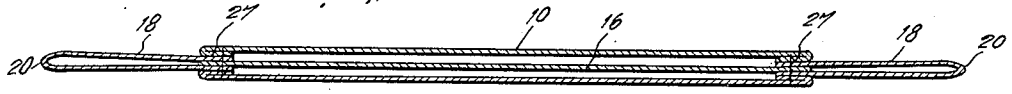


Fig. 5

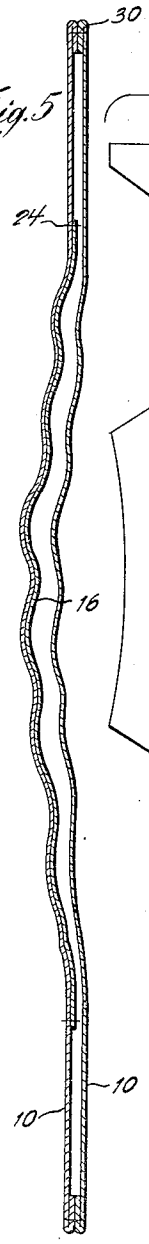
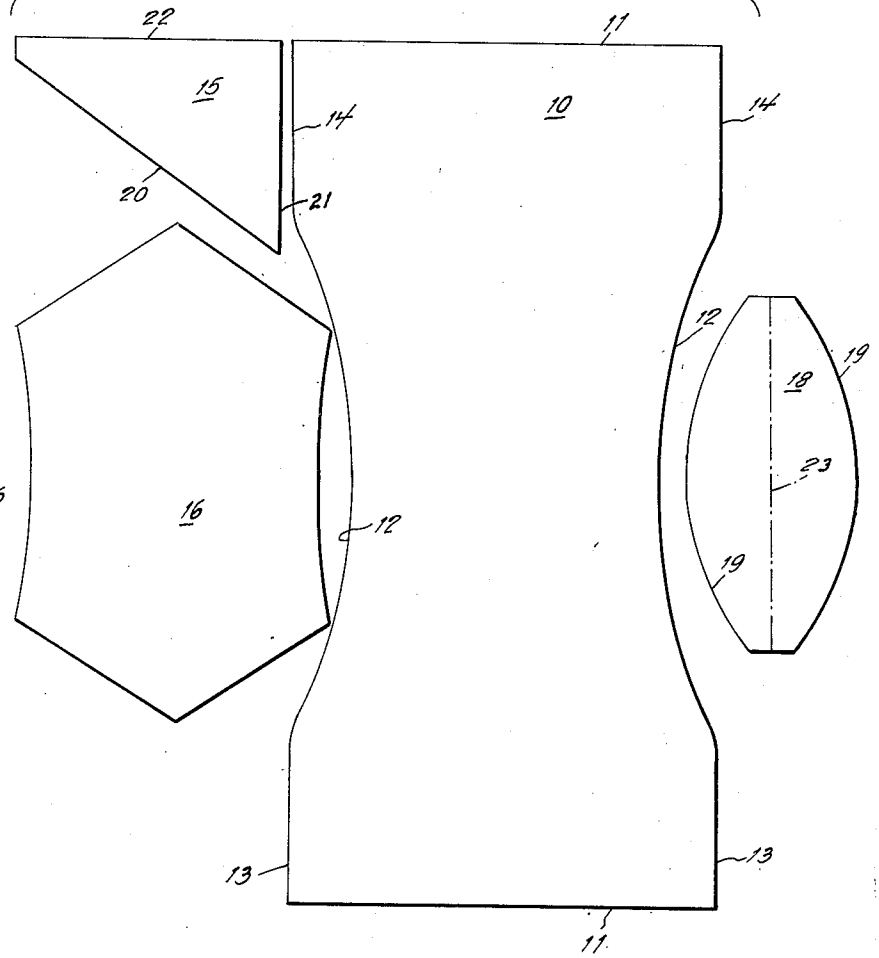


Fig. 6



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Patented May 23, 1950

2,508,811

UNITED STATES PATENT OFFICE

2,508,811

DIAPER

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Application July 15, 1947, Serial No. 761,116

1 Claim. (Cl. 128—284)

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This invention relates to diapers, and has for its principal object the provision of a structurally and functionally improved article of this character which provides adjustability and a greater measure of comfort than do existing garments.

Another object of the invention is to provide a novel diaper wherein safety pins and other inconvenient fastening means are completely eliminated.

A further object of the invention is to provide an improved diaper which has superior fitting qualities, which does not move once it is secured in place, and which hugs the body along the marginal edges of the garment so as to provide a more sanitary arrangement. Yet another object of the invention is to provide a diaper with novel fastening means which assures a perfect fit on the baby without any bulging of parts.

A still further object of the invention is to provide a garment which is a combination diaper and panty, distinct leg portions being formed when the garment is in place. The garment of the present invention also serves as training pants after the child has passed beyond the usual diaper period.

In the drawings:

Fig. 1 is a plan view of a diaper embodying the present invention.

Fig. 2 is a perspective view of the front and side of the diaper, showing the general relation of the parts when in place upon the wearer.

Fig. 3 is similar to Fig. 2, but illustrates the adjustability feature of the invention.

Fig. 4 is a section taken on line 4—4 of Fig. 1.

Fig. 5 is a section taken on line 5—5 of Fig. 1.

Fig. 6 is a plan view of the pattern employed in the garment of the present invention.

The pattern of the several blanks used in constructing a diaper embodying the present invention is shown in Fig. 6. It comprises a main blank 10, two of which are employed. This blank is of generally rectangular shape and includes opposed, transverse edges 11, intermediate, curved, longitudinal edges 12, and substantially straight, longitudinal edge sections 13 and 14 which connect the terminals of the curved sections with the transverse edges 11.

A second blank 15, four of which are employed, is generally triangular in shape. Two of these blanks are stitched together to form wing portions extending laterally from the rear, upper edge of the main body section. A third blank 16 in the form of an elongated hexagon is interposed between the two layers of blanks 10 forming the body section. Finally, two blanks 18,

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one for each side of the garment, are of generally oval shape with opposed curved edges 19. Each blank 18 is folded along a fold line 23.

Blanks 10, 15 and 16 are preferably formed from relatively loosely-woven absorbent cotton material of the kind normally used in making diapers. Blanks 18, however, are desirably formed from knitted material which has stretchability in the direction of their major axes. It will be noted that curved edges 19 of blanks 18 are somewhat shorter than curved, longitudinal edges 12 of the main blank.

In assembling the garment, blank 16 may first be stitched to the inner surface of one of main blanks 10 forming stitch lines 24. Next, the pairs of blanks 15 are placed back to back and are stitched together along edges 20, 21 and 22, after which they are turned inside out. The outer surfaces of blanks 10 are then placed back to back and are stitched along edge sections 13 to form stitch line 26. When the stitching gets to the curved edge section 12, the folded blank 18 is inserted between blanks 10 and the stitching continued to form stitch line 27. Since edge section 12 is longer than edges 19, the latter blank is simply stretched and held in such stretched condition during the stitching operation. Next, the superimposed, stitched blanks 15 forming the wing portions are inserted between blanks 10, and edges 21 and 14 stitched together to form stitch line 26. The operation is repeated on the opposite side of the diaper and the rear upper edges 30 then stitched together. The garment is then turned inside out and the front upper edges 31 stitched together. It will be appreciated that the foregoing series of steps may be varied if desired.

By virtue of the elasticity of blanks 18 along their major axes, and by virtue of the difference in lengths between edges 19 and 12 which are stitched together to form stitch lines 27, there will be a gathering effect along such stitch lines, which, in effect, forms a pocket 32 which considerably aids in the functioning of the garment. It will also be understood that portions 18 tend to hug the figure without, however, exerting any undue pressure.

Blanks 15 form laterally-extending wing portions, and at the outer ends of each of these wing portions are secured tapes 35. Also, at the upper ends of stitch lines 26 are secured tapes 36, such tapes 35 and 36 being employed in securing the diaper around the wearer. Further, tapes 37 extend upwardly from stitch lines 30 and may be employed in tying the diaper to the child's shirt.

Tapes 37 are illustrated as extending directly upwardly from rear, upper edge 30, although they may be attached at the same point as tapes 36. All these tapes may be secured during the stitching operation just described.

It will be appreciated that the garment may be draped on the wearer in a variety of fashions. If the child is of average size and, for instance, eight months of age, the diaper may be laid in flat position, as shown in Fig. 1, and the buttocks of the child placed in substantially the center of the pocket 32. The lower portion, when viewed as in Fig. 1, is then raised upwardly to the position shown in Fig. 2, and one of the wing portions 15, i. e. the one at the left when as in Fig. 2, laid over the child's abdomen, and the tie tape 35 associated therewith tied to the tie tape 36 on the opposite side of the garment. Next, the opposite wing portion 15 is laid over the child's abdomen and its tie tape 35 secured to opposite tie tape 36. In this position, upper edge 31 will lie on the same general plane as upper edge 30 at the back of the diaper. It will be apparent from the foregoing that the front of the tied diaper is perfectly flat and smooth, and presents no bulges which might cause discomfort to the child if he is lying on his stomach.

In the event that the child is of somewhat smaller dimensions, the arrangement in Fig. 3 is employed. In this instance the child's buttocks will be placed somewhat closer to upper edge 30 at the rear of the diaper. This causes upper edge 31 at the front to be somewhat higher than rear upper edge 30. In this arrangement wing portion 15 at the left of the garment, when viewed as in Fig. 3, is first laid over the front portion of the diaper and its tie tape 35 secured to opposite tie tape 36. The upper projecting edge 31 is then folded downwardly, as shown at 40 in Fig. 3, and the opposite wing portion 15 then placed over the folded-down portion and its tie tape tied to opposite tie tape 36. When the upper edge is folded downwardly in this fashion it provides four layers of material, and this extra measure of absorbency largely prevents wetting of the baby's shirt.

While one form or embodiment of the invention has been shown and described herein for illustrative purposes, and the construction and arrangement incidental to a specific application thereof have been disclosed and discussed in detail, it is to be understood that the invention is limited neither to the mere details or relative arrangement of parts, nor to its specific embodiment shown herein, but that extensive deviations from the illustrated form or embodiment of the invention may be made without departing from the principles thereof.

What we claim is:

A diaper comprising an elongated body section of generally rectangular shape and forming front and rear portions, such body section being formed of a plurality of layers of material, the central sections of the longitudinal edges being concavely curved, a blank of elastic material being secured along one edge thereof to each of such curved edges, such edge of the blank being of lesser length than the curved edge but being joined end-to-end to gather such edge sections and form a pocket in the area therebetween, a wing portion extending laterally from each vertical edge of the back portion and a tape extending from such wing portion, a tape also extending laterally from each vertical edge, such tapes on each side of the garment being arranged to be secured to the tape associated with the opposite wing portion, whereby both wing portions are disposed in superimposed tied relationship over the abdomen of the wearer.

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