

Aug. 3, 1954

H. L. O'BRIEN

2,685,290

DIAPER PAD

Filed May 14, 1952

2 Sheets-Sheet 1

Fig. 4.

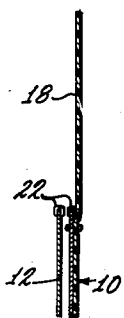
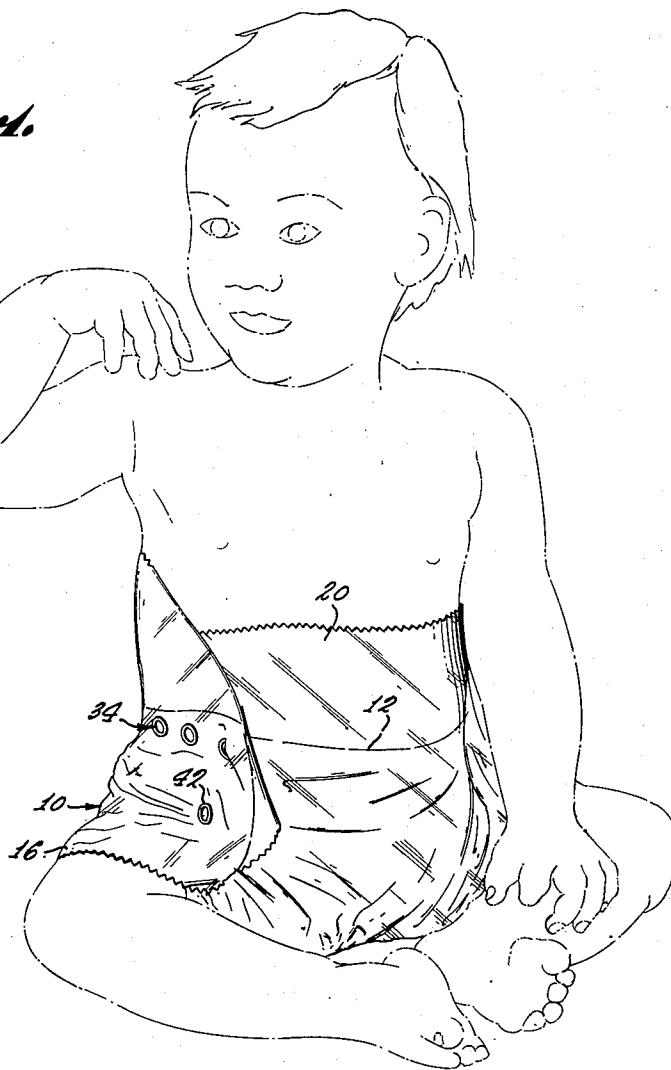


Fig. 4.

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2 Sheets-Sheet 2

Fig. 2.

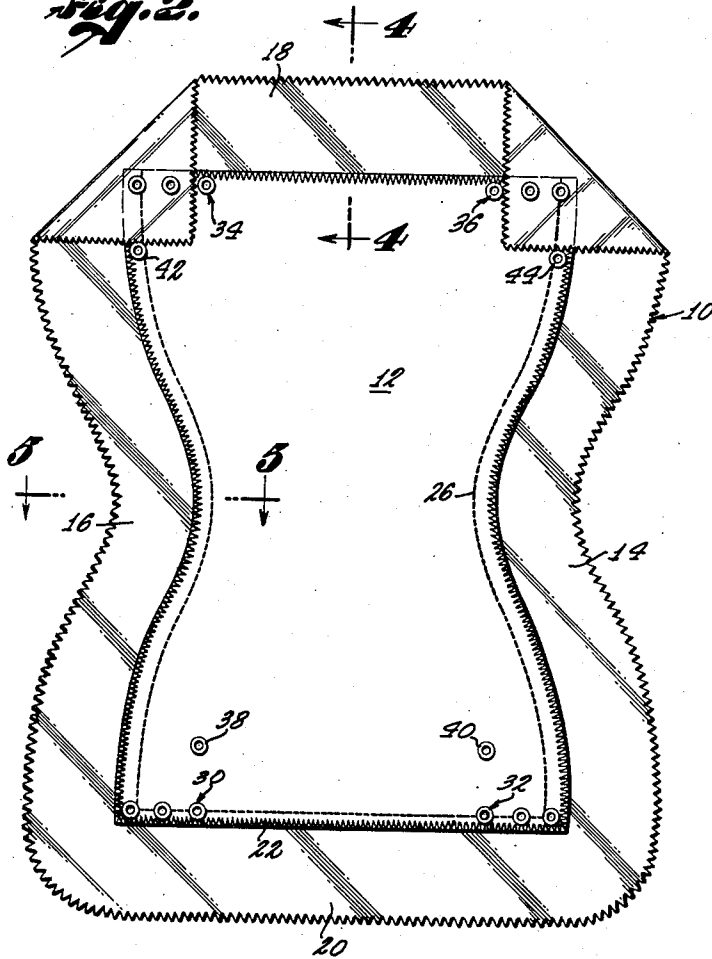


Fig. 3.

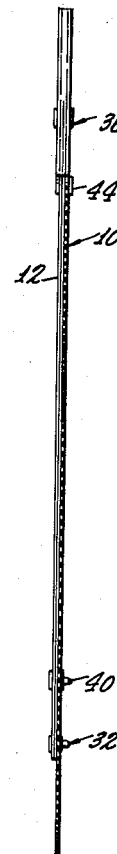


Fig. 6.

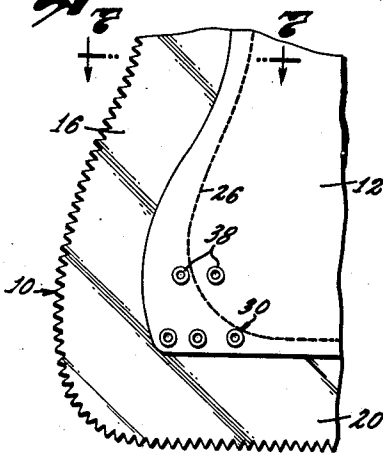


Fig. 5.

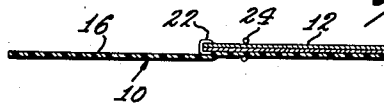
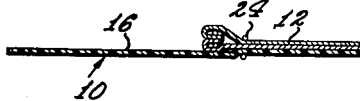


Fig. 7.



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2,685,290

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Application May 14, 1952, Serial No. 287,730

5 Claims. (Cl. 128—287)

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My invention relates to improvements in diaper pads, and more particularly to an improved water-proof diaper pad.

An object of my invention is to provide an improved diaper pad having a sheet of water-proof material provided with a margin so arranged thereon that seepage of liquid past the margin of the diaper is prevented when the diaper is in use.

Another object of my invention is to provide a diaper pad of hour-glass configuration with a plurality of fastening means for adjusting the size of the diaper pad when in use so as to prevent such seepage irrespective of the size of the baby upon which the diaper pad is used.

The foregoing and other objects of my invention will become apparent from the following specification taken in connection with the accompanying drawings wherein:

Figure 1 is a front perspective view of a baby with my improved diaper pad fitted thereon;

Fig. 2 is an inside plan view of my improved diaper pad;

Fig. 3 is a side elevational view of the diaper pad;

Fig. 4 is a fragmentary cross-sectional view taken on the line 4—4 of Fig. 2;

Fig. 5 is a fragmentary cross-sectional view taken on the line 5—5 of Fig. 2;

Fig. 6 is a fragmentary view of an alternative embodiment of my invention; and

Fig. 7 is a sectional view taken on the line 7—7 of Fig. 6.

As indicated in the drawings, particularly Figs. 1-5 inclusive, the diaper pad embodying my invention and there illustrated comprises a sheet 10 of water-proof material having a diaper 12 consisting of a plurality of layers of absorbent material secured thereto. The water-proof sheet 10 and the diaper 12 are both of hour-glass configuration, the former, however, having larger dimensions than the latter. Both the water-proof sheet 10 and the diaper 12 thus form inwardly bowed marginal portions 14 and 16 of water-proof sheet material along the two sides thereof and straight marginal portions 18 and 20 of water-proof sheet material along the back and front ends thereof. All the marginal portions are normally flat so that they can press against a baby's skin to prevent seepage of moisture past the edges of the diaper pad.

The sides of the water-proof sheet 10 and the diaper 12 are relatively long whereas the ends thereof are relatively short. However, as indicated above, the ends and the sides of the sheet of water-proof are longer respectively than the

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sides and ends of the layers of the diaper, the differences in lengths being between about four to seven inches, so that the marginal portions 14, 16, 18 and 20 are between about two inches to three and one-half inches wide. The side marginal portions are narrower at the centers thereof than at the ends to provide a good comfortable fit at the back of the baby's thighs while achieving maximum water-proofing along all edges of the diaper.

The layers of absorbent material are in the form of two sheets of light-weight flannel secured together by an overlock stitch 22 along the sides thereof and one end thereof, leaving the edges thereof at the back end separate, as indicated in Fig. 4. The edges of the individual sheets of flannel at this end may also be overlocked.

The diaper 12 consisting of the body of absorbent material so formed is then secured permanently to the sheet of water-proof material by stitching 24 along a line 26 spaced inwardly from the edges of the absorbent material by a distance of about one-half inch or more. If the edges of the layers of absorbent material are not stitched together in the manner described above, the layers may, nevertheless, be held together by means of the stitching 24 that secures them to the sheet of water-proof material. In any event, only the inner layer of absorbent material need be stitched to the water-proof sheet at the back side of the diaper. This arrangement has the advantage that it facilitates drying of the absorbent material after laundering.

The stitching 24 is made with a small thread of about 60 to 70 gauge and by means of a small needle of about size 4D in order to minimize leakage of moisture through the holes formed in the water-proof sheet in the stitching operation.

The employment of two sheets of light-weight flannel is superior to the employment of a single sheet of relatively heavy flannel both with respect to water absorbency per unit weight of flannel material and as to speed of drying. A larger number of sheets, such as four, may also be used if desired.

Two groups of male snap fastener elements 30 and 32 are affixed at the front end and two groups of complementary female snap fastener elements 34 and 36 are affixed at the rear end. Each of the fastener elements is of conventional type consisting of two interlocked parts, one of which extends through both the water-proof sheet and the layers of absorbent material to lock securely with the other part. The three fasteners of each

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group are arranged along a line about one-half inch inwardly from the adjacent end of the absorbent layers and are spaced apart about one inch. The outer fastener of each group is arranged about one-half inch inwardly from the adjacent side of the diaper pad 12.

Two male fastener elements 38 and 40 are secured to the absorbent layers and to the water-proof sheet a substantial distance from both the front edge of the absorbent layers and from the side edges thereof, being about one and one-half inches from each. Two complementary fastener elements 42 and 44 are permanently secured to the layers of absorbing material and to the water-proof sheet a substantial distance, say about one and one-half inches, from the front end of the absorbent layers but close to the side edges of the absorbent layers.

The corners of the water-proof sheet near the rear end of the absorbent layers are turned down diagonally, and are permanently secured in place by two of the female fastener elements 34 and 36 at the adjacent corners. The fastener elements 34 and 36 pass through both the inner and outer portions of the folded corners of the water-proof sheet as well as through the corners of the diaper. This arrangement facilitates removal of the diaper pad from a baby with a minimum danger of tearing.

In use, when the diaper pad is placed upon the baby, the end marginal portions 18 and 20 of the water-proof sheet overlap around the baby's waist and each of the side marginal portions 14 and 16 of the water-proof sheet overlap about the respective legs, as illustrated in Fig. 1. The fastener elements snapped together are selected according to the size of the baby in such a way that the inner surfaces of the marginal portions of water-proof sheet press against the baby's skin lightly without binding. As a result, the overlapping marginal portions of water-proof sheet around the respective legs and around the waist prevent any moisture from seeping outwardly from the diaper along the surface of the baby's skin.

The sheet 10 is composed of flexible plastic material that is chemically inert to cleaning materials such as soap, detergent, and Chlorox usually employed in home laundries.

In an alternative embodiment of my invention illustrated in Figs. 6 and 7, the layers of absorbent material are stitched together along the edges thereof and turned inside out to form a similar pair of flannel sheets, open at one end thereof. In this embodiment of the invention, two pairs of male fastener elements, such as elements 38, are employed near the front corners to facilitate size adjustment.

The diaper pad described above is very effective for its purpose since it is both comfortable to wear and safe to use and is easily laundered.

While my invention has been described with reference to only two embodiments thereof, it will be clear to those skilled in the art that various changes may be made in the form, material, details of construction and arrangement of the elements without departing from my invention.

I claim:

1. In a diaper pad, a sheet of water-proof material of hour-glass configuration, and a diaper consisting of at least one layer of absorbent material of similar configuration but of smaller dimensions stitched thereto, margins of water-proof material being formed on all sides thereof, said

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margins being between about two inches and three and one-half inches wide.

2. In a diaper pad, a sheet of water-proof material of hour-glass configuration, the ends thereof being relatively straight and the sides thereof being bowed inwardly, and a diaper consisting of at least one layer of absorbent material of similar configuration but of smaller dimensions stitched thereto, margins of water-proof material being formed on all sides thereof, the margins at the sides being narrower at the center thereof than at the ends thereof, said margins being between about two inches and three and one-half inches wide.

3. In a diaper pad, a sheet of water-proof material of hour-glass configuration, and a diaper consisting of at least one layer of absorbent material of similar configuration but of smaller dimensions stitched thereto at least along the sides thereof by means of about 60 to 70 gauge thread.

4. In a diaper pad, a sheet of water-proof material of hour-glass configuration, the ends thereof being relatively straight and the long sides thereof curving gradually, being bowed inwardly at the center thereof; a diaper of at least one layer of absorbent material of similar configuration and of smaller dimensions secured thereto, leaving substantial margins of water-proof material at both ends and at both sides; and complementary separable fastener elements affixed to said diaper and to said sheet of water-proof material at the corners thereof, said sheet of water-proof material having at least two triangular corner portions folded over corners of said diaper, each corner portion being secured to said diaper by means of at least one element of said complementary fastener elements, said one fastener element passing through the outer and inner portions of the folded corners of water-proof material and through the corner of the diaper held therebetween, said complementary fastener elements serving for securing the straight end portions of the diaper pad about a baby's waist and the long side portions thereof about a baby's legs with the marginal portions of water-proof material that encircle the legs overlapping each other and the marginal portions of the water-proof material that encircle the waist also overlapping each other.

5. In a diaper pad, a sheet of water-proof material of hour-glass configuration, the ends thereof being relatively straight and the long sides thereof curving gradually, being bowed inwardly at the center thereof; a diaper comprising a plurality of layers of absorbent material of similar configuration and of smaller dimensions stitched together by an overlock stitch along outer edges thereof, said plurality of layers of absorbent material also being stitched to said sheet of water-proof material leaving substantial margins of waterproof material at both ends and at both sides of said absorbent material; and complementary separable fastener elements affixed to said diaper and to said sheet of water-proof material at the corners thereof, said sheet of water-proof material having at least two triangular corner portions folded over corners of said diaper, each corner portion being secured to said diaper by means of at least one element of said complementary fastener elements, said one fastener element passing through the outer and inner portions of the folded corners of water-proof material and through the corner of the diaper held therebetween, said complementary fastener ele-

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ments serving for securing the straight end portions of the diaper pad about a baby's waist and the long side portions thereof about a baby's legs with the marginal portions of water-proof material that encircle the legs overlapping each other and the marginal portions of the waterproof material that encircle the waist also overlapping each other.

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