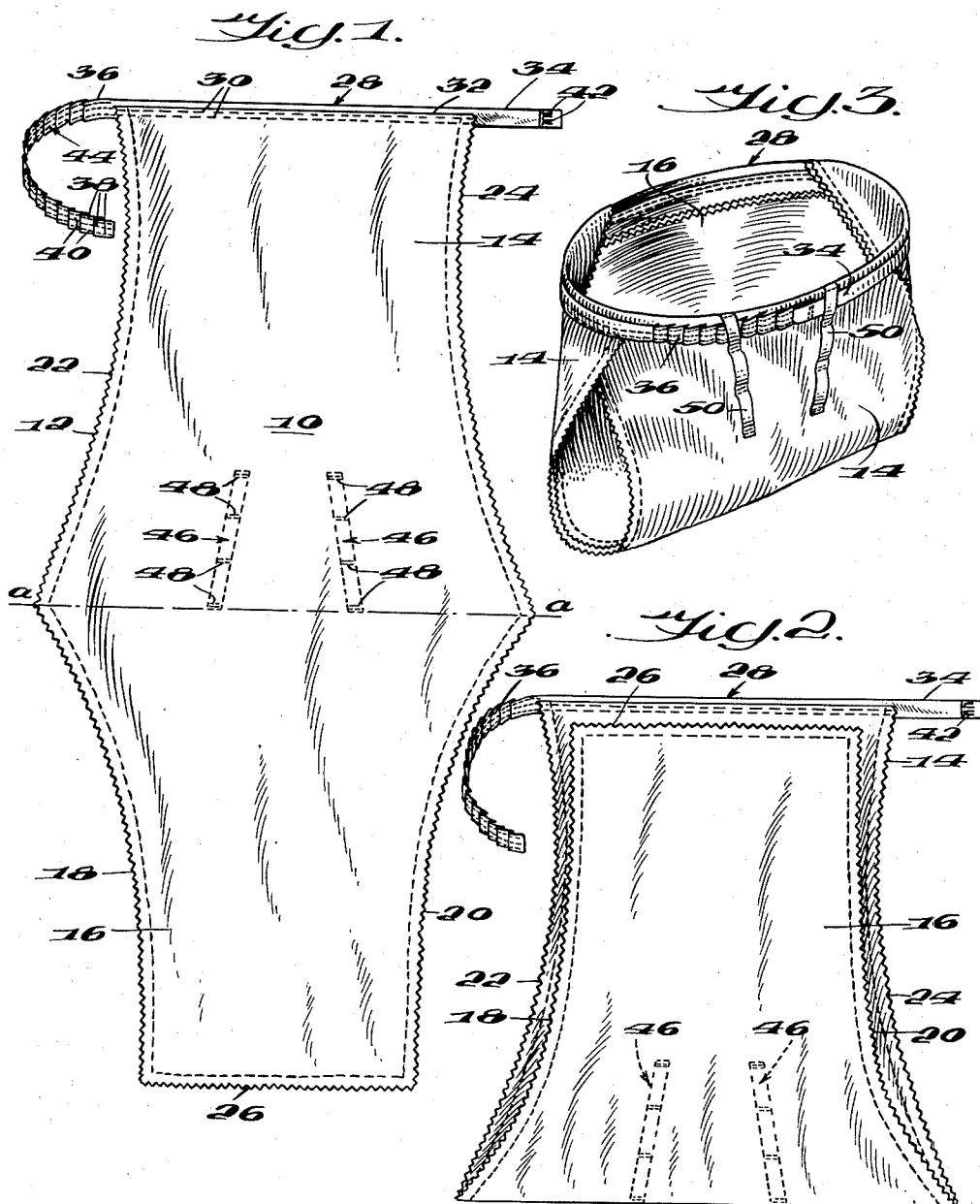


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M. M. LASER
ADJUSTABLE DIAPER

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ADJUSTABLE DIAPER

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The present invention relates to diapers for infant wear and particularly to an adjustable diaper having belt fastening means.

A general object of the invention is to provide a simple and inexpensive diaper construction that does not require the use of pins and which can be readily adjusted in a predetermined manner as the baby grows.

A further object resides in the provision of a unitary diaper of conventional diaper material having an adjustable waistband construction with adjusting means for securing the waistband in position when fastened.

One of the particular objects of this invention is to provide a diaper having a belt means and belt loop means constructed and arranged to accommodate crotch or rise adjustment.

A more specific object of the invention is to provide a diaper with an attached pair of spaced tapes having loops spaced up and down the front portion of the diaper and disposed to partially shape the diaper and to assist in maintaining it against turning.

A further specific object of the invention resides in the provision of belt means comprising free end portions extending laterally from opposite sides of one end portion of the diaper, one of which carries a fastening means that is covered on both sides when in use, and the other of which is formed to provide longitudinally spaced cooperating openings for the fastening means and to present a non-slip surface on the side adjacent the wearer.

These and other objects contributing to simplicity in manufacture, ease of adjustment and complete satisfaction in use will be more fully understood from the following detailed description of a preferred embodiment of the invention, taken in connection with the accompanying drawings, in which

Fig. 1 is a plan view of a formed diaper blank in completely open, unfolded condition;

Fig. 2 is a plan view of the blank of Fig. 1 folded along a transverse median line and ready for fastening on an infant; and

Fig. 3 is an end perspective view of the adjustable diaper construction completely assembled for wear.

In Fig. 1 a cut or otherwise formed elongated blank 10 of diaper material is shown as comprising two layers of cotton textile material, such as bird's-eye cloth, having free edges pinked and secured together by inwardly spaced peripheral stitching 12. The blank 10 is specially shaped to provide symmetrical tapered upper

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and lower paneled portions 14 and 16 having a common base line $a-a$ at the widest portion, and a central longitudinal axis. The thus shaped blank 10 may be described as semi-rectangular.

It will be observed that the upper panel portion 14 as shown in Fig. 1 is made slightly wider and longer than the lower panel portion 16 for purposes that will be explained. The lower panel portion 16 has opposite concave edges 18 and 20 that are cut to lie within respective opposite concave edges 22 and 24 of upper panel portion 14, as best illustrated in Fig. 2. While varying somewhat, the inset distance of the edges 18 and 20 is approximately between one-quarter and one inch. The lower panel portion 16 has a free end portion or edge 26 which is preferably straight and perpendicular to the central longitudinal axis of the blank 10.

A belt strip or strap 28 of stronger and less stretchable fabric than the blank 10 is secured, as by stitching 30, across the free end or upper edge of panel 14 as viewed in Fig. 1. While the belt strip 28 it preferably continuous, the basic essential is that it provide a short extension 31 on one side edge at the top of the blank 10, and a longer extension 36 on the opposite side edge. The longer extension 36 is preferably folded on itself a number of times in a lengthwise direction and fastened with three parallel rows of stitching 38 so as to form side-by-side pairs of fastener pockets 40, opening outward and facing toward the inner or anchored end of said longer extension. In the preferred embodiment a pair of simple wire hook fasteners 42, 42 are secured as by stitching to the end portion of the short belt extension 34 for cooperation with the outwardly opening fastener pockets 40, 40. In addition to affording means for adjusting the length of the belt means 28, the formation of pockets 40 by overfolding of the fabric strip portion 36 insures a soft but non-slipping inner surface 44 on the side adjacent the wearer. Such a pocket construction fully covers and protects the conventional hooks or fasteners 42, 42.

A most important feature of this invention is the use of a central pair of spaced belt retaining strips 46, 46 formed of a strong but relatively soft fabric material, which may be the same as that used for the belt means 28. With reference to Figs. 1 and 2, the belt retaining strips 46 are shown as starting at the transverse median line $a-a$ at the point of maximum width of the diaper blank 10 and extending upwardly in converging relation toward the belt strip 28. The belt re-

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taining strips 46, 46 are disposed symmetrically on opposite sides of the vertical axis of the blank 10 and are secured thereto by means such as transverse stitching rows 48, 48 spaced to form laterally aligned pairs of belt loops 50, 50 of the size to loosely receive the extensions of belt strip 28. While one of the belt retaining strips 46 with longitudinally spaced loops 50 would suffice, it is preferred to use a pair, well-spaced as shown, in order to prevent appreciable displacement of the fastened belt extensions 34 and 36, and in order to aid in centering the diaper and to maintain it in a centered position in use.

The nature and advantages of this invention will be further understood and appreciated from an explanation of the manner in which it is to be used. The diaper blank 10 as shown in Fig. 1 has its inner side uppermost, which places the belt retaining strips 46, 46 on the outer side. When this blank 10 is folded along the central median line *a-a* with the lower panel portion 16 overlying the upper panel portion 14 in the manner illustrated in Fig. 2, it will be arranged to provide the maximum rise or crotch length. With the baby on its back on the upper portion of the thus folded blank, the lower portion of the diaper will be brought between the legs and over the stomach, with the tapered end portions provided by the concave side edges snugly encircling the thighs and extending rearwardly over the hips. The forming of the diaper to the relation shown in Fig. 3 is completed by encircling the baby with the extensions 34 and 36 of the belt means 28, which extensions will be inserted through the upper pair of belt loops 50 and the belt fastened by means of the hook fasteners 42 and fastener pockets 40 in accordance with the required waist size. The hook fasteners 42, 42 are completely protected and concealed in this manner of use.

The simple, washable diaper thus provided may be readily removed when soiled by separating the belt fastening means and withdrawing the belt extensions 34 and 36 from the respective loops 50, 50.

For producing a smaller sized diaper, the lower edge 26 of the blank 10 will be brought higher relative to the belt strip 28, and either folded over that strip or inwardly, so as to elevate the intermediate or the lowermost pair of the belt loops 50, 50 (as viewed in Fig. 3) to position for proper engagement with the free belt extensions 34 and 36.

While the diaper blank configuration illustrated in the drawings and described in detail is the preferred one for achievement of the full advantages of the invention, it is not absolutely essential thereto and variations can be made in the specific shape of the elongated semi-rectangular blank 10. The same is true with regard to the diaper material which can be of rubberized or water-proofed material for use as an outer, protective garment.

Although the fastener pockets 40 formed in the manner described have been found very satisfactory in use, it is within the contemplation of this invention that modifications may be made both in the hook fasteners 42 and the spaced pocket means cooperating therewith, by substituting available fastening means of different construction.

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In other words, those skilled in this art will understand and appreciate that numerous changes can be made in the details of construction and the configuration and arrangement of parts without departing from the principles of the invention as herein embodied and the scope of the appended claims.

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

1. An adjustable, fitted diaper construction comprising a longitudinally symmetrical fabric blank having opposite end edges and longitudinal side edges, each of said side edges comprising two concave portions extending from a maximum width median line of the blank to an end thereof, a fabric belt strap secured by stitching across one end edge portion and having a free extension at each side edge, fastening means connected with one of said belt strap extensions and disposed on the inner side thereof, the other of said belt strap extensions being provided with a plurality of longitudinally spaced formations adapted to detachably receive said fastening means to adjust the effective length of the belt strap, and a laterally spaced pair of fabric strips secured centrally on the outer face of said blank on opposite sides of the longitudinal center line and extending in converging relation from the said median line of the blank toward the belt end, each of said fabric strips having a plurality of unsecured portions arranged to form aligned pairs of belt loops for the respectively adjacent strap extensions.

2. An adjustable diaper construction comprising an elongated fabric blank having opposite end edges and longitudinal side edges extending therebetween and being adapted to be folded once on itself along a central transverse line, fabric belt means fixedly secured to said blank at one end to provide an extension at each side edge, one of said extensions being provided with lengthwise spaced fastening receiving openings, fastening means secured to the other of said extensions and adapted to selectively and detachably engage said openings, and a well-spaced pair of fabric strips secured centrally to the outer face of said blank and each extending from adjacent the transverse median thereof toward the belt end edge, said fabric strips each having a plurality of separate unsecured portions arranged to form selectively engageable aligned pairs of belt loops for the belt formed by fastening together the said extensions.

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