May 28, 1957 O. K. ANDRUHOVICI 2,793,642

DIAPER-PANTS FOR THE USE OF PAD LIKE DIAPERS

Filed Aug. 19, 1955

Fig-1

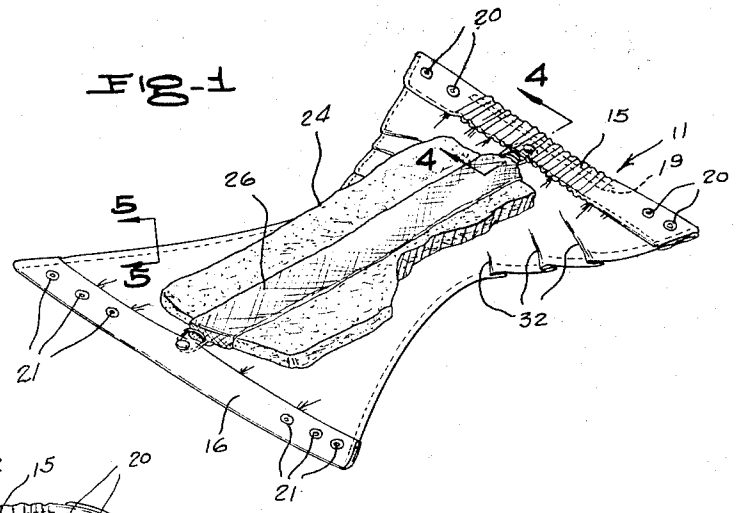


Fig-2

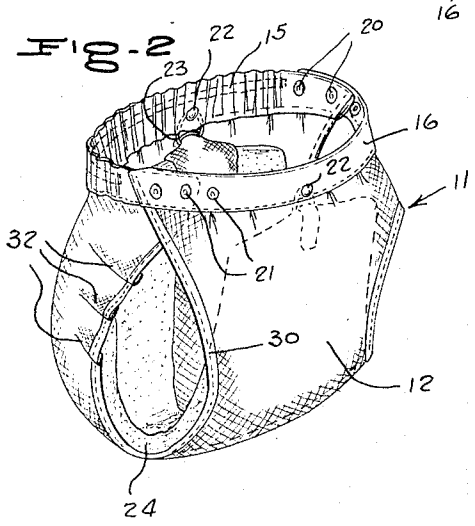


Fig-4

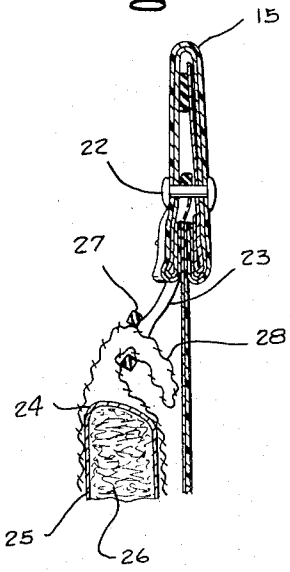


Fig-5

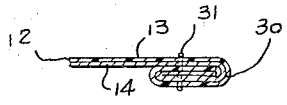
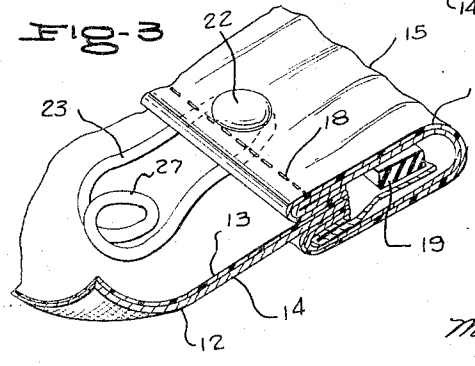


Fig-3



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DIAPER-PANTS FOR THE USE OF PAD LIKE DIAPERS

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1 Claim. (Cl. 128—284)

This invention relates to undergarments, and more particularly to an improvement in diapers.

The main object of the invention is to provide a novel and improved diaper garment which is simple in construction, which is comfortable to wear, and which has substantially improved durability as compared with diaper garments heretofore available.

A further object of the invention is to provide an improved diaper undergarment which is inexpensive to manufacture, which is easy to place on an infant and to remove therefrom, whenever necessary, and which is arranged to minimize irritation of the infant's skin, as well as to protect the infant's garments against soiling.

Further objects and advantages of the invention will become apparent from the following description and claim, and from the accompanying drawings, wherein:

Figure 1 is a perspective view of an improved diaper garment constructed in accordance with the present invention, shown in an unfolded position.

Figure 2 is a perspective view of the diaper garment of Figure 1, shown in its wearing position.

Figure 3 is an enlarged fragmentary perspective view of a portion of the waistband of the diaper garment of Figures 1 and 2 and showing the elastic loop element attached thereto.

Figure 4 is an enlarged cross-sectional detail view taken on the line 4—4 of Figure 1.

Figure 5 is an enlarged cross-section detail view taken on line 5—5 of Figure 1.

Referring to the drawings, the improved diaper garment is designated generally at **11** and comprises a main body of flexible sheet material **12**, which may be of either two-ply construction having an inner surface of flexible nonabsorbent sheet material, such as thin rubber-like material, and an outer ply of fabric, or the like, preferably being of unitary laminated construction comprising a nonabsorbent inside layer of sheet plastic material, or the like, and an outer layer of fabric secured thereto. An example of such material is "Syntilon Processed Rayon," now commercially available.

As shown in Figure 1, the main body **12** has substantially parallel opposite end margins and is substantially narrower at its intermediate portion than at said margins, whereby the intermediate portion of the main body **12** defines a crotch piece, and whereby respective leg openings are defined along the opposite sides of the diaper garment when the garment is arranged in the manner illustrated in Figure 2.

The nonabsorbent inner surface of the main body **12** is designated at **13**, and the fabric outer surface of said main body is designated at **14**. Respective waistband hems **15** and **16** are secured on the opposite end margins of the main body **12**, said waistband hems being formed of material similar to that employed for the main body **12**, and being arranged with the nonabsorbent element thereof facing outwardly, as shown in Figure 3 at **17**, the hems being folded in the manner clearly illustrated in Figure 3 and being stitched to the end margins of

the body **12** in any suitable manner, as by the stitching **18**. As further shown in Figure 3, the hems are of tubular construction and are of substantial width, whereby said hems make sealing contact with the body of the infant wearing the diaper garment, the hems containing a sufficient amount of air and being sufficiently airtight so that said hems tend to remain in an inflated condition, such as that shown in Figure 3, thereby maintaining the aforesaid sealing contact thereof with the infant's body. Preferably, a strip of elastic material, such as elastic rubber **19**, is secured in one of the hems, for example, hem **15**, to make the hem yieldable, while at the same time causing the waistband defined by the hems to closely engage the wearer's body.

The pleated hem element **15** is provided at its opposite ends with a pair of male snap fastener elements **20**, and the hem member **16** is provided at its opposite end portions with respective sets of three female snap fastener elements **21** having the same spacing as the male snap fastener elements **20**, whereby the end portions may be detachably fastened together in the manner shown in Figure 2 and whereby sufficient adjustability is provided by the selection of pairs of female snap fastener elements **21** engaged by the male snap fastener elements **20** to insure the fitting of the garment on infants of a wide range of sizes.

Secured centrally in each hem numbers **15** and **16** is a transversely extending rivet **22**, and looped around each rivet is the end portion of a respective elastic band **23**, such as a rubber band, or the like, the rivet **22** being spaced inwardly of the stitching **18**, shown in Figure 3, and the elastic band **23** extending past the stitching and outside the hem inwardly adjacent the non absorbent inner lining **13** of the garment's main body **12**.

Designated at **24** is an absorbent pad which may comprise a suitable inner mass of absorbent material, such as cellulose cotton material, covered by an envelope of porous tissue paper **25**, the absorbent cellulose cotton material being shown at **26'** in Figure 4.

The pad **24** is generally rectangular in shape and engaged therearound longitudinally is a band of flexible gauze material **26**, the end portions of the band **26** being detachably secured in respective eye-loops **27** formed in the elastic band **23** in the manner illustrated in Figure 4 wherein the end portions of the gauze band **26** is shown at **28**. As will be readily apparent from Figure 4, the eye-loop **27** will thus secure the ends of the band **26** and will thus retain the pad **24** in centered position on the main body of the diaper garment. As will be further apparent, the ends **28** of the band **26** may be readily disengaged from the eye-loop **27** whenever it is necessary to replace the pad **24**. The gauze band **26** preferably forms part of and are marketed with the pads **24**, being thus disposable along with the pads.

The respective edges of the longitudinal sides of the main body **12** are formed with hems **30**, as shown in Figure 5, said hems being folded over and stitched, as by longitudinal stitching **31**, to provide thickened edges which are sealingly engageable with the wearer's skin at the leg openings of the garment, to provide respective seals at said leg openings. The side margins of the main body **12** are further provided with spaced pleats **32** adjacent the rear hem member **15**, as shown in Figures 1 and 2, whereby a better fit is provided and whereby the garment conforms more accurately to the contour of the infant's body while maintaining sealing engagement with the infant's skin around the leg holes of the garment. With the provision of such sealing contact with the infant's leg, the outer fabric surface **14** of the garment body **12**, and the infant's outer garments are protected against soiling by moisture from the interior of the diaper garment.

When the pad 24 becomes soiled, said pad may be readily removed and disposed of, a new pad being substituted for the soiled pad.

While the diaper garment above described has been illustrated for use by infants and small children, obviously, the garment may be made in any size, and may be made for use by any individuals having need therefor, and by invalids or other incapacitated individuals, if so desired, within the spirit of the present invention.

While a specific embodiment of an improved diaper undergarment has been disclosed in the foregoing description, it will be understood that various modifications within the spirit of the invention may occur to those skilled in the art. Therefore, it is intended that no limitations be placed on the invention except as defined by the scope of the appended claim.

What is claimed is:

A diaper garment comprising a main body of flexible sheet material, said main body having substantially parallel opposite margins and being substantially narrower at its intermediate portion than at said margins, whereby said intermediate portion defines a crotch piece, respective waist band hems on said margins, respective rivets engaged transversely through the intermediate portions of said hems, said main body having an inner surface of flexible nonabsorbent sheet material, said waist band hems being formed with nonabsorbent outer surfaces extending externally over the top edges of the hems to provide sealing contact with the wearer's body at said top edges and being substantially tubular in construction, respective elastic bands surrounding said rivets and each having a loop portion projecting from its associated hem adjacent said inner surface of nonabsorbent sheet material, a pad of absorbent material detachably secured at opposite ends to the respective loop portions and extending longitudinally on said first-named nonabsorbent inner surface, and means detachably securing the ends of one of said waist band hems to the ends of the other waist band hems to define respective leg openings along the opposite sides of the diaper garment, and whereby said hems define the waist band of the garment.

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