United States Patent

Goldstein

[15] **3,688,767**

[45] **Sept. 5, 1972**

[54] **DIAPER-HOLDERS OR NAPKIN-HOLDERS FOR BABIES**

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[22] Filed: **June 1, 1971**

[21] Appl. No.: **148,716**

[30] **Foreign Application Priority Data**

Oct. 20, 1970 France.....7037844

[52] **U.S. Cl.**.....**128/287**

[51] **Int. Cl.**.....**A61f 13/16**

[58] **Field of Search**.....128/284, 286, 287, 290 H

[56] **References Cited**

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Primary Examiner—Charles F. Rosenbaum
Attorney—William J. Daniel

[57] **ABSTRACT**

A diaper-holder or napkin-holder essentially comprising a sheet of plastics material with areas cut out in a wide sweep on two of its sides and possessing, on its two other sides, pockets intended to receive the respective ends of a diaper-pad for babies. The pockets are each formed by a double S-shaped folding over of the material of the sheet. The outer fold is heat-welded over at least a portion of its length in such a way as to constitute a supporting means for the end of the diaper-pad. The inner fold is only welded along portions of its length that are situated on either side of the diaper-pad.

7 Claims, 3 Drawing Figures

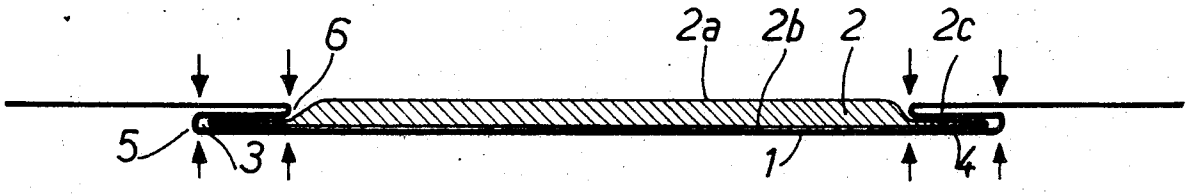


FIG. : 3

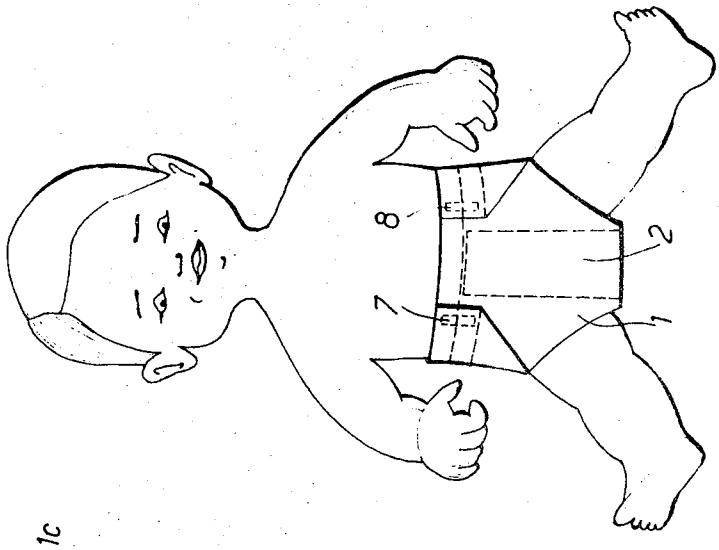


FIG. : 1

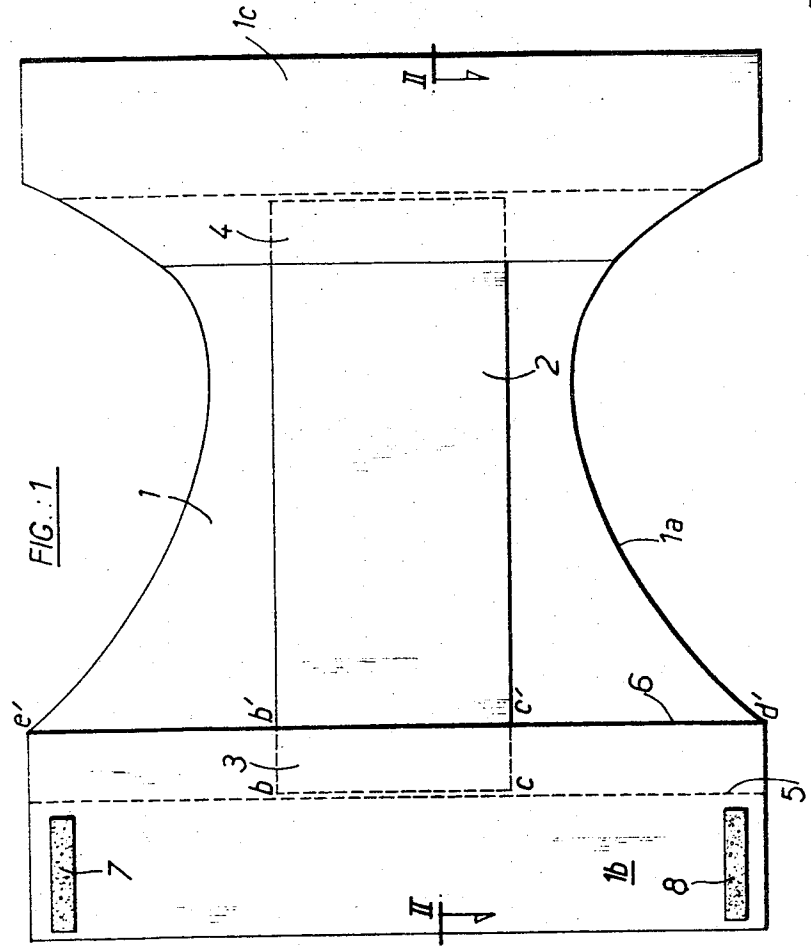
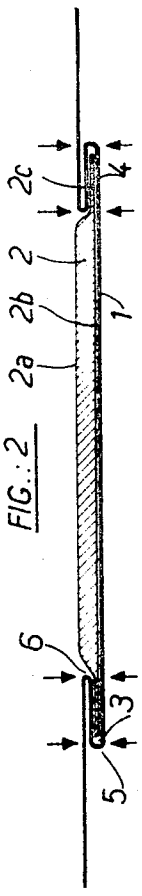


FIG. : 2



DIAPER-HOLDERS OR NAPKIN-HOLDERS FOR BABIES

The invention relates to materials for bandages, dressings, etc. . . , which in the present case are more precisely diaper-holders or napkin-holders for babies.

A diaper-holder or napkin-holder is already known for babies, this being of the type formed of a sheet of plastics material with areas cut out in a wide sweep on two opposite sides, the sheet carrying on each of the two other sides an inner pocket obtained, at least partly, by folding over the said other sides, these pockets being suitable for receiving the respective ends of a diaper-pad for babies. With the said diaper-holder so positioned that the diaper-pad is arranged between the legs of the baby, the ends (duly defined by the cut-out areas) of the sheet of plastics material are composed of kinds of thongs which are run up towards the waistline around the trunk of the baby and which are knotted, this ensuring the retention in position of the diaper-pad.

The employment of such a diaper-holder is quite practical because, in order to put a diaper on the baby, the operation is greatly simplified.

However, the diaper-holder of the already known type has several drawbacks.

First of all, it does not allow the use of diaper-pads of the current size for babies, but requires, the employment of special diaper-pads which are of a slightly greater length. In fact, it will be found that the ends of a normal diaper-pad, when the latter is placed between the legs of the infant, do not reach very high up the trunk. For this reason, and through the fact that the diaper-holder in which the diaper-pad is fitted has substantially the same length as the diaper-pad, the terminal portions of the said diaper-holder are not located on a level with the waistline, but lower down. If it is desired to fit the diaper-holder comfortably around the waist of the infant, it is then necessary to give it a greater length and, because of this, to employ longer diaper-pads.

A second drawback arises through the presence of the knots in the thongs. It is not always very easy to make a knot, especially when the infant is moving about, and, furthermore, the knots may constitute annoying lumps of extra thickness.

The invention is aimed more especially at eliminating these two drawbacks, that is, it makes it possible to employ babies' diaper-pads of a standard size and it eliminates the need for knots without producing in practice any often uncomfortable lumps, while still keeping to a relatively low cost of manufacture.

To this end, according to the invention provision is made, in a diaper-holder of the type indicated above, for each of the folded arrangements to be formed of two folds according to a flattened S shape, that is to say, a first fold at a distance from the central portion of the diaper-pad, and a second fold somewhat nearer the said central portion, the folds formed in this way being heat-welded, the welding being carried out, as regards the first fold, at least along a median portion of the said first fold which is located in an area intended to be occupied by one end of the said first fold which is located in an area intended to be occupied by one end of the diaper-pad, in such a way that the said welded part constitutes a supporting means rendering it possible to keep the diaper-pad in place, and as regards the second fold, solely on parts of the said second fold that are situated on either side of the area intended to be occupied by the said end of the diaper-pad.

Thus, on the sides without the cut-out areas, the sheet of plastics material forms extensions running on beyond the ends of the diaper-pad. According to one feature of the invention, at least one of the said extensions carries adhesive strips.

The following description relating to the accompanying drawing and given by way of example will indicate how the invention may be carried into practice.

In the drawings:

FIG. 1 shows, laid flat, in a plan view, a diaper-holder according to the invention with the baby's diaper-pad in positions;

FIG. 2 is a view of a corresponding longitudinal section, for example taken along the line II—II in FIG. 1, and

FIG. 3 illustrates the diaper-holder in position on a baby.

In FIG. 1, it will be seen that the diaper-holder is made of a thin sheet 1 of plastics material such as polyvinyl chloride, a polyester or another suitable material. This sheet is of a generally rectangular form which comprises two long sides and two short sides. The long sides have cut-out areas as shown at 1*a*, so as to permit the passing through of the legs and due play around them. Following the line of its greatest dimension, a bab's diaper-pad 2 rests against the sheet and is tucked by its ends into pockets 3, 4 of the sheet which are formed in the manner just explained. It should be noted that the diaper-pad 2 is formed of an absorbent cellulose material packet between two sheets 2*a*, 2*b* joined directly at their ends to form tongues 2*c* which are slipped into the pockets 3, 4. The sheet 2*A* is of necessity permeable, whereas the sheet 2*b* does not have to be so. For example, the sheet 2*a* is of a non-woven material, and the sheet 2*b* is of a cellulose material. Marks make it possible to distinguish sheet 2*b* from sheet 2*a*, so that sheet 2*b* may be placed against the plastics material.

In order to form the pockets 3, 4 already mentioned, at 5 and 6 each small side of the sheet of plastic material 1 is folded over twice to provide the shape of a flattened S, and these folds are welded into place by heat and pressure, at least fractionally, as indicated by the arrows. The outer fold 5 may be, and is with advantage, welded along its entire length, but at least it should be welded along the portion *b*—*c* of the said length that is located opposite the end of the diaper-pad 2, the said diaper-pad being thus held in place. The inner fold 6, on the contrary, should not be welded along the part *b'*—*c'* corresponding to the passage-way for the diaper-pad, but should be welded solely along at least one part, and with advantage along the entirety, of the portions *c'd'* and *b'e'* which are located on either side of the diaper-pad 2. At each end the pockets 3, 4 are formed in a similar manner, though it may be noted that, in the case of the pocket 4, the zone of the folds falls in an area where material has been cut away, whereas for the pocket 3 the folds fall outside the cut-away material, so as to match the anatomy of the body.

Beyond the folds 5 there therefore remain, within the sheet 1, extensions or flap-ends 1*b*, 1*c* (or, to put matters in another way, the folds have been made relatively

far away from the ends of the sheet so as to provide these extensions) which will constitute a kind of belt intended to fit around the waist of the baby when these flap-ends are wrapped around him; the retention in position of the diaper-holder on the trunk of the baby will then be effected by an adhesive arrangement, by virtue of two adhesive strips **7**, **8** which make the two flaps-ends **1***b*, **1***c* to each other. It will be readily observed from FIG. **3** how the kind of leakproof pants composed in this manner will then appear.

It should also be pointed out that, among the advantages of the invention, is the fact that it lends itself well to a mechanized manufacturing process which includes the automatic cutting out, folding and welding of the sheets, as well as the automatic positioning of a diaper-pad **2**, to achieve a combined arrangement "ready to put on the baby." In this respect, it is important that the non-woven material which constitutes the surface **2***a* of the diaper-pad **2** should be carried out in a material which cannot be heat-welded to the sheet **1** of plastics material. By this means, in case the means for carrying out heat-welding were to exert their function in the zone *b'—c'* , one prevents the diaper-pad **2** itself from being welded to the diaper-holder. It will then be seen, and this is also one of the advantages of the invention, that one may utilize the same diaper-holder several times in succession while replacing a soiled diaper-pad **2** by a new, clean diaper-pad the ends of which are tucked into the pockets **3**, **4** defined in the manner described above.

It is self-evident that modifications may be effected in the form of embodiment just described without however thereby departing form the scope of the invention as defined by the appended claims.

I claim:

1. A diaper-holder or napkin holder for babies formed of a sheet of plastic material having on two opposite sides thereof arcuate leg-receiving cut-outs and on the two other sides generally straight-edged parallel ends, said two other sides carrying mutually facing inner pockets suitable for receiving the respective ends of a diaper-pad, said inner pockets each being formed at least partially by folding said other two sides along two spaced apart fold lines substantially parallel to said ends into two folds of generally flattened S-shape and welding said folds in place, the welding for said outer fold line extending at least partially along the median portion thereof so that the thus-obtained welded part constitutes a supporting means to keep the diaper-pad in place, and the welding for said inner fold line being along its side regions to keep the median portion free to receive the diaper-pad.

2. A diaper-holder according to claim **1**, wherein the said outer fold line is welded along its entire length.

3. A diaper-holder according to claim **1** wherein the said inner fold is welded along all the portions of its length extending on either side of the area intended to be occupied by the end of the diaper-pad.

4. A diaper-holder according to claim **1**, wherein the sheet of plastic material is provided on at least one of its straight sides, in the area included between the outer fold and the adjacent end of the sheet, with adhesive areas.

5. A diaper-holder according to claim **1**, with a baby's diaper-pad in position in the diaper-holder, wherein the plastic material of the diaper-holder and the material of the surface of the diaper-pad that is intended to come in contact with the skin of the baby are not mutually heat-weldable.

6. A diaper-holder according to claim **1** wherein said folds are heat-welded in place.

7. A diaper-holder according to claim **1** wherein in said diaper-pad surface material is non-woven.

* * * * *

UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 3,688,767 Dated September 5, 1972

Inventor(s) Guy GOLDSTEIN

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

In the Heading of the Patent:

Insert: -- Assignee: Societe F. Beghin, Thumeries, France --.

Signed and sealed this 13th day of March 1973.

(SEAL)
Attest:

EDWARD M.FLETCHER,JR.
Attesting Officer

ROBERT GOTTSCHALK
Commissioner of Patents

FORM PO-1050 (10-69)

USCOMM-DC 60376-P69
* U.S. GOVERNMENT PRINTING OFFICE : 1969 O—366-334