April 10, 1934. J. I. MYERS 1,954,457

DIAPER

Filed Feb. 10, 1932

Fig. 1.

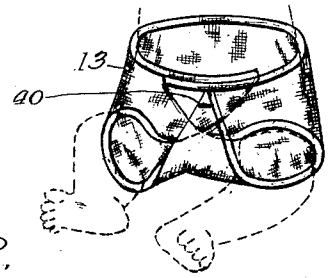


Fig. 2.

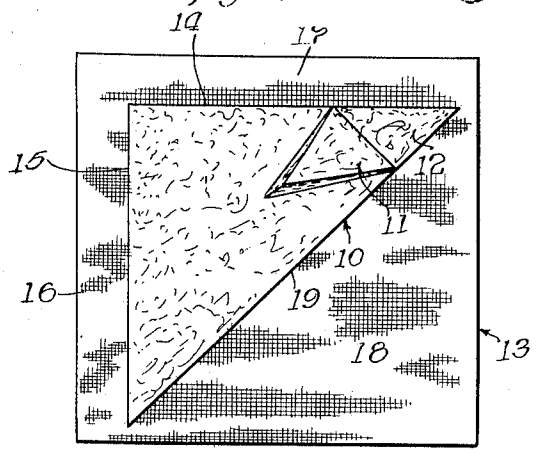


Fig. 3.

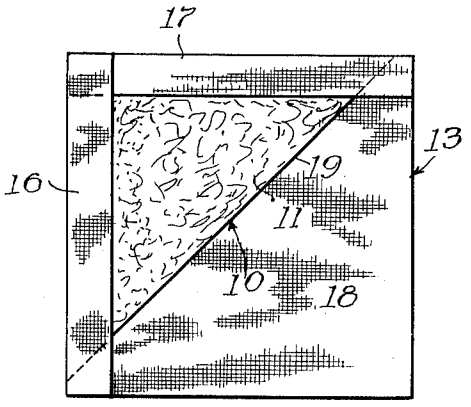


Fig. 4.

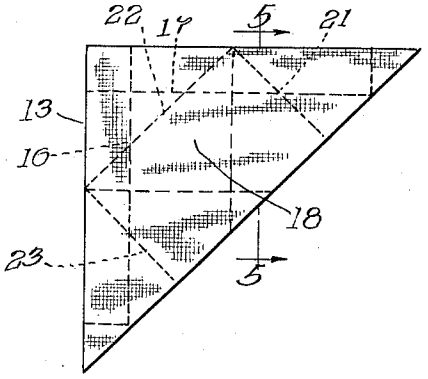


Fig. 6.

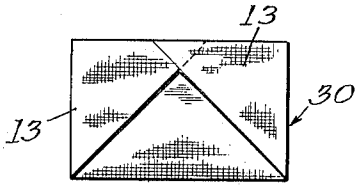


Fig. 7.

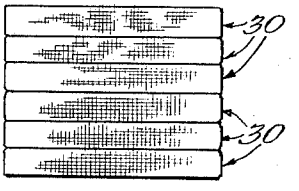
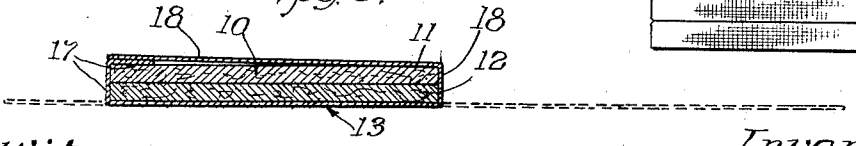


Fig. 5.



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UNITED STATES PATENT OFFICE

1,954,457

DIAPER

Janet I. Myers, Chicago, Ill.

Application February 10, 1932, Serial No. 591,936

2 Claims. (Cl. 128—284)

The invention relates to improvements in a single use diaper and the primary object is to provide an improved diaper constructed and arranged in a manner that enables it to be highly efficient and capable of ready disposal thereby avoiding expense and labor while at the same time providing an article of apparel that is capable of application with ease and facility in an old and well known manner thereby increasing its scope of ready usefulness and salability to the average purchaser and user of articles used as diapers or napkins for analogous purposes.

A further object of the invention is to provide a single use diaper that is economical and efficient that may be applied for use in an ordinary manner without deviation from common and well known steps in the method of application.

Other objects of the invention will appear from the following description of the preferred form of the invention to be taken in connection with the drawing forming a part of the specification, the novel features being set forth more particularly in the appended claims.

In the said drawing:

Fig. 1 is a perspective view of the invention illustrating its preferred mode of application, outlines of adjacent portions of a child's body being indicated by broken dotted lines.

Fig. 2 is a plan view of the superposed blanks or portions of material for use in making the completed article in condition or form for application as illustrated in Fig. 4.

The view in Fig. 3 shows an intermediate stage in the folding of the materials of Fig. 2 along two of the edges thereof leaving the final flap of the covering material in condition for folding over flat upon the article to produce the completed article of Fig. 4.

Fig. 5 is a detail sectional view taken through the completed article on the line 5—5 of Fig. 4 looking in the direction indicated by the arrows.

Fig. 6 is a plan view of the article of Fig. 4 showing the preferred manner in which the same may be folded in the form of a compact rectangular article suitable for packaging and for transportation and distribution, while Fig. 7 illustrates one manner in which a plurality of the folded articles of Fig. 6 may be superposed in order to be placed in a suitable package or carton for convenient distribution for the user.

In the embodiment of the invention illustrated, the reference character 10 designates generally a pad of relatively thick absorbent material, preferably of a suitable wood or analogous fiber or pulp of a comparatively fine or spider-web consistency, highly absorbent and readily disintegrable.

This pad 10 will preferably be relatively thick, that is, anywhere from three-eighths of an inch in thickness up to three-fourths of an inch or more in thickness.

The pad 10 may be cut from a single sheet of such absorbent material or it may be, as illustrated in Figs. 2 and 5, made up of a plurality of sheets as, for example, the superposed sheets 11 and 12 or any number of piled or superposed sheets of highly absorbent and readily disintegrable fibrous material or other analogous material.

Reference character 13 designates a rectangular sheet of a loosely woven or open mesh, porous fabric of comparatively low cost material analogous to cheese cloth or butter cloth or of a character analogous to ordinary surgical gauze.

In forming and assembling the article, the rectangular gauze sheet 13 will preferably be in the form of a square, that is, having the sides all equal, while the relatively thick pad 10 of the highly absorbent, fibrous material, shown as comprising the sheets 11 and 12 or any desired number of such superposed plies or sheets of absorbent material, will preferably be cut in the manner illustrated most clearly in Figs. 2 and 3 in the form of an isosceles triangle, the two equal sides of which, as designated at 14 and 15 respectively, will be somewhat less in length than the sides of the rectangular woven fabric sheet 13 so that when the pad 10 is laid flat upon the sheet 13 in the manner illustrated in Fig. 2, portions of the sheet 13 as indicated at 16 and 17 will project beyond the edges 14 and 15 of the pad. These fabric edges may be folded over on top of the pad 10 in the manner illustrated in Fig. 3, thus giving the absorbent pad 10 the shape of an isosceles triangle, the equal legs of which are formed at a right angle in relation to each other enabling the pad 10 or the composite sections 11 and 12 to always be cut from a single square along the diagonal of the square without the loss of material.

If the pad 10 and the square fabric sheet 13 be given the approximate proportions or dimensions indicated in Fig. 2 with respect to each other, the resulting completed article illustrated in Fig. 4 may be produced in the form as shown whereby the article may be applied in the same manner as the ordinary square cloth diaper folded once upon itself along diagonal lines of fold.

While the absorbent pad 10 of fibrous material will be covered and protected around its periph-

ery when the marginal projecting sides 16 and 17 are folded over around the two corresponding sides of the pad and flat upon the top surface thereof in the manner illustrated in Fig. 3, whereupon the large marginal projecting portion of the fabric sheet 13, designated by the reference character 18, will then be folded around the base side as designated at 19 of the triangular pad 10 and flat upon the top side of the pad 10 overlying the previously folded side edges 16 and 17 all as illustrated in the plan view of the completed article Fig. 4.

In proportioning the relative sizes of the fabric sheet 13 and the pad 10, it will be observed that to allow for the thickness of the pad and to cause the large triangular top flap 18 to overlie the pad and the folded over side edges 16 and 17 in a proper manner, illustrated in Figs. 3 and 4, the long side of the pad as 19 will be offset from the normal diagonal of the sheet 13 as illustrated with the completed article assembled and folded as illustrated in Fig. 4, and it may be applied like an ordinary diaper of rectangular form folded once upon a diagonal line and stitching or other securing means to secure the respective enveloping flaps of the fabric sheet 13 around the absorbent pad will not be required.

Since my improved article is designed mainly for a single use diaper, this loose construction of the enveloping fabric aids greatly in the disposal of the absorbent pad portion of the article since the same may be discharged after use very readily and is disintegrable leaving only the relatively thin gauze fabric sheet 13 to be disposed of as may be desired.

My completed article when prepared, assembled and formed in the manner described and as illustrated in Figs. 2 to 4 inclusive, may obviously be packaged for shipment or sale in any desired manner but for cartoning and shipping purposes to the distributor and ultimate user, the completed triangular article may conveniently be folded along the lines of fold coinciding with the dotted lines designated by the reference characters 21 to 23 inclusive (Fig. 4) thus producing the substantially rectangular, folded article as shown in Fig. 6, designated generally by the reference character 30 and the thus folded articles 30 will be in condition for packaging by arranging a plurality of them in a single pile for packaging in the manner illustrated in Fig. 7, and may be applied in the ordinary manner to the child's body as illustrated in Fig. 1 the acute angled terminal portions and the right angular terminal portion being secured together by any suitable type of safety clasp or pin as indicated by the reference character 40 in Fig. 1. If preferred, the acute angled tip of the pad member 10 may be cut off back toward the lines 21, 23 without interfering with the efficiency thus making attachment somewhat easier.

In order that the invention might be understood, the details of the preferred embodiment have been set forth but it is not desired to be restricted thereto except as defined by the claims for it will be apparent that various modifications may be resorted to by those skilled in the art without departing from the purpose or spirit of my invention.

I claim:

1. An article of the character described comprising a relatively thick pad of highly absorbent and readily disintegrable and fibrous material in a loosely felted condition in the approximate form of an isosceles triangle of which the apex is a right angle, in combination with a loosely woven rectangular enveloping sheet of textile fabric adapted to overlie one of the flat sides of the pad with two of the marginal edges of said sheet parallel with and projecting beyond the two equal legs or side edges of the pad, with substantially half the body of the fabric enveloping sheet adapted to extend in the form of a triangular flap beyond the third side of the triangular pad whereby the three said projecting marginal portions of the enveloping sheet are then folded over and around the respective side edges of the pad and flat upon the opposite flat sides of the pad with the said triangular projecting flap of the enveloping sheet overlying the two aforesaid marginal flaps and being substantially co-extensive with the flat sides of the pad whereby the said enveloping sheet may be quickly detachable from the pad of absorbent material after the article is used and soiled.

2. As an article of commerce a relatively thick pad of highly absorbent material in the approximate form of an isosceles triangle in combination with a textile fabric enveloping sheet overlying one of the flat sides of the pad and having two projecting marginal edges forming relatively narrow flaps extending beyond and parallel with the two equal sides of the pad, and leaving the remainder of the enveloping sheet in the form of an isosceles triangle of substantially the form and size of the periphery of the said triangular pad and projecting beyond the third side of the pad, the said flaps of the enveloping sheet being folded over and around the respective side edges of the pad with the two narrow projecting edges lying flat upon the opposite surface of the pad and the said triangular flap then being folded upon the same flat side of the pad and overlying the aforesaid previously folded narrow flaps and the said envelope and pad being unsewn whereby to form a quick, detachable envelop for the aforesaid pad of absorbent material.

JANET I. MYERS.