

March 20, 1962

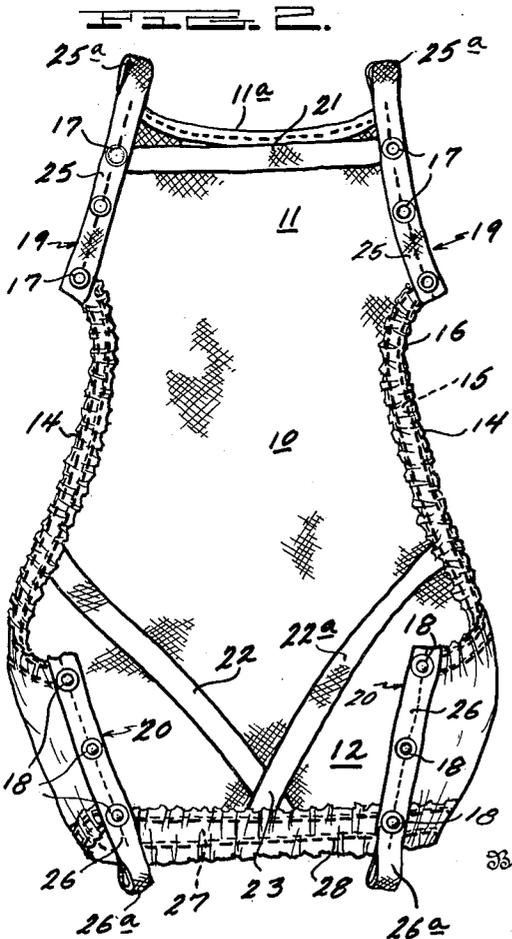
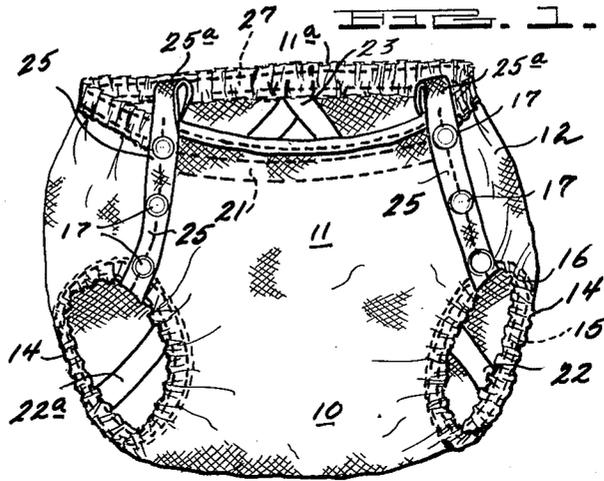
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3,025,856

INFANT'S WEARING APPAREL

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2 Sheets-Sheet 1



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2 Sheets-Sheet 2

FIG. 7.

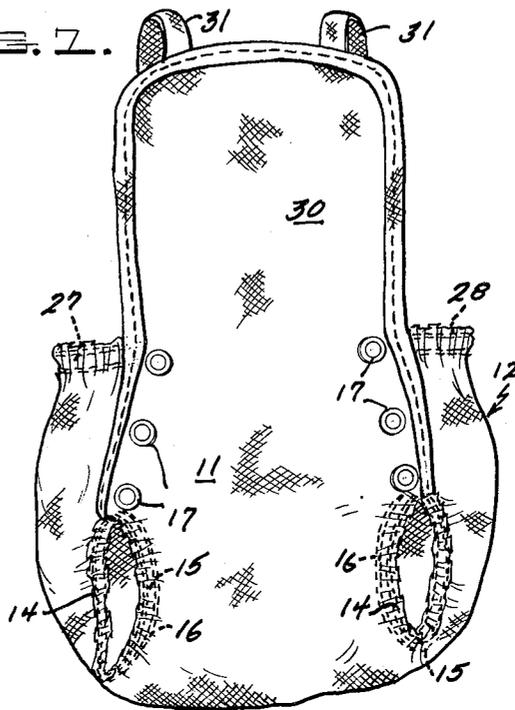


FIG. 6.

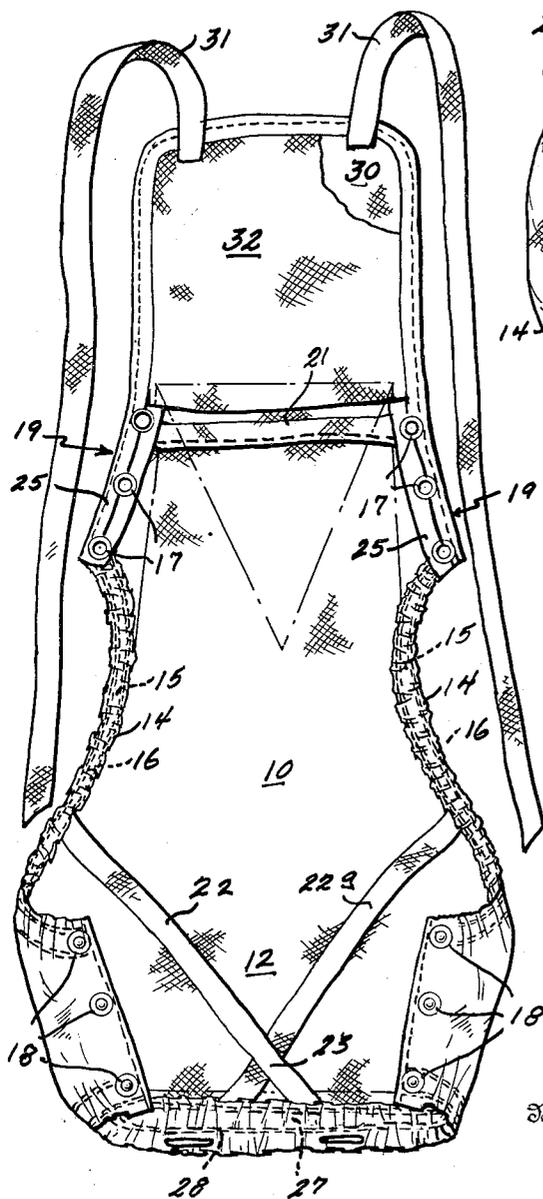
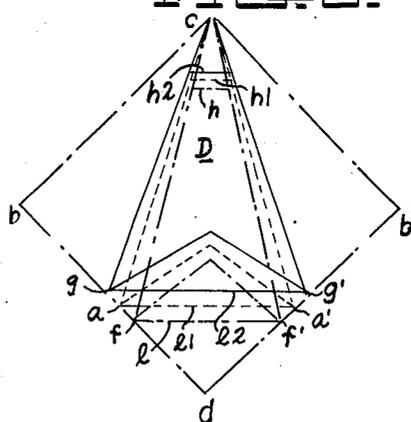


FIG. 5.



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INFANT'S WEARING APPAREL

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The present invention relates to new and useful improvements in infants' and children's wearing apparel, such as infants' and children's pants which may be employed as diaper or absorbent pad holders; playsuits, sunsuits, bathing suits and the like.

With the usual type of trunks or pants, it has been customary to shape and form the pants so that they are fitted around the waist of the infant or child, that is, around the waist from the small of the back over the abdomen and stomach. Such pants, when thus fitted, have a tendency to sag or droop upon exercising and movement of the wearer. This is particularly true of diaper holding pants because, under the weight of the diaper, particularly if soiled, the crotch portion becomes baggy and interferes with the free movement and comfort of the wearer. Furthermore, the tendency for this type of pants to droop or sag is increased by the fact that care must be taken not to secure the pants too tightly around the waist of the wearer, particularly around feeding times.

With the above in mind, one of the principal objects of the present invention is to provide a garment substantially of the above type which is shaped and constructed to fit the body of the wearer and to be maintained in proper predetermined position without any tendency for the garment to sag or bind the body of the wearer.

Another object of the invention is to provide a garment substantially of the above type which is shaped to afford primary support therefor across the small of the back of the wearer without sagging or binding.

Another object of the invention is to provide a garment of the above type wherein there is provided a relatively narrow and short crotch portion terminating in a front panel portion having the free transverse edge thereof substantially curved downwardly so as to fit beneath the stomach of the wearer and thus eliminate any pressure or discomfort across the abdomen, sides and back and, at the same time prevent sagging of the garment.

A further object of the invention is to provide a garment of the above type wherein the back panel portion is relatively elongated transversely so that when folded to meet the adjacent edges of the front panel portion, the cooperating meeting edges of both panel portions will be disposed in front of the hips of the wearer under the stomach and diagonally along the groin.

A still further object of the invention is to provide a garment of the above type wherein releasable fastening means are provided along the meeting edges of the front and rear panel portions and wherein the housed diaper lies beneath the fastening means so as to provide a cushion and prevent discomfort to the wearer and contact with the outer garment.

A still further object of the invention is to provide a garment of the above type wherein elastic holding means extends only along the transverse free edge of the back panel portion of the garment so that the entire support for the garment is diagonally downwardly from the elastic holding means at the small of the back above the buttocks with the transverse free edge of the front panel portion disposed beneath the stomach of the wearer, whereby to provide maximum comfort without sagging.

The invention still further aims to provide a garment of the above type having cooperating straps within the

2

front and back panel portions which afford convenient means for securing and readily releasing a properly folded or pre-shaped diaper or pad.

The above and other objects of the invention will in part be obvious and will be hereinafter more fully pointed out.

In the accompanying drawings, wherein like numerals refer to like parts throughout the several views:

FIGURE 1 is a front elevation showing the garment in diaper-holding and secured position;

FIGURE 2 is an inside plan view showing the garment in open diaper-receiving position;

FIGURE 3 is a more or less diagrammatic view illustrating conventional types of diaper-holders and the resultant sagging thereof to the dotted line position;

FIGURE 4 is a similar diagrammatic view but illustrating the instant garment in predetermined inclined fitted full line position thereof;

FIGURE 5 is a plan view showing in dotted lines a substantially square or rectangular diaper folded to one of several permissible final positions for insertion in the garment;

FIGURE 6 is an inside plan view of a modified form of garment in open position and having a bib portion adapting it for use as a playsuit, sunsuit or bathing suit; and

FIGURE 7 is a front elevation showing the modified garment of FIGURE 6 in folded and secured position.

Referring more in detail to the accompanying drawings and particularly to FIGURES 1 and 2 at this time, it will be seen that the open garment, which is preferably formed of rubberized or other suitable moisture-proof or moisture-resistant material, is of generally frusto-conical shape in plan view and includes a relatively short and narrow crotch portion 10 merging into a front panel portion 11 and a rear panel portion 12. Attention is invited to FIGURE 2 which shows the rear panel portion 12 to be substantially longer transversely than the corresponding edge of the front portion 11. The merging edges between the front portion and the rear portion are each curved inwardly, along the narrow crotch portion as at 14, in order to snugly engage around the upper portions of the legs of the wearer without bagginess. An elastic fabric 15 is secured along these inwardly curved edges within lines of stitching 16 which secure inturned gathered edges of the garment material or separate strips thereof over the elastic to provide a covering therefor. The ends of the elastic fabric 15 are secured to adjacent ends of the edges of the front and rear portions at the location of cooperating releasable snap fasteners 17, 18, respectively, there being additional (three being shown) mutually cooperating snap fasteners along the meeting and lapped edges 19, 20 of the front and rear panel portions 11, 12, respectively.

For holding a folded or preformed substantially triangularly shaped diaper within the garment, the front portion 11 adjacent the upper edge thereof is provided with a transverse strap 21 having the ends thereof secured by the upper fastener elements along the side edges of the front portion. A pair of straps 22, 22a are slightly crossed and lapped in approximate V-shape, as indicated at 23, with the apex secured along the free transverse edge of the back portion 12, the opposite ends of the straps 22, 22a being secured at equally spaced points along the inwardly curved opposed edges of the crotch portion 10.

As more clearly illustrated in FIGURES 1 and 4, when the garment is folded, the meeting side edges between the front and rear portions are lapped and joined by the separable fasteners 17, 18, along inclined lines following the groin of the wearer and disposed substantially in front of the hips of the wearer and beneath the stomach.

3

Reinforcing strips 25, 26 are secured along the meeting edges of both the front and rear panels to provide additional strengthening material for securely holding the cooperating snap fasteners and these strips are extended at the upper ends thereof to provide finger-gripping loops 25a, 26a, which may be conveniently grasped by the nurse or other attendant for opening the garment. An elastic tensioning band 27 is secured along the free edge of the back portion 12 within lines of stitching 28 which secures inturned gathered edges of the garment material or separate strips thereof over the elastic to provide a protective covering therefor.

Referring more specifically to FIGURES 3 and 4 in order to illustrate the manner in which the present garment is cut to fit the wearer and to be maintained in such fitted position, it will be seen in FIGURE 3 that the conventional type of diaper-holder is originally fitted on the infant so that the upper edge A thereof extends substantially horizontally around the waist of the wearer and substantially covers the abdomen and stomach. With exercising and contraction of the stomach after feeding, it will be readily seen and appreciated that the upper edge A of this type of garment will readily slip down over the stomach of the wearer to the inclined position indicated by the dotted line B with resultant sagging and bagginess in the crotch portion. In FIGURE 4, the garment of the present invention is illustrated in its fitted position by the line B' and this is substantially below the dotted line position A' indicating the original fitting of conventional garments of this type, as shown in FIGURE 3. Thus, with the present garment originally fitted with the edge thereof extending along the inclined line B', support is primarily the point C' across the small of the back and regardless of exercising or distension or contraction of the stomach the garment will remain in position along the forwardly inclined line B' without any substantial change from its original fitted position.

It is to be noted that the front panel portion 11 is shorter than the rear portion and the material is cut with that in mind so that the free edge 11a of the front portion will be beneath the wearer's stomach when the garment is fitted, as diagrammatically shown in FIGURE 4. Likewise the free edge 11a of the front portion is substantially curved downwardly to effect the desired snug fit on the wearer. The elastic 27 across the free edge of the rear portion thus snugly, but without binding pressure, engages across the small of the wearer's back to afford the primary supporting line for the entire garment, that is, with the edge of the front portion disposed beneath the stomach and with the secured edges of the front and rear portions disposed along the groin in advance of the hips. Thus, the elastic bands 15 along the crotch maintain a neat fitting with the legs of the wearer and sagging of the entire fitted garment is counteracted by the support across the back of the wearer.

In FIGURE 5 there is shown in dotted lines a substantially rectangular diaper D which is conveniently adapted for use with the garment of the present invention. Thus, the triangular wing portions abc and a'b'c are adapted to be folded inwardly to overlapped positions along the inclined lines ac, a'c to provide a triple thickness of material throughout the extent of the diaper holder. The bottom portion with its apex at d is then folded upwardly along either of the lines l, l', l², depending upon the age or size of the infant, to provide additional layers of absorbent material. When inserting the folded diaper in the garment holder, the bottom wider portion thereof is inserted beneath the straps 22 22a with the end portions at a and a' lying within the garment holder and immediately beneath the edges of rear portion which carry the separable fasteners so that only diaper contacts the wearer. The opposite small end of the diaper with its apex at c is inserted beneath the strap 21 adjacent the free edge of the front portion 11, and is then reversely folded over the strap 21 substan-

4

tially along one of the lines h, h', h², so as to secure the diaper and provide increased thicknesses of material in this area and to prevent contact of the strap with the wearer.

In the modified form of the invention shown in FIGURES 6 and 7, like reference numerals are employed throughout to refer to corresponding parts of the garment shown in FIGURES 1 and 2. The garment shown in FIGURES 6 and 7 may be employed as a play or sunsuit, or as a bathing suit, in that it is provided with a front bib portion 30 extending upwardly from the normal front edge of the pants-like diaper-holding garment and is provided with straps 31 which may be secured around the neck of the wearer or which may be provided with snap fasteners adapted to be secured to cooperating fastener elements along the free transverse edge of the rear portion 12 and thus provide shoulder straps. The material of the bib portion 30 may be formed integral with the pants or trunk portion and of the same moisture-resistant or treated material. Because of the tendency for this type of rubberized or similar material to irritate the skin of an infant, there is provided within the bib portion a false panel 32 of a non-irritating material or of the same material but having the untreated side thereof facing inwardly toward the body of the infant so that with the inserted diaper, none of the treated or rubberized part of the material forming the garment will come in contact with the body of the wearer. This form of garment is provided with the same form of trunk portion which snugly fits the wearer in the manner described in connection with FIGURES 1 and 2 and which includes the straps for holding the folded diaper in position.

From the foregoing description, it will be appreciated that the present invention provides an efficient and neat garment which nicely fits an infant or child without appreciable waistline (up to about twelve years of age) in a manner which eliminates any discomfort or pressure across the stomach and abdomen of the wearer and which prevents sagging and resultant bagginess, particularly in the crotch portion. This is accomplished by the narrow, short crotch portion and the low cut or downwardly curved front edge portion permitting forwardly inclined support of the garment across the small of the back of the wearer, the elastic band along that line serving to prevent the garment from riding over the buttocks. Of course, the garment is made in varying standard sizes. Likewise, reference being again made to FIGURE 5, the diaper or absorbent pad may be conveniently folded according to size. For a small size, the side wings are folded on lines fc, f'c, the bottom portion d on line l, and the upper portion c on line h; for medium size, the wings are folded along lines ac, a'c, the bottom portion on line l', and the top portion on line h'; and for large size, the wings are folded along lines gc, g'c, the bottom portion on line l², and the top portion on line h². There is thus provided a wide choice of foldable sizes to adapt the diaper or pad to a proper neat fit within the holder. It will be further appreciated that this type of garment lends itself for adaptation to various types of infants' or children's apparel, such as sunsuits, playsuits, bathing suits, bathing trunks, and underpants, as well as to a diaper or absorbent pad holder, in that a correct fit is assured without sagging or bagginess so as to assure comfort to the wearer during exercise or the like.

When used as a diaper or absorbent pad holder, no pins or other fasteners are needed since the diaper or pad is conveniently and securely held in the garment by the front strap 21 and the V-shaped straps 22, 22a, the location and arrangement of the straps being such as to allow complete freedom of movement to the wearer and to facilitate changing of the diaper when required. Various materials may be used for the diaper holder, such as plastic or nylon fabrics, and these materials should be

5

6

light in weight, waterproof or water-resistant, and urine tested. A horcolite coated nylon has proved satisfactory. It is to be noted that the material of the holder is formed from a single piece of material so that there are no joining seams within the body thereof. In other words, the single blank is cut so as to provide the desired relative dimensioning and fitting in the finished garment.

However, when the garment is not used as a diaper holder, that is, with other children, the choice of material is almost unlimited and will depend on the particular type of garment. With such materials, bias cutting is preferred in order to allow complete freedom of movement while effecting a snug fit without binding. As indicated, the garment, because of the manner of fitting thereof on the body of the wearer, can be used for sunsuits, bathing suits and the like, and for bathing and underwear trunks, as well as for other outer and under garments where proper fitting without sagging or discomfort is desired. Where such garments are not employed as diaper holders, no straps are necessary and they may be made up as unitary structures without fastener means between the front and rear portions, particularly when used as step-in trunk-like garments, but the relative dimensioning between the parts is similarly proportioned, according to size, in order to result in the same fitting and supporting thereof on the wearer.

While certain forms of the invention have been shown and described for purposes of illustration, it is to be clearly understood that various changes in the details of construction and arrangement of parts may be accomplished without departing from the spirit and scope of the invention as set forth in the appended claims.

We claim:

1. The combination with the trunk portion of a diaper holding garment including a relatively narrow crotch portion, a low cut front portion and a transversely longer rear portion; of an absorbent pad of predetermined truncated shape to substantially conform with the marginal outline of the trunk portion, a transverse strap adjacent the free edge of the front portion for receiving thereunder the shorter edge of the absorbent pad, and diagonally disposed straps in V-shape with the apex thereof secured at the free edge of the rear portion for receiving thereunder the wider edge of the absorbent pad to substantially fill the holder.

2. A diaper or absorbent pad holder for infants comprising a body portion including front and rear portions joined by relatively narrow crotch portion having inwardly curved marginal edges for snugly engaging the upper portions of the legs of the wearer, said rear portion being transversely longer than said front portion which is posi-

tioned beneath the stomach of the wearer whereby the meeting marginal edges thereof when fitted will lie along the groin of the wearer and extend from the upper edges thereof to the curved marginal edges of the crotch portion, a cross strap adjacent the free edge of said front portion and diagonally disposed straps arranged in V-shape with the apex secured substantially centrally of the free edge of said rear portion and the opposite ends thereof secured along the marginal edges of said crotch portion and with the intermediate portions of the diagonally disposed straps being free to permit a diaper or absorbent pad to be positioned thereunder, and cooperating fastener elements along the marginal edges of said front and rear portions between the leg-embracing edges of the crotch portion and the upper edges of the front and rear portions for securing the holder in fitted position with the ends of the curved marginal edges of the crotch portion in end-to-end engagement.

3. A combined diaper or absorbent pad and holder for infants, and comprising a transversely elongated rear portion, a transversely shorter front portion, and a crotch section joining the front and rear portions, said front and rear portions and intermediate crotch section forming a holder of substantially gradual truncated shape, fastener means securing the marginal edges of the front and rear portions, the said front portion being substantially shorter longitudinally of the holder than the rear portion and crotch section adjacent thereto and merging into the rear portion to position the holder when fitted with its primary support across the small of the back of the wearer and the transverse front edge of the front portion being offset downwardly from the transverse edge of the rear portion to be positioned below the stomach of the wearer and prevented from being pulled up over the wearer's stomach, strap means associated with the front and rear portions, and a generally truncated pad substantially following the outline of said holder and fitted therein with the wider end portion underlying the strap means on said rear portion and with the narrower end portion underlying the strap means on said front portion.

4. A diaper or absorbent pad holder as claimed in claim 3, wherein the transverse front edge of the front portion is curved downwardly to shorten the longitudinal length thereof to an extent such that the front portion is prevented from being pulled up over the wearer's stomach.

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