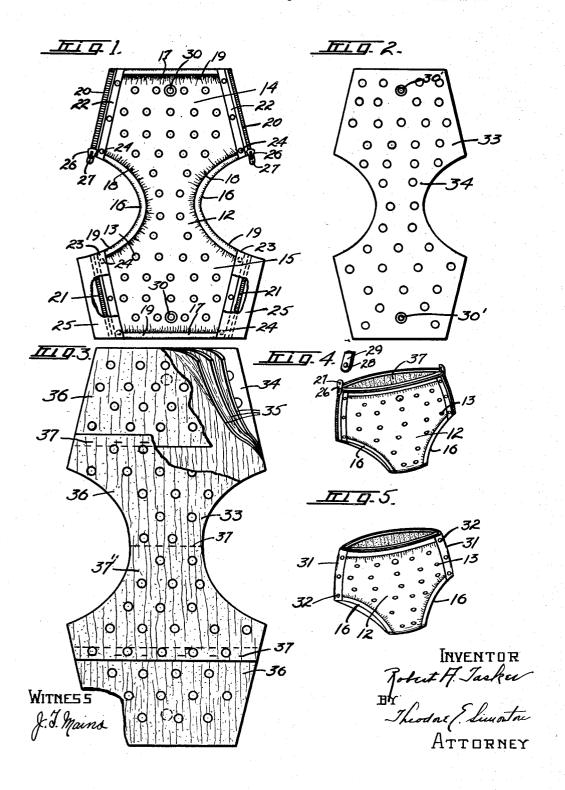
DIAPERING GARMENT

Filed Sept. 30, 1935

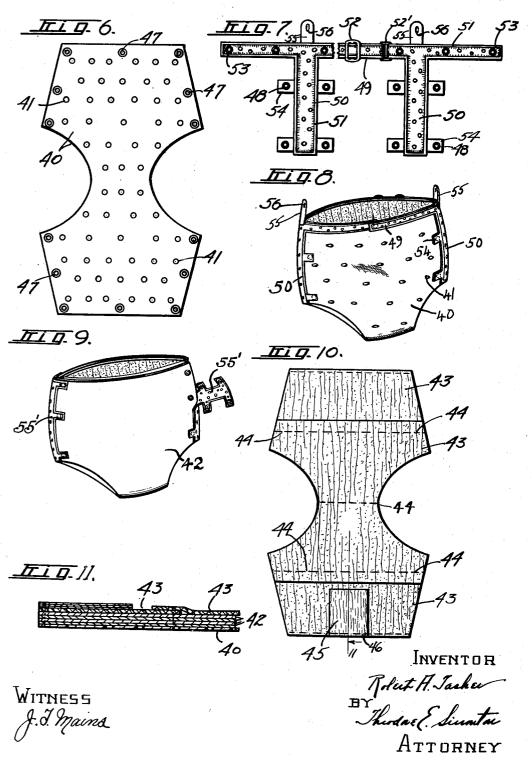
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DIAPERING GARMENT

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## UNITED STATES PATENT OFFICE

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## DIAPERING GARMENT

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9 Claims. (Cl. 128-284)

This invention relates to improvements in infant's garments and more particularly to protective types of garments known as diapers and is a continuation in part of my co-pending applications Serial Number 18,200 and Serial Number 18,201, filed April 25, 1935, and abandoned October 19 and October 6, 1937, respectively.

The main object of my invention is to provide an improved protective garment for infants which consists of an outer protective covering of more or less permanent material and an inner absorbent portion of inexpensive material, such as paper or gauze or the like, adapted to be used only once and which may be readily distanced.

Another object of the invention is to provide a garment of the type above described in which the absorbent pad is positively held against casual displacement but which may be removed with little effort when soiled.

A further object of the invention is to provide a garment adapted to take the place of a diaper which can be easily and expeditiously applied and removed to and from the infant but which gives complete protection, promotes health, does not cause irritation, and is capable of adjusting itself to fit infants of different sizes.

It is also an object of my invention to provide a garment having an absorbent portion and a 30 protective more or less permanent covering therefor, provided with detachable fastening means to enable the convenient replacement of the protective covering in the event it becomes worn and ceases to be serviceable.

A still further object of my invention is to provide a garment of the character set forth which is simple in construction, inexpensive to manufacture and is highly efficient in service.

Further objects and advantages relate to details of the garment construction and will become apparent from the following description when taken in connection with the accompanying drawings, in which:

Figure 1 is a plan view of the outer protective covering of my garment showing the inside there-of and the detachable fastening means therefor.

Figure 2 is a plan view of the outer portion of the inner absorbent pad adapted to be used with the covering shown in Figure 1.

Figure 3 is an enlarged view of the pad with portions broken away to more clearly show the details of the construction.

Figure 4 is a perspective view showing the garment in assembled condition ready for use.

Figure 5 is a perspective view of the garment showing the use of fastening means of modified construction.

Figure 6 is a plan view showing the outer side of the body portion of a modified form of the garment.

Figure 7 is a view illustrating the waistband and side fastening means for securing the body portion shown in Figure 6 to the infant.

Figure 8 is a perspective view of the garment showing the body portion of Figure 6 and the fastening means of Figure 7 in assembled condition ready for use.

Figure 9 is a perspective view of a garment similar to that shown in Figure 6, showing a modified side fastening means.

Figure 10 is a plan view of the inner side of the garment shown in Figure 6, and

Figure 11 is a cross-sectional view of the garment taken along the line 11—11 of Figure 10.

Referring more particularly to the drawings. 15 the reference numeral 12 designates the body portion of the protective covering of my garment which may be constructed of suitable moisture-proof and washable material, as rubber or treated cloth commonly known as Jap silk. The 20 body portion 12 is preferably perforated, as shown at 13, for the purpose of allowing the free circulation of air to the absorbent pad to be secured to the body portion in a manner to be hereinafter described. It is to be understood 25 that the perforations are shown slightly exaggerated and that the inner absorbent pad is made so as to take up the moisture, the outer covering merely being intended as a protective covering and to prevent the dampness of the inner pad 30 from soiling anything with which the infant may come in contact.

The body portion 12 is formed with a portion 14 and a portion 15, adapted to form, respectively, the back and front of the garment when it is on a child. Recesses 16, preferably arcuate in shape, are provided, interposed between the portions 14 and 15 to form leg receiving openings when the garment is disposed upon the infant. The end edges 17 of the portions 14 and 40 15, as well as the edges 18 of the arcuate recesses 16, are preferably gathered and bound with rubber tape 19. The gathering is made sufficient to draw the tape slightly taut and to enable the garment to adjust itself to the body of the 45 wearer without causing discomfort.

Suitable means are provided for securing the protective covering to the body of the wearer. I prefer to use separable fasteners of the hookless type, commonly known as zippers, having a part 50 attached to each of the portions 14 of the covering and a companion part 21 attached to each of the portions 15, as shown in Figures 1 and 4. Preferably, the separable parts 20 and 21 of the fasteners are secured to strips of moisture-proof material 22 and 23, such as rubber or "Jap silk". The strips 22 and 23, in turn, are releasably secured to the respective side edges of the portions 14 and 15 by means of snap fasteners 24. By making the zipper detachable from the outer cover.

ering, the same set of zippers may be used with several outer coverings so that the outer coverings may be discarded when worn while the relatively expensive zippers are retained for use with other outer coverings. Moreover, the outer coverings become dirty in use and it is desirable that the mother have three or four outer coverings available so that one will always be ready for use while others are being washed. The detachability of the zippers makes it possible to use several sets of outer coverings, changing them at inter-

vals, with a single set of zippers.

Secured to the portion 15 of the main body portion 14 and adapted to underlie the zippers 22 15 and 23 when the zippers are in the engaging position and the garment is adjusted upon the body of the infant, are a pair of flaps 25. By reason of the attachment of the flaps with the protective covering, they may be washed with the protective 20 covering. The underlying flaps protect the infant against any irritation that might be caused by the zippers. The handles 26 of the fastener slides may, if desired, be provided with a snap stud 27 for engaging a female snap fastener 28 25 secured to the end of a tab 29 which in turn may be attached to the infant's under garment whereby the protective covering 12 is maintained in position and an open strip on the child between the under shirt and protective covering is prevented. 30 Instead of employing zipper fasteners, I may use, for fastening the garment upon the wearer, as shown in Figure 5, strips 31 of moisture-proof material, as rubber or "Jap silk", having snap fasteners 32 placed along the marginal edges 35 thereof adapted to cooperate with suitable fastening means secured to the body portion of the outer covering.

The absorbent pad 33, as shown in Figures 2 and 3, is adapted to be releasably secured to the 40 protective cover 12 by means of snap fastener members 30 and 30' secured respectively to the inner side of the outer covering and to the outer side of the protective pad. The absorbent pad has a conformation similar to that of the 45 protective covering but is preferably of somewhat smaller dimensions so that the outer border of the absorbent pad lies inwardly of the outer border of the outer protective covering. The pad 33 comprises a perforated base portion or sheet 34 50 of inexpensive moisture-proof material as "Cellophane". Preferably, the perforations are small in size preferably placed in the "Cellophane" pad cover so as to lie, when the garment is assembled, in staggered relationship with the perforations on the outer protective covering. Upon the "Cellophane" base sheet is placed in overlying relationship, a plurality of, in this instance three, sheets 35 of soft cellulose or tissue paper having high absorption qualities and upon the sheets of tissue paper 35 is placed a plurality of strips 36 of soft glycerine treated paper which is sometimes known as wet strength paper.

The strips 36 are preferably placed with their adjacent ends in overlapping relation and stitched preferably at three points 37, together with the layers 35 of tissue paper, to the base sheet 34 in a manner whereby the sheets 35 and the strips 36 are gathered, as indicated by the wavy vertical lines, so as to improve the resiliency or cushioning effect of the pad and also the absorptive quality. It is apparent that in the event that the paper strips 36 and the sheets of tissue 35 become soiled in use, they may be easily separated from the backing sheet 34 by merely breaking the threads 37, thus permitting the several sheets of paper to be separated for convenient disposal of

the pad down a toilet bowl. Although a single sheet of wet strength paper may be employed as a covering for the pad 33 to be applied next to the body of the wearer, the use of the strips 36 imparts greater flexibility to the garment and hence produces a more comfortable and useful article.

If desired, in order to provide for more circulation of air to the parts of the infant covered by the garment, the paper strips 36 may also be perforated as shown in Figure 3. The exposed 10 surface of the paper covering strips 36 is preferably sprinkled with antiseptic talcum powder, indicated at 37, to assist in maintaining the bady's skin in a smooth and healthy condition.

In Figures 6 to 11, covering a modified form of 15 garment construction, the use of a relatively expensive protective outer covering as a means for securing the garment to the body of the wearer has been dispensed with and a pad having an inexpensive covering is shown with suitable fastening means for maintaining it in position for use.

In Figure 6, the numeral 40 designates a cover for the garment similar in shape to the cover shown in Figure 1, preferably of inexpensive ma- 25 terial as gauze or glycerine treated paper, and provided with small perforations 41 to permit the free circulation of air to the portions of the infant's body covered by the garment. The pad portion of the garment comprises a series of layers 30 of cellulose or soft tissue paper 42 covered with a plurality of transverse strips 43 of gauze or glycerine treated paper, the adjacent ends of the latter strips overlapping each other, as shown more clearly in Figures 10 and 11. The tissue 35 more clearly in Figures 10 and 11. paper layers 42 and strips 43 are gathered and stitched together at 44 to form a cushion effect in a manner similar to the stitching of the pad shown in Figures 2 and 3.

The pad of Figure 10 may be secured to the 40 covering 40 by suitable fasteners but preferably is stitched directly thereto by the threads 44. The lower end of the pad is also provided with a plurality of sheets 45 of tissue paper stitched along its lower edge to the edge of the pad 46 to 45

be used for wiping purposes.

The end and inclined side edges of the cover 40 are provided with female elements 47 of suitable snap fasteners adapted to be engaged by male elements 48 appropriately positioned on a waist- 50 band 49 and side straps 50 secured thereto for securing the garment in position upon the infant. The band 49 may be made of rubber or "Jap silk" or other moisture proof material and is preferably perforated to permit the free circulation of 55 air to the parts covered thereby. The body portion of the band 49 is gathered and secured along its marginal edges with rubber binding 51 which may be stitched or otherwise secured in place. This construction permits the waist band to con- 60 form to the body of the infant. Further adjustment may be obtained by the use of an adjustable buckle of any suitable type indicated by the numerals 52 and 52', the member 52' constituting an anchor for the ends of the belt, arranged in 65 any well known manner upon the band 49, as shown in Figure 7. The buckle 52 is preferably formed of semi-soft rubber to prevent discomfort or injury to the infant when the band is in use.

The ends of the band 49 may be secured to-70 gether by snap fasteners 53 or other suitable means. The side strap portions 50, for securing the inclined side edges of the cover 40 together, may be formed integrally with the waist band 49 or secured thereto in any other suitable manner. 75

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These straps are preferably of the same material as the waistband and also have their edges gathered and bound with rubber tape 51 to enable the garment to more easily conform to the body of the wearer. The snap elements 48 of the strap portions 50 may be mounted upon rubber pads 54 stitched or otherwise secured to the straps thereby to impart sufficient elasticity to the fastening means to insure a comfortable form-fitting 10 garment. The waist-band 49 may be also provided with tabs 55 having a buttonhole 56 in the free end thereof, or other fastening means for securing the garment to the underwaist of the infant, as indicated in Figure 9.

I have found that in using the garment shown in Figures 6 and 10 upon smaller infants during sleeping hours or upon larger children, it was desirable to omit the waist-band 49 and merely employ side strap fastening means 55', as shown 20 in Figure 9. In this instance, the side straps 55' are similar in construction to straps 50, shown in Figure 7, and are used in the same manner. It will be apparent that tabs similar to tabs 55 may be secured to the side straps 55' if desired. Also, 25 for sleeping hours the outer covering may be

omitted.

In use, the garment of the type shown in Figures 1 to 4, the protective covering 12 with the fastening straps 22 and 23 attached and the pad 30 34 in place is laid flat and the infant is placed upon the pad in a manner so that the portion 14 is arranged to contact the middle of the child's back with the legs or hips in alignment with the recesses 16. The portion 15 is then 35 drawn upwardly between the legs and over the stomach of the child and the cooperating portions 20 and 21 of the hookless fastening means are connected in the usual manner. The gathered edges 17 and 18 enable the garment to conform 40 snugly but comfortably to the body of the child at the waist and legs. The garment of Figures 6 to 11 is intended primarily for smaller children and is placed on the child in a similar manner to that of Figures 1 to 4.

It will be apparent that I have provided a new and improved diapering garment for children and that various modifications and changes may be made therein without departing from the spirit

of the appended claims.

I claim:

1. In a diapering garment; an outer protective covering made of water-proof material having a plurality of perforations therein, said perforations being of small size and being spaced sub-55 stantially throughout the area of the protective covering, an inner absorbent pad carried by the outer protective covering, said pad having a covering of water-repellent material having a plurality of perforations therein, and means for se-60 curing the garment to a child.

2. In a diapering garment, an easily disposable pad formed of soft absorbent material and a backing sheet secured to the layers of absorbent material in a manner such that the pad is gath-65 ered throughout the pad structure to form a cushioned structure, said backing being easily removable from the pad ...nd means for securing

the pad to a child.

3. In a diapering garment, an absorbent pad, 70 a backing sheet for the absorbent pad, said backing sheet being stitched to the pad between the upper and lower edges thereof in a manner so that the absorbent pad is gathered longitudinally thereof to form a cushioned soft structure,

and means for securing the garment to a child. 4. In a diapering garment, an absorbent pad comprising a plurality of superimposed layers of soft absorbent material, a backing sheet for the absorbent pad, said backing sheet being stitched 5 to the pad near the center and transversely thereof in a manner so that the absorbent pad is gathered to form a cushioned soft structure, and means for securing the garment to a child.

5. A garment in the form of a diaper compris- 10 ing a body including two portions having converging sides which are centrally recessed to provide leg receiving openings, said body including soft absorbent material arranged in gathered layers, and a cover secured to the layers, fastener 15 elements secured to the cover adjacent the edges thereof, an adjustable waistband, side strips secured to the waistband and together with the latter having fastener elements for cooperation with the fastener elements of the cover for secur- 20 ing the latter to the wearer.

6. In a diapering garment, a body portion comprising two sections, one adapted to form the back and the other adapted to form the front of the garment when placed upon the wearer, 25 said body portion having fastener elements along the side edges thereof, a belt adapted to extend and be secured around the waist of the wearer, said belt having depending portions formed with fastener elements adapted to coop- 30 erate with the fastener elements along the side edges of the body portion to hold the garment on the wearer.

7. In a diapering garment, a body portion comprising two sections, one adapted to form the 35 back and the other adapted to form the front of the garment when placed upon the wearer, a pair of substantially arcuate leg-receiving openings between said sections, fastener elements secured to the body portion along the side edges of 40 said sections, and a belt adapted to extend and be secured adjustably around the waist of the wearer, said belt having depending portions formed with fastener elements thereon adapted to cooperate with the fastener elements on the 45 side edges of said sections.

8. In a diapering garment, a body portion comprising two sections, one adapted to form the back of the diaper and the other adapted to form the front of the diaper, a pair of substan-50 tially arcuate leg-receiving openings located substantially midway between said sections, fastener elements secured to the body portion along the side edges of said sections, a belt adapted to extend around the waist of the child, 55 means for adjustably securing said belt, and means depending from said belt having fastener elements located thereon adapted to cooperate with the fastener elements on the side edges of said sections.

9. In a diapering garment, a soft absorbent pad, material of greater strength than the pad substantially covering both outer sides of said pad, said material being stitched along a line spaced inwardly from the edges of said mate- 65 rial, said stitches extending through said material and through said pad and said stitches being drawn so that the material and the pad are gathered particularly at the part of the pad intended to be beneath and adjacent the crotch of the 70 child whereby a soft resilient cushiony waterabsorbent pad structure is formed.