

June 30, 1953

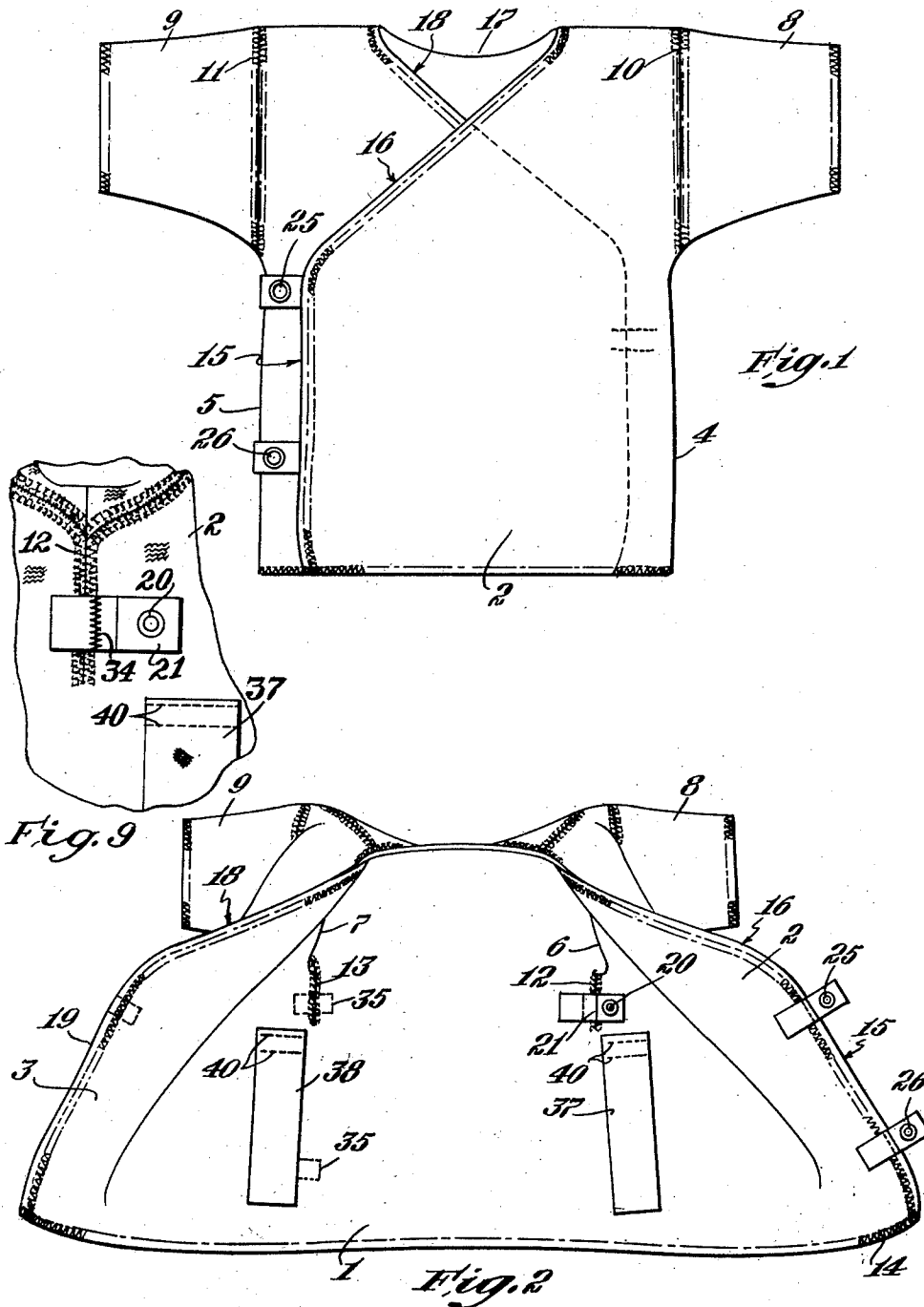
J. L. WYNER ET AL

2,643,386

DOUBLE-BREASTED UNDERGARMENT FOR INFANTS' WEAR

Filed Dec. 28, 1951

2 Sheets-Sheet 1



Inventor
Justin L. Wyner & Ruth R. Scharf
by *Robert Chapman & Co.*
attys.

June 30, 1953

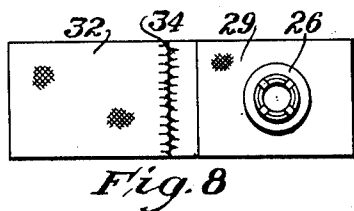
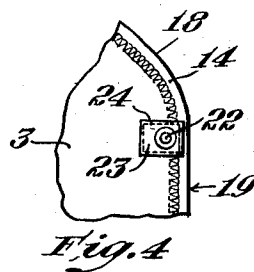
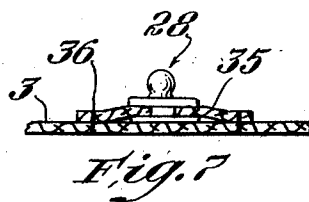
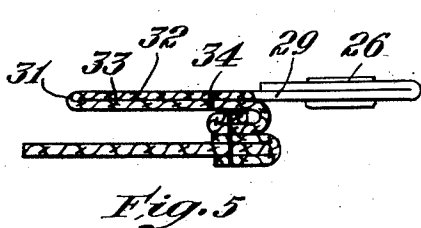
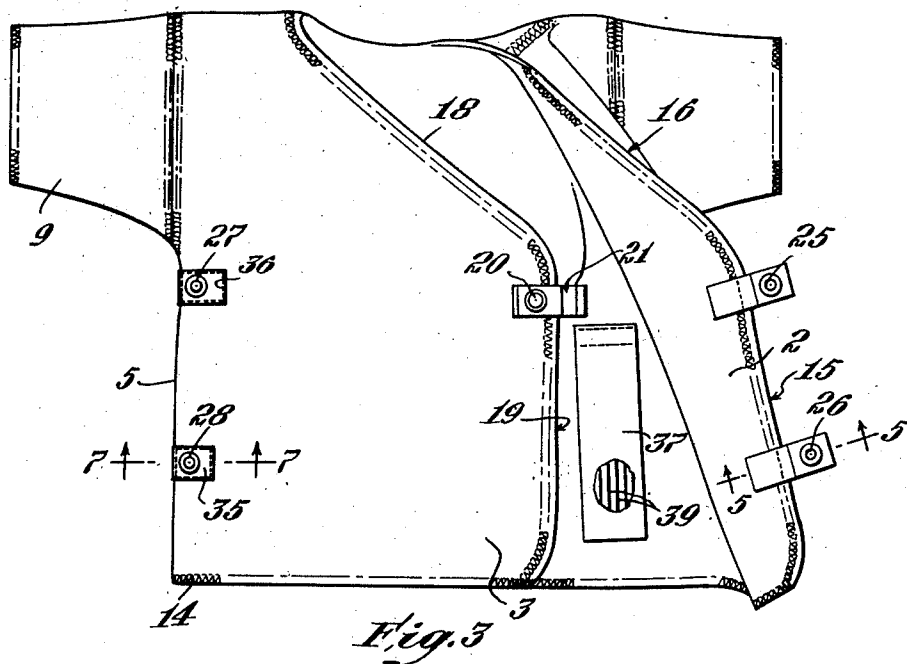
J. L. WYNER ET AL

2,643,386

DOUBLE-BREADED UNDERGARMENT FOR INFANTS' WEAR

Filed Dec. 28, 1951

2 Sheets-Sheet 2



Inventor
Justin L. Wyner & Ruth R. Scharf
by Robert C. Cushman & Francis
Att'ys.

UNITED STATES PATENT OFFICE

2,643,386

DOUBLE-BREADED UNDERGARMENT FOR INFANTS' WEAR

Justin L. Wyner and Ruth R. Scharf, Brookline, Mass., assignors to The Vanta Company Inc., Newton, Mass., a corporation of Rhode Island

Application December 28, 1951, Serial No. 263,869

4 Claims. (Cl. 2—111)

1

This invention pertains to infants' wear, more especially to an undershirt of the double-breasted, wrap-around type. Customarily, such garments have been provided with attached tapes or strings for drawing together and securing the front flaps. However the tying and untying of knots in such tapes or strings is troublesome, especially when the infant is twisting or squirming about; the dangling ends of the tapes are unsightly, and the tapes tend to fray out and are often broken in laundering. Since garments of this kind are usually of fine knitted fabric which does not afford a good anchorage for the direct attachment of buttons, and because buttons may cause discomfort to the wearer, fasteners of that type have not been employed very generally in such garments.

Heretofore it has been proposed to arrange diaper tabs at the interior of a child's garment, but such tabs have usually been so located that the drag of the diaper, imposed directly upon the easily stretchable knitted fabric of the garment, causes the latter to sag and eventually to tear near the point of attachment of the tab. In accordance with the present invention the tab is of sufficient length to permit of its being attached to the garment closely adjacent to a downward extension of the seam which secures the sleeve in place. Such a seam is far less stretchable than the knitted fabric alone and since it extends over the shoulder it acts as a sling to carry the load imposed by the tab, thus relieving the body portion of the garment of undue stress.

The present invention has for one object the provision of an infant's garment of the class described having provision for holding the front flaps in closed position by the use of separable fasteners, for example snap fasteners which will not cause discomfort to the wearer and which are so applied as to afford a secure anchorage without danger of tearing the garment material. A further object is to provide a garment of the above type employing fastening means such as snap fasteners but with provision whereby the girth size of the garment may be changed. A further object is to provide a garment of the above type having elastically stretchable diaper-attaching tabs which are concealed from view when the garment is worn and which are so arranged that the longitudinal stresses imposed upon the tabs are transmitted directly to the shoulder portions of the garment and in such a way as to avoid undue stretching of the garment material. Other and further objects and advantages of the invention will be pointed out in the

2

following more detailed description and by reference to the accompanying drawing wherein

Fig. 1 is a front elevation of the garment as it appears when worn;

Fig. 2 is a front elevation showing both front flaps opened out to expose the interior of the garment;

Fig. 3 is a front elevation showing the right-hand front flap in closed position, but with the left-hand front flap open;

Fig. 4 is a fragmentary, front elevation of an edge portion of the right-hand flap showing the location of one of the fastener elements;

Fig. 5 is a fragmentary section to large scale on the line 5—5 of Fig. 3, illustrating the way of attaching one of the fastener elements to the garment;

Fig. 6 is a view similar to Fig. 5, but showing the parts arranged to provide for an increase in girth of the garment;

Fig. 7 is a fragmentary section, to large scale, on the line 7—7 of Fig. 3;

Fig. 8 is a plan view of the fastener supporting tab of Fig. 5 as it is prepared by the garment manufacturer; and

Fig. 9 is a fragmentary elevation showing that portion of the interior of the garment which is immediately below one of the arm scyes.

Referring to the drawings (Fig. 2), the numeral 1 designates the back portion of the garment and the numerals 2 and 3 the left and right front flaps respectively. Preferably the back and the front flaps are integral portions of a piece of knitted material, for example a fine rib-knit fabric. As illustrated in Fig. 1, the front flaps join the back portion of the garment at the regions indicated by the numerals 4 and 5. The garment is provided with arm scyes 6 and 7 (Fig. 2) for the reception of sleeves 8 and 9 which are secured to the body material of the garment by sewed seams 10 and 11 (Fig. 1) which preferably extend downwardly below the arm scyes into the material of the body of the garment, as shown in 12 and 13 respectively (Fig. 1). While the invention is here illustrated as embodied in a garment having sleeves, it is contemplated that it may be embodied in a sleeveless garment, if desired. The free edges of the garment material are preferably provided with a binding 14 in accordance with customary practice.

The left-hand front flap 2 has a substantially vertical edge portion 15 (Fig. 1) which merges with a diagonal upper edge portion 16, the latter being extended to form the back of the neck opening 17. The neck opening is defined in part by

the diagonal edge portion 18 (Fig. 3) of the right-hand flap 3 of the garment, said diagonal edge portion 18 merging with a substantially vertical edge portion 19.

One of the complementary elements 20 (Figs. 2 and 3) of a snap fastener of a conventional but desirably flat type is secured to the end of a length of tape 21 (preferably a close-woven textile tape), the other end of which is secured by stitches to the garment material, the stitches of the seam which unite this tape is the garment material preferably passing through the garment material at the location of the downwardly extending portion 12 of the seam which secures the sleeve 8 in place, thus affording a firm anchorage for the tape 21.

The other of the complementary snap fastener elements is shown at 22 in Fig. 4, this snap fastener element 22 being mounted upon a rectangular piece 23 of close-woven textile fabric which, in turn, is secured to the garment material of the front flap 3 by a sewed seam 24 which extends along the four edges of the piece 23, thus securely attaching the fastener element 22 to the front flap 3. The piece 23 of material which carries the fastener element 22 is located substantially at the junction of the diagonal and vertical edge portions 18 and 19 of the flap 3 and preferably the seam 24 intersects the seam which unites the binding 14 to the garment material, thus providing a very secure anchorage.

For holding the left-hand flap 2 in closed position a plurality of snap fasteners are provided, one of the complementary elements of the respective snap fasteners (of which two are here shown) being indicated at 25 and 26 respectively. These snap fastener elements 25 and 26 are mounted on lengths of close-woven textile tape. As illustrated in Fig. 5 the tape 29, which carries the fastener element 26 is preferably doubled at the place where the fastener element 26 is applied so as to provide strength to prevent the fastener element from being pulled out. The opposite end of this length of tape 29 is secured to the material of the front flap 2, preferably by the same sewed seam 30 which secures the binding 14 to the edge of the flap. Preferably, as illustrated in Fig. 5, the length of tape 29 is folded intermediate its ends, as shown at 31, to provide a loop, comprising the plies 32 and 33, and in the manufacture of the garment these plies 32 and 33 are united by a seam 34 so as to preserve the loop constituted by these plies. However, this seam 34 is of a type, for example, a chain-stitch seam, which may readily be ravelled or ripped out, if desired. If the seam 34 is thus ravelled or ripped out, the loop in the tape straightens out, as shown in Fig. 6, thus providing a substantially greater length of tape between the seam 30 and the snap fastener element 26 than is initially provided. Thus the effective girth size of the garment may be increased at will but without necessitating the use of a series of snap fasteners at each fastening point. The provision of a series of snap fasteners, to afford adjustability, would add materially to the cost of manufacture, and the presence of idle fasteners might well cause discomfort to the wearer, whereas the provision of the rip seam is simple and cheap and its presence can cause no discomfort. It is to be understood that the tapes which carry the snap fastener elements 20 and 25 will be extensible in the same way as the tape 29, and that if additional snap fasteners are to be carried by the

flap 2 they will likewise be carried by similar extensible tapes.

The snap fastener elements 27 and 28 (Fig. 3) which are complementary to the fastener elements 25 and 26, are attached to the front flap 3 closely adjacent to the junction of the latter with the back of the garment. Each of these fastener elements 27 and 28, for example the element 28, as shown in Fig. 7, is mounted on a piece 35 of close woven textile fabric, preferably rectangular in outline, which is secured to the material of the flap 3 by a sewed seam 36 which extends along the four edges of the rectangular piece 35. The rectangular piece of material which carries the uppermost fastener member 27 is preferably so located that the seam which unites it to the body portion of the garment, intersects the downward extension 13 of the seam which attaches the sleeve 9, thus providing a very firm anchorage for the fastener element 25.

Preferably the garment is provided with longitudinally stretchable elastic diaper tabs 37 and 38 (Fig. 2) respectively, arranged at the interior of the garment, each of these tabs preferably being formed from the piece of woven elastic webbing containing longitudinally extending rubber threads 39. Each of these tabs is secured to the garment material by one or more transverse sewed seams 40. The tabs are attached to the interior of the garment adjacent to the junctions of the front flaps with the back portion but so that each of the tabs is actually secured to one of the front flaps, respectively. Preferably, the uppermost of the seams 40 is in a horizontal plane approximately at the lower end of the downward extension 12 and 13 of the sleeve-attaching seams. With this arrangement the stresses applied to the diaper-attaching tabs and which are transmitted by the latter to the material of the garment, are so imposed on the garment material that they are borne by the shoulder portions of the garment and as the stretching force thus imparted to the garment material is applied closely adjacent to the sleeve-attaching seams, which extend over the shoulders of the wearer, these sleeve attaching seams not only act as reinforcements to prevent undue stretching of the garment material in response to pulls imposed on the elastic diaper tabs, but also act as slings to carry the load imposed by the tabs, the elasticity of the tabs preventing undue strain on the back muscles of the child.

In use, the right-hand flap 3 is first drawn across the infant and is secured in place by the snap fastener comprising the parts 20 and 22. Then the left-hand flap 2 is drawn across so as to overlap the flap 3 and is secured in place by the snap fasteners comprising the complementary elements 25—27 and 26—28 respectively. With this arrangement the donning and doffing of the garment is greatly facilitated, as compared with usual practice where tapes or strings are employed. The snap fasteners can not cause discomfort to the infant, and the manner of anchoring the snap fastener elements to the garment is such as to afford a very firm, secure and reliable anchorage without danger of tearing or unduly stretching the garment.

While one desirable embodiment of the invention has been herein disclosed by way of example it is to be understood that the invention is broadly inclusive of any and all modifications falling within the scope of the appended claims.

We claim:

1. An infant's garment of the wrap-around

5

type of knitted material having a back portion, right and left front flaps each having a substantially vertical, free edge which merges at its upper end with a diagonal edge, the garment having right and left arm scyes and having sleeves secured in the respective arm scyes by seams which extend down into the garment material below each respective arm scye, the front flap at one side of the garment having one of the complemental elements of a snap fastener located adjacent to the junction of the vertical and diagonal portions of its free edge, the other of said complemental elements of the snap fastener being secured to the opposite side of the garment at the interior of the latter and just below the arm scye, the first-named of the complemental snap fastener elements being mounted on a piece of close woven textile fabric which is united by stitches to the knitted material of the garment, the second-named of said complementary fastener elements being mounted on a length of woven tape, and stitches which pass through the knitted material of the garment at the location of said downward extension of the sleeve-attaching seam for uniting said tape to the garment.

2. An infant's garment according to claim 1 wherein the length of tape which carries the second-named of said complementary snap fastener elements is initially folded intermediate its ends to form a loop, and a rip seam normally holding the tape so folded whereby the effective length of the tape may be increased by ravelling out said rip seam.

3. An infant's garment of the wrap-around type, of knitted material having a back portion and right and left front flaps each having a substantially vertical free edge which merges at its upper end with a diagonal edge, the garment having right and left arm scyes, one of said front flaps overlapping and lying in front of the other when the garment is worn, and means for holding the said overlapping flap in such overlapping position, said holding means comprising at least one snap fastener, said snap fastener having one of its complementary parts attached to said overlapping flap adjacent to the free vertical edge of the latter, the other complemental part of the

6

respective snap fastener being secured to the garment approximately at the junction of the other flap with the back of the garment, the free edge of the overlapping flap to which the snap fastener element is attached being provided with an edge binding, that element of the snap fastener which is attached to the overlapping front flap being mounted upon a length of closely woven textile tape which is secured to the garment material by stitches which pass through the edge binding, the length of tape which carries said latter element of the snap fastener being variable in length.

4. An infant's garment of the wrap-around type of knitted material having a back portion, right and left front flaps each having a substantially vertical free edge which merges at its upper end with a diagonal edge, the garment having right and left arm scyes, and wherein sleeves are secured to the respective arm scyes by seams which extend down into the garment material below each arm scye, respectively, and means for holding each of said front flaps in place when the garment is worn, and having in combination, two vertically elongate, elastically stretchable diaper tabs, one at each side of the garment and arranged at the interior of the latter, each tab being anchored at its upper end to one of the respective front flaps, closely adjacent to the junction of the flap with the back of the garment, by a transversely extending seam which is approximately in the horizontal plane of the lower end of the downward extension of the sleeve-attaching seam.

JUSTIN L. WYNER.
RUTH R. SCHARF.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
770,493	Burkland	Sept. 30, 1904
1,030,989	Fanta	July 2, 1912
1,119,399	Burkland	Dec. 1, 1914
1,805,766	Groves	May 19, 1931
2,446,394	Sunseri	Aug. 3, 1948
2,511,809	Ryan	June 13, 1950