

Dec. 2, 1969

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3,481,517

INFANT CARRIER

Filed Feb. 23, 1968

2 Sheets-Sheet 1

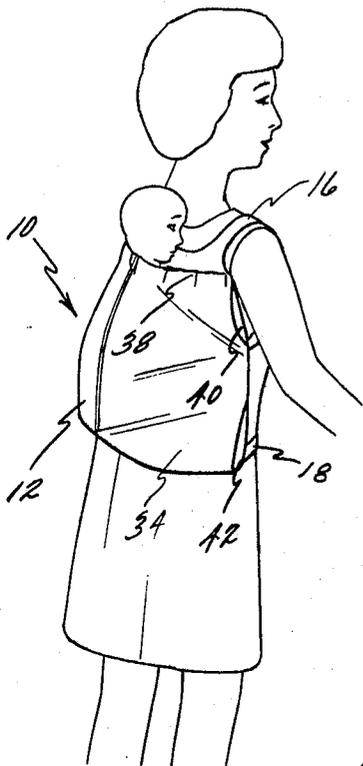


FIG. 1.

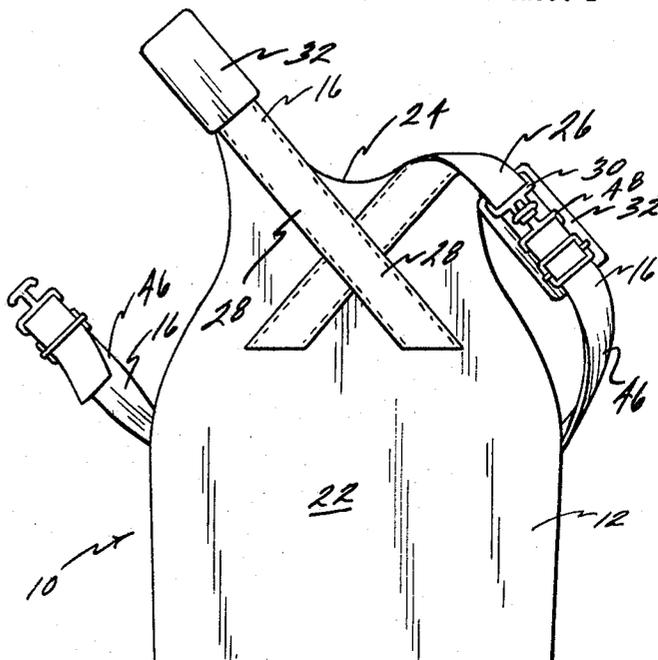


FIG. 2.

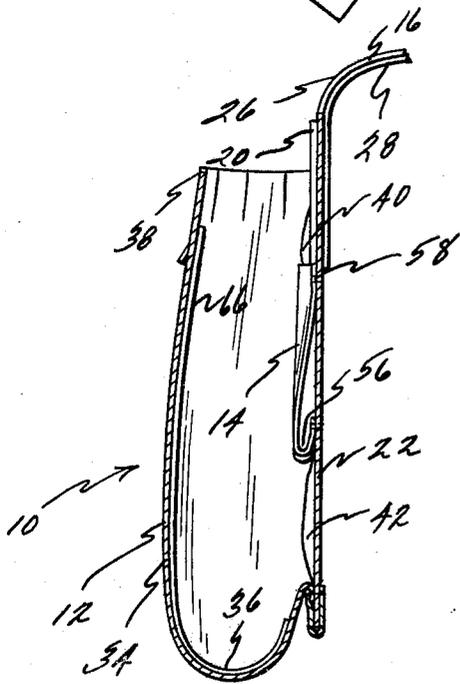


FIG. 3.

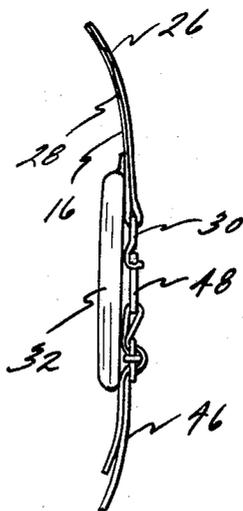


FIG. 4.

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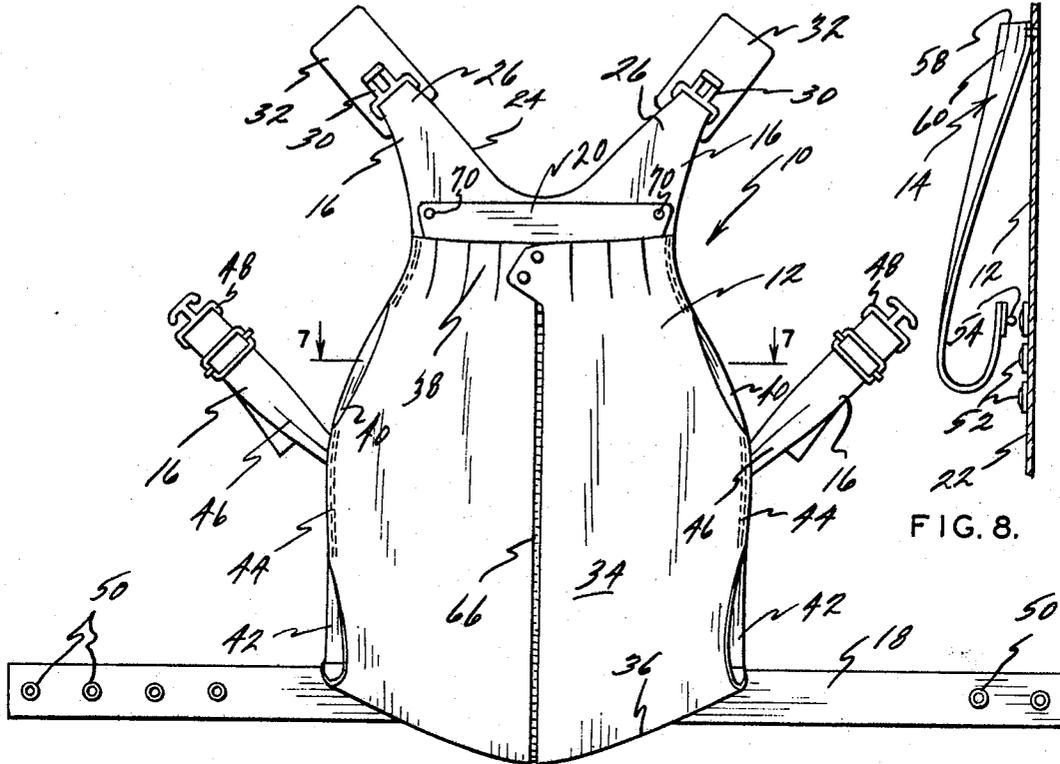


FIG. 8.

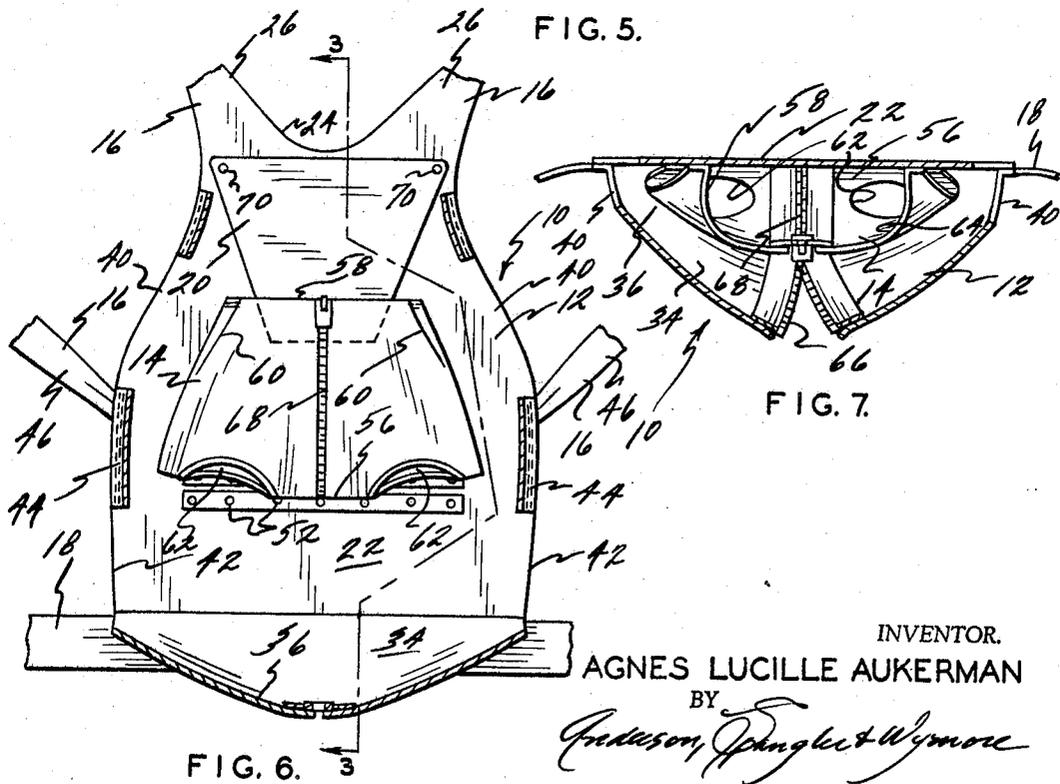


FIG. 6. 3

FIG. 7.

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**INFANT CARRIER**

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Filed Feb. 23, 1968, Ser. No. 707,598  
Int. Cl. A47d 13/02; A61g 1/00

U.S. Cl. 224-6

10 Claims

**ABSTRACT OF THE DISCLOSURE**

This invention relates to a "back-pack" type infant carrier that takes the form of a fabric pouch having adjustable padded shoulder straps and a belt. The main pouch is constructed to provide a full-length zippered opening at the back thereof along with side openings to accommodate the infant's arms and legs. Inside the main pouch are detachably fastened both a bib and a zippered panty with leg holes specifically designed to accommodate the newborn infant as well as children up to a few years of age. This inner panty may be located in either of two positions inside the pouch depending upon the infant's size or, in the case of the toddler, removed altogether.

It has become increasingly popular in recent years among younger mothers to carry their infant children "piggy-back" style upon their backs. There are a number of reasons for this trend, a few of which are deserving of specific mention.

Probably the most significant advantage is the ease with which a child may be carried in this fashion and in complete safety. Hikers and mountain climbers have long recognized the advantages of back-packs in carrying heavy loads long distances over difficult terrain.

Both hands of the mother are left free to undertake other tasks which, no doubt, explains the preference among the more primitive peoples for this method of carrying their children as most of the womenfolk had many duties to perform in addition to tending their infant children. Carrying a child in the arms, of course, prevents one from doing much of anything else and, in addition, there is always the danger of dropping the child, especially if he or she squirms suddenly as they are wont to do.

Probably the failure of the prior art back-pack type infant carriers to find wider acceptance among parents of young children is attributable in large measure to several deficiencies inherent in their construction. For example, many such devices have some sort of wooden or metal frame which is uncomfortable for both the mother and the child. Perhaps the most serious disadvantage found in these prior art units is that they keep the child in a cramped position where he or she is denied unrestricted arm, leg and head movements. This is, of course, objectionable from a medical standpoint as well as being a source of considerable concern to the parents. Yet another factor is the failure of the prior art carriers to provide for the rapid growth of a child at this age. A further disadvantage is that these units are extremely unhandy to use, especially with regard to access to the child for frequent diaper changes, feedings and the like.

It has now been found in accordance with the teaching of the instant invention that these and other problems can, in large measure, be eliminated through the use of an "all-fabric" infant carrier that provides the child with unrestricted leg, arm and head movement. A specially-designed inner "panty-type" pouch that is both adjustable to accommodate growth and removable so that the carrier can be used for toddlers, is a unique feature of the unit. A "snap-on" bib in the area of the child's mouth absorbs saliva and regurgitated food so as to not soil the

main pouch or the mother's clothing. Several such bibs can be carried and replaced as necessary.

Both the main and inner pouches open nearly all the way down the back and provide ready access to the child for the purpose of changing diapers. In so doing, however, the infant remains securely fastened inside one or both pouches until laid down flat upon his or her stomach so that the zippers can be opened.

As far as adjustability is concerned, both pouches are sewn to provide several darts along the top edge that can be removed to accommodate the growth of the child. In addition, the waist and shoulder straps are fully adjustable so as to fit the adult wearer. The shoulder straps are equipped with integral pads positioned beneath the buckles for the wearer's comfort.

The only metal parts are the snap fasteners, buckles and zippers, none of which can possibly injure the child. Also, the whole unit is machine or hand washable.

It is, therefore, the principal object of the present invention to provide a novel and improved "back-pack" type fabric infant carrier which can be worn on either the front or the back.

A second objective is the provision of an infant carrier of the type aforementioned that includes both an outer and inner pouch, the latter being both adjustable and removable to accommodate rapid growth.

Another object of the invention herein disclosed and claimed is to provide an infant carrier that allows the child a great deal of freedom of movement while, at the same time, keeping him or her securely fastened to the adult wearer's body.

An additional objective is the provision of a child-carrying pouch that is fully-accessible for purposes of changing diapers and the like.

A further object is to provide a pouch-like infant carrier that is comfortable to wear, safe, versatile, inexpensive, easy to use, sanitary, washable, rugged, trouble-free and decorative.

Other objects will be in part apparent and in part pointed out specifically hereinafter in connection with the description of the drawings that follow, and in which:

FIGURE 1 is a perspective view showing a mother carrying her baby on her back by means of the infant carrier of the present invention;

FIGURE 2 is a front elevation of the infant carrier on an enlarged scale;

FIGURE 3 is a section taken along line 3-3 of FIGURE 6, portions of the straps having been broken away to conserve space;

FIGURE 4 is an enlarged fragmentary detail of the shoulder strap, buckle and shoulder pad;

FIGURE 5 is a rear elevation of the carrier;

FIGURE 6 is a view similar to FIGURE 5 except that the rear wall of the main pouch has been removed and shown in section to better reveal the interior construction;

FIGURE 7 is a section taken along line 7-7 of FIGURE 5; and,

FIGURE 8 is an enlarged fragmentary section showing the adjustable mounting of the inner pouch on the front wall of the main pouch.

Referring now to the drawings for a detailed description of the present invention and, initially, to FIGURES 1, 2, 5 and 6 for this purpose, reference numeral 10 has been selected to designate the infant carrier in its entirety which will be seen to include an outer or main pouch 12, an inner pouch 14, a pair of padded shoulder straps 16, a belt 18 and a detachable bib subassembly 20. The main pouch 12 has an apron-like front panel 22 resembling the upper portion of a pair of so-called "bib" overalls in that it becomes narrower in the area of the wearer's shoulder blades, which portion together with the generally V-shaped cut-out 24 for the neck cooper-

ate to define one end 26 of the shoulder straps 16. These shoulder strap ends 26 are reinforced by cross straps 28 extending therealong and sewn in cross relation to the front of front panel 22 as shown most clearly in FIGURE 2. One element 30 of the shoulder strap buckle is fastened to the free end of the aforementioned double-thickness reinforced strap as is the shoulder cushion 32 that projects beyond the end of the strap into position beneath the buckle. The bottom edge of the front panel 22 is sewn to belt or waistband 18 along an area intermediate the ends thereof.

The front panel 22 is essentially flat although, of course, it will conform to the back of the wearer; whereas, on the other hand, the rear panel 34 of the main pouch is contoured to form a pouch as is shown most clearly in FIGURE 3. The lower margin of the rear panel is sewn to the belt and extends downwardly and rearwardly therefrom to define a seat portion 36 and thence upwardly again in spaced relation behind the front panel to a point roughly opposite that where the shoulder straps emerge from the latter. The upper margin of the back panel is narrowed by a series of "tucks" or "gathers" in the material which form a collar 38 that extends along the back of the infant's neck as shown in FIGURE 1.

The side margins of the rear panel join the corresponding side margins of the front panel 22 so as to define a sack structure having a pair of armholes 40 spaced slightly below the upper edge and a pair of leg holes 42 adjacent the bottom edge. The sewn seam 44 along each side margin between each set of armholes and leg holes also fastens the other half 46 of the shoulder strap 16 which passes underneath the wearer's arm and up the front of the body to its point of attachment with the other end 26 of the shoulder strap atop pad 32 that rests on the shoulder.

Thus, an examination of FIGURES 3, 5 and 6 will show that an infant of "toddler" size, say a year or two years old, can be placed in seated position in the bottom 36 of the back panel 34 of the main pouch 12 with his legs extending out through the leg holes 42 and his arms extending out through the armholes 40. When so located, his head will emerge from the collar of the pouch thus formed and lie at approximately the level of the V-shaped cut 24 in the neck of the front panel 22. Then, with the carrier mounted on an adult's back and both shoulder straps 16 along with the belt 18 fastened, the child will be in roughly the same position as if he were being hand-carried "piggy-back" fashion.

In FIGURES 2, 4 and 5 to which brief specific reference will be made with regard to the shoulder straps 16, it will be seen that element 30 of the buckle assembly is non-adjustably fastened to the end of the reinforced section 26 of the shoulder strap so that it will always remain in the same position relative to the pad 32. Element 48 of the buckle subassembly, on the other hand, is adjustably mounted on shoulder strap section 46 so that said strap can be lengthened or shortened in accordance with the needs of the wearer. Regardless of the position of buckle element 48 on strap section 46, it will always rest atop the pad 32 when fastened.

FIGURES 2 and 5 show the belt 18 most clearly and it will be seen to have a plurality of snap fasteners 50 spaced therealong that can be selectively interconnected to accommodate different waist sizes. Obviously, other types of adjustable belts will function in this same manner; however, the one shown is simple, quite inexpensive and can be washed along with the rest of the garment which makes it ideal for this purpose.

Now, if that portion of the infant carrier just described were dimensioned to fit an infant only a few months old, it is apparent that the child would outgrow the unit in a very short time. On the other hand, if it were enlarged to carry a toddler-size child, it would be entirely too large for a baby who would have his head well below the collar and his legs spread-eagled into a most un-

comfortable position. Accordingly, provision has been made for carrying the child through growth from the newborn through the toddler stage by providing the unit with the adjustable inner pouch 14 and removable bib subassembly 20. These items are most clearly shown in FIGURES 3, 6, 7 and 8 to which reference will now be made.

Fastened in a horizontal row about half way up on the inside of the front panel 22 or, preferably, in two or more vertically-spaced horizontal rows, are a plurality of snap fastener elements 52 that selectively fasten onto a single row of mating snap fastener elements 54 that are attached to the lower margin of inner pouch 14 facing rearwardly. When the lower edge of the inner pouch is folded under as shown in FIGURE 8, snap fastener elements 54 can be fastened to fastener elements 52 in any one of the three rows thereof so as to adjust the height of the inner pouch seat 56, the upper margin 58 thereof being sewn in more or less permanent position to the rear face of the front panel 22 of the main pouch in spaced position above said fastener elements. Thus, with a newborn infant, the top row of fastener elements 52 would be used so as to elevate the seat portion 56 to a level where the infant's head would extend above collar 38. Then, as the child grows, the middle, and finally the lower, row of fasteners 52 is used to keep the head at approximately the same level. Note also that the upper margin 58 of the inner pouch 14 is provided with a series of tucks 60 which can be let out to accommodate the increasing waist size of the infant.

The inner pouch 14 is in the general form of a baby panty having reinforced leg openings 62, an open top 64 sized to fit around the waist and open sides. The infant's legs extend out through the openings 62 in the bottom of the inner pouch into the space between it and the bottom of the main pouch so as to provide relatively free leg movement. Under most circumstances, the legs and arms of a newborn infant will be too short to reach out through the leg and armholes in the main pouch as shown in FIGURE 1; however, the opening are there if he or she can reach them. If not, relatively unrestricted leg and arm movement within the confines of the main pouch can, and does, occur. Once the child reaches the toddler stage and is too large for the inner pouch, it is removed altogether.

Both the main and inner pouches have centrally-located zippers 66 and 68 extending vertically all the way from top to bottom thereof. When it becomes necessary to remove or "change" the infant, the carrier is laid face down on a suitable supporting surface such as the mother's lap, the zippers opened and the child's needs attended to.

Infants up through the "teething" stage are wont to drool almost continuously and also regurgitate small amounts of their food or milk, especially following a feeding; hence, a detachable bib 20 is fastened to the rear of the front panel 22 of the main pouch immediately beneath the V-neck. A couple of snap fasteners 70 enable the bib to be changed whenever it becomes soiled. The bib is preferably made of some soft absorbent fabric which will not only protect the mother's clothing, but will also prevent the child's tender skin from becoming chafed by reason of its rubbing against the coarser fabric of the main pouch.

Finally, it is significant to note that the entire carrier is washable to the same extent as other infant wear. None of the few metal parts have sharp edges, nor are any, with the possible exception of the zippers, located where the child can come into contact therewith. Also, while the unit has been shown in FIGURE 1 as being worn on the back, it is equally well-suited to be worn on the chest such as, for example, while riding in an automobile. When so worn, the child is supported in much the same manner as if held in the arms and, with the adult re-

strained by a safety belt, the child is likewise protected quite adequately against accidental injury.

Having thus described the several useful and novel features of the infant carrier of the instant invention, it will be seen that the several worthwhile objectives for which it was developed have been achieved. Although but a single specific embodiment has been illustrated, I realize that certain changes and modifications therein may well occur to those skilled in the art within the broad teaching hereof.

What is claimed is:

1. The double-pouch infant carrier which comprises: a front fabric panel sized to cover the back of an adult wearer and extend upwardly therealong from approximately the waist to the shoulders, a pair of shoulder straps extending from the upper corners of the front panel over the shoulders and down under the arms to a second point of attachment along the side edges of said panel, belt means attached to the lower margin of the front panel of a length adapted to encircle and close about the waist of the wearer, a loosely-bloused rear panel fastened to the front panel along the bottom and at vertically-spaced points along the sides so as to cooperate therewith in defining an open-topped outer pouch having arm and leg openings on both sides thereof, said rear panel being split vertically down the center thereof to separate same into a pair of openable flaps, first fastener means releasably joining said flaps together, an inner loosely-bloused fabric panel having transversely-spaced leg openings adjacent the lower edge thereof fastened at the upper corners and along said lower edge to the rear face of the front panel intermediate the top and bottom margins thereof to form an inner open-topped panty-like pouch, said inner panel being split vertically from the top edge thereof to separate same into a pair of openable flaps, and second fastener means releasably joining the flaps of said inner panel together.

2. The double-pouch infant carrier as set forth in claim 1 in which: the shoulder straps each include a fixed length section and an adjustable length section, the fixed length section emerging from the top corner of the front panel and terminating atop the wearer's shoulder, and the adjustable length section emerging from the side margins of said front panel and being adjusted in length so as to meet said fixed length section atop the wearer's shoulder after passing underneath the arm; and, buckle means

releasably interconnecting the adjoining free ends of the fixed and adjustable shoulder strap sections.

3. The double-pouch infant carrier as set forth in claim 2 in which: the fixed length sections of both shoulder straps are provided with a cushioned pressure pad extending forwardly therefrom underneath the buckle means.

4. The double-pouch infant carrier as set forth in claim 2 in which: a second pair of fixed length strap sections are attached to the front panel and the first-mentioned fixed length strap sections as reinforcement for the latter.

5. The double-pouch infant carrier as set forth in claim 1 in which: at least two vertically-spaced horizontal rows of fastener elements are attached to the inside surface of the front panel intermediate the top and bottom margins thereof; and, a mating set of fastener elements are provided along the lower edge of the inner panel adapted for selective releasable attachment to one of said first mentioned rows of fastener elements.

6. The double-pouch infant carrier as set forth in claim 5 in which: the mating set of fastener elements is attached to the rear face of the inner panel adjacent the lower margin thereof so as to attach to said first-mentioned fastener set when said inner panel is folded under forwardly.

7. The double-pouch infant carrier as set forth in claim 1 in which, means comprising a cushioned pressure pad is fastened to the underside of each shoulder strap in position to rest atop the wearer's shoulder.

8. The double-pouch infant carrier as set forth in claim 1 in which: a bib formed of soft absorbent material is detachably fastened to the inside surface of the front panel adjacent the upper margin thereof.

9. The double-pouch infant carrier as set forth in claim 1 in which: the upper margin of the rear panel contains a series of removable tucks cooperating to define an expandable collar.

10. The double-pouch infant carrier as set forth in claim 1 in which: the upper margin of the inner panel contains a series of removable tucks cooperating to define an expandable waistband.

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