

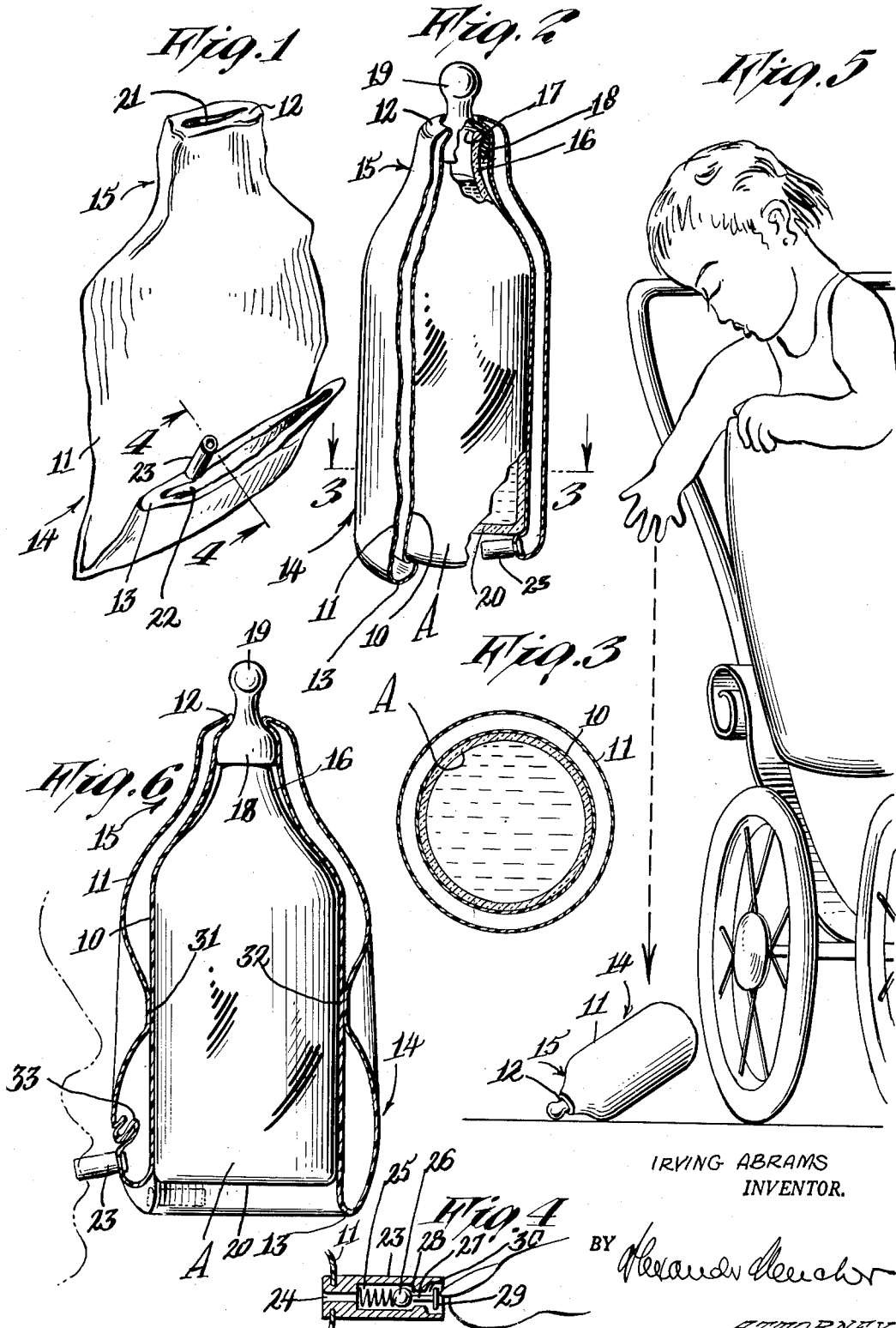
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I. ABRAMS
PNEUMATIC JACKET

2,729,259

Filed Dec. 19, 1952

2 Sheets-Sheet 1



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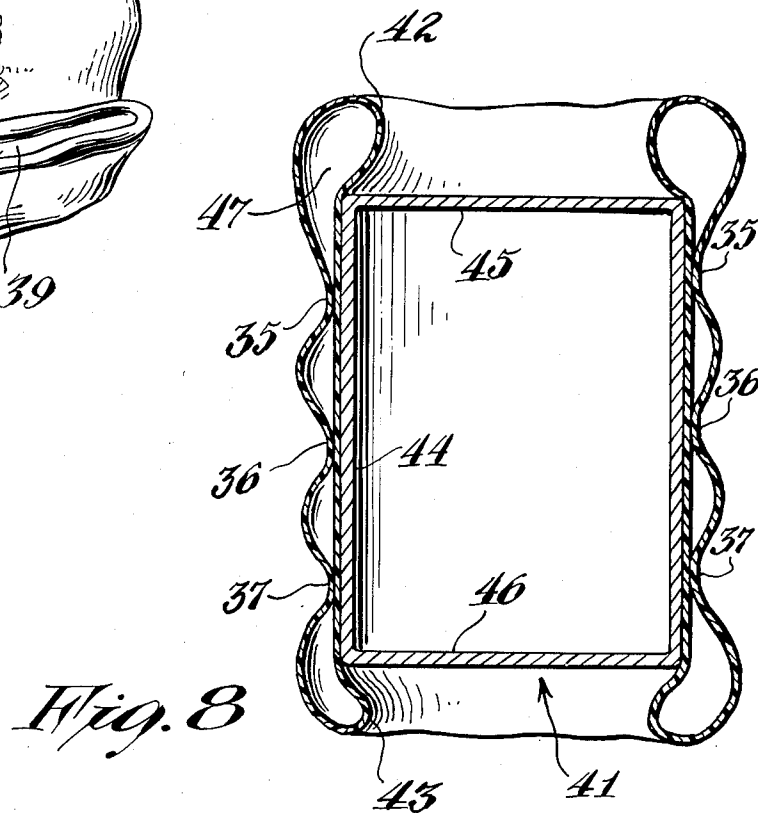
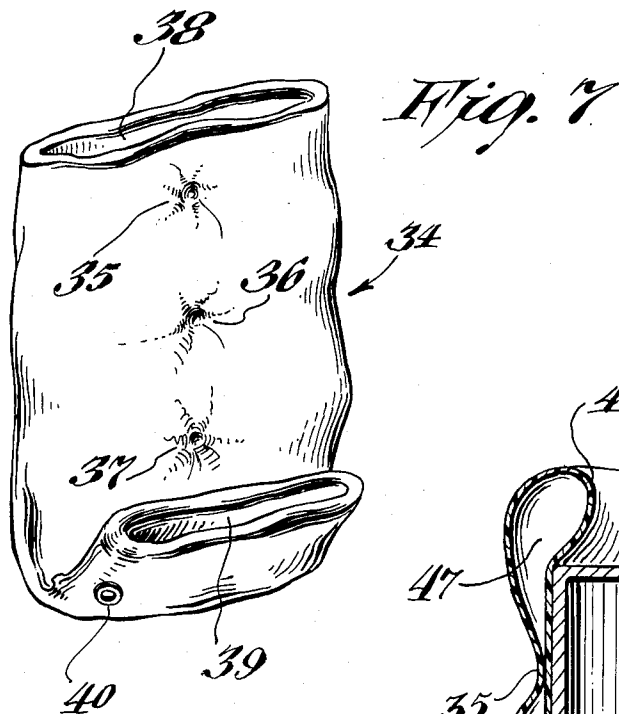
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PNEUMATIC JACKET

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6 Claims. (Cl. 150—52)

This invention relates generally to a pneumatic jacket such as to protect baby bottles and other objects from damage and breakage, but more specifically to an inflatable tubular jacket whereby breakage or damage of the object is prevented as through accidental dropping, collision, impact and vibration and whereby the temperature of the object is maintained.

One object of the invention resides in the provision of an inflatable tubular jacket for baby bottles which forms a part thereof when applied, which permits the exposure of the nipple element, which is easily removable upon deflation, and which is safe for handling by the infant at all times.

A further feature of the invention resides in the provision of an inflatable jacket which is comprised of non-metallic and soft parts, which is non-toxic and which when used for a baby bottle serves as an attraction for the child both from the standpoint of playful activities and from the standpoint of appearance.

Other features of the invention reside in the efficiency of the device, the ease of application and removal from the object or bottle and application to bottles and objects of various sizes.

These objects and other incidental ends and advantages of the invention will hereinafter appear in the progress of the disclosure and as pointed out in the appended claims.

Accompanying this specification is a drawing showing a preferred form of the invention wherein:

Figure 1 is a view in perspective showing the device in deflated condition.

Figure 2 is a view in perspective and partly in section showing the device in inflated condition and in operative position with respect to the bottle.

Figure 3 is a sectional view of Figure 2 across the plane 3—3 thereof.

Figure 4 is a sectional view of a type of valve which may be used in connection with the operation of the device.

Figure 5 is a view in perspective showing a child in a baby carriage at the time when the bottle has been dropped from its hand.

Figure 6 is a sectional view of a modified form of the invention taken along the longitudinal axis.

Figure 7 is a view in perspective showing a deflated commercial type of pocket or jacket with fusion points on both sides.

Figure 8 is a sectional view of the said jacket in operative position on a container, crate, or piece of machinery shown diagrammatically as an outlined section.

In accordance with the invention and one of the preferred and modified forms shown, a tubular jacket for a baby bottle A is made of any suitable elastic and resilient materials such as rubber or plastic having the physical characteristics thereof. For this purpose polyethylene or vinyl may be used as well as other compositions. The tubular jacket has a pair of concentric and spaced walls, the inner wall being indicated by numeral

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10, the outer wall by 11 and top and bottom walls by numerals 12 and 13 respectively. The tubular jacket is of suitable shape to conform to the shape of the baby bottle and for this purpose the lower portion indicated by numeral 14 is substantially cylindrical when inflated while the neck portion indicated by numeral 15 is reduced to conform to the reduced portion 16 of the baby bottle. It is to be observed that the top wall of the jacket is adapted to go over the lip 17 of the bottle whereby the side wall 18 of the nipple becomes engaged by the corresponding tubular inner wall portion thereby permitting nipple head 19 to be exposed for manipulation by the child.

As is shown, the bottom wall 13 is adapted to project beyond the bottom 20 of the baby bottle whereby the jacket when inflated extends beyond as is best shown in Figure 2.

In appearance the jacket when flattened out has the shape of a baby bottle as best seen in Figure 1 and has a top opening 21 and a bottom opening 22.

A suitable valve is provided whereby the jacket may be inflated by mouth pressure and is indicated by numeral 23. Valve 23 is concealed and protected as shown between the bottom 20 of the baby bottle A and the outer wall 11 adjacent the bottom opening 22. Valve 23 as shown may be formed of a hard rubber cylinder having a bore 24 communicating with the interior of the jacket, said bore having an enlarged bore 25 communicating therewith to seat a spring operated ball 26, the said ball 26 having an extension 27 proceeding through a reduced bore portion 28, extension 27 having a button member 29 in another enlarged bore portion 30 which communicates with the mouth opening of valve 23. The button member 29 is capable of being manipulated by the finger for purposes of deflation. When the valve 23 is put to the mouth for inflation the mouth pressure displaces ball 26 from the valve seat in bore 28 and after the jacket is inflated the ball 26 returns to its seat by virtue of spring pressure.

In Figure 6 is shown a modified form of jacket wherein are provided various spot-welds between the inner and outer walls 10 and 11 said spot-welds being indicated by numerals 31 and 32. The purpose of such spot-welds is to localize higher pressure areas between the jacket and the baby bottle for firm gripping purposes. Moreover, the valve in the modified form and as shown in Figure 6 is provided with a nesting place before inflation by the utilization of folds 33 in the outer wall 11 when the jacket is in deflated condition. Upon inflation the valve 23 of Figure 6 is capable of being in concealed condition between the bottom of the bottle and the inner bottom rim of the jacket.

Upon inflation, the inner wall 10 of the jacket is forced against the surface of the bottle thereby gripping the same frictionally and conforming to the shape thereof while the outer wall 11 is free to expand outwardly.

The device above described is applicable to the bottle and in deflated condition by applying the same over the head of the bottle through the bottom opening 22. When the jacket is so applied and the top 21 is adjacent the bottle rim 17 then the jacket is inflated. After such inflation the bottle may be filled with milk and thereafter the nipple applied. Hand-pressure is able to clear the top wall 12 of the inflated jacket in order to free space for application of the nipple wall 17.

Thus a guard is provided which is sanitary, which prevents breakage of baby bottles thereby depriving the child of its food and which also eliminates the need for cleaning up the results of the breakage.

It is to be understood that the jacket may already be inflated when purchased and therefore need have no valve member. In such event, the jacket would have to

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come in various sizes and shapes since the degree of inflation by the consumer controls the conformation of the jacket shape to the bottle shape.

The third form of the invention shown in Figures 7 and 8 indicate a suitably shaped commercial type of jacket generally indicated by numeral 34 and may have suitably spaced fusion points such as 35, 36 and 37, on opposite sides for gripping the walls of a package or machine such as indicated generally by numeral 41 upon inflation.

When the jacket is inflated as through a conventional oneway flapper valve 40, the open ends 38 and 39 have inwardly directed peripheral beads 42 and 43 to serve as guards for the top and bottom walls 45 and 46 of the item to be protected. The side walls of the item 44 are fully protected by the inflated jacket as well as the top and bottom walls as described by the air pocket 47 within the jacket.

It is understood that jacket 34 is capable of being made in all shapes and where such shape is irregular, fusion points may be eliminated.

The third form of the invention is useful for guarding explosive or breakable items against sudden impact, for packing for purposes of transportation and is further useful as a cushion against vibration of the interior.

I wish it furthermore understood that minor changes and variations in the material, shape, size integration and combination of parts may all be resorted to without departing from the spirit of the invention and the scope of the appended claims.

I claim:

1. A removable and inflatable tubular jacket for baby bottles to maintain the temperature of the contents thereof and to prevent accidental breakage comprising a hollow body having concentrically disposed inner and outer spaced and elastic walls and top and bottom walls, the said inner and outer walls having connecting welds at predetermined areas and having a reduced top neck portion whereby said hollow body is applicable to a baby bottle over the top thereof and to substantially conform in shape therewith, a valve body communicating with the outer wall for inflating said hollow body whereby the inner wall becomes compressed against the surface of the bottle for frictional engagement therewith and the nipple of the bottle is exposed.

2. A removable and inflatable tubular jacket for baby bottles comprising a hollow body having inner and outer spaced and elastic walls connecting welds at predetermined areas between said walls and top and bottom walls

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to form an air chamber, said body having a reduced neck portion with a central opening at the top and having a central opening at the bottom, a valve member secured to the outer wall of the body for inflating the jacket.

3. A removable tubular jacket for baby bottles comprising a hollow inflated body having inner and outer spaced and elastic walls connecting welds at predetermined areas between said walls, top and bottom walls, said body having a reduced neck portion with a central opening at the top for engaging the neck of the bottle and a central opening at the bottom to engage the bottom of the bottle and means for inflating said jacket.

4. A removable tubular jacket for baby bottles comprising a hollow inflated body having spaced inner and outer elastic wall portions, connecting welds at predetermined areas between said walls, top and bottom walls, said body having a reduced neck portion with a central opening at the top for engaging the neck of the bottle and a central opening at the bottom to engage the bottom of the bottle, and a valve member for inflation and deflation of the jacket.

5. A removable and inflatable tubular outer jacket container for preventing breakage and transfer of vibrations to an inner object, comprising a hollow body having continuous inner and outer spaced and elastic walls and connecting welds at predetermined areas between said walls, and top and bottom walls to form an air chamber, and means for inflating said jacket whereby the jacket clings to said object.

6. A removable and inflatable tubular outer jacket container for preventing breakage and transfer of vibrations to an inner object, comprising a hollow body having inner and outer spaced and elastic walls to cover the sides of said object and connecting welds at predetermined areas between said walls and having top and bottom inwardly directed inner and outer spaced walls to cushion the top and bottom of the object when said jacket is inflated and means for inflating said jacket.

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