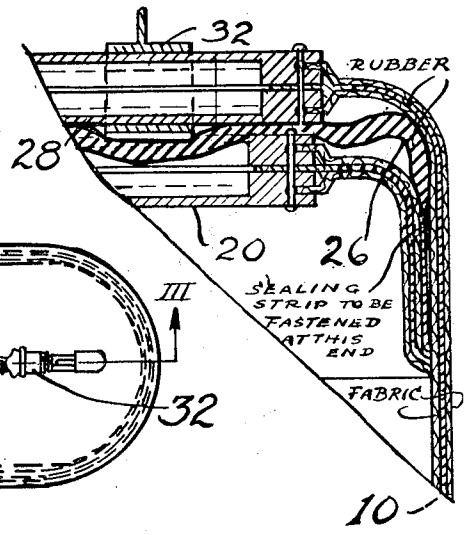
May 25, 1948. F. A. HOWARD 2,442,044

CLOSURE MEANS FOR LAUNDRY BAGS

Filed Aug. 1, 1945

FIG.-3



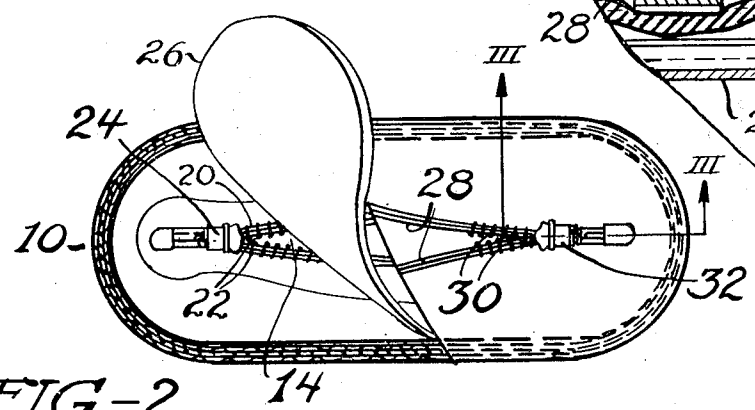


FIG.-2

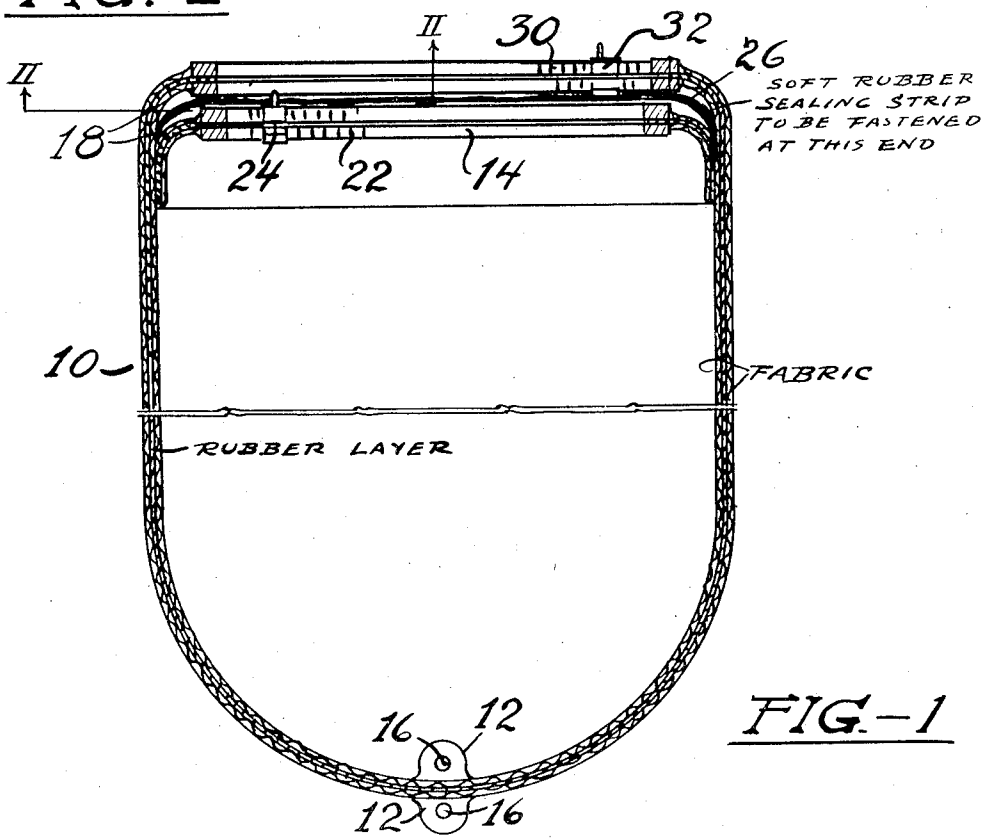


FIG.-1

Frank A. Howard Inventor

By P. L. Young Attorney

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CLOSURE MEANS FOR LAUNDRY BAGS

Frank A. Howard, Elizabeth, N. J., assignor to Standard Oil Development Company, a corporation of Delaware

Application August 1, 1945, Serial No. 608,323

1 Claim. (Cl. 150—3)

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This invention relates to the laundry art, and in particular to the dry cleaning of fabric materials.

The cleaning of fabrics, either by aqueous solutions of detergents or by the solvents of the dry cleaning industry, requires some form of agitation to wash the liquids through the soiled materials. For silks, curtains and other such delicate fabrics, the rotation, oscillation or reciprocal movement in washing machine equipment is often considered harmful. Such materials are commonly laundered by hand. To avoid splashing, the necessity of placing the hands directly in the cleaning solution, and to obviate odors and fire hazards with dry cleaning solvents, flexible washing closures such as bags have been proposed in which the fabrics and the cleaning solutions are enclosed and agitated as desired under enclosed conditions. It is to this field of development that the present invention relates.

Thus, the invention is concerned with a simple, fluid-tight, flexible laundry bag in which all types of fabrics, but especially the more delicate and fragile materials, may be washed. In general, the bag is made of a material such as oil-proof rubber or a rubberized fabric. Suitable rubber materials for the construction of the bag are the synthetic rubbers now commonly available, such as Perbunan. Embodiments of the invention are of the nature of soft, flexible bags or pouches of oil-proof rubber or with oil-proof rubber lining, having a mouth which can be easily sealed against internal pressure. The mouth of the bag may be constricted or of the same cross-section as the body of the bag. The closure of the bag may be made by means of slide-fastener devices. The closure means and the construction of the mouth-piece are such as to be capable of holding the measure of internal pressure which occurs upon kneading or working of the contents of the bag to effect cleaning. Commonly, however, the mouth of the bag is of the same dimensions as the body, and the mouth is closed by a double slide-fastener arrangement compressing a rubber sealing strip between the two, operated by first closing the inner fastener while the sealing strip is turned up out of the way and then turned down and compressed by closing the outer fastener.

In a form particularly suitable for the dry cleaning of fabrics, the bag may be made of an inner and outer layer of a fabric cemented by an oil-proof rubber such as Perbunan or a fabric rubberized with Perbunan. The mouth in this

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case is usually as wide as the bag itself, with means for compressing the rubber to form an hermetic seal, the closure rubber being in effect continuous with the rubber layer between the fabric sheets. The rubber closure surfaces may be sealed one against the other and permanently sealed against the rubber layer of the rubberized fabric to prevent seepage or capillary flow along the fabric layer. With such type embodiments of the invention, the closure is usually of the doubleslide fastener type. The constricted mouth type or the rigid mouth type are often commonly employed.

In order that the invention may be more fully understood, the following description of a particular embodiment is presented in connection with Figures 1, 2 and 3. Figure 1 is a sectional view taken longitudinally of the bag in the common plane of its greatest dimensions, and indicates the general nature of a laundry bag designed according to the invention. Fig. 2 is a view of the upper end of the bag from above, and shown partly in section along the line II—II of Fig. 1, while Fig. 3 is an enlarged view of a vertical section of the upper end of the bag, along the line III—III of Fig. 2.

The body 10 of the bag is shown as being substantially elliptical and having a somewhat hemispherical lower end section with outer and inner projecting pieces 12 and a top opening 14. The particular shape and dimensions of the bag are such as to be suitable for the particular sizes of the articles to be handled and to be substantially straight and flat when empty. For use with dry cleaning solutions, the bag is constructed of Perbunan rubber or of a fabric coated with Perbunan between layers. The opening 14 is large enough to insert, and if necessary to sort, the fabrics in the body of the bag and to permit the bag to be turned inside out as desired for draining and drying when supported from the projecting piece 12 through which holes 16 are provided for the insertion of supporting hook pieces. Some distance inwardly from the top opening 14 and framing the same is an inner rim of lining material 18 to which slide fastener strings 20 carrying interlocking elements 22 are attached. The interlocking elements 22 are engaged and disengaged by means of a slidable, string-element engaging means 24. Above the inner rim 18, at the end of the opening to which the slide 24 is drawn in the closed position, is a tongue-shaped element 26, somewhat longer and wider than the interlocking elements 22 in the closed position so as to form a covering and sealing strip over

the closed slide-fastener 22. At the end of the tongue element 26 are the slide-fastener attachments 28 carrying interlocking elements 30 with sliding slide 32. In sealing the bag, the tongue element is pressed down against the lower slide-fastener as the outer slide-fastener is closed.

What is claimed is:

A flexible fabric container adapted to be kneaded to aid in the action of a detergent liquid used therein, comprising a bag of a soft, oil-proof rubber composition, and a wide-mouthed closure for said bag including an inner slide fastener closure element attached to the inner wall portions of said bag, an outer slide fastener closure element attached to the upper end of said bag, above the inner element, and in vertically spaced relation thereto, and a sealing strip of oil-proof rubber disposable between said fastener elements and compressed thereby when closed to seal the closure.

FRANK A. HOWARD.

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