

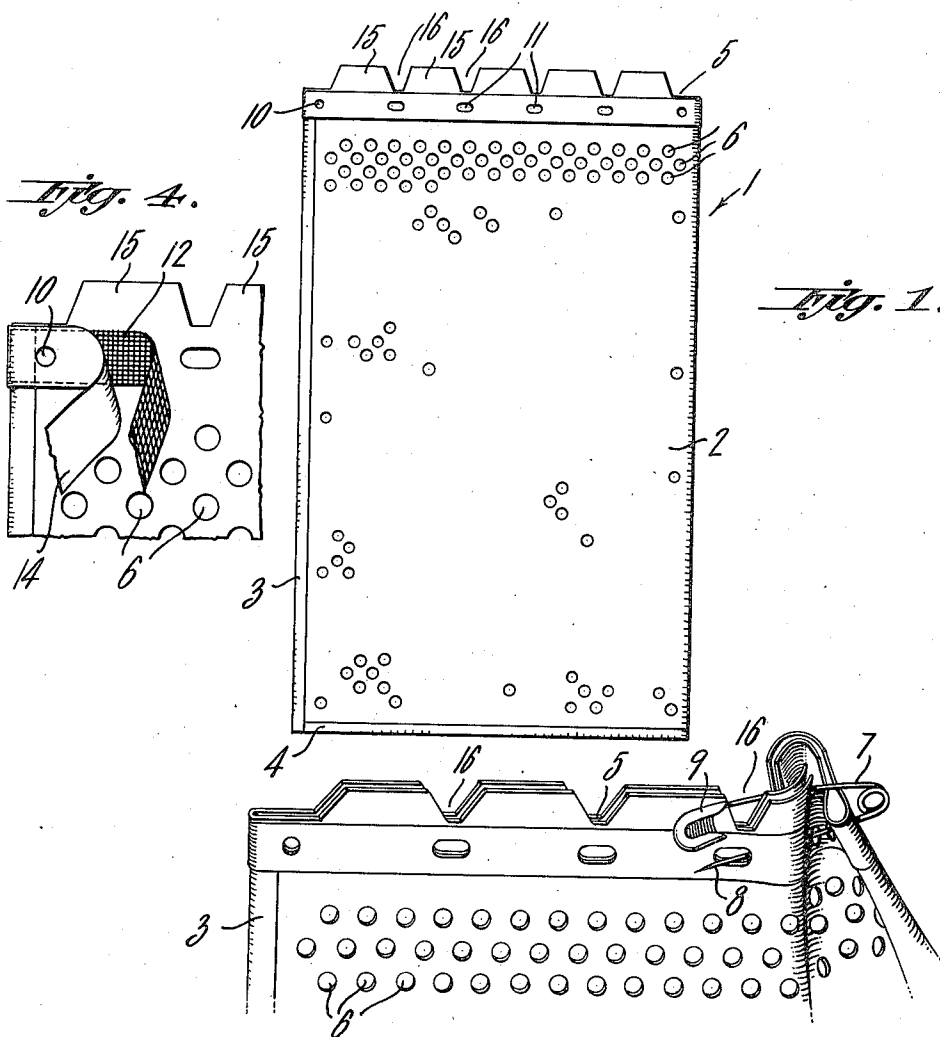
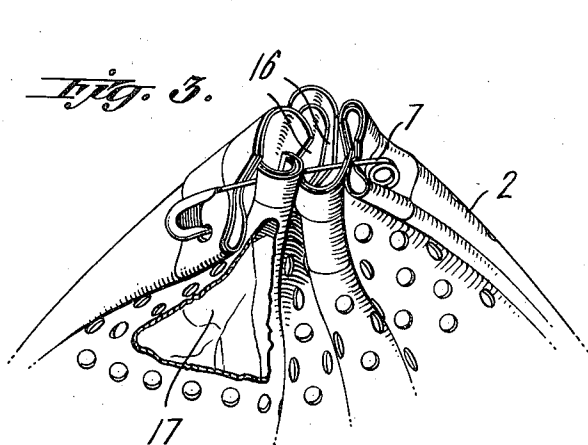
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LAUNDRY NET

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LAUNDRY NET

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My invention relates to laundry nets and more particularly to laundry nets of the all-rubber type and the closure means therefor.

In loading and unloading laundry nets a quickly manipulatable means is desired under all conditions. In closing such nets the net and the contents are dry, while in opening them they are wet and their slipperiness adds to the difficulties of rapid manipulation by an operator. Also, the characteristics of the washing solutions in which the nets are used is such that the elimination of metal parts is desirable, and such metal parts as are used need be non-corrosive, such as plated brass.

In the closing of rubber laundry nets, the inherent resiliency of the rubber when closely folded offers a certain amount of resistance to the closing operation which is not present in fabric nets. Hence the ends or mouths of all-rubber nets cannot be closed so tightly as is possible with fabric nets. Accordingly, in order to prevent escape of articles from the mouths of such rubber laundry nets when closed by the conventional pins, it is necessary to provide an especial construction.

I provide an all-rubber laundry net in which the top edge of the net has a reinforced portion through which there is a series of holes for the reception of the fastening pin. Wings or flaps of the body rubber project above the reinforced area and serve as additional closing means. The flaps are staggered with respect to the holes in the reinforced portion so that when the pointed part of the closing pin is passed through the openings the upper or head carrying part lies between the wings or flaps. The reinforced portion of the net in combination with the wings or flaps are folded when the pin is fastened so that the inherent pinching of the reinforced rubber and the flaps at the folds provides an effective closure for the net even though they are not drawn together as tightly as is done with a fabric net. The pin receiving openings intermediate the end openings are elongated in order that the pin may pass therethrough without requiring exact registry and close pinching of the rubber. Close bending of the folds would tend to deteriorate the rubber at the folds.

The accompanying drawing illustrates a present preferred embodiment of my invention in which:

Fig. 1 is a side elevational view of the open laundry net;

Fig. 2 is a side elevational view of a portion of the net showing the initial steps in closing it;

Fig. 3 is a broken perspective view of the top of the net when closed; and

Fig. 4 is a fragmentary view showing a detail of construction.

A laundry net embodying my invention comprises side walls 2 of sheet rubber material, preferably of a wide continuous piece joined along one edge by a seam 3. The sheets are joined at the bottom by a seam 4 and the top 5 is left open for inserting or removing the contents.

In order that there shall be an adequate circulation of the washing solution the side walls are provided with perforations 6 which should exceed at least 20% of the total area of the side walls. However, if the area of the perforations exceeds 30% of the side wall area, mechanical difficulties in forming the net arise and the net tends to deteriorate by breakdown of the rubber between the perforations. Accordingly, I consider that a ratio of from 20% to 30% of perforated area is the most efficient. A suitable range for the width of rubber between adjacent perforations is from $\frac{1}{4}$ to $\frac{3}{4}$ inch.

In handling such nets the net and the contents are usually dry when filled but are wet and slippery when emptied. Accordingly, the usual practice with laundry nets is to close the open ends with a large safety pin 7, whose prong 8 extends through the openings in the net and whose clasp or clamp 9 is placed above the mouth 5 of the net. Because of the deteriorating action of washing solutions the pin is made of corrosion resisting metal such as plated brass or the like.

For receiving the pin 7 the top of the net is provided with a series of openings 10 and 11. The openings 10 are placed near the edge of the net for the initial and final reception of the prong 8. The intermediate openings 11 are elongated and definitely spaced apart so that the prong 8 may be easily threaded therethrough without undue folding or crimping of the intermediate rubber. As an example of a satisfactory construction, the holes may be spaced apart $2\frac{1}{4}$ to $2\frac{1}{2}$ inches, the holes 10 having a diameter of substantially $\frac{3}{8}$ of an inch, and the openings 11 being substantially $\frac{1}{2}$ of an inch in length crosswise of the openings 11 and the bag. It has been found that if the spacing is shortened by more than $\frac{1}{2}$ of an inch, difficulty is had in threading the prong 8. On the other hand, if the dimensions are increased by more than $\frac{1}{2}$ of an inch the net is not tightly closed during use.

Referring particularly to Fig. 4, the rubber in the area of the openings 10 and 11 may be reinforced by the application of a fabric strip

12, preferably rubber coated. As a washing solution, such as is used in commercial laundries, produces rapid deterioration of fabrics exposed to it for undue lengths of time, the fabric strip 12 is in turn completely covered with a sealing strip 14 of rubber. The perforations 10 and 11 are preferably formed in the side walls 2 and the strips 12 and 14 after they are assembled, although they may be separately perforated and then assembled, if desired. The entire net is preferably vulcanized after the seams 3 and 4 are made and the strips 12 and 14 are in place.

In the use of fabric laundry nets heretofore employed it has been possible to close the top of the net by tightly folding the fabric and holding it with a safety pin. However, all rubber laundry nets cannot be folded as tightly as fabric because of the inherent resiliency of the rubber. In order to prevent the loss of the contents of the net the reinforcing strips are supplemented by flaps 15 projecting from the edges of the side walls 2. As shown in Fig. 4, the flaps are formed by continuations of the side walls 2, although separate flaps may be used. The flaps on the opposite side walls are in alignment to form pairs. The pairs are separated by spaces 16 which are in alignment with the openings 10 and 11. As shown in Figs. 2 and 3, the clasp carrying part of the pin 8 extends through the spaces 16 in alignment with the openings 10 and 11 receiving the prong 8. Accordingly the pairs of flaps 16 are folded against each other, as is clearly shown in Figs. 2 and 3. The action of the flaps in conjunction with the resistance of the folds of the side walls and reinforcing strips cause the net to close tightly and prevent the escape of articles 17 at the folds in the net. This is clearly illustrated in Fig. 3 where an article 17 is shown working up into one of the folds until it is stopped by the pressure of the rubber in the folds.

An all rubber laundry net embodying my invention may be readily manipulated by an op-

erator when either in a wet or dry condition because of the disposition and shape of the pin receiving openings. The surfaces of the net are perforated to afford a maximum of circulation of the washing solution with a minimum loss of mechanical strength in the net.

While I have shown and described a present preferred embodiment of my invention, it is to be understood that it may be otherwise embodied within the spirit of the invention and the scope of the appended claims.

Having thus described my invention, what I claim and desire to protect by Letters Patent is:—

1. A laundry net having a portion adjacent to an open end provided with a series of openings for the reception of a securing pin, and separated flaps projecting beyond said portion to serve as sealing means, the spaces between said flaps being aligned with said openings for receiving a portion of the securing pin.

2. A laundry net having a portion adjacent to an open end provided with a series of openings for the reception of a securing pin, and separated flaps projecting from each edge of the net, the flaps on the edges being aligned in pairs to cooperate and serve as sealing means, and the spaces between said flaps being aligned with said openings for receiving a portion of the securing pin.

3. A rubber laundry net comprising a body of rubber open at one end, a re-enforcing strip adjacent said end and perforated for the reception of a pin prong, rubber flaps extending beyond said strip and arranged in pairs to form seals, said pairs being spaced apart adjacent the perforations in the strip for the reception of the remainder of the pin, and the intermediate perforations being elongated whereby the pin may be threaded through the perforations and the intermediate rubber and flaps be bent to form seals for the contents of the net.

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