Nov. 15, 1938. H. B. RICHARDS 2,136,889

SHEET FORMED ARTICLE

Filed May 3, 1937

Fig. 1

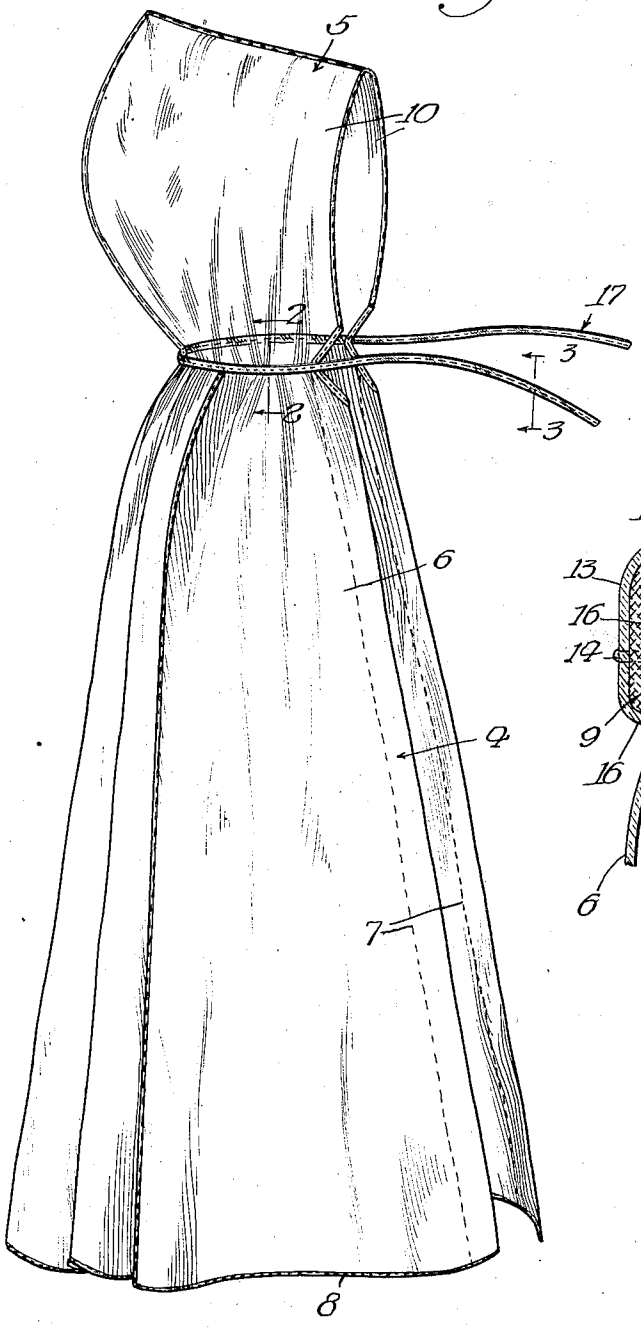


Fig. 2

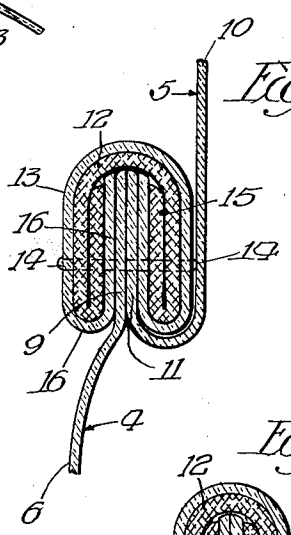
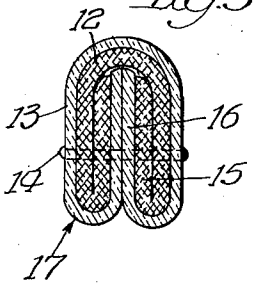


Fig. 3



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UNITED STATES PATENT OFFICE

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SHEET FORMED ARTICLE

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Application May 3, 1937, Serial No. 140,437

8 Claims. (Cl. 2—84)

The present invention relates generally to sheet formed articles. More particularly the invention relates to that type of article which is formed of two or more adjoining sheets of transparent waterproof material such, for example, as "Pliofilm" and has the contiguous margins of the sheets arranged in lapped relation and secured together by way of a channel type textile fabric binding which extends around and lengthwise of the lapped margins of the sheets and is secured in place by way of stitching between the side portions thereof and the lapped margins.

One object of the invention is to provide a sheet formed article of this type which is more durable and practical than, and has certain advantages over, previously designed articles of the same general character by reason of the fact that it embodies a channel type reinforcing strip which extends lengthwise of, and encases, the textile fabric binding and is secured in place by the stitching.

Another object of the invention is to provide a sheet formed article of the last mentioned character in which the reinforcing strip is formed of the same material as the sheets and serves not only as a reinforcing instrumentality but also to protect the textile fabric binding and prevent the latter from becoming soiled or frayed.

A further object of the invention is to provide an article of the type and character under consideration in which the channel type reinforcing strip embodies along the side portions thereof inner extensions which are folded inwards between the inner faces of the side portions of the textile fabric binding and the outer face portions of the lapped margins of the sheets and are so secured in place by way of the stitching that they form a substantially water-tight joint around the lapped margins of the sheets.

A still further object of the invention is to provide a sheet formed article of the aforementioned type which is generally of new and improved construction and in which the textile fabric binding and the channel type reinforcing strip are formed of such length that they project beyond the ends of the lapped margins of the sheets and form extension or string-like elements for tying purposes.

Other objects of the invention and the various advantages and characteristics of the present sheet formed article will be apparent from a consideration of the following detailed description.

The invention consists in the several novel features which are hereinafter set forth and are more particularly defined by claims at the conclusion hereof.

In the drawing which accompanies and forms a part of this specification or disclosure and in which like numerals of reference denote corresponding parts throughout the several views:

Figure 1 is a perspective view of a sheet formed article embodying the invention;

Figure 2 is an enlarged transverse sectional view taken on the line 2—2 of Figure 1 and illustrating the manner in which the channel type reinforcing strip extends around and is secured in fixed relation to the textile fabric binding; and

Figure 3 is an enlarged transverse sectional view taken on the line 3—3 of Figure 1 and illustrating the manner in which the end portions of the reinforcing strip and binding, that is, the portions which project beyond the ends of the lapped margins of the adjoining sheets of the article, coact and are secured together to form extension or string-like elements for tying purposes.

The invention is shown by way of example in connection with a combined rain cape and hood. The latter, as shown in Figure 1 of the drawing, comprises a cape 4 and a hood 5. The cape is adapted when in use to encircle and protect against rain, sleet or snow the wearer's shoulders and body and is formed of a thin transparent sheet 6 of "Pliofilm." The latter is a rubber hydrohalide and is characterized by the fact that it is water proof and comparatively tough and durable. It is further characterized by the fact that it is light in weight and stretchable to a slight extent. The front margins of the cape are folded inwards, as shown in Figure 1. They are held in place by means of stitching 7 and are adapted to overlap one another when the cape is in its operative position. The cape has a reinforced bottom margin 8 and embodies a U-shaped neck encircling top margin 9. The hood 5 consists of a pair of sides 10 and is formed of the same material as the cape 4, that is, "Pliofilm". It is adapted when worn to protect the wearer's head and has a U-shaped bottom margin 11. The latter is folded upwards and is positioned in lapped relation with the neck encircling margin 9 of the cape.

The lapped margins of the hood and cape are secured together by means of a binding 12, a reinforcing strip 13, and stitching 14. The binding is formed of textile fabric and is longitudinally and centrally folded so that it is channel shaped. It extends around the lapped margins of the

hood and cape and is secured to the latter by way of the stitching 14 which extends longitudinally of and passes through the side portions of the binding and said lapped margins of the hood and cape. The side portions of the binding embody inner extensions 15 which are folded inwards into lapped relation with the inner faces of said side portions of the binding. The extensions 15 are substantially the same in width as the side portions of the binding and make the binding of double thickness as far as the latter's side portions are concerned. The binding by reason of the fact that it is formed of textile fabric and extends around and lengthwise of the lapped margins 9 and 11 not only reinforces the margins and prevents lengthwise stretch of the latter but also covers the edges of the lapped margins and prevents them from splitting or injuring the wearer of, or any person handling, the combined rain cape and hood. The reinforcing strip 13 serves to reinforce the textile fabric binding 12 and also protect the latter from becoming soiled or frayed. It is transparent and is preferably formed of "Pliofilm", that is, the same material as the cape and hood. As shown in Figure 2, the strip is folded longitudinally and centrally so that it is of channel type design, and extends lengthwise of and around the binding 12. The side portions of the strip are the same in width as, and completely over, the side portions of the binding and embody inner extensions 16. The latter are folded inwardly into lapped relation with the infolded inner extensions 15 of the side portions of the binding and fit between the inner faces of said extensions and the outer faces of the lapped margins 9 and 11 of the cape and hood. The stitching 14, as shown in Figure 2, extends through the side portions and the infolded extensions of the "Pliofilm" reinforcing strip 14 as well as the side portions and the inner extensions of the textile fabric binding 12 and the lapped margins 9 and 11 of the cape and hood and serves to hold the reinforcing strip and binding together and in place around the lapped margins. The central portion of the "Pliofilm" reinforcing strip 13 overlies the central portion of the binding 12 and together with the infolded extensions 16 and the side portions completely surrounds the binding and forms a substantially watertight joint around the lapped margins 9 and 11. Because the binding is completely encased by the "Pliofilm" reinforcing strip it cannot become soiled or stretch as a result of absorption of moisture. Furthermore it is protected against becoming frayed.

The binding 12 and the "Pliofilm" reinforcing strip 13 are conterminous and the end portions thereof project beyond the ends of the lapped margins 9 and 11 of the cape and hood, as shown in Figure 1 and form extensions or string-like elements 17. The latter are adapted to be tied together and when tied hold the neck portion of the combined cape and hood in place around the wearer's neck. From the points at which the end portions of the binding and reinforcing strip project beyond the lapped margins 9 and 11 the infolded extensions 16 along the side portions of the reinforcing strip abut against one another, as shown in Figure 3. The stitching 14 extends throughout the extensions or string like elements 17 and hence holds the side portions of the strip and binding and the inner extensions in connected relation. By reason of the fact that the elements 17 include the end portions of the "Pliofilm" reinforcing strip 13, they are comparatively stiff and hence readily retain their position when they are tied in place.

Whereas the invention has been described in connection with a combined rain cape and hood it is to be understood that it may be embodied in other articles which are formed of "Pliofilm" type sheets having margins thereof in lapped relation. It is also to be understood that the invention is not to be restricted to the details set forth, since these may be modified within the scope of the appended claims, without departing from the spirit and scope of the invention.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent is:

1. An article of manufacture, comprising a pair of sheets having certain margins thereof in lapped relation, a centrally and longitudinally folded binding extending lengthwise of and around the lapped margins of the sheets, a channel type strip of comparatively thin highly flexible waterproof material extending lengthwise of and around the binding and having infolded extensions on the side portions thereof fitting between the inner faces of the side portions of the binding and the outer faces of the lapped margins of the sheets, and means for securing the strip and binding in place and in connected relation with said lapped margins.

2. An article of manufacture, comprising a pair of sheets with certain margins thereof in lapped relation, a centrally and longitudinally folded textile fabric binding extending lengthwise of and around the lapped margins of the sheets, a channel type strip of thin, transparent, highly flexible waterproof material extending lengthwise of and around the binding and having infolded extensions on the side portions thereof fitting between the binding and the lapped margins of the sheets, and stitching extending through the side portions of the strip and binding and also through said extensions and the lapped margins of the sheets and operating to hold the strip and binding in place and in connected relation with said margins.

3. An article of manufacture, comprising a pair of sheets having certain margins thereof in lapped relation and formed of thin, highly flexible, waterproof material, a centrally and longitudinally folded textile fabric binding extending lengthwise of and around the lapped margins of the sheets, a thin channel type strip of the same material as the sheets extending lengthwise of and around the binding and having infolded extensions on the side portions thereof fitting between the side portions of the binding and the lapped margins of the sheets, and stitching extending through the side portions of the strip and binding and also said infolded extensions and the lapped margins of the sheets and operating to hold the strip and binding in place and in connected relation with said margins.

4. An article of manufacture, comprising sheets having certain margins thereof in lapped relation, a channel type fabric binding extending lengthwise of and around the lapped margins of the sheets and having infolded extensions on the side portions thereof, a channel type strip of comparatively thin highly flexible waterproof material extending lengthwise of and around the binding and having infolded side extensions on the side portions thereof fitting between the extensions of the binding and the lapped margins of the sheets, and means for securing said strip, binding, and lapped margins together.

5. An article of manufacture, comprising sheets having certain margins thereof in lapped relation and formed of comparatively thin, highly flexible waterproof material, a channel type fabric binding extending lengthwise of, and around, the lapped margins of the sheets and having infolded extensions on the side portions thereof, a channel type strip of the same material as the sheet extending lengthwise of and around the binding and having infolded extensions on the side portions thereof fitting between the extensions of the binding and the lapped margins of the sheets, and stitching extending through the side portions of the strip and binding and also the aforesaid side extensions and said lapped margins of the sheets for holding the strip and binding in place and in connected relation with said margins.

6. An article of manufacture, comprising sheets having certain margins thereof in lapped relation, a textile fabric channel type inner strip embodying infolded extensions along the side portions thereof and having the central portion thereof extending lengthwise of and around the lapped margins of the sheets and having the ends thereof projecting beyond the ends of said margins, a coextensive channel type outer strip of thin, highly flexible, waterproof material extending lengthwise of and around the inner strip and embodying inturned extensions fitting against the inner faces of the extensions of the inner strip, and stitching extending through the strips from one end thereof to the other and serving to secure the central portions of the strips to the lapped margins of the sheets and the end portions of the strips together.

7. An article of manufacture, comprising a pair of sheets having certain margins thereof in lapped relation, a centrally and longitudinally folded binding extending lengthwise of and around the lapped margins of the sheets and having an end thereof projecting beyond the ends of said margins forming strip-like elements, a coextensive channel type strip of comparatively thin, highly flexible, waterproof material extending lengthwise of and around the binding and having infolded extensions on the side portions thereof fitting between the inner faces of the side portions of the binding and the outer faces of the lapped margins of the sheets, and means for securing the strip and binding in place and in connected relation with said lapped margins.

8. An article of manufacture, comprising a pair of sheets having certain margins thereof in lapped relation, a centrally and longitudinally folded binding extending lengthwise of and embodying infolded extensions along the side portions thereof and having an end thereof projecting beyond the ends of said margins, a coextensive channel type outer strip of thin, highly flexible, waterproof material extending lengthwise of and around the inner strip and embodying inturned extensions fitting against the inner faces of the infolded extensions of the binding, and means serving to secure the binding, outer strip, inturned extensions and margins of the sheets together and also the projected end portion of the binding and strip together.

HARVEY B. RICHARDS.