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W. W. ROWE

2,106,875

SEAMED BAG

Filed July 19, 1935

FIG. 1.

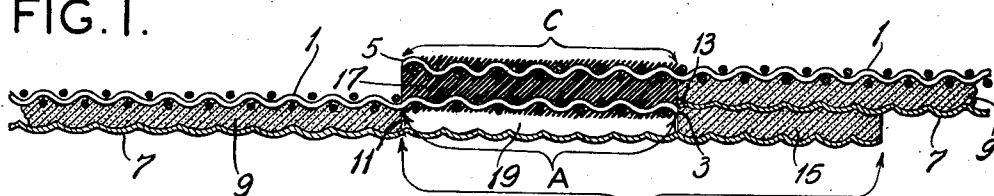


FIG. 2.

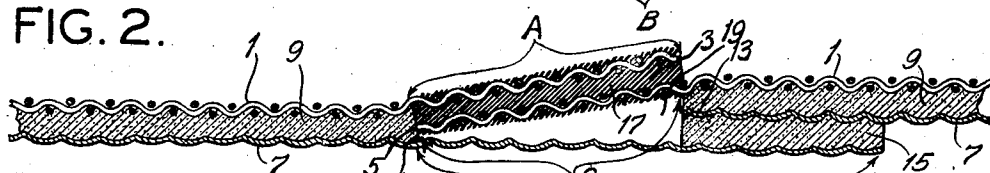


FIG. 3.

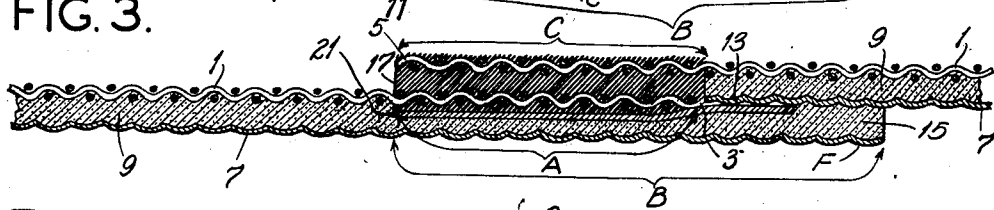


FIG. 4.

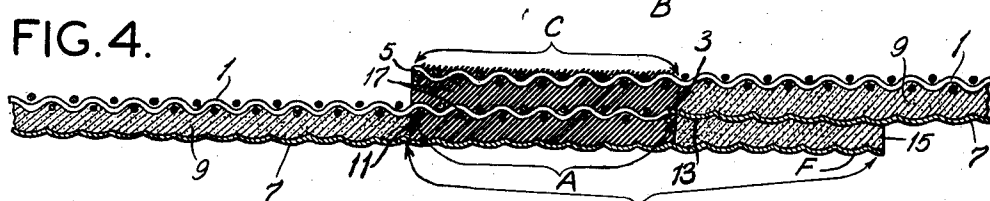


FIG. 5.

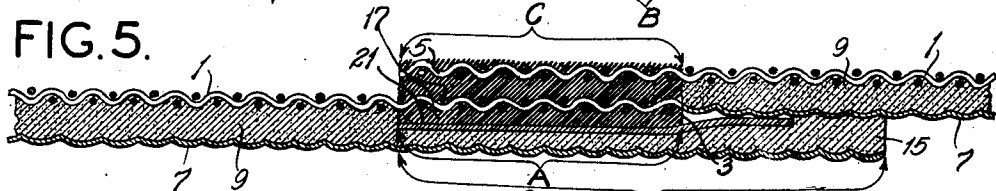
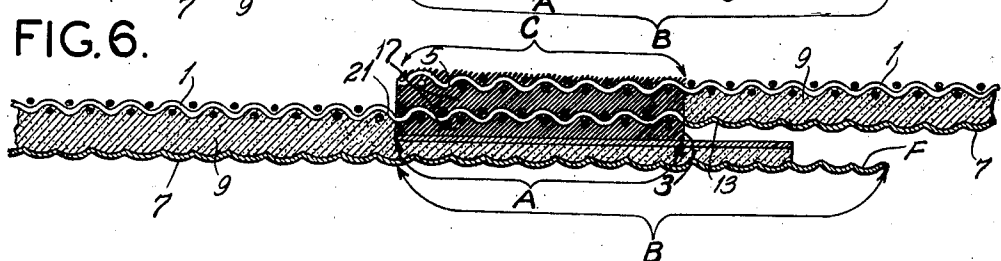


FIG. 6.



William Wallace Rowe,
Inventor
Delos S. Haynes,
attorney.

UNITED STATES PATENT OFFICE

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SEAMED BAG

William Wallace Rowe, Cincinnati, Ohio, assignor, by mesne assignments, to Bemis Bro. Bag Co., St. Louis, Mo., a corporation of Missouri

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12 Claims. (Cl. 229—55)

This invention relates to bags, and with regard to certain more specific features to bags provided with cemented seams.

Among the several objects of the invention may be noted the provision of an improvement upon the construction shown in Figure 3 of applicant's copending United States patent application, Serial No. 515,359, filed February 12, 1931 entitled, "Bags or the like of composite materials and processes of making them"; the provision of a construction of the class described in which certain means for preventing contact of adhesive for fabric, by adhesive on the liner, comprises an integral extension from the main body of the liner; and the provision of a stronger and simpler seam in general. Other objects will be in part obvious and in part pointed out hereinafter.

The invention accordingly comprises the elements and combinations of elements, features of construction, and arrangements of parts which will be exemplified in the structures hereinafter described, and the scope of the application of which will be indicated in the following claims.

In the accompanying drawing, in which are illustrated several of various possible embodiments of the invention,

Fig. 1 is a diagrammatic view of one form of the invention, the dimensions being exaggerated for purposes of description;

Fig. 2 is a view similar to Fig. 1 showing a reversal of position of certain overlapping textile flaps;

Fig. 3 is a view similar to Fig. 1 showing another modification.

Fig. 4 is a view similar to Fig. 1, showing another form;

Fig. 5 is a view similar to Fig. 3 showing another form; and,

Fig. 6 is a view similar to Fig. 5 showing another form in which is used a free inner flap edge.

Similar reference characters indicate corresponding parts throughout the several views of the drawing.

Hereinafter, the terms "cement" and "adhesive" will be used to designate materials that will both fasten the adjacent parts to which they are applied but which materials are antithetic when placed adjacently to one another. The terms "cement" and "adhesive" may also be referred to as a "first holding material" and a "second holding material", respectively.

Referring now more particularly to Fig. 1, there is shown at numeral 1 the fabric of the

body of a bag or the like, said fabric comprising burlap or other woven material. One edge of the fabric is shown at numeral 3 and the other edge at numeral 5.

As is known, for the purpose of later effecting a bag construction, fabric of this nature is provided with what becomes an inside liner 7 composed of paper which may be crinkled or otherwise rendered flexible. The paper 7 is joined to the fabric 1, preferably by means of a layer 9 of asphaltic cement. The cement not only serves fastening purposes but also a waterproofing function.

As indicated at numeral 11, the layer of asphaltic cement 9 is caused to fall short of the edge 3 thus to form a fabric flap A. The layer of paper 7 is caused to extend beyond said cement edge 11 and past the fabric edge 3 to form an inner paper flap B.

The other edge 13 of the paper falls short of the other edge 5 of the fabric to form another fabric flap C. The layer 9 of asphaltic cement does not pass beyond the edge 13 of the paper.

The extending flap B of the paper is great enough that an asphaltic cement connection 15 may be made between the end of said flap B and the region of paper near edge 13.

The flaps A and C of fabric between the overlapping edges 3 and 5 are secured by means of a latex or like adhesive 17 which strikes through. The result of striking through is illustrated by the thin inside layer of latex of Figs. 1-3.

Horizontally considered, no asphaltic cement area overlaps any latex adhesive area in the Fig. 1 form of the invention.

The latex adhesive layer 17 and the asphaltic cement layers 9 and 15 may be spaced endwise, thus providing small clearances. These clearances are not necessary but they may occur incidentally in the automatic operations used in making of the composite material herein described. If they occur, or are used purposefully, they have no deleterious effect.

Thus a non-cementitious space 19 is provided adjacent to the latex layer 17. It will be understood that in the drawing, the thickness of all parts and regions are exaggerated and that actually said region 19 is in the nature of a thin plane.

The advantage of the construction is that leaving of the burlap in the actual seam portion free of an asphalt coating, permits the latex to penetrate through the burlap and form a much better bond. The latex can in this way be caused to lock on the outsides of the burlap layers, much

as plaster forms a lock by penetrating through the lathing. This would not be possible, i. e., the latex could not penetrate through the burlap if the burlap were sealed on one side by a layer of adhesive substance such as asphalt. This sealing action is part of the antithetic feature above referred to.

In Fig. 2, like numerals designate like parts. The difference between the construction of this figure and that of Figure 1 is that the overlapping edges 3 and 5 are arranged reversely, that is, the edge 3 is above the edge 5, instead of below it. The functions are the same.

In Fig. 3 is shown an alternative scheme wherein like numerals designate like parts. In this construction, separation of asphalt from the latex which has struck through is accomplished by running a strip of paper 21 in between the paper of flap B and the fabric of flap A, so as to prevent the main body of the adhesive 9 from touching the fabric at flap A, even though the liner 7 be initially entirely covered with cement 9.

It will be observed that the paper strip, while it is as wide or wider than the fabric flap A under the latex 17, is narrower than the paper flap B, thus leaving an asphalted edge region 15 of the paper for sealing down against the paper of the opposite edge 13 of the main body of the paper. It should be understood that in Fig. 3, the amount of struck-through latex is not enough to necessarily bond to the paper 21 and this fact is illustrated by the thinness of said struck-through latex.

Not only are these constructions comparatively easy to make, but the material is easy and simple to combine. The fabric flap C is easily pressed into adhesive relationship to the fabric flap A and at the same time the lower flap B is pressed into cemented relationship to the opposite edge of the paper material.

The latex 17 may be caused by added pressure or the like to further strike through the lower fabric flap A to such an extent as to cement both fabric flaps down upon the center of the paper flap B which is free of asphaltic cement, assuming that no insert strip 21 is used (see Fig. 4). This feature is illustrated by the increased thickness of latex within the inner layer of fabric.

Where the paper insert strip 21 is used, and striking through is augmented by pressure, the latex 17 which strikes through the burlap flap A comes into contact with the strip to form a unitary bond over the seam area. Thus, under said pressure or equivalent conditions, Fig. 5 illustrates this adhesive feature by showing a thicker layer of struck-through latex between the paper 21 and the flap A than is shown in Fig. 3.

The projecting portion of the paper flap, for example of Fig. 5, may be left free, as indicated at F in Fig. 6 and it should be understood that this free-edge feature may be used in connection with the construction of the other Figs. 1, 2, 3 and 4. Thus the free flap F may be used in conjunction with constructions wherein the latex 17 adheres to the paper flap (Fig. 5) or where it does not (Fig. 3), although it is preferable with a free paper flap that such adherence be effected (Fig. 6) so that the free marginal portion of the flap is limited in width.

An advantage of the construction in general over that shown in said application is the integration of the flap portion with the liner 7, whereby there is obtained in combination with the feature of adhesive separation improved seam strength. At the same time, more ready provi-

sion is made for the use of a free marginal flap, if this type of construction be desired. Furthermore, the manufacturing operations are simplified, with all the advantages.

In view of the above, it will be seen that the several objects of the invention are achieved and other advantageous results attained.

As many changes could be made in carrying out the above constructions without departing from the scope of the invention, it is intended that all matter contained in the above description or shown in the accompanying drawing shall be interpreted as illustrative and not in a limiting sense.

I claim:

1. A bag composed of an outer material to which, by means of cement, is held an inner liner of other material, said outer and inner materials adjacent one edge having non-cementing adjacent faces, the outer material extending beyond the liner on the other edge, adhesive joining the outer edge portions where they face one another, the portion of the liner material which has the non-cementing face and the main body thereof having a continuous sheet in common.

2. In a bag composed of an outer material to which, by means of cement, is adhered an inner liner of other material, a separated relationship between said outer and inner material at one edge, the outer material extending beyond the liner on the other edge, adhesive between the edge portions of the outer material where they face one another, the face portion of said separated inner material which is opposite said adhesive being free of cement, the separated portion of the liner material and the main body thereof having a continuous sheet in common.

3. In a bag composed of an outer material to which, by means of cement is adhered an inner liner of other material, a separated relationship between said outer and inner material at one edge, the outer material extending beyond the liner on the other edge whereby the materials on the other edge may be arranged with the outer extension on said other edge lapping over the said outer separated material on said one edge, adhesive between the outer edge portions where they face one another, the face portion of said separated inner material which is opposite said adhesive being free of cement, the separated portion of the liner material and the main body thereof being formed of a continuous sheet.

4. In a bag composed of textile to which is adhered an inner paper material, a separated relationship at one edge between said textile and said paper, the textile extending from the paper at the other edge, whereby said last-named edge may be connected with the other edge by adhering paper to paper and textile to textile without adhering said paper to textile adjacent where textile is adhered to textile, the portion of the paper which is separated from the textile comprising an integral part of the remainder of the paper material.

5. In a textile bag having a paper liner asphaltically cemented thereto, a textile flap at one margin of said composite material and a separated and longer paper flap having a cement-free portion adjacent the textile flap, a single textile flap on the other margin, and an adhesive for joining said textile flaps which is different from the cement joining the paper to the textile, said paper flap being an integral extension of the paper liner.

6. In a textile bag having a paper liner as-

phaltically cemented thereto, a textile flap at one margin of said composite material and a separated and longer paper flap having a cement-free portion adjacent the textile flap, a single textile flap on the other margin, and an adhesive for joining said textile flaps which is different from the cement joining the paper to the textile, said paper flap being an integral extension of the paper liner and being cemented at its margin to the opposite margin of the liner.

7. A bag composed of an outer wearing material, an inner liner material, a first holding material joining said wearing and inner liner materials, said wearing and liner materials having adjacent faces near one edge between which there is none of said first holding material, the wearing material extending beyond the liner material at another edge, the edge portions of the wearing material facing one another, a second holding material between the facing edge portions of the wearing material, the portion of the liner material which has the face free of the first holding material and the main body of said liner material having a continuous sheet in common.

8. A bag composed of an outer fabric, an inner paper liner, asphalt joining said fabric and paper liner, said fabric and paper liner having adjacent faces near one edge between which there is none of said asphalt, the fabric extending beyond the paper liner at another edge, the edge portions of the fabric facing one another, latex between the facing edge portions of the fabric, the portion of the paper liner which has the asphalt-free face, and the main body of said paper liner having a continuous sheet in common.

9. In a textile bag having a paper liner asphaltically cemented thereto, a textile flap at one margin of said composite material and a separated and longer paper flap having a cement-free portion adjacent the textile flap, a single textile flap on the other margin located adjacently to the first-named textile flap but only outside of the same, and an adhesive for joining said textile flap which is different from the cement joining the paper to the textile, said paper flap being an integral extension of the paper liner.

10. A bag composed of an outer wearing material, an inner liner material, a first holding material joining said wearing and inner liner materials, said wearing and liner materials having adjacent faces near one edge between which there is none of said holding material, the wearing material extending beyond the liner material at another edge, the edge portions of the wearing material facing one another with said extending part at said other edge being outside, a second holding material between the facing edge portions of the wearing material, the portion of the liner material which has the face free of the first holding material and the main body of said liner material having a continuous sheet in common.

11. In a textile bag having a paper liner cemented thereto, a textile flap at one margin of said composite material and a separated and longer paper flap having a cement-free portion adjacent the textile flap, a single textile flap on the other margin located adjacently to the first-named textile flap but inside of the same, and an adhesive for joining said textile flap which is different from the cement joining the paper to the textile, said paper flap being an integral extension of the paper liner and being free of adhesive at said cement-free portion.

12. A bag composed of an outer wearing material, an inner liner material, a first holding material joining said wearing and inner liner materials, said wearing and liner materials having adjacent faces near one edge between which there is none of said first holding material, the wearing material extending beyond the liner material at another edge, the edge portions of the wearing material facing one another, a second holding material between the facing edge portions of the wearing material, the portion of the liner material which has the face free of the first holding material and the main body of said liner material having a continuous sheet in common, said second holding material being struck through the inner edge portion of the wearing material and contacting said portion of the material which has the face free of the first holding material.

WILLIAM WALLACE ROWE.