Jan. 17, 1939. A. O. DALLER 2,143,844

LAMINATED STRUCTURE

Filed Feb. 9, 1935

Fig. 2.

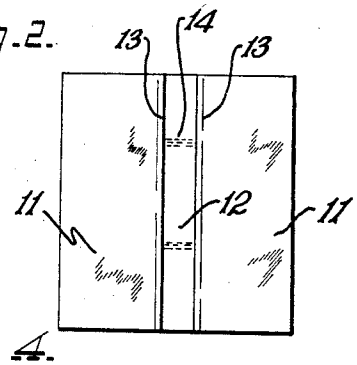


Fig. 1.

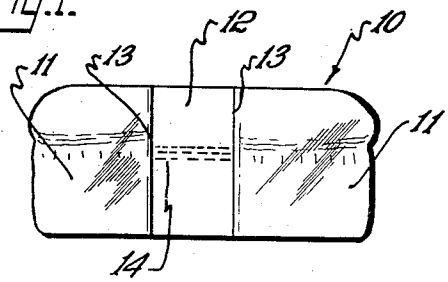


Fig. 4.

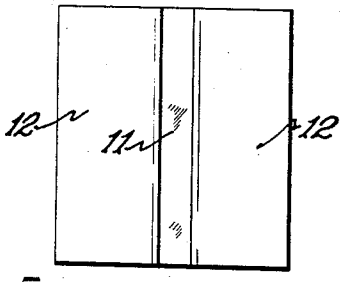


Fig. 3.

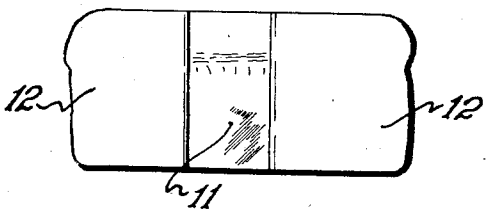


Fig. 6.

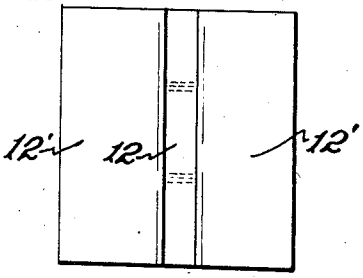


Fig 5

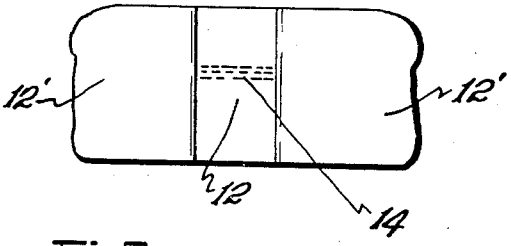


Fig. 8.

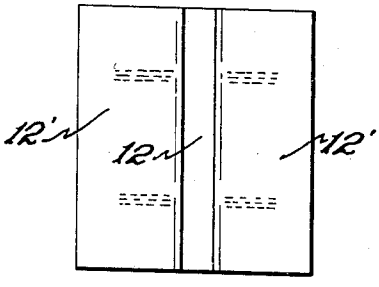
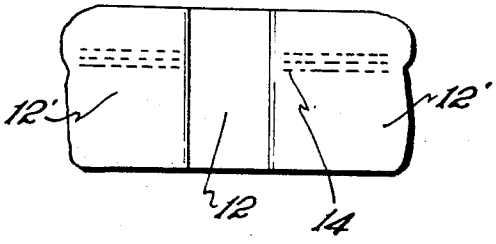


Fig. 7.



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UNITED STATES PATENT OFFICE

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LAMINATED STRUCTURE

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Application February 9, 1935, Serial No. 5,726

4 Claims. (Cl. 154—42)

This invention relates to containers and more specifically to containers or wrappers for food.

This application is a continuation in part of my co-pending application Serial No. 674,029.

In general, it is an object of the invention to provide a device of the character described, which will efficiently perform the purposes for which it is intended, which is simple and economical of construction, which can be expeditiously, conveniently and safely manipulated, and which can be readily manufactured and assembled.

Another object of the invention is to provide a moisture-proof container made up of contiguous strips of material held together by a moisture-proof adhesive.

Another object is to provide a moisture-proof container or sheeting therefor, which has certain portions of relatively expensive printed material and certain other portions of relatively inexpensive unprinted material; and to provide such a device with its parts joined by a moisture-proof adhesive.

Another object of the invention is to provide a moisture-proof container at least in part transparent, and having at least portions thereof with wax-like surfaces.

Other objects of the invention will in part be obvious and will in part appear hereinafter.

The invention accordingly comprises an article of manufacture possessing the features, properties and the relation of elements which will be exemplified in the article hereinafter described and the scope of the application of which will be indicated in the claims.

For a fuller understanding of the nature and objects of the invention reference should be had to the following detailed description taken in connection with the accompanying drawing, in which:

Fig. 1 is a perspective view of a device embodying one form of the invention;

Fig. 2 is a plan view of a blank adapted to be used for the formation of the device shown in Fig. 1;

Figs. 3, 5 and 7 are perspective views of modifications of the device shown in Fig. 1; and

Figs. 4, 6 and 8 are plan views of blanks adapted respectively to be used for the formation of the devices shown in Figs. 3, 5 and 7.

In the packaging of certain foods, it is advisable to use transparent containers or wrappers. Cellulosic materials may be obtained in sheets which are transparent. It is also advantageous to have the container or wrapper moisture-proof. Furthermore, in the interests of compactness and neatness, it is desirable that such information as must be supplied with the article be applied directly to the wrapping. To print upon the known transparent cellulosic materials is unsatisfactory.

The cost of printing on any material, including those materials which are not completely transparent, depends upon the size of the piece of material which is being printed upon and not upon the amount of printing alone.

When a container or wrapper which is to be moisture-proof is made up of various sections, it is necessary that the seams be moisture-proof and if an adhesive is used in binding the seams together, that adhesive should be moisture-proof.

The present invention is addressed to the problem of providing a container or wrapper which will avoid the above-described undesirable properties and which shall have those listed as advantageous.

A bread wrapper is used herein as an example of the invention. In Fig. 1 a loaf of bread is shown sealed in a wrapper 10. The several portions of the wrapper are substantially coplanar by which term it is meant that when the wrapper is spread upon a flat surface, adjacent portions overlap each other along a seam and extend away from each other in what is practically a single plane. Portions 11 of the wrapper are of moisture-proof transparent cellulosic material, such as for example, the material known under the trade-mark "Cellophane" and mentioned in the patent to Charch No. 1,992,190, granted February 26, 1935. Portion 12 is of a somewhat different material which is moisture-proof. It may be a paper of the type known as "waxed". There may be any desired arrangement of the portions other than that shown in Fig. 1. As shown, the waxed paper portion forms a band around the center of the loaf between the two end portions 11. The portion 12 is sealed to the portions 11 along the seams 13 by a moisture-proof adhesive. It is preferably one which may be applied moist to a surface and which will remain attached to that surface after the moisture has been removed, but which thereafter will only adhere to other similar adhesive and not to another bare surface. Blanks having this adhesive on one side only may be stacked without their becoming fastened to each other, or if the adhesive on one face of one blank is not in registry with the adhesive on the adjacent face of the next blank, they may be stacked without becoming joined.

Separate strips of material 11 and 12 may be

given a coating of the adhesive along the edge and permitted to dry, and later, by any convenient method, they may be pressed together to form a broader strip; or they may be pressed together with heat while the adhesive is fluid. A portion of such a compound strip sufficient to wrap one article, is shown in Fig. 2.

An adhesive having the properties described may contain a latex or gum or tacky material such as a dispersion of rubber in a suitable carrier. Where latex is employed, other materials may, if desired, be mixed with the latex. For example, casein may be added to improve the action of the adhesive. Ammonium hydroxide may be incorporated in the adhesive to render it sufficiently alkaline to hold and keep the latex and casein in solution. Such a mixture may be diluted with water to the proper consistency for use. If increased tackiness is desired sodium hypochloride in suitable quantities may be added to the mixture. Finally, a suitable deodorant such as methylsalicylate and any suitable germicide may be added, if desired. Such a product forms an excellent adhesive, particularly where the sheet to which it is applied is used in connection with the packaging of foodstuffs. It is to be understood, however, that the invention is not to be limited to the use of a particular adhesive such as that described above. For example, pure rubber latex may be employed under certain circumstances and other gums and/or latexes may be used.

Adhesive such as those described have been found adapted to adhere directly to smooth surfaces which may even have been coated with wax, paraffin, or other materials having similar characteristics. Such materials will be designated in the claims as wax-like. Adhesives such as have been described are also adapted for use in connection with shellacked or varnished surfaces as well as with plain uncoated surfaces. Heretofore it has been necessary when an adhesive has been used with a waxed surface, for example, to combine the adhesive with a solvent for the wax, so that the adhesive may penetrate and grip the surface beneath the wax coating. Such a process has been found tedious, expensive and laborious. Cartons so treated cannot be packaged and sealed rapidly. The adhesive herein described as a preferred adhesive simplifies the use of coated sheets or material in wrapper manufacture and makes possible a tight seal when such material is used without using added solvents for the coating.

The adhesive may be applied and promptly heated so as to melt the outer portions of the material (e. g., wax) of the coating, whereby those portions may commingle with the adhesive to form, as it were, a new compound adhesive.

The portion 12 with the wax-like surface may have certain indicia 14 associated therewith. Where these indicia are printed, the cost of printing will be reduced to an extent that if the portion 12 is 20% of the entire wrapping, the cost of the printing will be only 20% of what that cost would have been, had the same printing been applied to a sheet, the dimensions of which were equal to the entire wrapper.

In Fig. 3 is shown a modification of the wrapper shown in Fig. 1. The wrapper in Fig. 3 comprises end portions 12, having a wax-like surface and an intermediate portion 11 of transparent moisture-proof cellulosic material.

In Fig. 5 there is illustrated a modification wherein all portions of the wrapper are composed of material having a wax-like surface, and preferably waxed paper. Only one of the portions (portion 12) has printing thereon. Portions 12' are without printing and are positioned at the ends of the loaf.

Fig. 7 shows an article of manufacture somewhat similar to that shown in Fig. 5, with the exception that the portion 12—waxed paper—is not printed, and the portions 12'—waxed paper— at the ends have printing thereon.

Since certain changes may be made in the above article and different embodiments of the invention could be made without departing from the scope thereof, 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.

It is also to be understood that the following claims are intended to cover all of the generic and specific features of the invention herein described, and all statements of the scope of the invention which, as a matter of language, might be said to fall therebetween.

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

1. A laminated structure comprising a strip of paper coated with a wax-like film, a flexible strip of transparent cellulosic material having a moisture-proof coating, said strips being overlapped and secured together by a line of moisture resistant adhesive comprising rubber derived from latex, said adhesive forming a bond between said wax-like film and said moisture-proof coating.

2. A laminated structure comprising a strip of paper having a wax-like film on the surface thereof and a strip of transparent cellulosic material having moisture-proof coating, contiguous edges of said strips being in overlapped relation; a moisture resistant seam along the overlapped areas comprising a line of adhesive containing rubber derived from latex commingled with a part of said wax-like film and forming a bond between the wax-like film and said moisture-proof coating.

3. A sheet of material comprising a plurality of strips of "Cellophane" having a coating of moisture-proof composition and having adjacent overlapping margins, said overlapping margins being sealed together with a tacky, gum-like, moisture resistant adhesive along a moisture-proof seam, said adhesive consisting essentially of rubber derived from latex.

4. A laminated structure comprising a strip of paper coated with a wax-like film, a flexible strip of transparent cellulosic material having a moisture-proof coating, said strips being overlapped and secured together by a line of moisture resistant adhesive comprising rubber derived from latex, said adhesive forming a bond between said wax-like film and said moisture-proof coating.

ADRIAN O. DALLER.