

Jan. 8, 1929.

1,698,532

L. C. BROOKS

METHOD OF MAKING FIBROUS CONTAINERS

Filed Aug. 9, 1926

Fig. 1.

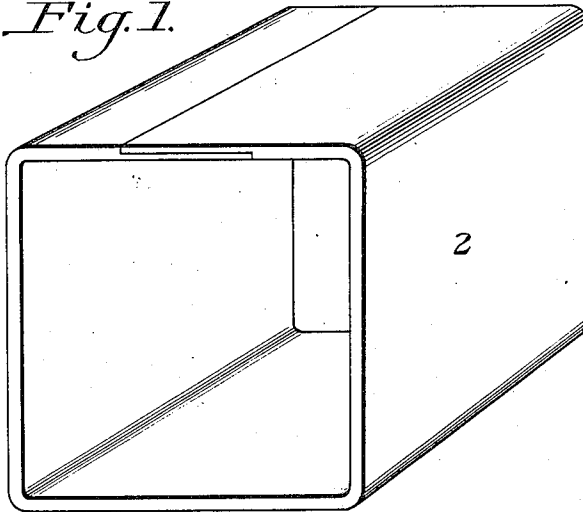


Fig. 3.

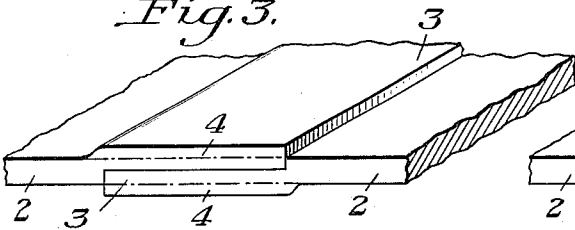


Fig. 4.

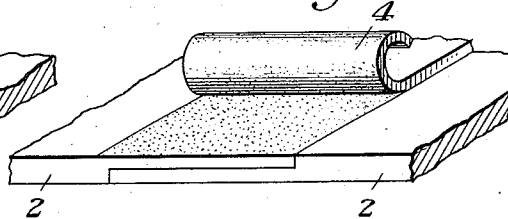


Fig. 2.

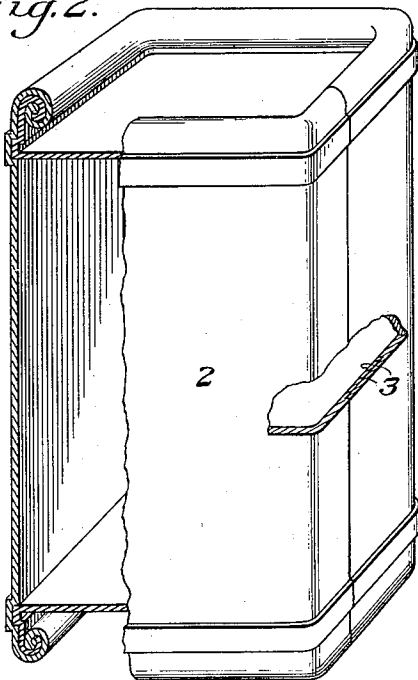


Fig. 5.

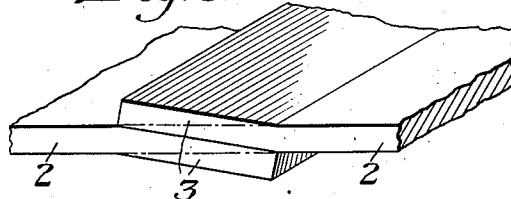
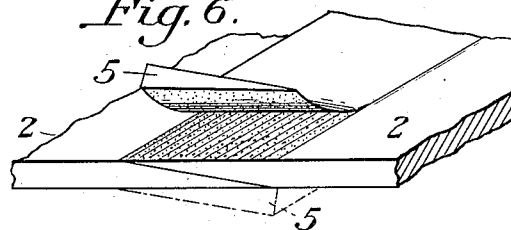


Fig. 6.



INVENTOR

Lewis C. Brooks
By *his atty,*
Bjorn, Stebbins & Parnell

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UNITED STATES PATENT OFFICE.

LEWIS C. BROOKS, OF MILWAUKEE, WISCONSIN, ASSIGNOR TO THE NATIONAL PAPER CAN COMPANY, OF MILWAUKEE, WISCONSIN, A CORPORATION OF WISCONSIN.

METHOD OF MAKING FIBROUS CONTAINERS.

Application filed August 9, 1926. Serial No. 128,053.

This invention relates to a method of making fibrous containers, and is particularly useful in the manufacture of containers formed from a single thickness of material, although it will be understood that such material may of itself consist of one or more layers or laminations.

Bodies for fibrous containers are generally manufactured either by spirally winding two or more plies of paper board or paper on a mandrel, or by winding a sheet of paper over and over into several plies. The first process is limited to tubular forms and has other disadvantages as regards printing and the like; and while the second process overcomes these, it is slow in operation and gives a ridge of extra thickness where the first and last laps lie adjacent one another.

This invention provides for constructing a container body from a sheet of material by joining adjacent edges of the material into a joint comprising a plurality of layers, and reducing such joint to substantially the thickness of the wall by peeling or cutting away the excess material. This excess thickness may be removed by the peeling process after the laps are joined together.

By this method the body can either be made as a continuous tube and cut to desired lengths at the end of the tube manufacturing mechanism, or it can be made in the form of sheets; these sheets then being put through suitable mechanism to form them into container bodies.

By this method the tubular body can be made of a single thickness of a single paper board material, or it can be made of a multiple material, that is, where several different kinds of paper or board and one or more different kinds of adhesive or waterproofing joints are combined together to form the material. Quite often it is desirable to use such multiple material and when, as in this case, such operations are done on large combining machines there is a decided saving in cost and improvement in quality as compared to attempting a similar result on a tube winder.

Where the tubular bodies are made up from sheet blanks my method has another advantage in that white or light colored paper surface can be used for the outer ply, and this surface can have a label in one or more colors printed on it before it is made up into the tubular body.

Another advantage when used in the form of sheet blanks is that such blanks can be shipped to consumers at low cost as compared to finished paper cans; the user being provided with suitable machines to permit of his assembling blanks and making up into finished cans on his own premises at the lowest possible cost.

In the accompanying drawings, illustrating the present preferred embodiment of my invention:

Figure 1 is a perspective view of a container body constructed according to the invention;

Figure 2 is a perspective view, partly broken away of a completed container formed from the container body of Figure 1; and

Figures 3, 4, 5 and 6 are detailed perspective views of various types of joints which may be used in my invention.

In the illustrated embodiment of the invention a piece of fibrous material 2 of any desired dimensions is formed into a container body with the adjacent edge portions 3 overlapping. These edge portions are secured together with an adhesive and the joint takes the form of Figure 3. The upstanding portions 4 are then cut away, as indicated in Figure 4, thus reducing the joint to substantially the thickness of the container walls. In this form of joint a certain amount of preforming of the edge portions 3 may be required, in order to make a tight joint. Figures 5 and 6 show a slightly modified form of joint in which the edge portions 3 are inclined with respect to the container body and a wedge-shaped portion 5 is skived off to reduce the thickness of the joint at each side.

Regardless of the particular joint used, the container body is of substantially uniform thickness and the joint may, therefore, be beaded and rolled like any other portion of the container body, as shown in Fig. 2.

I provide a container formed from material of substantially uniform thickness, having adjacent edges of the material united in a joint comprising a plurality of layers, the thickness of the material being reduced at the joint to make the joint substantially the thickness of the container material. It will be understood that the container may be of any shape and that a number of pieces of material may be employed in its construc-

tion, since the joint may be as readily made between adjacent edges of separate pieces as between adjacent edges of the same piece. Containers so formed are inexpensive and easy to construct and are strong and secure.

While I have illustrated one embodiment of the invention, it will be understood that it is not limited thereto, but may be otherwise embodied within the scope of the following claims.

I claim:

1. The method of making fibrous containers having walls of substantially uniform thickness, which includes joining adjacent edges of material comprising the container, the joint comprising a plurality of layers,

and thereafter reducing the total thickness of the material forming the joint to substantially the thickness of the material by cutting away a portion of the material, substantially as described.

2. The method of making fibrous containers having walls of substantially uniform thickness, which includes lapping adjacent edges of material comprising the container, and thereafter reducing the thickness of the material forming the joint by cutting away a portion of the material, substantially as described.

In testimony whereof I have hereunto set my hand.

LEWIS C. BROOKS.