

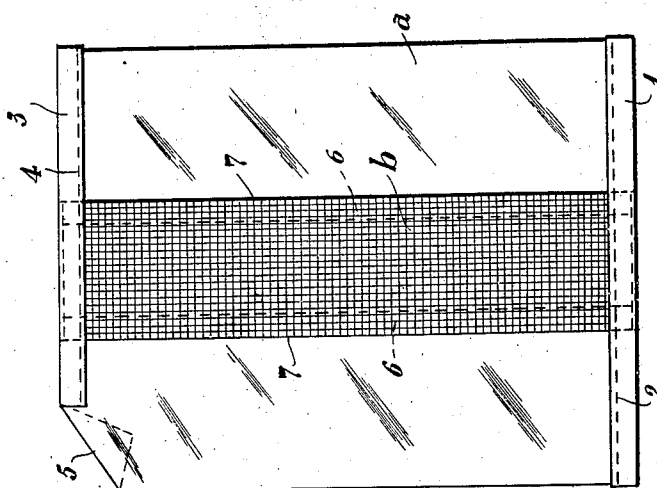
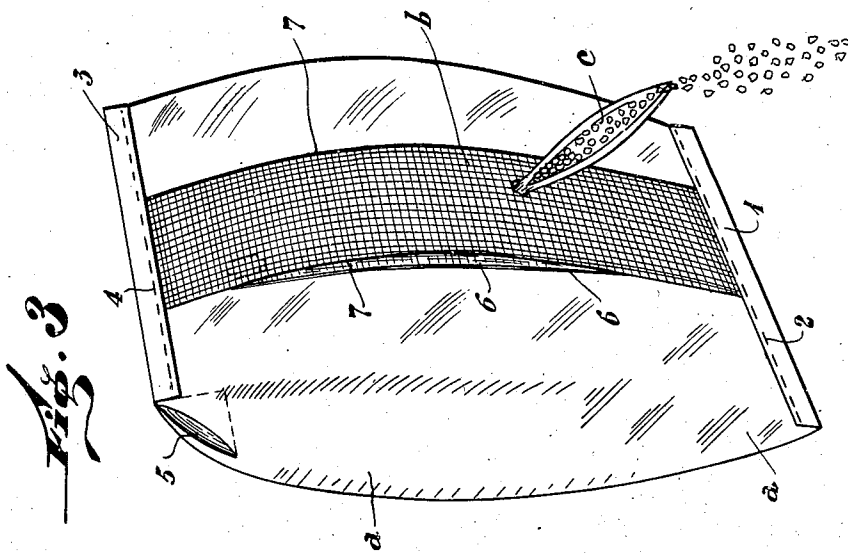
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PAPER BAG HAVING A BURLAP SAMPLING ZONE

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PAPER BAG HAVING A BURLAP SAMPLING ZONE

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4 Claims. (Cl. 229—55)

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This invention relates to improvements in paper sacks, and particularly to sacks for use in place of the ordinary burlap or bagging sacks for containing different products, particularly grain.

As is well known, burlap or bagging is used as special material for this kind of containers, which in normal times is practically unreplaceable, inasmuch as it is strong and suitable for transporting grain, and also enables the use of samplers or probes which are generally dug into the sacks for the purpose of determining the contents and quality of the product being shipped or sold. However, the shortage of sackcloth has created a serious problem, particularly in the agricultural field.

Attempts have been made to replace the burlap of bagging by paper in the manufacture of this type of sacks, by using several superposed paper sheets in order to form resistant walls. Such attempts have met with success as regards the provision of an effective container, but such sacks fail when, once filled with grain, they are perforated with a sampler or probe, as due to the nature of the material—paper—it will tear, with the resulting loss of contents, and in some cases the initial cut will extend and destroy the body of the container.

The above drawbacks are overcome in a very simple manner by the present invention, which is based on the provision of means enabling the use of perforating samplers or probes, in exactly the same manner as if the sacks were made of bagging.

For this purpose, paper sacks made of two or more superposed sheets so as to render them sufficiently strong, are combined with one or more pieces of bagging or other similar fabric which cover part of the sacks' walls and extend sufficiently to constitute a "sampling" zone. Thus, while covering a relatively small area, said zone extends into vital portions of the sack, so that verification by means of a sampler or probe may be readily and effectively carried out.

These partial sampling zones of bagging do not unreasonably increase the cost of the product, due to the manner in which they are combined with the paper walls of the sack, the fabric constitutes a reinforcement which, due to the structure of the warp, allows the introduction of sampling devices of any nature, provided they are dowel-shaped sharp tapered samplers or probes, in order to enable the withdrawal of few grains without cutting the threads, which are merely displaced to resume later their original

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and normal position, thus avoiding the loss of material.

For this purpose, the bagging or burlap constituting the sampling zone is applied against the sheets forming the sack walls, to which it is sewn, glued or otherwise joined in any suitable manner.

One of the main objects of the invention is to provide an economical and solid sack capable of being perforated by a sampling device without being affected.

Other objects and advantages of the present invention will become apparent from the course of the following description, when read in conjunction with the accompanying drawing, which illustrates the invention by way of example and in a preferred embodiment, and wherein:

Fig. 1 is a front view, of the paper sack having sampling zones constituted by bands or areas provided with burlap or bagging.

Fig. 2 is a sectional view of the same sack.

Fig. 3 is a graphical representation of a sampling device being introduced into the sack in a zone comprising burlap or bagging.

The same reference characters indicate like or corresponding parts or elements throughout the drawing.

Referring now to Figs. 1 to 3, *a* indicates the sack walls which, as stated above, are formed by a plurality of sheets of paper which may be superposed or suitably wound.

The bottom of the sack is formed with a reinforcement 1, constituted by a strip of paper, fabric or other suitable material, folded in an angle and suitably secured by means of a seam 2.

The sack top or mouth portion is formed with a reinforcement 3 secured by means of a seam 4 and extending throughout the width of the sack, with the exception of a corner 5 constituting the filling valve.

According to the present invention, one of the fronts of the sack *a* is provided with a strip of bagging or burlap *b* longitudinally superposed on the container, so as to extend from the top reinforcement 3 to the bottom reinforcement 1.

The side edges 6 of the burlap strip *b* are attached to the paper walls as by gluing, stitching or other suitable means, in a manner so that said edges 6 will form a box-plait 7. Said plaits 7 are secured by means of the seams 2 and 4.

The burlap strip *b* thus constituted and applied to the sack *a* will form a probing zone capable of being pierced by the probe *c* and preventing the loss of material contained in said

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sack after the probe has torn through the paper walls.

The purpose of the plaits 7 is to enable the warp of the bagging to return to its normal position after being displaced by the probe. If the burlap strip is not plaited, or in other words if applied under tension, there would be the risk of the warp remaining in displaced condition after the removal of the probe, and this would result in the loss of material through the opening afforded by the displaced warp.

It is evident that the burlap strip b may be applied on both fronts of the sack, and also that the plaits 7 could be provided at the sides of the strip or intermediate the sides thereof or both.

It is evident that in carrying the invention into practice, several changes in construction and details may occur to those skilled in the art, without departing from the scope of the invention as clearly set forth in the appended claims.

I claim:

1. In combination with a bag having walls consisting of laminations of paper, a strip of fabric secured with its longitudinal edges to the outside of the bag and having a longitudinal plait whereby the central zone of the fabric strip rests loosely without tension on the paper wall of the bag.

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2. In combination with a bag having walls consisting of laminations of paper, a strip of burlap secured with its longitudinal edges to the outside of the bag and having a longitudinal plait whereby the central zone of the burlap strip rests loosely without tension on the paper wall of the bag.

3. In combination with a bag having walls consisting of laminations of paper, a strip of burlap secured with its longitudinal edges to the outside of the bag and having a longitudinal plait extending along one of its longitudinal edges whereby the central zone of the burlap strip rests loosely without tension on the paper wall of the bag.

4. In combination with a bag having walls made of laminations of paper and provided along its top and bottom edges with reinforcements, a strip of burlap extending on the outside of the bag from the reinforcement at the top edge to the reinforcement at the bottom edge, said strip being secured with its ends to said two reinforcements respectively and having its longitudinal edges secured to the paper wall of the bag, a longitudinal plaiting being provided in said strip between the edges thereof so that the central zone of the strip rests loosely without tension on the paper wall of the bag.

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