

No. 757,610.

PATENTED APR. 19, 1904.

W. P. FLOWERS.
ODOR PROOF BAG.

APPLICATION FILED MAR. 14, 1902. RENEWED FEB. 21, 1903.

NO MODEL.

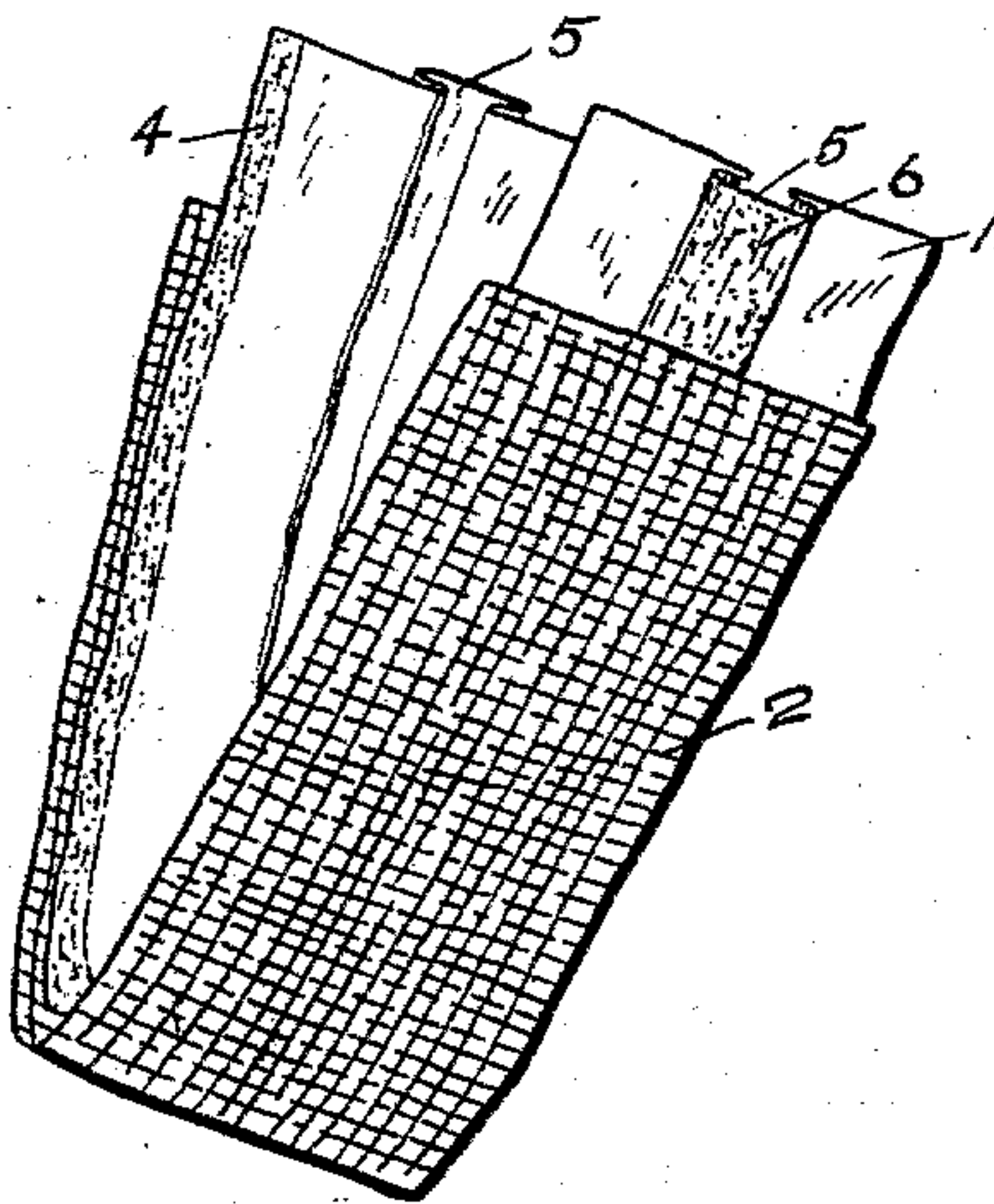


Fig. 3.

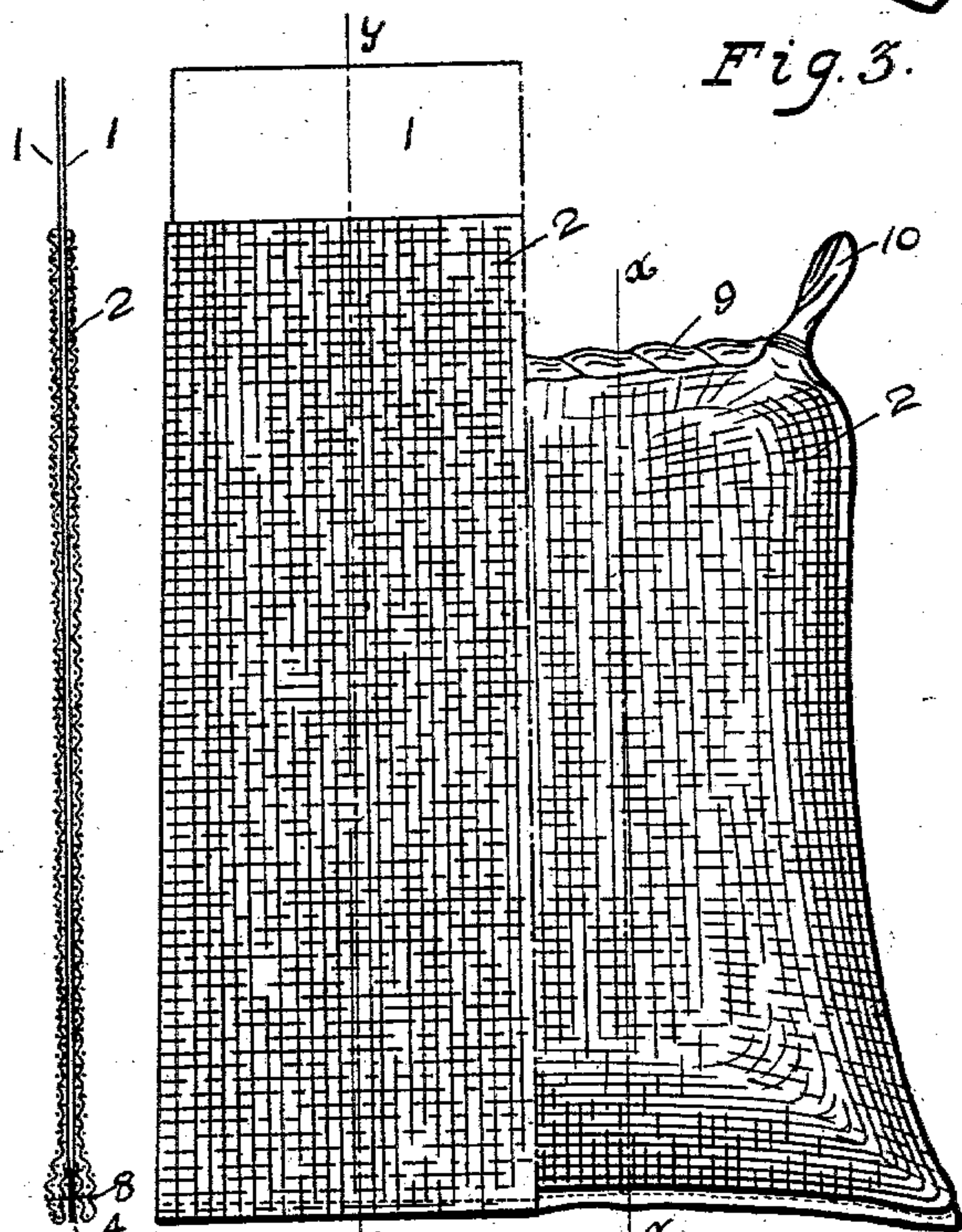


Fig. 2.

Fig. 1.

WITNESSES:

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WILLIS P. FLOWERS, OF SCRANTON, PENNSYLVANIA, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO THE FERTILIZER BAG MANUFACTURING CO., OF SCRANTON, PENNSYLVANIA, A CORPORATION OF DELAWARE.

ODOR-PROOF BAG.

SPECIFICATION forming part of Letters Patent No. 757,610, dated April 19, 1904.

Application filed March 14, 1902. Renewed February 21, 1903. Serial No. 144,527. (No model.)

To all whom it may concern:

Be it known that I, WILLIS P. FLOWERS, a citizen of the United States, residing at Scranton, in the county of Lackawanna and State of Pennsylvania, have invented certain new and useful Improvements in Odor-Proof Bags, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention provides an odor-proof bag of novel construction which is reinforced at the seams and provided with an inner sack or lining secured at intervals thereto and having a fullness between the points or lines of
15 securance to compensate for the expansion of the sack when under tension without endangering rupture of the lining. The fullness is in the form of box-plaits or opposite folds.

20 The invention will be more fully described hereinafter, claimed, and illustrated in the drawings hereto attached, in which—

25 Figure 1 is a two-part view, one half illustrating the sack prior to filling and the other half showing the sack after being filled and secured. Fig. 2 is a vertical section on the line Y Y of Fig. 1. Fig. 3 is a perspective view of the bag prior to securing the longitudinal edges of the material.

30 Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

35 The sack 2 is of textile and may be of any construction. The textile generally employed is burlap, because of its strength, lightness, and cheapness, the same being stretchable to a limited degree. The lining or inner sack 1 is of not-stretchable material or inelastic material, such as paper, tin-foil, or lead, the
40 paper being glazed, greased, or otherwise treated to render it odor-proof. In practice it is preferred to use glazed Manila paper for the inner lining and strong burlap for the outer lining, especially where the bags are to
45 be used for the handling of farm-fertilizers, which are usually packed in bags weighing from one hundred to two hundred pounds.

The inner and the outer sacks are each formed of a strip of suitable material folded upon itself midway of its ends and secured together at 50 the longitudinal edge portions. The fold 5 is a box-plait which extends lengthwise of the strip, the outer side being secured to the part 2 by the adhesive 6, leaving a fullness or fold between the connection 5 and the side seam, 55 whereby the lining is self-adaptable to the outer sack when the latter expands under tension. Thus the bag or package has the two materials positively connected at intervals along longitudinal lines. Hence the lining is 60 caused to spread out against the outer material when the bag is opened and arranged for reception of the commodity to be placed therein. As a result the operation of filling the bag is not impeded and the lining is not 65 liable to rupture, such as would be the case if it were loose and disconnected from the outer sack. The paper or interior lining extends out beyond the textile fabric at the opening of the bag. In closing the bag the 70 lining part is usually rolled tightly together and turned within or may be secured in any desired manner. The seams may be joined by having two edges of the lining 1 joined with paste material 4 applied between them 75 in contact and the edges of the fabric 2 turned under and then stitched through, as shown at 8, or the edges may be stitched through, according to the convenience and taste of the 80 manufacturer.

In using the article the interior lining is left extending at the opening of the bag until the bag is filled. It is then closed and rolled within, as described, and the usual over stitching made, as at 9, the corners being wrapped into 85 handling-lugs 10, as customary in bags heretofore used.

In the construction of paper-lined bags according to my invention it is found best not to attach the paper or other lining to the textile fabric by a continuous layer of paste, because when the textile fabric is pulled diagonal of its weave it causes an abrasion of the lining, thereby rendering it useless; but where 90

the reverse folds or box-plait is made, as shown at 5, and the attachment is made by one or more strips on the exposed portions of the fold this difficulty is obviated.

5 It has been demonstrated that the heaviest kind of fine materials—such as plaster, lime, salt, and commercial fertilizers—may be packed and handled without abrasion of the paper linings, and thus rendering the package
10 free from the escape of fine materials through the fabric thereof and free from escape of order when odorous materials are packed therein. In addition thereto such materials
15 as coffees, teas, spices, and also fertilizers are prevented from deteriorating by the escape of the odors and aroma constituting the virtues thereof.

Having thus described the invention, what is claimed as new is—

20 1. A bag consisting of an outer sack of stretchable material, and an inner sack of non-stretchable odor-proof material having a folded portion to provide a fullness, and having a part of the folded portion cemented to the
25 material of the outer sack to cause the two sacks to open alike when filling, substantially as specified.

2. A bag consisting of an outer sack of

stretchable material, and an inner sack of non-stretchable odor-proof material having longitudinal box-plaits, and having the outer portion of said plaits cemented to the subjacent portions of the outer sack, substantially as described.

3. A bag consisting of an outer strip of textile folded intermediate of its ends, an inner strip of odor-proof material of greater length and width than the outer strip, the longitudinal edge portions of the inner strip being cemented and secured between the longitudinal edge portions of the outer strip and the end portions of the inner strip being loose and projected beyond the ends of the outer strip, said inner strip having the transverse fullness taken up by a box-plait, a portion of which is secured to the outer strip by an adhesive to leave a fullness in the portions at each side of of the longitudinal connecting part, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIS P. FLOWERS.

Witnesses:

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P. P. SMITH.