Dec. 17, 1957 J. F. DOYLE 2,816,700

BAGS

Filed Sept. 14, 1955

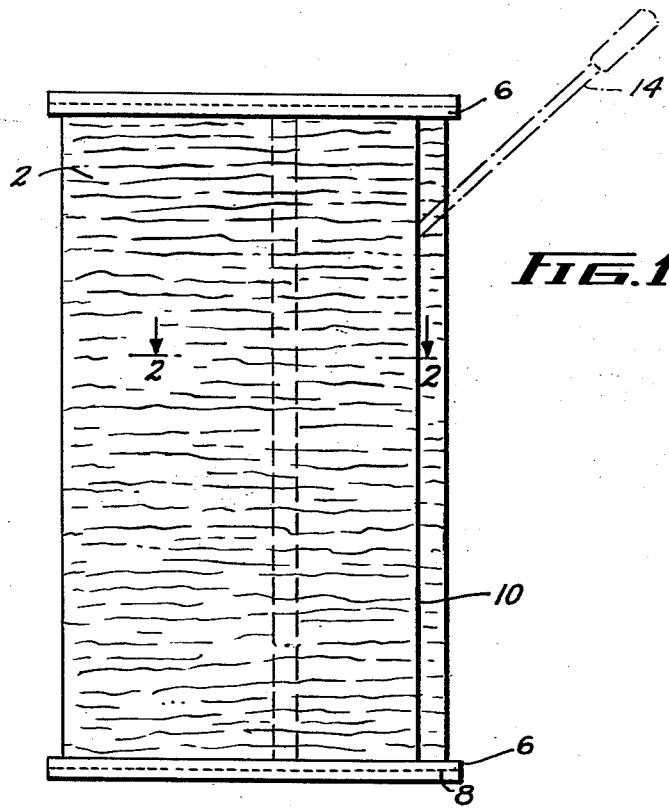
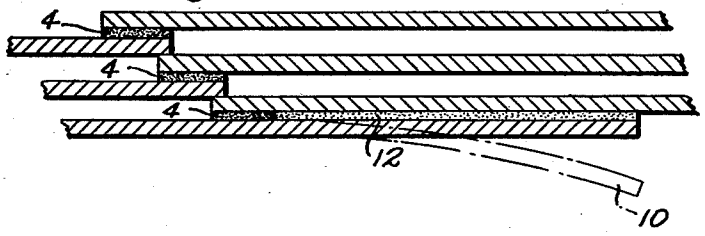


FIG. 1.

FIG. 2.



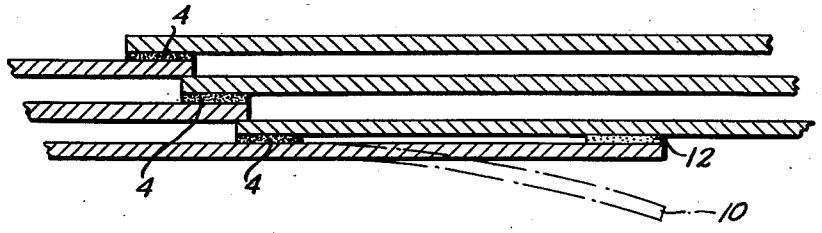


FIG. 3.

INVENTOR.
JAMES F. DOYLE

BY
Churchill Hicks Wegnowerth & Engel
ATTORNEYS

United States Patent Office 2,816,700 Patented Dec. 17, 1957

2,816,700
BAGS

James F. Doyle, Jamaica, N. Y., assignor to Arkell Safety Bag Company, New York, N. Y., a corporation of New York

Application September 14, 1955, Serial No. 534,192
5 Claims. (Cl. 229—55)

The present invention relates to bags, and has special reference to bags for containing seeds and other material of such a nature that the Government inspectors are required to remove samples of the contents of a number of bags of a lot for the purpose of analyzing to determine the purity, germination, noxious weed seed content, origin, variety, composition, and other quality factors. Such removal of samples is usually effected by means of a trier or probe that is so constructed that samples may be taken from all parts of the bag.

In the case of paper bags, it has been frequently necessary for the Government inspectors to open the bag as by cutting the stitches at one end to permit insertion of the trier or proble. This, however, is objectionable as the bag must then be again closed so as to protect the contents, which is difficult to do and impairs the appearance of the bag.

One of the objects of the present invention is to provide a bag of the character indicated which is so constructed that the required samples may be easily removed without injuring the bag.

Another of the objects of the invention is to provide a novel and improved bag of the character indicated.

The invention is illustrated, by way of example, in the accompanying drawings, in which:

Figure 1 is a side view of the bag in its preferred form;

Fig. 2 is a sectional view, on an enlarged scale, taken on the line 2—2 of Fig. 1; and

Fig. 3 is a similar view of a modified form.

The bag illustrated in the drawings may be and preferably is of the type of the one described and claimed in the patent to Greene No. 2,314,876, dated March 30, 1943. This type of bag may be made up of a plurality of plies of crinkled paper. The crinkles 2 are preferably made by the water-creped or secondary process method, and extend circumferentially of the bag with the crests of the crinkles of adjacent plies adhesively secured together. The several plies have their longitudinal edges overlapping and secured together by strips of adhesive so as to form a seam 4 for each ply, the several seams being arranged generally in spaced relation.

The ends of the bag may be closed in any suitable manner as by tapes 6 folded over the ends of the bag and lines of stitches 8. The bags may be either open-mouth or valve type, and either plain or gussetted. If desired the ends of the bag may be closed by folding and pasting.

In accordance with the present invention the outer edge of the outermost ply is extended lateral a distance from its seam 4 to provide a flap 10. This flap is secured to the underlying portion of the ply by pressure-sensitive adhesive 12. Preferably the adhesive is applied over the entire area of the underside of the flap so as to secure the flap throughout. In some instances, however, only the outer margin of the flap need be thus secured, as shown in Fig. 3. When the ends of the bag are closed by sewed seams, the stitches may extend through the ends of the flaps 10.

The flap 10 may be about six inches wide, with its outer edge spaced from 1 to 1½ inches from the adjacent edge of the bag, for a bag 18" by 32", but it will be apparent that the width of the flap may be varied.

With this construction, the usual trier or probe 14 may be easily inserted at any desired point beneath the flap, and pierce through the material of the bag under

the flap. Thus the end of the probe may reach any desired part of the contents of the bag and samples removed therefrom.

When the probe is removed with the samples, the portion of the flap under which the probe was inserted, may be pressed down by hand so as to tightly close and seal the opening in the material of the bag that was made by the probe.

Thus the insertion of the probe and removal of the desired samples from any desired point or points along the flap 10, may be easily and conveniently effected without injury to the bag.

The most secure resealing of the flap 10 may be effected where the pressure sensitive adhesive is applied over the entire underside of the flap as shown in Fig. 2. However, in some instances, in order to save adhesive, satisfactory results may be obtained by applying the adhesive 12 only to the margin of the flap 10, the securing of the margin tightly pressing the flap over the opening made by the probe.

By securing the ends of the flap 10 in the closure seams at the ends of the bag, the danger of the ends of the flap curling or peeling away from the body of the bag is overcome. However, to save material, in some instances the flap may extend over only a portion of the length of the bag.

While it is preferred that the bag be made of crinkled paper as above described, it will be apparent that certain features of the invention are applicable to bags made of uncrinkled or plain paper or other material where such bags are suitable for packing seeds or the like. Seed bags as above indicated are commonly made of a plurality of plies, but my improved flap construction is also applicable to single ply bags. While the bag is particularly suitable for packing seeds, it is also suitable for various other materials where it may be desirable to remove samples.

What I claim is:

1. A bag of the class described comprising a tube made up of a plurality of plies having the longitudinal edge of each ply overlapping and adhesively secured together so as to form a seam, the outer longitudinal edge of the outer ply projecting laterally a distance beyond the seam of the ply to form a flap, and pressure-sensitive adhesive securing the flap to the underlying portion of said outer ply, whereby a sampling probe may be easily inserted beneath the flap and through the material of the bag underlying said flap, and when the probe is withdrawn the portion of the flap extending over the point of insertion of the probe may be pressed down so as to re-secure said flap portion and close the opening formed by the probe.

2. A structure according to claim 1 in which the ends of the bag tube are closed by seams, and the ends of the flap are secured in said seams.

3. A structure according to claim 2 in which the portion of the flap extending between the seams at the ends of the bag tube is secured substantially throughout its width by the pressure-sensitive adhesive.

4. A structure according to claim 2 in which the portion of the flap extending between the seams at the end of the bag tube is secured only at its outer margin by the pressure-sensitive adhesive.

5. A structure according to claim 1 in which the plies are made of crinkled paper having their crinkles extending circumferentially of the bag tube.

References Cited in the file of this patent

UNITED STATES PATENTS

1,935,612	Brady	Nov. 21, 1933
2,410,282	Frixione	Oct. 29, 1946
2,432,968	Lahey	Dec. 16, 1947