

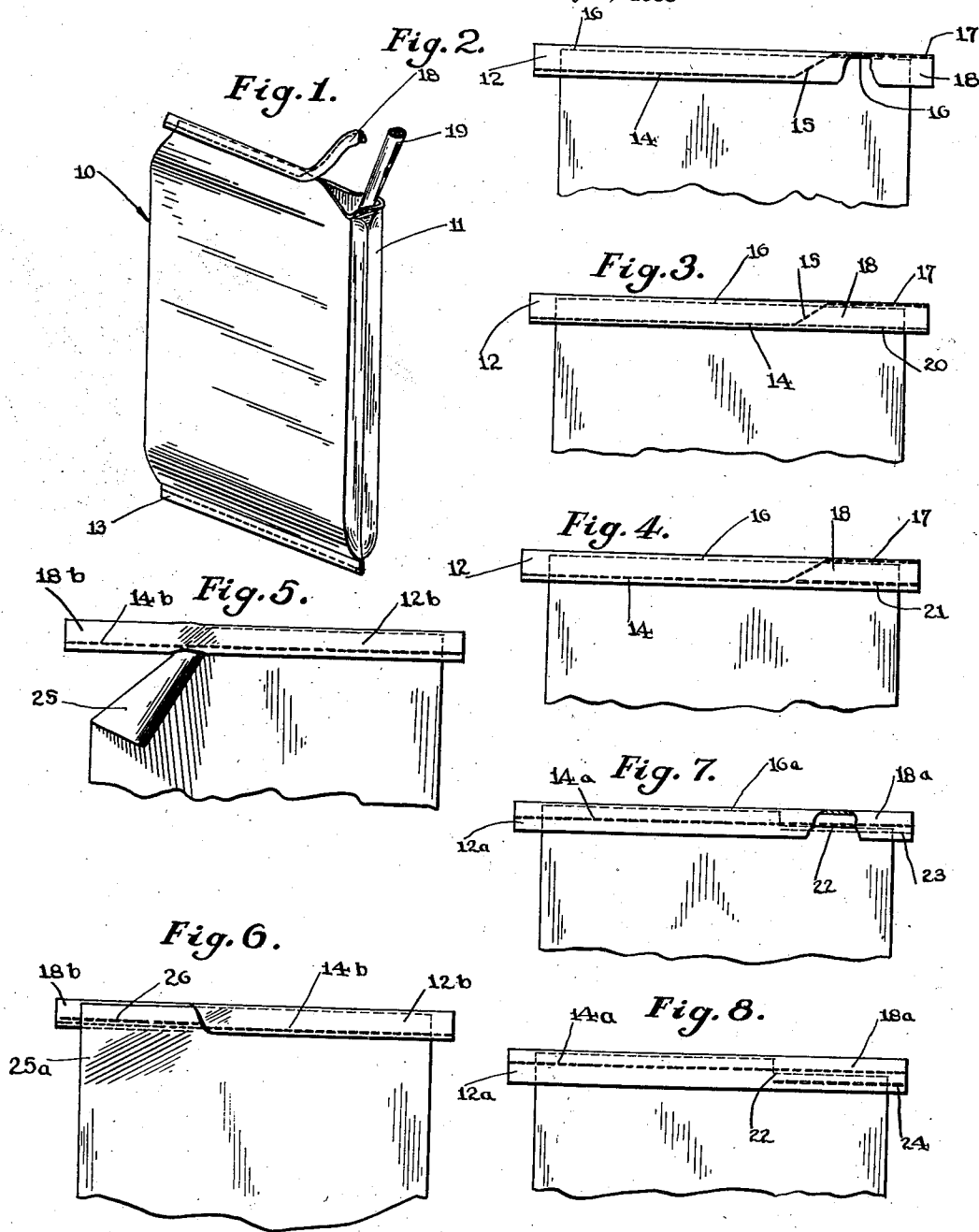
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CONTAINER AND BAG

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CONTAINER AND BAG

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This invention relates to containers or bags of the so-called closed end type, as distinguished from valve bags, and presents a construction having a small opening at one top end to allow the introduction of material therein, said bag being constructed and arranged in such manner that the opening may be readily sealed in any suitable manner after the bag is filled.

Bags of this type are frequently formed of multi-ply paper bag stock, which may or may not be provided with gussets. The bags may be cut to requisite bag length from continuous multi-ply bag tubes, paper strips or tape being folded over and secured to the top and bottom margins of the bag in a well known manner, to provide a leak-proof bag.

I have discovered that an opening for the introduction of material into a bag may be provided along the top margin of a strip sealed bag end, by providing a construction whereby the position and arrangement of the top of the bag, the strip and the line of stitches or other strip securing means are such, that a portion of said stitches or securing means lying inwardly from one side of the bag, extends through the strip only, thus leaving an unsecured portion at one top corner of the bag, permitting the introduction of material into the bag, said unsecured strip portion being adapted to be readily secured to the top margin of the filled bag, by any suitable means, such as by stitching, stapling or other suitable means.

Therefore, an object of my invention, is to provide a bag construction having a sealing strip along the top margin thereof, the same being positioned and arranged in such manner that a portion of the strip is initially unsecured to the bag, in order to permit the introduction of material thereinto, said strip being adapted to be readily secured to the top margin thereof after the bag is filled, in any suitable manner.

Another object is to provide a leak-proof bag, adapted to package a wide range of materials, including rosin, asphalt and other materials which may be introduced into the bag at temperatures sufficiently high to permit such materials to flow therein in a liquid state, the bag end being closed by stitches, staples or the like, shortly after the liquid material is poured therein and before the liquid has had an opportunity to solidify to any considerable extent.

Another object is to provide a relatively low cost bag, having a portion adapted to receive a filling spout, such bag being adapted to pack-

age a wide range of different materials in a leak-proof manner.

Still another object of my invention is to provide a bag, which may be quickly and easily sealed by a relatively wide selective range of sealing operations, which may be performed either automatically or by hand, the same providing a neat and attractive package, free from protruding parts and adapted to be efficiently stacked or piled with similar bags.

Still another object is to provide a bag of the type described, which may be readily manufactured on existing bag machines, with little, if any, alteration of such machines, therefore providing a bag which can be produced at a relatively low cost.

Other and further objects of this invention will be apparent during the course of the following description.

In the drawing forming part of this specification:

Fig. 1 is a perspective view of one of my bags, showing the sealing strip unsecured to a portion of the top bag margin and a filling spout projecting therein,

Fig. 2 is a broken elevational view of the top end of a preferred form of one of my bags, with the sealing strip folded over the top margin, but unsecured thereto at the right hand corner of the bag,

Fig. 3 is a broken elevational view corresponding to Fig. 2, showing the sealing strip secured to the filled bag by stitches,

Fig. 4 is a view corresponding to Fig. 3, illustrating the use of staples to secure the strip to the bag at the filling corner,

Fig. 5 is a broken elevational view of the top end of a modified form of my invention, wherein one corner of the bag is folded over before the sealing strip is placed over the end,

Fig. 6 is a broken elevational view of the type of bag disclosed in Fig. 5, showing the folded over corner secured to the strip by staples after the bag is filled,

Fig. 7 is a broken elevational view of the top end of another modified form of my invention, wherein a portion of the top margin is cut away at the bag filling corner, while,

Fig. 8 is a view corresponding to Fig. 7, showing staples used to secure a portion of the strip to the bag.

This application constitutes a divisional application of my co-pending application Serial Number 205,771, filed May 3, 1938.

In the drawing, the preferred form of my in-

vention as disclosed in Figs. 1, 2, 3 and 4 comprises a bag, referred to generally by the numeral 10, formed of suitable multi-ply bag stock, such as kraft paper or the like, and provided along its sides with extensible gussets 11. Bags of this type and adapted to package heavy materials and materials poured therein in a liquid state, and may be formed from continuous tube stock, cut to requisite bag lengths, and, in accordance with recognized bag manufacturing processes, strips of crepe paper tape are folded over the ends of a bag, and are secured thereto in any suitable manner, frequently such operation being performed by sewing machines, although other satisfactory means, such as stapling or the use of adhesives, may be used.

A sealing tape or strip 12 is folded over the ends of the bag tube, and may be secured to the bottom end thereof by a straight row of stitches 13, in a well known manner. The normal line of stitches through the sealing strip along the top margin of the bag, extends in a straight line across substantially two-thirds the distance across the top thereof, as indicated by the numeral 14 and then extends angularly outwardly therefrom, as indicated by the numeral 15, to a point just inside the fold line of the strip 12, but beyond the top margin 16 of the bag 10, and thus continues in a straight line parallel to the top bag margin beyond the right hand side of the bag, as indicated by the numeral 17.

The above construction produces an initially unsecured sealing strip portion 18, of the same construction and design as the secured portion, which, on account of being initially unsecured to the top bag margin, is adapted to be lifted from the top of the bag, thus permitting the introduction of material into the open end through a filling spout 19, as illustrated in Fig. 1. After the bag is filled, the initially unsecured strip portion 18 is placed over the top bag margins, as illustrated in Figs. 2, 3 and 4, and is adapted to be secured thereto in any suitable manner.

In Fig. 3 the numeral 20 indicates a line of stitches, forming a continuation of the line of stitches 14, the same being made after the bag is filled as hereinbefore described, and if desired, may be performed by a movable stitching head. If desired, a row of staples 21, forming a continuation of the line of stitches 14, may be used in place of the stitches 20, to secure the strip portion 18 to the filled bag, as illustrated in Fig. 4. Obviously other suitable means may be used for securing the strip portion 18 to the filled bag.

Preferably the line of stitches 17, extending through the initially unsecured strip portion 18, should be disposed as near the fold in the strip as possible, in order that the strip portion 18 may be snugly fitted along the top margin and secured thereto, after the bag is filled. This feature provides a construction whereby the strip portion 18 may be placed subsequently straight across the top bag margin and thus provides a neat and attractive bag, free from any unsightly folds, which is adapted to be stacked in neat piles.

In Figs. 7 and 8 is illustrated a modified form of my invention, having a bag formed and cut, as previously described, but with a change in the right hand portion of the top margin of the bag by way of a cut out portion 22 extending inwardly from the right hand side bag margin to a place corresponding to the point where the angularly extending stitches 15 project from the regular line of stitches 14 in the preferred form of my invention. The top margin of the bag along such

cut out portion 22 is positioned slightly below the normal line of stitches 14a, extending through the strip and bag, and positioned slightly below the top bag margin 16a as previously described.

This form of my invention provides a construction somewhat similar to the preferred form, heretofore described, in that an initially unsecured strip portion 18a, available for bag filling as previously described, is provided, due to the fact that the regular line of stitches above the cut-out back portion 22, extend through the strip only, as will readily be understood.

The initially unsecured strip portion 18a, may be secured to the bag by a line of stitches 23, as illustrated in Fig. 7, the same being disposed below the line of stitches 14a in such manner that they extend through the strip portion 18a and the bag. If desired for certain types of packaging, the strip portion 18a may be secured to the filled bag by a row of staples 24, disposed substantially in the same manner as the line of stitches 23, as illustrated in Fig. 8. Obviously other suitable securing means, including adhesives may be used if desired.

Figs. 5 and 6 illustrate another modified form of my invention, having an initially unsecured strip portion, which in this modification is produced by folding over one upper corner of the bag onto itself, as illustrated by the numeral 25 in Figs. 5 and 6, before the strip 12b is placed over the bag end, thus leaving the corner of the bag available for a filling operation. In this form of the bag, the line of stitches 14b extends straight across the sealing strip 12b, the folding over of the corner 25a obviously preventing the line of stitches 14b from securing the strip 12b to the folded over corner 25.

After the corner 25 is folded over and the strip 12b is folded over and secured to the top bag margin, as illustrated in Fig. 5, the folded over corner 25 may be returned to substantially its original position, permitting the bag to be filled through this portion. Due to the fact that the line of stitches 14b extend straight through the initially unsecured strip portion 18b, and also that there is no cut-out portion at the top of the bag, in order to secure the strip portion 18b to the folded over corner 25, such corner portion is folded back and placed against one side of the strip portion 18b and may be secured thereto by a row of stitches or if desired, may be secured thereto by a row of staples 26 extending through the strip portion 18b and the top margin of the bag portion 25, as illustrated in Fig. 6.

The bags herein disclosed, may be used to package finely divided materials such as cement, and the like, and may also be used to package such materials as rosin, asphalt, and the like, which are heated and poured into the bag in a liquid state. When the latter materials are packed into the bag, it may be convenient practice to support the bags in an upright position in a frame and to secure the initially unsecured strip portion to the top bag margin, by any of the methods hereinbefore described, while the bag is thus retained in the frame. My invention provides a construction whereby the strip may be partially secured to the top margin of the bag, by the bag manufacturer, and shipped to the bag user, who may fill the bag and then secure the initially unsecured strip portion to the bag in such manner that the bag has the appearance of having the strip neatly secured along the top margin in a leak-proof fashion. The sealing operation may

be performed by the person filling the bag, either by a manual or by an automatic sealing device.

The bags herein disclosed are substantially leak-proof due to the new and novel manner of securing the strip to the top bag margin and may be produced at a relatively low cost.

It will be apparent to those skilled in the art that the invention herein disclosed may be variously used, changed and modified, without departing from the spirit of the invention, or sacrificing the advantages therein, and that the invention herein disclosed is illustrative only and that my invention is not limited thereto.

I claim:

1. A bag comprising a flat tubular body, including a top end, a strip of material extending along and folded over the top margin thereof along the fold line and extending from one side margin to the opposite side margin with the top margins of the bag in contact with said fold line, a row of stitches extending through said folded over strip and said bag walls along a line spaced from said fold line and extending from one side margin of the bag partially across the top thereof, thereby constituting a permanent material-containing and holding seam, said row of stitches at said point being offset upwardly and continuing along the strip closely adjacent the fold line thereof to the opposite margin of the bag and arranged in such manner as to lie

wholly beyond the top bag margin, thereby providing an initially unattached strip portion adapted to be moved away from the top bag margin to permit a bag filling operation and to be secured to the unstitched portion of the bag top after the bag is filled, for the purposes described.

2. A bag comprising a flat tubular body, including a top end, a strip of material extending along and folded over the top margin thereof along the fold line and extending from one side margin to the opposite side margin with the top margins of the bag in contact with said fold line, a row of stitches extending through said folded over strip and said bag walls along a line spaced from said fold line and extending from one side margin of the bag to a point beyond the center of the bag top margin thereby constituting a permanent material-containing and holding seam, said row of stitches at said point being offset upwardly and continuing along the strip closely adjacent the fold line thereof to the opposite margin of the bag, and lying wholly beyond the top bag margin, thereby providing an initially unattached strip portion adjacent one side margin adapted to be moved away from the top bag margin to permit a bag filling operation and to be seamed to the unstitched portion of the bag top after the bag is filled.

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