

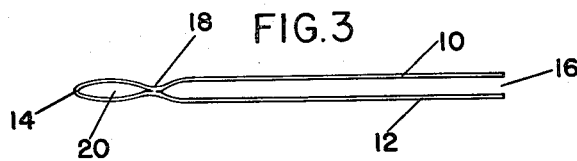
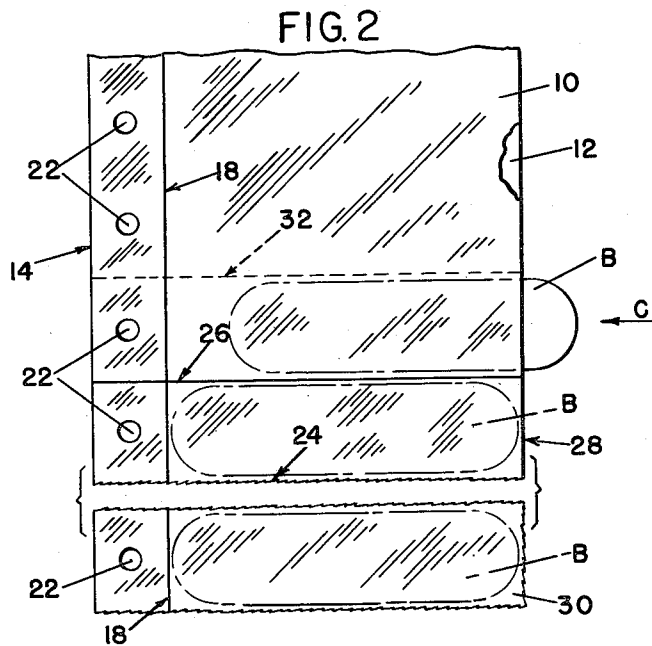
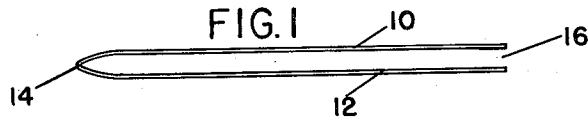
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PACKAGING

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2,993,313
PACKAGING

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This invention relates to continuous packaging and to a new and improved bag and method of making and filling the same, and the principal object of the invention resides in the provision of a bag which may be pre-treated, i.e., before filling, to provide for an extra heat seal extending across the bag near the closed end or bottom thereof, together with in some cases a punched-out hole providing a hanger-hold, the end of the bag opposite the above-stated heat seal and hanger-hold being open for filling the bag and thereafter being heat-sealed to close, thus providing a bag which may be imprinted prior to filling and which may be applied to hanger-members and hung on a rack by means of the reenforced hanger-hold above stated, without the necessity of applying a paper or cardboard label thereto, as is now commonly done in the prior art.

A further object of the invention resides in the provision of a method of making a bag as above recited including the provision of a roll of heat-sealable material which is longitudinally folded centrally thereof so that each wrap on the reel includes two flat portions which are folded at one edge and open at the other edge, and including the steps of providing a heat-seal adjacent to but spaced from and parallel to the fold, forming a reenforced end for the bag at this end thereof, providing a hole in the reenforced end, the opposite end still being open and then heat-sealing and severing the top of the preceding filled bag and thus forming the bottom of the bag being now filled, stuffing the bag, and finally heat-sealing to close the open edge of the bag to complete the packaging of the article therein.

The invention further relates to arrangements and combinations of parts which will be hereinafter described and more particularly set forth in the appended claims.

Reference is to be had to the accompanying drawings, in which:

FIG. 1 is a view diagrammatically illustrating a form of material used in making the bag of the present invention;

FIG. 2 is a diagrammatic view illustrating forming, filling and completing the bag; and

FIG. 3 is a diagrammatic view illustrating the first heat-sealing step.

In carrying out the present invention, there may be first provided a roll of heat-sealable material which is well known to the art and which in this case is folded longitudinally centrally thereof so that each wrap on the reel or spool holding the same comprises a pair of superimposed elongated sheets having the fold along an edge thereof, said edge also coinciding with the edge of the spool, the opposite edges of said material being open and providing an entrance therinto for filling the bag. This is shown diagrammatically in FIG. 1 wherein the numeral 10 indicates one portion of the elongated material mounted in many laps on a roll and the numeral 12 illustrates the other member. These members are folded together at one edge at 14, the opposite edge at 16 being unconnected.

This material is fed through a heat-sealing machine and appropriate means such as heated rollers may be provided to make a continuous heat-seal as indicated by the reference numeral 18 in FIG. 2. This heat-seal connects the members 10 and 12 completely together, and this

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heat-seal is parallel to the edge at 14 and spaced inwardly therefrom a sufficient distance for the purposes required as will appear more fully hereinafter.

This step in the process provides for an elongated tube generally indicated at 20, said tube being open at its ends but closed laterally, and the heat-seal at 18 provides a strengthening member for the area of tube 20.

Thereafter or at some subsequent step in the operation, holes are punched at 22, these holes passing through both of the sheets 10 and 12 and providing a hanger-hold at the closed end of the material. This hanger-hold is greatly reenforced and made stronger by reason of heat-seal 18 and the presence of the double-walled relatively small tubular container member at 20, and the package when filled and severed is easily hung on hanger-bars, racks or the like by means of hanger-hold 22. The ends of the individual tubes 20 are heat-sealed also, as will appear below.

In the filling of the packages, the material at 10 and 12 proceeds downwardly in the direction of arrow A in FIG. 2 and is heat-sealed at the leading edge thereof which is indicated at 24 to form a bottom for the first envelope or bag. The operator then thrusts in the article B which is to be inserted in the direction of arrow C in FIG. 2 and then causes the machine as well known in the art to accomplish a heat-seal across the entire material along the line 26. The open edge 16 is closed by being heat-sealed at 28. Also, along the line 26, the package is severed to appear as at 30 in FIG. 2 and to drop off in a receptacle prepared for the purpose. The dotted line at 32 indicates the next step in the operation and the article is shown in FIG. 2 as being inserted so that the complete operation is thereby disclosed in this figure from the provision of the folded material 10 and 12 with heat-seal 18 and punched holes 22 to the finished package.

It is pointed out that the punching of the holes 22 and the seal 18 may actually be performed at any time. The spooled or rolled material at 12 may be pre-processed in this way and fed into the machine with the heat-seal 18 and holes 22 already present; or the heat-seal 18 may be applied quickly and easily by means of heated rollers at any point in the travel of the material 10, 12, and the same is true of the holes 22.

This invention is seen to provide a quick and easy method of packaging articles complete with hanger-hold and reenforced areas serving the hanger-hold as clearly described above. A superior product is provided without the use of any imprinted reenforcing cardboard labels or the like. The material 10, 12 may be imprinted prior to operation thereof as above described or it may be left plain, but in any event it will be seen that a greatly improved package is provided by this invention and at the same time the package is made a great deal less expensive by reason of the omission of the usual printed cardboard reenforcing hanger-hold means.

Having thus described my invention and the advantages thereof, I do not wish to be limited to the details herein disclosed, otherwise than as set forth in the claims, but what I claim is:

1. The method of making a heat-sealed container comprising the steps of providing a centrally longitudinally folded strip, heat-sealing a narrow seam parallel to but spaced from the folded edge thereof, forming hanger-holds in the thus heat-sealed and closed off area while leaving the opposite edge thereof open for the insertion of articles thereinto, sealing the leading edge of the strip to form a closed edge for the container, filling, and then providing heat-sealing and severing operations for completing and closing the package.

2. The method of making a heat-sealed container com-

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prising the steps of providing a centrally longitudinally folded strip, continuously heat-sealing a narrow seam parallel to but spaced from the folded edge thereof, forming holes in the thus heat-sealed and closed off area while leaving the opposite edge thereof open for the insertion of articles thereinto, sealing the leading edge of the strip to form a closed edge for the container, filling, and then providing heat-sealing and severing operations for completing and closing the package after the insertion of the article to rest on the closed edge.

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