

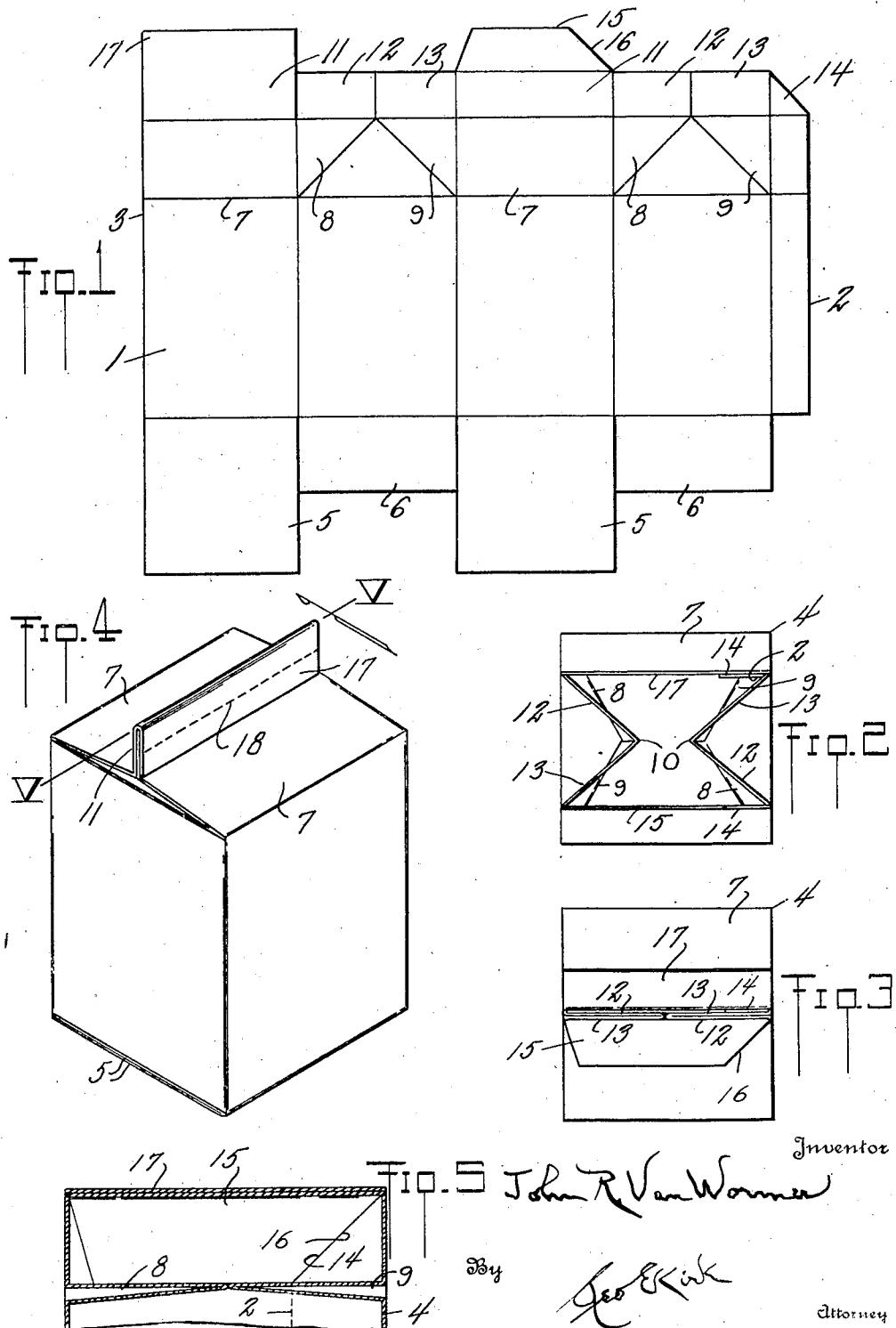
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PAPER CONTAINER CLOSURE

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UNITED STATES PATENT OFFICE

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PAPER CONTAINER CLOSURE

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This invention relates to tight sealing of containers.

This invention has utility when embodied in closure rib structures, more especially for paper bottles.

Referring to the drawings:

Fig. 1 is a view of the blank for the bottle;

Fig. 2 is a plan view of the bottle in tubular form with the closure end partially collapsed but still open for filling;

Fig. 3 is a plan view of the bottle with the top closed except that the tongue has not been tucked-in and the flap bent over, but each outwardly extends from the rib;

Fig. 4 is a perspective view of the closed container; and

Fig. 5 is a section on the line V—V. Fig. 4.

Paper bottle blank is shown as having body portion 1 assembled into a tube with extension 2 providing with edge 3 a lap joint at corner 4 of the closed tube. Bottom portions 5, 6, complete the one end closure with the top or upper portion of the container having extension with opposing sides 7 to shift toward each other as triangular portions 8, 9, the ends are collapsed therebetween to have corners 10 approach each other in forming a four-ply rib of which portions 11 are the outer and portions 12, 13, are the inner pairs.

Lap joint from corner 4 is shown as having the lap extension 2 with taper portion 14 adjacent the terminus of the rib portion 13 at the corner 4 extended. Accordingly in this rib additionally to the four-plies of the built up container from the two parts 11 and the double folds 12, 13, there is this fractional portion of the lap. From a portion 11 is tongue 15 having cut-out 16 for register with the taper portion 14. Thus, this tuck-in tongue 15 may be inserted from its side 11 over the folds 12, 13, against the upper side 11, as the plies form the rib.

There is thus a five-ply fold for the rib, which rib is completed by flap 17 folded back over the other plies and into sealing position say by squeezing for a coating action or even additionally held by stitching 18. This means that the completed rib has the tuck-in tongue 15 register as to its taper portion 16 with the taper portion 14 of the two-ply lap

joint, thereby making uniform ply thickness throughout for this rib. The rib is thus one not only substantial in itself but as uniform throughout efficient as a liquid seal say for milk or other liquid products.

What is claimed and it is desired to secure by Letters Patent is:

1. A tubular bottle extension having a lap joint, said extensions having interfolding portions including a tongue for registering from the lap of the lap joint and with the interfolding portions for common thickness rib closure, and anchoring means for the portions in said rib.

2. A tubular bottle extension having a two-ply lap joint, said extension having interfolding portions including a tongue for one ply extent from the lap of the lap joint, an overfolding flap therefor providing therewith a rib of uniform ply thickness throughout, and anchoring means for holding the rib sealed.

3. A tubular bottle extension having a two-ply lap joint, said extension having collapsible portions terminating in a four-ply rib, and a tongue configured to register along the lap joint from the lap joint as tucked into the rib, and anchoring means for sealing the rib.

4. A tubular bottle extension having a two-ply lap joint terminally tapered, said extension having collapsible portions terminating in a four-ply rib, and a tongue marginally complementary tapered as to the lap joint, each from the extension terminus, to register along the lap joint from the lap joint as tucked into the rib, and anchoring means for sealing the rib.

5. A tubular bottle extension having a two-ply lap joint terminally tapered, said extension having collapsible portions terminating in a four-ply rib, a tongue marginally complementary tapered as to the lap joint to register along the lap joint from the lap joint as tucked into the rib, a flap foldable over said rib, and sealing means for the rib.

In witness whereof I affix my signature.

JOHN R. VAN WORMER.