May 22, 1962 A. B. EREKSON 3,035,753

CONTAINER FOR FOODS

Filed Nov. 3, 1958

FIG. 1.

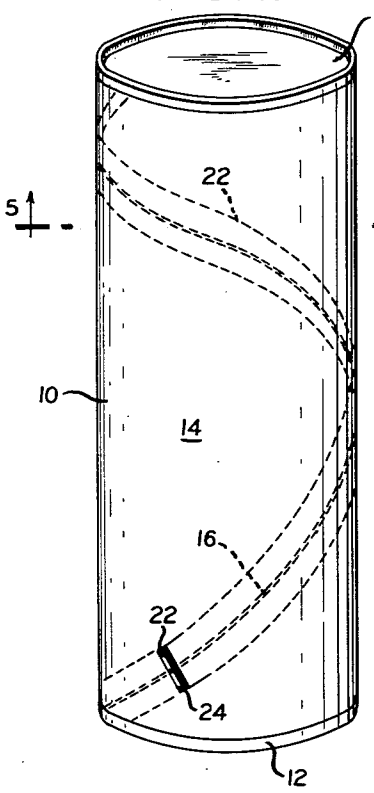



FIG. 2.

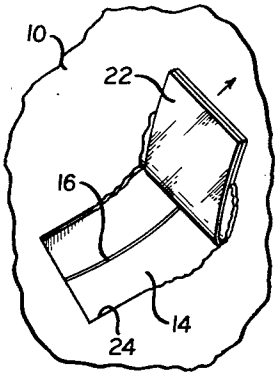



FIG. 4.

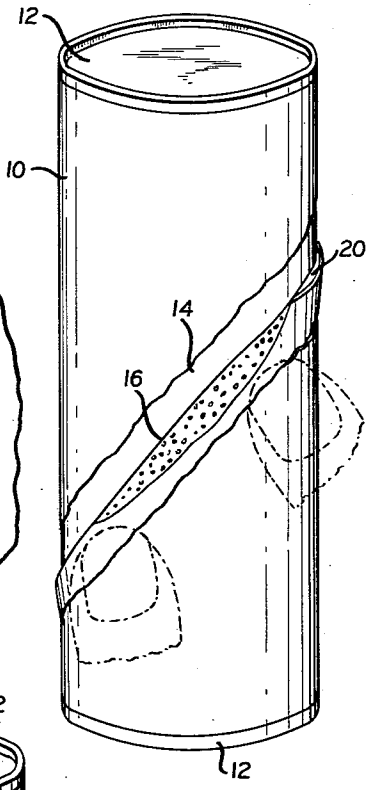
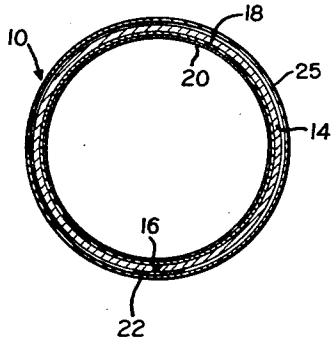



FIG. 5.



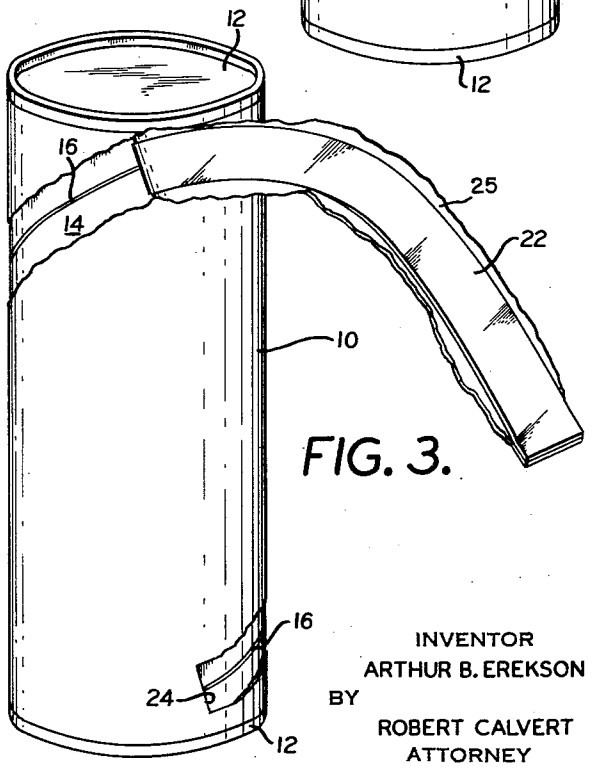




FIG. 3.

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3,035,753

# CONTAINER FOR FOODS

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3 Claims. (Cl. 229—51)

This invention relates to a container for foods such as leavened dough under moderate pressure. The invention is particularly useful in the canning of prepared unbaked biscuits.

For such use there have been frequent changes in the construction of containers, for the reason that the previous containers have been used not because they were satisfactory but because they were the best available for a popular product.

The present invention provides a jointed wall container that holds together at the joint during storage and distribution of the dough under the pressure developed by the leavening action therein.

My invention comprises a container having a plastic strip adhered over the joint in a spirally wound tube of chipboard or the like composing the chief structural element of the side wall, an inner liner of the tube, a label or other tearable sheet glued over the exterior of the tube and covering the said strip, and a cutting through of the tearable sheet and said strip transversely of the strip near an end of the container where the tearing is to be initiated at the time of opening the can, and also scoring of the sheet for a short distance beginning with the cutting through and continuing in line with the two side edges of the plastic strip in the direction in which the plastic strip is to be pulled on opening the container.

The invention will be illustrated by description in connection with the attached drawings to which reference is made.

FIG. 1 is a perspective view of the container of the invention.

FIG. 2 is an enlarged detailed view of the exterior of the container in the area of initiation of the tearing operation in the opening of the container at the time of use.

FIG. 3 is a perspective view of the container at the start of the opening operation.

FIG. 4 is a view of the container after breaking the butt joint between the meeting edges of the spirally wound narrow sheet of chipboard constituting the chief structural element of the side wall of the container.

FIG. 5 is a sectional view on line 5—5 of FIG. 1.

Parts not shown are conventional.

There are shown a closed tubular container with side wall **10**, ends **12**, a spirally wound strip of chipboard or the like **14** meeting at the edges of adjacent turns of the strip with a glue (not shown) adhering the meeting edges to form a butt joint along the spiral line **16**, and an inner liner of the container including a tape of laminated paper **18** and metal foil **20** commensurate in dimensions with and adhered over the entire inside of the wall **14**. This tape is spirally wound and overlaps at its edges at positions out of register with the butt joint **16**, so as to break the joint with the chipboard. Over the said spiral joint **16** there is adhered the plastic strip **22** extending a short distance to each side of this joint. Over the outside of the container there is adhered a tearable sheet **25**. The inner liner and also the outer tearable sheet covers substantially the entire area of the inner and outer surfaces, respectively, of the container except that the strip **22** is disposed between the tearable sheet and the butt joint.

To facilitate the opening without substantial weakening of the structure during storage or distribution, the plastic strip and the overlying tearable sheet are cut through transversely of the strip as shown at **24**. This position is adjacent to an end of the can where the tearing is to be initiated at the time of opening. The tearable sheet **25** is also scored in line with the two sides of the plastic strip beginning with the position of cutting through, for a short distance. This provides a liftable tab a third inch long or so, to give a finger hold after the cut end has been raised. This scoring and cutting makes possible the lifting of a tab of the plastic tape and tearing back, the tearing following the joint **16**. As a result, the tape is removed from the joint and the outer sheet **25** is severed in line with the edges of the tape so as to expose the joint between successive windings of the chipboard strip.

The materials of construction of the several parts of the container are those that are usual for like parts of biscuit containers. Thus the ends are constructed to advantage of a metal such as aluminum, tin iron, or stainless steel, although the latter is expensive and unnecessary.

The chipboard of the side wall may be replaced by other forms of cardboard or thick paper of sufficient strength, in conjunction with reenforcement provided by the inner lining, to retain the pressure developed within the can.

The plastic strip **22** is a plastic of flexible nature such as the polyester ethylene glycol terephthalate film sold under the name Mylar, cellophane, saran, or polyethylene.

The foil used is suitably aluminum and there is no advantage offsetting the extra expense in the use of tin, bronze, or other metal foil unless the foil is the label and a special appearance is desired.

The outer paper or label **25** is any conventional kind of material ordinarily applied as a label over cans of biscuits. I use a paper-foil laminate with the paper side adhered over the container side wall.

As a result of this construction, it is convenient to raise the scored end of the plastic strip with the finger, grasp the finger hold thus lifted, and then pull the plastic strip backward from its bond over the butt joint **16**. This pulling of the plastic strip severs at its edges the overlying tearable sheet so as to expose the said butt joint.

When this meeting edge is exposed, it is then convenient to apply pressure to the chipboard, as by the thumbs, at a position adjacent to the joint. This pressure depresses one side at least of the chipboard spiral and breaks the joint and inner liner. Under the pressure of the gas within the container, the dough slowly flows through the thus opened joint in amount to equalize the pressure previously maintained in the can with that of the atmosphere. By simple twisting of the container in manner to unwind partly the chipboard spiral, the container is opened further so that the pre-shaped biscuits, now somewhat expanded as the pressure is released, may be removed and transferred to the baking operation.

Dimensions may be varied in accordance with the size or proportions of the container to be made.

The thickness of the chipboard spirally wound to constitute the chief structural element of the tube is approximately 0.025 inch in thickness.

The position of cutting through of the Mylar tape and label is about 0.5 inch from an end of the container. The liner is made of aluminum foil about 0.00035 inch thick and usual backing paper laminated thereto. It is wound in strip form inside the chipboard in overlapping spiral manner so that the seam of the laminate is near the center of the strip of chipboard. This breaks the joint in the structure.

The label is preferably also a laminate of strong paper and metail foil such as described in my Patent 2,811,455 entitled Container for Leavened Dough and issued on October 29, 1957.

The whole assembly so made is sufficiently strong to

prevent the can breaking apart during handling even after the heavy outer label is broken with the tear tape. Yet the assembly is weak enough after the label is broken and the tear tape removed to separate readily at the butt joint of the spirally wound chipboard under thumb pressure or upon a light tap on the table edge at the position of the butt joint.

The invention will be further illustrated by description in connection with the following specific example.

*Example 1*

A container for prepared but unbaked biscuits is made of length approximately 5.5 inches and diameter 2 inches.

Chipboard of thickness about 0.025 inch is spirally wound into a tube with a butt joint between the meeting edges. The interior is lined with the laminate of aluminum foil and tissue paper, with the paper glued to the chipboard with casein latex adhesive and the foil constituting the exposed surface in the interior of the tube.

A Mylar tape of width approximately ⅜ inch and with an adhesive of kind stated on the inner side is adhered over the joint and to the chipboard on each side thereof. Over the outside wall there is then applied, with the same adhesive, the label which is a paper laminate with printed metal foil forming the exterior, label surface of the product. The whole tube as so made is then cut into lengths desired and the bottom tinned iron discs crimped in as shown in the drawings.

The biscuit blanks, actually 10 for a can of the size stated, are placed in the container and the filled container is closed by crimping on the tinned iron top.

The gas generated in the dough during storage is retained in part in the can constructed as described and the somewhat expanded dough is retained completely.

It is to be understood that it is intended to cover all changes and modifications of the example of the invention herein chosen for the purpose of illustration which do not constitute departures from the spirit and scope of the invention.



What is claimed is:

1. In a tubular container for leavened dough including a narrow cellulosic sheet spirally wound into the side wall of the container with a butt joint extending from end to end of the container and between the meeting edges of adjacent turns of the sheet and circular pieces closing the ends of the container, the improvement comprising an inner liner of metal foil and paper laminate in spirally wound tape form adhered on the paper side thereof continuously over the interior of the side wall with lapped sides of the tape out of register with the said butt joint, a plastic strip detachably adhered over the outside of the butt joint with the medial longitudinal portion of the plastic strip coinciding with the butt joint throughout substantially the entire length of said joint wherein the strip overlaps the butt joint, and a tearable sheet coextensive with the exterior of the side wall and adhered over the side wall and the plastic strip, the plastic strip and the tearable sheet being cut through across the entire width of the strip at a position at which tearing is to be initiated and adjacent to an end of the container, the cutting through providing a finger hold for grasping and pulling the plastic strip, lifting of the plastic strip, and rupturing the tearable sheet of paper in lines along the two side edges of the plastic strip.

2. The article of claim 1, the said plastic strip being a flexible polyester.

3. The article of claim 1, the said tearable sheet being a paper-metal foil laminate and the paper side being the part secured directly to the outside of the said side wall.

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