

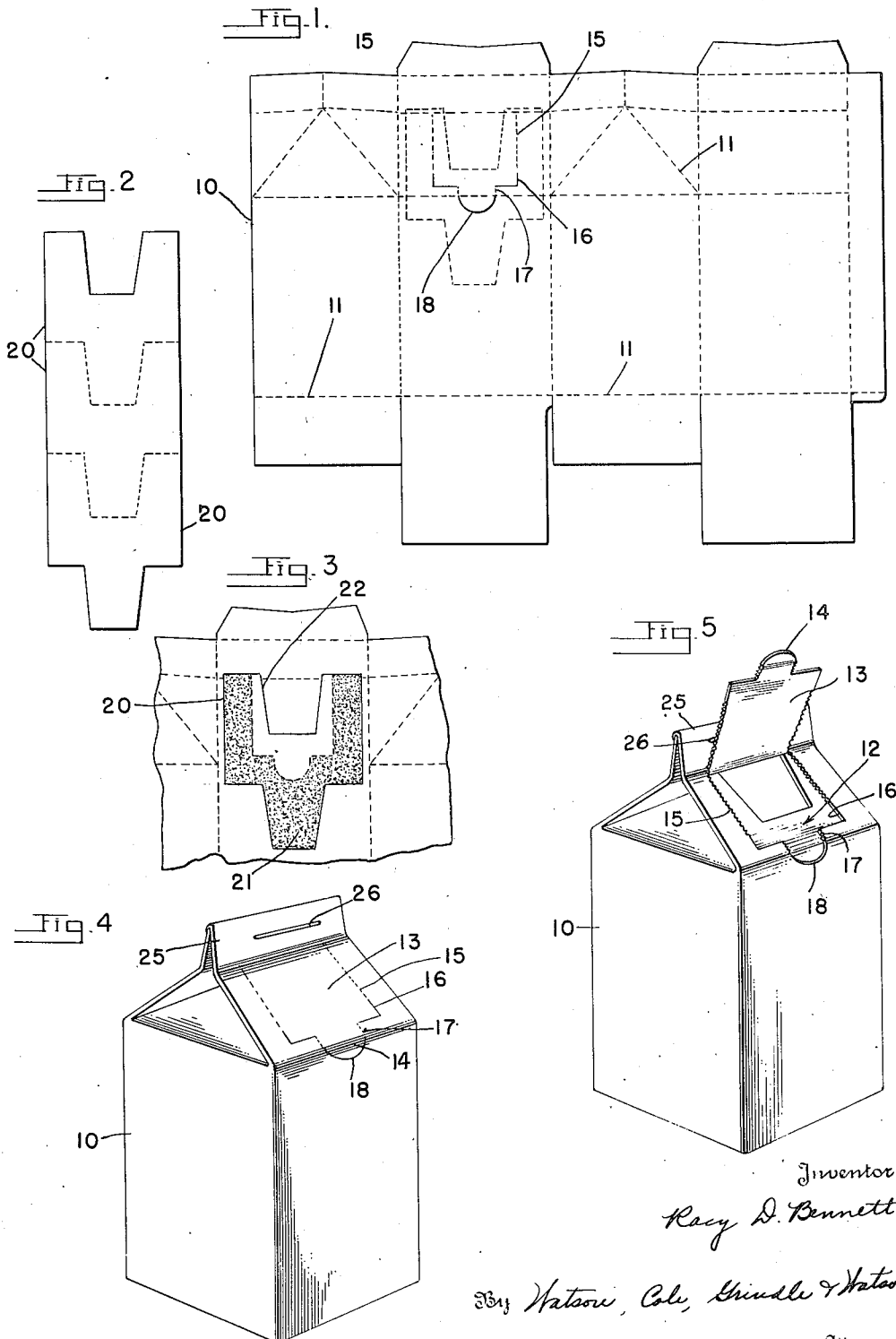
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CONTAINER

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CONTAINER

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3 Claims. (Cl. 229—7)

This invention relates to containers and particularly to paper containers of the type disclosed in Patent 2,047,891, granted July 14, 1936, to Henry T. Scott. This application is a division of my copending application, Serial No. 196,068, filed March 15, 1938.

The purpose of the present invention is to provide a novel paper container of the self-supporting type, inexpensive to fabricate, entirely suitable for the packaging and dispensing of liquids, and having a novel discharge port, and to provide a novel method for the fabrication of such containers. The container is fabricated of a single blank of relatively stiff, good quality paper, which blank is divided by score lines into a plurality of relatively foldable panels. Likewise there is formed in the blank, at the time of its original fabrication, a tab or deflectable minor panel, the tab being defined by incisions and being connected to the blank by an uncut portion which constitutes a hinge about which the tab may be swung. The space or opening uncovered by the tab as a result of such swinging movement or displacement comprises a pouring opening. To one face of the blank as originally formed, however, there is attached a paper sheet, this sheet overlying the pouring opening and tab but not being connected to the tab in any way, the margins of the sheet being attached to the blank closely adjacent the margins of the pouring opening formed in the blank but not being connected to the tab in any manner. That portion of the sheet which overlies the tab is centrally cut away or notched to provide a pouring notch. This cutaway portion or notch, however, while being in register with the pouring opening, being substantially smaller, so that the fluid contents of the completed container do not come in contact with the edges of the pouring opening in the blank as such contents are discharged, but pass through the relatively small pouring notch, the edges of which are spaced substantially from the edges of the pouring opening in the container.

After attachment of the paper sheet to the blank in this manner, the blank is folded by relatively bending the panels with respect to each other along the intermediate score lines and, while the container is in a partially completed form, with the tubular body, one end closed, and one end opened, all of its surfaces are coated with a leak proofing substance such as paraffin or a paraffin containing substance, to prevent liquid from coming in contact with the paper fiber of the container at any point to

cause the same to become wet and hence weakened. The container is finally charged and its end closed and sealed. Its liquid contents may be removed either by unfolding the end which has thus been closed and sealed or by manually manipulating the tab, the tab being lifted to disclose the pouring opening in the blank and the pouring notch in the paper sheet which underlies the tab. With an arrangement of this kind the edges of the pouring notch over which the liquid actually is discharged, are fully protected by the tab except when the tab is lifted. After part of the contents have been discharged, the tab may be replaced in original position and the pouring notch again completely covered. The edges of the pouring notch are therefore fully protected against contamination, a highly important consideration when the container is used in the dispensing of food products such as milk. The relative dimensions of the pouring opening and pouring notch may be adjusted as desired and both the process of manufacture and the container produced vary within limits without departure from the invention. One embodiment of the container is illustrated in the accompanying drawing and the details of this container, and the steps of the novel method utilized in its production, will now be described.

In the drawing:

Figure 1 is a plan view of that face of the blank used in the fabrication of the container which ultimately is the outside surface of the container;

Figure 2 is a plan view of a plurality of the paper cover sheets, one of which is attached to each blank;

Figure 3 is a view of portion of the blank, showing a paper or cover sheet attached, the surface of the blank appearing in this view being that which ultimately becomes the inside surface of the container;

Figure 4 is a perspective view of the completed container; and

Figure 5 is a similar view disclosing the completed container, the tab being raised and the pouring opening and notch disclosed.

The blank is generally indicated at 10 and score lines, dividing the blank into numerous relatively foldable panels, are indicated at 11. A pouring opening is indicated at 12 and the closure tab for this opening at 13. It will be observed that the tab 13 is substantially rectangular although it has at one end a tongue-like extension 14 to permit it to be more readily grasped by the fingers. Laterally the tab 13 is

defined by parallel rows of short incisions 15, the corners being defined by longer L-shaped incisions 16 and the tongue 14 by short incisions 17 and the longer curved incision 18. The tab is hingedly connected to the body of the blank about that edge which ultimately becomes its upper edge, this edge being wholly uncut.

After the blank has been scored and incised in this manner there is secured to that face thereof which ultimately becomes the inside face of the container one of the paper sheets indicated at 20, this sheet being positioned as shown clearly in Figures 1 and 3 of the drawing, with the margin of the sheet secured to the face of the blank by an adhesive substance which is spread over that portion of the paper sheet which is indicated by the shading 21 in Figure 3. It will be seen that the sheet 20 is attached to the blank 10 below and on both sides of the pouring opening 12 and that the intermediate portion of the sheet overlies the pouring opening, but that this portion of the paper sheet is not attached to the tab 13 in any way. It is, however, cut away to provide a pouring notch indicated at 22, which registers with the pouring opening 12, but is substantially smaller in area.

After the attachment of the cover sheet 20 the blank is relatively folded into the form of a tubular container with bottom closed and top open. It is then coated interiorly and exteriorly with a coating of a liquid-proof substance such as paraffin or a paraffin containing mixture. Thereafter it may be charged with a liquid such as milk and its upper foldable end folded and collapsed so that the completed container resembles that shown in Figure 4, its upper end terminating in a plurality of parallel panels which together comprise a central transverse rib 25, the several panels of the rib being secured together by means of a staple 26. It will be readily perceived that the upper edge of the tab 13, which is the edge permanently connected to the blank, coincides with the base of the rib 25 and that the tongue 14 lies partly in that inclined panel of the top which includes the tab 13 and partly in the vertical side wall panel immediately below it. This facilitates the grasping of the tongue and lifting of the tab. The coating material applied to the container seals the incisions 15, 16, 17 and 18 against the penetration of liquids or the passage of any contaminating substances into the container and likewise seals the marginal edges of the pouring notch 22 to the inner face of the tab 13. When the tab 13 is lifted, however, these seals are readily broken. After the tab is lifted, the contents of the container may be wholly discharged, in which event the container may then be discarded, or discharged in part. If portion only of the contents are discharged, the tab is then replaced to the position in which it is shown in

Figure 4, completely overlying and covering the pouring notch and protecting the edges of this pouring notch from contamination. The container is in sanitary condition at all times, therefore, both before and after discharge of any portion of its contents.

The cover sheets 20 may be formed in various ways but the form of the cover sheet shown in the drawing is preferred since the various cover sheets may be struck from a continuous strip as indicated in Figure 2, that portion cut out from one cover sheet to form the pouring notch comprising an attachment tongue for the next adjacent sheet and the greatest economy in manufacture being thereby realized.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

1. A container for use in the dispensing of liquids such as milk, said container being fabricated of paper and comprising a plurality of flat angularly disposed panels and being stiff and self-supporting, the wall thereof being cut or scored to provide a displaceable tab connected to the wall by an uncut portion which constitutes a hinge about which the tab may be swung to uncover a pouring opening, a paper sheet attached to the inner surface of the container wall along the margins of said pouring opening, said sheet partially closing the pouring opening and having an aperture formed therein which is of less area than the pouring opening, said aperture comprising a pouring notch which is uncovered when said tab is lifted.

2. A container for use in the dispensing of liquids such as milk, said container being fabricated of paper and comprising a plurality of flat angularly disposed panels and being stiff and self-supporting, the wall thereof being cut or scored to provide a displaceable tab connected to the wall by an uncut portion which constitutes a hinge about which the tab may be swung to uncover a pouring opening, a paper sheet attached to the inner surface of the container wall, marginal portions of said sheet being secured by an adhesive substance to the container wall laterally and beneath said pouring opening and the portion of said sheet which overlies the pouring opening being cut away to provide a pouring notch of substantially less area than the pouring opening, said notch being normally covered by said tab and disclosed when the tab is lifted.

3. The combination set forth in claim 2 in which the container is coated, interiorly and exteriorly, with paraffin or like substance, the cuts or scores defining the displaceable tab being filled with such substance and the edge of the pouring notch being sealed to the inner face of the tab thereby, leakage prior to the raising of the tab being thus prevented.

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