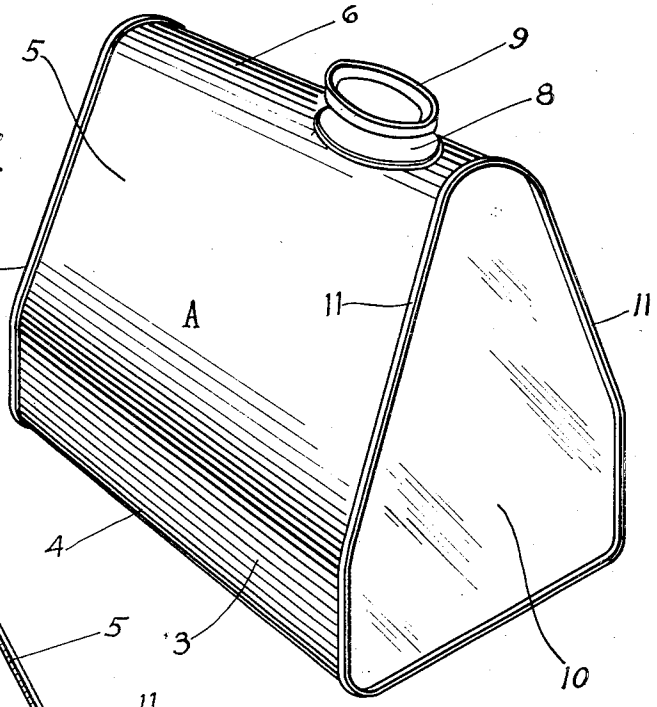
W. J. TOWLE.

LIQUID CONTAINING CAN.

APPLICATION FILED DEC. 9, 1920.

1,399,168. Patented Dec. 6, 1921.

Fig. 1



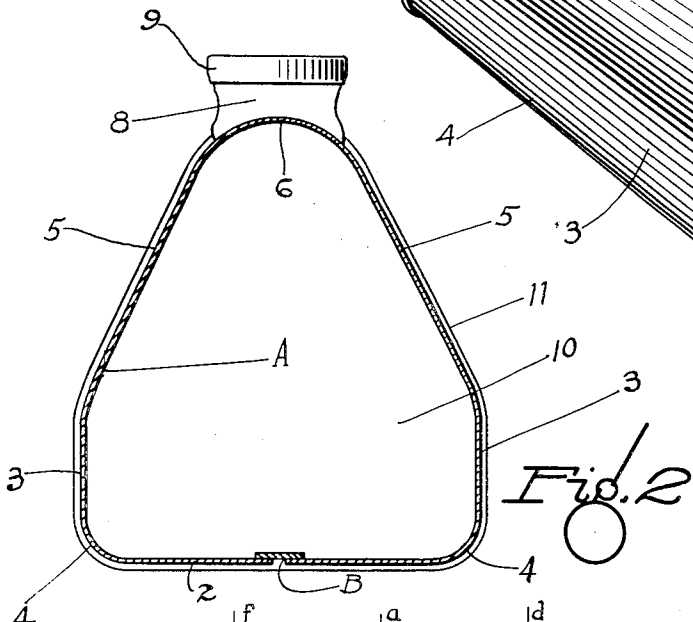


Fig. 2

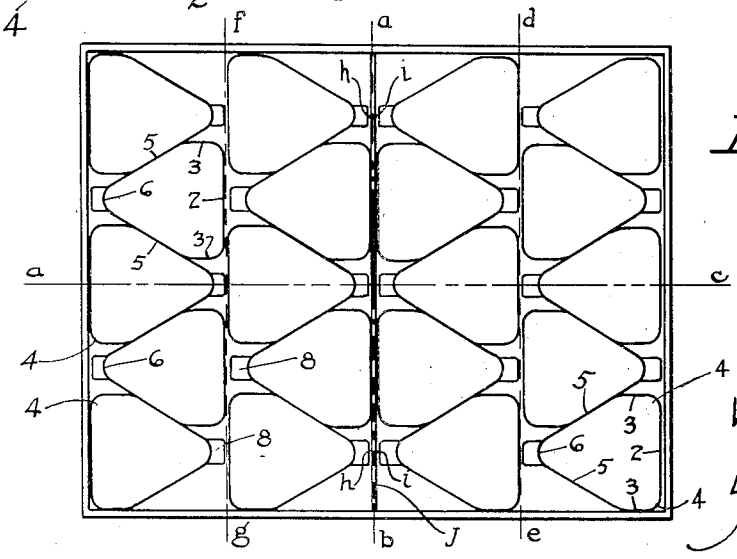


Fig. 3

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WILLIAM J. TOWLE, OF ST. PAUL, MINNESOTA.

LIQUID-CONTAINING CAN.

1,399,168. Specification of Letters Patent. Patented Dec. 6, 1921.

Application filed December 9, 1920. Serial No. 429,534.

To all whom it may concern:

Be it known that I, WILLIAM J. TOWLE, a citizen of the United States, resident of St. Paul, in the county of Ramsey and State of Minnesota, have invented certain new and useful Improvements in Liquid-Containing Cans, of which the following is a specification.

This invention relates to improvements in cans designed for holding liquids, and particularly in cans designed for holding syrup, or other liquids ordinarily used in the household.

One object of the invention is to provide a can in which syrup and similar liquid foods can be furnished to the user, and in which such liquids may be kept and from which they may be conveniently poured from time to time, as required for use, without smearing the can, by holding the can in a sidewise position.

Another object of the invention is to provide a can that, while possessing the quality of convenience when used in pouring the liquid therefrom, is inexpensive in construction, readily adapted for handling in a filling machine, and capable of being closely packed in ordinary rectangular shipping boxes or cases, in such manner as to leave a minimum of vacant space, and at the same time to provide firm supports for the sides and corners of the cases, thereby permitting the use of cheaper and less expensive materials in the construction of such cases.

To these ends the invention consists generally in the constructions and combinations hereinafter described and particularly pointed out in the claims.

In the accompanying drawings forming part of this specification:

Figure 1 is a perspective view of a can embodying my invention;

Fig. 2 is a vertical transverse section;

Fig. 3 is a plan diagrammatic view illustrating the preferred manner of arranging the cans for shipping purposes in a rectangular shipping case or container.

The bottom, top and side walls of the can body are all preferably formed of a single sheet A of sheet metal, the ends of the sheet being united by a longitudinal seam B, located at substantially the center of the bottom portion or wall of the can. The bottom wall 2 is flat, so that the can will ordinarily stand in an upright position, and will travel in such upright position to and through a suitable filling machine. The can is provided with the lower vertical side walls, 3, 3, extending preferably about one-third the height of the can, with curved corner sections 4, 4. Above the lower vertical walls 3, 3 are the inclined upper side walls 5, 5, with a curved top section 6, which is provided near one end of the can with a filling and discharge opening having a preferably cylindrical nozzle 8 adapted to be closed by a suitable cap 9.

The ends 10 of the can are preferably formed separately, fitting into the ends of the body portion and united thereto, preferably by an ordinary "double seam", which produces a flat recessed end surrounded by a protecting rib 11.

I usually pack the cans in the packing or shipping cases in the manner illustrated in Fig. 3 of the drawings, using the cases of such dimensions as to permit the placing therein of an odd number of cans in the direction of the line *a*—*b*, while there may be either an odd or even number in the direction of the line *a*—*c*.

I prefer to place an even number of cans in the case in the direction of the line *a*—*c* and an odd number in the direction of the line *a*—*b*. Hence, if ten cans, for example, are to be packed in a single layer they are preferably arranged as shown in Fig. 3 of the drawings in the portion of the figure between the dotted lines *d*—*e* and *f*—*g*. This will bring the nozzles of the cans toward each other at the points marked *h* and *i*, and between these rows of cans I may insert a cardboard partition *j*.

If a larger number of cans are to be placed in this same layer in the case, they are arranged as shown in Fig. 3 in the spaces at the right of the line *d*—*e*, and at the left of the line *f*—*g*.

In each instance it will be noted that each corner of the case is supported by a can placed therein with its straight bottom wall in contact with one wall of the case, and with one of its straight lower side walls 3, 3 in contact, across the corner, with the other side wall of the case. It will also be noted that the upper side walls 5, 5 of the cans come in contact with each other, and, except at the center line of the case, the nozzle of the one can is toward either the wall of the packing case or the bottom of an opposing

case, while the nozzle is protected from damage by the space created between any two cans.

It will be understood, however, that additional layers of cans may be placed in the case and that the ends of the cans when placed side by side are in contact only by the edges of the ribs 11.

The construction of the can, therefore, admirably fits it for close packing in rectangular shipping cases, and as the corners of the cases are very effectively supported by the straight side walls and bottoms of the cans, comparatively light material may be used for the construction of said cases.

The flat bottoms and lower straight vertical walls of the can adapt it particularly for travel to and through the filling machines, with no danger of one riding up on the side of another, as usually happens with cans having sloping side walls.

Another advantage in this construction of cans arises from the ease with which the contents may be poured therefrom without smearing, as required for use. As the upper walls 5, 5, converge toward the rounded top, and as the only seam in the can body is at the bottom thereof, there is always a free flow of the liquid toward the outlet, when the can is reversed, or partially reversed, and the liquid, although in the form of syrup, which is of a more or less viscous character, will completely drain from the can without collecting in or being retarded by seams or joints in the walls of the body of the can, and without smearing over the outside of the nozzle or the outside of the can.

I claim as my invention:

1. A can or container having a body formed of a flat bottom portion, lower vertical side walls, upper inclined side walls, a curved top uniting the upper portions of said upper side walls, said parts being formed of a single sheet of material with its ends united by a joint extending lengthwise of said bottom portion, end walls secured to said body portion, and a filling and emptying nozzle arranged in the curved top portion of the can, all substantially as described.

2. A can or container having a body formed of a flat bottom portion, lower vertical side walls, upper inclined side walls, a curved top uniting the upper portions of said upper side walls, curved corner sections uniting the lower portions of the lower side walls and the bottom, said parts being formed of a single sheet of material with its ends united by a joint extending lengthwise of said bottom portion, end walls secured to said body portion, and a filling and emptying nozzle arranged in the curved top portion of the can, all substantially as described.

3. A can or container having a body formed of a flat bottom portion, lower vertical side walls, upper inclined side walls, a curved top uniting the upper portions of said upper side walls, curved corner sections uniting the lower portions of the lower side walls and the bottom, said parts being formed of a single sheet of material with its ends united by a joint extending lengthwise of said bottom portion, end walls secured to said body portion, and surrounded by a protecting rib, all substantially as described.

4. A can or container having a body formed of a flat bottom portion, lower vertical side walls, upper inclined side walls, a curved top uniting the upper portions of said upper side walls, curved corner sections uniting the lower portions of the lower side walls and the bottom, said parts being formed of a single sheet of material with its ends united by a joint extending lengthwise of said bottom portion, end walls secured to said body portion by a seamed joint forming outwardly projecting ribs around said end walls, and a filling and emptying nozzle arranged in the curved top portion of the can, all substantially as described.

5. A can or container having a body formed of a flat bottom portion, lower vertical side walls, upper inclined side walls, a curved top uniting the upper portions of said upper side walls, said parts being formed of a single sheet of material with its ends united by a joint extending lengthwise of said bottom portion, end walls secured to said bottom portion and surrounded at their meeting edges with the side walls by a protecting rib substantially as described.

In witness whereof, I have hereunto set my hand this 2nd day of December 1920.

WILLIAM J. TOWLE.