

R. BRAY.
MILK CAN AND METHOD OF MAKING THE SAME.
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956,675.

Patented May 3, 1910.

Fig. 1.

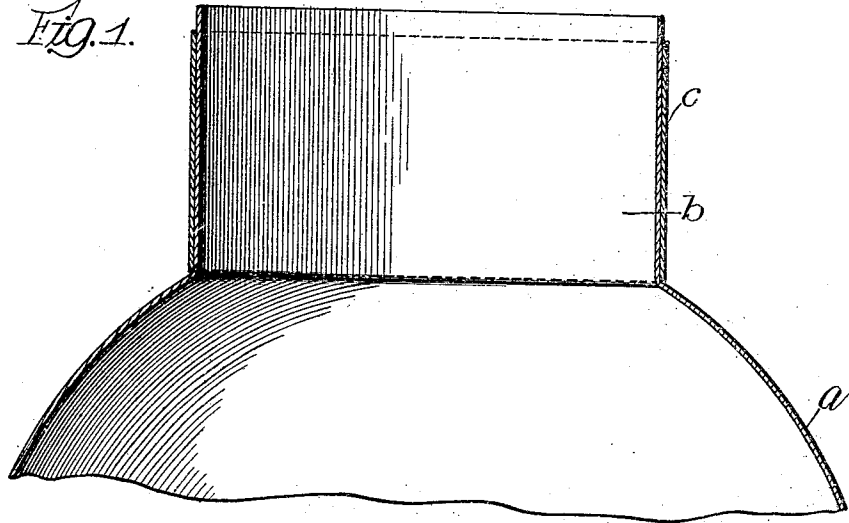
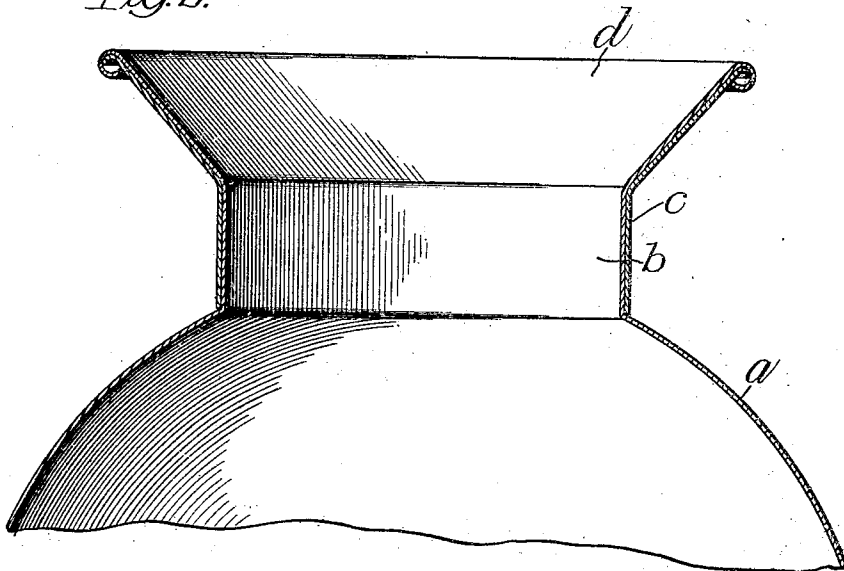


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

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MILK-CAN AND METHOD OF MAKING THE SAME.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, RICHARD BRAY, a citizen of the United States, residing at Arlington Heights, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Milk-Cans and Methods of Making the Same, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in cans, and more particularly to large cans of the kind principally used in making shipments of milk.

The leading object of the invention is to provide a construction without any seam or joint between the neck and can-breast and at the same time make the neck portion of double thickness throughout for strengthening purposes. Briefly stated, I accomplish this by constructing the breast and the inner member of the neck from a single piece of material, and during the process of manufacture and before the neck portion is brought to the size that it will assume when finished, and also, before its upper end is flared out, I fit over the partially formed inner neck member, which is then cylindrical in shape, a cylinder, and thereafter by ordinary spinning or stamping operations reduce to the proper size this partially completed neck and at the same time impart to its upper portion the customary flare that milk-can necks ordinarily have.

That which I believe to be new will be set forth in the claims.

In the drawings,—Figure 1 is a vertical central section of my improved device in a partially completed condition; and Fig. 2 is a similar view showing the completed article.

Referring to these figures of the drawings,—*a* indicates a can-breast, and *b* indicates the inner wall of the can-neck,—the two parts *a* and *b* being made integral, as clearly shown. In forming the parts *a* and *b*, as shown in Fig. 1, they will be made from a single piece of material drawn into shape by appropriate dies. The production in this manner of the parts *a* and *b* will, of course, leave a closed end at the upper end of the can-neck portion, which closed end is to be cut out by a die, as will be well understood, so as to leave the upper end of the neck entirely open. After the production

of a structure formed of the parts *a—b*, as shown in Fig. 1, there is to be fitted over the portion *b* a metal cylindrical portion *c*, as shown in said Fig. 1, such cylindrical portion *c* being, as there indicated, preferably slightly less in height than the height of the neck-portion *b* so as to permit the extended upper edge of such portion to be rolled over the upper edge of the portion *c* when the article as a whole is completed. As shown in Fig. 1, the neck-portion is materially wider than is desired for the completed article, and it is so formed at this stage of the manufacture to permit of the metal being spun or drawn to bring the neck opening to proper size and to allow for the formation of the flaring portion at the upper end of the neck. After partially completing the article, as shown in Fig. 1, it is subjected to a spinning or drawing operation that reduces the size of the neck opening and at the same time produces, as clearly shown in Fig. 2, the upper flaring portion referred to,—said flaring portion being indicated in that figure by *d*. At the same time the upper edge of the portion *b* that projects beyond the cylindrical portion *c* is turned over the edge of such portion *c*, as clearly shown.

By the construction above described, I produce a can wherein the usual joint between the neck and breast is wholly eliminated, which is very desirable in that it necessarily produces a much more sanitary article, for it is well recognized by all who have occasion to deal in or use milk cans that it is a matter of very considerable difficulty to keep even the best constructed joint absolutely free from small particles of dirt and minute quantities of milk. Even where a can is sent out from the factory with an absolutely perfectly made joint it is liable, under severe conditions of use, to develop small openings in such joints, in which minute particles of milk may lodge and sour, thus giving to the can, despite the greatest of care, a disagreeable odor. This feature, as stated, is totally eliminated by doing away entirely with the usual joint at this point. Inasmuch as these cans are very commonly given rough handling when in use it is highly essential that they be made as strong as possible, and by the construction described the neck throughout its length is

made of double thickness and, by the stiffness thus obtained, very effectually prevents the neck from becoming distorted or broken, and particularly prevents bending or cracking along the line between the inner neck member and the breast.

By the term "neck" as herein used, I refer to and include all that portion of the device above the "breast" proper,—namely to the double-walled cylindrical portion and the double-walled flaring portion.

That which I claim as my invention and desire to secure by Letters Patent is,—

1. A milk-can, comprising in combination a breast and double-walled neck, the inner wall of the neck consisting of an integral extension of the breast, and said two neck walls being connected at their upper edges.

2. A milk-can, comprising in combination a breast and a double-walled neck, each of the two walls of the neck extending from the top to the bottom of the neck, and the inner wall consisting of an integral extension of the breast.

3. A milk-can, comprising in combination a breast and a double-walled neck, each of the two walls of the neck being shaped alike throughout the length of the neck, and the

inner wall consisting of an integral extension of the breast.

4. A milk-can, comprising in combination a breast and a double-walled neck, each of the two walls of the neck embodying a cylindrical lower portion and a flaring upper portion, and the inner wall consisting of an integral extension of the breast.

5. The method of making a combined milk-can breast and neck, which consists in forming a breast portion with a cylindrical extension at the upper end of the breast, then surrounding said extension with a collar or outer wall, and then shaping said two last-named pieces together.

6. The method of making a combined milk-can breast and neck, which consists in forming a breast portion with a cylindrical extension at the upper end of the breast, then surrounding said extension with a collar or outer wall, and then by a spinning or drawing operation reducing the diameter of said two last-named portions and also producing an outward flare at their upper portions.

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Witnesses:

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