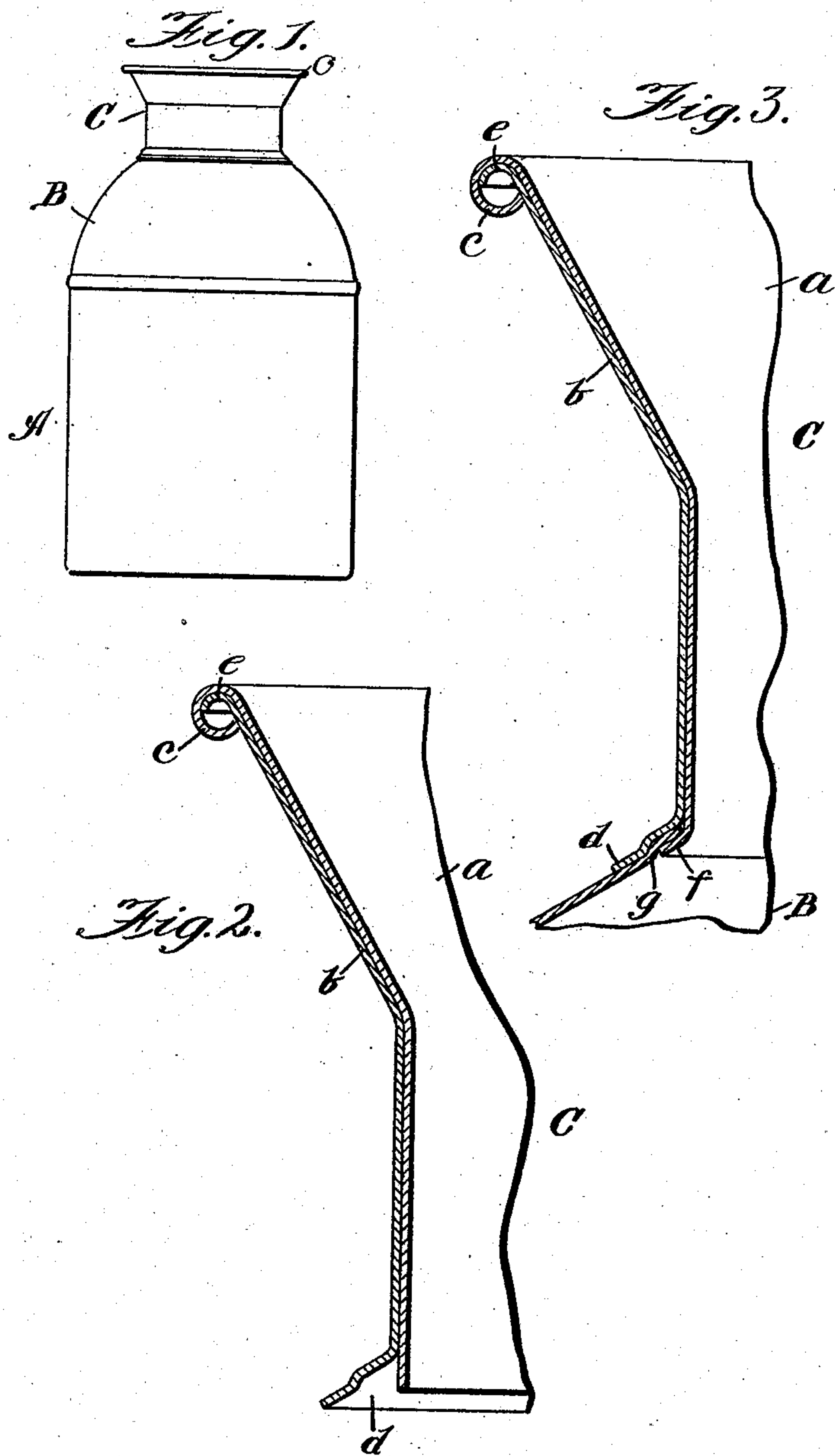


R. BRAY.
MILK CAN.

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Witnesses:

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MILK-CAN.

No. 915,826.

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, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to milk cans and particularly to improvements in the construction of the necks thereof.

Cans used in the shipping of milk are ordinarily subjected to rough usage and many expedients have been employed to strengthen them in various parts to better withstand such usage. The necks of such cans are recognized as being among the places that require extra strengthening and efforts have been made to protect such parts, but, so far as I am aware, such efforts have been confined to protecting only the lower or cylindrical portion thereof either by the use of a protective band or by making said lower portions of the neck of more than a single thickness. It is found in practice that the entire neck portion of a can—that is the flaring upper portion as well as said lower cylindrical end—must be equally strong to secure satisfactory results, for even if the lower cylindrical part be maintained in perfect form or shape, a denting or battering of the said upper flaring portion will prevent that accurate fit of the cover in the neck that is essential to a perfect closing of the can in order to maintain the contents thereof in a sanitary condition.

It is the object of my invention to provide an improved construction whereby the entire neck portion of a milk can will be given great strength at all points and hence will be able to resist all ordinary blows tending to distort it.

A further object of my invention is to provide an improved connection or joint between it and the breast of the can.

In the drawings,—Figure 1 is a side elevation of a milk can with my improved neck portion applied thereto; Fig. 2 is an enlarged detail, being a vertical section through a portion of my improved neck, showing the formation of the inner member of the neck before the neck is secured to the breast; and Fig. 3 is a view similar to Fig. 2 but showing the manner of connecting the neck and

breast together—a portion of a can breast being also shown.

Referring to the several figures,—A represents a milk-can body, B the breast thereof and C the neck of the can.

The neck C is formed of two members, an inner and an outer one, indicated, respectively, by *a* and *b*, each formed of a single piece of sheet-metal and preferably seamless. Each member can be drawn into the required shape by suitable dies, the closed end of the cylinder produced in the drawing operation being, of course, cut out as usual. The member *a* fits closely within and against the member *b*, as shown, each part being drawn so that the neck as a whole has the usual upper flaring portion and the lower cylindrical portion.

In the formation of the neck C the upper edge of the inner member *a* will extend beyond the upper edge of the other member so as to permit the formation of a roll edge *c* that will inclose the outwardly-turned edge *e* of the outer member *b*, and the lower edge of the outer member will extend below the lower edge of the inner member so as to permit the forming of an outwardly-turned flange *d* that will, when the neck is secured in place to a breast, lie against the outer face of said breast. By turning the upper edges of the members *a* and *b* as described, so that the edge of the outer member is inclosed by the rolled edge of the inner member, the two members are securely locked together. The inner member *a* at its lower portion projects below the line along which the outer member is turned to form the flange *d*, as clearly shown in Fig. 2, such projecting portion being adapted to form an outwardly-turned flange *f* that will lie against the inner face of the breast B, as clearly shown in Fig. 3.

A completed neck is illustrated in Fig. 2, and its manner of attachment to the breast of a can is seen in Fig. 3, the flanges *d* and *f* lying against the outer and inner faces, respectively, of the breast, as already described, where they will be secured by solder applied along the edge of the flange *d*. I do not deem it necessary to solder the flange *f* to the breast because for purposes of strength the soldering of the other flange *d* to the breast will be sufficient, and for the purpose of filling up the crack between the

lower edge of the flange *f* and the inner surface of the breast the tin deposited during the usual tinning bath will be found sufficient to prevent the lodgment of particles of milk.

5 As it is highly advisable to have as nearly a perfectly smooth interior surface in milk cans as possible, I make provision for avoiding the ridge that would occur if the flange *f* rested on the inner face of the breast so as
10 to be raised above that portion of such surface below the flange. I avoid having such ridge by making a small bend, as at *g* (Fig. 3), around the breast *B* a short distance from its edge, thus raising the edge portion of the
15 breast, and it is against this raised portion that the flange *f* rests, the edge of the flange terminating at the said bend. This construction provides for a smooth interior surface at the joint between the said flange *f* and the
20 breast. The small crack left will be, as stated, filled up by the molten tin during the tinning bath to which the entire neck is subjected. The outer flange *d* is, as shown, also slightly bent to conform to the bend at *g* in
25 the breast, and fitting snugly, as it does, over such bend aids in more securely locking the neck and breast together.

In addition to the great strength produced by my construction, the entire interior of
30 the neck is of course perfectly smooth as there is no joint at any point from the upper to the lower edge, which enables this portion of the can to be easily cleaned and maintained at all times in a sanitary condition.

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

1. A milk-can neck, comprising a flaring upper portion and a cylindrical lower portion, said neck being formed of two walls
40 lying in contact with each other and connected together along the upper edge of said flaring portion, and adapted to be connected along the lower edge of said cylindrical portion to a can breast.

45 2. A milk-can neck, comprising a flaring upper portion and a cylindrical lower portion, said neck being formed of two walls lying in contact with each other and connected together along the upper edge of the
50 said flaring portion and separated at the

lower edge of said cylindrical portion to adapt them to receive between them the upper edge of a can breast.

3. A milk-can neck, comprising a flaring upper portion and a cylindrical lower portion, said neck being formed of two walls
55 lying in contact with each other, the upper edges of said walls being curved outward, the edge portion of the inner wall being curved around and inclosing the curved edge portion of the outer wall, and said cylindrical
60 portion of the neck being adapted to be secured along its lower edge to the upper portion of a can breast.

4. In a milk-can, a neck comprising a
65 flaring upper portion and a cylindrical portion, said neck being formed of two walls lying in contact with each other and connected together along the upper edge of said
70 flaring portion and separated at the lower edge of said cylindrical portion and bent to form two outwardly-directed flanges, in combination with a can-breast having its
75 upper edge extending between said flanges, said can-breast being bent a short distance from its edge to provide a raised portion against the inner face of which the inner one of said two flanges rests, substantially as and
for the purpose specified.

5. In a milk-can, a neck comprising a
80 flaring upper portion and a cylindrical portion, said neck being formed of two walls lying in contact with each other and connected together along the upper edge of said
85 flaring portion and separated at the lower edge of said cylindrical portion and bent to form two outwardly-directed flanges, in combination with a can-breast having its
90 upper edge extending between said flanges, said can-breast being bent a short distance from its edge to provide a raised portion against the inner face of which the inner one of said two flanges rests, and the outer one of
95 said flanges being bent to correspond to the bending in said breast, substantially as and for the purpose specified.

RICHARD BRAY.

Witnesses:

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