

R. BRAY.
MILK CAN COVER.
APPLICATION FILED DEC. 3, 1910.

998,070.

Patented July 18, 1911.

Fig. 1.

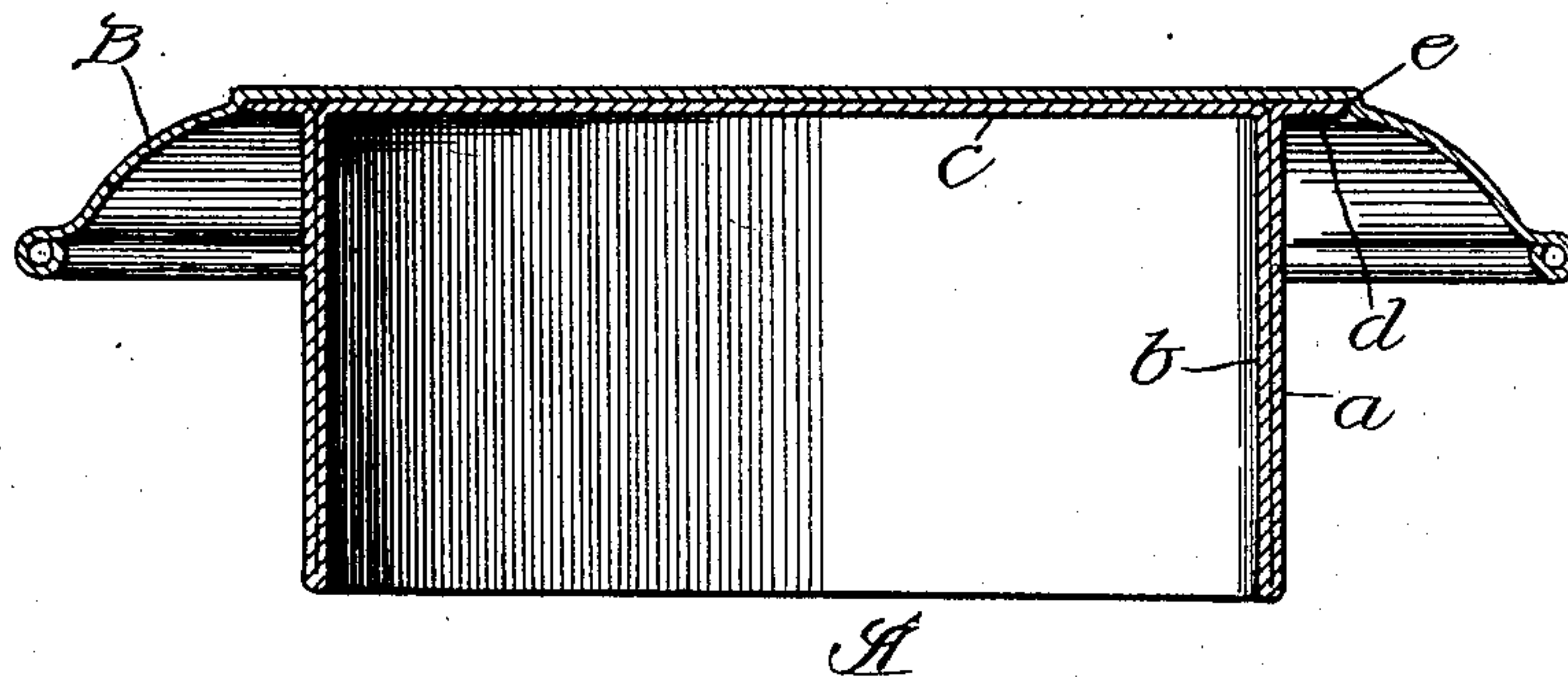
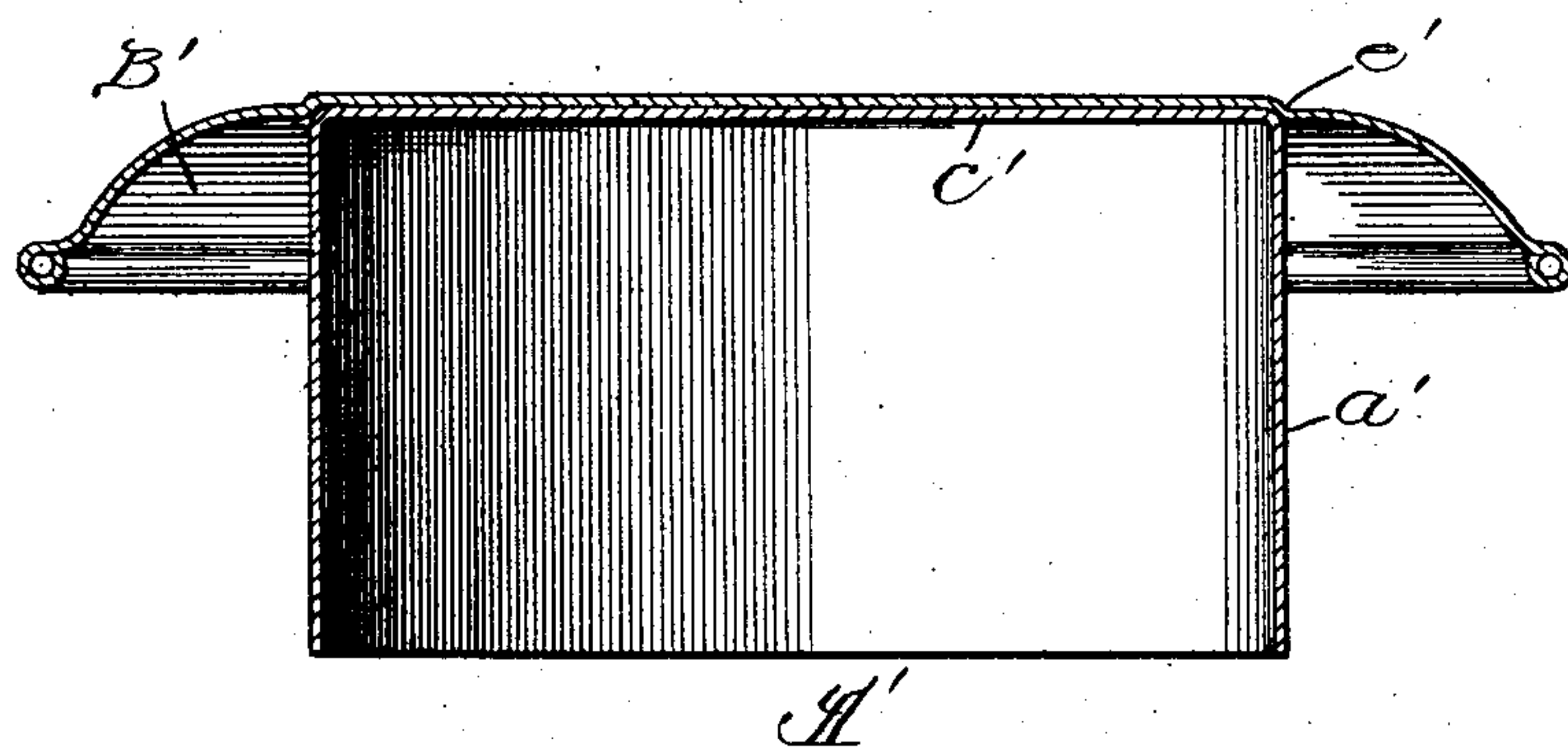


Fig. 2.



Witnesses:
Jno. H. Nelson Jr.
L. B. Graham

Inventor:
Richard Bray.
By Bond, Adams, Rickard & Jackson
his Attys.

UNITED STATES PATENT OFFICE.

RICHARD BRAY, OF ARLINGTON HEIGHTS, ILLINOIS, ASSIGNOR TO BRAY & KATES,
OF ARLINGTON HEIGHTS, ILLINOIS, A FIRM.

MILK-CAN COVER.

998,070.

Specification of Letters Patent.

Patented July 18, 1911.

Application filed December 3, 1910. Serial No. 595,413.

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

This invention relates to improvements in the construction of covers for cans and particularly to covers that are designed for use on the large shipping cans in which milk is transported. It is necessary not only that such cans themselves be strong so as to withstand the rough usage to which they are ordinarily subjected and free from joints or other places where milk or dirt may lodge and thus render the receptacle insanitary, but it is also essential that the covers be strongly made and at the same time of a construction that renders them easily kept in sanitary condition.

It is the object of this invention to provide a cover having these advantages in a marked degree and at the same time one that can be readily and cheaply constructed. I attain these objects by the construction illustrated in the accompanying drawings and hereinafter specifically described.

That which I believe to be new will be pointed out in the claims.

In the drawings:—Figure 1 is a vertical central section through my improved cover, and Fig. 2 is a similar view showing a modified construction.

Referring to the drawings,—A indicates the cylindrical lower portion of the cover that fits in the neck of a can, and B indicates the top member of the cover suitably secured to the member A. The part A, as in my Letters Patent, No. 915,825, dated March 23, 1909, is formed of a single piece of sheet metal so bent upon itself by the use of suitable dies as to form a cylindrical double wall, the outer and inner parts of such double wall being indicated, respectively, by *a* and *b*, and a diaphragm that forms the top of the member A, such diaphragm being indicated by *c*.

d indicates an annular flange formed by bending outward the upper portion of the outer wall *a*. In my said former patent the upper portion of the cover was formed

as a continuation of said outer wall, as therein explained, and the diaphragm hereinbefore mentioned constituted the sole means for closing the cover device. That diaphragm of course consists of but a single thickness of material and it has been found very desirable in many instances to have a stronger construction for such closure portion than is afforded by such single thickness. It is, of course, important that in adding an additional thickness it be so added as to prevent the formation of joints or seams so located as to be liable to permit any milk or dirt to lodge, and with this in mind I have reinforced the said diaphragm by locating immediately over it the central portion of the member B. Said member B also lies over and upon the flange *d* and projects considerably beyond such flange—the projecting portion, in the form of construction shown, being curved or flared. By reason of the projecting portion being curved or flared such portion is itself very strong and unyielding and particularly so when its extreme edge portion is, as shown, given the usual roll or bead. The projecting portion may be advantageously utilized as a hand hold when inserting the cylindrical portion of the cover in the neck of a can or when removing it therefrom. It will be observed that the member B is provided with a slight annular offset on its under side, as indicated at *e*, whereby a very shallow and wide recess is provided of a size to just receive the diaphragm *c* and flange *d* and with the under face of the flange substantially flush with the under face of the projecting portion of the member B. Such construction will leave but a very slight crack or joint between the edge of the flange *d* and the member B and such crack or joint will be wholly eliminated by the flowing therein of molten tin during the subsequent tinning operation to which the cover as a whole is to be subjected. If desired the two parts may be soldered together along this crack or joint, but I do not deem it necessary to do that if the parts are properly constructed, for, as before stated, such crack or joint can be and will be completely closed by the tinning operation. To securely unite the two members A and B to form a complete device I have found a very effective method to be to “spot weld”, elec-

trically, the diaphragm *c* to the overlying central portion of the member B that is in contact with such diaphragm.

The cover formed as described is one easily kept in a sanitary condition owing to the entire absence of any cracks or crevices into which dirt or drops of milk may lodge, and while possessing the same degree of strength in its cylindrical lower portion, owing to the double-walled construction thereof, that is possessed by the cover made according to my said Letters Patent it possesses an additional feature of strength over that patented construction in that it possesses also what is in effect a double-walled diaphragm.

In Fig. 2 I have shown a modification wherein the lower member of the two-part cover is formed of a cylinder having a wall of but a single thickness, such cylinder having as an integral part a head portion corresponding to the diaphragm *c* of the other construction. In this Fig. 2 the lower member of the cover is indicated by A', the single cylindrical wall thereof by *a'* and the top or diaphragm by *c'*. The upper member B' is provided with an annular offset at *e'* as in the case of the other construction described, but is made so as to produce a shallow recess of less width than in the first described construction inasmuch as there is no flange to be received in such recess as in the construction of Fig. 1. While this modified form of cover lacks the strength of the other form in respect to the lower cylindrical portion it is equally as strong otherwise.

While the lower member of the cover is shown and described as cylindrical, it should in practice be given a very slight taper from the top to the bottom, as is customary, to adapt it to be more readily inserted in a can-neck.

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

1. A milk-can cover comprising in combination, a lower cylindrical member closed at its upper end and an upper member the central portion of which rests upon the end wall of said lower member whereby a wall of double thickness is provided, said upper member having a curved or flaring annular

projection extending beyond the wall of said cylindrical member, and means for securing said two members together.

2. A milk-can cover comprising in combination, a lower cylindrical member closed at its upper end and an upper member extending over and resting upon the end wall of said lower member whereby a wall of double thickness is provided, one of said members being provided with a shallow recess into which the other member projects, and means for securing said two members together.

3. A milk-can cover comprising a lower cylindrical member formed of a single piece of material and consisting of an inner and an outer wall and a diaphragm or end wall, in combination with an upper member the central portion of which rests upon said diaphragm or end wall of the lower member and the edge portion of which is curved or flared and forms a projection that extends beyond the wall of said cylindrical member, and means for securing said two members together.

4. A milk-can cover comprising a lower cylindrical member formed of a single piece of material and consisting of an inner and an outer wall, a diaphragm or end wall, and a flange extending out from the upper end of said outer wall, in combination with an upper member extending over and resting upon the said diaphragm and flange, and means for securing the two members together.

5. A milk-can cover comprising a lower cylindrical member formed of a single piece of material and consisting of an inner and an outer wall, a diaphragm or end wall, and a flange extending out from the upper end of said outer wall, in combination with an upper member extending over and resting upon the said diaphragm and flange, said upper member being provided with a shallow recess into which said diaphragm and flange project, and means for securing said two members together.

RICHARD BRAY.

Witnesses:

L. HAMBLIN,
A. T. KATES.