Jan. 25, 1927. 1,615,442

J. W. DAVIES

COVER FOR CONTAINERS

Filed July 19, 1923

Fig.1

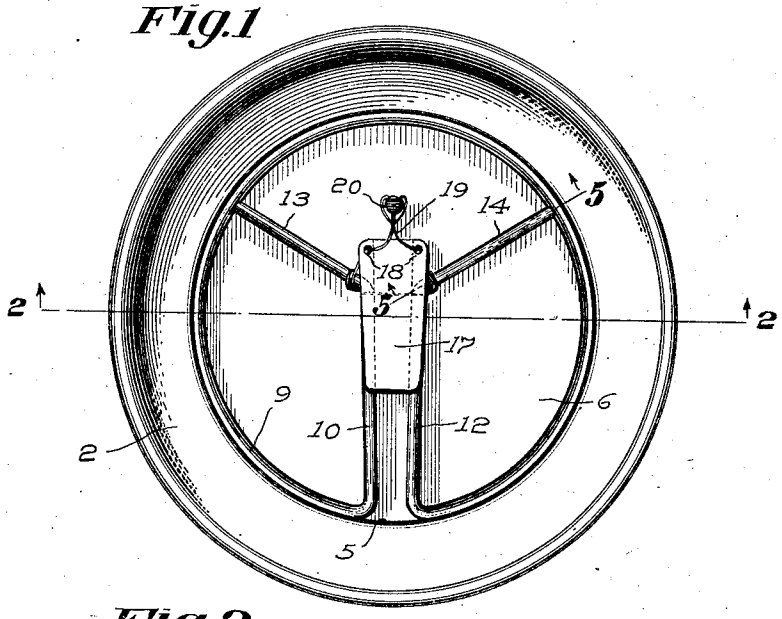


Fig.2

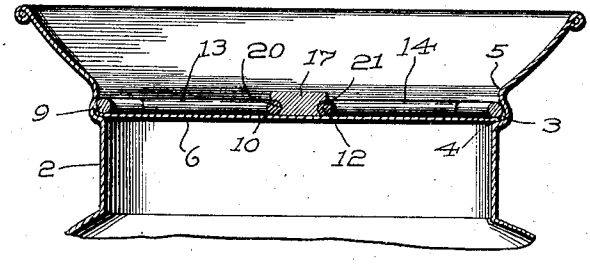


Fig.5

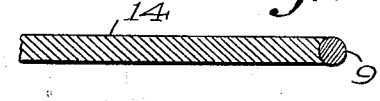


Fig.3

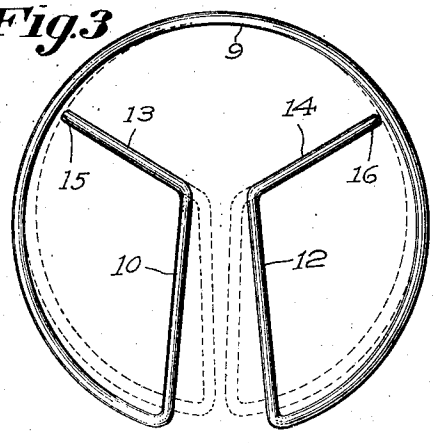
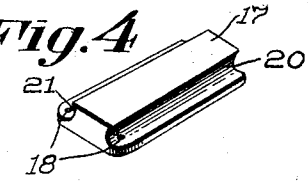


Fig.4



Inventor
John W. Davies
By his Attorney
J. B. McCurdy.

Patented Jan. 25, 1927. 1,615,442

UNITED STATES PATENT OFFICE.

JOHN W. DAVIES, OF READING, MASSACHUSETTS.

COVER FOR CONTAINERS.

Application filed July 19, 1923. Serial No. 652,526.

This invention relates to covers for containers, and is especially concerned with covers for large size milk cans.

It has been customary for many years to use either a tin cap or a wooden plug to close the mouths of milk cans of the large sizes in which wholesale shipments of milk are made. Such covers are objectionable because they are expensive to make, require washing, and are soon worn out. So far as I am aware no suitable practical cover has been devised which overcomes these objections.

The object of the present invention is to provide a cover for containers of the character above mentioned which will be economical to manufacture, practical in use, and will require no washing.

The invention will be readily understood from the following description when read in connection with the accompanying drawings. The novel features will be particularly pointed out in the appended claims.

In the drawings—

Figure 1 is a plan view of a milk can of common construction but equipped with a cover embodying this invention;

Figure 2 is a vertical cross sectional view on the line 2—2, Fig. 1;

Figure 3 is a plan view of the clamping ring which forms a part of the cover;

Figure 4 is a perspective view of a locking wedge, which preferably is used with the ring, showing the wedge in an inverted position; and Fig. 5 is a cross sectional view through one of the end portions of the ring and the adjacent part of the ring.

In the drawings 2 designates the upper part or mouth of a milk can. In horizontal cross section the mouth of this can is substantially circular. Formed in the wall of the mouth 2 is a circumferential groove 3. This groove is located between a lower circumferential shoulder 4 and an upper circumferential shoulder 5. Preferably the neck of the can is somewhat smaller in diameter at the lower shoulder 4 than at the upper shoulder 5. The lower shoulder 4 is preferably made flat to support the edge of the disk 6.

This disk, preferably made of cardboard, or the like, is forced in past the shoulder 5 and is seated on the shoulder 4. The disk 6 is held firmly on the shoulder 4 by a split clamping ring 9, preferably made of heavy spring wire, and the wedge 17. When this ring is contracted and then placed in the groove 3 on the top of the disk 6 it expands into circumferential contact with the upper inside wall of the groove 3 and holds the disk 6 firmly on the shoulder 4.

The ends 10 and 12 of the ring are bent inwardly adjacent to one another to points near the center of the ring and then the ends 13 and 14 are bent outwards so that their extremities 15 and 16 lie adjacent to the inner edge of the ring 9. The extremities 15, 16 are grooved to fit the inner edge of ring 9.

The slightly tapered wedge 17 is grooved at 20, 21 to fit the end portions 10 and 12 of the ring 9 and is forced between those portions. The wedge firmly presses the ring 9 into the groove 3 and presses the extremities 15, 16 against the inside of the ring 9. The wedge and ring thus form a rigid frame over the top of the disk 6, which holds it firmly in place, supports it against the pressure of the liquid in the can in case it is turned on its side or bottom up, and protects the disk 6 from injury by extraneous objects, such as ice and other cans that may be thrown on top of the cover. The sides of the wedge are tapered so gradually that there is substantially no tendency for the wedge to work backwardly out of its locking position. It may easily be driven back, however, and removed when it is desired to open the can.

In cases where less rigidity and strength may be sufficient the bent ends 13, 14 may be omitted or the wedge 17 or both.

To seal the can so that it can not be opened without leaving behind evidence of such an act, holes 18, Fig. 4, are drilled through the larger end of the block 17 to receive a wire 19 which may be slipped under the end portions 10 and 12, brought over the arms 13 and 14 and passed through the two holes 18. These wires may then be twisted together and sealed as with a lead seal 20. It is impossible to slide the block 17 backwardly for any substantial distance without breaking the seal.

After the can has been opened by breaking the seal, knocking out the wedge and removing the ring and disk, the wedge and ring are ready for repeated use, a new seal may be provided and the disk, which is

the only part in contact with the contents, such as milk, may be thrown away and a new one provided. No parts require washing. The cost of a new seal and of a new disk is insignificant.

While I have herein shown and described the best embodiment of my invention that I have so far devised, it will be appreciated that this embodiment may be modified without departing from the spirit or scope of the invention.

Having thus described my invention, what I desire to claim as new is:—

1. A clamping device for the purpose described comprising a split resilient ring having its ends bent inwardly towards the center and adjacent to one another and a wedge adapted to be forced between said ends to spread the ring.

2. A split clamping ring for the purposes described, having its ends bent inwardly toward the center and extending to points remote from the split in the ring and adjacent the inner side of the ring.

3. A split clamping ring for the purposes described, having its ends bent first inwardly toward the center and adjacent to one another, and then bent outwardly to points adjacent the inner side of the ring.

4. A split clamping ring for the purposes described, having its ends bent first inwardly toward the center and adjacent to one another, and then bent outwardly to points adjacent the inner side of the ring, and a wedge adapted to be forced between said ends to spread the ring and bring its ends into contact with the sides of the ring.

5. A split clamping ring for the purposes described having its ends bent inwardly towards the center and adjacent to one another and bent outwardly from points near the center to points adjacent the inner side of the ring, the extremities of said ends being grooved to fit the inner edge of said ring.

6. A clamping device for the purpose described comprising a split ring having its ends bent inwardly toward the center of the ring and lying adjacent to each other, and a wedge adapted to be forced between said ends to expand the ring and having grooved edges to receive said ends.

JOHN W. DAVIES