W. W. HARRIS.

CAN PIERCING AND SERVING DEVICE.

APPLICATION FILED MAY 16, 1919.

1,330,803. Patented Feb. 17, 1920.

Fig 1

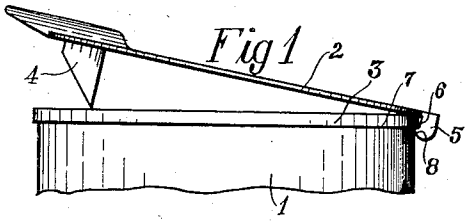


Fig 2

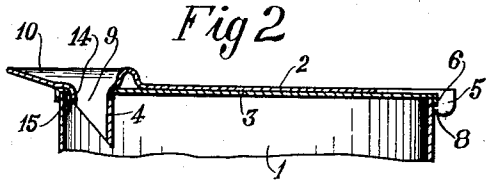


Fig 3

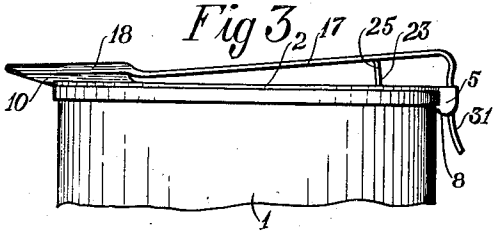


Fig 4

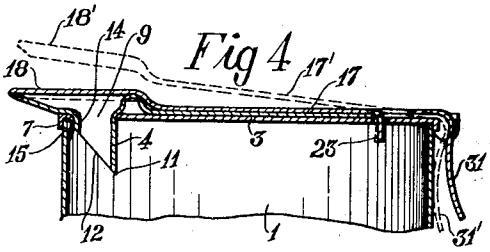


Fig 5

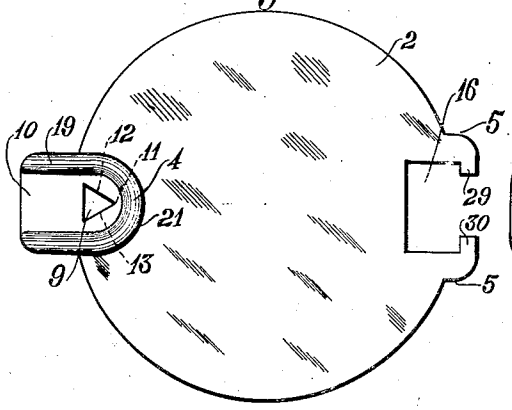


Fig 6

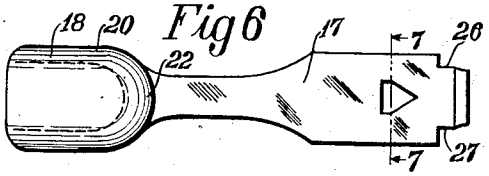


Fig 7

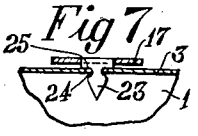


Fig 8

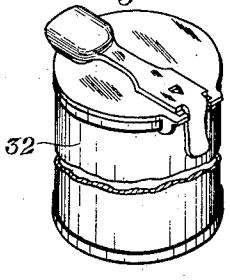


Fig 9

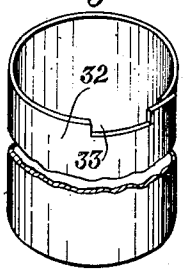
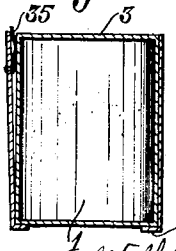


Fig 10



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CAN PIERCING AND SERVING DEVICE.

1,330,803. Specification of Letters Patent. Patented Feb. 17, 1920.

Application filed May 16, 1919. Serial No. 297,649.

To all whom it may concern:

Be it known that I, WILLIAM W. HARRIS, a citizen of the United States of America, residing at borough of Manhattan, city, county, and State of New York, have invented certain new and useful Improvements in Can Piercing and Serving Devices, of which the following is a specification.

This invention relates to can piercing and serving devices particularly for cans containing food for service on dining tables.

Among the objects of the invention are the provision of a simple device of minimum parts for reliably effecting puncture for the discharge outlet and air inlet, in the shell of the can, and preferably in such manner so as to provide a seal against loss of the contents of the can, without the aid of any gasket or other supplementary means; the provision of suitable means for piercing the can to obviate any loss of the contents of the can, and the provision of suitable means serving as a covering for the outlet and air inlet openings.

Further features and objects of the invention will be more fully described in the following specification and accompanying drawings, in which

Figure 1 is a detail side elevation showing my piercing and serving plate applied to the top of a can, in position preparatory for a blow for piercing the outlet opening;

Fig. 2 is a detail central vertical elevation showing my piercing and serving plate in operative position;

Fig. 3 is a detail side elevation of Fig. 2, with my cover member in position thereon preparatory for a blow for piercing the air intake opening and at the same time establishing the hinge relation of the cover member;

Fig. 4 is a detail vertical central elevation of Fig. 3, except the cover member is shown in closed position after the piercing of the air intake opening, the dotted lines indicating the cover member moved to open position;

Fig. 5 is a top plan view of the piercing and serving plate;

Fig. 6 is a top plan view of the cover member;

Fig. 7 is a detail sectional elevation on line 7—7 of Fig. 6;

Fig. 8 is a perspective view, on a reduced scale, showing a can provided with the aforesaid invention;

Fig. 9 is a perspective view of a cover shell for covering the cylindrical lateral face of the can; and

Fig. 10 is a modification of Fig. 9, shown in central vertical elevation.

Referring to Figs. 1 to 7 inclusive, the can of condensed milk, evaporated cream or the like is indicated at 1, to which is applied suitable means for piercing an outlet opening for the discharge of the contents of the can and an air intake opening, said means being shown in the specific embodiment as comprising the plate 2, conforming to the top 3 of the can 1, said plate 2 being provided with the hollow piercing member 4 adapted to piece the outlet or discharge opening. To effect the piercing of the outlet opening readily and accurately, the plate 2 is provided with the spaced abutments 5, each abutment cut away at 6 to receive the crimped edge 7 of the top of the can and to provide the extending lug 8 to firmly grip the can below the crimped edge 7. Such abutments 5 are spaced on an arc corresponding to the circular top 3 of the can 1 and thus serve to position the plate 2 concentrically relative to the top of the can.

The piercing member 4 is hollow interiorly, as indicated at 9, to afford a discharge passage for the contents of the can when the can is inverted to pouring position. In the specific embodiment of the invention shown, the piercing member 4 is disposed in apposition to the gripping means 8. Such piercing member 4 is preferably provided with the overhanging lip 10 extending laterally of the lateral face of the can 1, serving as a pouring spout.

The piercing member 4 is of suitable angular formation and as shown in the drawings, may comprise the lower or initial piercing point or edge 11 and the laterally divergent and forwardly extending severing edges 12, 13, such piercing member being constructed to automatically pierce the cover of the can and to firmly seat the cover plate 2, in combination with the gripping lugs 5, 5, to firmly locate the cover plate and to form a seal with the pierced and inwardly turned, severed edges of the top 3 of the can 1, without the use of any gasket or other supplemental or attached part.

The outer edge 14 of the piercing member 4, see Figs. 2 and 4, is arranged to snugly contact on the interior face of the upper portion of the side of the can, whereby the turned in, severed portion 15 of the top 3 of the can 1 is bent laterally to engage such interior face, forming an inlet with the outer edge 14 for the passage 9 of the piercing member 4, and thereby insure the discharge of substantially the whole contents of the can 1, when desired.

The plate 2 is further provided with the cut away portion 16, extending inwardly of the abutments 5 to expose a portion of the top 3 of the can 1, to the air vent piercing means and to provide clearance for the movement of the cover, as appears more fully hereinafter.

In Fig. 6 is shown the cover member 17 provided at its interior portion with the cover proper 18, which conforms to the particular shape of the spout 10, to seal the same when the cover member 17 is in closed position. Preferably, the spout 10 is provided with the upwardly extending beading 19 shown as convexly curved and the cover proper 18 is provided with a corresponding beading 20 adapted to register with the beading 19, to perform such sealing function and also to afford an accurate register of the central portion 21 of the beading 19 with the central portion 22 of the beading 20 for purposes about to be described.

At a posterior portion of the cover member 17, and in suitable relation with the cut away portion 16 of the plate 2, is provided the piercing point or edge 23, shown as of spear-head shape. The cover element 17 is applied to the plate 2 as indicated in Fig. 3, namely by registering the central portion 22 of the cover proper 18 on the central portion 21 of the spout 10 and upon applying a blow to the member 10 adjacent the location of the piercing point 23, the piercing point 23 is forced interiorly of the cover 3 of the can 1, as indicated in Figs. 4 and 7, effecting the air intake opening 24. Preferably, the piercing means is provided with the supporting lug 25 disposed above the piercing edge 23 and below the lower face of the member 17, to provide, as shown, in Fig. 7, a resting surface for the member 17 on the top of the outer face of the cover 3 of the can 1 to hinge the same, and at the same time to afford a free air passage through the opening 24 between the atmosphere and the air above the level of the contents of the can.

The extreme posterior portion of the member 17 is cut away at its opposite faces 26, 27 to be received within the space provided between the posterior, oppositely directed lugs 28, 29, formed as extensions of the upper portions of the abutments 5, 5 in the plate 2. The finger piece 31 as shown in Figs. 3 and 4, may be disposed at the extreme posterior portion of the member 17, and curved sufficiently outwardly, as indicated in Fig. 4, to provide when manually pressed toward the can 1 to the position indicated at 3, sufficient clearance to raise the member 17 to its raised position 17′ (shown dotted) and the cover 18 to its raised position 18′ (shown dotted) to afford a free discharge passage from the contents of the can when in pouring position.

Supplemental to the above essential portions of my invention, the serving device may be provided with the lateral covering or shell 32. The shell 32 is cut away at a suitable location 33 at its upper edge, to afford proper clearance for the reception of the spaced abutments 5, 5.

In Fig. 10 I have shown a more elaborate form of the ornamental shell or casing for the body of the can and comprising the lower annular flange 34 extending below the bottom of the can 1, and retained relative to the can 1 by means of the friction spring 35.

The several parts of my invention may be formed of metal and in the most preferred embodiments of my invention the plate 2 may be of cast, or stamped, or die formed metal, which may be ornamented as desired; similarly, the member 17 may be of cast, or stamped, or die formed metal, and ornamented as desired.

It will be noted that the several parts of my invention are constructed and arranged to readily permit thorough cleansing, to maintain the parts in sanitary condition.

Whereas I have described my invention by reference to specific forms thereof, it will be understood that many changes and modifications may be made without departing from the spirit of the invention, as defined by the appended claims.

I claim.

1. A can piercing and serving device comprising a hollow outlet piercing member adapted to be forced into the top of a can by the application of pressure, a movable cover therefor and an air vent piercing member in fixed relation with said movable cover.

2. In a can piercing and serving device, a plate provided with a hollow piercing member depending therefrom constructed to automatically seal with the severed portion of the top of the can against leakage of the can contents, an air vent piercing member separable from said plate and a cover part integrally connected with said air vent piercing member.

3. A can piercing and serving device provided with a spout part, a hollow outlet piercing member communicating therewith and adapted to be forced into the can top by application of pressure, a movable cover for said spout part, an air vent piercing

member disposed on said cover, the said air vent piercing member being further adapted to act in conjunction with the opening made thereby in the can top as a hinge for said cover.

4. In a can piercing and serving device, means for piercing an outlet opening in the can top, a movable cover part for said opening, means carried by said cover part for piercing an air intake opening in the can top, the said air intake piercing means being constructed to act in conjunction with the opening made thereby as a hinge means for said cover part.

5. In a can piercing and serving device, a body plate having a locating and gripping section on one edge thereof and an outlet piercing piece and spout part disposed thereon, the said body plate being thus adapted to be gripped firmly on the can top when the said outlet piercing piece is forced therein, a cover for said spout part with an extension terminating in a finger piece, an air vent piercing piece disposed on the said extension and adapted to be forced into the can top, the said air vent piercing piece being constructed to act as a hinge part to permit the manipulation of said cover.

6. In a can piercing and serving device. a body part constructed to extend across the top of the can and having means disposed on the edge thereof for gripping one side of the can, a spout part, a hollow piercing member disposed on said body part in apposition to said gripping means, the said hollow piercing member being constructed interiorly to form an outlet opening through the can top and into said spout part, said piercing member being constructed exteriorly to form a seal against the escape of can contents, said piercing member and said gripping means being related to firmly seat said body part on the top of the can when said piercing member is in its inserted position.

7. In a can piercing and serving device, a body part constructed to extend across the top of a round can and having a spout portion and a hollow piercing portion in communication with said spout portion, arcuately spaced guiding elements on said body part for positioning said body part concentrically with the can top, said guiding elements being further constructed to grip against the side of the can upon entrance of said hollow piercing portion into the can top, a cover for said spout extending across said body part, a finger piece for said cover, and means carried by said cover for piercing a vent opening in the can top and said piercing means being further adapted to act in conjunction with the vent opening to hinge said cover.

8. In a can piercing and serving device, a body plate adaptable to rest on a can top, a hollow piercing member disposed on said body plate, gripping means on said body plate constructed to contact with one side of the can below the can top, said gripping means serving as a guide to position the body plate on the can top, said hollow portion piercing member being of such conformity that its entrance into the can top causes the body plate to be gripped firmly thereon, a cover for said spout part extending across said body plate, a finger piece disposed on said cover, an air vent piercing means depending from said cover and adapted to act in conjunction with the opening made thereby in the can top as a cover hinge means, said body plate being cut away to provide a clearance for the entrance of the air vent piercing means into the can top, said cutaway portion further being constructed as a guide for positioning said cover on said body plate.

9. In a can piercing and serving device, a body part conforming to the can top, means for retaining said body part on said can top, outlet piercing means disposed on said body part, a spout part disposed on said body part, a cover for said spout pa extending across said body part, a finger piece carried by said cover, and vent piercing means depending from said cover part and adapted to serve as a hinge for said cover.

In testimony whereof I have signed this specification this 2nd day of May, 1919.

WILLIAM W. HARRIS.