

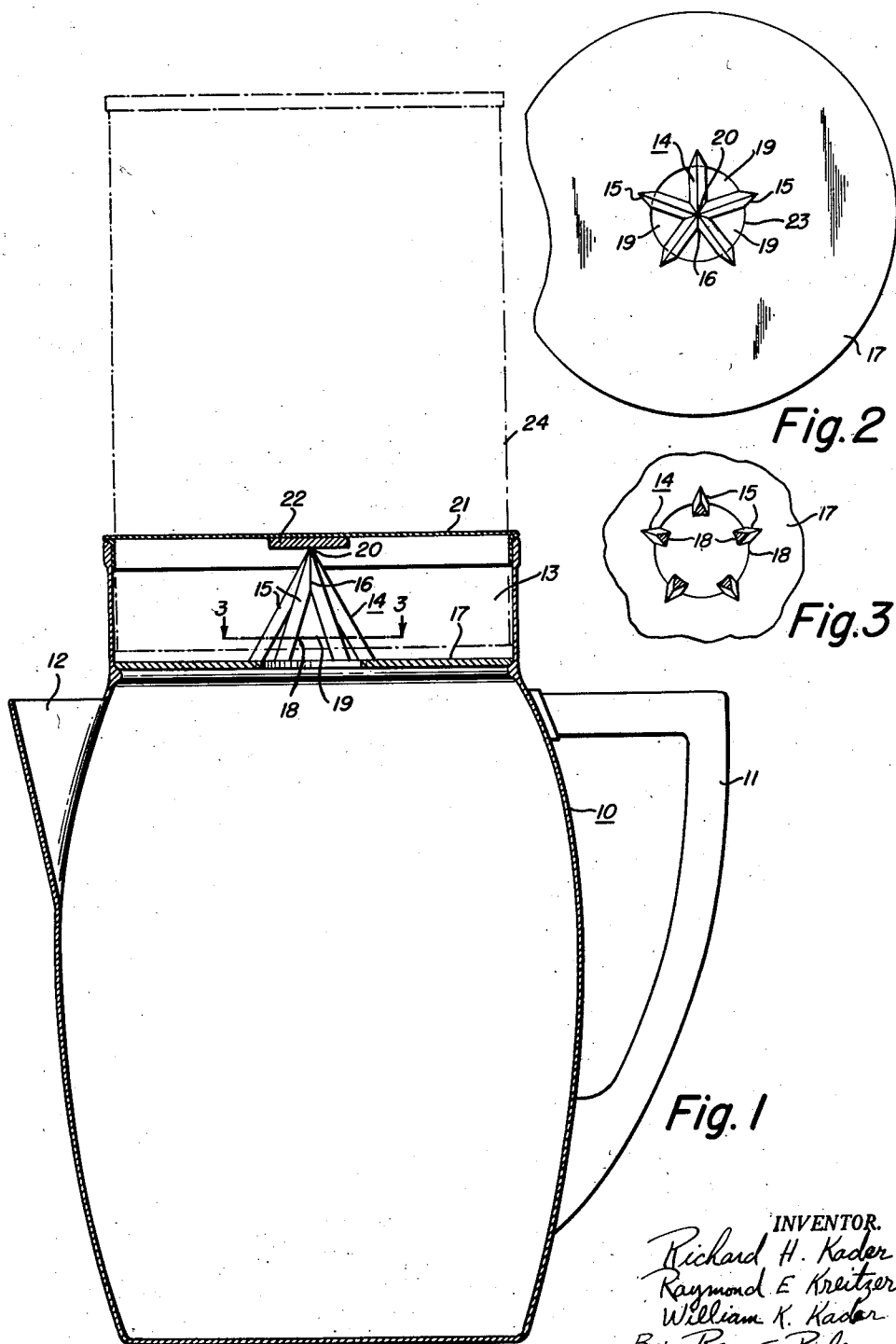
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CAN OPENER DEVICE

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CAN OPENER DEVICE

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2 Claims. (Cl. 222—88)

This invention relates to can opening devices in general and relates more specifically to a can piercing and draining device for dispensing liquids therefrom.

We are aware of many kinds and types of can piercing devices now available for removing liquids from sealed cans. The Patent Office records reveal a considerable variety of such devices and there are others known to use which are not known to be patented. Most such openers in actual use are employed by filling stations to open and dispense motor oil. However, without discussing the specific construction of the various patents and known devices, suffice it to say that in general they require special air bleed vents and special piercing members or are not suited for directly draining the contents of a can into a container suitable for table use.

Therefore, an object of this invention is to provide a single piercing member which will produce a free flow drainage from a can as the can is pressed down upon the piercing member.

Another object of this invention is to provide a can opening and draining device which will direct the liquid contents of a can into a table container with substantially no spillage and waste.

Yet another object of this invention is to provide a can opening device which will drain the contents of a can at an increasing rate by piercing an initial hole and thereafter rolling back the material of the can over a pyramidal piercing member.

Still another object of this invention is to provide a piercing opening device for canned liquids, the piercing opening device providing a gradual opening action with the metal of the can in contact with the opener and therefore having no spillage or leaking and providing a drainage passageway system through the piercing opening device itself after the can has been fully opened thereby substantially avoiding waste and spillage.

Other objects and a fuller understanding of the invention may be had by referring to the following description and claims, taken in conjunction with the accompanying drawing, in which:

Figure 1 is a side view of a table dispenser, with the can opening device engaged thereon and with a liquid container illustrated in phantom outline in the draining position;

Figure 2 is a top view of the removable can opening and dispensing device; and

Figure 3 is a sectional view taken along line 3—3 of Figure 1.

In the drawing there is illustrated a suitable table service liquid pitcher 10 having a handle 11 and a pouring spout 12. Preferably, the pitcher 10 is of transparent material which may be marked with measuring graduations to be used for cooking, baking, and formula making. The pitcher 10 will serve as an illustration of a suitable table service piece suitable for use on a dining table and for storing under refrigeration. It is understood that any other similar type of serving utensil will suffice. A top opening 13 in the conventional manner permits the

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use of the opening device of this invention with the pitcher 10.

The opening device is removably supportable over the top opening 13 by providing suitable mechanical interference members to allow the opening device to seat by gravity. The opening device is provided with a piercing member 14 mounted on a support plate 17. In the throat of the pitcher 10 there is provided a suitable bead or shoulder 26 which illustrates a suitable mechanical interference member. If desired, other suitable interference members may be provided to support the plate 17. The piercing member 14 is preferably pyramidal in form and has a base area seated over an opening 23 through the plate 17. In the preferred embodiment, the rib members 15 provide the piercing member 14 with a star-like cross-sectional configuration as best illustrated in Figures 2 and 3. The provision of the ribs 15 produce a plurality of valley areas 16 which are open.

As previously stated, there have been many other piercing types of can openers. However, the pyramidal piercing member of star-like cross-sectional configuration has been found to cause the metal of the can to roll backward as the can is pressed down upon the piercing member and yet maintain a relatively close contact. Accordingly, substantially all of the liquid which begins to run from the can clings closely to the surface of the piercing members in the valley areas 16 and is lead through the opening 23 and into the pitcher 10. Other piercing devices allow the liquid to spill at random in every direction and thus cause waste.

As thus described, the opener has considerable merit over anything available heretofore. However, it has been found that by providing a drainage passageway system opening from the valleys 16 the efficient and clean transfer of contents from a containing can to the pitcher 10 is expedited. There are various methods by which the drainage passageway system may be provided to open from the valleys 16. However, in the illustrated embodiment of the invention the piercing member 14 comprising five separate leg members integrally joined in the top area thereof thus providing a hollow interior area 18 and open valley areas 19. Therefore, when a can is pressed down over the piercing member 14, the fluid in the can may quickly drain through the openings 19 and through the area 18 into the pitcher 10. Air bleeding takes place around the previously cut edges of the can and results in very smooth and efficient transfer. There are other alternate methods of producing a piercing body such, for example, as stamping or die casting. The basic principle, regardless of the method of manufacture, is to produce the desired plurality of ridge members and a passageway system which permits the fluid from a can pressed over the piercing body to enter into the drainage system and through the bottom of the body into the serving container.

The illustrated embodiment of the invention is completed by a cover 21 with a pad 22 to cap the sharp piercing point 20 and permit the combination of a pitcher and the opening device to be placed directly upon the table for use without the necessity of removing the can opener from the pitcher at the table or requiring the pitcher to be filled in the kitchen area before being brought to the table. In Figure 1 of the drawing, a can 24 is illustrated in phantom outline in the position assumed while transferring the contents thereto into the pitcher 10.

Although the invention has been described in its preferred form with a certain degree of particularity, it is understood that the present disclosure of the preferred form has been made only by way of example and that numerous changes in the details of construction and the combination and arrangement of parts may be resorted to without departing from the spirit and the scope of the invention as hereinafter claimed.

What is claimed is:

1. A table service container and can opening combination, comprising, a liquid container having a top opening, a pouring spout, a holding handle, a can opening device removably supportable over said top opening, said opening device having a piercing member mounted on a support plate, said piercing member having a base, a plurality of rib members converging from said base to a piercing point, said rib members each having an exterior knife rib edge, said rib members providing said piercing member with a star-like cross-sectional configuration having peaks and valleys, a drainage passageway system opening from said valleys, said drainage system having an exit opening through said base, said support plate having an opening therethrough of a size smaller than the base of said piercing member, said piercing member attached to said plate over said opening, said knife rib-edge of each rib contacting said plate.

2. A container piercing and fluid dispensing device for containers having at least one flat puncturable face, said device comprising, a stop and support means to contact the pierced container face and establish a supported rest position for said container face, a piercing member ex-

tending from said established rest position, said piercing member having a base and a plurality of rib members converging from said base to a piercing point, each rib member having a V cross-sectional configuration with the apex thereof presented outwardly to serve as a shearing edge, said shearing edge of each rib member extending at least to said established rest position, said rib members providing said piercing member with a star-like cross-sectional configuration having peaks and valleys, a drainage passageway system opening from said valleys into the interior of said piercing member, said drainage system having an exit opening through said base, and said support plate having an opening therethrough under said piercing device.

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