July 8, 1952 O. K. PAUHU 2,602,223

CAN OPENER WITH MAGNETIC LID HOLDER

Filed May 29, 1950

Fig. 1

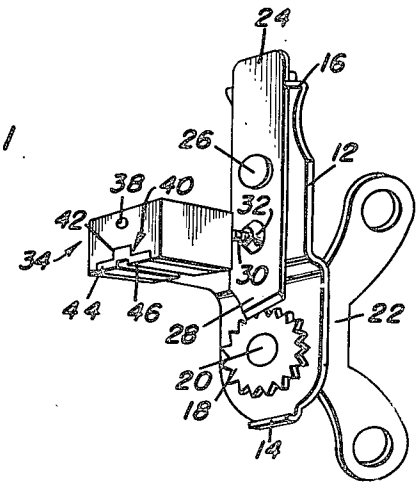
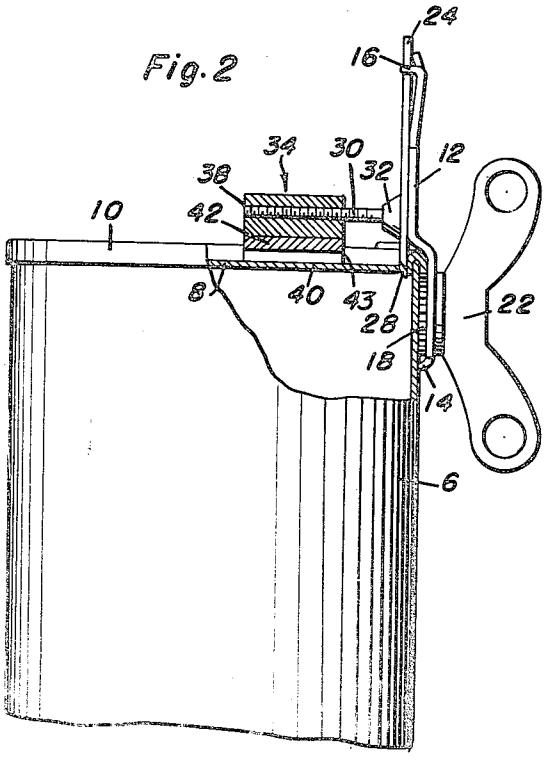


Fig. 2



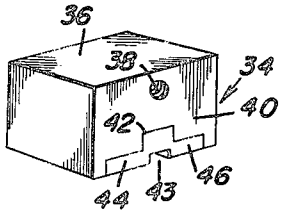


Fig. 3

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1 Claim. (Cl. 30—124)

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The present invention relates to certain new and useful improvements in can openers, and has more particular reference to a magnetic lid holder which functions to automatically retain the lid and to prevent same from dropping into the can after it has been completely severed from the body of the can.

It is a matter of common knowledge that the art to which the invention relates reveals prior adoption and use by others of similarly functioning holders. In fact, it is admittedly old to provide can openers with lid holders of one type or another. One device which has been made known to me employs a swivelly mounted permanent magnet. Other types utilize rubber suction cups.

In carrying out the principles of the instant invention, I contemplate the adoption and use of novel artificial or permanent magnet means and equally novel means whereby the first-named means may be readily attached to an existing or stock part of a well known style of can opener.

Another object of the invention is to structurally, functionally and otherwise improve upon can openers provided with these special facilities and, in so doing, to offer for use an improved construction in which manufacturers and users will find their essential needs fully met, contained and readily available.

Briefly summarized, the overall construction has to do with a can opener of the type which completely cuts a disk-like lid from one end of a can body, a standard, a toothed can bead engaging and can-rotating or feeding wheel mounted for rotation on said standard, a cutter blade which is pivotally mounted on said standard, an adapter member rigidly attached at one end to said blade and projecting at right angles from the blade, and novel permanent magnet means adjustably mounted on said member and adapted to contact said one end of the can.

Other objects and advantages will become more readily apparent from the following description and the accompanying illustrative drawing.

In the accompanying sheet of drawings, wherein like numerals are employed to designate like parts throughout the views:

Figure 1 is a perspective view of a conventional type of can opener provided with a lid holding attachment constituting the instant invention.

Figure 2 is a view showing a fragmentary portion of a can, showing the can opener in use and the magnetic lid supporting and holding means.

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Figure 3 is a perspective view of the magnet equipped mount.

Referring now to the drawings by numerals and lead lines, the can seen in Figure 2 is conventional and is denoted by the numeral 6 and has a lid forming end 8 and customary attaching flange or bead 10.

The can opener, as best shown in Figure 1, comprises a suitable standard 12 having a lateral can rest or abutment 14 at its lower end and a stop 16 on its upper end.

The customary toothed feeding and driving wheel is denoted at 18 and is mounted for rotation at 20 and is turned by a suitable grip or handle 22. The cutter blade is denoted at 24 and is pivotally mounted at 26 on the intermediate portion of the standard and has the customary severing or cutting blade 28 at its lower end in close proximity to the wheel 18. These are all conventional parts.

The attachment comprises an adapter member 30. This member specifically takes the form of a screw-threaded rod, one end of which is riveted, welded or otherwise fixedly secured at 32 to the pivoted cutter blade below the pivot point 26 as shown in Figures 1 and 2. This rod will be of a length to position the magnetic supporting and holding means at a position somewhat near the center of the potential lid 8. Broadly, the means for holding the lid, after it is cut out by the cutter blade, may be referred to as a permanent magnet. More specifically, however, it comprises a substantially rectangular block-like mount 34. This is provided centrally and adjacent the upper or top side 36 with a screw-threaded hole 38 to accommodate the screw-threaded adapter rod 30. The block might perhaps be referred to as an adjusting nut and some may refer to the rod as a bolt. It is obvious, however, that the nut when it is threaded on the rod may be adjusted to accommodate can-ends of different diameters. It is also advisable to note that the nut will oscillate sufficiently on the screw threads that it is substantially self-leveling. The bottom of the nut is flat and the central portion is recessed to accommodate the inlaid permanent magnet 40. This magnet is of general rectangular form and includes a rib 42 providing a key which is keyed in a keyway provided therefor in the nut. The underneath side of the flat can contacting surface of the magnet is formed with a channel 43 on opposite sides of which the components 44 and 46 of the magnet are disposed. These are sometimes referred to as the north and south poles of the magnet. The magnet should, of course, be flat surfaced

and should be flush with the can contacting side of the nut. The nut will have to be of material which is substantially impermeable magnetically to minimize dissipation of the magnetic forces of the magnet **40**.

The can opener is applied and used on the can in the usual way and the magnet rests on the contactable surface of the can end **8**. It slides or rides around with the can opener and yet maintains sufficient magnetic attraction that when the can opener has travelled through 360° and the lid has been completely severed, the lid is sustained and supported by the magnet. Therefore, the lid will not drop undesirably into the contents of the can.

In use it has been found that the forces of magnetism actually magnetize the cuttings or particles during the step of cutting the lid from the body of the can. In fact, the particles, thus magnetized, actually stick to the seperable lid. It will be clear, therefore, that since the loose particles thus adhered to the surfaces of the lid, the lid and particles together are removed as a unit and the particles are prevented from dropping into the contents of the can.

In view of the foregoing description taken in conjunction with the accompanying drawings, it is believed that a clear understanding of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described a

preferred embodiment of the invention, the same is susceptible to certain changes fully comprehended by the spirit of the invention as herein described and within the scope of the appended claim.

Having described the invention, what is claimed as new is:

In a can opener of the type which completely cuts a disk-like portion from one end of a can body, a standard, a toothed can bead engaging and can feeding wheel mounted for rotation on said standard, a cutter blade pivotally mounted on said standard, an adapter rod rigidly attached at one end to said blade and projecting at right angles therefrom, said rod being screw-threaded, a nut threaded for adjustment on said rod, said nut constituting a mount, the normal bottom side of said nut being flat and adapted to rest in contact with an end of the can, and a permanent magnet embedded in said nut and adapted to rest flatwise on said end of the can.

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