Dec. 7, 1926. 1,609,604

L. BLAKE

KNURLED BEADED CAN

Filed May 14, 1925

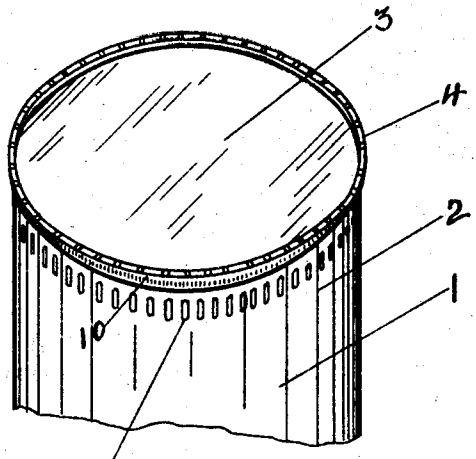


FIG. 1

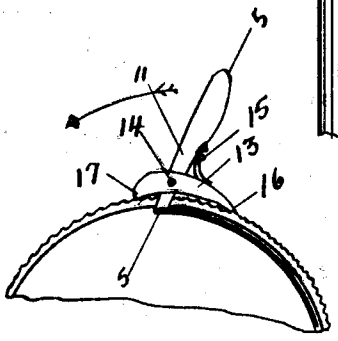


FIG. 4

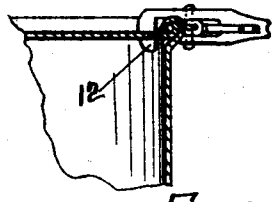


FIG. 5

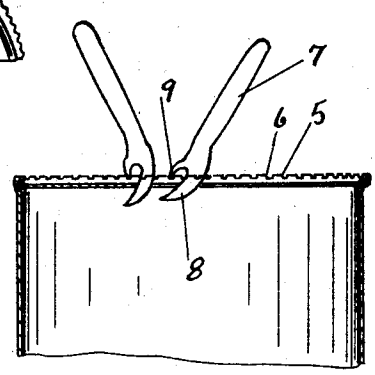


FIG. 2

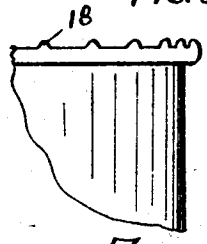


FIG. 6

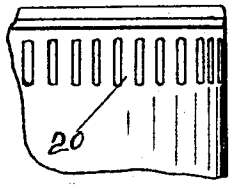


FIG. 7

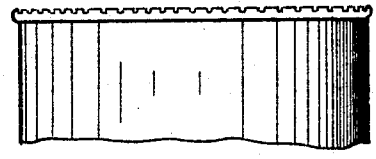


FIG. 3

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UNITED STATES PATENT OFFICE.

LINCOLN BLAKE, OF HAYWARD, CALIFORNIA.

KNURLED BEADED CAN.

Application filed May 14, 1925. Serial No. 30,257.

My invention is an improved can having indentations or knurlings on the seam to facilitate opening a can with the ordinary type can opener.

The ordinary can with the smooth bead does not allow the ordinary can opener to secure sufficient grip to cut the heavy metal now usually employed in the best type of cans. Most can openers operate by levering action by pressing on the rim or bead of the can and on bearing down on the handle cutting the metal of the lid. With many types of can openers the opener slips backwards on the rim with the cutting knife and the metal of the cover acting as a pivot point upon which it slips. To cut the can properly the element bearing on the rim or bead should remain stationary and allow the opener to pivot thereon cutting the metal on the downward pressure of the handle.

My invention comprises forming the bead or the end of a can with a series of indentations or knurlings completely around the rim or bead. I prefer to form the indentations on the upper edge of the bead of considerable depth and spaced apart quite considerable distances to co-operate with the type of can opener which rests on the upper edge of the bead and cuts through the lid with a knife substantially parallel to the handle.

I also form on the side edge of the bead a fine series of indentations or close knurlings so that the type of can opener which grips the bead on the side edge cuts through the top or side of the can and may get a proper grip on the bead. My invention may be used on the seamless type of cans as well as on those having a single or double seam or soldered joint and is applicable to circular, rectangular or other shaped cans.

My invention will be more readily understood from the following drawings and descriptions in which:—

Figure 1 is a perspective view of a typical can with a bead or seam formed according to my invention.

Figure 2 is a cross-section of the top of a can illustrating the construction and function of the indentations on the edge of the bead or seam.

Figure 3 is a side elevation of a can having indentations or knurlings only on the upper edge of the bead.

Figure 4 is a plan of part of a can showing the construction of the fine knurlings on the side of the bead or seam and illustrating their function with a side gripping can opener.

Figure 5 is a cross section of a bead having the side knurlings illustrating the action of a can opener as if taken on the line 5—5 of Figure 4.

Figure 6 illustrates an alternative form of bead in which a series of small knobs are formed at the upper side of the bead, these being made by impresses on the metal of the cap before the seam is formed.

Figure 7 is a partial view of the can having a series of fine corrugations on the wall of the can adjacent the rim or bead showing a smooth type bead.

Referring to the drawings, a can is designated generally by the numeral 1 and is shown of the cylindrical type having side walls 2, a lid or cap 3 connected by a seam or bead 4. This may be of any type such as a soldered seam or a single or double seamed joint, or it may be bead or cornered edge of a pressed can which is formed all in one piece.

The upper edge 5 of the bead has a series of indentations 6 worked therein which are preferably spaced apart a substantial distance. These may be formed in any desired manner, for instance by rolling the indentations on the finished can or by die-pressing a can to form the indentations. As this application is directed more to the can per se and the type of indented or knurled seam or bead I do not disclose herein my process and appliances for forming the indentations and the said knurlings.

The indentations 6 on the top of the bead are intended to function with a can opener of the type which bears on the upper edge of the bead and is operated by downward pressure on the handle. The can opener shown in Figure 2 to illustrate this action is provided with a handle 7, a cutting blade 8, and a finger 9. This finger is adapted to engage in the indentations 6 in the top of the bead. The two positions of the can opener illustrate the action.

It will be manifest that other types of can openers may be used and that the indentations or knurlings 6 give a frictional grip to give a proper fulcrum for cutting a can rather than allowing the element of the can opener resting thereon to slide on the rim or bead.

The rim or bead is also formed with a

series of fine knurlings formed by a series of shallow and closely spaced indentations on the side of the bead. As shown in Figure 4 the can opener has a handle 11 with a downwardly turned cutting knife 12, a bearing plate 13 pivoted to the handle by a pintle 14, a spring 15 presses against the handle and the bearing plate. This plate is shown with a pawl 16 and with a rounded nose 17. This type of can opener is shown to illustrate the function of the side knurlings 10.

It will be obvious with reference to Figures 4 and 5 that when the blade 12 is forced through the can and the handle is swung in the direction of the arrow that is counter-clockwise, the bearing plate will swivel around the knife edge. When the handle is moved in the opposite direction the bearing plate will grip the side knurlings and force the blade forwardly in the metal instead of allowing the can opener to slip backwards.

In Figure 6 is illustrated a type of bead having a plurality of small knobs 18 pressed upwardly instead of the indentation 6, these are formed by making a series of imprints in the metal of the can before it is beaded or seamed. The points to project on the end of the top of the bead being placed on the disc of the lid or cap at the proper distance from the edge so that they will be properly located after the seam is made. These function practically the same as the indentations 6 shown in Figures 1 and 2.

I also form on the upper edge of the can a series of corrugations 20 which are adapted to engage with the type of can opener which bears directly on the wall of the can and is intended to cut off the entire bead and top. Some of these types of can openers bear on the circumference of the can body, that is the can walls, instead of on the bead and cut off the lid. The series of fine corrugations however prevent the slippage of these devices.

In Figure 7 these corrugations are shown on a can having the ordinary or smooth type bead or seam. As this application is not directed to a device for rolling these small corrugations it is not disclosed herein.

My invention may be modified in detail to suit different types of cans, boxes, or like containers, and specified types of indentations or knurlings, knobs or corrugations may be formed to function with particular types of can openers.

Having described my invention, what I claim is:—

The combination with a metal can having a wall and a lid, said lid having a series of depressions disposed in the flat portion thereof, and adjacent to the rim of the can, the wall of the can having a series of elongated depressions disposed adjacent to the rim of the can.

In testimony whereof I affix my signature.

LINCOLN BLAKE.