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2,556,731

CAN OPENER

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Fig. 1

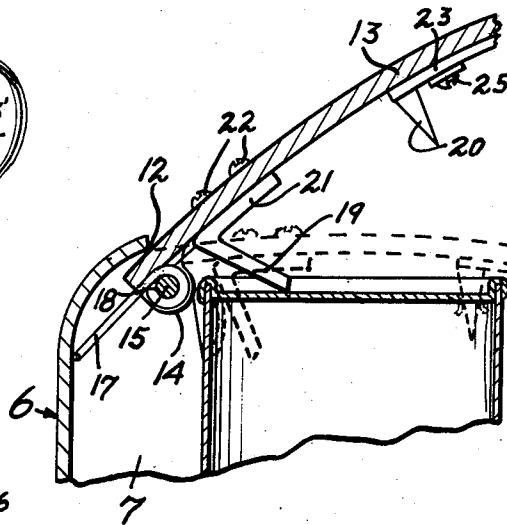
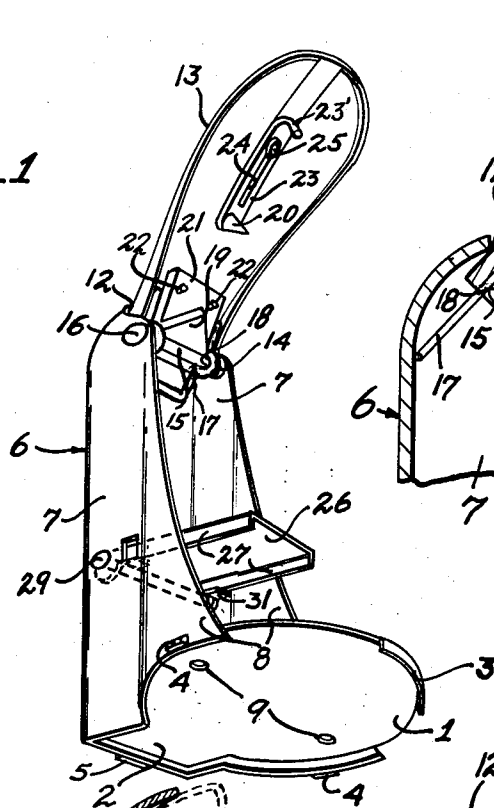


Fig. 3

Fig. 2

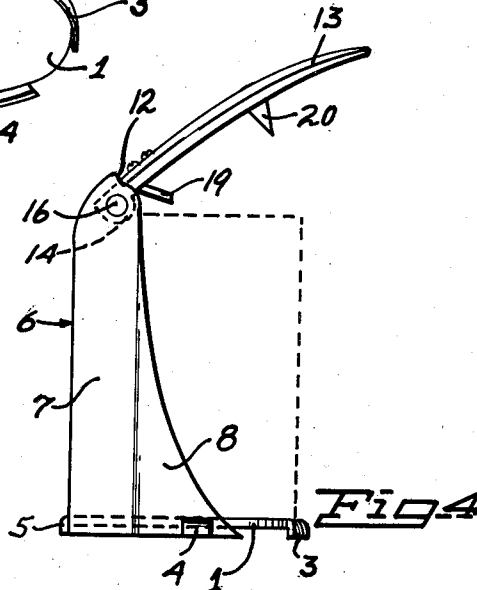
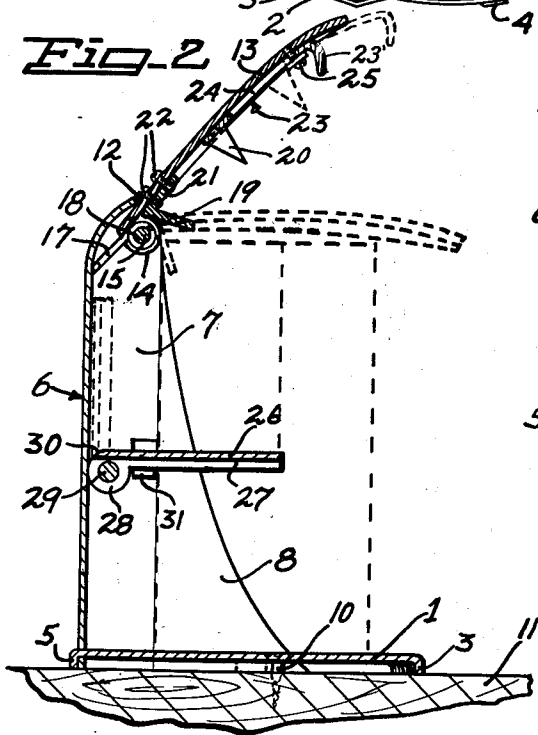


Fig. 4

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CAN OPENER

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This invention relates to can openers and more particularly to a can opener by means of which a pouring opening and an air inlet opening are to be formed in a can containing milk, fruit juices, and other liquids which are to be poured from the can.

One object of the invention is to provide a can opener having a base carrying an upstanding standard, a handle being pivoted to the upper end of the standard and carrying a blade and a punch by means of which a pouring opening and an air inlet opening are to be formed in the head of a can disposed upright under the handle when the handle is swung downwardly.

Another object of the invention is to provide a can opener having the upper end of its standard so formed that it overlaps the rear end of the handle and limits upward movement of the handle when the handle is released and swung upwardly by a spring.

Another object of the invention is to provide a can opener wherein the base carrying the standard constitutes a support for a can and the standard carries a platform which also serves as a support for a can, the platform or shelf being pivotally mounted so that it may be swung from a raised position against the standard to a lowered position in which it extends horizontally. This permits either a large can to be set upon the base or a small can set in place upon the lowered shelf, the shelf being disposed close to the standard when raised and out of the way of a large can placed upon the base.

Another object of the invention is to provide a can opener having its handle carrying a blade near its rear end of such shape that a large pouring opening will be formed through the head of a can, the handle also carrying a punch for forming an air inlet opening.

Another object of the invention is to provide the handle with a punch extending downwardly from a plate or strip which may be slid longitudinally of the handle to adjusted positions, the strip being formed at one end with a depending tongue or bill by means of which the strip may be easily moved to adjusted positions.

Another object of the invention is to provide a can opener which consists of a few number of parts capable of being easily assembled and firmly held together.

The invention is illustrated in the accompanying drawings wherein:

Fig. 1 is a perspective view of the improved can opener tilted to a position in which the under face of the base is in view.

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Fig. 2 is a vertical view taken vertically through the can opener.

Fig. 3 is a sectional view upon an enlarged scale taken through the upper portion of the can opener.

Fig. 4 is a side view showing a can opener of modified construction.

This improved can opener has a base 1 which is formed of sheet metal and has a rearwardly extending arm 2. A flange 3 extends downwardly along the front of the base and at opposite sides of the base are tongues 4, a similar tongue 5 being provided midway the width of the arm 2. A standard 6 rises from the base in straddling relation to the arm 2 and rear portion of the base and this standard has forwardly extending side walls 7 which increase in width towards their lower ends and are bent along vertically extending lines to form wings 8. The rear wall of the standard and its wings project downwardly below the base a distance equal to the depth of the flange 3 and since the tongues 4 and 5 are passed through slots formed in the standard and bent downwardly the standard will be firmly held to the base. Openings 9 are formed in the base to receive screws 10 by means of which the can opener may be secured upon a table 11, or other suitable support, and when these screws are tightened the flange 3 and the lower edge of the standard will have tightening engagement with the upper surface of the support and brace the can opener against movements which might tend to loosen the screws. The upper portion of the rear wall of the standard is curved forwardly and forms an abutment or stop 12.

Forwardly of the standard is a handle or lever 13 which is formed of stiff metal and curved longitudinally and transversely so that it may be gripped without its edges cutting a person's hand. The handle is gradually reduced in width towards the rear end which is of such width that it fits loosely between upper end portions of the side walls of the standard. Near opposite side edges of this rear end portion of the handle are mounted bearings 14 through which are engaged end portions of a shaft 15 which has its ends mounted through openings in the side walls of the standard and upset to form heads 16. The shaft serves as a pivot for the handle and the handle will thus be mounted for vertical swinging movement from the raised position shown in full lines in the drawings to the lowered position indicated by dotted lines in Figure 2. The handle is to be normally held in a raised position and in order to do so there has been provided a U-shaped

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spring 17 which has its bridge portion bearing against the front face of the rear wall of the standard and its arms extending upwardly and coiled about portions of the shaft, as shown at 18. Upper ends of the arms of the spring bear against the under face of the rear end portion of the handle and resiliency of the spring urges the handle upwardly to its raised position. Upon referring to Figures 2 and 3 it will be seen that the forwardly curved upper end portion 12 of the rear wall overlaps the rear end of the handle and will thus serve very effectively as a stop or abutment to limit upward movement of the handle. While it has been stated that the handle carries bearings 14 through which end portions of the shaft 15 extend it will be understood these bearings may be omitted and the handle welded to the shaft.

In order to allow milk, or other liquids, to flow freely from a can it is necessary to form a pouring opening in the head of the can near the marginal edge thereof, and a second opening constituting an air inlet, the second opening being spaced from the pouring opening diametrically of the can a sufficient distance to allow air to enter the air inlet opening while the liquid flows outwardly through the pouring opening. In order to form these openings there has been provided a cutting blade 19 and a punch 20. The blade which consists of the downwardly bent end portion of a plate 21 firmly secured against the under face of the handle by screws 22, and as the blade is tapered to a point at its lower end and is sharpened along its side edges it may be easily forced through the head of a can and form a pouring opening therein when the handle is swung downwardly towards the lowered position indicated by dotted lines in Figures 2 and 3. The punch 20 is of conical formation and is secured to the rear end of a strip or plate 23 which extends longitudinally of the handle in contacting engagement with the under face thereof. A slot 24 extends longitudinally of strip 23 and through this slot passes a screw 25 which, when tightened, firmly holds the strip in an adjusted position and causes the punch to be disposed a desired distance from the blade 19. The punch may thus be adjusted to accommodate itself to the diameter of the can and form an air inlet opening located the proper distance from the pouring opening. The front end portion of the strip 23 is of reduced width and bent downwardly to form a tongue or bill 23' which is curved longitudinally so that it may be readily engaged with a person's finger and the strip slid longitudinally to adjusted positions.

The height of the standard is such that a large can may be set upon the base and engaged under the blade 19. When a small can is to be opened the can is set upon a shelf of platform 26 provided midway the height of the standard. This platform is formed of sheet metal and has depending side flanges 27 formed at their rear ends with ears 28 to receive a pivot bar or shaft 29 which extends transversely of the standard and has its ends mounted through the side walls of the standard. The ears or bearings 28 are circular, as shown in Figure 2, and referring to this figure it will be seen that the rear end of the shelf has a bevelled edge 30 so that it will not interfere with tilting movement of the shelf. When the shelf is not in use it is swung upwardly to a raised position where it extends vertically against the rear wall of the standard but when

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it is to be used it is swung downwardly to a lowered position where it extends horizontally and is supported upon tongues 31 cut from the side wall 7 of the standard and bent inwardly and downwardly to a horizontal position. It will thus be seen that the can opener may be used for opening either large or small cans and that when large cans are being opened the shelf will be disposed in a raised or folded position where it will be out of the way. If the can opener is to be used for cans of only one size the shelf will be omitted, as shown in Figure 4, and the standard made of the proper height to accommodate it to cans of predetermined size.

Having thus described the invention, what is claimed is:

1. A can opener comprising a base, a support rising from said base and having forwardly projecting side walls, a shaft extending across the upper end of the front face of said support and carried by the side walls, a handle extending forwardly from the support and secured at its rear end to said shaft, a spring carried by said shaft and having portions engaging the support and the handle and yieldably holding the handle in a raised position, the upper end of the support extending forwardly over the rear end of the handle and constituting an abutment limiting upward movement of the handle, a blade secured to the under face of said handle and extending downwardly therefrom forwardly of said shaft, a metal strip extending longitudinally of said handle and formed with a longitudinally extending slot, a fastener passing through the slot to slidably mount the strip and tightened to releasably hold the strip in an adjusted position, a prong projecting from the rear end of said strip for forming an air inlet opening in a head of a can set at rest in an upright position under the handle, and a tongue extending downwardly from the front end of said strip in position to be grasped and shift the strip to a position disposing the prong in desired spaced relation to said blade.

2. A can opener comprising a base having a rearwardly extending tongue, a standard rising from said base and having a rear wall and forwardly extending side walls, said standard having its lower end secured against the rear end and side edges of said tongue and having lower portions of its side walls forming wings extending forwardly and secured against side edges of the base forwardly of the tongue, the upper end portion of the rear wall being curved forwardly along upper edges of the side walls and forming an abutment, a shaft extending between upper ends of the side walls and rotatably supported thereby, a handle carried by and projecting forwardly from the shaft and pivotally mounted thereby for vertical swinging movement, a spring carried by said shaft and having portions extending forwardly and rearwardly from the shaft and bearing against the standard and the handle and urging the handle upwardly to a raised position in engagement with the front end of the abutment, a blade extending downwardly from the rear portion of said handle in front of said shaft and being tapered to a point at its lower end and sharpened along its side edges, and a plate slidable along the handle longitudinally thereof to adjusted positions and having its rear end provided with a depending punch spaced forwardly from said blade and its front end bent downwardly and forming a finger engaging tongue.

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3. A can opener comprising a base, a standard extending upwardly from said base, a platform pivoted to said standard in upwardly spaced relation to said base and movable from a raised and folded position against the standard to a horizontal position, lugs upon said standard in position for engaging under side portions of said platform and supporting the platform in its lowered position, a handle pivoted to the upper portion of said standard for vertical swinging movement, a plate mounted against the under face of the rear end portion of said handle and having a portion bent downwardly and forming a blade tapered to a point at its lower end and sharpened along its side edges, a plate adjustably mounted against the under face of said handle forwardly of the first plate and shiftable longitudinally of the handle to set positions, and a punch extending downwardly from the second plate.

4. A can opener comprising a base, a standard rising from said base, a shelf pivoted to said

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standard in spaced relation to upper and lower ends thereof for tilting movement from a raised position against the standard to a horizontal lowered position, a handle pivoted to the upper end of said standard for vertical swinging movement forwardly and downwardly from a raised position to a lowered position, a blade extending downwardly from the rear portion of said handle for forming a pouring opening in a can, and a punch extending downwardly from said handle forwardly of said blade for forming an air inlet in a can.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,577,957	Dalmas	Mar. 23, 1926
2,162,095	Maples	June 13, 1939