May 19, 1953 S. E. KRIZ 2,639,113

TRASH CAN HOLDER

Filed May 17, 1951

FIG 1

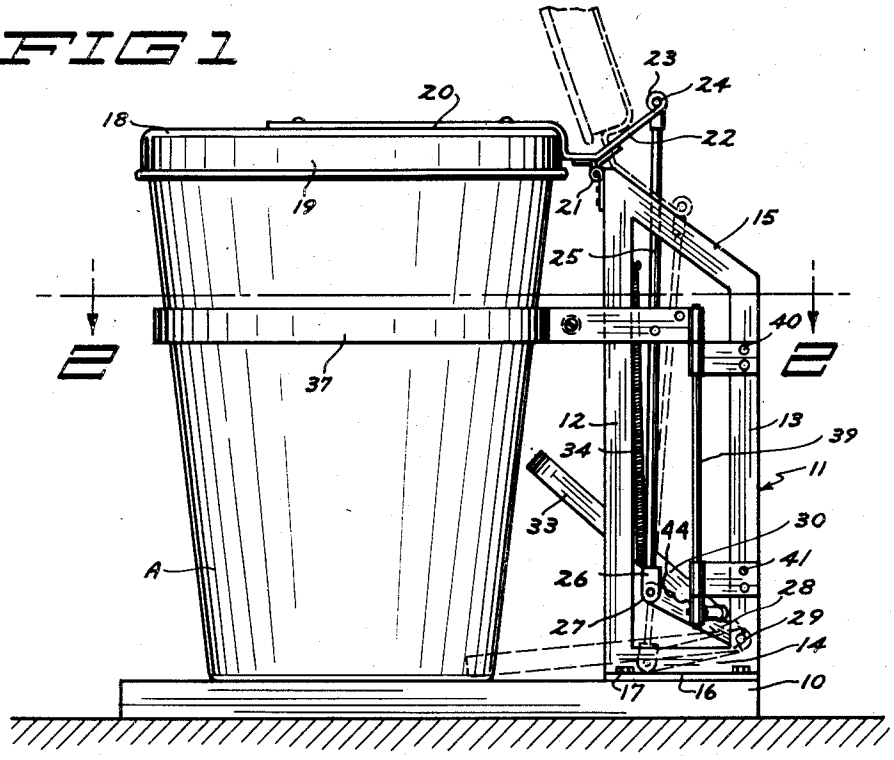


FIG 2

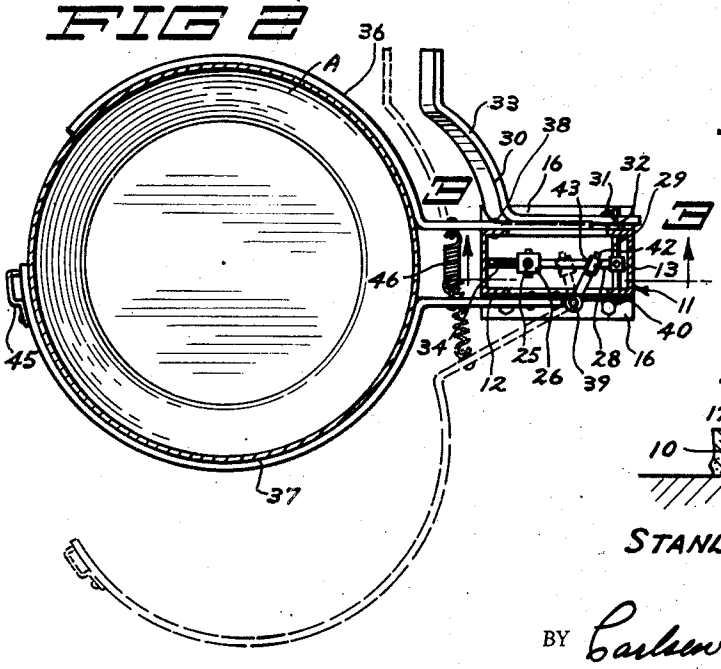
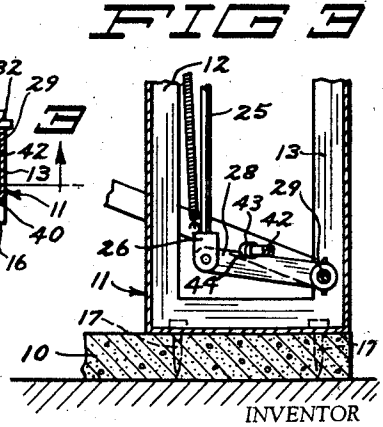


FIG 3



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TRASH CAN HOLDER

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3 Claims. (Cl. 248—147)

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This invention relates to supporting means for outdoor trash cans or the like.

Trash and garbage cans have been a constant problem for home owners, commercial establishments and the like as they lend themselves to easy upsetting by children, dogs, wind or other outside forces. It is not practical in the average instance to permanently fix the can to the ground or to recess it into the ground as such installation renders emptying of the can burdensome and inconvenient. Another common problem is keeping the can tightly covered to keep the contents dry, prevent escape of odors, avoid attraction of flies and the like.

Realizing these problems the principal object of my invention is to provide a holder for trash or garbage containers to securely hold the container in a fixed upright position and having a simple, manually operated control for releasing the container for emptying.

Another object of my invention is to provide a container holder having mounted thereon a cover for the container and foot actuated means for opening and closing the cover over the container.

Still another object of the invention is to provide a device having securing and covering means for an open top container wherein operation of the securing means to release the container automatically removes the covering means.

With these objects in view my invention broadly comprises a stand for supporting a trash container, a frame mounted on the stand to one side of the container, a cover hinged to the stand for opening and closing over the container, foot operated means for opening and closing the cover, a pair of retainer arms extending outwardly from the frame partially encircling the same to prevent sidewise movement thereof, one of said arms being hinged to the frame allowing it to be swung outwardly to release the container, and said arm having connection with the cover opening means rendering said means operative upon outward movement of the arm so that the container is completely released upon one simple manual operation.

The above-mentioned and still further objects will be brought to light during the course of the following specification, reference being made to the accompanying drawing, in which—

Fig. 1 is a side elevation of my invention with the container securely held and covered thereby and shows, in broken lines, the cover and its control mechanism in open position.

Fig. 2 is a transverse horizontal section taken along the line 2—2 of Fig. 1 and further shows, in broken lines, the hinged retainer arm in open position.

Fig. 3 is a fragmentary sectional view taken on line 3—3 of Fig. 2.

Referring now more particularly to the drawing and using reference characters, the numeral 10 denotes a flat base which may be of concrete as shown. The frame of the holder is designated generally by the numeral 11 and is mounted in an upright position at one end of the base leaving the major portion of the upper surface of the base unobstructed for reception of the trash container A. The frame 11 comprises a pair of upright channels 12 and 13 held in parallel relation by connecting channels 14 at the bottom and 15 at the top, the latter member slanting diagonally downward from the upright 12 to the upright 13. All of these channel members are integrally connected, as by welding, to provide a rigid upright frame. The bottom member 14 is provided with lateral flanges 16 which are apertured for securing the frame to the base as by lag bolts 17. The upper wall of member 15 has a slot (not shown) along the longitudinal center line thereof. The height of the frame is preferably substantially the same as the height of the container to be secured thereby.

A cover 18 is provided for the container. This cover has a relatively wide peripheral wall 19, adapted to fit down around the top rim of the container, and is connected to the frame 11 by means of a lever strap 20 affixed to the cover and hinged at 21 intermediate its ends to the frame to allow opening and closing movement of the cover on a horizontal axis. The strap 21 has an end portion 22 which extends upwardly from the hinge and over the member 15. This portion of the strap serves as a lever arm for actuating the cover about its fulcrum or hinge connection 21. Obviously, downward pressure on the arm 22 will operate to open the cover to the position shown in broken lines in Fig. 1.

The end of the arm 22 is bifurcated with the branches thereof looped over as at 23 to encircle the laterally extending arms of a T connection 24. This connection 24 is at the upper end of a rod 25 which extends downwardly through the slot in member 15 and between the members 12 and 13. The members 22 and 25 are accordingly pivotally associated on a transverse axis at 24. The rod 25 has a yoke 26 at its lower end. This yoke is pivoted on pin 27 to the extended end of a rocker arm 28 on the shaft 29 which extends transversely across and is journaled in the walls

of channel 13 for rotation therein. The shaft 29 extends outwardly beyond one side of the channel and has a foot pedal 30 keyed or pinned thereto as at 31. Washers 32 are disposed on the shaft between the pedal 30 and member 13. This foot pedal extends diagonally upward toward the can and has an arcuate upper portion 33 curving outwardly around the container allowing the pedal to be moved downwardly to the position shown by broken lines in Fig. 1 against the base 10.

It will now be understood when it is desired that the cover 18 be raised in order that trash might be deposited in the container A, the pedal 30 is depressed by the foot. This rotates shaft 29 inwardly moving the rocker arm 28 connecting rod 25 and arm 22 downward opening the cover about its hinge 21. Arm 22 engages the frame member 15 to stop opening movement preventing the center of gravity of the cover from passing over the hinge axis.

Under normal conditions, when the pedal is released the weight of the cover is sufficient to return it to its closed position. However, it is found that if a strong wind is blowing against the underside of the open cover such return action may be retarded. I accordingly provide a spiral spring 34 connecting the member 26 to an elevated point on the frame 11. This spring is put under tension as the cover is opened and accordingly urges the rod 25 upwardly or in a cover closing direction.

For securing the container in position on the base I provide the construction now to be described. Approximately two-thirds of the distance up on the frame 11 a pair of retaining arms 36 and 37 are mounted to extend horizontally outward around the sides of the container. As may be observed in Fig. 2, these arms extend directly forward from the frame and then are formed arcuate to follow the contour of the container so as to jointly nearly encircle it. Arm 36 is rigidly mounted on the frame in stationary position as at 38 while arm 37 is hinged on a vertical axis so that it might be swung outwardly away from the container for removal of the container from the holder. This hinge connection is affected as follows. The mounted end of arm 37 is affixed to the end of a shaft 39. Bearing brackets 40 and 41 are mounted on the frame to support the shaft 39 for rotation on a vertical axis. The shaft carries at its lower end a pintle 42 which extends perpendicular to the shaft inwardly over the rocker arm 28. A roller 43 is rotatable on the pintle 42 and engages the upper inclined edge of the arm 28 to roll therealong. Arm 28 is provided with a seat 44 on said upper edge adjacent the pivot connection 27. This seat is adapted to receive and hold the roller 43.

It will now be understood that when the container is to be removed from the holder for emptying, cleaning or the like, the arm 37 is grasped by its handle 45 and moved outwardly away from the container. With this movement the shaft 39 is rotated on its axis so as to move the roller 43 forwardly on a horizontal plane. The roller, accordingly, rolling along the inclined upper edge of the arm 28 forces said arm downwardly about its pivot 29 until the roller falls into the seat 44, where it locks the arm in its downward position with the cover 18 partially open. The container may then be conveniently removed from between the arms 36 and 37 as said arms are locked in spread position. A tension coil spring 46 connects the arms intermediate the container and frame whereby, as the cover is lifted slightly further lowering the arm 28 to release the roller, the arm 37 will be snapped back into position against the wall of the replaced container.

In brief summary of the operation of the device, when the pedal 33 is depressed the cover 18 will be raised to its erect position completely uncovering the top of the container. When the pedal is released the cover will return to its covering position by gravity and under the action of spring 34. When it is desired to remove the container from the holder the arm 37 is swung outwardly and this movement causes the cover to be raised off the container allowing its sidewise removal.

The device thus shown and described provides a secure holder for a garbage or trash container, adapted to quickly and easily release the container when such is desired. As such it efficiently and economically carries out the aforementioned objectives.

It is understood that suitable modifications may be made in the structure as disclosed, provided such modifications come within the spirit and scope of the appended claims. Having now therefore fully illustrated and described my invention, what I claim to be new and desire to protect by Letters Patent is:

1. A device for holding and covering a trash container which comprises an upright frame, holding means on the frame extending laterally outward therefrom to engage the sides of a container to prevent sidewise movement of the container, said means including a container engaging arm hinged to the frame on a vertical axis allowing the same to be manually swung outwardly away from the container to release the container from said holding means, a cover hinged to the frame for opening and closing over the container and having an actuating lever arm thereon adapted to raise the cover to an open position when moved downwardly, an inclined member having one end pivoted to the frame and its other end associated with the lever arm to lower the lever arm as said member is moved downwardly about its pivot, and a finger portion on said container engaging arm adapted to engage said member and move it downwardly about its pivot as said container arm is swung to a container releasing position to simultaneously open the cover.

2. In a combination holder and cover for a trash container, a frame, a holding means including a closure arm pivoted to the frame on a vertical axis for opening and closing movements against the side of the container, a cover hinged to the frame on a horizontal axis for opening and closing movements over the top of the container, and means connecting the closure arm to the cover so that opening of said arm will automatically open the cover, said means comprising an actuating lever on said cover operative on depression thereof to open the cover, a member connecting the lever to the frame and pivotally associated with both on horizontal and parallel axes, said member having a portion of its upper surface inclined downwardly toward its frame connection, said arm member carrying a roller and adapted to move on a horizontal plane and to roll along said surface portion away from the frame connection to move the member downwardly about its frame pivot as said arm is moved in an opening direction.

3. In a combination holder and cover for a

trash container, a frame, a holding means including a closure arm pivoted to the frame on a vertical axis for opening and closing movements against the side of the container, a cover hinged to the frame on a horizontal axis for opening and closing movements over the top of the container, and means connecting the closure arm to the cover so that opening of said arm will automatically open the cover, said means comprising an actuating lever on said cover operative on depression thereof to open the cover, a member connecting the lever to the frame and pivotally associated with both on horizontal and parallel axes, said member having a portion of its upper surface inclined downwardly toward its frame connection, said arm member carrying a roller and adapted to move on a horizontal plane and to roll along said surface portion away from the frame connection to move the member

downwardly about its frame pivot as said arm is moved in an opening direction, and said upper surface of the member having a roller seat above said inclined portion for receiving the roller to lock said member in its downward position.

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