ABSTRACT: A support is mounted above the ground or other surface and may be attached either to a wall or to a vertical stake driven in the ground and has pivoted thereto one or more can-engaging rings of such diameter as to be free to swing upwardly freely over and around the top of a garbage can for the removal of the latter, the ring swinging below a horizontal position to engage against one side of the can when in operative position to prevent the can from being tipped over by the wind or by animals.
STABILIZER FOR GARBAGE CANS AND THE LIKE

BACKGROUND OF THE INVENTION

A number of different stabilizers or holders for garbage cans have been developed and sold, for example, anchored frames into which the garbage can is placed and wherein the garbage can must be lifted to remove it from the rack, and others provide clamping bands which must be loosened by suitable tools in order to remove the can. The disadvantages of such prior constructions are sought to be overcome with the present construction.

SUMMARY OF THE INVENTION

A support is mounted above the ground and may be attached either to a wall or to a stake driven in the ground and adjacent which support a garbage can have a covering thereof is adapted to be arranged. A ring preferably formed of plastic is pivoted to the support and is of a size and shape to swing from an operative position upwardly past the top of the garbage can to assume an inoperative position extending upwardly and inclined away from the garbage can so that it will remain in its inoperative position until moved from such position. When a garbage can is placed in position with respect to the device, the ring will be swung downwardly over and past the upper end of the can until the side of the ring opposite the support engages against the can to limit its downward movement. The ring, being made slightly larger than the upper end of the can, will assume a position at an angle to the horizontal sloping downwardly and away from the support. The ring, of course, will be arranged adjacent the upper end of the can to effectively anchor the can against tilting movement.

The support may be attached to a wall at the desired height, in case usually only a single ring will be used to stabilize a single garbage can. The device may be associated with a stake driven in the ground, in case two garbage cans may be stabilized simultaneously by rings at opposite sides of the support.

Where the support is in the form of a stake, it is preferred that the stake be formed of several, preferably three, sections adapted to telescope with respect to each other so that they may be assembled side by side for packing when sold in knocked-down condition, thus minimizing the size of the package.

The stake is preferably extended substantially above the support and is provided with a hook or eye associated with each garbage can and which element may be connected to the handle of the garbage can by cable or chain so that when the lid is removed from the can, it will not be lost.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a side elevation of one form of the invention;
FIG. 2 is a plan view of the same;
FIG. 3 is an enlarged fragmentary section on line 3–3 of FIG. 1;
FIG. 4 is a similar view on line 4–4 of FIG. 1;
FIG. 5 is a view similar to FIG. 3 showing a modified form of ring mounting;
FIG. 6 is a similar view showing another modified form of ring mounting;
FIG. 7 is a similar view showing a still further modification of the ring mounting;
FIG. 8 is a side elevation of a pair of rings as they may be formed for use with the preferably three sections used in forming the pavement;
FIG. 9 is a side elevation of a modified form of the invention in which the support is wall mounted;
FIG. 10 is a plan view of the same;
FIG. 11 is a detail section on line 11–11 of FIG. 9 with the garbage can eliminated;
FIG. 12 is a side elevation of a modified form of wall mounting;
FIG. 13 is a detail section on line 13–13 of FIG. 12 with the garbage can eliminated; and
FIG. 14 is a fragmentary side elevation of a modified form of stake-mounted ring support.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to FIGS. 1, 2 and 3, the numeral 10 designates a stake construction formed of upper, intermediate and lower sections 12, 14 and 16, respectively, preferably formed of hollow section as shown in FIG. 3. In shipment, these stake sections are separated as in the upper part of FIG. 8 to economize in packaging space. In assembling the device, the lower section 16 is driven into the ground and to facilitate such operation, the section 16 has a pointed end 18 and a V-shaped ground anchor 20 to prevent the upward pulling of the stake. Forming the stake in sections not only facilitates shipment but also permits the lower section 16 to be driven into the ground with greater ease than if the entire stake were driven from the top thereof. The upper end of the lower section 16 telescopes into the lower end of the intermediate section 14 and is anchored with respect thereto by a pin 22. The upper section 12 telescopes into the upper end of the section 14 and is pinned thereto, for example, by a bolt 24 which may be arranged in selected openings 26 in the section 14 to adjust the height of the upper end of the section 12.

In FIG. 3, a support in the form of two parallel transverse arms 28 is shown, these arms being concentric, if desired, against opposite sides of the stake section 14, or two of the bolts 32 may extend through these arms to fix them to the center stake section as well as to fix the upper stake section 12 in position. The outer ends of each supporting arm 28 are provided with openings 30 through which pass a ring 32 which is preferably formed of plastic. These rings may be formed of straight rods bent into ring shape and formed of thermoplastic so that the ends may be butted and melted to be fixed together. The two rings 32 are provided where it is desired to stabilize two garbage cans, each of which is indicated by the numeral 34. These garbage cans rest on the ground 36 and each is provided with a lid 38 having a handle 40. The rings 32 have pivotal connection with the supporting arms 28 to swing between the solid-line operative position in FIG. 2 and the dotted line inoperative position, against the upper stake section 14. Each ring is of such size and shape that it is adapted to swing freely past the upper end of the can 34. When a ring is swung downwardly to operative position, therefore, it swings beyond the horizontal until the side of the ring opposite its pivot point engages against the side of the can to limit the downward movement of the ring. The can will preferably bear against the ends of the supports 28, and accordingly the can will be effectively stabilized and prevent it from tipping. When a ring is swung to its upper inoperative position, it will engage and be stopped in its movement by the stake section 12. It will be noted that each pivot point of each ring is spaced outwardly of the stake so that the ring will assume an inoperative position inclined away from the can.

To prevent the loss of a can lid when the can is removed from the device, the stake is provided with hooks or eyes 42 connected by a cable or chain 44 to the handle 40 of each can. When the can is to be removed, therefore, the lid thereof is moved out of position and the ring 32 swung upwardly to its inoperative position, whereupon the can may be freely moved without having to lift it out of a supporting structure.

In FIG. 3, each ring 32 is integral, as stated. In FIG. 6, two rings 46 are shown, each of which may be bent from straight tubular plastic stock and a metallic rod or tube 48 is inserted in each end of the ring and fits snugly therein to be held by friction.

The same variation in ring forms are shown in FIGS. 5 and 7, the former of which, if desired, may be the form of the invention shown in FIG. 1. The support 26 supports rings 32 which are split and held together with rigid metallic rods or tubes 50. This form of the invention is shown in FIG. 8.
wherein one of the rods 50 is inserted in the end of each straight element later bent to form the tube, and when the device is bent into circular form, the free end of the rod 50 is inserted through the opening in the support 28 and thence into the other end of the ring 32.

In FIG. 7, the construction is identical with FIG. 3, except that one support 28 is fixed against one side of the stake 10 in the same manner as in FIG. 3.

In FIGS. 9, 10 and 11, a wall-mounted support is employed instead of using a stake. In this case, plates 52 are bolted as at 54 to a wall 56, and welded thereto is a closed-section square vertical member 58. Against opposite sides of the member 58 is welded a pair of projecting supports 60 in the free ends of which is pivoted a ring 62 which may be constructed in accordance with any of the foregoing types. A cable or chain 64 is connected at one end to the upper end of the member 58 and at its opposite end to the handle 40 of the can lid 38.

A modified type of wall mounting is shown in FIGS. 12 and 13 wherein a plate 66 is bolted at 68 to the wall and is provided at its lower end with a bracket 70 curved as at 72 to provide an eye for the pivotal mounting of a ring 74 similar to any of the types previously described. The upper end of the plate 66 is bent outwardly a short distance as at 76 for connection to one end of a cable or chain 78, the other end of which is connected to the lid handle 40.

In FIG. 14 a modified form of stake mounting is shown wherein the stake 10 is provided with two of the plates 66 arranged at opposite sides thereof, these plates being bolted on opposite sides at the center stake section 14 as at 74. These plates 66 may be identical with the plate 66 shown in FIG. 12, as will be obvious.

**OPERATION**

The operation of the various types of the device shown are identical and will be rather apparent from the foregoing description. The lid 38 may be readily removed for dumping garbage or trash in the container and then replaced in position. Assuming that the can is to be set out for collection of the garbage or trash, the lid 38 will be removed and the stabilizing ring will be swung upwardly to the dotted line position, whereupon the can may be slid out of its normal position to be carried or wheeled to the point of trash collection. Any one of the types of mountings may be employed and all are equally effective. Where it is not desired to drive a stake in the ground, the wall mounting may be employed. Where a stake mounting is to be used, the stake is preferably formed sectionally as described so that the three stake sections may be assembled side by side to save space in packaging. For the same reason, elastic, preferably plastic, stabilizing rings are employed and are preferably shipped flat to minimize the size of the package containing the parts of the device.

Where the stake is employed, the lower section 16 is first driven into the ground as shown in FIG. 1, whereupon the lower end of the section 14 is placed in position and the pin or bolt 22 inserted. The section 12 is then placed in position with its lower end inserted in the upper end of the section 14. A pin may be inserted through the section 12 and one of the openings 26, or the bolts employed for fixing the plate or plates 28 in position may be first inserted, followed by the insertion of the lower end of the section 12 which will rest upon and be supported by the bolts. The chains or cables 44 are then connected as shown in FIG. 1 to prevent the loss of the lid when it is removed from the can.

It will be apparent that the device is not limited in its use to garbage or trash cans, but may find a wide variety of other uses for stabilizing containers. For example, it is the common practice to use open-topped steel drums as trash incinerators, and there is always danger that these drums may be tipped over and spill coals on the surrounding ground. The present device may be used very effectively for fixing such drums in proper vertical position.

From the foregoing it will now be seen that there is herein provided an improved stabilizer for garbage cans and the like which accomplishes all of the objects of this invention and others, including many advantages of great practical utility and commercial importance.

As various embodiments may be made of this inventive concept, and as many modifications may be made in the embodiments hereinbefore shown and described, it is to be understood that all matter herein is to be interpreted merely as illustrative, and not in a limiting sense.

We claim:
1. A device for stabilizing garbage cans and the like comprising a support, adjustable means in conjunction with said support, a ring pivoted at one side thereof to said adjustable means to swing on a horizontal axis below the top of the can, said ring being larger in diameter than the top of the can with a lid thereon, and holding means connected between said adjustable means and the can lid, said adjustable means allowing said ring to swing upwardly over the top of any height can to an inoperative position against said adjustable means for the horizontal removal of the can without the necessity of lifting the can from its storage position and allowing said ring to swing downwardly over the top of the can into an operative position with the side of the ring opposite said axis engaging the can below the horizontal level of the pivot axis, said adjustable means including vertically adjustable elements having their longitudinal axes transverse with each other and being vertically positionable relative to each other and said support for stabilizing any desired height can.