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P. A. SCHMIDT

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GARBAGE CAN STAND

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Fig. 1.

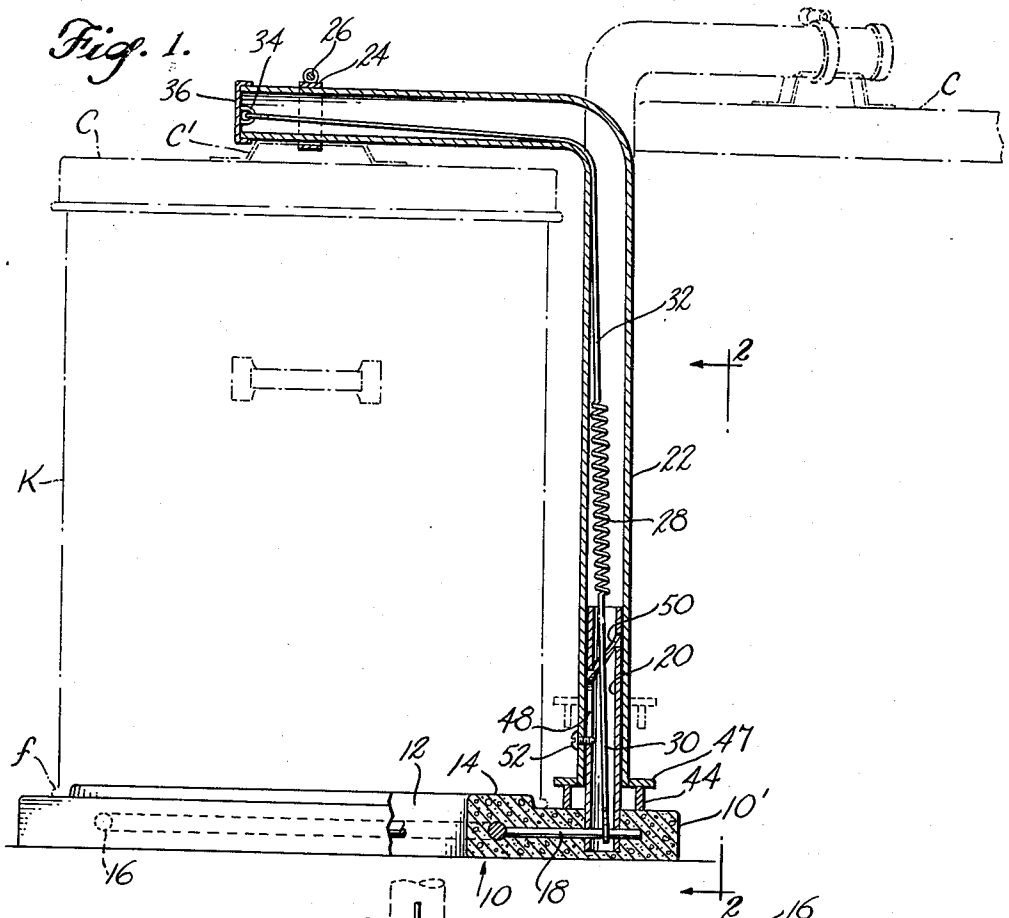
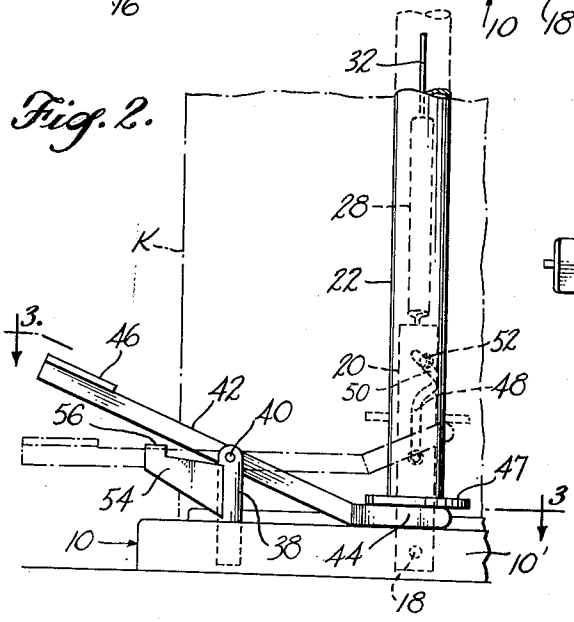


Fig. 2.



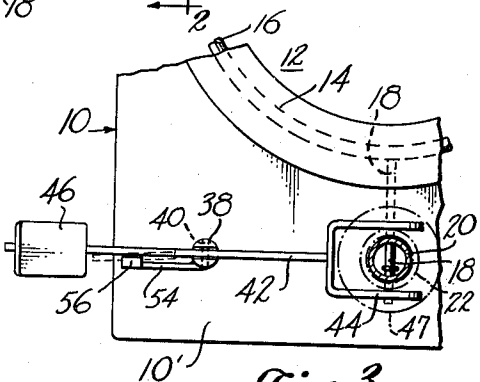


Fig. 3.

INVENTOR.
PETER A. SCHMIDT

BY
Reynolds, Beach & Christensen

ATTORNEYS

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GARBAGE CAN STAND

Peter A. Schmidt, Tacoma, Wash.

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2 Claims. (Cl. 248—147)

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This invention relates to an improved garbage can stand or the like comprising a weighted garbage can pedestal and an improved pedestal-supported foot-controlled mechanism for removing the garbage can cover without use of the hands and for automatically returning the cover to its place and holding it down on top of the can subsequently.

Another useful purpose served by a device of this type is the level support afforded to the garbage can and the lateral steadying effect imparted thereto by parts of the cover-removing mechanism preventing the can from being tipped off the pedestal by strong winds or hungry domestic animals, for example. In addition the mechanically moved cover itself, being normally held down by the foot-controlled mechanism, is not easily removed by the prying of animals, so that there is far less likelihood of garbage being removed from the can and strewn about than in the ordinary garbage can installation. Moreover, a person ladened with garbage usually finds it most inconvenient to remove the garbage can cover by hand in order to deposit the garbage. Frequently the garbage being carried is too unwieldly to hold in one hand and is often precariously contained in a paper bag or the like which has become soggy and weak from moisture, so that the garbage often must be set down before the can cover may be removed. A foot-controlled cover-removing and hold-down mechanism is therefore highly desirable.

An important object of the present invention, therefore, is such a garbage can stand of inexpensive, rugged and practicable form.

Another object is a garbage can stand wherein the cover-removing and hold-down mechanism is of simple, rugged and durable construction, is easily operated and comprises moving parts which are inherently sheltered from the weather and shielded against entry of obstructing foreign elements such as dirt, rocks, garbage, etc.

In its preferred and herein illustratively described form, the improved garbage can stand comprises a concrete pedestal suitably formed to support the garbage can in fixed position thereon. An upright post comprising a straight length of pipe embedded by its lower end in the concrete pedestal projects upwardly therefrom to a level below the top of the garbage can and serves as a sliding support for one leg of a longitudinally and rotationally reciprocative L-shaped pipe of larger diameter. The other leg of this L-shaped pipe is supportingly connected to the can cover. Foot-actuated mechanism movingly

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connected to the L-shaped pipe effects elevational movement thereof to raise the cover off the can, while helical cam means and coacting cam follower means housed inside the outer pipe effect concomitant rotation of the L-shaped pipe to swing the cover to an offset position from the can. A spring internal to the outer pipe interconnects the two pipes and yieldably opposes such cover movement, so as to effect automatic return of the cover to its normal position on the can and to apply hold-down force to the cover when the foot-operated mechanism is released. Preferably the cam means comprises a slot in the inner or guide pipe while the cam follower means comprises a machine screw or pin threaded through the wall of the L-shaped pipe to slide in the slot. Such cam follower pin may be removed and the hole used as a lubricant injection opening when desired.

These and other features, objects and advantages of the invention including certain details of the preferred form thereof as illustrated herein will become more fully evident from the accompanying drawings. It should be understood, however, that the invention in its essentials is not necessarily limited to the details of the illustration but extends to equivalent forms thereof within the scope and purposes set forth herein.

Figure 1 is a side elevation partly in section of the improved garbage can stand showing by solid lines the cover-removing and hold-down mechanism in normal rest positions with the cover situated on top of the can (illustrated by broken lines) and showing by broken lines the mechanism in its actuated or cover-removed position.

Figure 2 is an enlarged side elevation detail view from another aspect particularly showing certain details of the foot-actuated cover-removing mechanism.

Figure 3 is a fragmentary plan view illustrating further details of the pedestal and cover-removing mechanism construction.

The weighted garbage-can-supporting pedestal 10, preferably of concrete, is molded with a central opening 12 minimizing unnecessary weight and facilitating handling. A raised annular lip 14 extends around this opening and fits into the cavity defined by the annular flange *f* on the lower edge of the can K for the purpose of locating the can in predetermined position on the pedestal. A ring 16 of reinforcing steel embedded in the concrete around the opening 12 has a radial steel spoke 18 welded thereto which serves as reinforcing for a side extension 10' of

the concrete pedestal and has another purpose to be described.

The straight section of pipe **20** having its lower end embedded in the pedestal side extension **10'** alongside the garbage can K projects vertically therefrom to a level materially below the top of such can. The reinforcing spoke **18** passes through opposite wall openings in the lower end of the pipe. A second pipe **22** of L-shaped form and somewhat larger in diameter than the pipe **20** has a vertical leg which telescopes slidably over pipe **20** and a horizontal leg projecting over the top of the garbage can. Pipe **20** thus serves as a guide permitting rotation and vertical reciprocation of pipe **22** thereon. A clamp band **24** with a tightening screw **26** secures the concave garbage can cover handle C' to the convex lower side of the horizontal pipe leg.

A helical spring **28** is housed within the vertical leg of pipe **22**. The lower end of this spring is connected by the wire or cable **30** to the spoke **18** inside the hollow base of guide pipe **20**. The upper end of this spring is connected by the wire or cable **32** to an eye **34** on the inside face of the cap **36** which closes the upper or projecting end of L-shaped pipe **22**. The length of the spring and its connecting wires is such that a hold-down force is normally applied to the garbage can cover preventing its removal from the can with undue ease.

At a location offset from pipe **20** on pedestal extension **10'** a second post element **38** stands embedded in the concrete and provides a fulcrum or horizontal pivot **40** for the first class lever **42**. One end of this lever has a bifurcation **44** which straddles the inner pipe **20** and is spaced from the sides thereof sufficient for clearance to permit swinging of such lever through an appreciable angle vertically. The opposite end of the lever has a pedal or foot rest **46** thereon by which the lever may be actuated. An annular flange or circular plate **47** on the lower end of pipe **22** rests on the bifurcated end of lever **42** which in turn normally rests directly upon the concrete pedestal. When the pedal end of the lever is depressed by foot its bifurcated end slides the L-shaped pipe **22** upwardly on pipe **20** and thereby lifts the garbage can cover C off the can K.

A cam slot in the wall of inner pipe **20** has a lower vertically extending section **48** and an upper generally helical section **50** defining an edge or surface extending lengthwise of and around the pipe. A pin or machine screw **52** threaded through a hole in pipe **22** enters this slot for sliding over the surfaces thereof as a cam follower. As pipe **22** is elevated by foot operation of lever **42** the inner end of pin **52** moves up the vertical slot section **48** permitting direct lifting of the garbage can cover from the can without binding thereon. The pin enters and follows the helically curved slot edge **50**, however, at a point during elevation of pipe **22** when the cover clears the top of the can, and thereupon effects progressive rotation of the pipe **22** through a substantial angle such as about 90 degrees as the lever **42** completes its movement. The cover is thereby both elevated and swung aside to the broken-line position shown in Figure 1 by the foot-operated mechanism. During such movement spring **28** is progressively stretched.

A lateral arm **54** on the fulcrum post **38** has a transverse finger **56** on the outer end thereof

which serves as a catch for detaining the lever **42** in its actuated position. When the pedal end **46** of this lever is depressed by the operator's foot, interference from this catch is avoided by applying a slight sidewise pressure to the lever causing it to cant slightly in relation to the normal plane of swing perpendicular to pivot pin **40**. After the depressed position is reached oppositely directed sidewise pressure canting the lever reversely lodges it beneath the catch **56** until released by foot subsequently. Release of the lever permits spring **28** to swing and lower the pipe **22** for restoring the cover C to the can K.

It will therefore be seen that the foot-operated mechanism comprising the guide post or pipe **20**, the L-shaped pipe **22**, the spring **28**, slot cam **48, 50** and follower **52** and the operating lever **42** serves normally as a cover hold-down and prevents the garbage can from being tipped off the pedestal. By depressing the pedal **46** the cover is lifted and swung aside to afford full access to the open can and to enable removing the can from the pedestal for emptying when desired. The moving parts most easily impaired by rust or entry of foreign objects, namely the sliding surfaces of the two pipes, the cam and cam follower and the spring are entirely shielded inside outer pipe **22**. Removal of cam follower screw **52** provides an opening in the wall of this pipe through which lubricant may be injected in order to establish and maintain smooth and easy operation of the parts. Pressure of spring **28** holds cap **36** in place to keep the end of pipe **22** closed against entry of water and foreign objects.

I claim as my invention:

1. A stand for a garbage can which has a separate downwardly flanged cover, comprising a pedestal adapted to locate and support such a can in fixed position, resting thereupon, an upright post anchored in and projecting upwardly from said pedestal, alongside the supported can, a movable cover support of inverted L-shape, the vertical leg whereof, at least, is hollow and fits rotatively about and is longitudinally slidable upon said post, the horizontal leg being at a level where it overlies the cover and is adapted for supporting connection thereto, a lever pivoted between its ends upon said pedestal, a pedal on one end thereof and its other end being bifurcated to straddle the post, and normally resting upon the pedestal, the lower end of the vertical leg of the cover support having an outstanding flange resting upon the bifurcated lever arm to be raised by the latter, when the pedal is depressed, from a lowered, can-covered limit position to an upper cover-lifted position, resilient means reacting between the post and said cover support to retain the latter normally in its lowered position, but yieldable under the influence of said pedal-actuated means, and cam means interengaged between said post and the vertical leg of said cover support, formed in a shape to constrain the latter, in moving upwardly, to substantially vertical movement until the cover is lifted clear of the can, and then to rotative movement with continued upward movement, to swing its horizontal arm and the cover aside, and said resilient means urging the horizontal arm and cover, in conjunction with said cam means, along a reverse path, to reseat the cover, upon release of said pedal-actuated means.

2. A stand for covered garbage cans and the like, comprising a concrete pedestal adapted to

support a garbage can in fixed position thereon, an upright straight length of pipe embedded at its lower end in the concrete pedestal and materially shorter in length than the height of the garbage can, a second pipe of larger diameter than the first pipe telescoping slidably over said first pipe to permit vertical reciprocation and rotation thereon, said second pipe having a horizontally extending arm portion adapted to be supportingly connected to the garbage can cover, said first pipe having a cam slot therein comprising a substantially helical portion extending lengthwise of and around said first pipe, a cam follower pin fixed to the second pipe and projecting into the cam slot, and pedal operated means movingly connected to the second pipe for sliding the same upwardly on the first pipe to lift the horizontal arm and thereby the garbage can

cover from the can, and to swing the same laterally by cooperative action of said cam slot and follower pin.

PETER A. SCHMIDT.

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