LID LIFTING MECHANISM FOR TRASH BIN

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The lid lifting device is designed for use on a common trash bin. The lid lifting device is commonly used to aid the operator in accessing the trash bin while the hands of the operator are not free to lift the bin lid. The device is a simple mechanism, which employs the principles of leverage to both aid the operator in easily opening the lid, while at the same time serving to increase the safety of the operator during trash disposal.
Sketch S3

Sketch S4
Sketch S5
LID LIFTING MECHANISM FOR TRASH BIN

BACKGROUND OF THE INVENTION

[0001] The invention was conceived to aid a wide variety of users in the public domain to increase the accessibility of the trash bins. Existing bins require the user to lift the lid manually, which causes problems for the user. In many situations the user has his hands full while approaching the bin, and cannot open the bin lid safely or securely. The addition of a foot pedal to the bin is a new concept specifically designed for bin applications. The unique design, multiplies the users own strength, and increases the users stability when opening the bin lid.

BRIEF SUMMARY OF THE INVENTION

[0002] The unit operates on the principles of leverage. When a user approaches the bin, the user can use either the hands to lift the bin lid manually, as he is accustomed to doing, or if the user has his hands full, and cannot open the bin lid safely with the arms, then the foot may be employed to depress a pedal mounted to the exterior of the bin. The foot pedal is located in the center of the bin, and swings downward in a safe and natural motion. The foot pedal is mounted slightly raised to ensure that the foot will not strike the floor, nor will the pedal strike the foundation which the bin rests on. The action of the foot pedal, does not impede access to the bin, nor does it cause the bin to rotate of roll. The foot pedal is sized to allow for minimal foot pressure to be applied while maximum vertical lift is applied to the lid, to open the lid safely and accurately during trash disposal.

BRIEF DESCRIPTION OF THE DESIGN

[0003] (with reference to sketches)

[0004] In this view, the operator is shown in the position where he will press the pedal with his foot, and begin to cause the action which will lift the bin lid cover to be able to access the bin and dispose of his trash. (view sketch S1)

[0005] In this view the operator has depressed the foot pedal and is now able to access the bin in a safe manner, his arms are free to support himself, and he is able to dispose of the trash he was carrying safely, without worry that the trash will fall outside of the bin. He can also egress the bin safely without harm from dangerous or unpleasant fumes emitted from the bin. (view sketch S2)

DETAILED DESCRIPTION OF THE INVENTION

[0006] In this section a brief description of the bin internal details will be discussed. In the sketch one can see the internal mechanism which is enclosed in a safety cover, the mechanism is shown as closed, and the foot pedal is in the upright and safe position for an operator to approach the bin, the lid is closed and there is no danger to the operator from the mechanism. (view sketch S3)

[0007] In this sketch the mechanism is shown in the full open position as a result of the operator depressing the pedal, the operator is not shown in this sketch, just the mechanism is shown. The sketch shows that the lifting arm is now raised, and the mechanism is in the extended position. (view sketch S4)

[0008] In the following sketch the exploded view of the mechanism is shown. This sketch details all of the parts both moving parts and stationary parts that comprise the mechanism. Each part is labeled and clearly identified to the user for both maintenance and assembly.

[0009] The mechanism can be assembled with common tools, and the parts are made from the simple and fundamental components such as bar stock, steel plate, screws, and fasteners. Welding is applied to aid in the assembly process. (view sketch S5)

Patent claim:

1. In conclusion, the claim of the invention described herein, is the application of the mechanism which employs a leverage principle to the specific application of the common trash bin/dumpster. In this regard, the invention which has taken place, namely “Lid Lifting Mechanism” is a new device, and a new invention. The application has not been applied specifically to the trash bin, but has worldwide usefulness in the application. Thus it is a unique, yet simple application of a mechanical device to an existing object. Through the adaptation of the trash bin with the Lid Lifting Mechanism, the bin has increased its usefulness. The “device” will serve to promote environmental soundness by users of the device.

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