Dec. 27, 1966 E. SNOW 3,294,266

MEANS FOR SUPPORTING AND LIFTING A TRASH CONTAINER OR THE LIKE FOR TILTING MOVEMENT

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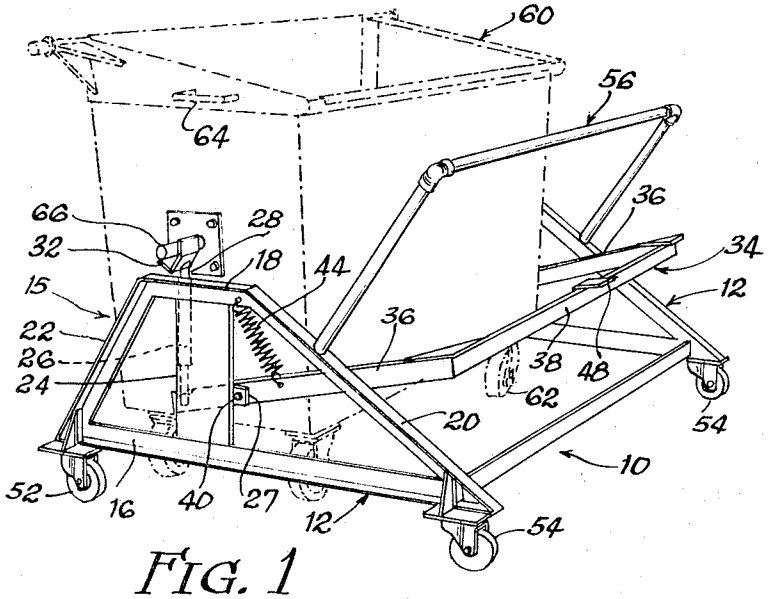


FIG. 1

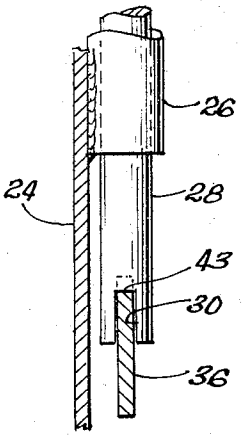


FIG. 4

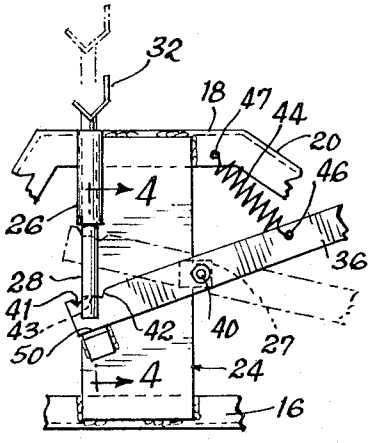


FIG. 5

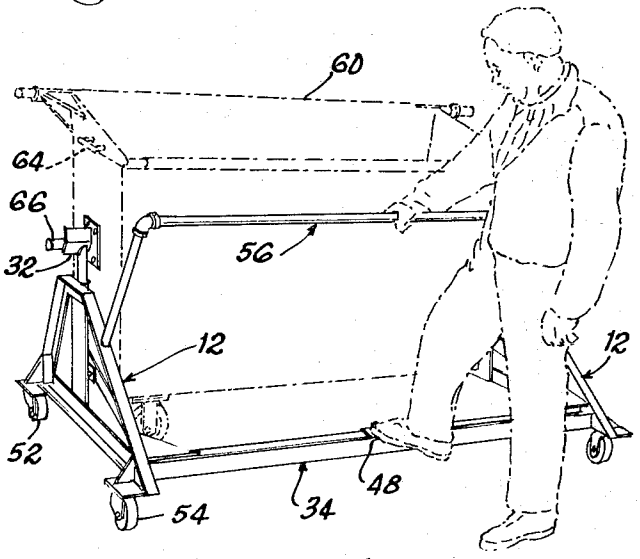


FIG. 2

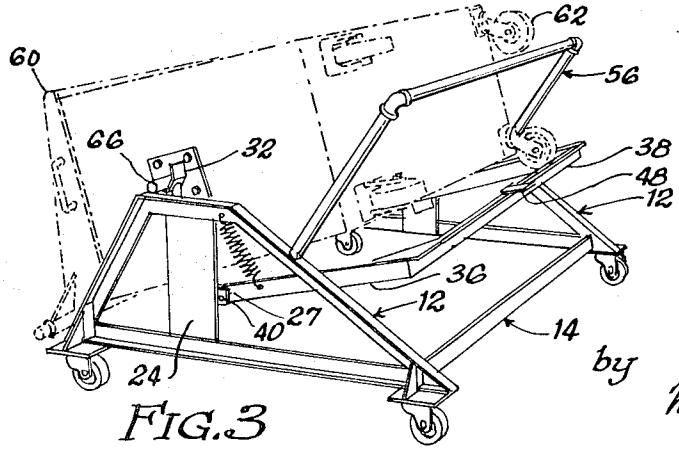


FIG. 3

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MEANS FOR SUPPORTING AND LIFTING A TRASH CONTAINER OR THE LIKE FOR TILTING MOVEMENT

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This invention relates to means for supporting and lifting a trash container or the like for tilting movement.

One of the objects of this invention is to provide a device in which a trash container or the like may be positioned so that it may be lifted and tilted to permit it to be emptied or cleaned.

Another object of this invention is to provide a device which can accommodate bulky and heavy trash containers and which serves to lift the container so that it may be tilted to a side or partially inverted position for emptying or cleaning.

This invention has particular application for trash containers which are relatively large and which are cumbersome to handle and which can be filled with a large amount of trash, refuse and the like. In the use of trash containers of this type, the emptying and cleaning of same becomes a problem for they cannot manually be tilted to a sidewise or inverted position, thus, in order to empty such a container the trash or refuse must be lifted out from the container and this is time consuming and laborious. Or, if it is desired to tilt the container several persons must be employed to simultaneously perform this function. This is eliminated with the present invention since the device herein described and claimed can be wheeled or moved into a proper relationship with the container and by a manual manipulation of a lever the container is lifted to elevate it from the ground so that it may be tilted on its side or partially inverted so that the contents from the container is bodily dumped out or discharged in a minimum of time and with minimum effort. This effects a great economy.

Another object of this invention is to provide a device which includes a framework having an open side or end to permit the container to be moved or wheeled into the framework in proper position for lifting and tilting of the container.

Another object of this invention is to provide a device which may be operated by a single individual.

Other objects will become apparent as this description progresses.

In the drawings:

FIGURE 1 is a perspective view showing the trash container moved into position to be supported and lifted by this invention.

FIGURE 2 is a perspective view showing the trash container in lifted position.

FIGURE 3 is a perspective view with the trash container in a tilted position.

FIGURE 4 is a view taken on lines 4—4 of FIGURE 5, and

FIGURE 5 is a view of the parts which perform the lifting action. The dotted lines show the position of the parts when in lifting position.

The base or supporting frame of the device which forms this invention is generally indicated by the numeral **10** and comprises a pair of spaced side members **12** connected as by welding to a front transverse bar **14**. This forms a framework with sides and a front but open at the rear, as indicated at **15**. This framework will permit the trash container, subsequently described, to be wheeled or moved into the framework through the open side. The side members **12** are formed preferably of angle irons and are each shaped to form a horizontal bottom member **16** and

a spaced horizontal top member **18** connected by inclined front and rear members **20** and **22**.

Connected to each of the side members **12** between the top **18** and bottom **16** is a vertically extending plate **24**. Secured to the inside of the plate is a vertically extending tubular member or sleeve **26** which is adapted to receive a lifting post, generally indicated at **28**. The lifting post is also a tubular member and is slotted as at **30** at its lower end to engage with the rear end of the operating lever, presently to be described. The upper end of the lifting post **28** has fixed to it a cradle **32** in which the trunnions of the container are supported. The lifting posts **28** are operated to slide vertically upward or downward, dependent upon the operating lever.

The operating lever, generally indicated at **34**, is formed of a flat bar material and is of a generally U-shaped configuration and comprises spaced side members **36** joined by a front cross-member **38**. The vertical plate **24** has a forward extension **27** and the side members **36** of the lever **34** are pivotally connected as at **40** to the extension **27** so that the operating lever **34** is fulcrumed at the pivotal connection **40**. The inner ends of the side members **36** of the operating lever **34** extend rearwardly of the fulcrum point **40** and the tops thereof are recessed as at **41** and **42**, with a curved portion **43** therebetween.

The inner end of the side member **36** of the operating lever **34** is received in the slotted lower end **30** of the lifting post **28**, with the lower edge of the lifting post resting or riding on the curved portion **43**.

A coil spring **44** is connected as at **46** to the side **36** of the operating lever, with the opposite end of the spring connected as at **47** to the top **18** of the side **12** of the frame. The two coil springs **44** normally maintain the operating lever **34** in the elevated position shown in FIGS. 1 and 3. In such elevated position the lifting posts **28** are in their lower or retracted position. When the operating lever **34** is pivoted so that its front end is moved downwardly, as in FIG. 2, it will raise or elevate the lifting posts **28**. The front cross-member **38** of the operating lever **34** has fixed to it a foot treadle **48** which is engaged by the foot of a person, to operate the operating lever **34**. The treadle **48** also extends forwardly of the front cross-member **38** and is adapted to engage the front cross-bar **14** of the base frame to limit the downward pivoting movement of the operating lever **34**. The notched end **41** of the sides **36** of the operating lever **34** also engages the lower edge of the tubular lifting post **28** when the inner or rear ends of the sides of the operating lever are elevated to their uppermost position (dotted lines, FIG. 4), such as when the operating lever **34** is depressed, as shown in FIG. 2. The vertical plates **24** are each provided with a stop member **50** which is engaged by the inner ends of the side members **36** of the operating lever **34** to limit the upward pivotal movement of the operating lever, as shown in full lines in FIG. 4.

The base or supporting frame **10** is provided with casters at the opposite front and rear ends. The rear casters **52** may be rigid while the front casters **54** should swivel so that the supporting frame may be pushed in any desired direction on the ground or the like. A rigid U-shaped bar **56** is connected to the side members **12** of the supporting frame and the front of said bar extends across the front of the unit to be manually engaged by a person to push the device to the desired location.

The trash container is generally indicated at **60**. It is preferably of rectangular shape in plan and is supported on wheels **62**, some of which are swivelable. The sides of the dump container are provided with handles **64**. Extending outwardly of the sides of the dump container are trunnions **66** which are adapted to be engaged by the cradle members **32** of the lifting posts **28**.

The operation of my invention will be understood

from the foregoing, but briefly described, the trash container **60**, which is movable on its own wheels **62**, is placed or moved to any desired position where it is filled with trash or the like. When it is desired to empty the trash container the device forming this invention is wheeled or pushed to a position in relation to the trash container so that the trash container can be pushed into the framework of the device through the open rear end **15** of the framework, so that the sides of the trash container with the trunnions **66** thereof are in alinement with the cradles **32** of this device.

In the elevated position of the operating lever **34**, as shown in FIGS. 1 and 2, the trunnions **66** will not be engaged by the cradles and the trash container will rest on its own wheels **62**. However, by depressing the operating lever **34** (FIG. 2), it pivots to elevate the lifting posts **28**, as shown in dotted lines in FIG. 4, and when elevated the cradles **32** of the lifting posts **28** engage the trunnions **66** on the trash container to elevate the trash container from the ground or floor on which it rests. When thus elevated the wheels **62** of the trash container will be raised off the floor or ground and the trash container can be manually tilted on its trunnions **66** to a side position or a partially inverted position, such as shown in FIG. 3, for the purpose of emptying the trash from the container or for cleaning and washing the container.

When in its tilted or inverted position (FIG. 3), with the foot of the operator off the operating lever **34**, the weight of the trash container will cause the lifting posts **28** to move to their lowered or retracted position and the operating lever to assume the position shown in FIG. 3. After the container has been emptied or cleaned, the operating lever **34** is manually depressed, as in FIG. 2, to raise the lifting posts **28** to elevate the trash container so that it may be manually pushed back to its upright position, as in FIG. 1. The springs **44** will normally pivot the operating lever **34** to its elevated position (FIG. 1) to maintain the lifting posts **28** in their lowered position, and only when the operating lever is depressed at the front are the lifting posts elevated.

It will be understood that various changes and modifications may be made from the foregoing without departing from the spirit and scope of the appended claims.

What is claimed is:

1. A device of the character described for supporting a container for tilting movement, a supporting member, lifting members carried by said supporting member, said lifting members being vertically slidable, a manually operable lever operated by foot pressure for operating said lifting members, a container having trunnions supported

on said lifting members, said lifting members when elevated adapted to support the container elevated from a floor support to permit said container to be tilted wih respect to said supporting member.

2. A structure defined in claim **1** in which the means for operating the lifting members comprises a generally U-shaped operating lever in which the sides of said lever are in engagement with the lifting members and in which the operating lever is pivotally supported on the supporting member.

3. A structure defined in claim **1** in which the supporting member comprises a frame-like structure which has an opening and in which the container has wheels whereby it can be wheeled into the supporting member through the opening.

4. A structure defined in claim **3** in which the manually operated lever is spring biased to normally maintain the lifting members in their retracted position.

5. A structure defined in claim **1** in which the lifting members are slotted and in which the means for operating the lifting members comprises a lever which is pivotally mounted on the supporting member and in which the end of the lever engages the slotted lifting members.

6. A structure defined in claim **5** in which the lever is of a generally U-shaped configuration and is adapted to be operated by foot pressure.

7. A stand for supporting a container for tilting movement comprising, a supporting member, a container having trunnions on its opposite sides, said supporting member having a pair of spaced lift members engageable by said trunnions, a U-shaped operating member pivotally supported on said supporting member and engageable with said lift members so that the pivotal movement of the U-shaped operating member raises and lowers the lift members to impart a corresponding movement to said container, said U-shaped operating member operated by foot pressure for raising the lift members, said container when lifted capable of being tilted as it clears the floor surface.

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