Aug. 30, 1932. E. McGIVERN 1,875,174

CONCRETE BUCKET

Filed Sept. 17, 1930

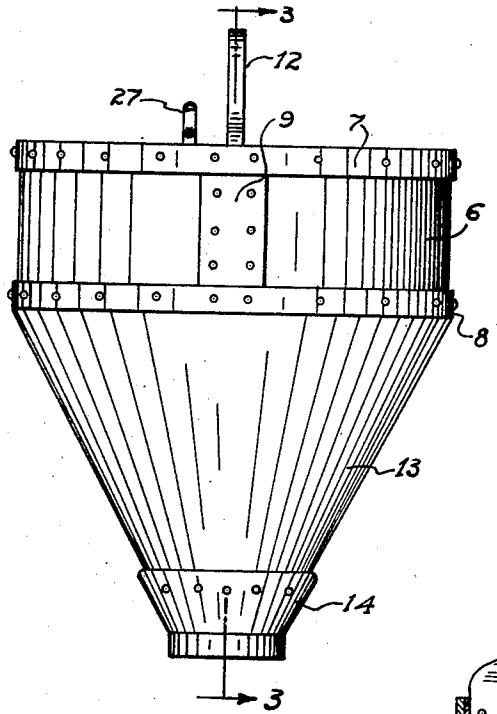


Fig. 1

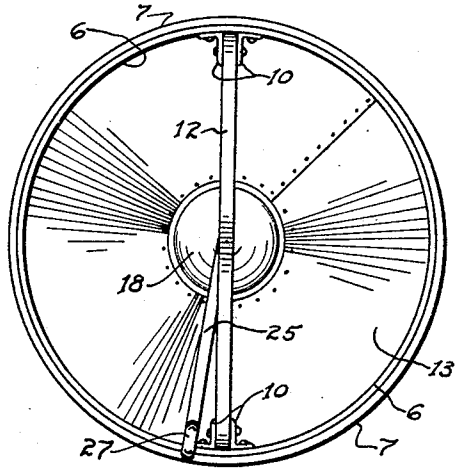


Fig. 2

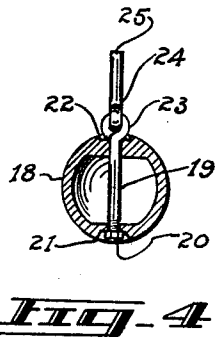


Fig. 4

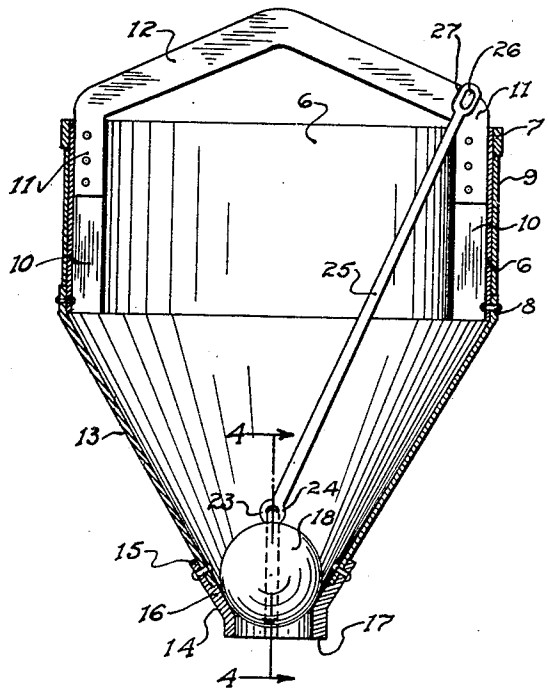


Fig. 3

INVENTOR

Edward McGivern

his Attorney

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UNITED STATES PATENT OFFICE

EDWARD McGIVERN, OF RAPID FALLS, LIVERPOOL, NOVA SCOTIA, CANADA

CONCRETE BUCKET

Application filed September 17, 1930. Serial No. 482,583.

This present invention relates to certain new and useful improvements in a concrete bucket.

The primary object of the invention resides in the provision of a concrete bucket of improved construction and increased efficiency.

The invention has for another object the provision of a concrete bucket of the character stated from which the concrete may be readily discharged as desired.

A further object of the invention resides in the provision of a concrete bucket of the character stated having a restricted discharge bottom and a normally seated closure valve operating therein to effectively control discharge of the contents of the bucket, as desired.

The invention has for a still further object the provision of a concrete bucket of the character stated from which the concrete cannot be accidentally discharged.

The invention has for a still further object the provision of a concrete bucket of the character stated from which the contents thereof may be discharged as desired either in part or in full.

The invention has for a still further object the provision of a concrete bucket of the character stated which is of compact and substantial construction as well as inexpensive.

The invention has for a still further object the provision of a concrete bucket of the character stated which may be readily positioned as desired and part or all of the contents thereof discharged from the contracted bottom thereof automatically and under full control of the operator, without danger of the bucket tilting or accidentally discharging its contents.

The invention has for a still further object the provision of a concrete bucket of the character stated which may be readily manufactured at small cost and sold at a popular price with good profit, thus providing a commercially attractive proposition.

To the accomplishment of these and related objects as shall become apparent as the description proceeds, my invention resides in the construction, combination and arrangement of parts as shall be hereinafter more fully described, illustrated in the accompanying drawing and pointed out in the claim hereunto appended.

The invention will be best understood and can be more clearly described, when reference is had to the drawing, forming a part of this disclosure, wherein like characters indicate like parts throughout the several views.

In the drawing:—

Figure 1 is a side elevation of the improved concrete bucket;

Figure 2 is a top plan view thereof;

Figure 3 is a vertical transverse section thereof, taken substantially on the plane of line 3—3 of Figure 1, looking in the direction indicated by the arrows; and

Figure 4 is a detail section, taken substantially on the plane of line 4—4 of Figure 3, looking in the direction indicated by the arrows.

Referring more in detail to the drawing, it is to be noted that the main or upper part 6 of the bucket is of circular form and reinforced by an upper annular band 7 and a lower annular band 8 riveted on the outer face thereof. A pair of outer reinforcing plates 9 are also riveted onto the outer face of the part 6 at diametrically opposite points between the upper band 7 and the lower band 8. The rivets employed for securing each of the plates 9 in position also extend through one angle of a pair of upstanding angle irons 10 positioned on the inner face of the part 6 at diametrically opposite points and directly opposite the plates 9. The angle irons 10 have secured in the parallel angles of each pair thereof, the downturned ends 11 of a inverted V shaped transverse handle 12 for the bucket, thus firmly holding the handle 12 in place.

The lower band 8 constitutes the turned upper edge of the inverted frusto-conical lower section 13 of the bucket. An upwardly flared circular valve seat forming ring 14 has an annular upstanding flared flange 15 at its upper edge secured on the outer face of the bucket lower section 13. The inner face of the ring 14 is flush with the inner face of the bucket lower section 13 through rest-

ing at the edge of the bucket lower section 13 on the shoulder 16 provided at the connection of the flange 15 with said ring 14. The lower edges 17 of the ring 14 is directed downwardly to form a discharge mouth or spout for the concrete bucket.

A ball valve 18 (preferably a hollow metal ball) is normally seated on the main portion of the ring 14 constituting or serving as a valve seat to close the bottom of the bucket and prevent discharge of the contents thereof. This ball valve 18 is normally maintained in seated or closed position by gravity. A pin 19 extends through the ball valve 18 with an anchoring nut 20 threaded on one end and seated in the recess or countersunk pocket 21 provided for this purpose in the outer face of the ball valve 18. A similar recess or countersunk pocket 22 is also provided in the outer face of the diametrically opposite portion of the ball valve 18 to receive a portion of the eye 23 provided on the remaining extremity of the pin 19. The ring 24 provided at the lower end of the ball valve lifting rod 25 is engaged loosely through the eye 23 of the pin 19. This rod 25 extends upwardly in the bucket and has a longitudinally elongated slot 26 in its widened and flattened upper end 27, whereby appropriate rod operating means, such as a cable, not shown, may be readily and firmly connected with the rod 25 for operating the same and thus raising or lifting the ball valve 18 off of the valve ring 14 to permit a discharge of a portion or all of the contents of the bucket, as desired.

As the construction of the device has thus been described in detail, brief reference is now had to its use and modus operandi: This bucket may be handled on a cable, a derrick or in any other preferred or well known manner and suspended during transportation by its handle 12. When the bucket is brought to proper position for discharging of a portion or all of the contents thereof, it is only necessary to draw upwardly on the rod 25, thus raising the ball valve 18 from its seated or closed position and maintaining the ball valve 18 in set position until the desired amount of the contents of the bucket has been discharged through the discharge spout 17. When the upward strain on the rod 25 is relieved, the valve 18 will be automatically returned to its seated or closed position on the valve ring 14 by gravity, due to the weight of the ball valve 18. Any material remaining in the bucket will also assist in returning the ball valve 18 to its closed or seated position by pressing downwardly thereon.

From the foregoing description taken in connection with the accompanying drawing, it will be manifest that a concrete bucket is provided that will fulfill all the necessary requirements of such a device but as many changes could be made in the above description, and many apparently widely different embodiments of my invention may be constructed within the scope of the appended claim without departing from the spirit or scope thereof, it is intended that all matters contained in the said accompanying specification and drawing shall be interpreted as illustrative and not in a limited sense.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

A concrete bucket including a body having an upper circular portion and a lower tapering portion depending therefrom; a funnel-shaped valve member with a flared upper edge secured on the lower end of said lower section and having a shoulder receiving said lower end of the lower section of the bucket body; a ball valve within said bucket body and normally resting in said valve member; a lifting rod pivotally connected with said ball valve and extending upwardly in said bucket body; a handle extended across and rising from the upper section of said body; and means to firmly secure the ends of said handle in said upper section of the bucket body.

In testimony whereof I hereunto affix my signature.

EDWARD McGIVERN.