

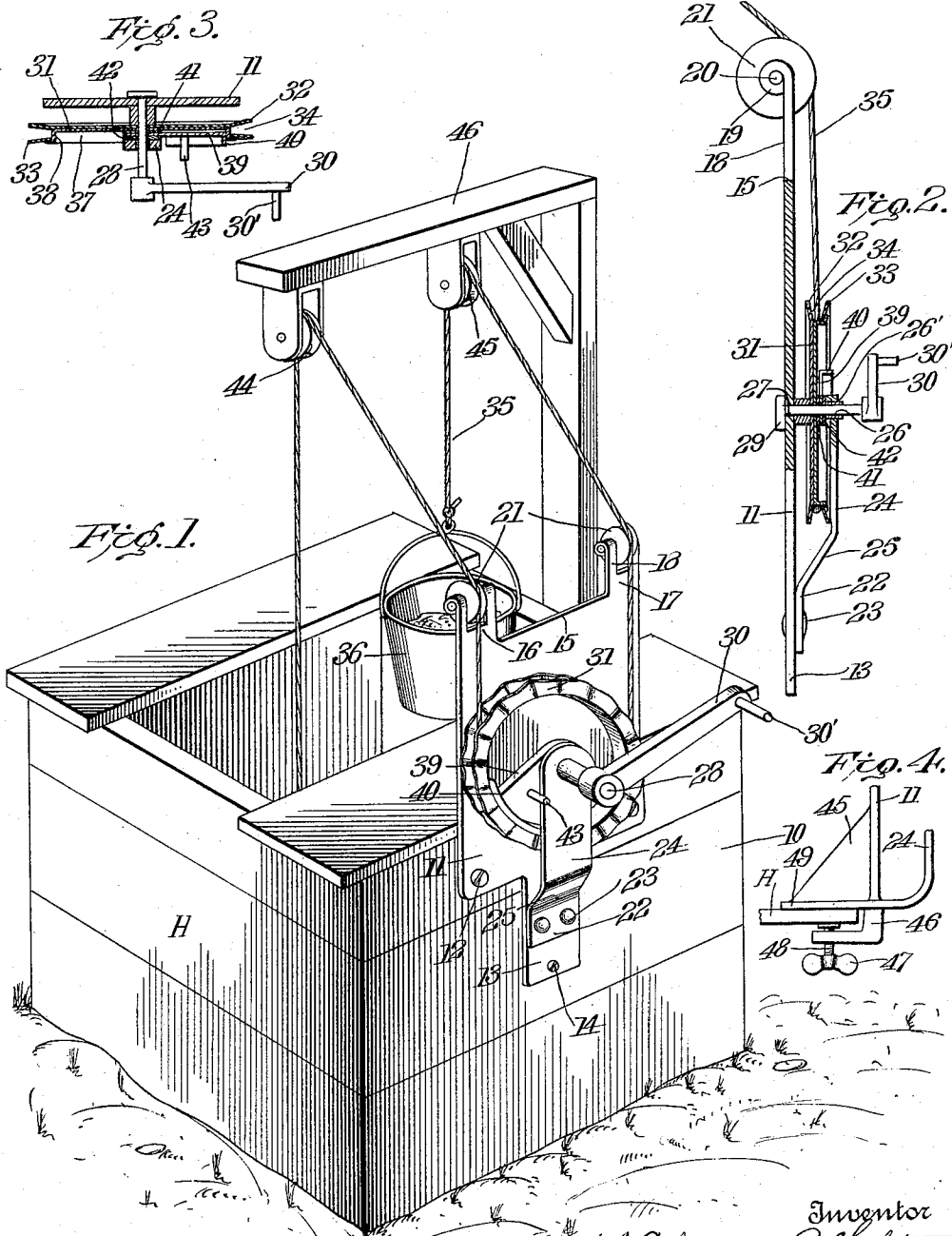
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WINDLASS.

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UNITED STATES PATENT OFFICE.

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WINDLASS.

1,170,003.

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To all whom it may concern:

Be it known that we, WILLIAM JOHN SCHRODER and ROBERT LEWIS GILSTRAP, citizens of the United States of America, and residents of Walhalla, Oconee county, State of South Carolina, have invented certain new and useful Improvements in Windlasses, of which the following is a specification.

Our invention relates to a windlass and more particularly to a portable windlass attachment which may be detachably secured to the vertical or horizontal wall of a well housing or on a similar support for the purpose of hoisting well buckets or for other purposes.

The principal object of our invention is to construct a simple device for the purpose set forth which may be quickly secured to and detached from its support and readily transported from place to place.

Another object is to provide a simple construction whereby the hoisting wheel and handle therefor are prevented from reversing when the handle is released.

Other objects and the novel features of the invention will be apparent from the following description, taken in connection with the drawings, in which—

Figure 1 is a perspective view of the device secured in place on a well housing; Fig. 2 is a vertical sectional view of the attachment taken along the line 2—2 of Fig. 3; Fig. 3 is a transverse section taken along the line 3—3 of Fig. 2; and Fig. 4 is a detail view showing how the device may be attached to a horizontal support.

Referring to the drawing, 10 designates the vertical side wall of a well housing or top H of any ordinary or preferred construction which housing surrounds the mouth of the well. It will be understood that the vertical wall 10 is merely illustrative as a support for the device as it is to be understood that the windlass attachment may be mounted in position on any similar support.

The attachment comprises a substantially flat sheet or cast metal plate 11 which has openings at its lower end on opposite sides to receive the screws 12 and a downwardly projecting end 13 to receive the screw 14, whereby the attachment may be secured in place on the wall 10. The attachment has a part which is adapted to project above the upper edge of the wall 10 and is cut away intermediate the sides as at 15, and

on opposite sides of the cut away portion 15 are upwardly extending bifurcated parts 16 and 17. The members 18 of the bifurcated parts are bent around at their ends or cast in such a manner, as at 19, to provide journals for the pins 20, which carry the guide pulleys 21 between the members comprising the bifurcated portions 16 and 17, said guide pulleys being disposed normally to the plate. 65

On its outer side the attachment is provided with a bracket which may consist of a sheet metal member or a casting having its lower end 22 fitting flat against and secured to the projecting part 13 of the plate 11 by means of the rivets 23, or suitable bolts. The bracket also comprises a portion 24 connected to the end 22 by the bend 25. The portion 24 extends upwardly parallel to the body of the plate 11 and is spaced therefrom, being provided with an aperture 26 near its upper end. The aperture 26 is aligned with a bearing bushing 26'. The body of the plate 11 is provided with an aperture 27 opposite the aperture 26 in the bracket and a shaft 28 is rotatably mounted in the apertures 26 and 27 being provided with a head 29 at its inner end to retain it in position. At the outer end the shaft has a crank handle 30 provided with a grip 30' secured thereto, whereby the shaft may be rotated. 85

A wheel 31 is mounted to turn with the shaft 28 and is located between the plate 11 and the portion 24 of the bracket. The wheel 31 comprises two corrugated portions 32 and 33 which are secured together and bent apart to form a groove 34 to receive the rope or chain 35 to which the buckets 36 are attached. Within its edge the wheel 31 is provided with a depressed portion 37, the peripheral wall 38 of which forms a friction brake surface for the safety attachment to be described. The wheel 31 may be cast as shown. 100

The safety device comprises a segment 39 which is provided with an aperture at its inner end whereby it may be pivoted on the shaft 28 and at its outer margin it has a right angled curved flange 40, the outer surface of which is adapted to frictionally engage the wall 38 when the segment 39 is swung to the position shown in Figs. 1, 2 and 3. To hold the segment in position, two washers 41 and 42 are provided which are fitted around the shaft on either side of the segment to space it from the bracket and 105 110

from the wheel. The segment is provided with a pin 43 by means of which it may be swung from side to side. The peripheral wall 40 of the segment in either of the positions of the latter engages the lateral edges of the part 24 of the bracket and limits the movement of the segment and also frictionally holds the wheel in whatever position it is in. This has the advantage that should the operator let go of the handle 30', the wheel and its connections will be immediately held stationary by the safety device so that the operator or any one close to the device will not be injured by the sudden reversal of the wheel.

A bucket is attached at each end of the rope 35. The rope 35 passes through guide pulleys 44 and 45 mounted on a standard 46 secured to the well housing. From the guide pulley 44, the rope leads over the guide pulley 21 at the upper end of the supporting plate 11, passing around the wheel 31 and over the guide pulleys 21 and 45.

When the right hand bucket or container is below and filled, the free end of the brake or safety device 39 is thrown to the left as shown in Fig. 1. The operator seizes the crank handle and turns it to the right to raise the bucket and when the latter reaches the top of the housing as shown in Fig. 1, the handle may be released whereupon the brake device will hold the bucket stationary. Should the operator suddenly let go of the crank handle while raising the bucket, the wheel reversing slightly will engage the brake device with the surface 38 and prevent further descent of the ascending bucket or container. In order to raise the left hand bucket or container, the outer end of the segment 39 is thrown over to the right side of the shaft 28 and the crank handle is turned to the left. The operation of the safety device will be the same in this position as above indicated. The arrangement of the pulleys to direct the course of the rope 35 from the windlass wheel directly above the well opening is also an important feature of our device.

For the purpose of securing the attachment to a horizontal support, the main frame of the device may be provided with spaced lateral parts 46 and 49, as shown in Fig. 4, to receive the support H therebetween. A brace 45 is located between the plate 15 and part 49 and the part 46 has a wing bolt 47 thereon, the shank 48 of which may be screwed into engagement with the support H.

It will be understood that the parts may be made of sheet metal or of cast iron or other suitable materials may be used in their construction.

While we have shown the construction of

the attachment in detail, we wish it to be understood that our invention is not limited to the exact details as shown and described, as they may be varied without departing from the spirit of the invention.

Having thus described our invention, what we claim is:

1. A portable windlass attachment adapted to be mounted on the vertical side wall of a well housing or on a similar support, said attachment comprising a substantially flat sheet metal plate having a part adapted to fit against said wall of the well housing, a bracket member having one end secured to said plate and having a portion spaced from said plate, a shaft journaled on the plate and bracket, a narrow wheel on said shaft and located in the space between the plate and bracket, said wheel having a rope receiving groove in its periphery, designed to receive only one strand of rope, and means for rotating said wheel, and a safety stop on said shaft capable of engaging said wheel.

2. A portable windlass attachment suitable for hoisting purposes comprising a plate provided with means whereby the attachment may be secured to the side wall of a well-curb or similar support, a supporting bracket secured to the outer side of said plate, a shaft journaled in said bracket and plate, a wheel carried by said shaft and disposed between a part of the bracket and said plate, means for rotating said shaft, and means pivoted on said shaft and swingable into engagement with said wheel to limit the rotation of the wheel.

3. A portable windlass attachment adapted to be mounted on the vertical side wall of a well housing or on a similar support, said attachment comprising a substantially flat sheet metal plate having a part adapted to fit against and to be secured to said wall of the well housing and a part adapted to project above the upper edge of said wall, journals in said projecting part, guiding pulleys mounted in said journals, a bracket having one end secured to said plate and having a portion disposed parallel to and spaced apart from the plate, a shaft rotatably mounted in said bracket and said plate, a wheel carried by said shaft, a device pivoted on the shaft and having a part which is adapted to engage the wheel and lock it against reversal, and means for rotating said shaft.

In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM JOHN SCHRODER.
ROBERT LEWIS GILSTRAP.

Witnesses.

JOHN F. CRAIG,
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