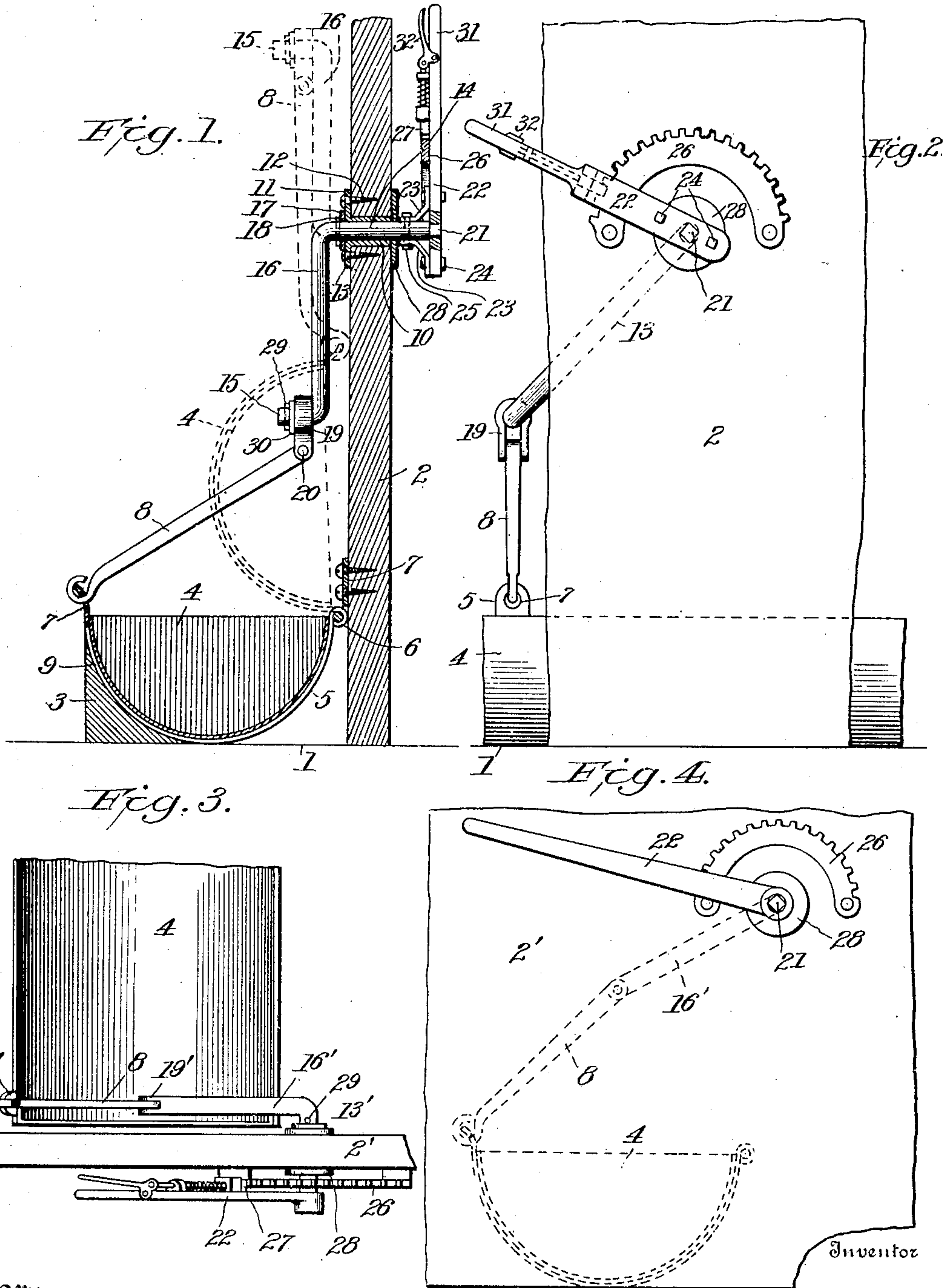


No. 869,441.

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C. W. LEONARD.
FEED TROUGH.

APPLICATION FILED MAY 21, 1907.



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FEED-TROUGH.

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To all whom it may concern:

Be it known that I, CAMERON W. LEONARD, a citizen of the United States, residing at Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Feed-Troughs, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to improvements in feed troughs, and has for its object the provision of means for facilitating the dumping of the trough.

Another object of the invention is the improvement of a feed trough, which is provided with peculiarly-constructed means for dumping the same and retaining it in a dumped position.

With these and other objects in view, the invention consists of certain novel constructions, combinations, and arrangements of parts, as will be hereinafter fully described and claimed.

In the drawings: Figure 1 is a vertical, transverse, sectional view of a device constructed in accordance with the present invention. Fig. 2 is a fragmentary rear view, in elevation, of the device depicted in Fig. 1. Fig. 3 is a top plan view of the lifting and dumping means for the trough, positioned at the end thereof. Fig. 4 is a view in side elevation of a lever and the wall or support shown in Fig. 3.

Referring to the drawings, 1 designates any suitable support, as for instance, a floor, to which is secured a standard or wall 2, and a beam 3.

Extending parallel with the support or wall 2, and engaging beam 3, is a trough or receptacle 4. The trough 4 is provided with a band 5, having at one end, a loop 6, which loop 6 is connected to plate 7, upon which plate trough 4 is hinged. Therefore, it will be obvious that the loop or eye 6 and plate 7 constitute a hinge for the trough. At the opposite end of the band 5, there is formed an aperture 7, constituting an eye upon the outer end of said band, and within the apertured portion 7 or eye of the band 5, there is pivotally mounted a link 8. The beam 3 is concaved upon its inner face to conform to the outer contour of the bottom or base of trough 4, and said beam 3 is provided with a transverse groove, as at 9, upon its concaved face, for receiving band 5, when the trough is resting upon the beam 3.

I have provided a lever device, hereinafter described, connected to link 8, for pivoting the trough 4 upon plate 7. The support or wall 2 is provided above the plate 7 with an aperture, in which is positioned collar 10, which is provided, preferably, with an annular flange 11, and through the annular flange 11 extends suitable fastening means, as for instance, screws 12. The collar 10 constitutes a journal, on which is revolutely mounted an arm 13. The arm 13 is provided with a primary shaft 14, and with an auxiliary stub-shaft 15. The shafts 14 and 15 are connected, by means of a ver-

tical portion 16, and the shaft 14 is journaled in the collar 10. A washer 17 is carried by shaft 14, contiguous to the flange 11, and a pin 18 extends through shaft 14 and normally retains the washer 17 against the flange 11 of the collar or journal 10. A substantially U-shaped member or connection 19 is pivotally mounted upon the stub-shaft 15, and is connected, by a pin 20, to the upper end of link 8, which link is positioned between the sides of said member 19, see Fig. 2.

The primary shaft 14 has its end 21 squared, and keyed upon this squared end, is lever 22. The lever 22 is provided with angular braces 23, the outer ends of which braces are connected by suitable fastening means, as for instance, rivets or bolts 24, to the lever, upon opposite sides of the shaft 14, and the inner ends of said braces 23 are connected by any suitable fastening means, as for instance, bolt or rivet 25, to the shaft 14. By reason of this peculiar structure, the lever is rigidly and permanently attached to the shaft 14, and, consequently, to arm 13. Secured to the support or wall, upon the rear face thereof, is a rack 26, which is engaged by a manually-actuated spring-pressed bolt 27. Positioned upon shaft 14, between the support or wall 2 and the inner ends of braces 23, is a washer 28, and positioned upon the auxiliary or stub-shaft 15, between pin 29 and the substantially U-shaped member 19, is a washer 30.

In Figs. 3 and 4, substantially the same structure as shown in Figs. 1 and 2, is disclosed, except that the support or wall 2' is parallel with the end of the trough, instead of extending longitudinally of the trough, as in Figs. 1 and 2. When the lever device is secured to a support at the end of the trough, it will be necessary to form a stud or eye 7' near the end of the trough and connect link 8 thereto, the same as in Figs. 1 and 2. However, the upper end of the link will be pivotally mounted within a bifurcated portion 19' formed upon the lower end of the vertical portion 16' of arm 13'.

It is to be noted that when it is desired to swing the trough to a dumped position, this can be easily accomplished by the operator grasping the handle 31, releasing the bolt 27 from the rack by gripping handle 32 of said bolt, and thence swinging the arm 16, through the medium of said lever, upon its journal, causing the stub-shaft 15 to be turned upward, and thereby pivoting the trough upon plate 6, through the medium of link 8, to the dumped position shown in dotted lines Fig. 1. Upon the trough being moved to its dumped position, the operator can release spring-pressed bolt 27 and the trough will be retained in a dumped position.

What I claim is:

1. In a device of the character described, the combination with a support, of a trough hinged to said support, an arm carried by said support, a portion of said arm journaled in and extending through said support, means connecting one end of said arm upon one side of said sup-

port to said trough, and lever means connected to said arm upon the opposite side of said support.

2. In a device of the character described, the combination with a support, of a plate secured to said support, a band pivotally connected at one end to said plate, a trough positioned above and secured to said band, the outer end of said band provided with an eye, and means connected to the eye of said band and being capable of swinging said band and trough upon said plate.

3. In a device of the character described, the combination with a support, of an arm provided with a vertical portion and with horizontal shafts extending in opposite directions at its ends, one of said shafts journaled upon and extending through said support, lever means connected to said last-mentioned shaft, a trough movably mounted upon said support, and means connecting the other shaft to said trough, whereby when said arm is

swung through the medium of said lever means upon said support, said trough will be moved upon said support.

4. In a device of the character described, the combination with a support, of a trough movably mounted upon said support, an arm provided with a vertical portion and oppositely-extending horizontal portions, one of said horizontal portions journaled upon said support, lever means connected to said last-mentioned, horizontal portion, and means pivotally connecting the other horizontal portion to said trough.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

CAMERON W. LEONARD.

Witnesses:

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