June 22, 1937. G. O. SMITH 2,084,711

APPARATUS FOR SACKING MATERIALS

Filed Oct. 31, 1936 2 Sheets-Sheet 1

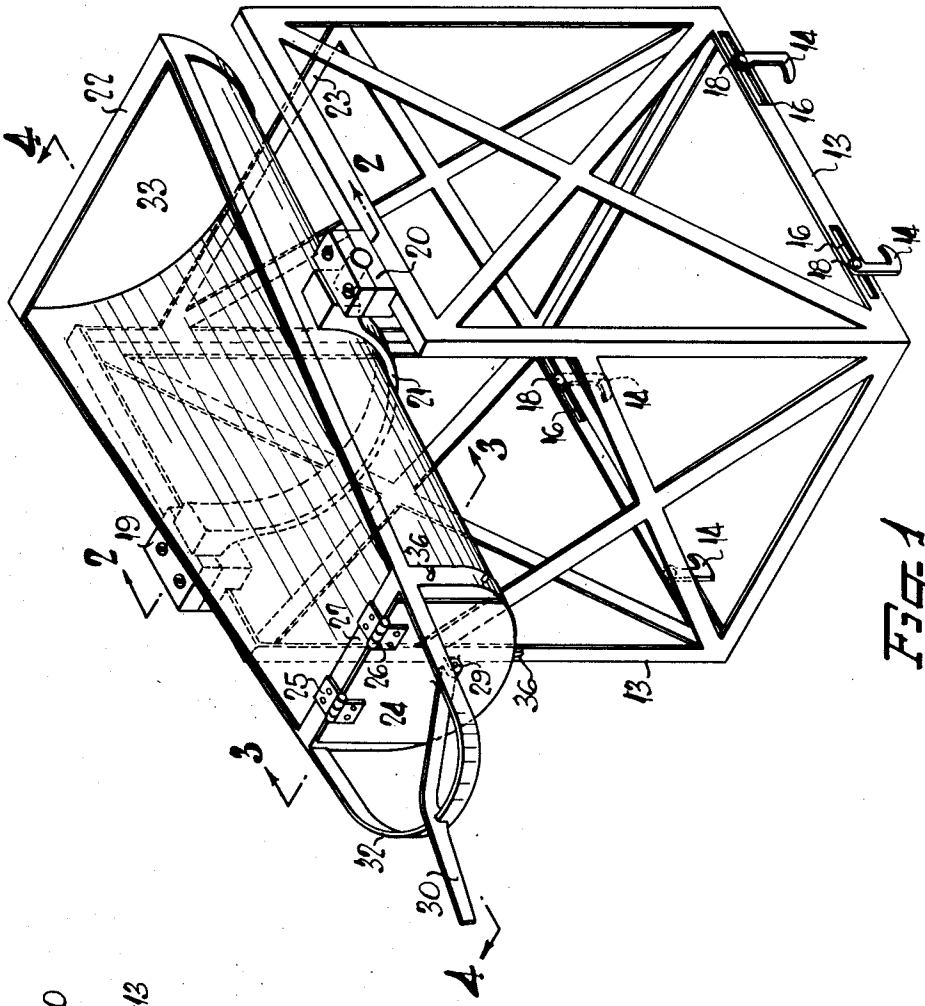


Fig. 1

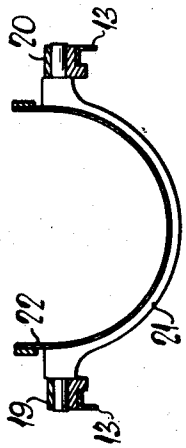


Fig. 2

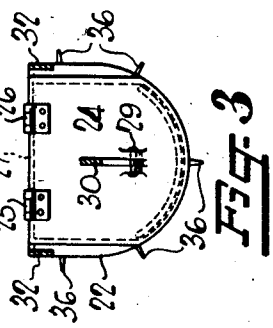


Fig. 3

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APPARATUS FOR SACKING MATERIALS

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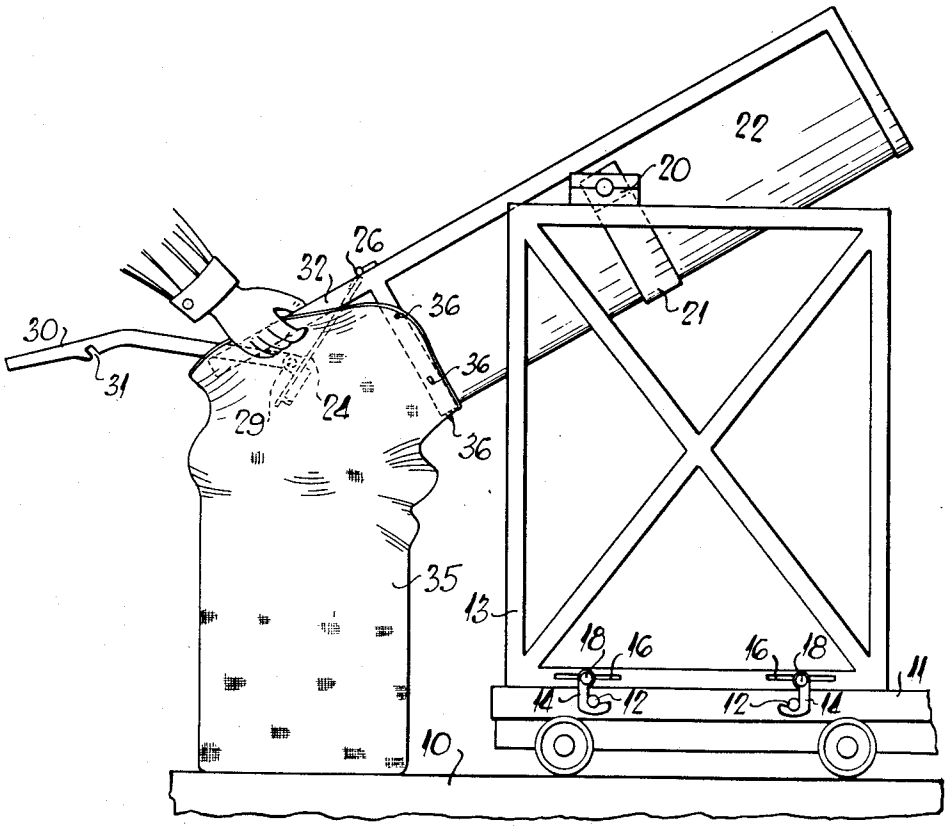


Fig. 5

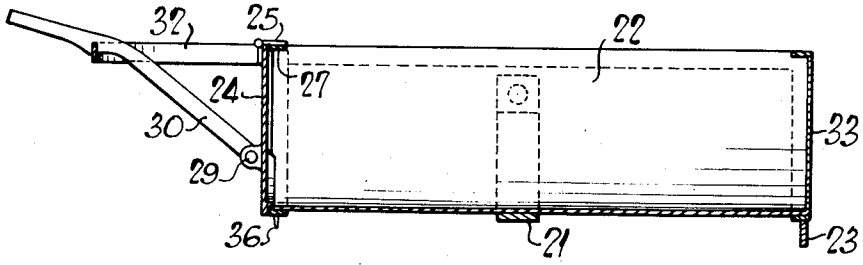


Fig. 4

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UNITED STATES PATENT OFFICE

2,084,711

APPARATUS FOR SACKING MATERIALS

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Application October 31, 1936, Serial No. 108,638

4 Claims. (Cl. 226—58)

This invention relates to an apparatus for sacking coal, coke, or in fact any type of material which is desired to be placed within a bag or poke, and more especially to an apparatus which is capable of being operated by one man. It frequently occurs that it becomes the duty of one person to sack coke, coal or the like, so that each bag will contain a predetermined amount. In order for one person to easily accomplish this result, I have provided a device whereby the amount may be measured and easily placed in the sack by one person without having any assistance.

It is therefore, an object of this invention to provide an apparatus for sacking materials comprising a framework with a container tiltably mounted in said framework, one end of said container having an opening therein which is normally closed, and over which opening the mouth of a bag or sack is adapted to be placed to receive the material when the container is tilted.

It is a further object of this invention to provide a container for sacking materials which is tiltably mounted intermediate its ends, said container having a door in one end which is normally closed and having its other end closed, said container having means for fastening the bag or sack over said opening so that one person may hold the sack thereon and tilt this end downwardly to cause the materials in said container to slide into said sack after said door has been opened.

Some of the objects of the invention having been stated, other objects will appear as the description proceeds when taken in connection with the accompanying drawings, in which:—

Figure 1 is an isometric view of the invention;

Figure 2 is a transverse sectional view taken along line 2—2 in Figure 1;

Figure 3 is a transverse sectional view taken along line 3—3 in Figure 1;

Figure 4 is a longitudinal sectional view taken along line 4—4 in Figure 1;

Figure 5 is an elevation of the invention shown in a tilted position, said apparatus being placed on the top of a suitable support such as a wheeled truck or scales.

Referring more specifically to the drawings, the numeral 10 denotes a suitable floor upon which is mounted weighing scales 11. These scales are of the ordinary type and having extending from the sides thereof studs 12 to which are anchored the framework 13 by any suitable means such as hooks 14. These hooks 14 are pivotally mounted in slots 16 by means of bolt 18. Slots 16 are provided in order that the hooks 14 may occupy different positions when necessary to adjust the framework to different types of scales or to differently spaced anchors.

Although I have shown my invention attached to a wheeled weighing platform, it is evident it may be directly attached to a fixed floor or platform, as the main purpose to be accomplished is to prevent tilting of the framework while being used for sacking bulk materials.

The upper portion of framework 13 has secured thereto bearings 19 and 20 which rotatably support the ends of yoke 21. This yoke tiltably supports an open topped container or trough 22 which is mounted on the yoke so that the greater weight of the container is disposed to the right of the yoke in Figure 5. This is necessary in order that the container will normally occupy a horizontal position and also so that the lower right-hand end portion thereof will rest against the transversely disposed bar 23 to cause the container to assume substantially a horizontal position. The left-hand end of the container as shown in Figures 1 and 5 is converged slightly and has a door 24 therein, which door is hinged as at 25 and 26 to cross bar 27. Pivotally secured to the door 24 as at 29, is a handle 30 which has a suitable notch 31 in the lower end thereof for engaging the container handle 32 to normally hold the door 24 in a closed position. It will be noted that the container has a closed end 33.

When it is desired to sack measured quantities of any material, it is only necessary for one person to place the material in the opened container 22 so that the greater weight will always normally be disposed to the right of yoke 21 in Figure 5, to prevent premature tilting. After the amount has been properly weighed or measured in the container and it is desired to transfer this material into a bag, it is only necessary for one person to place a suitable sack 35 in such a position that the mouth thereof will be disposed over the opening which is normally closed by door 24. In order to insure that the bag will remain over this opening when once placed in this position, suitable pointed studs 36 have been secured around the edge of the smaller end of the container and these studs penetrate or engage the edges of the sack and hold it in position. The operator then holds the other portion of the mouth of the sack with his hand and at the same time grasps the handles 32, tilting the container 22 in a counter-clockwise manner in Figures 1 and 5. Then the handle 30 is released from engagement with the handle 32 to allow the door 24 to open so that the contents in the container will slide into bag 35.

It is therefore, seen that I have provided a

simple open-topped container capable of being operated by one person which is tiltably mounted intermediate its ends, with a door normally closing one end over which the mouth of a bag may be placed to receive the contents of the container when it is tilted.

In the drawings and specification there has been set forth a preferred embodiment of the invention, and although specific terms are employed, they are used in a generic and descriptive sense only, and not for purposes of limitation, the scope of the invention being set forth in the appended claims.

I claim:

1. Apparatus for sacking coal and other bulk material comprising a framework, a trough pivotally mounted intermediate its ends in an off-center position for vertical swinging movement with relation to said framework, said trough having a closed end and an open end, a support for the closed end, a door pivotally secured near the top of the trough and closing the open end of the trough, a semi-circular handle member secured to the trough and extending away from each upper side the open end of the trough, a link pivotally secured to the lower portion of the door and having a notch therein for engaging the handle to hold the door in closed position, said open end of the trough having pins on its exterior for engaging the open end of a sack, and the other portions of the open end of the sack being adapted to be held in contact with said handle, so that when the handle is seized and the trough tilted on its pivot and said door is released, the contents of the trough will flow into said sack.

2. Apparatus for sacking coal and other bulk material comprising a framework, a trough having a closed end and an open end, a support for said closed end, means pivotally mounting the trough for swinging movement in a vertical plane in said framework at a point nearer the open end than the closed end whereby the trough will remain in horizontal position until manually tilted said open end having an arcuate-shaped handle projecting from the exterior of the trough near the open end for engaging portions of the mouth of a sack, a door closing the open end of said trough and being pivotally secured to the trough at its upper edge, a link pivoted to the lower portion of the door and having a notch for engaging said arcuate-shaped handle for holding the door in closed position and whereby the hand of an operator holding the other portions of the mouth of a sack against the arcuate handle may also release said link from engagement with said handle when the trough is tilted so that the contents of the trough will open said door in discharging into said bag.

3. Packaging apparatus comprising a framework, a support for said framework, means for detachably securing said framework to said support, a trough having a closed end and an open end, means in the framework for supporting said closed end, means pivotally supporting said trough in said framework at a point which is nearer to the open end than the closed end whereby the trough will rest on said pivot and said support and tend to remain in horizontal position until manually tilted, a door for said open end, an arc-shaped handle member extending from the upper portion of the open end, pins on the exterior of the trough near its open end whereby the hand of an operator may hold a bag against said handle member when it is fastened on said pins to hold the bag in open position for receiving the contents of said trough, and means mounted on said door and engaging said handle member for holding the door in closed position, said means being releasable by the hand of the operator while holding said bag in position and tilting said trough for dis-engaging said means mounted on the door from engagement with said handle member to allow the pressure of the contents of the trough when it is tilted to open said door and allow the contents of the trough to pour into said bag.

4. Coal sacking apparatus comprising a tiltable trough, a pivoted door closing one end of the trough, a semi-circular handle member projecting from the open end of said trough, pins on the exterior of the trough for receiving the open end of a bag while the other portion thereof is held against said handle member, and a link pivoted to said door and releasably engaging said handle member for normally holding said door in closed position and whereby upon the link being released from engagement with the handle member the contents of the tilted trough will open said door and allowing the contents of the trough to pour into said bag.

GEORGE O. SMITH.