June 30, 1936. R. M. WATERBURY 2,045,813

COMBINATION WEIGHER, SCREENER, AND SACKER

Filed Oct. 9, 1934

Fig. 1.

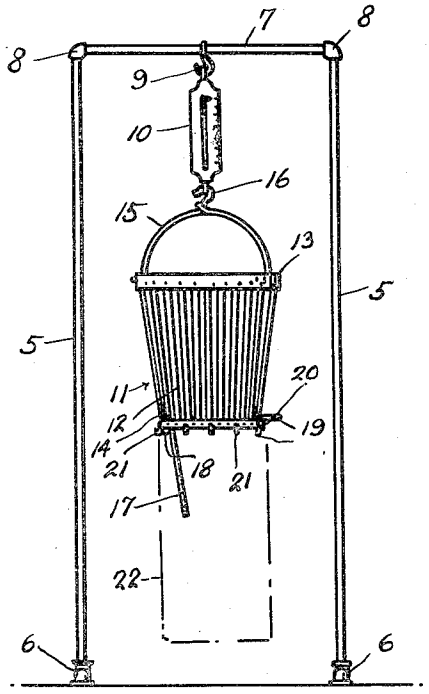


Fig. 2.

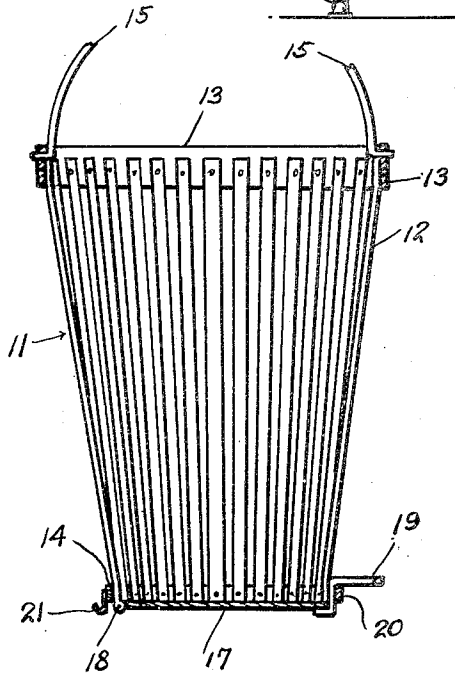
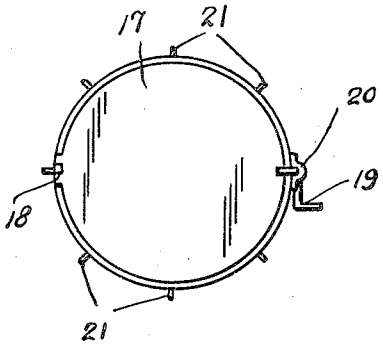


Fig. 3.



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COMBINATION WEIGHER, SCREENER, AND SACKER

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Application October 9, 1934, Serial No. 747,613

2 Claims. (Cl. 226—58)

This invention is a device for use in weighing, screening and sacking coal or the like in substantially one single operation.

Briefly, the invention consists in the provision of a support having a scale suspended therefrom, and a device suspended from the scale for receiving the coal to be sacked, for screening the coal, and also serving as a suspension means for the sack arranged to receive the coal after the weighing and screening of the coal.

An object of the invention is to provide a device of this character which can be economically constructed, and which will be strong, durable, efficient in operation, and otherwise well adapted for the purpose intended.

The invention, together with its objects and advantages, will be best understood from a study of the following description taken in connection with the accompanying drawing wherein:

Figure 1 is an elevational view illustrating the invention.

Figure 2 is a sectional view through the basket forming part of the invention.

Figure 3 is a bottom plan view of the basket.

Referring to the drawing by reference numerals, it will be seen that the device comprises a support consisting of a pair of standards or posts 5—5 equipped at their lower ends with supporting legs or bases 6. At the upper ends thereof the posts or standards 5 are connected by a cross bar 7. The members 5, 6, and 7 are preferably formed of piping and the ends of the standards 5 are connected with the ends of the member 7 through the medium of elbows 8.

The member 7 intermediate its ends is provided with a suspension hook 9 from which is suspended any suitable type of scales 10.

A basket 11 formed of metal or other suitable material has a peripheral wall composed of spaced slats 12 secured at their upper ends to an annular frame 13 and at their lower ends to an annular frame 14 of less diameter than the frame 13 so that the shape of the basket is substantially frustro-conical, being smallest at its bottom. For the basket 11 there is also provided a suitable bail 15 equipped with a hook 16 that is adapted to engage in the eye usually provided at the lower end of the scale 10 so that the basket 11 may be readily suspended from the scale in a manner to permit of a ready weighing of the contents of the basket.

The basket 11 is also provided with a bottom 17 hinged as at 18. A latch 19 is provided for releasably securing the bottom 17 of the basket closed. The latch 19 may be of any suitable construction and is herein illustrated as being formed of a rod bent to the desired angular form, an intermediate portion of the rod being journaled in a bearing 20 suitably secured to the frame 14, with one angular end of the rod adapted to engage the underside of the bottom 17 as shown in Figure 2, and the opposite end of the rod serving as a handle for the latch. Obviously by swinging the latch member in a horizontal plane, the first named end thereof may be swung into and out of engagement with the bottom 17.

The frame 14 of the basket is provided with a circular series of spaced hooks 21 with which the mouth of the sack 22 shown in dotted lines in Figure 1 may be engaged so that the sack may be suspended in open condition from the basket 11 as suggested in Figure 1.

In actual practice, the parts are arranged as suggested in Figure 1, with the bottom 7 in closed position. The coal is placed into the basket 11 and obviously as the basket 11 becomes filled, the coal dust or finer particles of coal will sift through the spaces or interstices between the slats 12 forming the side wall of the basket, so that said wall of the basket also serves as a screen or sifting means whereby the coal is sifted incidental to the weighing and sacking thereof. The weight of the contents of the basket 11 may be readily ascertained through the medium of the scale 10 in a manner thought apparent. After the coal has been weighed, the sack 22 has the mouth thereof disposed about the lower end of the basket 11 and suspended from the basket by the engagement of the sack with the hooks 21. The latch 19 is then swung to a position releasing the bottom 17 of the basket so that the latter under weight of the contents of the basket will swing downwardly to open position shown in Figure 1 thus permitting the coal to pass from the basket into the sack 22 completing the sacking operation.

It will be apparent from the above that the device thus serves adequately as a means for weighing, screening and sacking coal in substantially a single operation, and it is to be understood that, while coal has been herein specifically referred to, the device can be used for weighing, screening and sacking grain or other fine or granular material.

What is claimed is:

1. A basket for use with a scale and a sack for weighing, cleaning and sifting granular material, said basket comprising a peripheral wall consisting of circumferentially spaced slats, an annular frame secured to the upper ends of said slats, a

second annular frame of a diameter less than the diameter of the first annular frame secured to the lower ends of said slats, a bail secured at its respective opposite ends to the first named frame at diametrically opposite sides of the latter and provided with means for connection with a scale, for suspending the basket from the scale, a bottom member for the basket hinged to the lower frame, an angular latch rod pivotally mounted on the lower frame and having an end engageable with the bottom for releasably securing the latter in a closed position with respect to the basket and a second end serving as a handle for the latch member, and a series of circumferentially spaced hooks mounted on the lower frame for engagement with the mouth of a sack for detachably securing the sack to the lower end of the basket.

2. A basket comprising a peripheral wall, a bottom for the basket hinged to said wall, at one side of the basket, a bearing on the wall of the basket at the side thereof opposite to the hinge connection between the wall and the basket bottom, and an angular rod having its intermediate portion journalled in the bearing, an end portion adapted to engage under the bottom for releasably retaining the same in closed position with respect to the peripheral wall of the basket, and a second end serving as a handle, and a series of circumferentially spaced hooks mounted on the wall of the basket at the bottom thereof for securing the bottom of the basket within the mouth of a sack.

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