Feb. 9, 1926. 1,572,739

C. R. MATTERN

CEMENT BAG CLEANER

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Fig. 1.

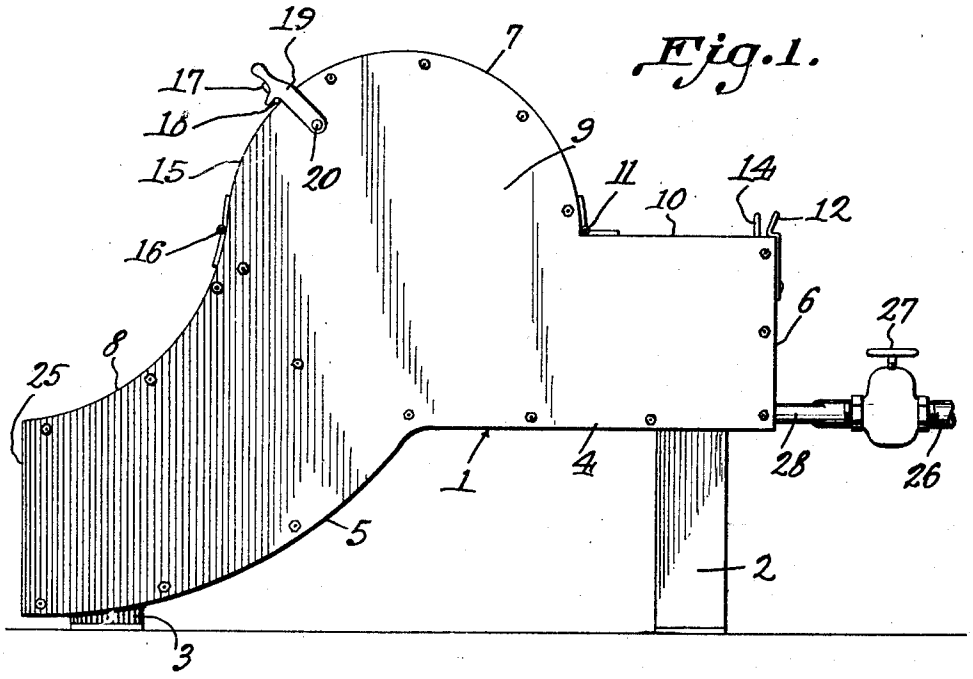
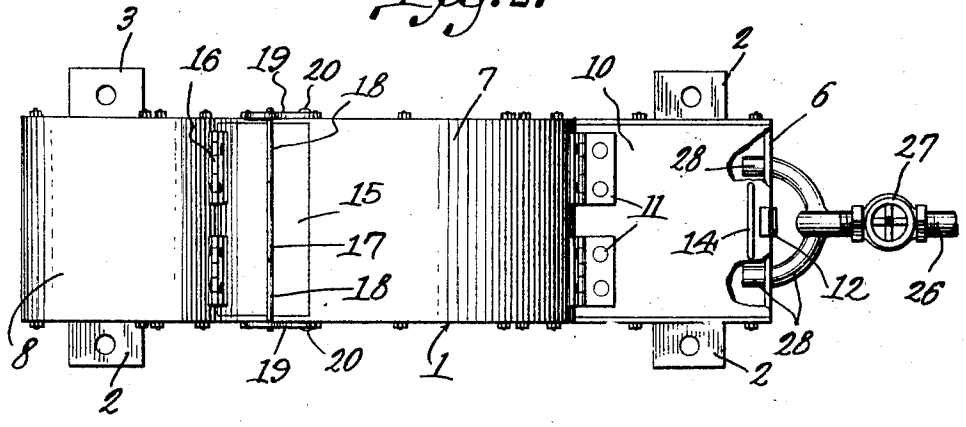


Fig. 2.



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Fig. 3.

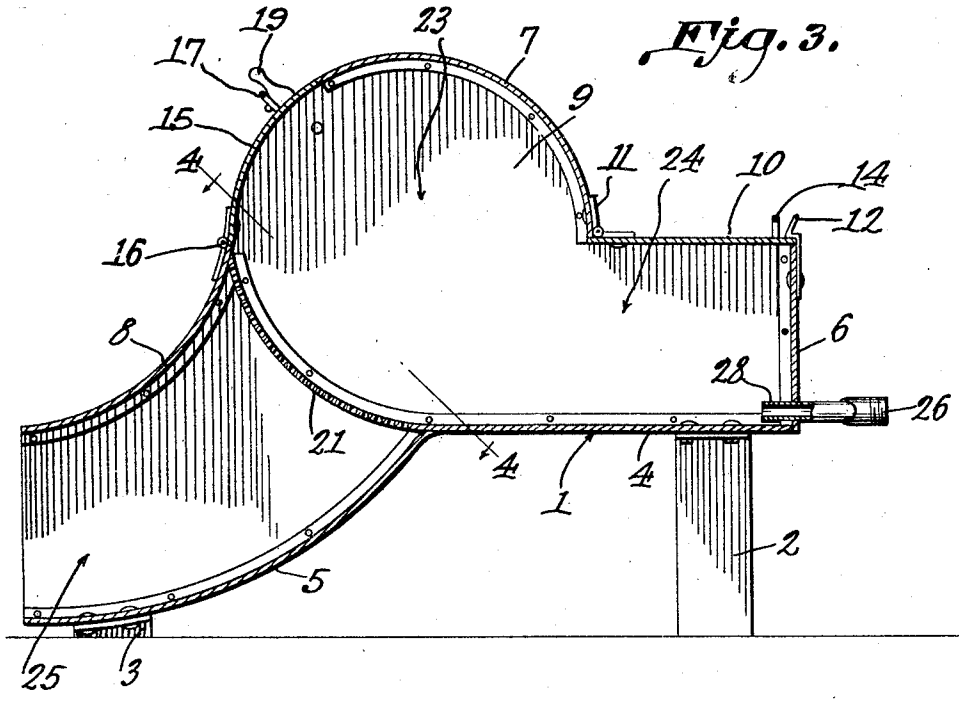
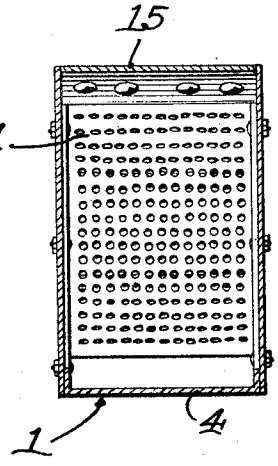


Fig. 4.



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UNITED STATES PATENT OFFICE.

CURTIS R. MATTERN, OF TOWER CITY, PENNSYLVANIA.

CEMENT-BAG CLEANER.

Application filed September 12, 1925. Serial No. 56,029.

To all whom it may concern:

Be it known that I, CURTIS R. MATTERN, a citizen of the United States, residing at Tower City, in the county of Schuylkill and State of Pennsylvania, have invented a new and useful Cement-Bag Cleaner, of which the following is a specification.

This invention aims to provide novel means whereby cement bags and other articles may be cleaned, novel means being provided for holding the bags, and novel means being provided for directing a blast of air under pressure through the bags.

It is within the province of the disclosure to improve generally and to enhance the utility of devices of that type to which the invention appertains.

With the above and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

In the drawings:—

Figure 1 shows in side elevation, a device constructed in accordance with the invention; Figure 2 is a top plan wherein parts are broken away; Figure 3 is a vertical longitudinal section; Figure 4 is a cross section on the line 4—4 of Figure 3; remote parts being omitted.

The machine forming the subject matter of this application includes a casing 1 supported at one end on long legs 2, and at its opposite end on short legs 3. The casing 1 comprises a bottom 4 having a downwardly inclined end 5, an end wall 6, a curved or convexed top member 7, a concaved top member 8 located above the end 5 of the bottom 4, and sides 9. A lid 10 is hinged to one end of the top member 7 and is held closed with respect to the end wall 6 by means of a latch 12, the hinge for the lid 10 being marked by the numeral 11. The lid 10 has a handle 14 whereby it may be manipulated readily. A convexed lid 15 is hinged at 16 to the upper end of the top member 8 and cooperates with the top member 7. Near to its free end, the lid 15 has an upstanding loop-shaped handle 17 provided with lateral extensions 18 prolonged beyond the sides 9 and adapted to be engaged by latches 19 pivoted at 20 to the sides 9 for vertical swinging movement. The bottom 4 is prolonged to form a grating 21, which may be a perforated concave.

The machine, as thus far described, comprises, as delineated in Figure 3, a drum 23 of approximate annular form, having a horizontal feed chamber 24 and provided with a depending outlet spout 25, the spout and the feed chamber being disposed opposite to each other. The perforated grating or concave 21 is interposed between the drum 23 and the outlet spout 25.

The numeral 26 designates an air conduit wherein a valve 27, under the control of an operator, is interposed, the air conduit 26 having horizontally spaced branches 28 passing through the end wall 6 in close circulation to the bottom 4 and adapted to discharge air under pressure into the feed chamber 24.

In practical operation, the lid 10 is opened, and the cement laid in bags is introduced into the feed chamber. The lid 10 then is closed, and air is delivered into the feed chamber through the air conduit 26 and in branches 28, under the governance of the valve 27. The bags move into the drum 23 under the blast of air, the air depriving the bags of the cement and other foreign material, the cement and foreign material being blown through the perforated concave 21 and leaving the machine by way of the outlet spout 25. After the bags have been cleaned sufficiently, they may be removed from the drum 23 by opening the top lid 15.

The device although simple in construction, is thoroughly efficient in operation, and will clean a large number of bags from cement and dirt of any other kind, in a very short period of time.

The air under pressure which is discharged through the branches 28 of the conduit 26, moves in approximate parallelism with the bottom member 4, toward the screen or concave 21. The air not only is blown through the bags, but the bags, as well, are caused to move in an orbit around the circle formed in part by the screen 21, the lid 15 and the convexed top member 7. The dust or cement not only is blown out of the bags,

but is taken out of the bags as well, as the bags move about within the drum 23.

What is claimed is:—

A bag cleaner comprising a drum having a downwardly extending outlet spout and a substantially horizontal feed chamber located upon opposite portions of its periphery, doors operable to afford access to the drum and to the feed chamber, a screen located at the inner end of the spout, and an air blast nozzle discharging into the outer end of the feed chamber in approximate parallelism to the bottom of the feed chamber, and toward the screen.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

CURTIS R. MATTERN.