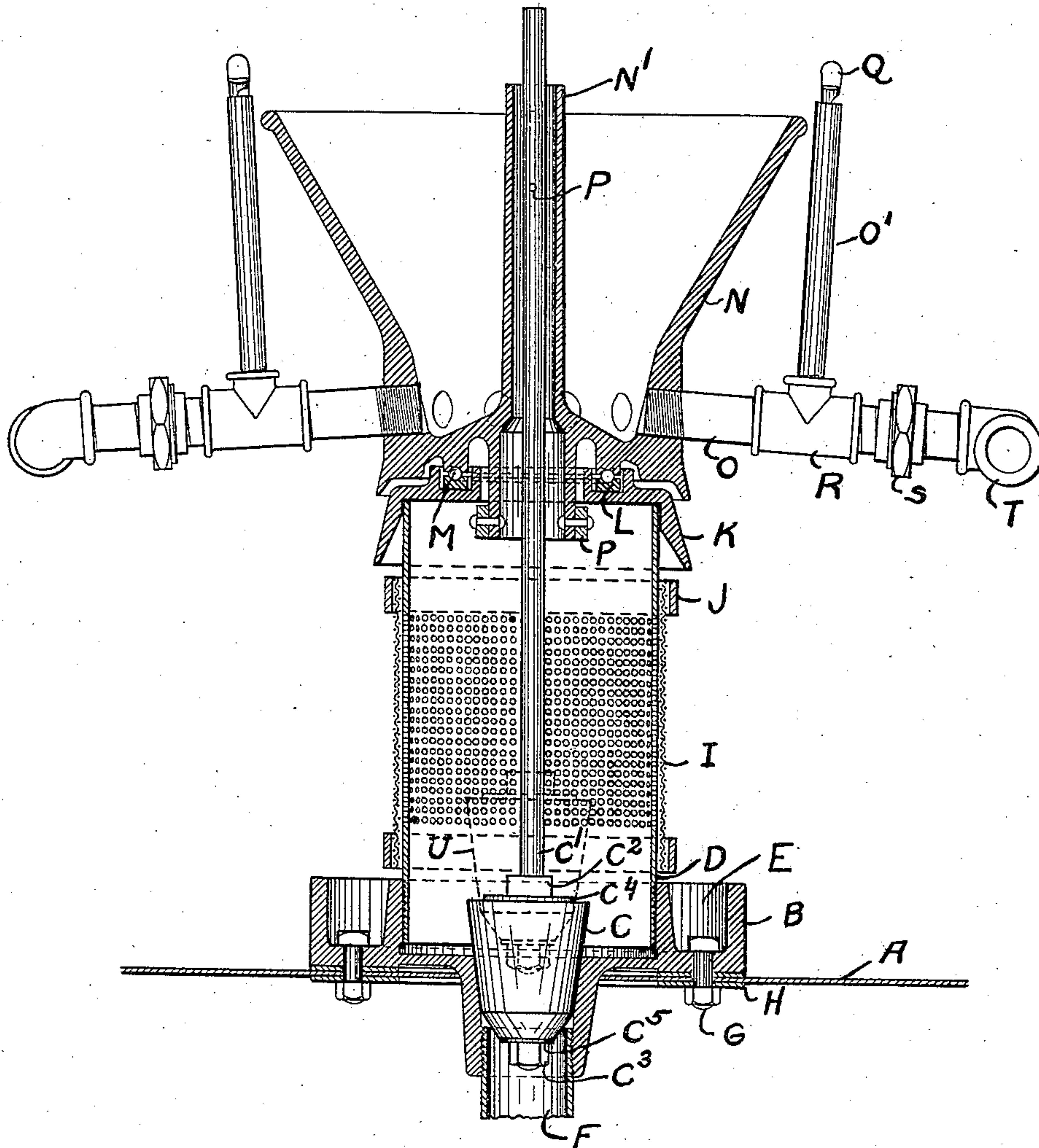


No. 855,328.

PATENTED MAY 28, 1907.

E. H. MOYLE.
REVOLVING DISTRIBUTER FOR PULP OR LIQUID.

APPLICATION FILED OCT. 20, 1904.



WITNESSES:

R. N. Morce

J. E. Schweng

INVENTOR.

Edward Henry Moyle.

UNITED STATES PATENT OFFICE.

EDWARD HENRY MOYLE, OF LOS ANGELES, CALIFORNIA.

REVOLVING DISTRIBUTER FOR PULP OR LIQUID.

No. 855,328.

Specification of Letters Patent.

Patented May 28, 1907.

Application filed October 20, 1904. Serial No. 229,344.

To all whom it may concern:

Be it known that I, EDWARD HENRY MOYLE, a citizen of the United States, residing at Los Angeles, county of Los Angeles, State of California, have invented new and useful Improvements in Revolving Distributers for Pulp or Liquid, of which the following is a specification.

This invention relates to improvements in distributers and the main object of my invention is to provide means whereby pulp or a mixture of water and sand and the like, can be deposited with the same consistency or gravity throughout a tank or vessel.

Another object of the invention is to increase the capacity of distributers of this character.

A further object of the invention is to provide for the overflow of excess water or liquid as early as possible.

Another object is to provide a self-contained distributer which can be lifted up and placed upon a sieve stand in any other tank for operation therein.

Another object of the invention is to provide a distributer of this character in which it is not necessary to have a launder around the tank for conveying off the overflow.

The accompanying drawing is a vertical section of a revolving distributer, sieve stand and the adjacent portion of the bottom of the tank or vessel in which the material is to be distributed.

A indicates a portion of bottom of tank or vessel. B the flanged casting having valve seat for plug valve C and also for screwing or fastening the perforated stand pipe D. The annular groove E shown in casting is used for calking the cocoa matting and filter cloth placed in the bottom of tank marked A.

F is a discharge pipe which carries all overflow water to its intended receptacle of which said water passes through perforated stand pipe D. The flanged casting B is fastened to tank or vessel bottom A in any well known manner, preferably by bolts G, and having a re-inforced washer or plate H underneath nuts of bolts G, and next to bottom of tank A. The perforated stand pipe D is covered with a suitable filter or sieve cloth I, made of any well known material adaptable for the purpose, and is fastened on to perfo-

rated stand pipe D by any well known means, preferably a wrought iron band J made in two sections, that it may be bolted to cloth I and perforated stand pipe D.

C' is a rod having a shoulder thereon, marked C²; this rod continues through wood plug C and is secured thereto by nut C³; C⁴ and C⁵ are washers which come in contact with wood plug C.

K is a stand which is made to fit over pipe D and to contain the ball race L; M are the balls upon which the bowl N revolves, when said bowl is filled with liquid or the like, and when the liquid is discharging through the outlet pipes or discharge pipes O. The ring P is fastened to lower cylinder of bowl, in such a manner as shown, that, when bowl is lifted off of sieve pipe D, it engages with stand K, and lifts same also.

When the wood plug C is raised from its seat so that the strained liquid which passes through sieve cloth I and sieve stand D, can pass through discharge pipe F, the hole P in the rod C' would be on a line with top of cylinder N within bowl, and a steel rod placed through hole P and bridging across to walls of cylinder N', then plug C would revolve with bowl N, and plug C would then be located as shown by dotted lines U, when bowl N is full of liquid or the like, and distributing means through discharge pipes O. The bowl N may have two or more distributing pipes O as required, and located radially around bowl N as shown, with elbows T, at right angles to pipes O. The tee R, and the union coupling S, and the angle elbow T, with their connecting nipples as shown, and the air vent pipe O', its regulating plug Q, constitute the details of the discharge pipes or arms which are located around bowl.

By employing the air vent pipe O', and admitting air freely to the pulp, liquid, or the like, I increase the capacity of the machine, and by using a wood plug Q, cut or fashioned to admit air as required according to the length of arm, I obtain and regulate an equal discharge throughout the several distributing pipes O, which are of different lengths, and the discharge outlets from said pipes at T, being non-radial, the effect is to cause rotation of the bowl or vessel N and even distribution of the material therefrom. The liquid

in flowing past the lower ends of pipes O' entrains air from the pipes O' which aerates the pulp and promotes a smooth flow, preventing clogging in the distributing pipes; thus the admission of air to pipes O' being controlled by plugs Q permits of a certain regulation of the flow of pulp. To remove the distributing bowl N and its parts to another tank, I use the hollow cylinder N' of bowl by engaging to its exterior surface with any well known means or device.

I do not wish to confine myself to the sieve stand D as it is shown, as it may be variously constructed, having other kinds of operation, but I consider as new, the described operation of sieving through a cylindrical surface, having apertures as described.

I am aware that there are distributors for distributing pulp or the like in vessels, I therefore do not claim such a combination broadly, but,

What I claim is:—

1. In a pulp distributor, a rotatable bowl, discharge pipes projecting radially therefrom, means for automatically rotating the bowl, and means for introducing air to said pipes for controlling the passage of material therethrough.

2. In a pulp distributor, a rotatable bowl, means for automatically rotating the same, discharge pipes projecting radially from the bowl, air pipes communicating with said discharge pipes, and means for regulating the entrance of air to said air pipes.

3. In a pulp distributor, a rotatable bowl, discharge pipes projecting radially therefrom and provided with means for automatically rotating the bowl, an air pipe communicating with each discharge pipe, and a cut plug in each air pipe for regulating the entrance of air thereto.

4. In a pulp distributor, means for discharging the overflow at the center of the tank, and a distributor mounted at the top of said means.

5. In a pulp distributor, means for discharging the overflow through the center of the tank, and a distributor removably mounted at the top of said means.

6. In a pulp distributor, means for discharging the overflow through the center of the tank, and a removable distributor rotatably mounted on top of said means.

7. In a pulp distributor, means for discharging the overflow through the center of the tank, and an automatically rotatable distributor removably mounted on top of said means.

8. In a pulp distributor, means for discharging the overflow through the center of the tank, a rotatable bowl mounted on top of said means and provided with radially-projecting pipes, the outer ends of which are

provided with means for automatically rotating the bowl.

9. In a pulp distributor, a perforated stand-pipe for discharging the overflow through the center of the tank, and an automatically-rotatable distributor removably mounted on top of said pipe.

10. In a pulp distributor, a perforated stand-pipe for discharging the overflow through the center of the tank, a sieve-cloth around said pipe, means for securing said cloth in position, and an automatically-rotatable distributor removably mounted on top of said pipe.

11. In a pulp distributor, a flanged member provided with a valve seat and means for securing it in a tank, a perforated stand-pipe secured to said flange, a valve for said seat, and a distributor removably mounted on top of said pipe.

12. In a pulp distributor, a flanged member provided with a valve seat and means for securing it in a tank, a perforated stand secured to said flange, an automatically rotatable distributor removably mounted on top of said pipe, and a plug valve for said seat, the stem of which extends up through the distributor.

13. In a pulp distributor, a perforated stand-pipe for discharging the overflow through the center of a tank, a distributor removably mounted on top of the pipe, and a flanged member at the bottom of the distributor for engaging with the top of the stand-pipe.

14. In a pulp distributor, a perforated stand-pipe for discharging the overflow through the center of a tank, a distributor removably mounted on top of the pipe, a flanged member loosely secured to the bottom of the distributor, and antifriction means between said member and the distributor.

15. In a pulp distributor, a perforated stand-pipe for discharging the overflow through the center of a tank, a distributor removably mounted on top of the pipe, the bottom of which is provided with a cylindrical portion, a collar on said portion, and a flanged stand loosely mounted on said portion between the collar and the bottom of the distributor.

16. In a pulp distributor, a member provided with a valve seat and means for securing it in position, a perforated pipe secured to said member, a distributor removably mounted on top of said pipe and provided with a centrally located cylinder, a valve for said seat, the stem of which is perforated and extends up through said cylinder, and a removable rod adapted to be inserted in said perforation and rest on top of the cylinder to hold the valve off its seat.

17. In a pulp distributor, a bowl with an

extending tube projecting through the center of the bowl, a ball race in the bottom of the bowl and around the tube, a plate extending around the tube and supporting the
5 ball race, and an annular shoulder on the tube below the plate for lifting the ball race with the bowl when the latter is raised.

18. In a pulp distributor, a rotatable bowl, a ball race supporting the bowl and means

for suspending the ball race from the bowl so when the bowl is lifted.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

EDWARD HENRY MOYLE.

Witnesses:

J. E. SCHWENG,
R. N. MORCE.