E. MOXHAM.

APPARATUS FOR BREWERY PITCHING MACHINES.

APPLICATION FILED MAR. 5, 1909.

925,126.

Patented June 15, 1909.

2 SHEETS—SHEET 1.

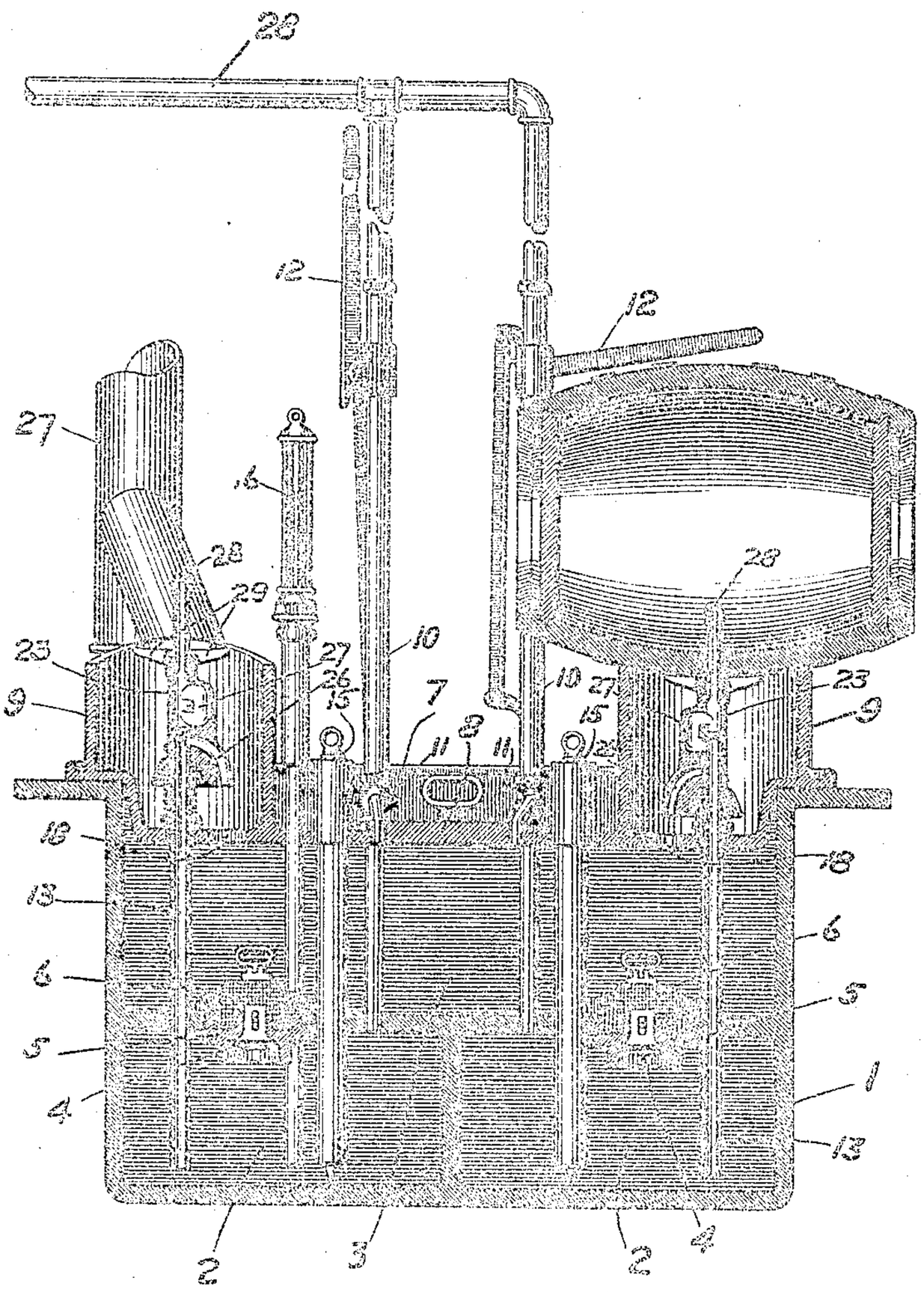

Fig. 1.

WITNESSES:

E. M. Hamilton

C. R. Thain

INVENTOR

Egbert Moxham

BY

Kennedy & Kennedy

Attorneys.

E. MOXHAM.

APPARATUS FOR BREWERY PITCHING MACHINES.

APPLICATION FILED MAR. 5, 1909.

925,126.

Patented June 15, 1909.

2 SHEETS—SHEET 2.

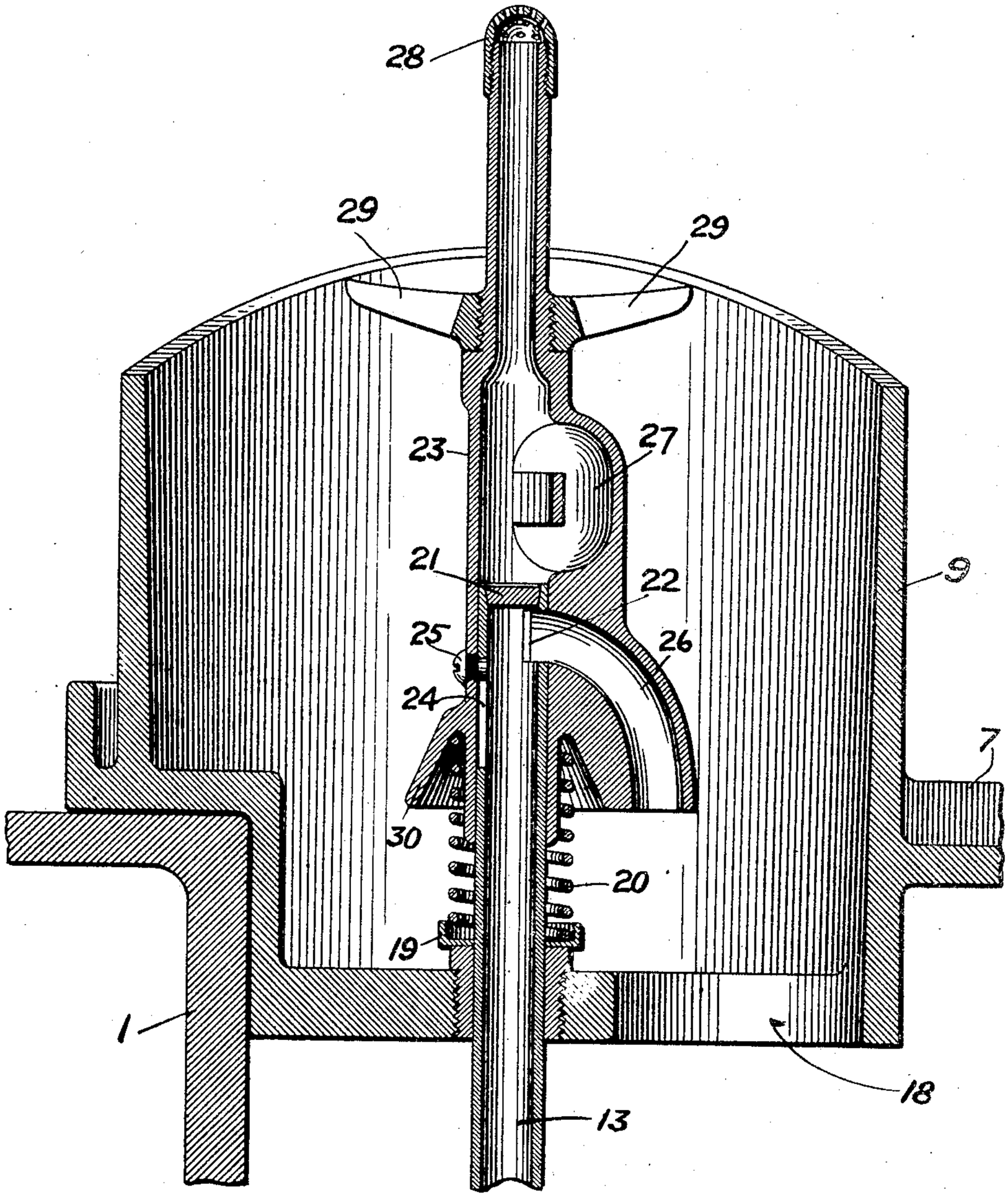

Fig. 2.

WITNESSES:
M. M. Hamilton
A. M. Strian

INVENTOR
Egbert Moxham
BY Mennen & Hendricks
ATTORNEYS.

UNITED STATES PATENT OFFICE.

EGBERT MOXHAM, OF WILMINGTON, DELAWARE.

APPARATUS FOR BREWERY PITCHING-MACHINES.

No. 925,126. Specification of Letters Patent. Patented June 15, 1909.

Application filed March 5, 1909. Serial No. 481,473.

To all whom it may concern:

Be it known that I, EGBERT MOXHAM, a citizen of the United States, residing at Wilmington, county of Newcastle, and State of Delaware, have invented a new and useful Improvement in Apparatus for Brewery Pitching-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to a new and useful improvement in brewery pitching machines.

The object of my invention is to provide an automatic safety apparatus on the spray pipes of such machines, which will prevent the egress of the pitch from the spray pipes until the package to be pitched is in proper position to receive the pitch. In machines of this class, it is usual to use an open spray pipe covered on the end and only with a spraying nozzle. If under these conditions, and before the package is placed in position, the pump or other source of power used to force the pitch up through the spray pipe should be accidentally started, the pitch is forced out of the pipe in large quantities, severely burning the attendant.

The object of my invention is to provide an automatic safety apparatus, which will prevent the egress of pitch under all conditions, unless the package is in position, and when such package is in position, will automatically allow egress from the delivery nozzle, and the pitch to pass into the interior of the package.

I will first describe the embodiment of my invention as illustrated in the accompanying drawings, and then specifically point out the nvention in the claims.

In the drawings: Figure 1 is a partial section illustrating the interior and exterior construction of one of the well known constructions of air pressure brewery pitching machines fitted with my improved safety device. The left hand spray pipe is shown with the safety device closed, while the right hand pipe is shown covered with a package and the safety device open for the egress of pitch. Fig. 2 is an enlarged section of my improved safety device.

In Fig. 1, 1 is the pitch kettle, consisting of three compartments 2, 2 and 3. The lower compartments 2, 2 are separated from each other by a central vertical wall and from compartment 3 by a horizontal wall cast integral with the kettle, in which are two openings suitably arranged for closure by the two removable heads 5, 5, in which are carried the automatic valves 4, 4, these valves being covered by perforated screens 6, 6. These valves 4, 4, when pressure is applied to chambers 2, 2, close connection between said chambers and chamber 3 and open connection when said pressure is released. The kettle is provided with a cast iron cover 7, in which is the removable door 8, and integral with which are the package supports 9, 9. There is an opening 18 in the cover 7 at the lower end of the wall forming the package support. Passing through the cover 7 and connecting with the lower chambers 2, 2, are the air pressure pipes 10, 10, suitably controlled by the two-way valves 11, 11, links and hand levers 12, 12. From close to the bottom of chambers 2, 2, the delivery or spray pipes 13, 13 project upward, ending usually in spray nozzles. The package is placed with the bung over these nozzles and rests on package supports 9, 9, while being pitched. On the end of these spray or delivery pipes 13, 13, my improved safety apparatus (shown enlarged in Fig. 2) is placed. In addition to the foregoing there is shown in Fig. 1 the usual safety valves 15, thermometer 16, vapor escape pipes 27, etc., ordinarily fitted to this kind of machine.

The operation of the machine is as follows: The removable door 8 and the heads 5, 5, are removed from their position and chambers 2, 2 filled with pitch. Heat is then applied from an external source (not shown) and the heads 5, 5, replaced and tightly clamped in their position, the upper compartment 3 of the kettle being partly filled with pitch at the same time. Valves 4, 4, remain open by gravity, and when the pitch is completely melted down, chambers 2, 2, will be entirely filled, and strainers 6, 6, well covered with pitch. A package is then placed over either spray nozzle, and the air valve 11 opened by means of lever 12. Through pipe 28, from suitable source (not shown) air under pressure enters the lower chamber 2, automatically closing valve 4 and forcing the pitch up through the spray pipe and into the package. The surplus pitch drains out the bung hole of package and back into the upper chamber 3 of the kettle through suitable openings 18. When the air pressure is shut off, the pressure in chamber 2 is relieved through the secondary opening of air valve 11, valve 4 opens by gravity, and chamber 2 is again filled

with pitch by gravity from supply in chamber 3.

Referring to Fig. 2 in which my safety apparatus is shown enlarged: The upper end of the spray or delivery pipe 13 is closed by the plug 21. Surrounding the spray pipe 13 is the casing 23 which extends beyond the pipe 13 and has on its upper end the spray nozzle 28. In the spray or delivery pipe is the slot 24 into which the set screw 25, which passes through casing 23, enters. Between the seat in projection 30 on the casing, and the washer 19 on the pipe 13, is the spring 20. In the side of the pipe 13 near the top, is the port 22. In the projection 30 of the casing is the relief passage 26, and the by-pass 27. Carried by the casing 23 are the package engaging fingers 29. With the parts in the position shown in Fig. 2, any pitch forced into the delivery pipe 13 by the premature action of the pump or pressure device, will pass out through the port 22 into the relief passage 26, and through the openings 18 to the compartment 3. When the nozzle is inserted in the bung, and the package rests upon the fingers, its weight will force the casing downward against the action of the spring until weight of package rests on package support 9. This movement will cause passage 26 to pass beyond port 22, and by-pass 27 to register with said port. Thus when the package is in position, the pitch is enabled to pass freely to the interior of the package, and the apparatus is such that this can only take place when the package is in position to receive the pitch.

At the right hand of Fig. 1, the safety apparatus is shown in position to deliver pitch to the interior of the package, while at the left hand, the apparatus is shown in position it assumes when the package is not in position and the spring 20 holds the casing in such position that the port 22 communicates with the relief passage 26.

While I have described and shown my improved safety device as attached to one special form of air pressure pitching machine for the sake of illustration, I do not wish to limit myself to this special form of air pressure pitching machine, or this particular style of machine, as the safety device will work with equally good results on any form or style of pitching machine.

Having now fully described my invention, what I claim and desire to protect by Letters Patent is:

1. In an apparatus of the character described, in combination, a delivery pipe, a casing surrounding and movable longitudinally upon said pipe, a port in said pipe, and passages in the wall of said casing, longitudinally separated from each other, one passage opening free from said casing, the other passage connecting one portion of the interior of the casing with another portion of the interior of the casing, one passage adapted to register with the port in one position of the casing, and the other passage to register with the port in the other position of the casing.

2. In an apparatus of the character described, in combination, a closed ended delivery pipe, a port in said pipe, a casing surrounding movable longitudinally and extending beyond said delivery pipe, a passage in said casing adapted to register with said port in one position of the casing, and a by-pass in said casing adapted to register with said port in another position of the casing.

3. In an apparatus of the character described, in combination, a delivery pipe, a casing surrounding and movable longitudinally upon said pipe, a port in said pipe, passages in the wall of said casing, longitudinally separated from each other, one passage opening free from said casing, the other passage connecting one portion of the interior of the casing with another portion of the interior of the casing, one passage adapted to register with the port in one position of the casing, and the other passage to register with the port in the other position of the casing, and a spring, against the action of which said casing moves in one direction.

4. In an apparatus of the character described, in combination, a closed ended delivery pipe, a port in said pipe, a casing surrounding movable longitudinally upon said pipe and extending beyond said delivery pipe, a passage in said casing adapted to register with said port in one position of the casing, and a by-pass in said casing adapted to register with said port in another position of the casing, and a spring, against the action of which said casing moves in one direction.

5. In an apparatus of the character described, in combination, a delivery pipe, a casing surrounding and movable longitudinally upon said pipe, a port in said pipe, passages in the wall of said casing, longitudinally separated from each other, one passage opening free from said casing, the other passage connecting one portion of the interior of the casing with another portion of the interior of the casing, one passage adapted to register with the port in one position of the casing, and the other passage to register with the port in the other position of the casing, and a package support carried by said casing.

6. In an apparatus of the character described, in combination, a closed ended delivery pipe, a port in said pipe, a casing surrounding movable longitudinally upon said pipe and extending beyond said delivery pipe, a passage in said casing adapted to register with said port in one position of the casing, and a by-pass in said casing adapted to register with said port in another position of the casing, and a package support carried by said casing.

7. In an apparatus of the character described, in combination, a delivery pipe, a

casing surrounding and movable longitudinally upon said pipe, a port in said pipe, passages in the wall of said casing, longitudinally separated from each other, one passage opening free from said casing, the other passage connecting one portion of the interior of the casing with another portion of the interior of the casing, one passage adapted to register with the port in one position of the casing, and the other passage to register with the port in the other position of the casing, a package support carried by said casing, and a spring, against the action of which said casing moves when the package rests upon said support.

8. In an apparatus of the character described, in combination, a closed ended delivery pipe, a port in said pipe, a casing surrounding movable longitudinally upon said pipe and extending beyond said delivery pipe, a passage in said casing adapted to register with said port in one position of the casing, and a by-pass in said casing adapted to register with said port in another position of the casing, a package support carried by said casing, and a spring, against the action of which said casing moves when the package rests upon the support.

In testimony of which invention, I have hereunto set my hand, at Wilmington, Del., on this first day of March, 1909.

EGBERT MOXHAM.

Witnesses:
NORMAN P. COFFIN,
J. ED. WILSON.