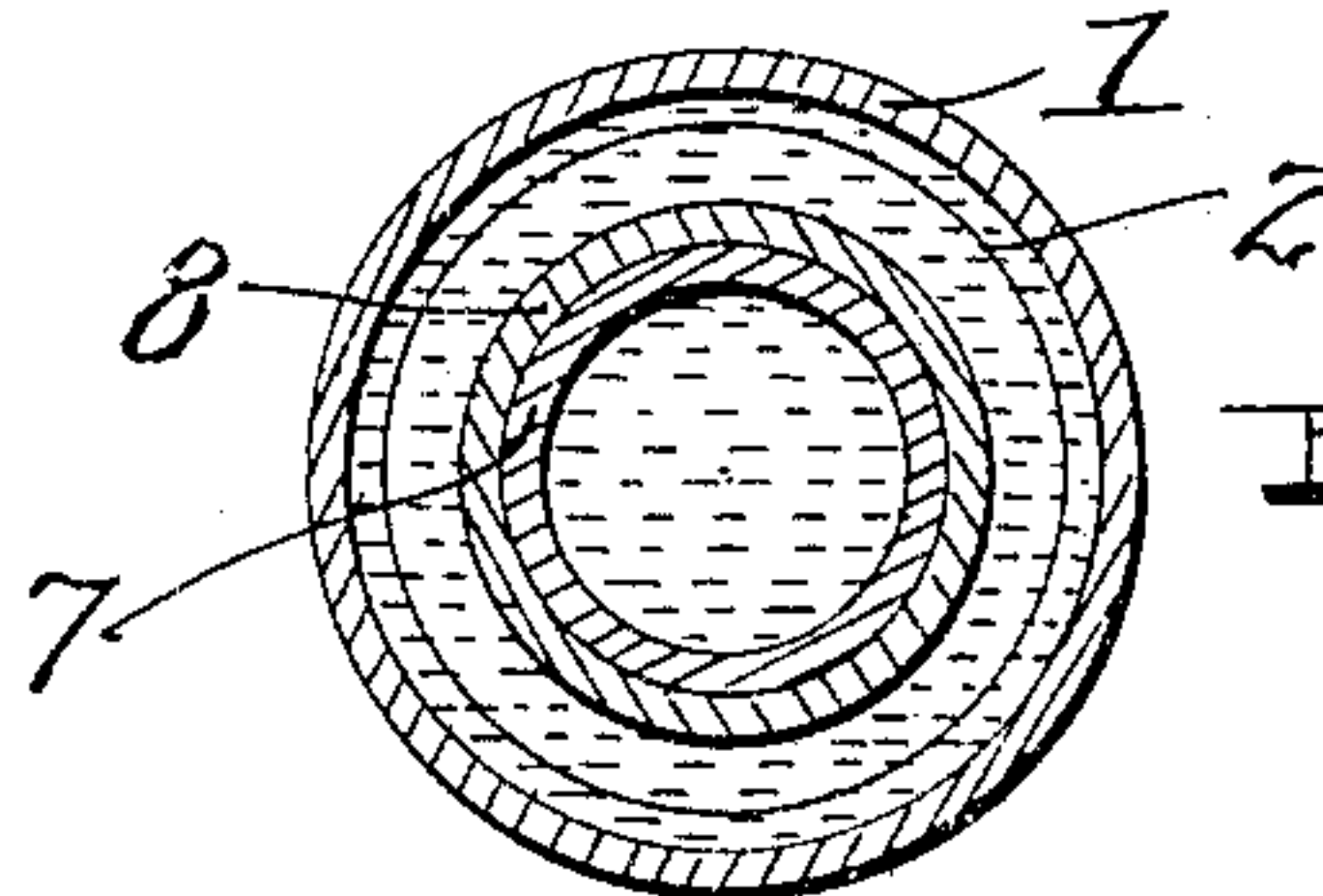
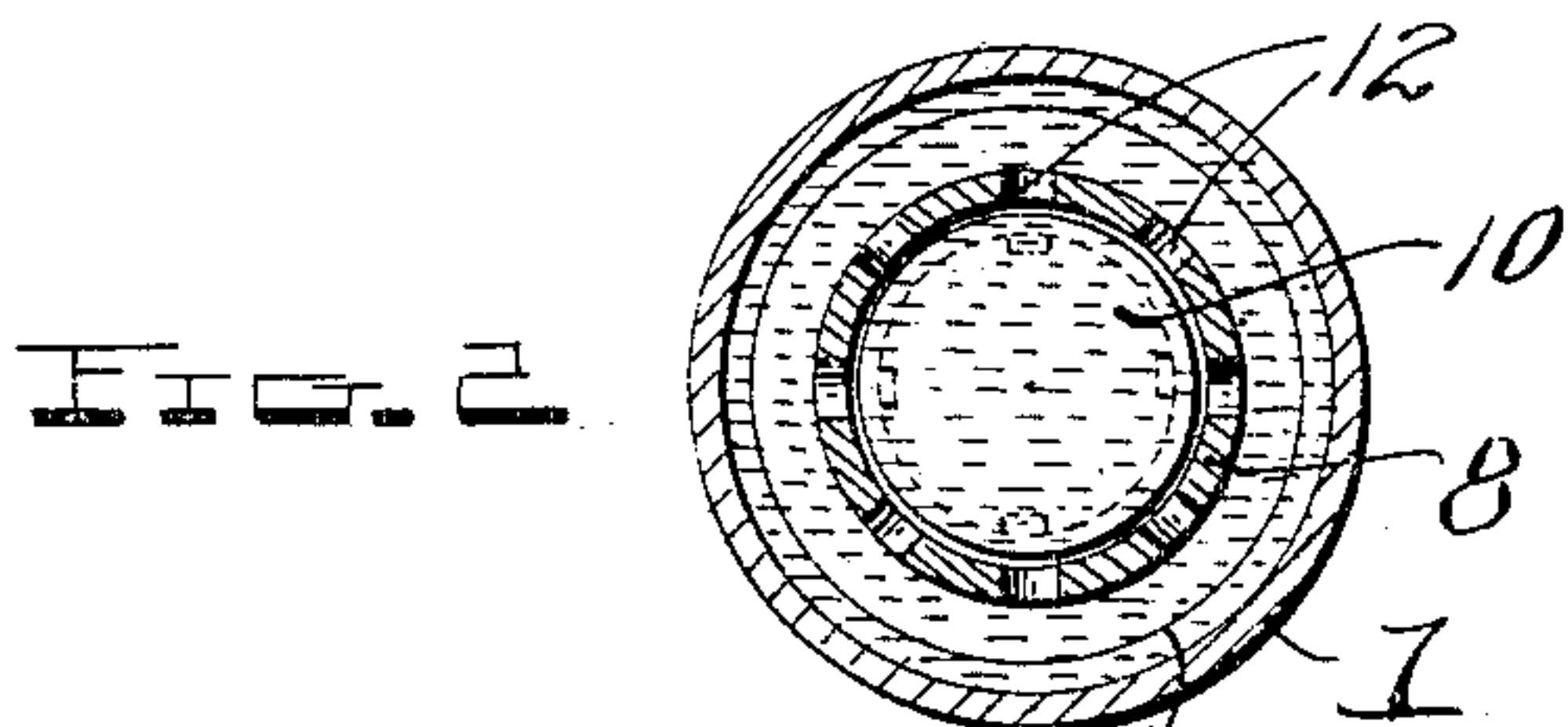
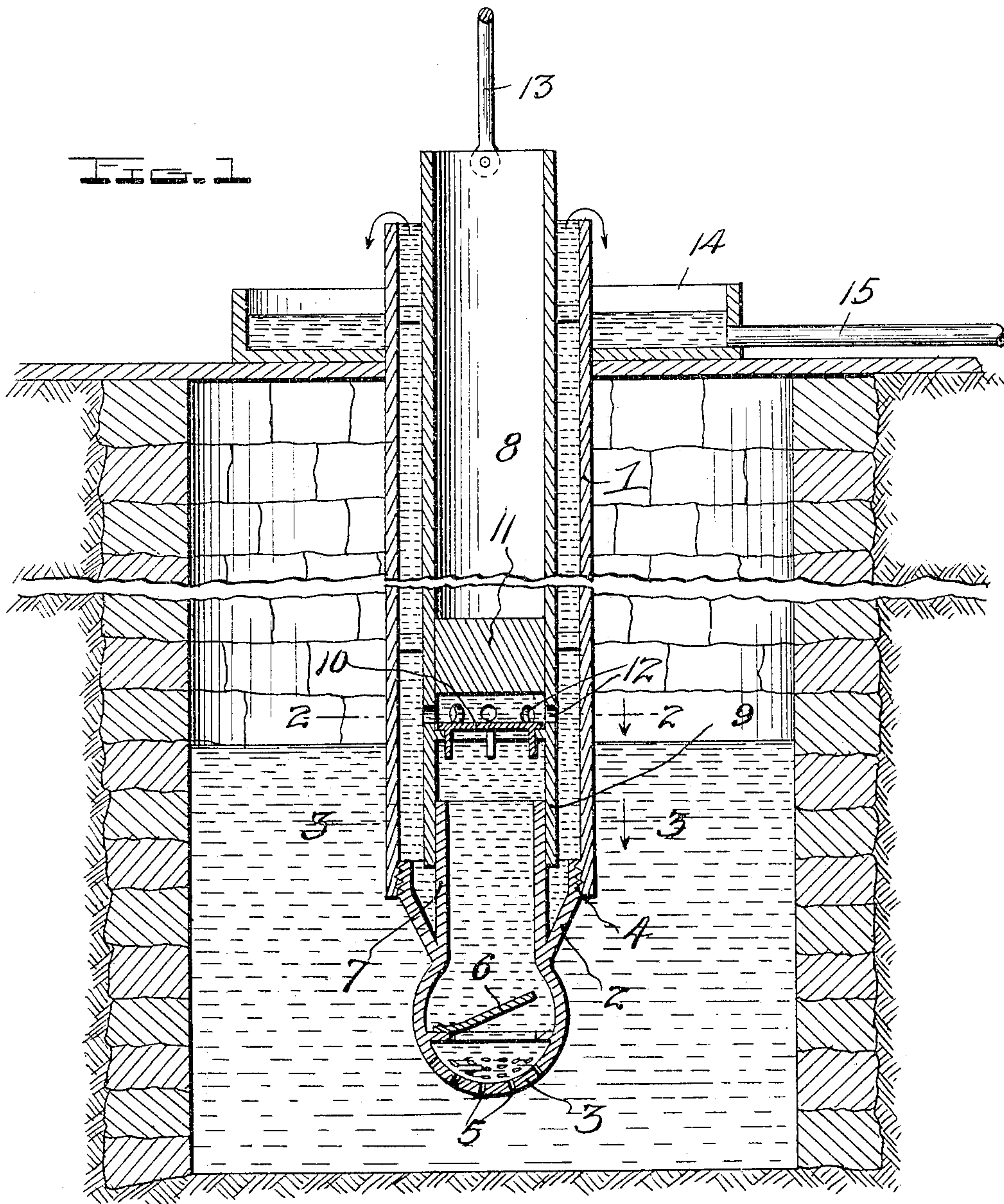


No. 793,226.

PATENTED JUNE 27, 1905.

J. PETERSON.
PUMP.

APPLICATION FILED SEPT. 15, 1904.



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SPECIFICATION forming part of Letters Patent No. 793,226, dated June 27, 1905.

Application filed September 15, 1904. Serial No. 224,562.

To all whom it may concern:

Be it known that I, JAMES PETERSON, a citizen of the United States, residing at Spring City, in the county of Sanpete and State of Utah, have invented certain new and useful Improvements in Pumps; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in pumps, and more particularly to that class having a valved reciprocating piston.

The object of my invention is to improve and simplify the construction and operation of devices of this character, and thereby render them more efficient and durable in use and less expensive to manufacture.

With the above and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of devices hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a vertical sectional view through a pump constructed in accordance with my invention, the same being shown mounted in a well or cistern. Figs. 2 and 3 are detail cross-sectional views taken on the lines 2 2 and 3 3, respectively, of Fig. 1.

Referring to the drawings by numeral, 1 denotes the casing or body of my improved pump, which is in the form of a tube or pipe provided at its lower end with a tapered bottom 2, which terminates in a bulb or strainer 3. The bottom 2 is preferably screwed or otherwise removably secured, as at 4, in said outer pipe 1, and the strainer 3 is preferably in the form of a hollow sphere provided at its lower end with a series of perforations or orifices 5. In said strainer 3 above its orifices or perforations 5 is an inlet-valve 6, which may be of any suitable form.

Projecting vertically from the bottom 2 and strainer 3 is a short cylindrical tube or pipe section 7, which is adapted to serve as a guide for the lower end of a reciprocating piston 8. Said tube 6 is of less diameter than the pipe 1 and is disposed concentrically within the same, as shown. The piston 8 is in the form

of a tube or pipe of less diameter than the pipe or casing 1, in which it is suitably mounted to reciprocate, and its lower end 9 telescopes said guide 7, as seen in Fig. 1 of the drawings.

Mounted in the piston 8 at a suitable distance above its lower open end is a discharge-valve 10, which may be of any suitable form, but preferably consists of a plate or disk provided upon its under side with guides and adapted to rest upon an annular rib located in the pipe or piston 8 and forming a seat for said valve. In said pipe or piston 8 directly above the valve 10 and below a solid portion 11 of the former is a series of discharge-openings 12, through which water is permitted to pass from the piston 8 and receiving-chamber formed by the guide 7 into the delivering or discharge chamber formed between the casing 1 and piston 8. The solid portion 11 of the piston closes the same and forms a weight which facilitates the operation of the pump. Upon the upper end of the piston is a bail 13, adapted to be connected to a pumping mechanism, (not illustrated,) which may be of any suitable construction.

Surrounding the open upper end of the pipe or casing 1 is a trough 14, adapted to receive the water discharged from the same, and leading from said trough is a suitable discharge or conductor pipe 15 for conducting the water to any desired point.

The operation and advantages of my invention will be readily understood from the foregoing description, taken in connection with the accompanying drawings. When the piston is elevated, the valve 10 remains closed and the valve 6 opens to admit water through the strainer 3 into the receiving-chamber formed by the guide-cylinder 7. When the piston is lowered, the valve 6 closes and the valve 10 opens to permit the water drawn into the receiving-chamber upon the upstroke of the piston to discharge through the openings 12 and into the pipe or casing 1. When the latter is full, the water flows from its upper end into the trough 14.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the prin-

ciple or sacrificing any of the advantages of this invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters
5 Patent, is—

The herein-described pump, consisting of a casing, a removable perforated bulb secured to the lower end thereof by a threaded connection, said bulb forming a strainer, an in-
10 let-valve in said bulb above its perforations, a cylindrical tube or guide projecting vertically and centrally from said bulb and disposed concentrically within said casing, a hollow cylindrical piston telescopically engaged
15 with said guide and formed with discharge-

openings in its side walls and having an interior rib forming a valve-seat below said openings, an outlet-valve in said piston, said valve comprising a disk and depending guides therefor inside said valve-seat, and a solid portion 20 above said openings forming a stop for the valve, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JAMES PETERSON.

Witnesses:

JOS. A. JUSTESEN,
ANNA M. ERICKSON.