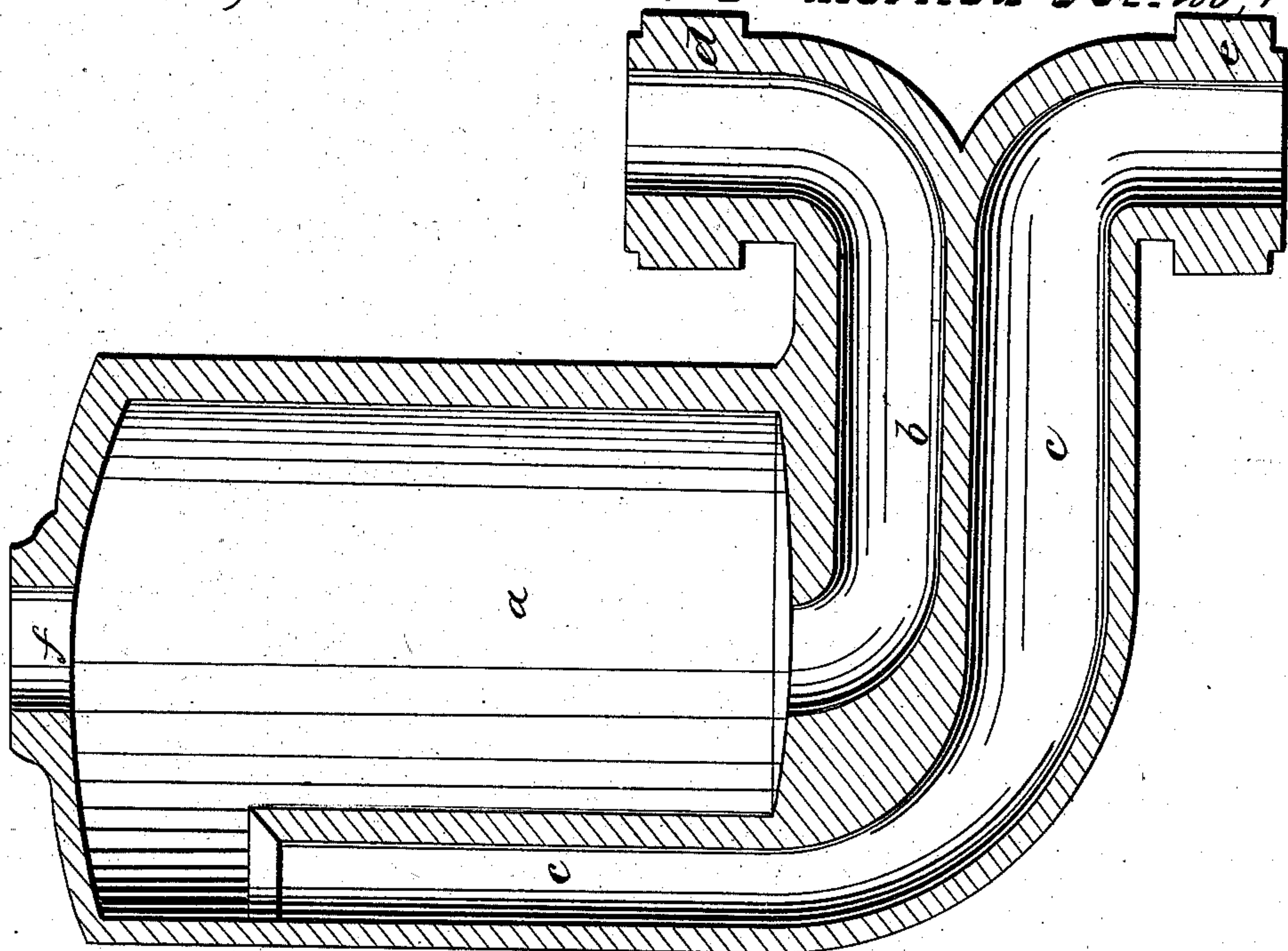


*Dutton & Maguire,*

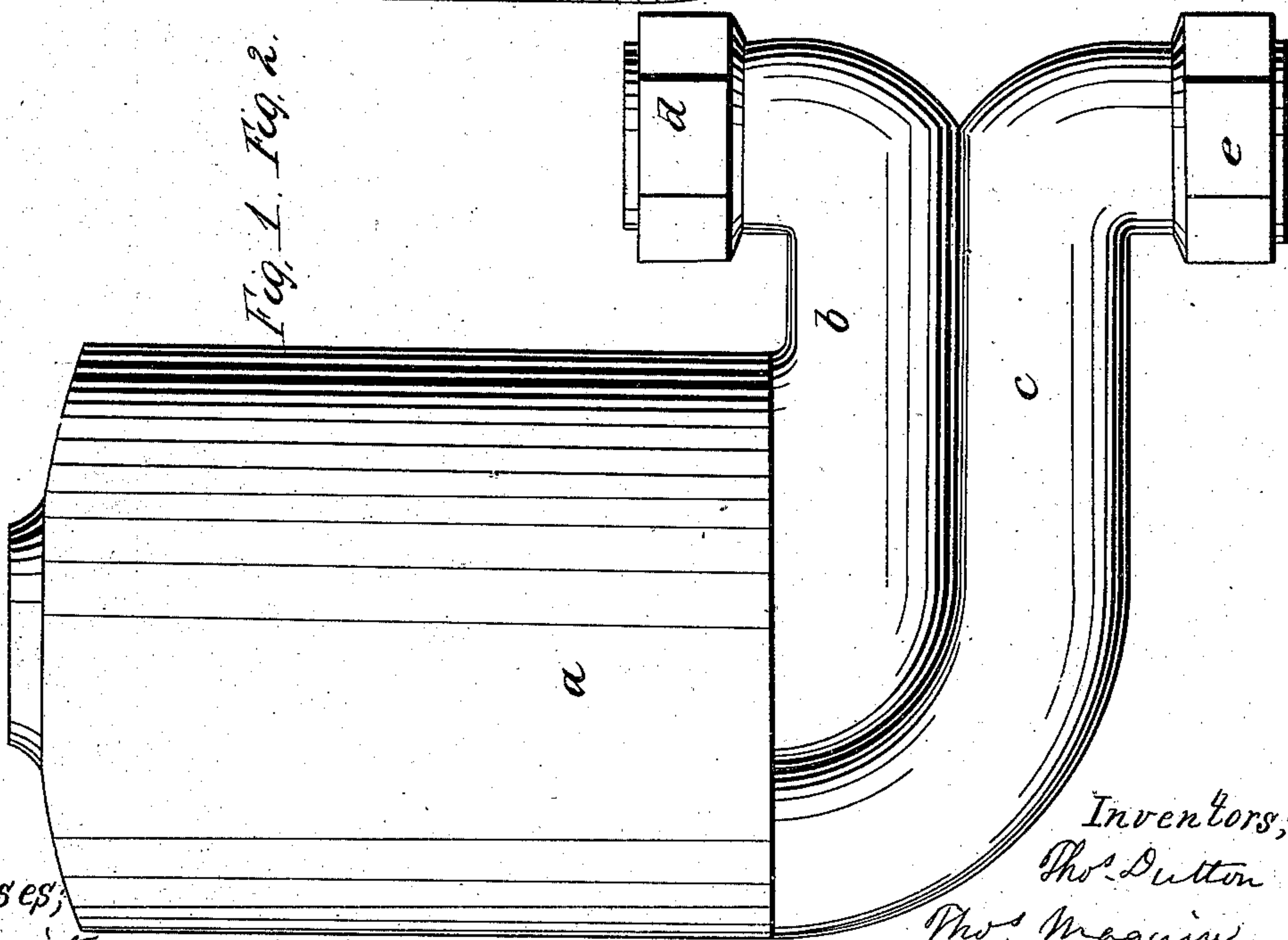
*Pump Lift.*

*N<sup>o</sup> 83,268.*

*Patented Oct. 20, 1868.*



*Fig. 1. Fig. 2.*



*Witnesses,  
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# United States Patent Office.

THOMAS DUTTON AND THOMAS MAGUIRE, OF PORT JERVIS, NEW YORK.

Letters Patent No. 83,268, dated October 20, 1868.

## IMPROVEMENT IN WATER-CHARGERS FOR PUMPS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, THOMAS DUTTON and THOMAS MAGUIRE, of Port Jervis, in the county of Orange, and State of New York, have invented a certain new and useful Improvement on Water-Chargers for Pumps; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, and to the letters and marks thereon, which said drawings form part of this specification, and represent a charger constructed under our invention—

Figure 1 being a side view thereof, and

Figure 2 a view by vertical section.

In both of these figures, like letters are used to indicate like parts.

What is now frequently attached to pumps, and known as a "water-charger," to be useful at all times, must be air and water-tight. If it be made up of several pieces of metal, brazed, or soldered, or otherwise secured to each other, leakage will be very apt to occur at some one or more of the joints. Our water-charger we make by casting it in one piece, so that there are only two points where leakage can take place—where the connections are made with the pump, and the well-pipe.

This charger, *a*, has its two channels, *b* and *c*, close to and in line with each other, so far as they run horizontally, the upper one, *b*, having the coupling-seat *d*, for the lower end of the pump, containing the box and valve, and the lower one, *c*, having a like seat, *e*, for the well pipe. The channel, *c*, continues up to within a short distance from the top of the charger, as is shown by fig. 2 of the drawings. The space above the termination of this channel and the top of the charger will therefore be an air-chamber. The hole *f*, shown in the top of the charger, will be plugged up and made air-tight, the object of it being to facilitate the removing of the sand-core of the casting. By having these

two channels so close together, and running in the same direction, the charger may be so attached to the pump that the well-pipe and the pump will be in a vertical line, the pump directly over the pipe, and the pump be connected close to the charger.

This charger we coat interiorly with a composition, by plugging up the holes of the channels, and running in the composition when hot, so that the charger is filled, and then letting the composition run out, so that the entire interior surface will be well coated. This prevents the water standing in the charger from being in contact with the metal, and acquiring a metallic taste.

In use, the water in this charger will always be as high as the top of the channel *c*, and thus the water will be in the lower part of the pump, and prevent the leather of the valves getting dry, and thus the leather will last longer, and the pump always be ready for use. It will also prevent the interior surface of the pump, which gets polished by the action of the plunger, from rusting, and thereby affecting the color and taste of the water. Without the water in the pump thus continually moving, rust will occur.

The charger here shown is intended for a yard-pump.

Without departing from our invention, such variations of dimension and size of channels, and direction of the outlets of the channels, can be made as will adapt chargers to other kinds of pumps.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The arrangement of the channels *b* and *c* in relation to the body of the charger, as herein recited.
2. The charger *a*, with its channels *b* and *c*, and port or hole *f*, all substantially as shown and described.

This specification signed, this 18th day of May, 1868.

THOMAS DUTTON.  
THOMAS MAGUIRE.

Witnesses:

GEORGE BRODHEAD,  
JACOB BEVANS.