

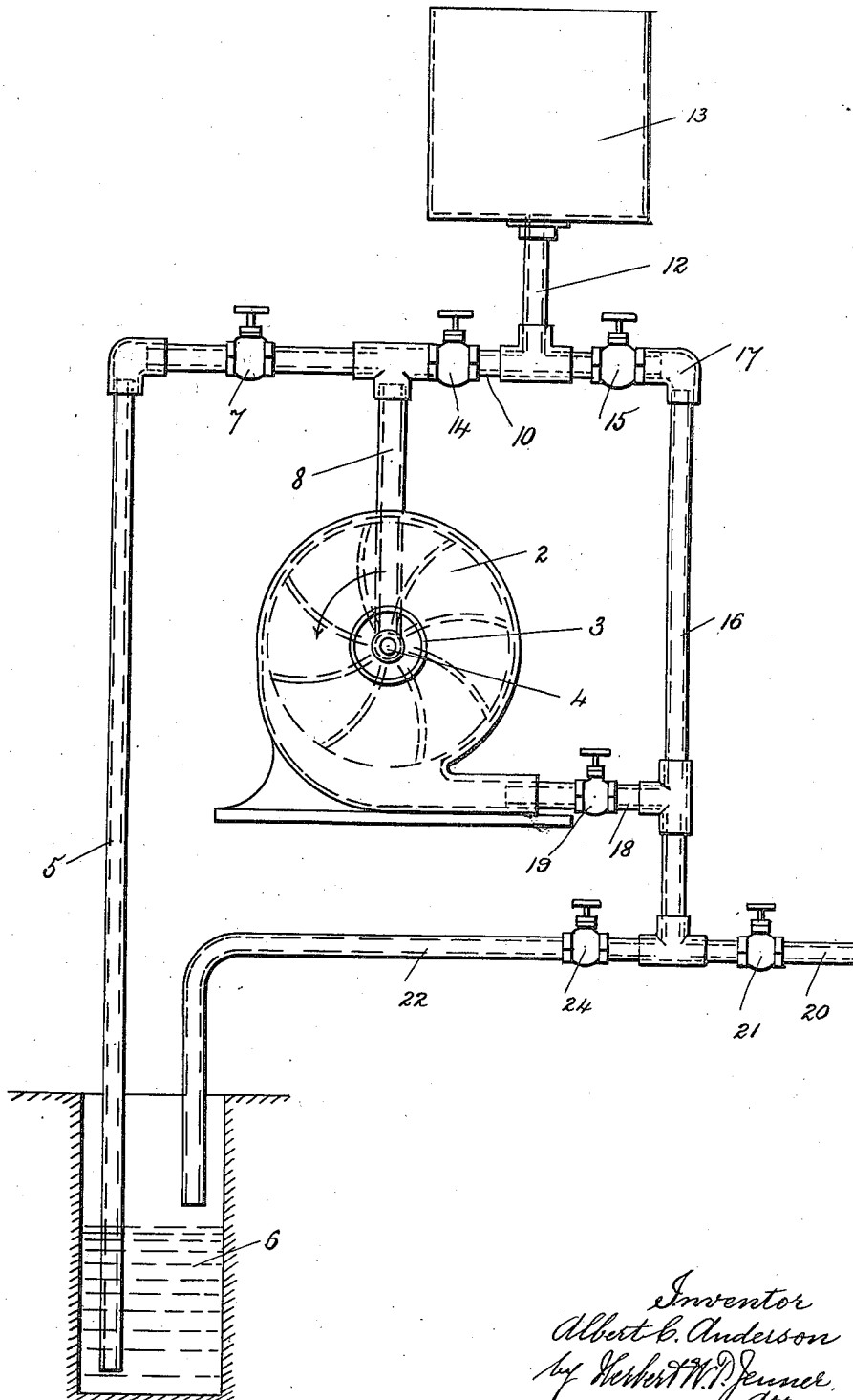
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A. C. ANDERSON

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PUMP

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UNITED STATES PATENT OFFICE.

ALBERT C. ANDERSON, OF ANTONITO, COLORADO.

PUMP.

Application filed December 25, 1921. Serial No. 525,452.

To all whom it may concern:

Be it known that I, ALBERT C. ANDERSON, a citizen of the United States, residing at Antonito, in the county of Conejos and State of Colorado, have invented certain new and useful Improvements in Pumps, of which the following is a specification.

This invention relates to pumps used chiefly on farms for raising water from wells and distributing it as required; and it consists in providing the pump with an arrangement or system of distributing pipes and valves as hereinafter fully described and claimed.

The drawing shows a side view of a pump provided with pipes and valves according to this invention and arranged in the form of a diagram.

The pump 2 is preferably a centrifugal pump or turbine pump of any approved construction. The rotor of this pump is driven by any approved motor, the power being applied to a wheel or pulley 3 secured on the rotor driving shaft 4. The inlet pipe or suction pipe 5 of the pump extends into a well 6, or other water supply, and it is provided with a stop valve 7 arranged conveniently near the pump and in the main portion of the pipe. The main portion of the pipe 5 is connected to the pump by a branch pipe 8.

A pipe 10 is connected to the main pipe 5, and is arranged in line with its upper part, and 12 is a branch pipe connected to the pipe 10 and connecting it with any suitable storage tank 13 arranged at any suitable elevation. The pipe 10 has two stop valves 14 and 15, arranged one on each side of the branch pipe 12.

A pipe 16 is connected at one end to the pipe 10 by an angle-pipe 17, and this pipe 16 is provided with a branch pipe 18 which is connected to the outlet or delivery passage of the pump 2. The delivery pipe or branch 18 is provided with a stop valve 19.

The other end of the pipe 16 from the angle-pipe 17 is connected to a supply pipe or supply line 20, which has a stop valve 21. A by-pass pipe 22 is also connected at one end to the pipe 16, and is arranged in line

with the supply pipe 20, and is provided with a stop valve 24. The other end of the by-pass pipe 22 is arranged to deliver into the well 6.

When the pump is required to force water directly into the supply pipe 20, the valves 7, 19 and 21 are opened, and the valves 14, 15 and 24 are closed. When water is to be forced into the storage tank the valves 7, 19 and 15 are opened, and the valves 14, 21 and 24 are closed. When water is to be supplied from the storage tank to the supply pipe 20, the pump is not driven. The valves 15 and 21 are opened, and the valves 7, 14, 19 and 24 are closed. When the pump is to be run without delivering water to the supply tank or to the supply pipe 20, which is sometimes desirable, the valves 7, 19 and 24 are opened, and the valves 14, 15 and 21 are closed, so that the water raised by the pump is returned to the well by the by-pass pipe.

When a pump is provided with pipes and valves in this manner it is found to be very efficient for use on farms, and other places, where water is used from time to time, and where it is desirable that the water supply should never fail.

What I claim is:

1. A single pump provided with an inlet pipe and a delivery pipe having a stop valve, a single suction pipe connected to the inlet pipe and also provided with a stop valve, a main pipe connected at one end to the suction pipe and provided with a branch pipe and having two stop valves arranged one on each side of the branch pipe, a storage tank connected to the branch pipe, a supply pipe and a by-pass pipe arranged below the level of the said main pipe and in line with each other and each provided with a stop valve, and a pipe connecting the said main pipe with the delivery pipe of the pump and with the said supply and by-pass pipes between their stop valves.

2. A single pump provided with an inlet pipe and a delivery pipe having a stop valve, a single suction pipe connected to the inlet pipe and also provided with a stop valve, a main pipe provided with a branch

pipe and two stop valves arranged one on each side of the branch pipe, one of the said two stop valves being connected with the said suction pipe and inlet pipe, a storage tank connected to the branch pipe, a pipe connecting the other of the two said stop valves with the delivery pipe of the pump beyond its stop valve, and a supply pipe and a by-pass pipe each provided with a stop valve and connected with the last said pipe beyond its point of connection with the delivery pipe of the pump.

In testimony whereof I have affixed my signature.

ALBERT C. ANDERSON.