

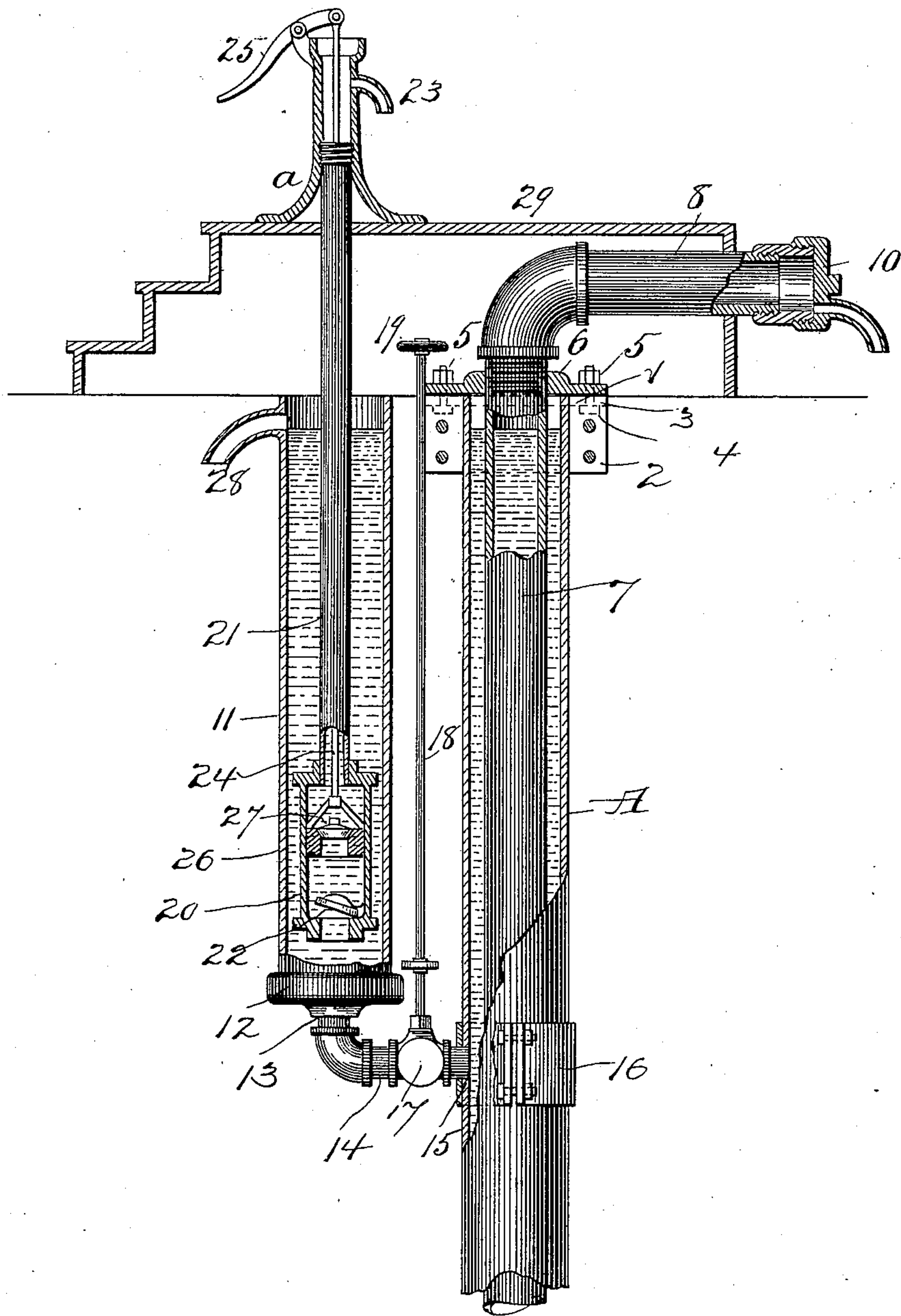
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Patented Dec. 19, 1899.

J. A. & A. V. McALLISTER.
APPARATUS FOR OPERATING WELLS.

(Application filed Apr. 22, 1899.)

(No Model.)



WITNESSES

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UNITED STATES PATENT OFFICE.

JAMES A. McALLISTER AND ALBERT V. McALLISTER, OF MANISTIQUE,
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APPARATUS FOR OPERATING WELLS.

SPECIFICATION forming part of Letters Patent No. 639,601, dated December 19, 1899.

Application filed April 22, 1899. Serial No. 714,121. (No model.)

To all whom it may concern:

Be it known that we, JAMES A. McALLISTER and ALBERT V. McALLISTER, residents of Manistique, in the county of Schoolcraft and State of Michigan, have invented certain new and useful Improvements in Apparatus for Operating Wells; and we do hereby 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.

Our invention relates to an improvement in means for operating wells, the object of the invention being to provide means which will permit a well to be used for ordinary water-distributing or to be employed as a water-supply for fire-engines and the like.

A further object is to provide a device of the above-mentioned character which will be comparatively simple in construction, cheap to manufacture, easy to operate, and most effectual when in operation.

With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described, and pointed out in the claims.

The accompanying drawing is a view in section illustrating our improvements, showing the water at the highest level it can attain without overflow.

A represents a well-casing having a cap 1 at its upper end comprising a ring 2, provided with a peripheral flange 3 at its upper edge, to which is secured, by means of suitable bolts 4 and nuts 5, a ring 6. A tube 7 is secured in the ring 6 and projects above the ring and down into the well-casing. The tube 7 is smaller in diameter than the well-casing, thus leaving a space all around said tube, for a purpose more fully hereinafter explained. The upper end of the tube 7 is provided with a curved spout 8, to which any suitable suction-pipe (not shown) is adapted to be connected when it is desired to draw water from the well for the purpose of extinguishing a fire or for other purposes where a great volume of water is desired. Any suitable plug or cap 10 is adapted to be screwed on the end of the spout when this part of my invention is not in use.

A cylindrical casing 11 is disposed in proximity to the well-casing and is provided at its lower end with a suitable cap 12, having a central hole or opening 13. A tube or pipe 14 is secured to the cap 12 around the hole or opening 13 and communicates at its other end with a hole 15 in the well-casing, so as to permit water to flow from the well into the pipe or cylindrical casing 11. A split sleeve 16 is secured around the well-casing and provided with a hole or opening for the passage of the tube 14. The tube 14 is secured to the sleeve 16 to support the same, and said tube 14 is provided between its ends with a suitable valve 17, adapted to be operated by a rod 18, projecting upward from the valve and having any approved handhold 19 on its upper end above the ground. A pump-cylinder 20 is secured in the casing by means of a tube or pipe 21, extending upward from the cylinder 20 and secured in any approved pump-frame *a*, where it communicates with any approved spout 23. The pump-cylinder 20 is open at its lower end and provided with the downwardly-closing valve 22 for closing the same. A plunger-rod 24 is disposed in the tube or pipe 21 and is adapted to be operated by any approved lever 25 on the pump-frame. A plunger 26 is secured to the lower end of the plunger and disposed in the pump-cylinder and provided with a suitable downwardly-closing valve 27 to permit the water to pass therethrough and prevent the water from returning to the casing. Any suitable overflow-spout 28 may be provided for the cylindrical casing 11 to permit any overflow which may occur to be carried off without damage to the premises.

The operation of our improved apparatus is as follows: In case of a fire or if the well is to be employed for irrigation the cap 10 is removed and a suction-pipe connected with the end of the tube, the valve 17 being closed, and water drawn from the well. When the well is employed for ordinary purposes, the valve 17 is opened and the pump-lever 25 operated to raise the water.

Any suitable platform or frame 29 may be provided to inclose the upper end of the tube 7 and well-casing and for supporting the pump frame.

Various slight changes might be resorted to in the general form and arrangement of the several parts described without departing from the spirit and scope of our invention, and hence we would have it understood that we do not wish to limit ourselves to the precise details set forth, but consider ourselves at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of our invention.

Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In an apparatus for operating wells, the combination with a well-casing, a tube in said well-casing having a spout at its upper end, a cylindrical casing disposed in proximity to the well-casing, a tube connecting the last-mentioned casing with the well-casing outside

of the tube, a valve in said connecting-tube and a pump in the cylindrical casing.

2. In an apparatus for operating wells, the combination with a well-casing and a cylindrical casing communicating therewith and adapted to receive water therefrom, of a tube in the well-casing to which a suction-pipe is adapted to be connected and a pump in the cylindrical casing adapted to force water therefrom.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

JAMES A. McALLISTER.

ALBERT V. McALLISTER.

Witnesses:

C. E. HAGERMAN,
JOHN DONELSON.