

G. M. BEARD.  
Windmill-Pump.

No. 213,314

Patented Mar. 18, 1879.

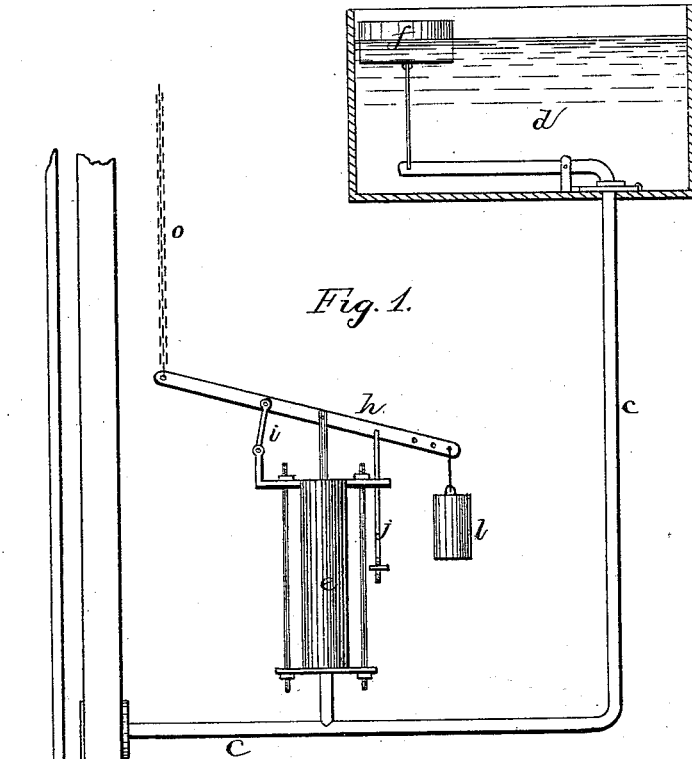


Fig. 1.

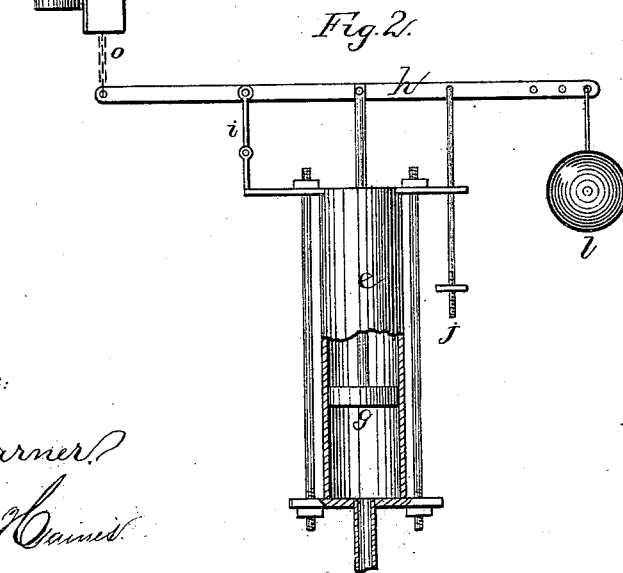


Fig. 2.

Witnesses:

J. W. Garner,  
H. S. D. Haines.

Inventor:  
Geo. M. Beard,  
per  
F. A. Lehmann,  
Atty.

# UNITED STATES PATENT OFFICE.

GEORGE M. BEARD, OF ANGOLA, INDIANA.

## IMPROVEMENT IN WINDMILL-PUMPS.

Specification forming part of Letters Patent No. **213,314**, dated March 18, 1879; application filed February 1, 1879.

*To all whom it may concern:*

Be it known that I, GEORGE M. BEARD, of Angola, in the county of Steuben and State of Indiana, have invented certain new and useful Improvements in Windmill-Pumps; and I 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in windmill-pumps; and it consists in the arrangement and combination of devices whereby, when the tank has been pumped full, a float-valve closes the end of the supply-pipe, and causes the water to rise in a cylinder in which there is a weighted piston. To the upper end of this piston-rod is attached a lever, and to one end of this lever is fastened a chain which throws the wheel out of action, so that when the water forces the piston upward after having been shut off from the tank by the float-valve, the wheel is thrown out of gear and the pump stopped until the water falls below a certain level in the tank, when the downward movement of the lever again sets the wheel in motion, all of which will be more fully described hereinafter.

Figure 1 is a side elevation of my invention, and Fig. 2 is a detail of the same.

*a* represents a pump, which is operated by the wind-wheel when in motion, and which forces water through the pipe *c* into the tank *d*, situated at any desired distance from the well or spring in which the pump is placed. Pivoted upon the end of this pipe that is in the tank is a float, *f*, which rises with the water in the tank until the water reaches a certain level, when the short end of the lever, on which the float is placed, closes the end of the pipe so that no more water can flow into the tank.

As the wind-wheel continues to work the pump the water is forced into the cylinder *e*, in which is placed the piston *g*. To the upper end of the piston-rod is fastened the lever *h*, which is pivoted upon the pivoted support *i*. Upon one side of the piston-rod there is fastened to the lever the rod *j* to limit the lever's

movement, and to the end of the lever is fastened the weight *l*.

To the opposite end of the lever from the weight is fastened the chain or rope *o*, which trips the wheel so as to throw it out of gear, and thus prevent it from operating the pump.

After the float has closed the end of the pipe so that no more water can run into the tank the pump forces the water into the cylinder, thereby raising the piston and the end of the lever having the weight attached, and forcing downward the end of the lever which has the tripping-rope fastened to it. As the end of the lever descends the wheel is either tripped or drawn around out of the wind, so as to stop the pump.

When the water has been drawn from the tank and the float dropped down to a certain level the weight forces the piston down and forces the water from the cylinder up into the tank, when the wheel at once comes into action and starts the pump.

In order to prevent the water from freezing in the cylinder in the winter the cylinder may be placed deep down in the well, or protected in any suitable manner.

The pipe may be sunk in the earth beyond the reach of frost, and the tank located near or at any distance from the well or spring. The water is prevented from flowing from the cylinder back into the well by a suitable valve, and the pump is provided with a handle and spout, so that water can be raised by hand, when so desired.

Having thus described my invention, I claim—

The combination of the wind-wheel, a rope or chain, a weighted lever that is connected to a piston moving in the cylinder, a water-pipe, and a tank having a float-valve, the parts being arranged to operate substantially as shown.

In testimony that I claim the foregoing I have hereunto set my hand this 23d day of January, 1878.

GEORGE M. BEARD.

Witnesses:

CLAY LEMMON,  
B. F. GRIFFITH.