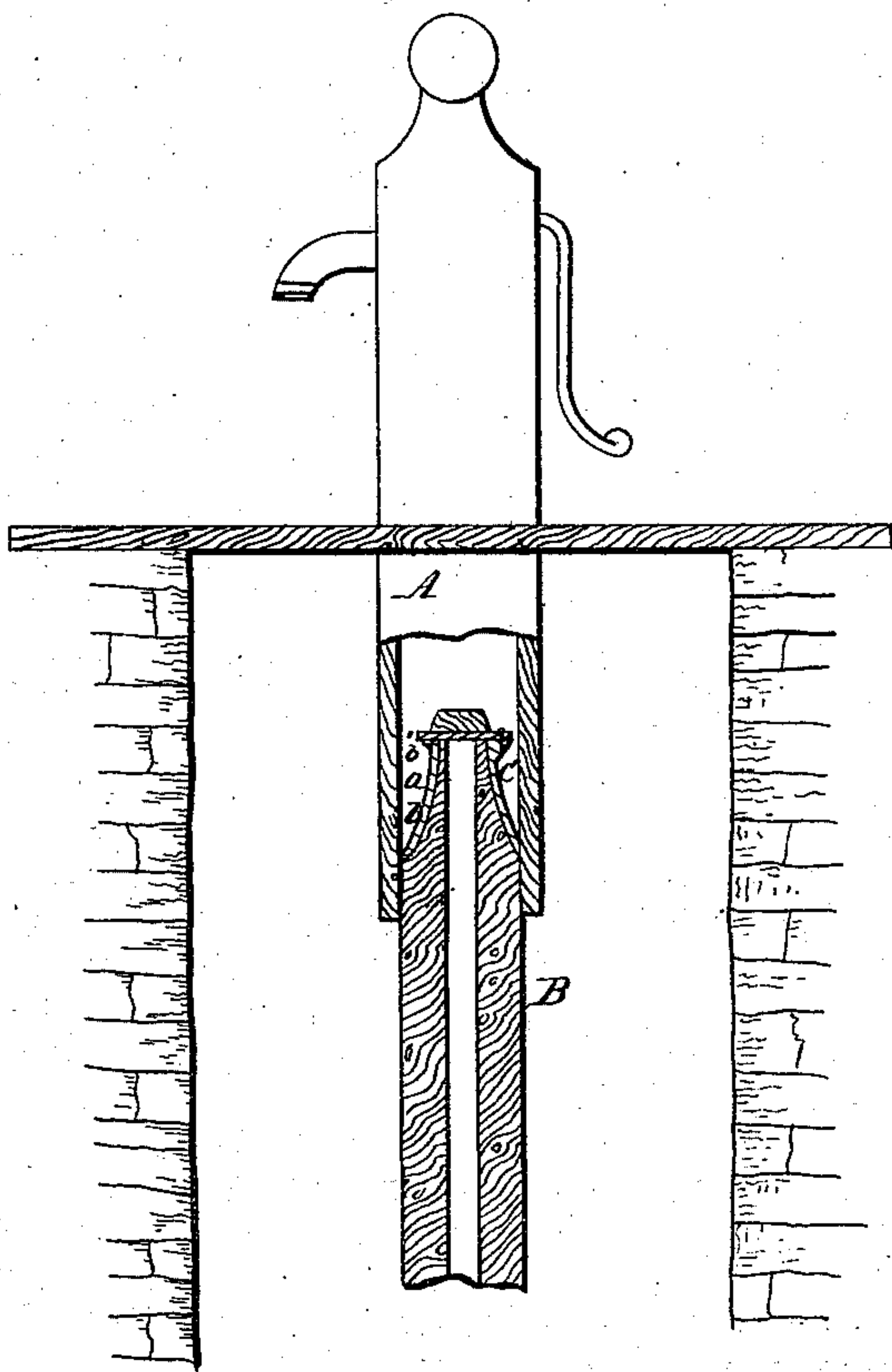


E. R. BOHAN.
Pumps.

No. 155,489.

Patented Sept. 29, 1874.



Edmond R. Bohan

INVENTOR

WITNESSES

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By

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UNITED STATES PATENT OFFICE.

EDMOND R. BOHAN, OF MANKATO, MINNESOTA.

IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. **155,489**, dated September 29, 1874; application filed January 16, 1874.

To all whom it may concern:

Be it known that I, EDMOND RUSSELL BOHAN, of Mankato, in the county of Blue Earth and State of Minnesota, have invented certain new and useful Improvements in 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, in which the figure shown represents a vertical central section of my improvement.

This invention has relation to well-pumps; and consists in the novel construction of the check-valve seat, whereby the accumulation of sand and other obstacles to the operation of the check-valve, underneath the latter, is prevented.

Referring to the accompanying drawing, A designates the barrel or cylinder of an ordinary wooden pump, and B the tubing leading from said cylinder or barrel to the water.

This tubing is commonly made of the same diameter throughout its length, and the valve-seat formed by cutting the upper part straight across, thereby leaving considerable surface to the seat upon which the sand and other particles drawn up with the water accumulate, and prevents the check-valve from fully closing, no means being provided, either by the construction or arrangement of the valve-seat or valve, for the disposal of said particles.

The object of my invention being to overcome the difficulty above mentioned, I cut the tubing at its upper end to a conical or tapering form, thereby producing a thin sharp edge, upon which no particles can lodge, and a converging space, *a*, between the seat and

the inner surface of the barrel, into which the particles having a tendency to accumulate upon the seat will be deposited; but in so tapering the tube, it is rendered too weak and thin to retain the valve-fastenings and render it permanently serviceable. It therefore becomes necessary to strengthen said seat; hence I provide the external casing or shell *b*, made of any suitable material, and attached to the tubing by any convenient fastening. Upon the upper end of said shell I bend or form a slight flange, *b'*, to prevent the leather of the check-valve from being cut; I also form upon said casing a projection, *C*, to which I secure the check-valve, as shown.

My improvement is obviously susceptible of some modification, without departing from the original principal and primary object; and although said improvement is especially applicable to the ordinary wooden pump, it may be used to good advantage in connection with metallic pumps.

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

The combination, with the wood tubing B, having its upper end made tapering or conical to form a raised and isolated valve-seat, of the metallic casing or shell applied to said seat, and formed with a laterally-projecting shelf, to which the check-valve is hinged, substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 5th day of January, 1874.

EDMOND RUSSELL BOHAN.

Witnesses:

THOS. BOHAN,
JOHN GLAVIN.