J. W. TUCK.
Pump.

No. 205,926. Patented July 9, 1878.

Fig. 1.

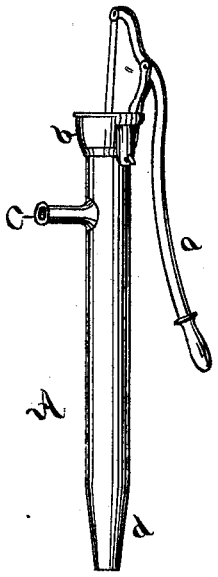
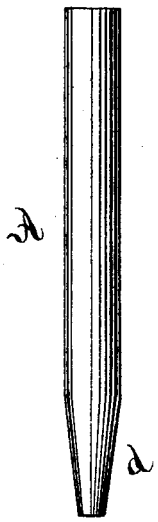


Fig. 2.



Witnesses.
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UNITED STATES PATENT OFFICE.

J. WARREN TUCK, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO UNION MANUFACTURING COMPANY, OF SAME PLACE.

IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. **205,926**, dated July 9, 1878; application filed June 24, 1878.

To all whom it may concern:

Be it known that I, J. WARREN TUCK, of New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Pumps, of which the following is a specification:

Prior to my invention copper pumps have been made having a cylindrical barrel and tapering end, when formed of two flat pieces of sheet-copper bent up and brazed together at the edges. Sometimes the edges have been dovetailed before brazing.

Cylindrical barrels have also been made in pumps of cast-brass and of cast-iron lined with a seamless copper tube.

In small hand-pumps or syringes the barrel and a short contracted end have been described as made of one piece by taking a tube of the requisite diameter and corrugating or indenting the end to contract it into a short irregular taper, the same being found in the patent to John A. Whitman, No. 199,131, dated January 8, 1878, all of which prior devices are hereby disclaimed.

My invention relates to copper pumps having a valve-box seated at the lower end of the barrel; and consists of the barrel and its tapering end formed of one and the same piece of seamless wrought metal, with parallel sides, terminating in a spun-up truncated cone-shaped end, as hereinafter described.

In the accompanying drawings, Figure 1 is a side elevation of a pump which embodies my invention. Fig. 2 is a detached elevation of the barrel and its tapering end belonging to said pump.

The internal mechanism, together with the handle *a*, top *b*, and spout *c*, may be of any ordinary kind, and attached to the cylindrical barrel A in any proper manner. *d* designates the tapering end of the barrel, which is in the form of the frustum of a cone, and in which the tapering valve-box is seated, and to which the pipe that leads to the water-supply is designed to be connected.

As in ordinary copper pumps, the valve-box is made of the same taper as the tapering end of the barrel, and is made tight by fitting snugly within the same. It is therefore essential that the tapering end shall not only be smooth, but also be of a true taper, like a truncated cone or frustum of a cone, and wholly free from corrugations or wrinkles upon its inside. This is done by drawing or spinning the cylindrical barrel and spinning the tapering end.

The barrel A and its tapering end *d* are thus formed all in one and the same piece of wrought-copper, without joint or seam, whereby the pump can be more cheaply manufactured than heretofore, and, being seamless, is of superior strength and durability. It is also more perfect in form, both in the barrel and box-seat, and therefore is more perfect in operation.

It is believed that a cylindrical tube having a truncated cone-shaped end, as shown in Fig. 2, has never before been formed seamless, of wrought metal, and consequently never before embodied in a pump.

I claim as my invention—

In a pump having a valve-box seated at the lower end of its barrel, the barrel A and its tapering end *d*, consisting of one and the same piece of seamless wrought metal, with parallel cylindrical sides, terminating in the spun-up truncated cone-shaped end, substantially as described, and for the purpose specified.

J. WARREN TUCK.

Witnesses:

W. B. THOMSON,

JAMES SHEPARD.