(No Model.)

J. LA TOURETTE.

Cylinder for Wooden Pumps.

No. 242,781. Patented June 14, 1881.

Fig. 1.

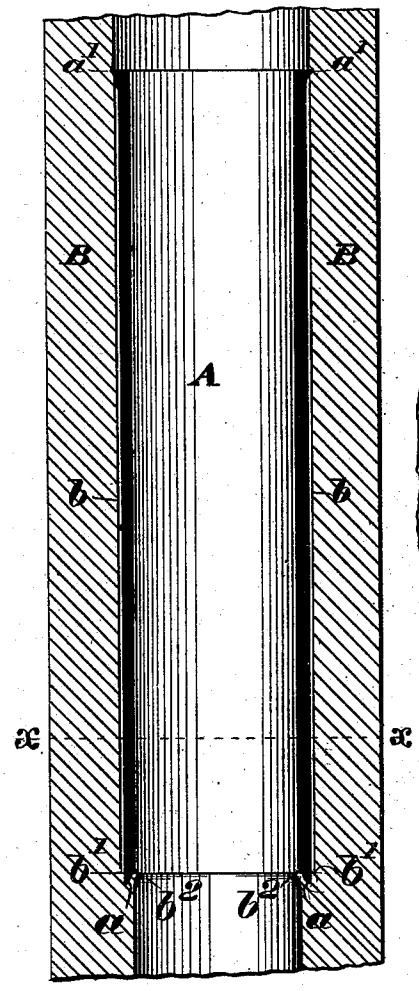


Fig. 2.

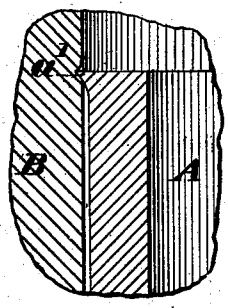


Fig. 3.

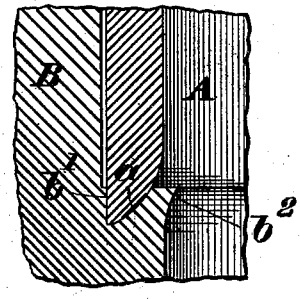
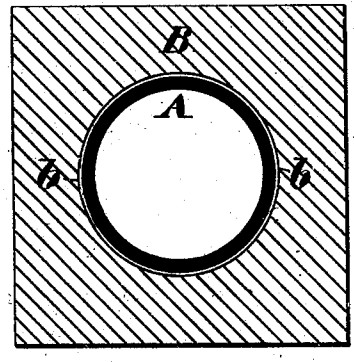


Fig. 4.



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UNITED STATES PATENT OFFICE.

JAMES LA TOURETTE, OF ST. LOUIS, MISSOURI.

CYLINDER FOR WOODEN PUMPS.

SPECIFICATION forming part of Letters Patent No. 242,781, dated June 14, 1881.

Application filed February 28, 1881. (No model.)

To all whom it may concern:

Be it known that I, JAMES LA TOURETTE, of St. Louis, Missouri, have made a new and useful Improvement in Cylinders for Wooden Pumps, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a longitudinal section taken through the cylinder and the tube in which the cylinder is immediately held; Fig. 2, a detail, being a sectional view upon an enlarged scale, showing a portion of the upper end of the cylinder and of the adjacent tube; Fig. 3, a detail, being a sectional view upon an enlarged scale, showing a portion of the lower end of the cylinder and of the adjacent tube; and Fig. 4, a cross-section taken on the line *x x* of Fig. 1.

The same letters denote the same parts.

In the manufacture of wooden pumps it is customary to insert a metallic cylinder in the wooden tubing.

The present invention relates to the mode of constructing the cylinder in question, and especially the upper and lower ends thereof, the aim being to provide an improved means for securing the cylinder in its place in the tube, and also for packing it therein, so that the water shall not leak between the cylinder-shell and the surrounding tube.

It consists in the sharpened flange extending around the upper end of the cylinder, and in the beveled or sharpened lower end of the cylinder, substantially as shown in the drawings, where—

A represents the metallic cylinder, it being of the usual description, saving as modified by the present improvement.

B represents the section of wood tubing in which the cylinder is inserted. The cylinder, at its lower end and upon its inner side, is beveled, as shown at *a*, Fig. 1, and more distinctly in Fig. 3. At its upper end and upon its outer side the cylinder is provided with a flange, *a'*, which extends around the cylinder, and is sharpened or pointed, as shown in Fig. 1, and more distinctly in Fig. 2. The bore or diameter of the tube B, at the point where the cylinder is to be placed, is enlarged to receive the cylinder, the diameter of the enlarged part being slightly larger than the external diameter of the main portion of the cylinder, as seen at *b*, Figs. 1 and 4. This forms a shoulder or seat, *b'*, in the tube, against or in which the lower end of the cylinder rests. The enlarged part of the tube-bore, however, is in diameter less than the diameter of the cylinder-flange *a'*. The cylinder is forced into its place in the tube, its lower end encountering the seat *b'*. Owing to the bevel *a* the cylinder end becomes embedded in the wood, which is forced inwardly, as shown at b^2, Figs. 1 and 3, and serving not only to keep the cylinder from dropping downward, but also to pack the joint between the lower end of the cylinder and the tube. As the cylinder is forced into place the flange *a'* cuts into the wood of the tube. If the flange were wider at its edge, the tube would be apt to split; but from the flange being sharpened, as described, the fibers of the wood, in practice, bend inward around the flange, as seen more distinctly in Fig. 2, without injury to the tube; and the flange serves both to hold the cylinder down in its place in the tube and also to prevent the water from leaking past the upper end of the cylinder, between the cylinder and tube.

I am aware that a sheet-metal lining has heretofore been secured in a wooden pump-stock by first cutting grooves in the stock and then putting the lining in the stock and swaging its ends into the grooves.

I claim—

1. In combination with the wooden tube B, the cylinder A, having the flange *a'* extended and sharpened, and having its lower end beveled at *a*, as and for the purposes described.

2. In combination with the wooden tube B, having the seat *b'*, the cylinder A, having its end beveled at *a*, as and for the purposes described.

3. As a new manufacture, the cylinder A, having the beveled end *a*, and the flange *a'*, extended and sharpened, as described.

4. In inserting in wooden pump-stocks metallic cylinders having a sharpened flange extending around the same, the mode of securing the cylinders in place and producing a water-tight joint at the flange, which consists in boring out the stock to a diameter slightly less than that of the cylinder-flange, and then forcing the cylinder in place, so that the wood will be bent inward around the flange, substantially as described.

JAMES LA TOURETTE.

Witnesses:
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SOLON N. SAPP.