(No Model.)

T. WINKLER.

ROTARY PUMP.

No. 256,781. Patented Apr. 18, 1882.

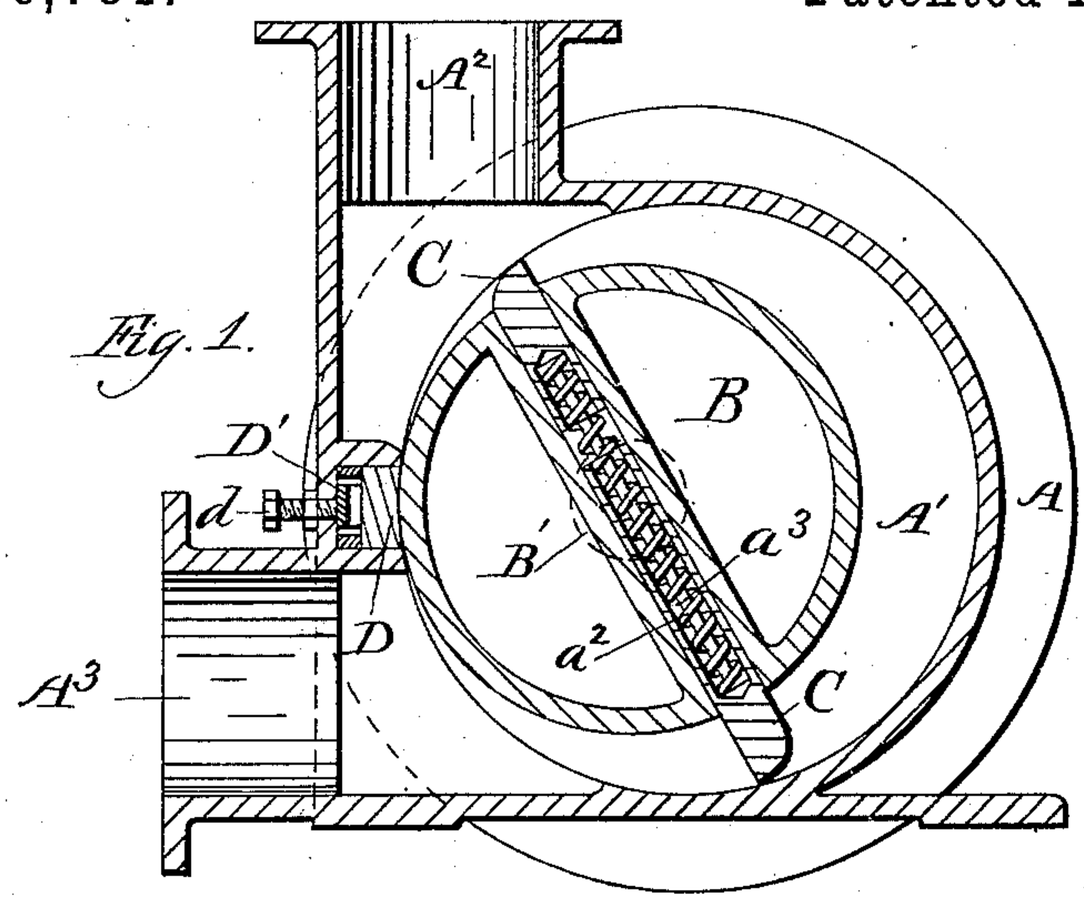

Fig. 1.

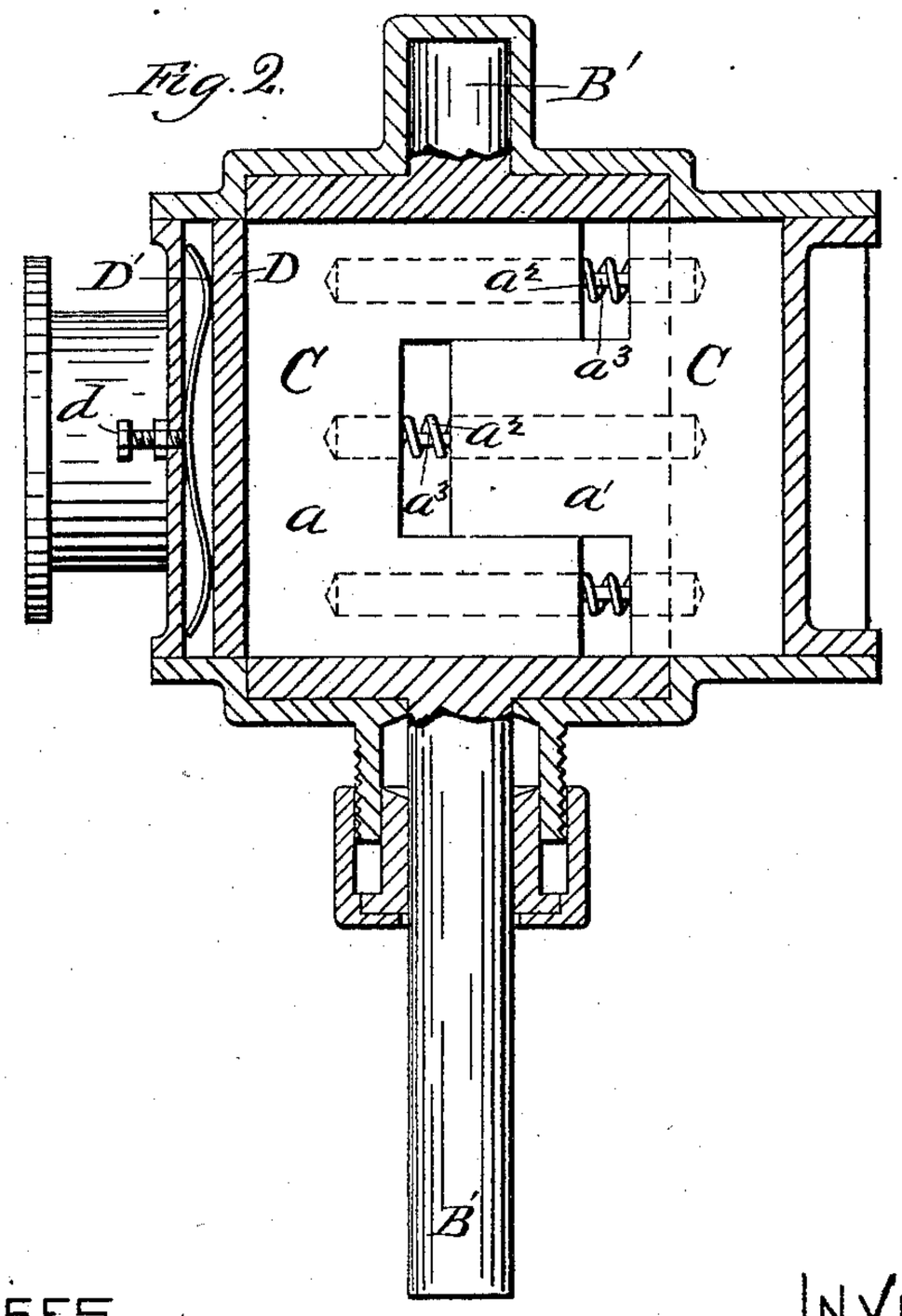

Fig. 2.

WITNESSES

F. B. Townsend

L. M. Freeman.

INVENTOR

Theodore Winkler

By G. B. Coupland & Co.

attys

UNITED STATES PATENT OFFICE.

THEODORE WINKLER, OF CHICAGO, ILLINOIS, ASSIGNOR TO AUGUST LECKELT, OF SAME PLACE.

ROTARY PUMP.

SPECIFICATION forming part of Letters Patent No. 256,781, dated April 18, 1882.

Application filed July 27, 1881. (No model.)

To all whom it may concern:

Be it known that I, THEODORE WINKLER, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Rotary Pumps; and I do hereby declare the following to be a full, clear, and exact description of the invention, that will enable others skilled in the art to which it appertains to construct and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, forming a part of this specification.

This invention relates to an improvement in rotary pumps; and it consists of certain novel features, as will be hereinafter more fully set forth in detail.

Figure 1 is a vertical transverse section, and Fig. 2 a longitudinal section.

Referring to the drawings, A represents the cylinder; A′, the annular water-space between the inner surface of the cylinder and the piston-hub B; B′, piston-rod; C, spring packing-plate; A^2, receiving-inlet, and A^3 discharge. The piston-rod B′ and rotary piston-hub B are formed integral, and are provided with a central rectangular slot extending from side to side for the reception of the packing-plate C. This packing-plate consists of the two distinct parts *a a′*. The part *a* is cut away in the center, forming a rectangular notch for the reception of a corresponding piece of the part *a′*, as shown in Fig. 2 of the drawings.

The parts composing the packing-plate C are recessed for the reception of the series of springs a^2 and their supporting-rods a^3. By this arrangement the parts composing the piston-plate are made self-adjusting relative to the eccentric plane between the piston and inclosing-cylinder.

The ends of the piston-plate which project beyond the piston and have a bearing in the inner circumferential surface of the cylinder are beveled, which form gives a less frictional contact with the bearing-surface and effectually prevents any obstruction becoming lodged between the packing-plate and cylinder. The beveled face should always be set in the direction in which the piston is moving, and if the movement is reversed the piston-plate should be reversed also. This simple change permits the pump to be run either way. The springs a^2 serve to keep the piston-plate to a close bearing with the inner surface of the cylinder, compensating for the wear and allowing an elastic movement of the parts.

The metallic packing-bar D, placed in the bottom of the cylinder, separates the suction and discharge, and is adjusted by means of the flat bow-spring D′ and the set-screw *d*.

This pump is especially adapted to pump liquids in tanneries, the floating tan-barks not affecting its free action. All valves are dispensed with. The construction is simple, the parts are easily and conveniently adjusted, and are not liable to get out of repair.

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

In a rotary pump, the combination, with the cylinder A and the piston-hub B, of the packing plate or plates C, the springs a^2, the rods a^3, the packing-bar D, the bow-shaped spring D′, and the set-screw *d*, all constructed, arranged, and operating as described.

THEODORE WINKLER.

Witnesses:

L. M. FREEMAN,

L. B. COUPLAND.