(118.)

E. HORSEY.

Oscillating Lifting Pump.

No. 122,722.

Patented Jan. 16, 1872.

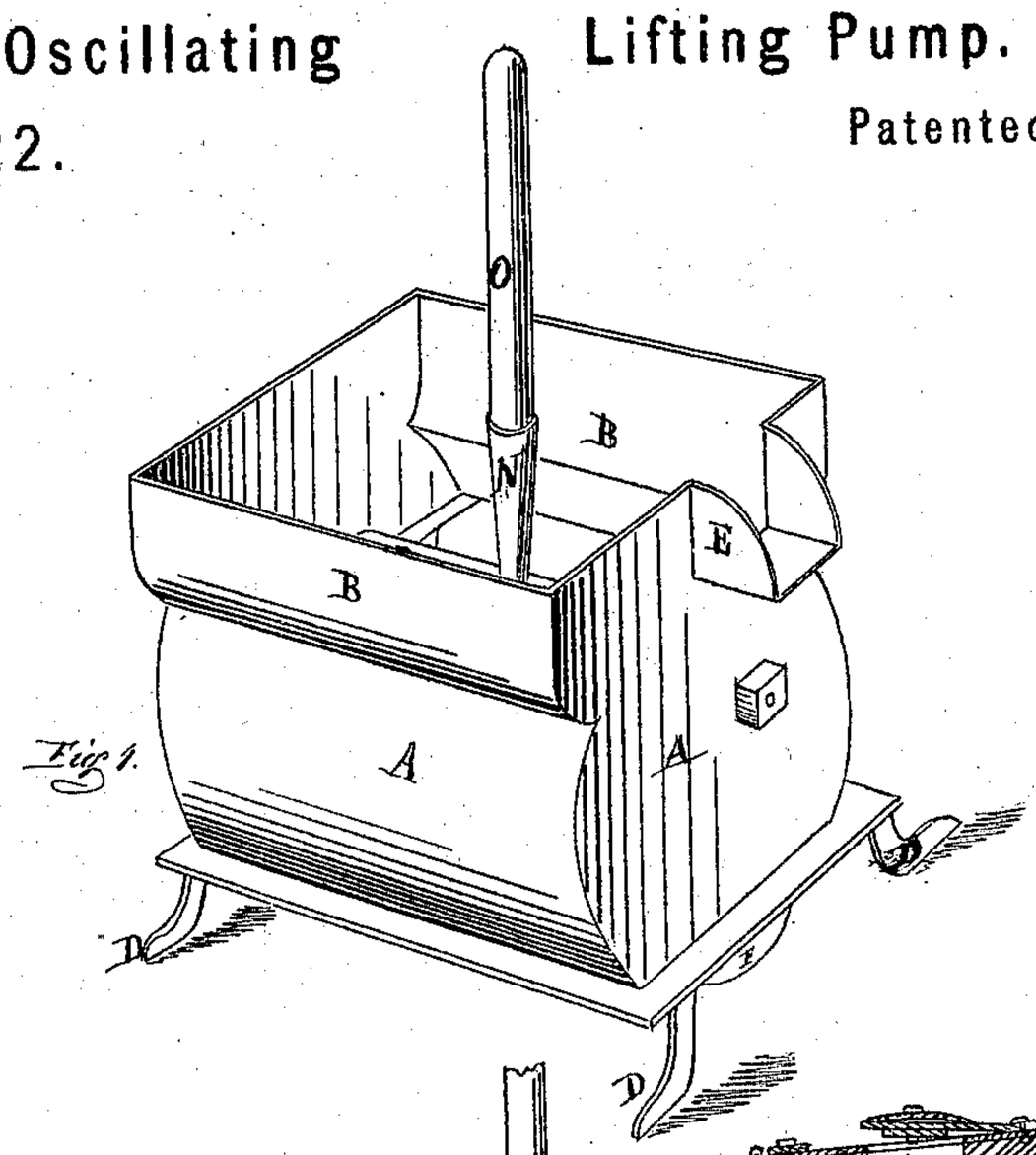

Fig. 1.

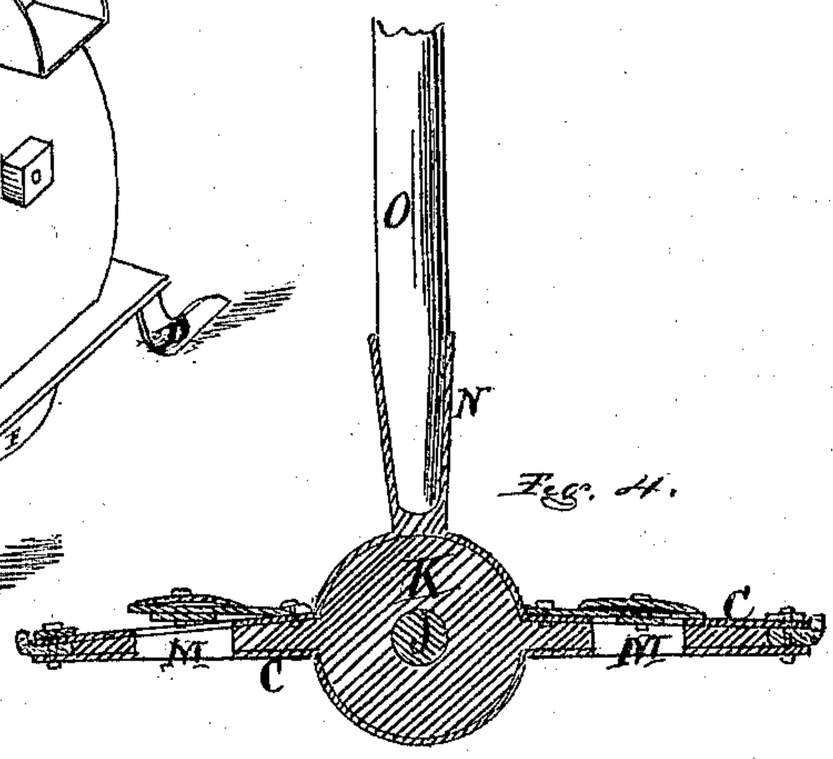

Fig. 4.

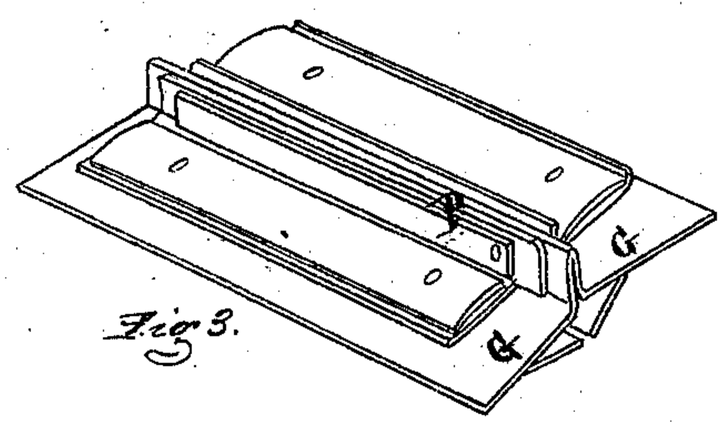

Fig. 3.

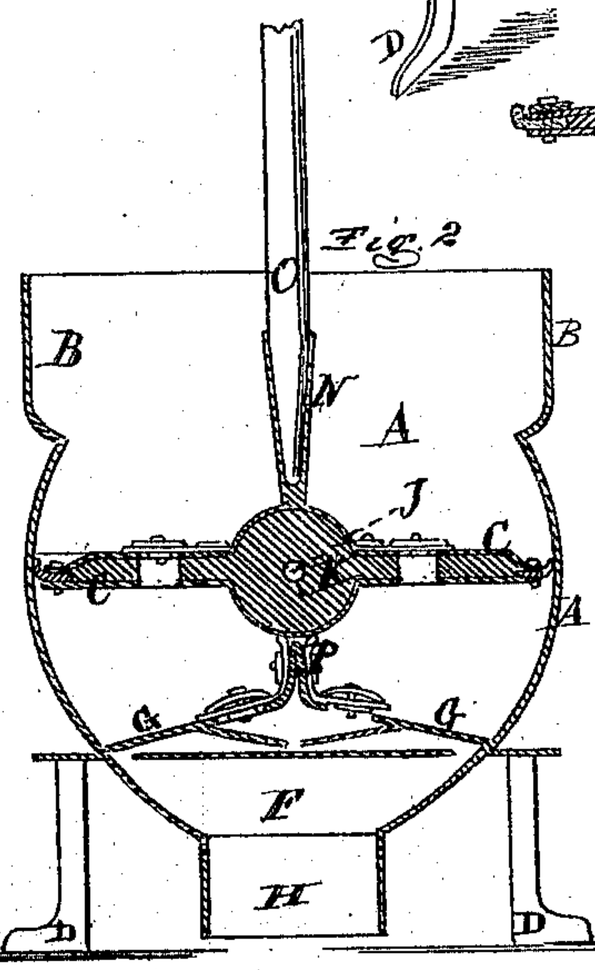

Fig. 2

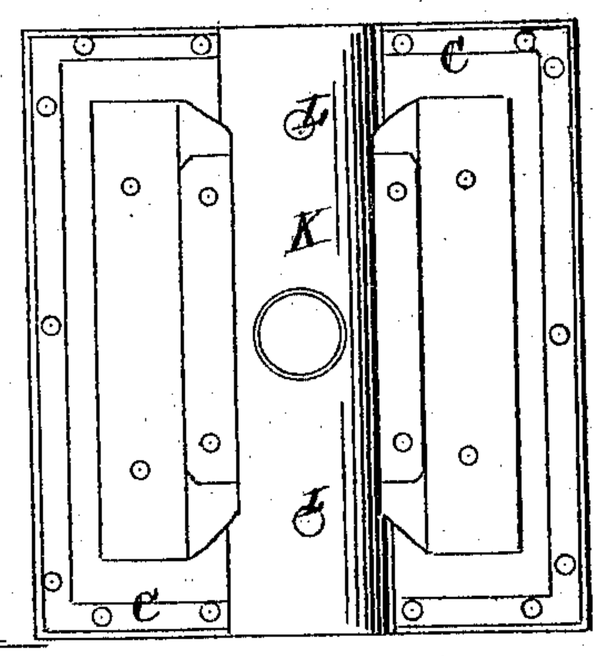

Fig. 5.

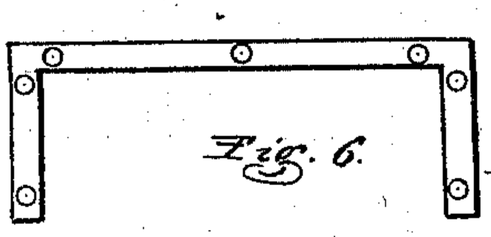

Fig. 6.

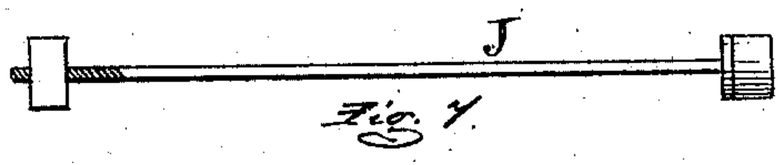

Fig. 7.

ATTEST

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122,722

UNITED STATES PATENT OFFICE.

EDWIN HORSEY, OF KINGSTON, CANADA, ASSIGNOR TO ANTHONY SLUTHOUR, OF CLEVELAND, OHIO.

IMPROVEMENT IN OSCILLATING LIFTING-PUMPS.

Specification forming part of Letters Patent No. 122,722, dated January 16, 1872.

To all whom it may concern:

Be it known that I, EDWIN HORSEY, of Kingston, in the county of Frontenac and Dominion of Canada, have invented a new and useful Improvement in Lifting-Pumps; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon and being a part of this specification, in which—

Figure 1 is a perspective view of my invention. Fig. 2 is a transverse vertical section. Fig. 3 is a perspective of the base portion of the pump. Fig. 4 is a vertical section of the oscillating upper plate for the valves. Fig. 5 is a plan view of the same. Fig. 6 is a view of the angle-shaped pieces to fit the above plate. Fig. 7 is a bolt upon which said plate has an oscillating motion.

Like letters refer to like parts in each figure.

The nature of this invention relates to an improved construction of double-acting lifting-pumps, by means of which their cost is reduced and their efficiency more perfect, that easy access may be had to all its parts. The invention consists in constructing the oscillating valve-seat plate with a bore having an enlarged recess therein to lubricate the axis-rod passing through said bore and the ends of the cylinder, with holes to furnish oil to the lubricator, as is more fully hereinafter described.

A represents the pump-chamber with which is combined or cast an open chamber, B, its throat being made sufficiently large to admit the insertion of the oscillating plate C of the valves. This pump-chamber and open basin is cast with feet D, and a spout, E, the whole forming one piece of metal. The base portion of the pump-chamber F and bridge piece G, of the inlet-valves is made in one piece, the former having a socket-aperture, H, to receive the suction-tubing. In the apex of the bridge piece G is a groove, P, in which is inserted a strip of packing to prevent air and water passing between it and the plate C. The seat-plate C provided with valves, described below, has its hollow central portion K enlarged in cylindrical form, which hollow portion extends on either side to a point near the inner walls of the pump-chamber, and is also furnished with openings L. Through this opening K, and through suitable openings in the ends of the seat-plate C, a fixed axial bolt, J, passes, properly secured in the walls of the pump-chamber upon which bolt the seat-plate has an oscillating motion. The object of the openings L, is to allow of a proper and constant supply of water within the hollow portion K of the seat-plate for the purpose of keeping the journals of the same always cool and in good operative condition. The oscillating plate C has two or more valved apertures, M, and to it is cast the socket N to receive the handle or brake O, which may be operated in any desirable manner. The plate C may be removed through the throat of the basin B, by withdrawing from it the axis-bolt J.

The advantage of my invention consists in the cheapness and efficiency of the means employed to secure an effective oscillation of the valve-seat plate, whereby I am able to dispense with the usual packing, which is expensive and requires frequent renewal.

I do not claim as my invention the arrangement of the valves, or an oscillating valve-plate C, or valved bridge G; but

What I claim as my invention, and desire to secure by Letters Patent, is—

In an oscillating pump, the combination of the fixed axial bolt J, the seat-plate C provided with the cylindrical water-chamber K, and the handle O, constructed, arranged, and operating, substantially as set forth.

Witnesses: EDWIN HORSEY.

FREDERICK EBERTS,

MYRON H. CHURCH.

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