

(No Model.)

G. ALLWEILER.

AUXILIARY EXHAUST APPARATUS FOR OSCILLATING WING PUMPS.

No. 564,959.

Patented Aug. 4, 1896.

Fig. 1.

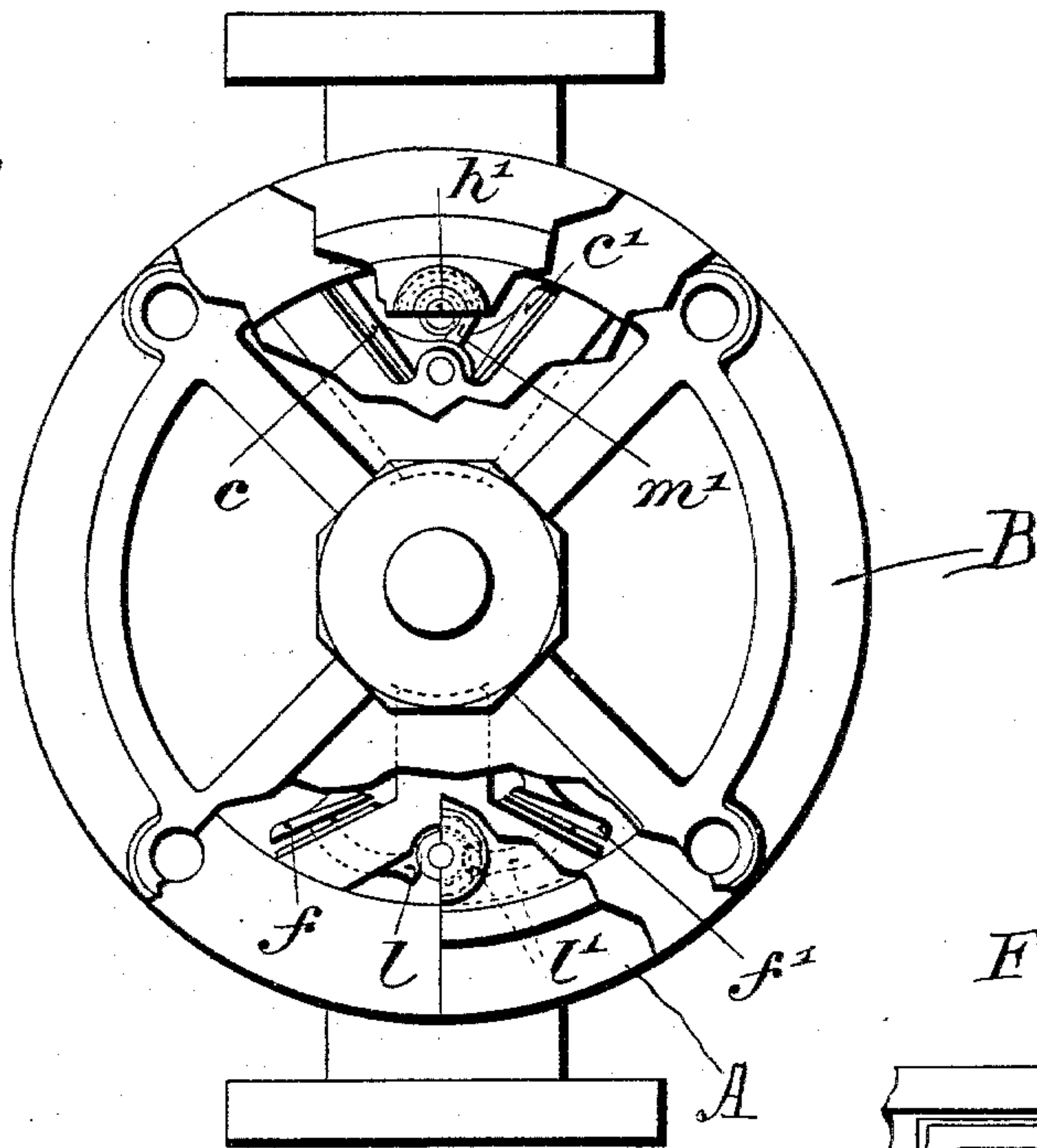


Fig. 3.

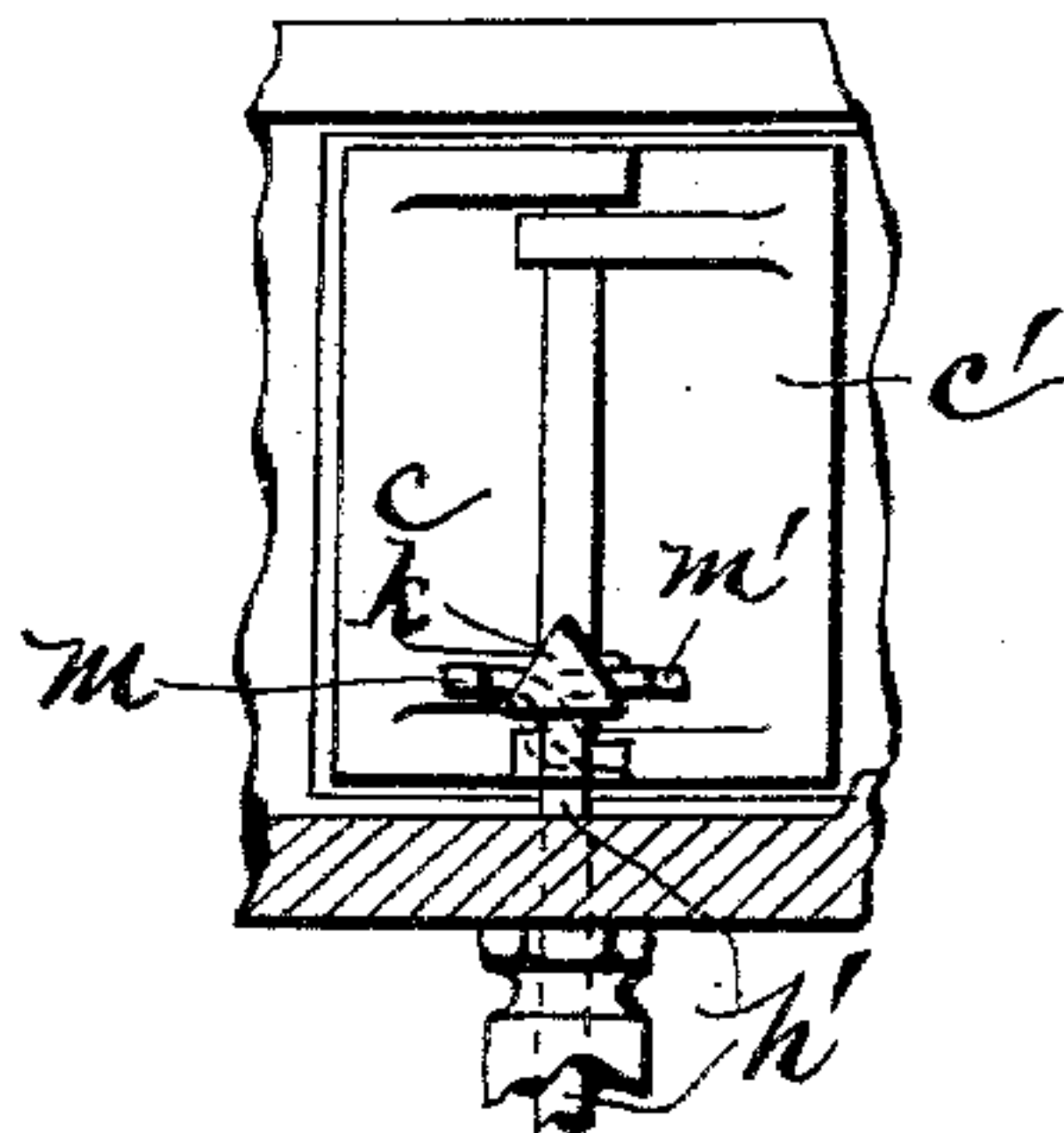
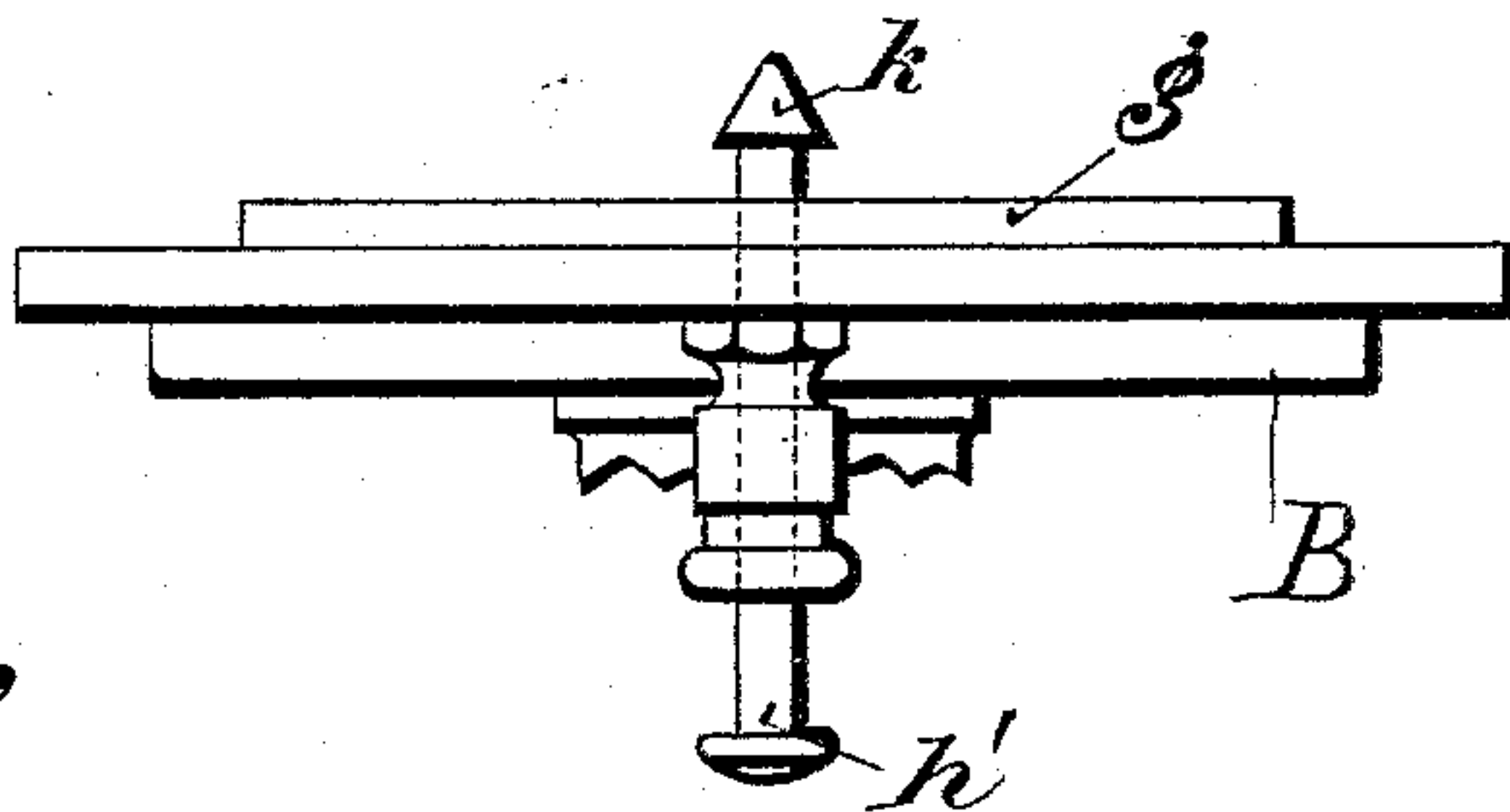


Fig. 2.



Witnesses
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 by *S. M. Bates*
his atty.

UNITED STATES PATENT OFFICE.

GOTTHARD ALLWEILER, OF RADOLFZELL, GERMANY.

AUXILIARY EXHAUST APPARATUS FOR OSCILLATING WING-PUMPS.

SPECIFICATION forming part of Letters Patent No. 564,959, dated August 4, 1896.

Application filed July 8, 1895. Serial No. 555,319. (No model.)

To all whom it may concern:

Be it known that I, GOTTHARD ALLWEILER, pump manufacturer, a subject of the Grand Duke of Baden, residing at Radolfzell, in the Grand Duchy of Baden and German Empire, have invented new and useful Improvements in Auxiliary Exhaust Apparatus for Oscillating Wing-Pumps, of which the following is a specification.

My invention relates to oscillating pumps and to means for opening the suction and force valves thereof for the purpose of draining them.

The class of pumps to which my invention applies is that wherein the pump-cylinder is provided with an oscillating piston or plunger pivoted at the center of the cylinder. The suction and force valves are usually arranged in pairs and are pivoted to the interior of the cylinder. According to my present invention I raise these valves from their seats by means of a longitudinally-movable spindle which passes through the cylinder from the outside, the inner end of which acts against the valve to raise it from its seat when the spindle is forced inward.

I illustrate my invention by means of the accompanying drawings, in which—

Figure 1 is an end view of an oscillating pump having portions cut away to show the interior construction, and Fig. 2 is a view of the cylinder-head. Fig. 3 is a view showing my invention as applied to the upper valves.

A represents the cylinder proper; B, one of the cylinder-heads; f and f' , the suction-valves, and c and c' are the force-valves.

The suction-valves are pivoted adjacent to each other on opposite sides of the center, and they are provided with projections l and

l' , which extend toward each other, their inner ends being near together. These valves are lifted from their seats when necessary by forcing these adjacent ends apart, and this I accomplish by means of a pin or spindle h' , which extends through the cylinder-head and has on its inner end a conical point k , resting normally between the inner ends of the projections l and l' . The spindle is mounted so that it has a longitudinal motion in its bearing, and when it is forced inward the conical point forces the inner ends of the projections apart and so lifts the valves from their seats.

The force-valves are provided with similar inward-extending projections, only one of which, m' , is shown, and a pin or spindle h acts on these valves in the same manner as described for the suction-valves. As long as the spindles are kept in the valves will be held open, and when they are withdrawn the valves will come down onto their seats.

I claim—

The herein-described oscillating pump having in the interior thereof a pair of valves oppositely disposed, said valves having offsets or projections extending toward each other, a longitudinally-movable pin or spindle extending through the casing of the pump and having a conical or wedge-shaped inner end adapted to be forced between said projections to lift said valves from their seats.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GOTTHARD ALLWEILER.

Witnesses:

OSCAR MÜLLER,
CHARLES MEYER.