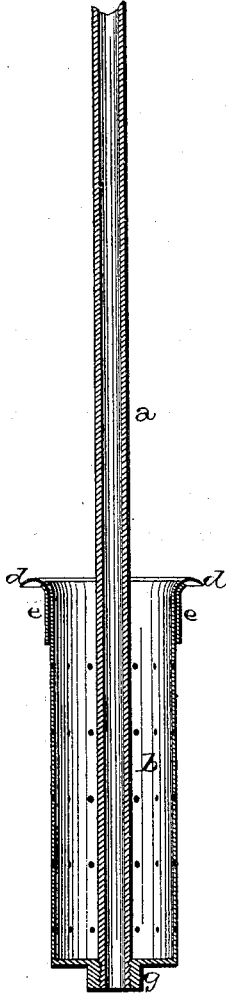


L. WIDGER & L. PATTERSON.
Sand-Pump.

No. 196,509.

Patented Oct. 23, 1877.



WITNESSES

J. W. Garner

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per

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att'y.

UNITED STATES PATENT OFFICE.

LAFAYETTE WIDGER AND LEMUEL PATTERSON, OF PARKER CITY, PA.

IMPROVEMENT IN SAND-PUMPS.

Specification forming part of Letters Patent No. **196,509**, dated October 23, 1877; application filed August 9, 1877.

To all whom it may concern:

Be it known that we, LAFAYETTE WIDGER and LEMUEL PATTERSON, of Parker City, in the county of Armstrong and State of Pennsylvania, have invented certain new and useful Improvements in Sand-Cleaners for Oil-Wells; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawing, which forms part of this specification.

Our invention relates to an improvement in sand-cleaners for oil-wells; and it consists in attaching to the lower end of the tube a perforated sheet-metal cylinder, for the purpose of catching the sand, pebbles, and other such articles as may fall into the well, so that when the tubing is drawn up the sand and pebbles will be drawn up with it.

The accompanying drawing represents our invention.

a is a tubing in an oil-well, which has the sheet-metal perforated cylinder *b* screwed or otherwise secured to its lower end. This cylinder should just snugly fit inside the casing of the well, and is made perforated, so that the flow of the well will not be interfered with. The upper end of this cylinder is flared outward, and around its outside upper end is secured a ring, *e*. Between this ring and the top of the cylinder is secured a rubber or leather packing, *d*, so as to form a tight joint with the sides of the casing. In the lower end of the cylinder is formed a nut, *g*, for the tubing to screw into; but any other mechanical means for fastening the cylinder to the tube may be used. This cylinder is lowered with the tubing down

to the bottom of the well, for the purpose of catching the sand, dirt, and gravel that may fall therein.

Whenever it is desired to clean the well it is only necessary to draw up the tubing, and the sand and dirt will be drawn up with it. After the cylinder has reached the top of the ground, by unscrewing the tubing all the dirt contained in it will run out through the hole in its bottom.

The rubber or leather packing will prevent the tubing from vibrating in the well, and thereby make the tubing less liable to break. The catcher should be made small enough to allow it to go down and be drawn up freely from the well.

When the cylinder *b* becomes filled with sand or dirt the perforated pipe on the end of the working barrel will suck some of the sand or dirt into it, and, as the sand will cut the cups on the pipe, notice is thereby given that the cylinder is full, and should be cleaned out.

Having thus described our invention, we claim—

1. The combination of the tubing *a* and perforated cylinder *b* attached thereto, for the purpose of catching the sand and gravel that may fall into the well, substantially as shown.
2. The combination of the tube *a*, perforated cylinder *b*, and packing *e*, substantially as shown and described.

In testimony that we claim the foregoing we have hereunto set our hands this 1st day of August, 1877.

LAFAYETTE WIDGER.
LEMUEL PATTERSON.

Witnesses:
JOHN DUFF,
ROBT. BALPH.