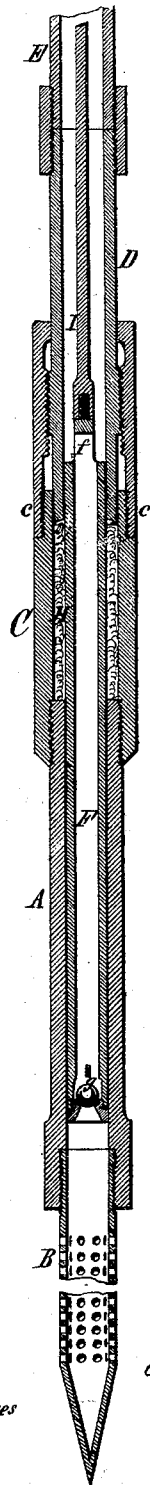


H. Camp,
Oil Pump.

No. 111,316.

Patented Jan. 31. 1871.



Edward Wilhelm
Jno. J. Bonner } *Witnesses*

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United States Patent Office.

HERMAN CAMP, OF ROUSEVILLE, PENNSYLVANIA.

Letters Patent No. 111,316, dated January 31, 1871.

IMPROVEMENT IN PUMPS.

The Schedule referred to in these Letters Patent and making part of the same.

I, HERMAN CAMP, of Rouseville, in the county of Venango and State of Pennsylvania, have invented a certain Improvement in Pumps for Oil- Wells, of which the following is a specification.

In working the pumps of oil-wells the packing of the piston rapidly wears, and is usually required to be replaced once a week, and sometimes oftener. This necessitates the withdrawal of the piston or plunger and sucker-rods, involving a stoppage in the working of the pump and the loss resulting therefrom, together with the cost of the packing material and the labor of replacing the same.

The object of my improvement is to obviate this necessity of withdrawing the sucker-rod and stopping the working of the pump in order to tighten the packing; and

The invention consists in the combination of a hollow elongated valve-piston and stuffing-box with a pump-barrel and well-table, the latter of which screws into the pump-barrel in such a manner as to form the gland or follower of the stuffing-box, the packing of which is adjusted by turning the well-table without withdrawing or disconnecting any of the parts.

In the accompanying drawing, which represents a longitudinal section of my improved pump—

A is the pump-barrel proper, connecting, at its lower end, with a section, B, of perforated tubing in the ordinary manner.

C is an enlarged upper portion, screwed or otherwise connected to the upper end of the tube A, and forming the stuffing-box.

The upper end of this enlarged portion C is provided with an internal thread, into which screws the end of the pipe or tubing D.

The portion C, for convenience of construction, is made in two parts, screwed together, as shown at c.

The section D is reamed out, and is of the same diameter as the barrel A.

The main tubing E connects with the upper end of D, as represented.

F is the valve-piston, made hollow, with a ball or other suitable valve, g, arranged in its lower end in any usual and suitable manner.

The upper end is provided with suitable openings, f, to permit of the escape of the liquid therefrom.

This piston is made of uniform size, to closely fit in the pump-barrel, and must be of sufficient length below the openings f to permit of the required stroke without disconnecting it from the packing H, arranged in the the box C.

I is the lower end of the sucker-rod, coupled to the contracted upper end of the piston.

The parts being constructed as hereinbefore described, the barrel A is fastened to the perforated section B, the box C screwed to the barrel, and the piston arranged therein.

The packing H is then arranged in the space in the box C surrounding the piston, when the upper portion of the box is attached in place, and the tube D screwed into the same, so as to properly tighten the packing.

The well-tubing is now attached to the tube D as the pump is lowered into the well. After it has reached the bottom the sucker-rods are connected in the usual manner, when the pump is ready for operation.

When the packing becomes loose it is readily tightened by unscrewing the coupling at the base of the standard and giving the well-tube a turn around, which causes the lower end of D to act as a follower, pressing against the packing.

By employing what is termed a "union joint" with the well-tube at the top of the well, the adjustment of the packing can be effected by partially unscrewing the coupling without disconnecting any of the parts or stopping the working of the pump.

What I claim is—

The combination of a hollow elongated valve-piston, F, and stuffing-box C with a pump-barrel A, and tubing of an oil-well, substantially as hereinbefore set forth.

H. CAMP.

Witnesses:

EDWARD WILHELM,
JNO. J. BONNER.