



# UNITED STATES PATENT OFFICE.

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## PUMP FOR OIL-WELLS.

SPECIFICATION forming part of Letters Patent No. 320,176, dated June 16, 1885.

Application filed August 29, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES M. SANNER, of Bradford, in the county of McKean and State of Pennsylvania, have invented a new and Improved Pump for Oil-Wells, of which the following is a full, clear, and exact description.

The object of my invention is to prevent the gas from entering the barrel of oil-well pumps, and thus get rid of the delays and trouble caused by the presence of the gas. To that end my improved pump-barrel is constructed to receive the oil through a downward intake-tube, as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal section of my improved pump-barrel. Fig. 2 is a cross-section on line *x x* of Fig. 1. Fig. 3 is a cross-section on line *y y*, and Fig. 4 is an end view of the standing valve.

A is the pump-barrel, of suitable size and length, formed on its lower end with a screw-socket that receives a short tube, *a*, whose outer end is closed by a plug, *b*. The upper end of tube *a* is adapted to receive the usual standing valve, *c*. Near its bottom end the pump-barrel is bulged at one side, and the bulged portion bored out to form a chamber, *d*, that connects with the interior of the barrel or the tube *a* by an opening, *e*, below the valve. The bottom of chamber *d* is closed by a plug, and into its upper end is screwed a tube, *f*, that extends to the upper end of the barrel, where it is held by a ring, *g*. This

tube *f* is closed at its upper end, and is perforated in its upper portion to allow oil to enter the tube *f*, thereby forming the intake-pipe of barrel A.

When the pump is in position in the well and operating, the oil at the rock is excluded from the lower end of the tube *a*, and the upper strata enters the perforations of pipe *f*, and passing down goes to tube *a* and upward in barrel A. The gas is not likely to go down pipe *f*, as it has an opportunity to easily escape upward around the pump-tubing to the top of the well. Furthermore, the pump is less likely to take in sand than when the suction is lower down and at the lower end of the barrel.

By exclusion of the gas the valves remain primed with oil at all times.

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

In a pump for oil-wells, the barrel having a lower plugged or closed end, provided with a lateral opening below its valve-chamber connecting with an external supplementary chamber, also having a lower closed end, in combination with a tube with its lower end connected to said supplementary chamber and having an upper perforated portion and upper closed or plugged end, substantially as and for the purpose specified.

JAMES M. SANNER.

Witnesses:

H. H. NORTH,  
J. P. KLECKNER.