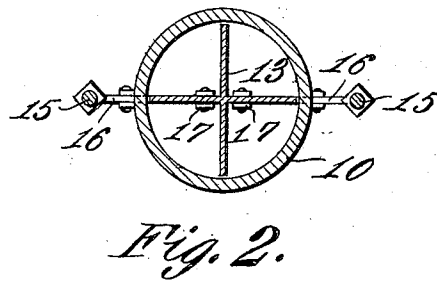
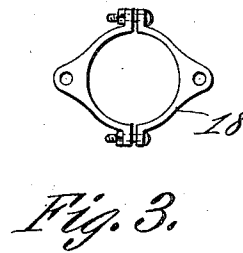
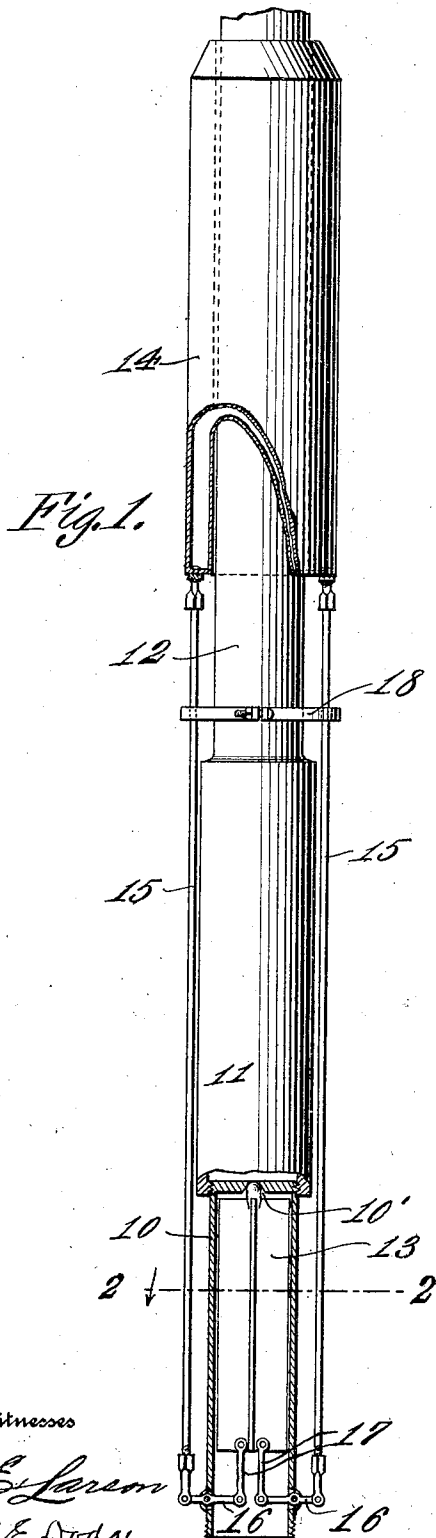


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ATTACHMENT FOR OIL PUMPS.  
APPLICATION FILED MAY 24, 1909.

942,954.

Patented Dec. 14, 1909.



Witnesses

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# UNITED STATES PATENT OFFICE.

CHARLES B. AGGAS AND JOHN E. RABBITT, OF FENELTON, PENNSYLVANIA.

## ATTACHMENT FOR OIL-PUMPS.

942,954.

Specification of Letters Patent.

Patented Dec. 14, 1909.

Application filed May 24, 1909. Serial No. 498,023.

*To all whom it may concern:*

Be it known that we, CHARLES B. AGGAS and JOHN E. RABBITT, citizens of the United States, residing at Fenelton, in the county of Butler and State of Pennsylvania, have invented certain new and useful Improvements in Attachments for Oil-Pumps, of which the following is a specification.

This invention relates to oil pumping apparatus, and has particular reference to a device whereby the operation of a pump may be stopped when the pump is employed for withdrawing water from a well in which it is desired to retain the petroleum.

The particular objects of this invention will appear as this description progresses, and in connection therewith reference is to be had to the accompanying drawings, in which:—

Figure 1 is a view in elevation of the improvement, the same being shown as applied to an ordinary oil-well pump; Fig. 2 is a cross section on the line 2—2 of Fig. 1, and Fig. 3 is a plan view of the bracket.

Throughout the following description and on the several figures of the drawings, similar parts are referred to by like reference characters.

In prospecting for petroleum and in the operation of pumping devices in connection with oil-wells, it is desired to pump the water from the well and yet permit the oil, or at least a portion of the oil, to remain therein so as not to expose the oil bearing rock to the action of the atmosphere. When the oil bearing rock is exposed as indicated there will be a deposition or formation of paraffin thereon which will interfere with the flow of the oil and render the well either useless or of little value. It has been proposed to provide means of various types to insure that a body of oil will be left in the well to protect the oil bearing rock in the manner above suggested, but many of these devices have proven unsatisfactory and it has also been proposed to stop the operation of the pumps in time to permit a body of oil to remain, but this latter expedient, being subject largely to guess work, is also unsatisfactory.

In carrying out this invention, a foot-piece 10 is connected as by screw threads to the bottom of the working valve of an ordinary pump indicated at 11. This pump and foot-piece are adapted to be introduced into a well of any depth and to extend to the

bottom thereof, the well-tubing 12 extending up to the surface of the earth in the usual manner. The foot-piece 10 is or may be of substantially hollow cylindrical form and may be provided at its lower end with means for anchoring if desired in any well-known manner. At the upper end of the foot-piece is an opening 10' leading into the pump or working valve and said opening is provided with or constitutes a valve seat against which a valve 13 is adapted to close upwardly within the foot-piece.

At 14 is indicated any suitable form of float, that herein indicated being a hollow cylinder surrounding the well-tubing and located at any convenient elevation with respect to the foot-piece and the oil bearing rock above referred to, say at an elevation of four or five feet. It is to be understood, however, that the invention is in no manner limited to any exact size or details of construction nor distances. The float is connected by means of rigid rods or links 15, connected at the lower end of the float, to the valve 13, said rods being connected at their lower ends to a pair of levers 16 pivoted in the foot-piece and having connections through links 17 to the bottom or lower end of the valve. The float is designed to be suspended or buoyed up by the fluid within the well so long as there is water in the bottom of the well to be withdrawn. When the float is up, the valve will be down, permitting the water to be withdrawn through the foot-piece and working barrel in the usual manner. When, however, the water has been extracted and the oil consequently has become lowered to the desired point with respect to the oil bearing rock, the float will be likewise lowered and through the connections indicated the valve will be closed, thereby stopping the flow of water or oil from the pump.

Any suitable number or character of guiding devices indicated at 18 may be employed to steady and guide the float and its connections 15. The means indicated include a pair of brackets supported by the well-tubing and having perforated ears through which the guide rods 15 extend.

Having thus described the invention, what is claimed as new is:—

1. The combination with the working barrel of an oil-pump, of a foot-piece in the form of a hollow cylinder secured to the lower end of said working barrel, said foot-

piece having a valve seat at its upper end,  
a valve slidable vertically within the foot-  
piece and adapted to cooperate with said  
valve seat to close the same by vertical move-  
5 ment, a float above the working barrel, and  
connections between the float and the valve  
to cause the unseating or seating of the valve  
when the float moves up or down.

1 2. The combination with an oil-well pump  
10 working barrel and tubing, of a foot-piece  
connected to the working barrel, a valve  
associated with the foot-piece to control the  
passage of fluid therethrough, a hollow cy-

lindrical float surrounding the tubing above  
the working barrel, rigid rods extending 15  
downwardly from the float, and a set of  
levers and links cooperating with the foot-  
piece and constituting operative connections  
between said rods and said valve.

In testimony whereof we affix our signa- 20  
tures in presence of two witnesses.

CHARLES B. AGGAS.  
JOHN E. RABBITT.

Witnesses:

W. S. WAGNER,  
MICHAEL CONNER.