Dec. 2, 1924. 1,518,028

R. D. WALKER

OIL WELL PUMP ATTACHMENT

Filed Nov. 12, 1923

Fig. 1.

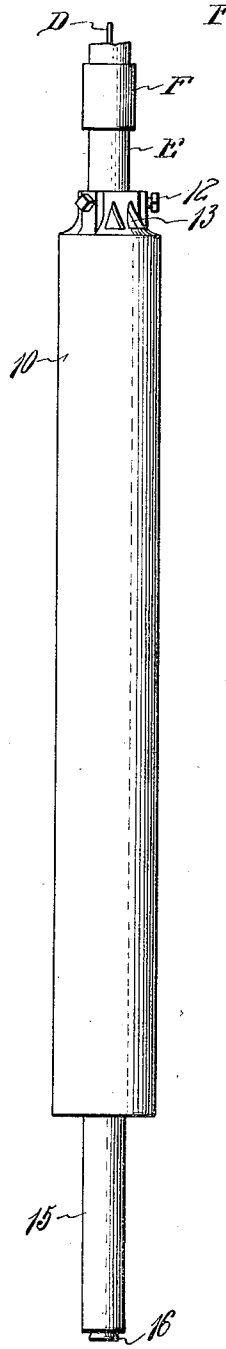


Fig. 2.

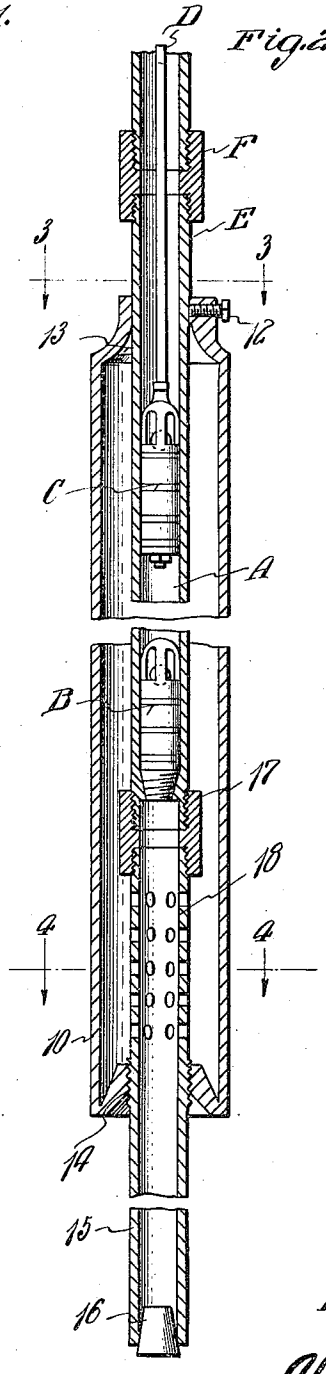


Fig. 3.

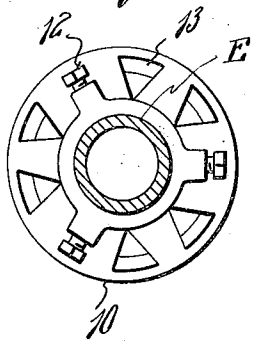
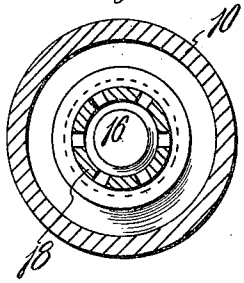


Fig. 4.



WITNESS:

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UNITED STATES PATENT OFFICE.

ROBERT D. WALKER, OF BEGGS, OKLAHOMA.

OIL-WELL-PUMP ATTACHMENT.

Application filed November 12, 1923. Serial No. 674,259.

To all whom it may concern:

Be it known that I, ROBERT D. WALKER, a citizen of the United States, residing at Beggs, in the county of Okmulgee and State of Oklahoma, have invented new and useful Improvements in Oil-Well-Pump Attachments, of which the following is a specification.

This invention relates to pumps used in oil wells, and has for its object the provision of a jacket or sleeve designed to be engaged about the working barrel of an oil well pump whereby to cause the oil to enter at the top instead of the bottom and thereby prevent gas from entering with the oil and not only becoming lost by eventually escaping to the atmosphere but also reducing the quality of the oil by cutting.

It is well known that a great number of wells are producing cut oil caused by gas passing through the valves in the barrel with the oil which results in a great waste of oil and also waste of gas as the gas thus passes out with the liquid through the tubing into the tanks and eventually into the atmosphere. It is with this fact in view that I have designed the present attachment which will eliminate the above objectionable condition and which will also prevent the entrance of sand to the pump.

An additional object is the provision of an attachment of this character which will be simple and inexpensive in manufacture, easy to apply, positive in action, efficient and durable in service and a general improvement in the art.

With the above and other objects and advantages in view the invention consists in the details of construction to be hereinafter more fully described and claimed and illustrated in the accompanying drawings, in which:

Figure 1 is a side elevation of my attachment alone,

Figure 2 is a longitudinal section thereof applied in position,

Figure 3 is a cross section on the line 3—3 of Figure 2, and

Figure 4 is a cross section on the line 4—4 of Figure 2.

Referring more particularly to the drawings the letter A designates the working barrel of an oil pump within which is the usual standing valve B above which reciprocates the working valve C carried by a rod D which extends up through the well tubing E which is connected with the barrel by the coupling F.

In carrying out my invention I provide a sleeve or jacket 10 which is considerably larger in diameter than the working barrel and which is engaged thereon. At its upper end the sleeve 10 is constricted as indicated at 11 so as to fit snugly upon the working barrel below the coupling F and this end is provided with set screws 12 for holding the attachment in place. This upper end of the sleeve is formed with a plurality of holes 13 for a purpose to be described.

At its lower end the jacket 10 is formed with an inward extension 14 having a threaded hole therethrough into which is screwed the upper end of the anchor 15 which is closed at its bottom by a plug 16. Screwed into the lower end of the working barrel is a sleeve or coupling 17 into which is screwed the upper end of a perforated pipe which has its lower end screwed into the threaded opening in the inward extension 14 at the bottom of the sleeve.

In the operation, the oil enters the sleeve 10 through the openings 13 and flows through the perforated pipe 18 into the working barrel. As gas naturally passes up and not down, gas will not enter at the top of the sleeve and it is therefore obvious that gas will not get into the working barrel with the oil. It is likewise true that sand cannot enter and cutting of the valves will consequently be avoided.

From the foregoing description and a study of the drawings it will be apparent that I have thus provided a simply constructed, inexpensive and easily applied jacket attachment which will operate most efficiently for the purpose specified. By eliminating cutting of the oil my device saves the fuel necessary for firing a boiler to treat the oil and also the cost of treating chemicals.

While I have shown and described the preferred embodiment of my invention it is of course to be understood that I reserve the right to make such changes in the form, construction and arrangement of parts as will not depart from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention I claim:

1. In combination with the working barrel of an oil well, a sleeve secured to and surrounding the barrel, only the upper end

of the sleeve being provided with holes for the inlet of oil thereinto, an anchor attached to the lower end of the sleeve, and a perforated pipe section connecting the anchor with the working barrel, the perforations establishing communication between the barrel and the lower portion of the sleeve.

2. In combination with the working barrel of an oil well, a sleeve surrounding and secured to the barrel, said sleeve being provided at its upper end with inlet openings, and an anchor extending through the lower end of the sleeve in threaded engagement therewith and having its side formed with perforations communicating with the interior of the sleeve.

In testimony whereof I affix my signature.

ROBERT D. WALKER.