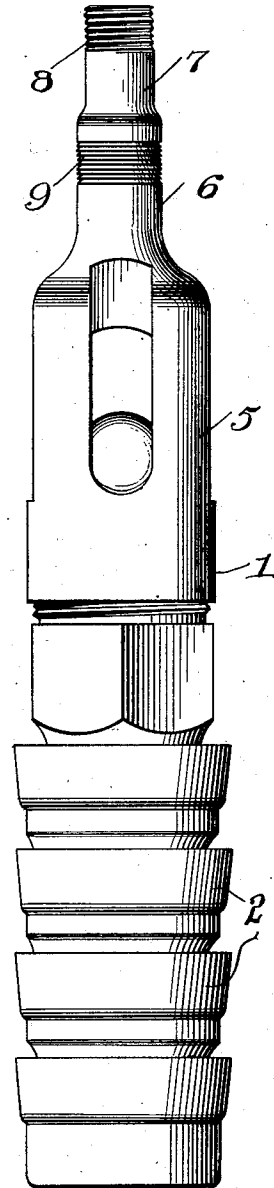


J. M. LOFFLAND.
OIL WELL VALVE.
APPLICATION FILED AUG. 25, 1910.

1,021,840.

Patented Apr. 2, 1912.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN M. LOFFLAND, OF WOODSFIELD, OHIO.

OIL-WELL VALVE.

1,021,840.

Specification of Letters Patent.

Patented Apr. 2, 1912.

Application filed August 25, 1910. Serial No. 578,823.

To all whom it may concern:

Be it known that I, JOHN M. LOFFLAND, a citizen of the United States, residing at Woodsfield, in the county of Monroe and State of Ohio, have invented new and useful Improvements in Oil-Well Valves, of which the following is a specification.

This invention relates to oil well valves and more particularly to plunger crowns.

The object of the invention is the provision of means whereby the plunger may be readily removed without pulling the tubing from the well.

Heretofore, it has been customary to use plunger crowns having an internally threaded collar projecting centrally above the crown which was adapted to be engaged by a tap carried on the end of the sucker rod or upon the wire line sinkers. It is sometimes extremely difficult to thread the tap into the collar and practically impossible when a wire line is used on account of the swivel which is utilized to prevent unscrewing of the sinker rods. The present invention is adapted to obviate these difficulties and broadly speaking the invention consists in providing the crown with a centrally extending neck which may be readily grasped by a suitable grappling tool or by the combination socket now commonly utilized throughout the oil fields for such purposes.

Further objects of this invention will appear as the following specific description is read in connection with the accompanying drawings, which form a part of this application and in which the figure is an elevation of a working plunger.

Referring more particularly to the drawings, 1 represents the plunger body which is provided with the usual packing rings 2 and the ordinary form of the crown 5. This crown is constructed, as regards the ball retaining portion thereof, in the usual manner

but instead of providing the device with a central internally threaded collar, the crown is here provided with a relatively long neck 6 extending from the central portion of the crown and provided at its end with a reduced portion 7 upon which are formed screw threads 8 adapted to be engaged by the sucker rod. When the portion 7 breaks off as is frequently the case it is necessary to fish for the plunger with suitable tools such as combination sockets or the like and the neck 6 in this instance provides a suitable gripping surface which may either be smooth or provided with a series of corrugations 9, as shown. This construction permits the ready engagement of a combination socket or other grappling device with the neck so that the plunger may be conveniently and expeditiously removed from the well. By this means a great amount of time and labor is saved.

The present construction permits the use of a grappling device or combination socket with the ordinary wire line, the sinker rods forcing the grappling device into direct engagement with the gripping neck and permitting the ready removal of the device.

Having thus described the invention, what is claimed is—

An oil well plunger comprising a body, a valve crown secured thereto, a fishing extension projecting longitudinally and centrally from the crown and having an externally corrugated gripping surface, and a reduced and threaded sucker rod extension projecting from and in line with the fishing extension.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN M. LOFFLAND.

Witnesses:

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N. K. MCGEE.