No. 765,364. PATENTED JULY 19, 1904.

V. KOHOUT.

PIPE JACK.

APPLICATION FILED OCT. 24, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

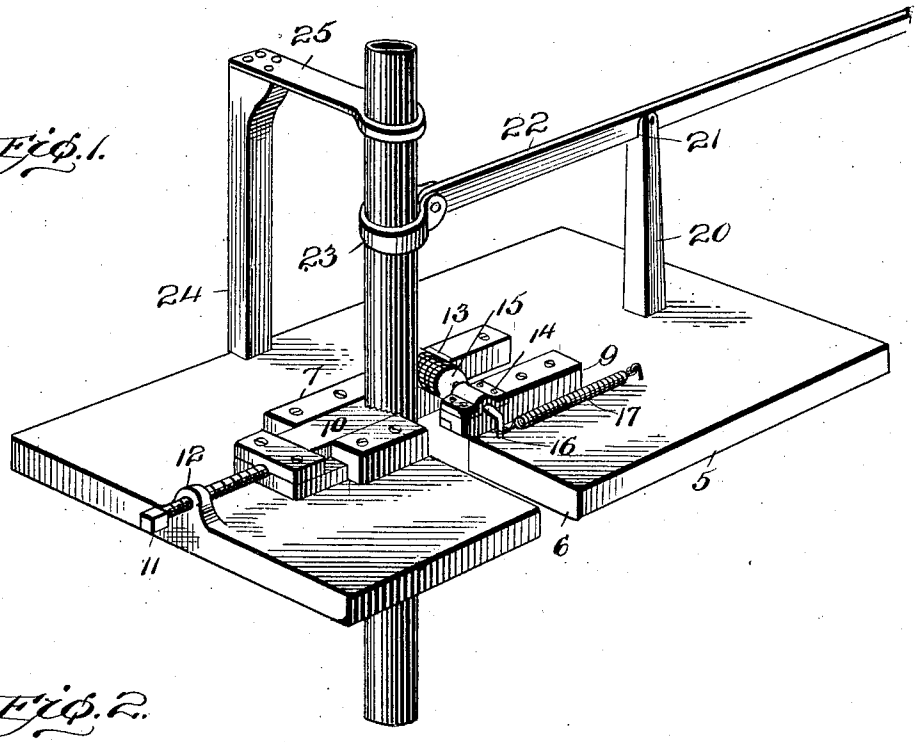
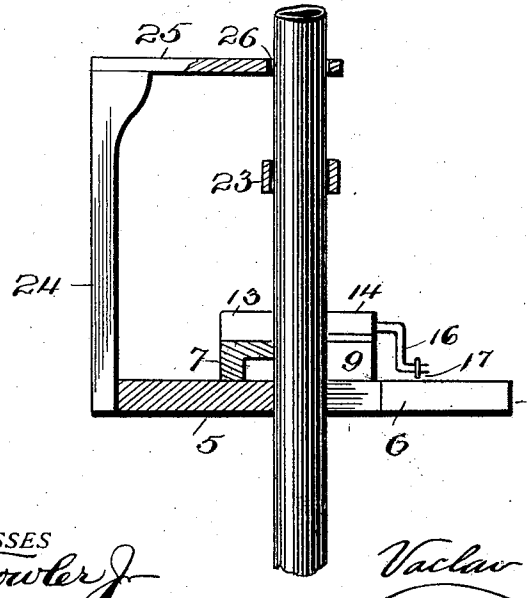


Fig. 2.



WITNESSES

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Fig. 3.

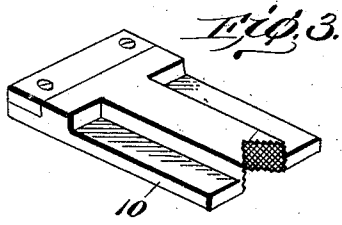


Fig. 4.

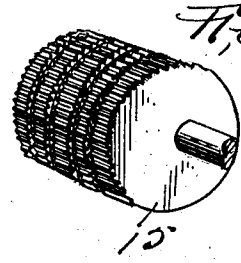


Fig. 5.

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UNITED STATES PATENT OFFICE.

VACLAV KOHOUT, OF FRIEND, NEBRASKA.

PIPE-JACK.

SPECIFICATION forming part of Letters Patent No. 765,364, dated July 19, 1904.

Application filed October 24, 1903. Serial No. 178,412. (No model.)

To all whom it may concern:

Be it known that I, VACLAV KOHOUT, a citizen of the United States, residing at Friend, in the county of Saline, State of Nebraska, have invented certain new and useful Improvements in Pipe-Jacks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to pump-jacks such as are employed in removing pumps from wells, the object of the invention being to provide a construction including means for raising the pump-stock and for holding the latter securely in raised position and against rotation during the operation of unscrewing the pipe-sections of which the stock is formed.

A further object of the invention is to provide means for holding the stock up while unfastening the plunger.

Other objects and advantages of the invention will be understood from the following description.

In the drawings, forming a portion of this specification, in which like numerals of reference indicate similar parts in the several views, Figure 1 is a perspective view of the jack with a section of pump stock or pipe held therein. Fig. 2 is a vertical section taken transversely through the jack and including the pump stock or pipe. Fig. 3 is a detail view of the sliding clamping-jaw. Fig. 4 is a detail view of the clamping-roller. Fig. 5 is a vertical section taken longitudinally through the apparatus and including the pump stock or pipe, which latter is shown held in the supplemental support ready for removal of the plunger.

Referring now to the drawings, the present apparatus comprises a base 5, having a passage 6 extending inwardly and transversely thereof from one side and which passage is broadened at its inner end. At the inner end of the passage 6 and extending longitudinally of the base is a guide-rail 7, which is cut under, as illustrated, and parallel with this rail 7 are two rail-sections 8 and 9, which are likewise cut under. The rail-sections 8 and 9 aline and are disposed at opposite sides of the passage 6.

Engaged with the cut-under sides of the guide-rails 7 and 8 is a clamping-jaw 10, which is shaped to fit the cut-under faces of the guide-rails, so that it may have free sliding movement therebetween and will be held against upward displacement. To shift the jaw, an adjusting-screw 11 is provided and is engaged through a flange 12 upon the base 5, the end of this screw having a suitable connection with the adjacent end of the sliding jaw, so that as the screw is rotated in one direction or the other the sliding jaw is reciprocated.

Upon the guide-rails 7 and 9 are bearings 13 and 14, in which are journaled the trunnions of a roller 15, said trunnions being eccentric to the roller and one of which trunnions is provided with a crank-arm 16, to which is connected a spring 17, which holds the roller yieldably with its side of greatest eccentricity in the direction of the sliding jaw 10. The roller is corrugated both longitudinally and circumferentially.

In the use of the apparatus the base is adjusted to the pump so that the stock of the latter passes into the transverse slot 6 and lies between the clamping-jaw and the clamping-roller, the jaw being notched at its extremity and corrugated, as illustrated, so that said jaw may be then adjusted by means of the screw 11 to grip the pump stock or pipe and hold it firmly against downward movement. At the time of this adjustment the side of the clamping-roller next to the jaw is rotated slightly upwardly, so that when the weight of the pump-stock is supported by said roller in conjunction with the sliding jaw the roller will be drawn into more intimate engagement with the stock to hold it securely.

Upon the base 5 is an upright 20, having a rest 21, which receives a lever 22, having a common form of clutch 23 at one end for engagement with the pump pipe or stock. The lever is rocked and in the downward movement of the clutch it slides freely upon the pump-stock, and when it is attempted to move the clutch upwardly the latter grips the pump-

stock so that it is raised by the lever. The upward movement of the pump-stock causes the gripping-roller to rotate slightly away from the gripping-jaw to permit of easy upward movement of the stock. When the clutch is lowered to take a new grip on the stock, the spring causes the roller to rotate slightly into close engagement with the stock, so that the latter has only a slight downward movement before the clutch releases it. This operation is continued until a coupling between two sections of the pump stock or pipe is raised above the jaw. A wrench is then applied and the upper section removed, the circumferential corrugations of the roller and the teeth of the sliding jaw serving to hold the stock below the coupling against rotation. This operation is repeated until the entire stock is disjointed.

Upon the base 5 is a second upright 24, having a plate 25 at its upper end in which is an opening 26, designed to receive the pump pipe or stock and support the latter during the operation of removing the plunger.

What is claimed is—

1. A pump-jack comprising a base having a transverse passage therein, a gripping-jaw slidably mounted upon the base in position to project over the passage, means for adjusting said jaw, an eccentrically-mounted gripping-roller disposed in opposition to the sliding jaw and rotatable toward and away from the latter, a crank carried by the gripping-roller, a helical spring attached at one end to the crank and at the remaining end to the base to hold the roller yieldably against rotation from the clamping-jaw, and a lifting mechanism mounted upon the base and adapted to draw a pump-stock upwardly between the jaw and roller.

2. A pump-jack comprising a base having an opening therethrough, a jaw slidably mounted upon the base and adapted to project over said opening, means for reciprocating the jaw, a rotatable gripping member mounted for movement toward a crank carried by the rotatable gripping member, and a helical spring connected to the crank and to the base to hold the rotatable member yieldably in the direction of the sliding jaw.

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

VACLAV KOHOUT.

Witnesses:

FRANK FAK,

GEORGE T. HONER.