No. 815,178. PATENTED MAR. 13, 1906.

A. KNOCKER.

PUMP ROD CLAMP.

APPLICATION FILED OCT. 31, 1905.

FIG. 1.

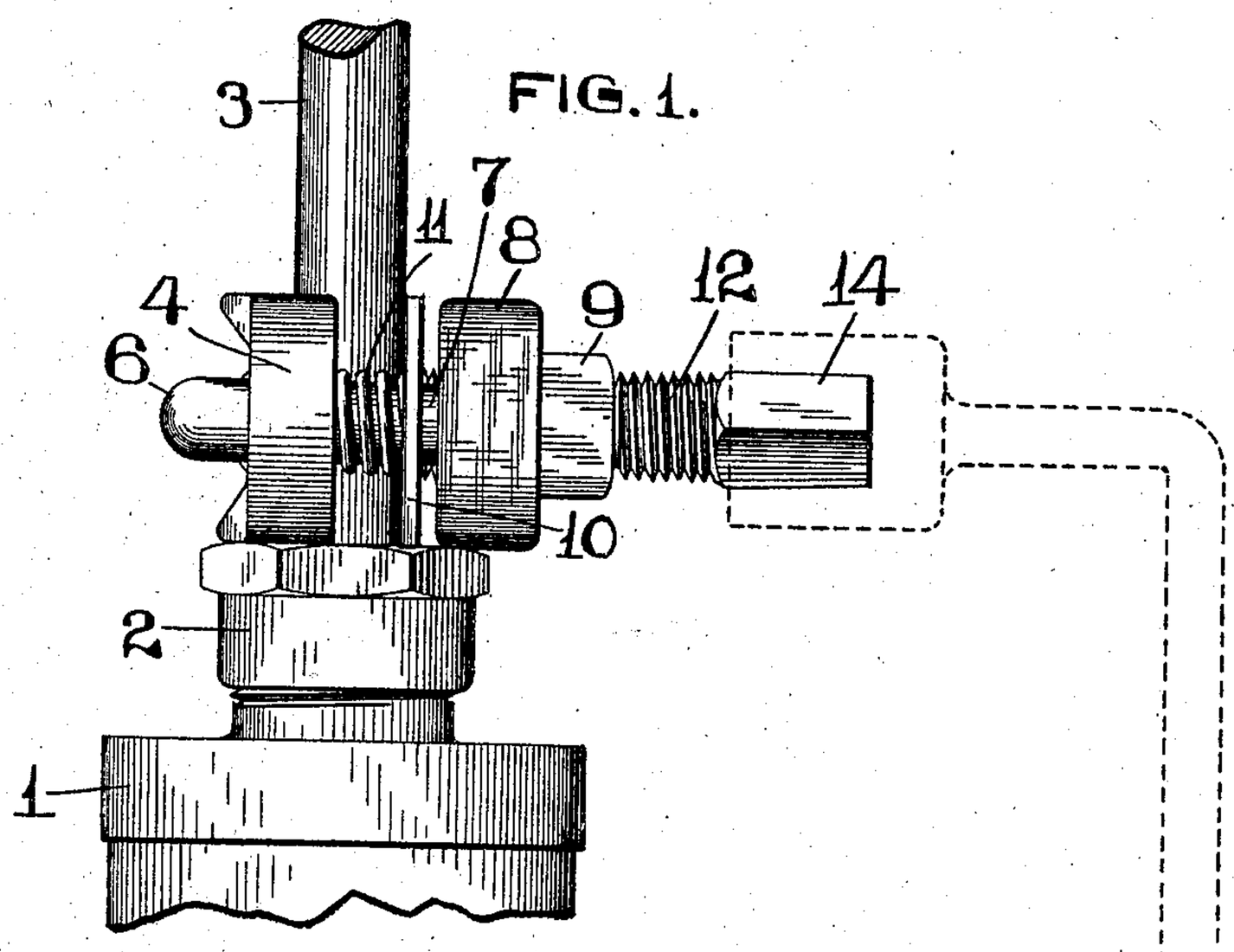


FIG. 2.

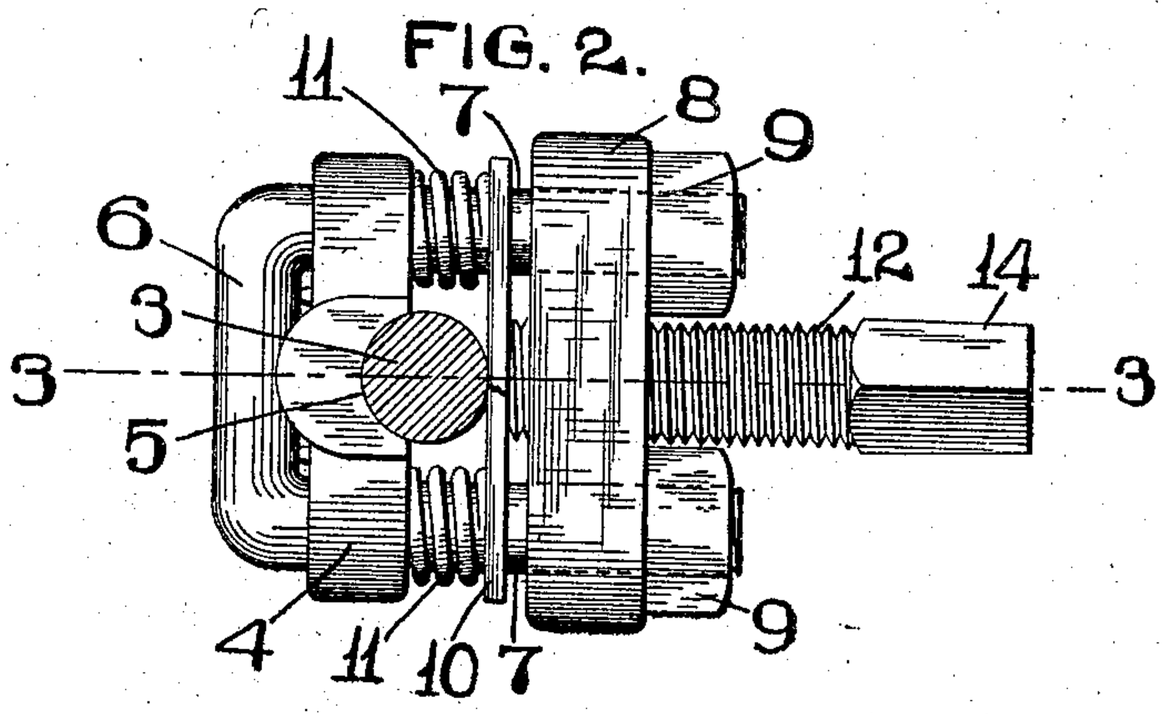
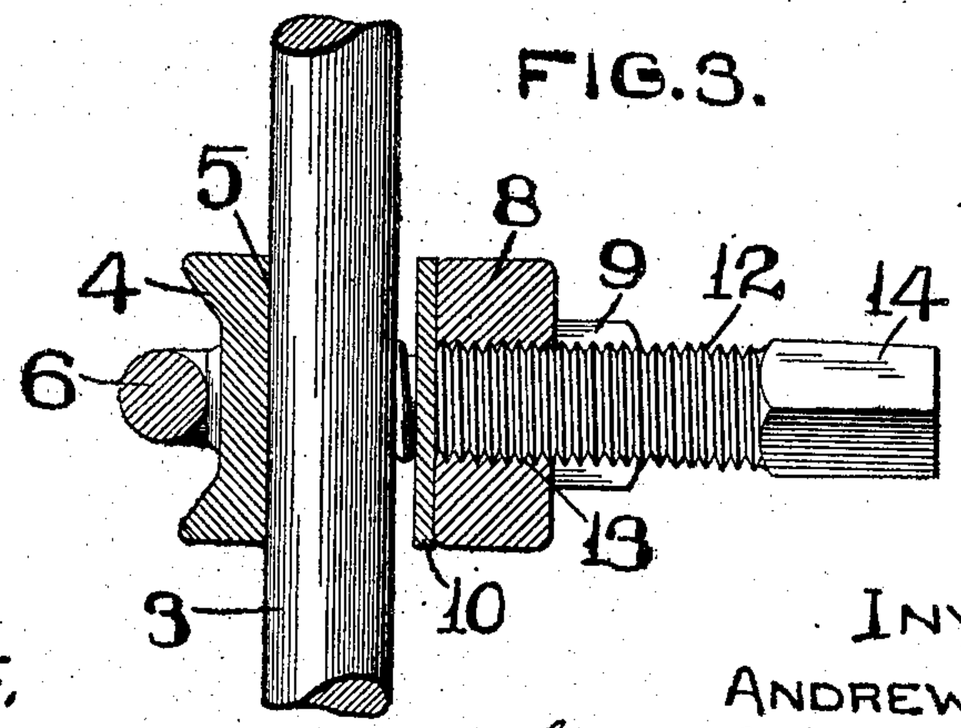


FIG. 3.



ATTEST.

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ANDREW KNOCKER, OF HUMBOLDT, KANSAS.

PUMP-ROD CLAMP.

No. 815,178. Specification of Letters Patent. Patented March 13, 1906.

Application filed October 31, 1905. Serial No. 285,357.

To all whom it may concern:

Be it known that I, ANDREW KNOCKER, a citizen of the United States, and a resident of Humboldt, Allen county, Kansas, have invented certain new and useful Improvements in Pump-Rod Clamps, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to pump-rod clamps; and the object of my invention is to provide a simple, inexpensive, and easily-operated clamp to be applied to pump-rods for clamping the same and maintaining them elevated and in the position they assume at the upper end of the stroke.

In oil and other deep wells it is sometimes necessary to lock the pump-rod in elevated position or in the position it assumes when at the upper end of its stroke, and as the pump-rod is of some length it is quite heavy and requires considerable power to maintain it in elevated position, and I propose to provide a simple clamp to be engaged on the pump-rod and to rest on top of the pump-cylinder for holding the pump-rod elevated.

To the above purposes my invention consists in certain novel features of construction and arrangement of parts, which will be hereinafter more clearly set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the upper end of a pump-cylinder, showing the pump-rod projecting upwardly therefrom, and my improved clamp engaged upon said rod. Fig. 2 is a plan view of the clamp applied to a pump-rod. Fig. 3 is a vertical section taken on the line 3 3 of Fig. 2 and showing the clamp loosely mounted upon the pump-rod.

Referring by numerals to the accompanying drawings, 1 indicates the upper end of a pump-cylinder, 2 the usual gland or stuffing-box thereon, and 3 the pump-rod.

My improved clamp comprises a block 4, in one side of which is formed a vertically-arranged semicircular recess 5, in which the pump-rod is engaged when the clamp is applied thereto.

6 indicates a U-shaped yoke, the parallel arms 7 of which pass horizontally through suitably-formed apertures in the ends of the block 4.

8 indicates a block, through the ends of which are formed suitable apertures, through which pass the arms 7, and the extreme outer ends of said arms are screw-threaded and receive nuts 9.

10 indicates a clamping-plate that is arranged between the pump-rod 3 and the block 4, and in the ends of said plate are formed suitable apertures through which the arms 7 pass.

Located upon the arms 7 and interposed between the plate 10 and block 4 are expansive coil-springs 11.

12 indicates a set-screw that passes through the screw-threaded aperture 13, formed in the center of the block 8, and the point of said screw bears against the side of the plate 10 opposite from the side or face that engages the pump-rod 3. The outer end of the set-screw 12 is provided with a square head 14, that is adapted to be engaged by the socket of a suitable wrench, as shown by dotted lines in Fig. 1.

My improved clamp is assembled on top of the pump-cylinder around the pump-rod 3, and as long as the set-screw 12 is in an unset or withdrawn position in the block 8 the pump-rod is free to move vertically through the pump-cylinder.

When it is desired to clamp the pump-rod and to hold it at its upward limit of movement, the operator locates a suitable wrench on the squared end 14 of the set-screw and so manipulates the set-screw as that it is moved through the block 8, and, as a result, the clamping-plate 10 will be brought against the surface of the pump-rod 3, and said rod will be very tightly clamped between said plate and block 4. This very rigidly engages the clamp upon the pump-rod, and as said clamp rests upon the top of the pump-cylinder the rod will be rigidly held at the upper end of its stroke.

When the clamp is loosened from the pump-rod, the expansive coil-springs 11 move the clamping-plate 10 away from the pump-rod 3 and at the same time move the block 4 away from said rod, so that the parts of the clamp will not stick to the pump-rod.

My improved clamp is applicable for use on all classes of pumps, is easily applied, quickly engaged, and being composed of a minimum number of parts will not readily get out of order.

I claim—

1. A pump-rod clamp of the class described, constructed with a block, a yoke carried thereby, a block mounted upon the arms of

the yoke, and a set-screw passing through said last-mentioned block; substantially as specified.

2. A pump-rod clamp, constructed with a block, a yoke carried thereby, a block mounted upon the arms of the yoke, a set-screw passing through said last-mentioned block, and a clamping-plate engaged by said set-screw for clamping upon the pump-rod; substantially as specified.

3. A pump-rod clamp, constructed with a block adapted to engage on the pump-rod, a yoke carried by said block, a second block mounted upon the arms of the yoke, a set-screw passing through said last-mentioned block, a clamping-plate arranged upon the arms of the yoke and engaged by the point of the set-screw, and expansive coil-springs arranged between the ends of the first-mentioned block and the clamping-plate; substantially as specified.

4. The combination with a pump-rod, of a block constructed to engage on said rod, a yoke carried by said block, a second block mounted upon the ends of the yoke, a set-screw passing through the center of the last-mentioned block, a clamping-plate arranged upon the yoke between the pump-rod and the second-mentioned block against which plate the point of the set-screw bears, and expansive coil-springs located upon the arms of the yoke between the clamping-plate and the first-mentioned block; substantially as specified.

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses.

ANDREW KNOCKER.

Witnesses:
C. W. HALL,
CHAS. SCHAFFNER.