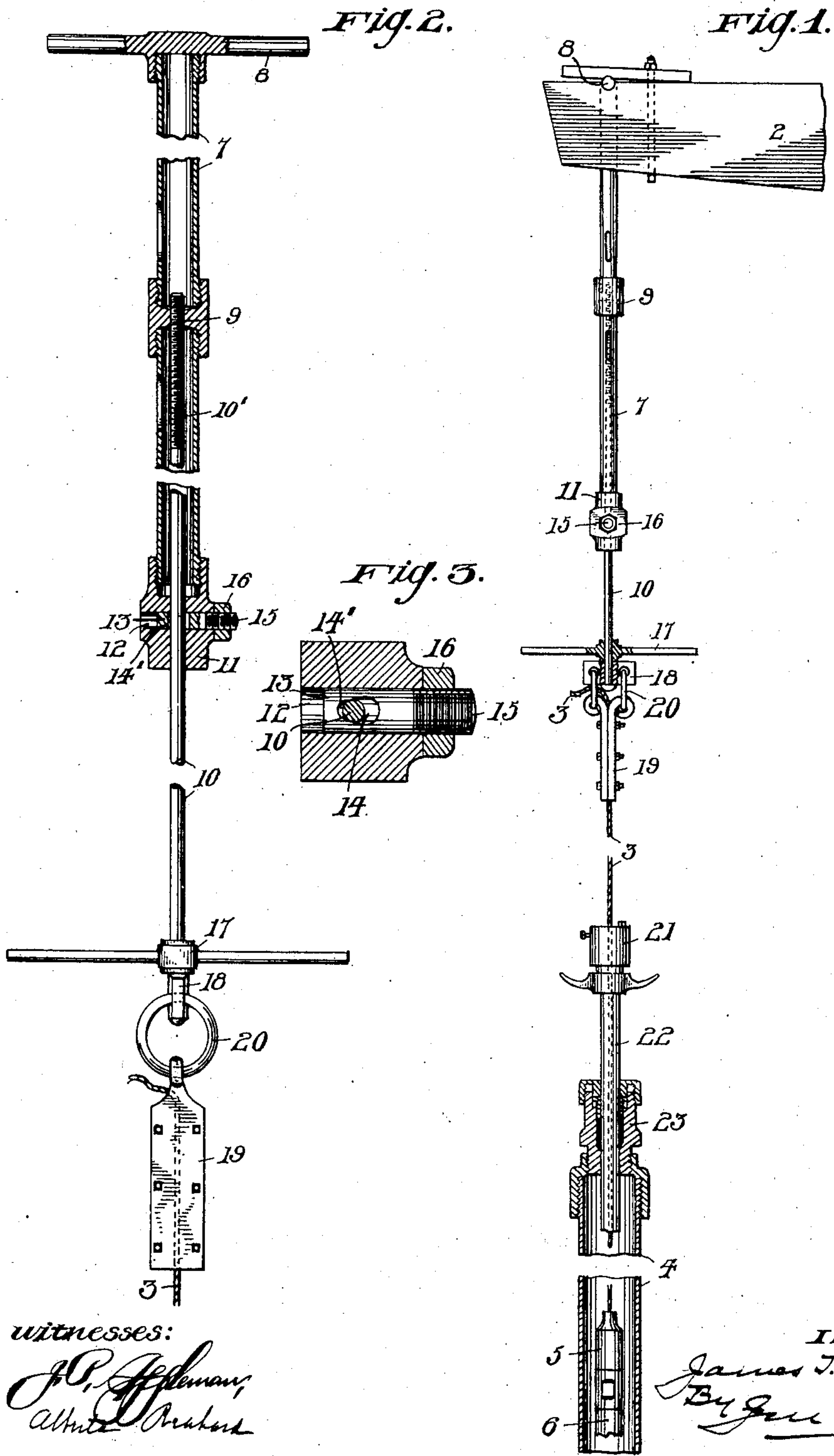


J. T. CALLANAN.
WELL PUMPING MECHANISM.
APPLICATION FILED JUNE 17, 1908.

919,318.

Patented Apr. 27, 1909.



witnesses:

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Att'y

UNITED STATES PATENT OFFICE.

JAMES T. CALLANAN, OF PARKERSBURG, WEST VIRGINIA, ASSIGNOR TO PARKERSBURG MACHINE COMPANY, OF PARKERSBURG, WEST VIRGINIA, A CORPORATION OF WEST VIRGINIA.

WELL-PUMPING MECHANISM.

No. 919,318.

Specification of Letters Patent.

Patented April 27, 1909.

Application filed June 17, 1908. Serial No. 438,968.

To all whom it may concern:

Be it known that I, JAMES T. CALLANAN, a resident of Parkersburg, in the county of Wood and State of West Virginia, have invented certain new and useful Improvements in Well-Pumping Mechanism, of which the following is a specification.

The primary object of this invention is to provide an improved adjustable connection between the walking beam or other pump reciprocating means and the connection leading to the pump, a wire cable being here shown as forming such connection, the main purpose being to preserve all of the advantages incident to the adjustment of the ordinary temper screw, and at the same time relieve the connecting threads of the adjustable parts from the load and prevent stripping.

A further purpose is to rigidly unite the parts after they have been adjusted as required, and prevent that adjustment from being disturbed by the strains or stresses incident to the pumping operation.

The invention is designed primarily for use with a wire cable instead of the pump or sucker rods ordinarily employed, although it is not necessarily confined to this use.

Such an adaptation of the invention is shown in the accompanying drawings, Figure 1 being an elevation thereof, broken and partly in section. Fig. 2 is a sectional view on a larger scale of the adjustable connection, and Fig. 3 is a sectional plan, enlarged, of the clamp.

Referring to the drawings, 2 designates a portion of a walking beam, which is the pump reciprocating means here shown, and 3 is the pumping cable which depends into the well tubing 4, with a socket 5 secured to the lower end of the cable for uniting either directly with a pump, or with an interposed sinker bar 6, a portion of which is shown in Fig. 2.

The improved connection between the beam and the pump-operating cable comprises two parts or members, one adjustable longitudinally within the other. In the present adaptation, one of these parts consists of the tubular hanger or support 7, having the T-head 8 at its upper end for connecting with the beam in the usual manner. Interposed in the length of tube 7, preferably some distance above its lower end, is the internal threaded portion 9 which is preferably in the form of a socket or fitting as

shown, and in which there is preferably only sufficient vertical area of threads to take the necessary hold on the threaded upper extremity 10 of rod 10 which depends from rod 7.

Secured to tubular portion 7, preferably at the lower extremity thereof, is the clamp head 11, having a passage for rod 10, and also provided with the transverse slideway 12 in which operates slide 13. The slide is also provided with a passage 14 through which the rod extends, and in the present adaptation one end 15 of the slide is extended through the head and threaded to receive a nut 16, which operates to draw the slide outwardly and so bind the rod as to form a rigid connection between the latter and tubular support 7. Passage 14 in the slide is preferably other than round, with the portion 14' which moves against the rod contracted so as to wedge against and bind the rod, and thereby render more effective the clamping connection. With the rod passage formed in this way, together with the direct outward pull or draw obtained by turning up nut 16, a powerful and most secure clamping action results.

At the lower end of rod 10 is T-head 17, and immediately therebeneath is swivel 18 with which the members of the cable clamp 19 are connected by rings 20. With slide 13 relaxed, rod 10 may be rotated by head 17 and thereby either raised or lowered within the tubular support 7, as the adjustment of the pump may require. When this adjustment is attained, slide 13 is operated to clamp rod 10, as above described, whereby the weight of the rod is borne directly by the clamp, thus relieving the threaded connection, and at the same time preventing the adjustment from shifting or loosening under the considerable operating strains of the mechanism, an objection incident to the ordinary temper screw connection.

While the improvement is shown and described in connection with pumping mechanism, it may be used in any other connection and for any other operation to which it may be adapted.

The improvement is preferably employed in connection with an oil saving device of the form shown in Letters Patent No. 818,740, granted to me April 24, 1906, wherein the cable is clamped at 21 to the upper end of the oil-saver tube 22, as in the above mentioned patent, said tube reciprocating

through stuffing box 23 secured to the upper end of the well tube 4. By this means, the escape of oil upwardly around the cable is prevented. It will be understood however that the invention may be used with other forms of oil savers, or without such a device at all, as may be desired.

I claim:—

1. The combination of a tubular member provided with internal threads above its lower end and at its upper end adapted to connect with the pump reciprocating means, a rod entered in and depending from the tubular member and at its upper end threaded for adjustment vertically through the threaded portion of the tubular member with pump connecting means secured to the lower end of the rod, and rod clamping means carried by the tubular member beneath the threads of the latter for engaging the unthreaded portion of the rod and thereby securing together the rod and tubular member independently of said threaded connection.

2. In well pumping apparatus, a longitudinally adjustable connection between the pump reciprocating means and the pumping cable, said connection consisting of a

support and a rod threaded to and depending from the support, a swivel at the lower end of the rod, a cable clamp secured to the swivel, and means separate and apart from the threads of the rod for uniting the rod and said support and relieving the threads of stripping strains.

3. In well pumping apparatus, a longitudinally adjustable connection between the pump reciprocating means and the pumping cable, said connection consisting in part of a threaded rod, a swivel cable-connection at the lower end of the rod, a tubular member into which the threaded rod extends, an internally threaded part in the length of the tubular member engaged by the threads of the rod, means at the upper end of the tubular member for connecting with the pump reciprocating means, and a clamping device carried by the tubular member for engaging and holding the rod independently of the threads thereon.

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

JAMES T. CALLANAN.

Witnesses:

E. P. CRITES,

PAUL C. LEHMANN.