





# UNITED STATES PATENT OFFICE.

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## DERRICK-PULLEY PUMPING-STAND.

SPECIFICATION forming part of Letters Patent No. 663,762, dated December 11, 1900.

Application filed July 23, 1900. Serial No. 24,522. (No model.)

*To all whom it may concern:*

Be it known that I, DAVID C. JOHNSTON, a citizen of the United States, residing at Marietta, in the county of Washington and State of Ohio, have invented certain new and useful Improvements in Derrick-Pulley Pumping-Stands; 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 new and useful improvements in derrick-pulley pumping-stands for use in connection with a pump and designed to be affixed to the tubing, casing, or casing-head. It comprises a pair of clamps so constructed as to be secured rigidly to the tubing, casing, or casing-head through which fluid is to be pumped, and no other support is required. Supported by these clamps are the posts or timbers, which converge toward each other at their upper ends, where they are connected by a bolt that serves as the axis or shaft, upon which is designed to revolve a loose pulley, over which the chain or rope attached to the top of the pump-rod passes, being attached at its other end to the power rod or line. When the power is applied, the pump-rod will be lifted and lowered without pinching or binding in the stuffing-box and with a minimum of friction, thus effecting a great saving in power and wear of the parts and wasting of oil and other fluids. In action, the power-line lifts the rod without binding or pinching, and gravitation lowers the same.

The device is simple, quickly and easily applied, and in practice has been found to be most efficient for the purposes for which it is designed.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form part of this specification, and in which—

Figure 1 is a perspective view of my device. Fig. 2 is an enlarged sectional view taken through the pulley at the top of the uprights. Fig. 3 is an enlarged detail view

of the clamps with portions broken away and parts shown in section. Fig. 4 is a detail.

Like letters of reference indicate like parts throughout the several views in which they appear.

Referring now to the details of the drawings by letter, A designates the tubing or casing of the pump, beneath the collar *a* of which the clamps are secured. These clamps B B are each provided with a substantially semicircular central portion *b*, which when united are designed to tightly embrace the tubing. Beyond the semicircular portion each clamp is provided with a straight portion *c*, through which are designed to pass the bolts C, which serve to clamp the clamps tightly and snugly around the tubing, as seen in Fig. 1. Beyond these straight portions the clamps diverge to form the arms D, the outer ends of which are bent substantially parallel with each other, as seen at *d*, and in these parallel portions are held the rods E, upon which are sleeved the lower ends of the posts or uprights F, there being two upon each end of the clamps—that is, two sleeved upon each of the rods E—and these posts incline inward toward a vertical line and are there joined by the bolt G, the ends of the four posts being brought into alinement and the rod passed through them all and provided upon its ends with nuts *g*, by which the parts are secured and tightened when necessary. The ends of the rods E are likewise provided with nuts, as seen at *e* in Fig. 1.

H is a pulley, or it may be a sprocket-wheel, if desired, over which is designed to be passed a rope or chain *m*, intended to be connected with the source of power. This pulley has a central hub *h* of greater diameter than the rod, as seen in Fig. 2, and ball-bearing may be provided, if desired. The rods or uprights F may be joined by the brace-rods I, if necessary.

The clamps may be of the form shown in Figs. 1 and 3, or they may in some instances be provided with a hinge in lieu of one of the bolts C; but as this is a well-known form of clamp it is not thought necessary to herein illustrate it.

In practice the clamps are secured about the tubing, being first put about the same loosely and then the bolts C and nuts tight-



ened until the clamps grip the tubing solidly beneath the shoulder of the collar, when they will be immovable. The incline of the posts makes a strong form of support, and the pulley being in vertical line with the pump-rod the latter is reciprocated without strain or binding, and less power is thus required. Besides there is practically no wear and but little, if any, friction.

10 It will thus be seen that I have produced a simple, cheap, yet strong and durable pulley pumping-stand that can be readily set up and which will be supported entirely from the tubing or casing through which the fluid is to  
15 pumped.

What I claim as new is—

1. A pulley pumping-stand having a frame and a clamping device connected with said frame and adapted to be connected to a tubing  
20 forming the barrel of the pump to which said stand is affixed.

2. A pulley pumping-stand comprising inclined posts, a pulley mounted in the upper ends of said posts, and a clamp connected with  
25 said posts and adapted to be connected with

a tubing forming the barrel of the pump to which said stand is affixed.

3. A device of the character described, comprising inclined posts, a shaft supported in the united ends of said posts, a pulley on said  
30 shaft, a cable operating on said pulley, clamps connected with said posts and adapted to be connected with the tubing forming the barrel of the pump to which said stand is affixed, said cable being adapted to operate a lift-rod  
35 in said tubing, as set forth.

4. In a pulley pumping-stand, a clamp consisting of two sections, each having an arm at each end adapted to be mounted on the said stand and an intermediate portion adapted  
40 to embrace the tubing forming the pump-barrel to which said stand is affixed, as set forth.

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

DAVID C. JOHNSTON.

Witnesses:

D. R. ROOD,

E. C. MEUNIER.