

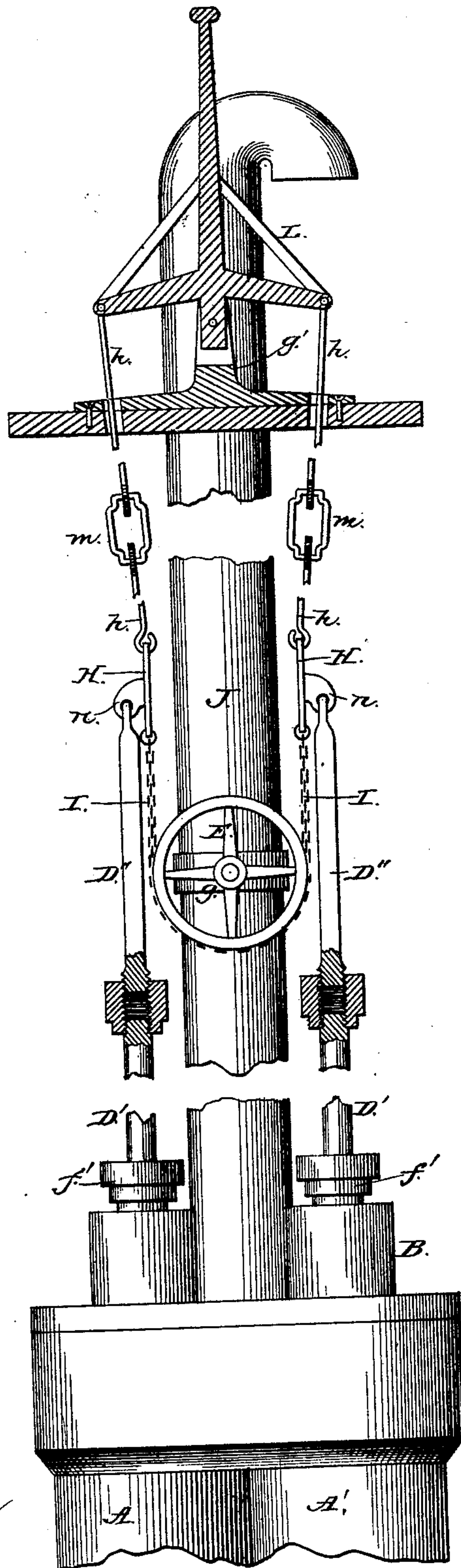
(No Model.)

N. J. TUBBS.

Pump.

No. 231,379.

Patented Aug. 17, 1880.



WITNESSES
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NELSON J. TUBBS, OF MANHATTAN, KANSAS.

PUMP.

SPECIFICATION forming part of Letters Patent No. 231,379, dated August 17, 1880.

Application filed March 30, 1880. (No model.)

To all whom it may concern:

Be it known that I, NELSON J. TUBBS, of Manhattan, in the county of Riley and State of Kansas, have invented a new and valuable
5 Improvement in Pumps; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making a part of this spec-
10 ification, and to the letters and figures of reference marked thereon.

The drawing is a representation of a side view of my invention.

This invention has relation to improvements
15 in operating mechanism in double-acting lifting and force pumps; and it consists in the construction and novel arrangement of parts, as hereinafter shown and described.

In the annexed drawing, the letters A A' designate two pump-barrels, arranged side by side, and, if desired, cast in one piece. These cylinders are of equal diameters and lengths, and are closed at top and bottom by the caps or heads B B'. In each barrel works a piston
20 having its appropriate piston-rod D' extending up through the stuffing-boxes f'. These pistons are designed to reciprocate in alternation, the one rising while the other descends, and the water raised is discharged into cap B,
25 whence it passes out through the educt-pipe J to the open air.

Secured to the upper ends of rods D' are short connecting-rods D'', extending above a pulley-wheel, E, rotating on a spindle project-
30 ing from a metallic band, g, shrunk, clamped, or otherwise secured around the pipe J.

Upon the well-cover is an upright post, g', to which is pivoted a walking-beam lever, L, of the general form of the inverted letter T.
35 To the ends of the horizontal branch of this lever are secured the chains h, or I may use jointed rods or a rope that extends down the well and is secured to metallic castings H, provided each with a perforated lug, n. To
40 the lower ends of these castings are secured the ends of a chain, I, passing around the pul-

ley-wheel aforesaid, the upper ends of the connecting-rods being hooked or otherwise attached to the perforated lug n of the couplings H.

When the lever L is actuated, the rods, chains, or ropes h being properly tense, an oscillating motion is imparted to the pulley-wheel and a reciprocating motion alternately to the piston-rods through the chain I, the couplings H, and the short connecting-rods D''.
50 55

In pumps of this description heretofore used in deep wells long jointed connecting-rods leading from the piston to the operating-lever have been employed, the said rods being suffi-
60 ciently thick to resist bending strain, or else passed through guides arranged at short intervals in the well. The rods are necessarily very heavy, and render the act of pumping very laborious, and when thin light rods are
65 used the proper alignment of the guides and the securing them in the well is a very nice and laborious, if not dangerous, operation. By the employment of the devices above described I overcome these disadvantages.
70

When I employ jointed rods the slack is taken up by means of the tightening-screws m.

What I claim as new, and desire to secure by Letters Patent, is—

In a deep-well pump, the combination, with
75 the two reciprocating pistons and their rods and an operating-lever, of the connecting-rods D², coupled rigidly to the piston-rods, the pulley-wheel E between said connecting-rods, the operating-rods h, extending downward from
80 the lever, the chains I, passing under the wheel, and the couplings H, connecting the rods h and chains I, and having lugs n attached to the connecting-rods D², as specified.

In testimony that I claim the above I have
85 hereunto subscribed my name in the presence of two witnesses.

NELSON J. TUBBS.

Witnesses:

JEFFERSON D. BROWN,
JAY J. BUTLER.