

No. 701,497.

Patented June 3, 1902.

G. D. NEWTON.
PUMPING POWER FOR OIL WELLS.

(Application filed Feb. 6, 1902.)

(No Model.)

Fig. 1.

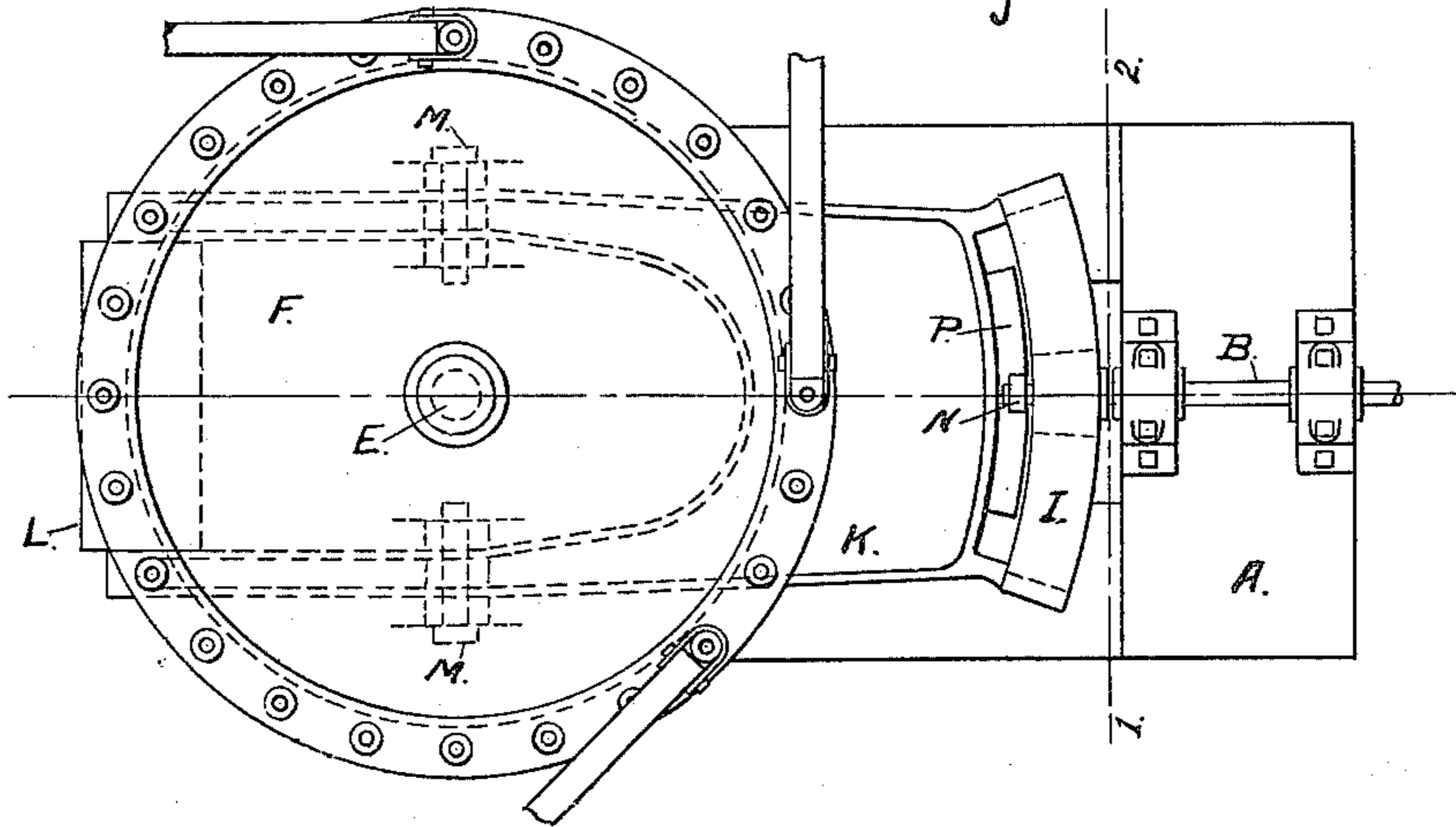


Fig. 2.

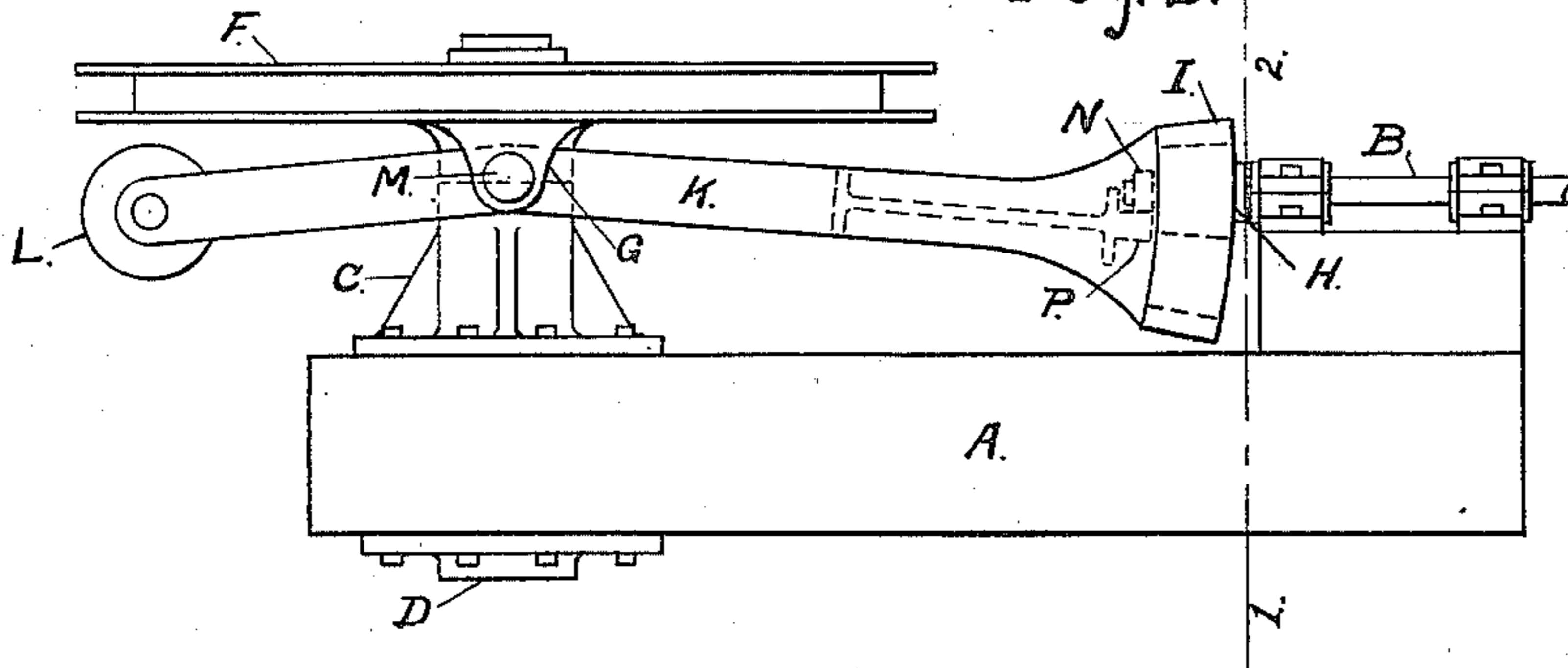
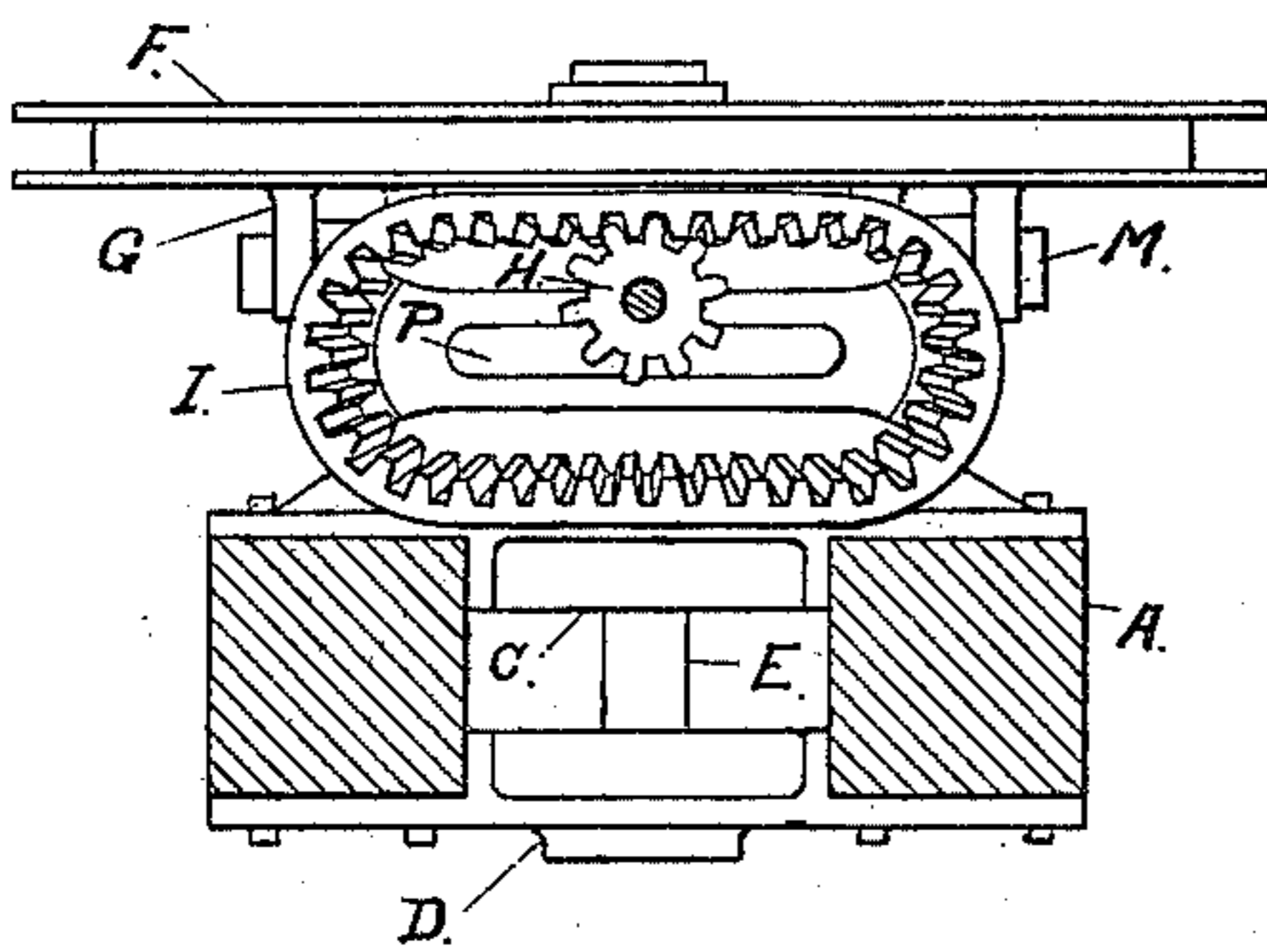


Fig. 3.



Witnesses.

F. L. Puthoff.
C. H. Weideman.

Inventor.

Guy D. Newton

UNITED STATES PATENT OFFICE.

GUY DORIC NEWTON, OF CLEVELAND, OHIO.

PUMPING POWER FOR OIL-WELLS.

SPECIFICATION forming part of Letters Patent No. 701,497, dated June 3, 1902.

Application filed February 6, 1902. Serial No. 92,821. (No model.)

To all whom it may concern:

Be it known that I, GUY DORIC NEWTON, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and useful Pumping Power for Oil-Wells, of which the following is specification.

My invention relates to improvements in pumping powers for oil-wells in which the pump-actuating rods are attached tangentially to the circumference of a horizontal pull-wheel having a rocking or reciprocating rotary motion about its center as an axis; and the objects of my improvement are, first, to make a compact simple machine; second, to cheapen the construction by reducing the number of finished pieces and by doing away with one pair of speed-reducing gears. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a plan; Fig. 2, a side elevation; and Fig. 3, a vertical section on the line 1 2, Figs. 1 and 2.

Similar letters refer to similar parts throughout the several views.

A framework of timbers A, bolted together, forms the base of the power. To this base are bolted two journal-boxes carrying the horizontal shaft B and two castings C and D, in which the vertical pull-wheel shaft E is firmly keyed. The casting C is finished at its top to form a bearing for the pull-wheel F, which is journaled on the vertical shaft E. This pull-wheel is provided with means for attaching pump-actuating rods near its circumference and also with four lugs G on its under side, as shown.

The horizontal shaft B carries a bevel-pinion H, which drives an endless internal bevel-rack I. This rack is carried by two arms K, either bolted on or cast in one piece with it, and these arms are provided with means for attaching a counterweight L at their ends opposite the rack and are provided also with holes near their center, through which the pins M are passed, hinging them to the above-men-

tioned lugs G on the under side of the pull-wheel F.

A small wheel N on the end of the horizontal shaft B travels around an oblong ledge P, located in the center of the rack I, as shown, thus holding the teeth of the pinion in mesh with the rack at all times. The shaft B may carry a pulley and be driven by a belt. A rotary motion then of the horizontal shaft B would cause a rocking or reciprocating rotary motion of the pull-wheel.

I am aware that prior to my invention pumping powers have been made in which pump-actuating rods were attached to the circumference of a horizontal pull-wheel; but I am not aware that an endless rack has ever been used to drive such a pull-wheel.

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

1. The combination, in a pumping power for oil-wells, of a vertical shaft, a pull-wheel journaled thereon, an endless internal bevel-rack attached to said pull-wheel by a suitable hinged connection, a horizontal shaft, and a bevel-pinion which drives the said internal bevel-rack, whereby a rocking or reciprocating rotary motion is imparted to the pull-wheel, substantially as described.

2. The combination in a pumping power for oil-wells, of a suitable base, a vertical pull-wheel shaft and a horizontal shaft mounted thereon, a pull-wheel journaled on the former shaft and provided with lugs on lower side as shown, a bevel-pinion on the latter shaft, an endless internal bevel-rack driven by said pinion, arms attached to said rack and hinged near their center to the above-mentioned lugs on the pull-wheel, a counterweight in the outer ends of said arms and a small wheel on the end of the horizontal shaft to travel on an oblong ledge centrally located on the rack, substantially as shown and described.

GUY DORIC NEWTON.

Witnesses:

EMMA C. NEWTON,
CHARLES G. PALMER.