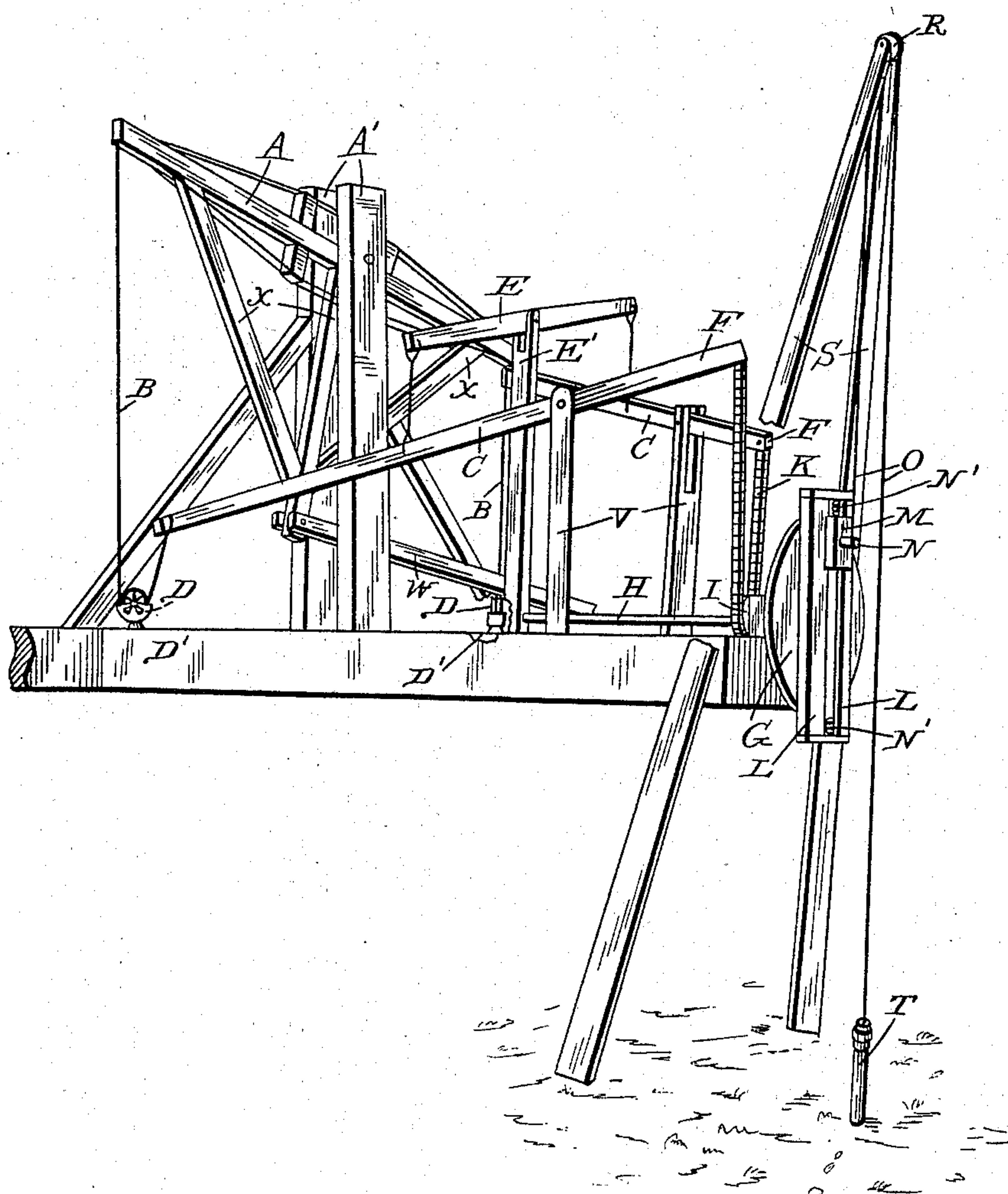


(No Model.)

A. W. PICKERING.
PUMPING AND DRILLING MACHINE.

No. 565,634.

Patented Aug. 11, 1896.



Witnesses
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UNITED STATES PATENT OFFICE.

ABEL W. PICKERING, OF LOCK, KENTUCKY.

PUMPING AND DRILLING MACHINE.

SPECIFICATION forming part of Letters Patent No. 565,634, dated August 11, 1896.

Application filed November 5, 1895. Serial No. 568,012. (No model.)

To all whom it may concern:

Be it known that I, ABEL W. PICKERING, a citizen of the United States, residing at Lock, in the county of Bell and State of Kentucky, have invented certain new and useful Improvements in Pumping and Drilling Machines; 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 is an improved form of motor or mechanical contrivance for operating pump or drill rods.

The object of the invention is to provide an exceedingly cheap and simple contrivance and one in which there shall be a minimum amount of power expended.

Another object is to provide a device which can be used for operating two pumps at the same time.

Another object is to provide a drilling attachment by which the slack of the bit-rope is taken up and the jar at the dead-points avoided.

With these objects in view, and such others as may hereinafter appear, my invention consists in the peculiar construction of the several parts and their novel combination or arrangement, all of which will be fully described, and then pointed out in the claims.

The drawing is a perspective view of my improved device.

Referring now to said drawing, A indicates the main walking-beam, pivoted between standards A' and provided with pendent brace-arms *x x*, to which the pitman W is attached, said pitman being driven from any suitable source and imparting motion to the walking-beam, from which it is transmitted to levers C C, pivoted upon posts V V, through the medium-ropes B, connecting the walking-beam and levers, but said ropes first pass through pulleys D D, mounted upon brace-bars D' D', as clearly shown. The levers C C are also connected with a lever E, pivoted upon a post E', said lever E being connected with the levers C to assist in their operation, for as one is drawn down the lever E being

drawn down on that side will cause the lever upon the opposite side to be elevated.

The ends F of levers C may be connected to separate pump-rods for pumping, and when used in drilling said ends are connected to a drive-chain K, which passes around a sprocket-wheel I, mounted upon a shaft H, and said shaft also carries a disk G, upon the outer face of which are fixed slideways L L, in which slides a block M, carrying a revolving pin N, to which is attached the rope O, which runs over pulley R, supported by derrick S, and carries at its lower end the drill-tool T.

The operation of the apparatus just described is as follows: The walking-beam is set in operation by the pitman, and this drives the levers C, which operate the chain K, sprocket I, and shaft H. By these operations the disk G is caused to turn back and forth about one-half a revolution, and the block M is consequently caused to move up and down and pull upon the rope O. Spring-buffers N' are arranged at each end of slide to break the jar as the stroke changes. The pin N turning freely also takes up the slack in the rope O. In case of pumping the rods are attached at F, and in case one pump gets out of order the other can be continued without interruption.

Having thus described my invention, what I claim as new is—

1. In a device of the character described, the combination of the walking-beam, levers, ropes connecting the walking-beam and levers, the drive-chain, the drive-shaft, disk, and operating-rope, all arranged substantially as shown and described.

2. In a device of the character described, the combination with a walking-beam, of the levers and ropes connecting said walking-beam and levers, the drive-shaft, chain and sprocket, the disk, and slideways, the slide-block and rope, all arranged substantially as shown and described.

3. The combination with the walking-beam and pitman, of the levers C, C, and cords B, and the lever E, connected to the levers C, substantially as shown and described.

4. The combination with the walking-beam
and pitman, of the levers C, C, and ropes B,
B, the lever E, connections between said levers
E and C, chain K, shaft H, sprocket I, disk
5 G, slide L, and block M all arranged substan-
tially as shown and described.

In testimony whereof I have signed this

specification in the presence of two subscrib-
ing witnesses.

ABEL W. PICKERING.

Witnesses:

AUSTIN A. EDWARDS,
THOMAS EVANS.