

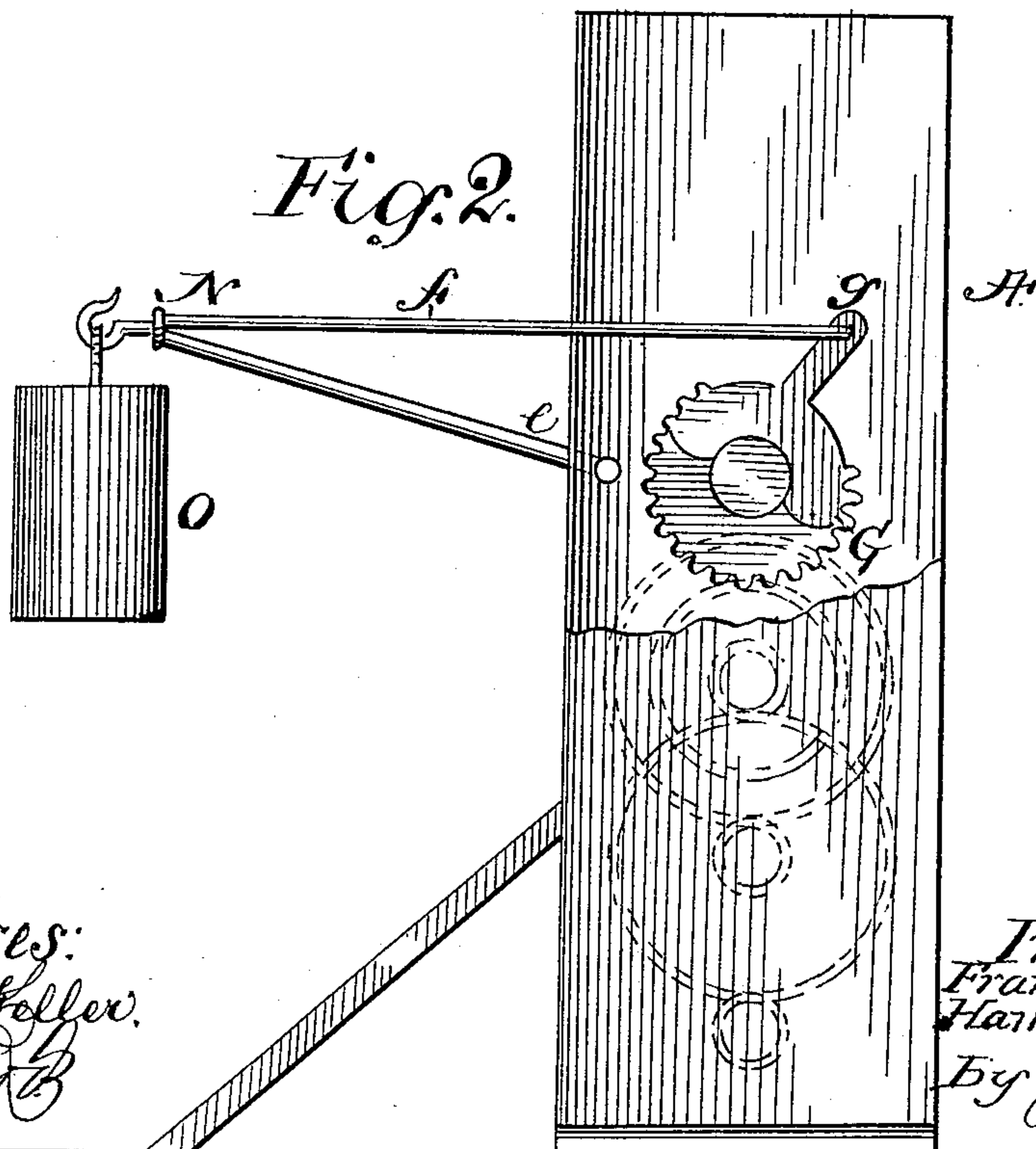
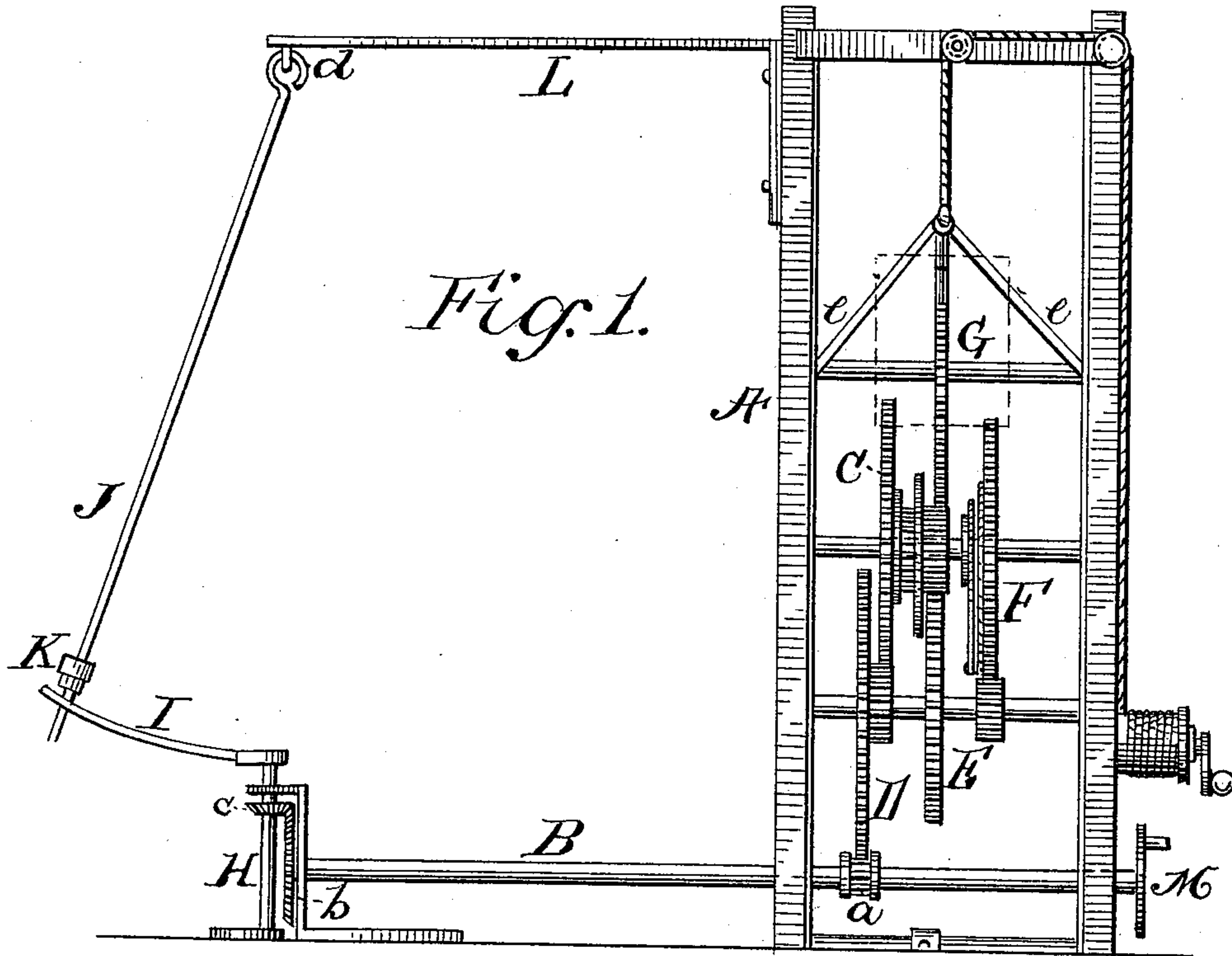
(No Model.)

F. D. JONES & H. M. HART.

MECHANICAL MOTOR.

No. 330,029.

Patented Nov. 10, 1885.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

FRANKLIN D. JONES AND HAMILTON M. HART, OF BURLINGTON, KANSAS.

## MECHANICAL MOTOR.

SPECIFICATION forming part of Letters Patent No. 330,029, dated November 10, 1885.

Application filed August 6, 1885. Serial No. 173,764. (No model.)

*To all whom it may concern:*

Be it known that we, FRANKLIN D. JONES and HAMILTON M. HART, citizens of the United States, residing at Burlington, in the county of Coffey and State of Kansas, have invented certain new and useful Improvements in Mechanical Motors; and we do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

Our invention has for its object to provide an improved and simplified mechanical motor for operating pumps, grindstones, or other like purposes; and it consists, essentially, of a frame-work provided with a series of cog-gears which are driven by means of a weight, said cog-gears operating a novel mechanism for imparting motion to a horizontal shaft, as will hereinafter be fully described, and designated in the claims.

In the accompanying drawings, Figure 1 represents a front elevation of our complete invention, and Fig. 2 a side view thereof.

Similar letters of reference occurring on the several figures indicate like parts.

In carrying out our invention we provide a wooden or metallic frame, A, of suitable height and dimensions to contain the mechanism for imparting motion to the horizontal shaft B. Below the center of the frame A are journaled five or more cog-gears, C, D, E, F, and G, which mesh with each other, as shown. The lower cog, D, meshes into a small cog or drum wheel, *a*, upon the horizontal shaft B, which is journaled in the lower part of the frame A, and extends off to one side or rear of the said frame, and is provided with bevel gear-wheel *b*, which engages with a corresponding gear-wheel, *c*, arranged upon a vertically-journaled shaft, as fully shown in Fig. 1. To the top of said shaft H is secured one end of a curved arm, I, the opposite end of which is slotted to receive the lower end of a pendulum, J, which is provided with a ball, K, above the surface of the said arm I, as shown. The upper end of the pendulum J is hooked to a rigid ring, *d*, attached to the under surface of the beam L in a true vertical line with the shaft H.

The pitman-wheel M, which imparts motion

to the pump or other kindred device, is attached to the rear end of the horizontal shaft B; or a cam-roller may be used, if desired, to obtain the same motion.

N is the crane which carries the weight O, that imparts motion to the machinery. The crane N has two braces, *e e*, which are journaled into the frame.

*f* is the stay-rod, and is attached to the upright *g* of the cog-gear wheel G.

In large machines it is necessary to erect a derrick to raise the upright and crane to a proper height, as shown in the drawings; but in small machines this derrick can be dispensed with and a crank attached to one of the gear-wheels will answer.

We will now proceed to describe its operation: The crane N, with weight O attached, is raised by the derrick to the desired height, the stay-rod *f* being rigidly secured to the upright or arm *g* of the semicircular wheel G. The said upright, being bolted or forming part of the semicircular wheel, is thrown back as the weight rises, and causes the teeth or ratchet to mesh with the drums or gearing, as described, and with the gear-wheel on the horizontal shaft B, this giving the machine a reverse or backward motion. Then the pitman is attached to the pump or instrument to be operated on. The crane is allowed to have a downward movement by the weight suspended at its extreme end, which imparts motion to the machine.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The crane N, having braces *e e*, journaled in the frame A, and provided with a stay-rod, *f*, which is attached to the upright *g* of the semicircular wheel G, and carrying the weight O, for imparting motion, for the purpose herein described.

2. The frame A, provided with gear-wheels C, D, E, F, and G, horizontal shaft B, gear-wheel *a*, bevel gear-wheels *b* and *c*, pitman-wheel or cam-roller M, the vertical shaft H, arm I, pendulum J, ball K, crane N, and weight O, all constructed and arranged to operate as herein shown and described.

In testimony whereof we affix our signatures in presence of witnesses.

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