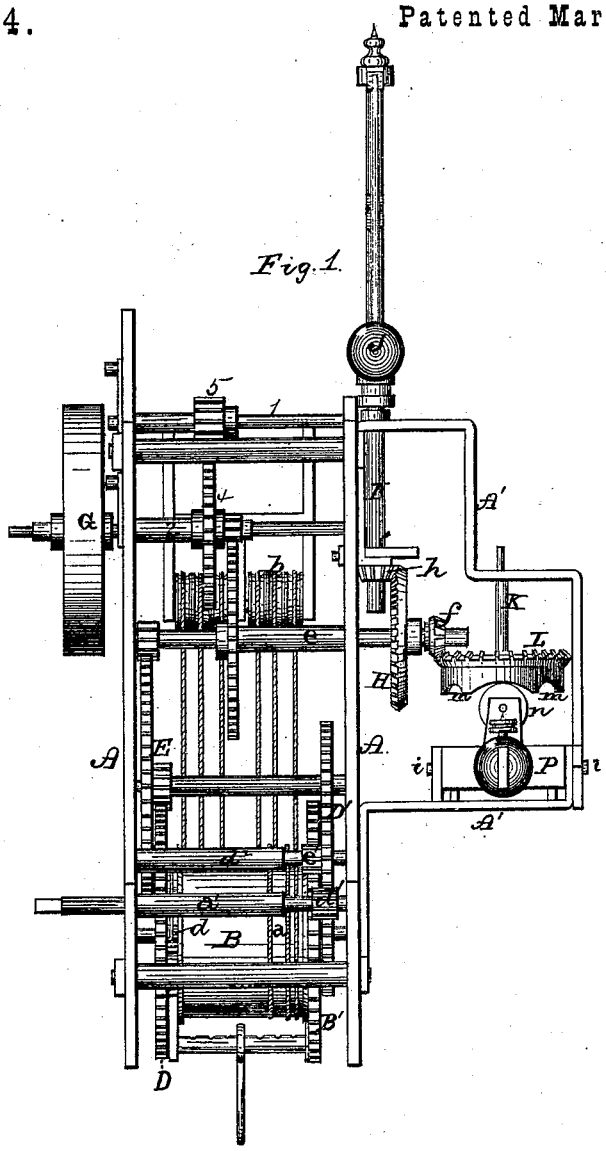
2 Sheets—Sheet 1.

E. PEPPLE.

MOTOR.

No. 188,304. Patented March 13, 1877.

Fig. 1.



WITNESSES:

J. Wm. Garner.

Frank A. B. Burnham.

INVENTOR:

O. Pepple,

per

F. A. Lehmann, atty.

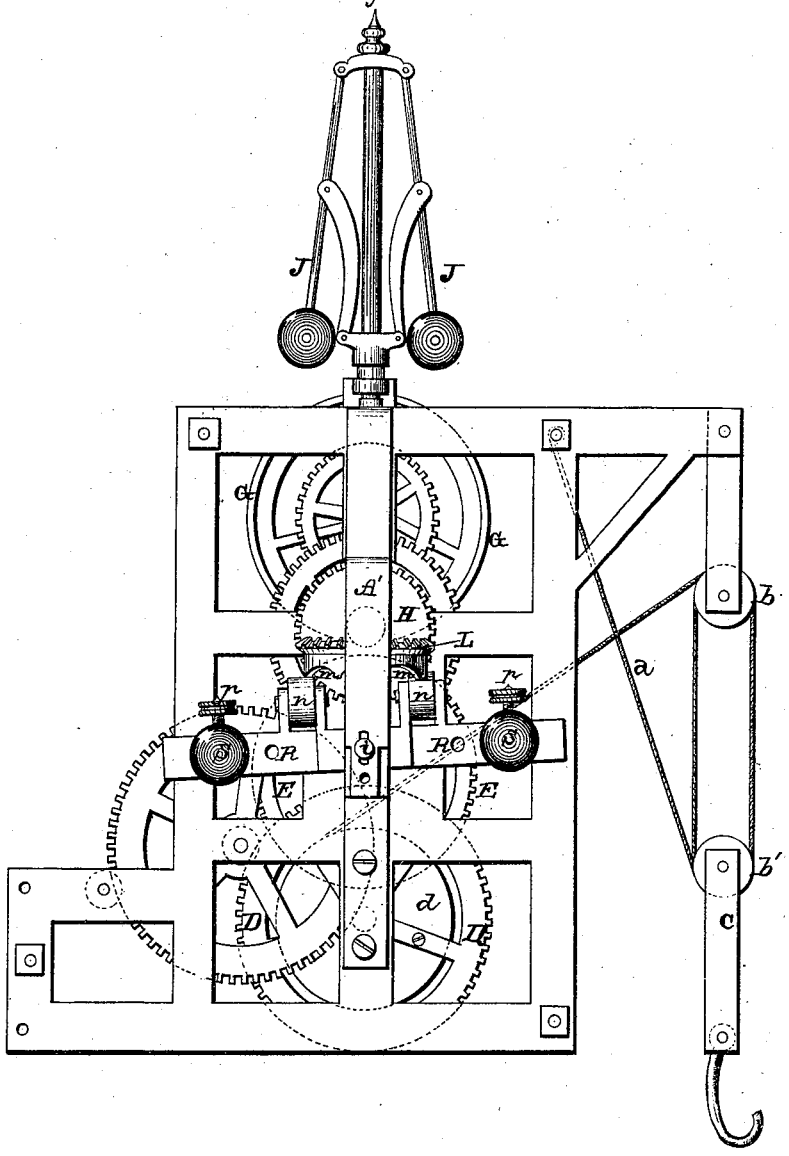
2 Sheets—Sheet 2.

E. PEPPLE.

MOTOR.

No. 188,304. Patented March 13, 1877.

Fig. 2.



WITNESSES:

J. Wm. Garner,

Frank H. Burnham.

INVENTOR:

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F. A. Lehmann, Atty

UNITED STATES PATENT OFFICE.

EDMUND PEPPLE, OF HARTFORD, ASSIGNOR OF A PART OF HIS RIGHT TO GEORGE HARLEY AND THOMAS H. SMYTHE, OF SAME PLACE, AND ROMANZO M. BUCK AND BENJAMIN F. BUCK, OF HAMILTON, MICHIGAN.

IMPROVEMENT IN MOTORS.

Specification forming part of Letters Patent No. **188,304**, dated March 13, 1877; application filed January 23, 1877.

To all whom it may concern:

Be it known that I, EDMUND PEPPLE, of Hartford, in the county of Van Buren and State of Michigan, have invented certain new and useful Improvements in Motive Power; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to what is known as "Pepple's Motor;" and it consists in certain improvements thereon, as will be hereinafter more fully set forth.

The annexed drawing, which forms a part of this specification, fully illustrates my invention.

A represents the frame-work, constructed in any suitable manner to contain the working parts of the motor. In the lower part of this frame is a drum, B, having a cord or chain, *a*, wound around it, which cord passes around suitable pulleys *b* and *b'*, the former arranged in the main frame, and the latter in an ordinary pulley-block, C, to which a weight is connected for running the motor. Any desired number of pulleys may be used, so as to obtain more or less time, as may be required. The drum B is, by means of an ordinary pawl-and-ratchet device, *d*, connected with a large cog-wheel, D, mounted loosely upon the same shaft to which the drum is affixed. This cog-wheel D meshes with and operates a train of gearing, E, suitably arranged in the frame A, and one of the shafts or arbors 2 of said train is carried through the frame, and has a fly or balance wheel, G, secured to its projecting end. By changing the shaft 2 so as to place it where the shaft 1 is now shown, and placing the shaft 1 where shaft 2 now is, a faster motion may be obtained. In this case the gears 4 5 will be made movable on the shafts, so as to be adjusted back and forth to suit their altered relations, or additional gears be used. One arbor, *e*, of the train E is carried through the opposite side of the frame A, and has secured on it a bevel-gear wheel, H, and a bevel-pinion, *f*. The bevel-gear wheel H meshes with a bevel-pinion, *h*, on an upright shaft, I, which carries an ordinary governor, J, for regulating the speed of the motor. The bevel-pinion *f* meshes with a bevel-gear wheel, L, secured upon a vertical shaft, K. The shafts I and K both have their bearings in an auxiliary frame, A', attached to or forming part of the main frame A. On the under side of the bevel-gear wheel L is formed a corrugated rim, which forms a series of cams, *m m*. These cams operate upon two rollers, *n n*, mounted upon opposite sides of a frame, P, which is mounted upon trunnions or pivots *i i* in the frame A', the cams thus causing said frame to oscillate or rock from side to side. From opposite sides of this rocking frame P project perforated arms or beams R R, upon which are placed movable balls or weights S S, held at any point upon them by means of set-screws *p p*.

The perforations in the arms or beams R allow the machinery to be operated to be connected closer to or farther from the center, as may be deemed most advantageous.

To wind up the weights used in running the motor, the drum B is provided with a cog-wheel, B', which is to mesh with a movable pinion, *e'*, upon an arbor, d^2. This arbor is provided with a cog-wheel, D', that meshes with a pinion, d^1, on an arbor, *a'*, and upon one end of this arbor a crank is to be applied. When winding up the weights, the pinion *e'* should be moved on its arbor d^2 so as to gear with the cog-wheel D', and when the winding is completed it should be moved out of gear therewith.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a motive power consisting of the combination of the winding-drum B, a train of wheels or gearing, E, fly-wheel G, shafts 1 2, gearings 4 5, shaft I, governor J, and connecting-wheels for imparting a reciprocating motion to the lever R, the shafts 1 2 being made interchangeable, so as to impart a slower or faster motion, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 13th day of January, 1877.

EDMUND PEPPLE.

Witnesses:

STEPHEN A. CONKLIN,

JULIUS Z. STICKNEY.