

E. PEPPLE.
MOTORS.

No. 180,786.

Patented Aug. 8, 1876.

Fig. 1.

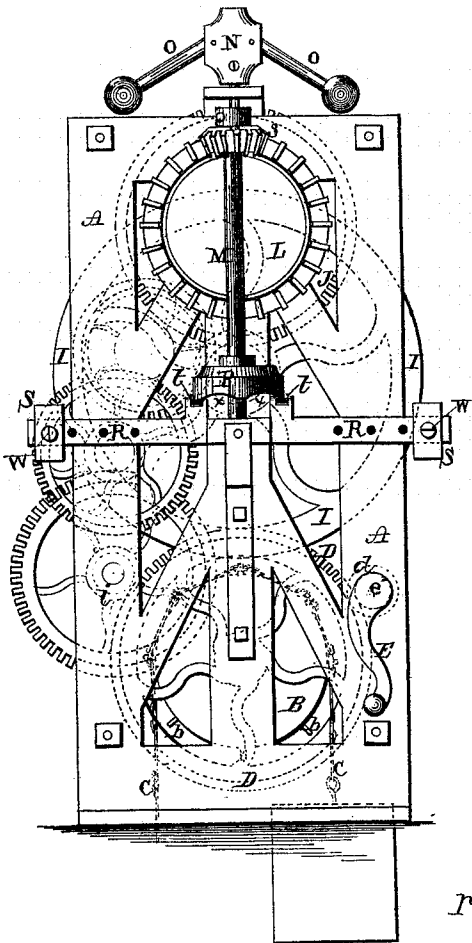


Fig. 2.

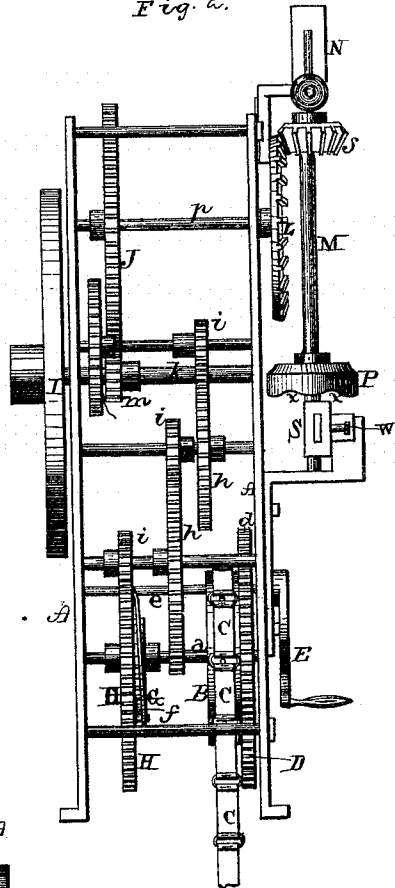
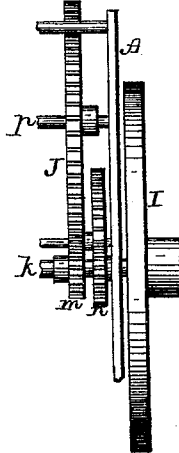


Fig. 3.



WITNESSES:

J. W. Barnes
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per
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UNITED STATES PATENT OFFICE.

EDMUND PEPPELE, OF HARTFORD, MICHIGAN.

IMPROVEMENT IN MOTORS.

Specification forming part of Letters Patent No. **180,786**, dated August 8, 1876; application filed June 2, 1876.

To all whom it may concern:

Be it known that I, EDMUND PEPPELE, of Hartford, in the county of Van Buren and State of Michigan, have invented certain new and useful Improvements in Weight-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.

The nature of my invention consists in the construction and arrangement of a weight-power for running pumps or other machinery, as will be hereinafter more fully set forth.

In the annexed drawing, which fully illustrates my invention, A represents a suitable frame, in which the working parts are arranged. B is a drum, secured upon a shaft, *a*, and provided with pins *b*, which project radially at equal distances apart from the periphery of the drum. These pins catch in the links of a chain, C, which passes over the drum, and has a weight suspended at one end, by means of which the power is driven. At the side of the drum B is a large cog-wheel, D, secured either to the drum or shaft, and meshing with a pinion, *d*, secured upon another shaft, *e*, and this shaft is at one end provided with a crank, E, for winding up the power. On the shaft *a* is further secured a ratchet-wheel, G, and on the side thereof is placed a cog-wheel, H, loosely on the shaft, and said cog-wheel provided with a spring-pawl, *f*, to take into the ratchet-wheel G, and the cog-wheel H thus be turned with it when rotating in the proper direction, while in winding up the power the ratchet-wheel slips by the pawl. The large cog-wheel H is, by means of a series of pinions, *i*, and wheels *h*, secured upon suitable shafts, like any ordinary train of gearing, connected with a pinion, *n*, upon a shaft, *k*, which at one end carries the fly-wheel I. This shaft *k* has another pinion, *m*, which meshes with and rotates a large cog-wheel, J, secured upon a shaft, *p*. Upon the front end of the shaft *p* is secured a large bevel-cog wheel, L, which meshes with a bevel-pinion, S, upon a vertical shaft, M, having its bearings in suitable arms projecting from the front of the frame A. On the upper end of the shaft M is fastened a head, N, slotted on

opposite sides, and provided in said slots with pivoted governor-arms O O, having balls or weights upon their outer ends. On the shaft M, below the wheel L, is further secured a cam-wheel, P, constructed as shown in the drawing—that is to say, it has a series of corrugations, *x x*, around the rim on the under side. On the lower bearing-arm for the shaft M is pivoted a walking-beam, R, which is bent angularly in the center, so that its two ends or arms will be in the same vertical plane as the center of the shaft. On this beam, on each side of the shaft, are projections, in which are mounted friction-rollers *t t*, having their axes running longitudinally with the arms of the walking-beam. When the machine is in motion the cam P operates alternately upon these rollers, giving the beam the required rocking motion.

On each end of the walking-beam R is placed an adjustable weight, S, fastened at any point desired by a set-screw, *w*, to give the walking-beam the proper balance when connected to a pump or other machinery to be driven.

The power is wound up as described, and will then run and operate the machinery to which it is connected for as long a time as the length of the chain will admit.

The fly-wheel I keeps up the momentum of the power, and the governor N O on the shaft M causes it to run with a steady and uniform motion.

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

In a power operated by a weighted chain, the combination of the vertical shaft M, with head N and governor-arms O O at its upper end, the cam-wheel P, formed with the corrugations *x x* and secured on said shaft, and the walking-beam R, with friction-rollers *t t*, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 20th day of May, 1876.

EDMUND PEPPELE.

Witnesses:

CARLTON WHEELER,
WILLIAM H. TUCKER.