

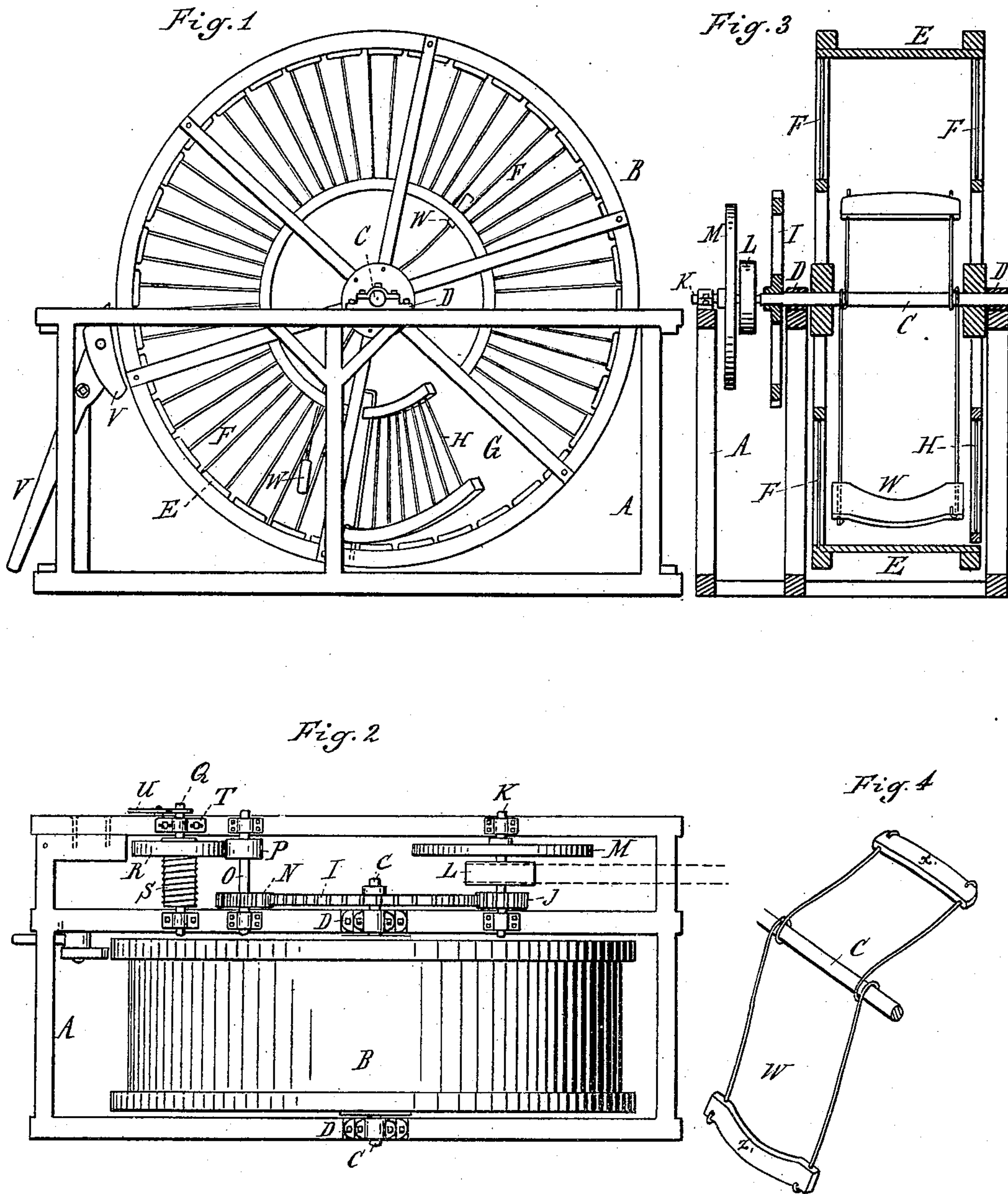
(No Model.)

T. LEMOND.

HORSE POWER.

No. 246,681.

Patented Sept. 6, 1881.



Attest:
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UNITED STATES PATENT OFFICE.

TIMOTHY LEMON, OF DETROIT, MICHIGAN, ASSIGNOR OF ONE-HALF TO
MATTHEW STOLZ, OF SAME PLACE.

HORSE-POWER.

SPECIFICATION forming part of Letters Patent No. 246,681, dated September 6, 1881.

Application filed May 25, 1881. (No model.)

To all whom it may concern:

Be it known that I, TIMOTHY LEMON, of Detroit, in the county of Wayne and State of Michigan, have invented an Improvement in Horse-Powers, of which the following is a specification.

The nature of this invention relates to certain new and useful improvements in the construction of machines wherein horses or other large animals are employed, and wherein the weight of the animal, as it travels up an inclined plane, furnishes the power.

The invention consists in the peculiar construction of the parts, and in their combinations, as more fully hereinafter described.

Figure 1 is a side elevation of my improved machine. Fig. 2 is a top-plan view. Fig. 3 is a vertical central cross-section. Fig. 4 is a perspective detached view of the driver or whip.

In the accompanying drawings, which form a part of this specification, A represents a suitable frame for supporting the working parts of my machine.

A large wheel, B, is supported upon a proper shaft, C, which is journaled in boxes D upon the top of said frame, midway, or thereabout, between its ends. This wheel is floored inside its rim by flooring E, and its sides are provided with radial gratings F.

One of the sections G, between the radial arms of the wheel, is provided with an outwardly-swinging grated door, H, through which the animal passes into and out of the wheel.

Upon the shaft C is secured the gear-wheel I, which engages with a geared pinion, J, on the counter-shaft K, upon which is also secured the pulley L and fly-wheel M. From this pulley L a belt conveys power to any machinery desired to be run. The wheel I also engages upon its opposite side with a geared pinion, N, secured to the counter-shaft O, upon which is also secured the friction-pulley P. Upon another counter-shaft, Q, is secured a friction-wheel, R, and hoisting-drum S. This counter-shaft Q is adjustable to or from the friction-pulley P by means of the sliding box T and the lever U.

V is a lever-brake, suitably pivoted to the frame, and designed, when it is desired to stop the motion of the wheel B, to be engaged with its periphery.

W is a swinging driver or whip, pivotally secured to the shaft C, and overbalanced so that the lower arm thereof will be immediately behind the animal when in the wheel. This driver or whip is hung on the shaft so as to be free to swing on the latter, and is kept in such a position by the counterbalancing-weight x that its cross-bar z will come in contact with the horse's legs at every step when he lags behind. When, however, the horse keeps steadily at work at the front part of the wheel, his position keeps him sufficiently in front of the driver to prevent contact with the latter.

By the peculiar construction of this machine it is adapted specially to the use of wood and coal yards, as it may be simultaneously used for sawing wood and hoisting coal from the hold of a vessel; or it may be used for either purpose, if desired, without the other.

What I claim as my invention is—

1. A rotary horse-power, A, provided with a gear-wheel, I, on its shaft, in combination with the pinions J N, gearing with said gear-wheels, and suitable devices for connecting the pinions J and N, respectively, to a saw-mill and a hoisting-drum, substantially as described.

2. A rotary horse-power, B, provided with a gear-wheel, I, on its shaft, in combination with the pinion N, shaft O, friction-pulleys P R, drum S, and the sliding bearing T and lever U, for throwing the friction-pulleys in and out of gear, substantially as and for the purpose specified.

3. In combination with a horse-power consisting of a hollow wheel mounted on a central shaft, the swinging driver W, counterbalanced and hung from the shaft of the hollow wheel, substantially as and for the purpose specified.

4. A horse-power consisting of a hollow wheel hung on a central shaft, and having its sides composed of radial sector-shaped sections, one of said sections being made separate and hinged to the wheel to allow the ingress and egress of an animal to said wheel, substantially as described.

In testimony that I claim the above I hereunto set my hand.

TIMOTHY LEMON.

Witnesses:

H. S. SPRAGUE,
E. SCULLY.