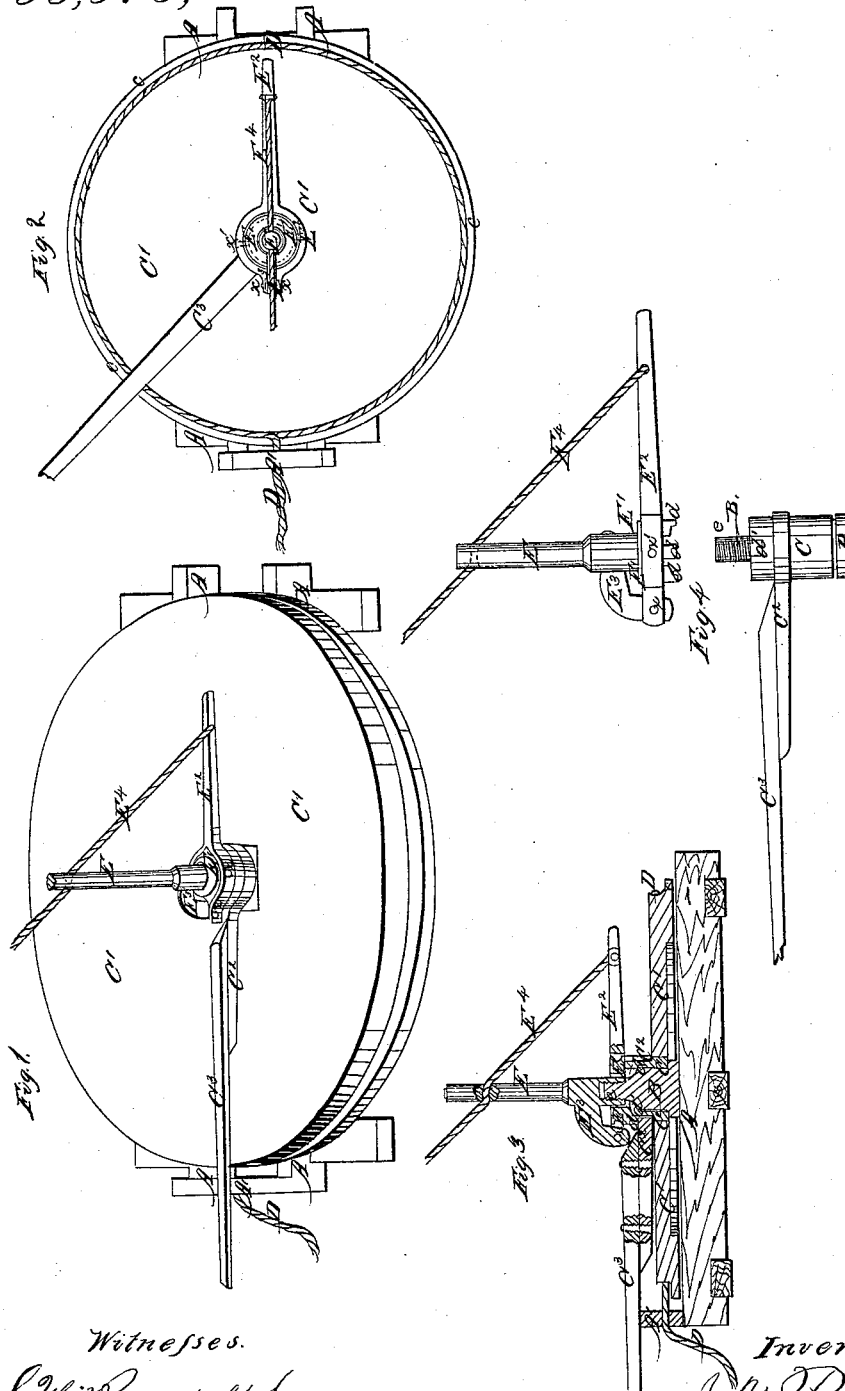


J. M. Randle,
Horse Power,
No. 53,378, Patented Mar. 20, 1866.



Witnesses.
S. M. Randolph
A. Wagner.

Inventor.
J. M. Randle
By his attorney, M. Randolph

UNITED STATES PATENT OFFICE.

J. M. RANDLE, OF BRIGHTON, ILLINOIS, ASSIGNOR TO HIMSELF AND
J. W. HILL, OF SAME PLACE.

IMPROVED HORSE-POWER.

Specification forming part of Letters Patent No. 53,378, dated March 20, 1866.

To all whom it may concern:

Be it known that I, J. M. RANDLE, of Brighton, in the county of Macoupin and State of Illinois, have invented a new and useful Improvement in Horse-Powers for Hay-Derricks or other similar uses; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 of the annexed drawings is a perspective view of one of the improved horse-powers. Fig. 2 is a plan of the same. Fig. 3 is a transverse vertical section of the machine through its axis, and Fig. 4 is a sectional elevation of the clutch-post which forms the journal for the rim-wheel.

This invention consists in making a horse-power in such a manner that it can be unshipped by a man at some distance from it—for instance, on top of a load of hay in the case of a hay-derrick.

A is a foundation frame-work, upon which the other parts are erected. B is a vertical journal erected upon A, upon which the metallic hub C rests and around which it revolves.

C' is a horizontal wheel firmly attached to the hub C, and provided with a flange, *c*, around the lower edge of its periphery, to keep the draft-rope D from running off at the bottom.

E is a vertical post, in the lower end of which is a cylindrical cavity, with the threads of a female screw cut therein that fit the screw-threads *e* on the upper end of the journal B.

E' is a ring, with clutch-joints *d* on the lower end of it, that fit into the clutch-joints *d'* on the upper end of the hub C when all the parts are together and in operation. The clutch-ring E' is placed on the lower end of the post E in such a manner that it may receive a slight vertical motion sufficient to raise the clutches *d* out of the clutches *d'*.

The curved metallic arm E³, projecting from one side of the post E near its lower end, furnishes at *x* a fulcrum for the lever E², which is connected with the clutch-ring E' by means of two pins, *x'*, that enter a groove made around the periphery of the clutch-ring, so that said ring may revolve around the post E without the pins *x'* stopping its rotary motion.

A cord, E⁴, is fastened to the lever E² near

its outer end, from which point of attachment it passes up in a diagonal direction to a mortise made for its passage through the top end of the post E, and from thence it passes on to the location of the operator, which, in the case of a hay-derrick, will be on top of the load of hay.

When the operator draws up the cord E⁴ it will raise the long arm of the lever E² high enough for the pins *x'* to elevate the ring E' sufficiently to allow the clutches *d* to become disconnected from the clutches *d'*, thereby affording a very economical and effective shipping and unshipping arrangement for that class of horse-powers which are suitable for hay-derricks.

An iron arm, C², has an annular end which surrounds the upper end of the hub C, and there are clutch-openings *d'*, similar to those in the upper end of the hub C, made in the upper part of this annular end.

When the clutches *d* are down they enter the clutches *d'* in both the lever C² and the hub C, and so couple all these parts together.

The motive power is to be attached to the outer end of the lever C³, the inner end of which is firmly secured to the arm C².

One end of the draft-rope D is firmly fastened to the periphery of the wheel C', from which point the other end is conducted out through the timber-head A', where it should pass over a sheave, (not shown,) and then be attached to the weight to be raised.

The machine, constructed as above described, and the horses attached to the outer end of the lever C³, when the team has turned the wheel C' far enough around to take up a sufficiency of the rope D to raise the weight (not shown) attached to its outer end to the required elevation, the operator will draw the cord E⁴, which will, as has been shown, disconnect the clutches *d* and *d'*, and so stop the motion of the draft-rope D instantly, although the team may continue to advance.

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

The combination of the wheel C', arm C², lever C³, and journal B with the post E, clutch-ring E', lever E², and ropes D and E⁴, when constructed and arranged as and for the purpose set forth.

Witnesses:

M. RANDOLPH,
A. WAGNER.

J. M. RANDLE.