R. D. NORTON.

Horse-Power Attachment.

No. 226,671. Patented April 20, 1880.

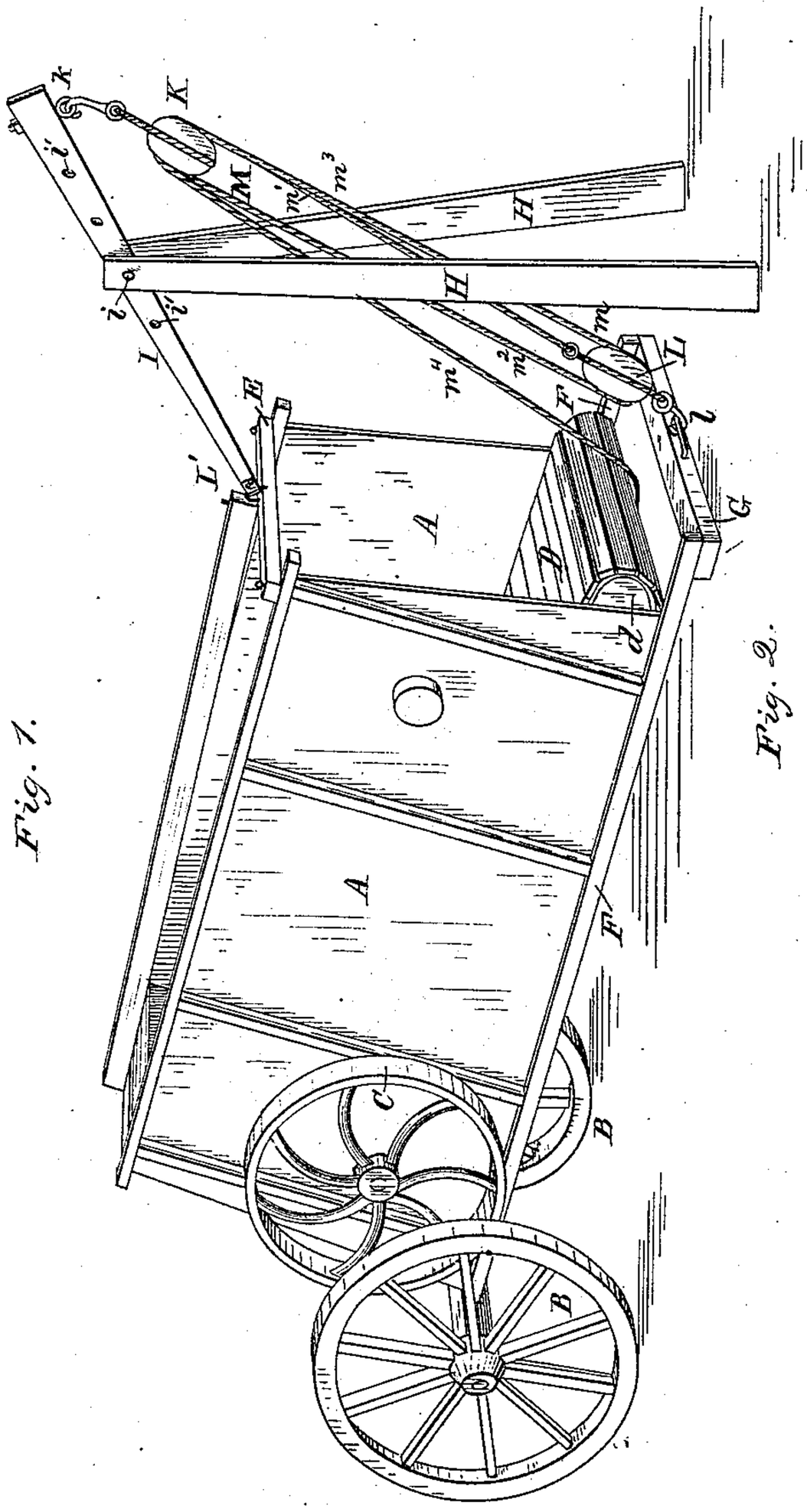

Fig. 1.

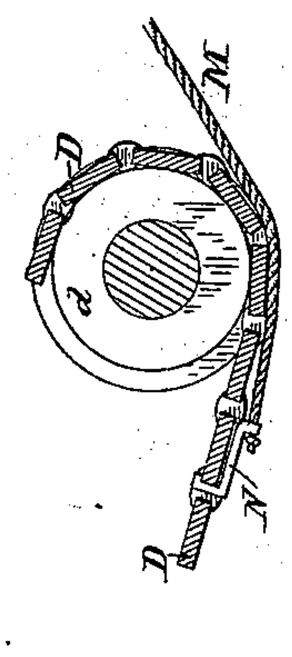

Fig. 2.

WITNESSES

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RICHARD D. NORTON, OF HIGHTSTOWN, NEW JERSEY, ASSIGNOR TO WILLIAM R. NORTON, OF SAME PLACE.

HORSE-POWER ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 226,671, dated April 20, 1880.

Application filed February 6, 1880.

To all whom it may concern:

Be it known that I, RICHARD D. NORTON, of Hightstown, in the county of Mercer and State of New Jersey, have invented certain new and useful Improvements in Horse-Power Attachments; 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 appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of my invention is to provide a simple device or combination for raising and lowering the track and frame of a horse-power to any desired position for loading and unloading the same.

My improvement consists in a simple construction and arrangement of parts whereby the machine can be raised or lowered by power applied through the operative or moving parts of the horse-power. It is constructed so that it can be readily attached to or detached from the machine and be packed and transported in small and convenient space.

In the drawings, Figure 1 is a perspective view of a horse-power and my improved lifting devices combined. Fig. 2 is a sectional view of a part of the track and rope.

The lateral walls of the casing of the machine are represented by A A, the front ground or transporting wheels by B B, and the fly-wheel by C. D D represent the slats or bars of the track, mounted upon the rollers *d d*. E is a cross-piece at the top of the casing and situated across the upper edge of the same. F F are the bottom sills of the frame, jointed at the rear end by a cross-girt, G. The parts above named may be of any ordinary or desired construction and operation, they forming no essential part of my invention, being shown and generally described in order that the method of applying my improved lifting device may be readily understood.

The frame of the lifting device is composed of two standards or uprights, H H, or their equivalents. When simple upright posts similar to those shown are used they are preferably arranged so that the lower ends, when resting upon the ground, shall be farther apart than the upper ends. At the upper ends the uprights H H are pivoted to a lever, I, by means of a bolt, *i*. There are in the lever I a series of perforations, *i'*, whereby the standards may be pivoted to it at different points as occasion may require.

Lever I, at its inner end, is hinged or otherwise flexibly connected to the upper rear cross-piece, E. To the outer end of the lever I there is attached a pulley-block, K, by means of an eyebolt, *k*, and hook, or by swiveling, or by other preferred connection.

L represents a second block, provided with one or more pulleys and hooked or flexibly connected to the lower cross-girt, G, of the frame of the machine.

If the machine be originally constructed to have my improved lifting device attached, there should be suitable metallic plates or their equivalents secured to the cross-pieces G and E at the places where the lifting devices are attached and where the straining from the same is to be received, though such strengthening devices are not essential.

M represents a rope, one end of which is permanently attached to the lower pulley, L, as shown at *m*. The rope passes first upward to the block K, as shown at *m'*, then around a pulley within said block, thence downward to the block L again, as shown at m^2, there around a pulley in said block, thence upward again to the block K, as shown at m^3, there around a second pulley in said block, thence downward again toward the track of the horse-power, as shown at m^4, the rope occupying these last-described positions when the device is in operation. The outer or free end of the rope M is provided with a strong metallic hook, N, to the upper end of which the rope is attached, the lower or opposite end being bent at proper angles to form a catch to engage with the slats or bars of the track.

When it is desired to elevate the rear end of the machine by means of these devices the hook N is attached to one of the bars of the track of the horse-power, as is shown in the drawings. If the track be afterward revolved in the ordinary manner, either by hand-power applied to the fly-wheel or otherwise, the power

exerted upon the strand m^4 of the rope will be greatly multiplied at the point *l*, where the rope and pulleys are connected to the cross-girt G, and in this way the machine can be easily raised to any desired point. When the lifting device is not in operation it can be conveniently folded into small space and packed in such manner as to not encumber the other parts of the machine.

The lever I, when constructed, supported, and attached to the machine in the manner shown and described, can be caused, as I have found, by itself to lift one-third of the lower end of the machine, and when attached to the gearing of the horse-power by substantially the means described the machine can be moved with the exertion of a very slight degree of power.

What I claim is—

1. The combination, with the frame-work and the endless track of a horse-power, of lifting devices arranged to be attached to the frame and the track, substantially as described, whereby the track is caused to adjust the lower end of the machine.

2. The combination, with the frame of a horse-power, of the lever I, flexibly attached to the frame at the upper edge, the standards H H, pivoted to the lever in rear of the frame, and the detachable tackle K L M, substantially as and for the purposes set forth.

In testimony that I claim the foregoing I have hereunto set my hand.

RICHARD D. NORTON.

Witnesses:

CHAS. APPLEGATE,

J. W. JOHNES.