W. H. H. HEYDRICK.

Improvement in Traction-Engines.

No. 129,475. Patented July 16, 1872.

Fig: 1

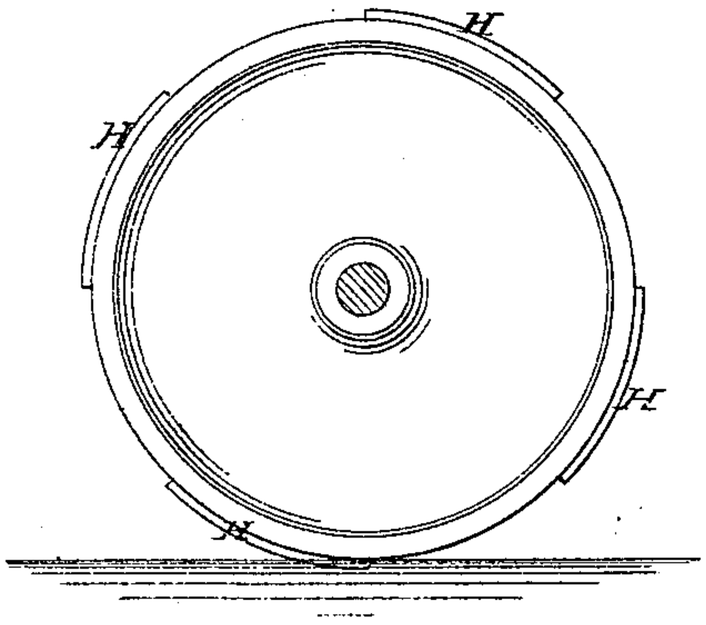


Fig: 2.

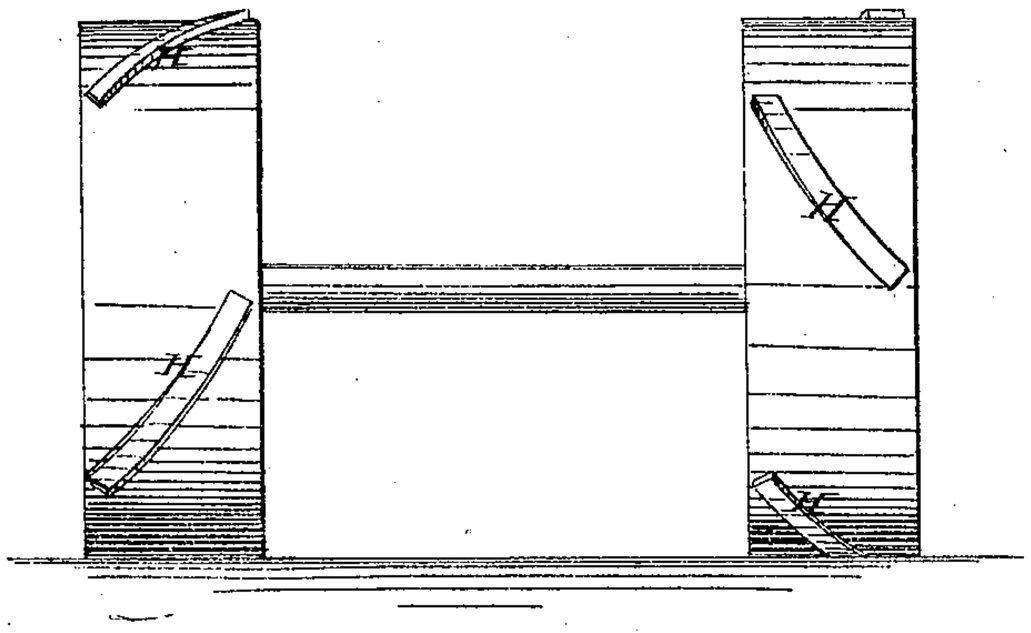


Fig: 3.

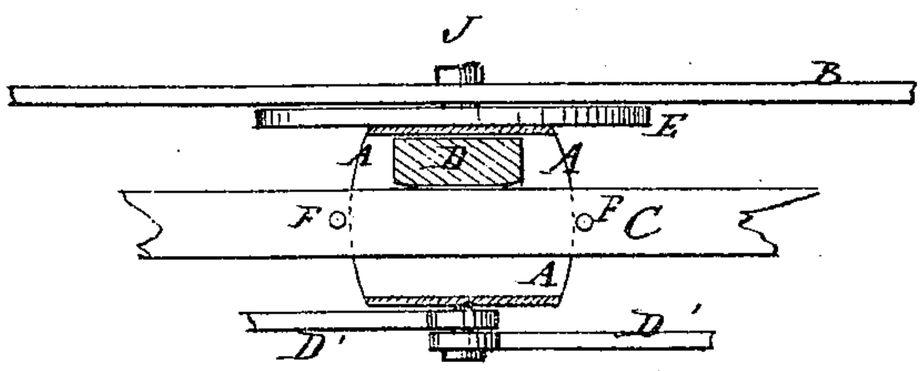
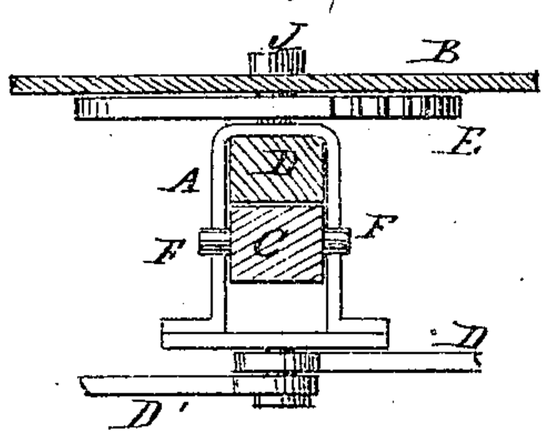


Fig: 4.



Witnesses:

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129,475

UNITED STATES PATENT OFFICE.

WILLIAM H. H. HEYDRICK, OF CHESTNUT HILL, PENNSYLVANIA.

IMPROVEMENT IN TRACTION-ENGINES.

Specification forming part of Letters Patent No. 129,475, dated July 16, 1872.

Specification describing a new and useful Improvement in Traction-Engines, invented by WILLIAM H. H. HEYDRICK, of Chestnut Hill, in the county of Philadelphia and State of Pennsylvania.

This invention relates to improvements in traction-engines or the propelling mechanism for steam-plows; and it consists in an arrangement of devices for connecting the front axle with the frame or platform in a simple and efficient manner to admit of supporting the platform on a spring placed on the axle, and confining the axle without the use of a king-bolt passing through it, while allowing the axle the free universal oscillation needed for traveling over uneven ground.

Figure 1 is a side elevation of one of the traction-wheels. Fig. 2 is a front elevation of the said traction-wheels. Fig. 3 is a vertical section through the connecting devices for the front axle, the said section being in a plane parallel with the axle; and Fig. 4 is a section across the axle.

Similar letters of reference indicate corresponding parts.

I make a housing, A, for the axle C, at the front of the carriage-bottom or frame B, and pivot it at J on the under side, in which I arrange the axle at the center to fit loosely, and I place a spring, D, preferably of India rubber, above the axle and under the top wall of the housing, which is under the circular plate E, both being pivoted vertically to the under side of the frame, and the bottom is pivoted to the strong brace D′, so as to oscillate horizontally to allow the axle to turn for guiding the machine; and I make the said spring convex on the end resting on the top of the axle, so as to allow the axle to oscillate vertically. The said braces extend rearward and diagonally, and are fastened to the frame at any suitable point. The axle is provided with a stud-pin, F, on each side at the ends of the housing-plates, to prevent it from working endwise in the housing, and the said plates are to be carried on the said ends, as required, for allowing the pins to work freely up and down on the said ends in oscillating around the convex end of the springs. The lugs H, which I propose to apply to the treads of the wheels to increase the tractive power, consist of long ribs or bars of metal of such length and bent to such curves that, being placed on spirally at an angle of about forty-five degrees with the planes of the wheel, they will reach from side to side, or thereabout. They are to be placed on the pair of driving-wheels keyed fast to the shaft, with a blank space between each rib about as long as the distance each rib extends along the periphery; and the ribs of one wheel are placed opposite the spaces of the other, so that, as the rib of one wheel is entering the ground, the rib of the other is leaving it, thus having the effect of only one rib, while dividing the action between the two wheels. These ribs being placed spirally, as shown, have also the effect of preventing the machine from sheering sidewise when running along side hills.

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

The housings A and oscillating plate E applied to the under side of the platform, as described, and the axle and spring arranged therein, substantially as specified.

WILLIAM H. H. HEYDRICK.

Witnesses:

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