M. H. PITTS.

Mounted Horse-Power.

No. 202,862. Patented April 23, 1878.

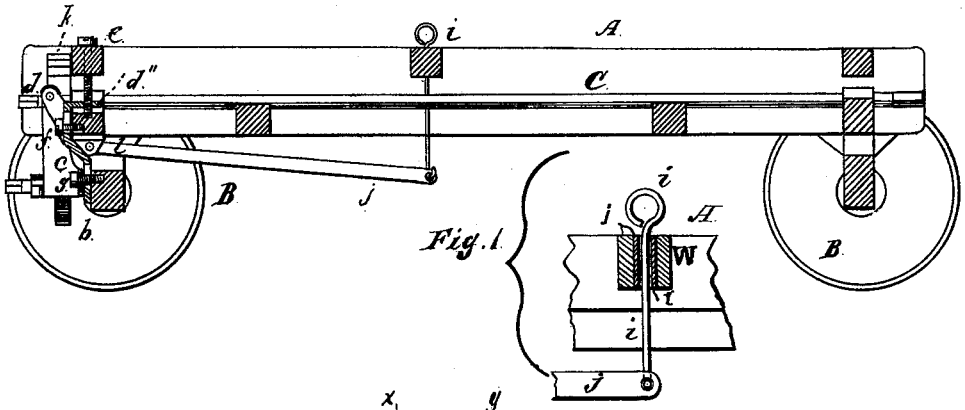

Fig. 1.

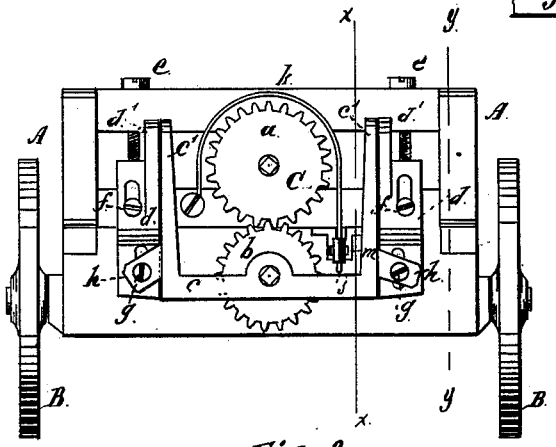

Fig. 2.

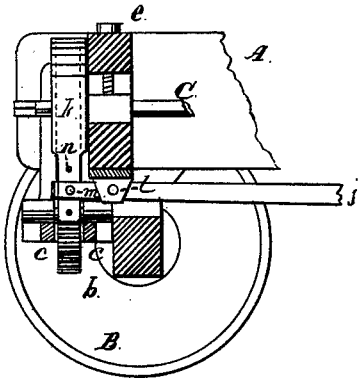

Fig. 3.

Witnesses:

A. W. Bond.

A. F. Bruns.

Inventor:

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UNITED STATES PATENT OFFICE.

MARCELLUS H. PITTS, OF CHICAGO, ILLINOIS, ASSIGNOR TO H. A. PITTS' SONS MANUFACTURING COMPANY, OF SAME PLACE.

IMPROVEMENT IN MOUNTED HORSE-POWERS.

Specification forming part of Letters Patent No. **202,862**, dated April 23, 1878; application filed April 19, 1878.

To all whom it may concern:

Be it known that I, MARCELLUS H. PITTS, of the city of Chicago, Cook county, State of Illinois, have invented new and useful Improvements in Mounted Horse-Power, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is a longitudinal vertical section on line *y y* of Fig. 2; Fig. 2, a rear end elevation; Fig. 3, a longitudinal vertical section of the rear end on line *x x* of Fig. 2.

The object of this invention is to so improve the pinion-frames that pinions of various sizes may be used, and to apply an improved brake for checking or stopping the motion when required; and its nature consists in making the pinion-frames adjustable, and in an improved construction and operation of the brake.

In the drawings, A represents the main or base frame of a horse-power; B, the wheels upon which it is mounted; C, the line-shaft; *a*, the upper pinion, attached to the line-shaft; *b*, the lower pinion, for operating the tumbling-rod; *c c'*, the frame carrying the lower pinion *b*; *d*, the adjustable plates supporting the frame *c c'*; *d'*, the ears to which the frame *c* is pivoted; *d''*, the projections on the back of the plates *d*, through which the adjusting-screws pass; *e*, the set-screws for adjusting the plates *d*; *f g*, set-screws for holding the plates *d*; *h*, the ears on the frame *c c'* for holding the frame at the bottom; *i*, the rod for operating the brake-lever; *j*, the brake-lever; *k*, the brake-band; *l*, the lever-pivot; *m*, the pin connecting the band and lever; *n*, the holes in the brake-band *k* for adjusting the tension.

The frame A is made in the usual manner, and the ordinary master-wheel is mounted thereon, which wheel is provided with a hollow center-pin or shaft, through which the rod *i* passes. The master-wheel and its connecting-gears on the line-shaft are not shown, as they are of the ordinary construction. The line-shaft is journaled in the lower end bars of the frame A, and its rear end is provided with a pinion, *a*, for driving the tumbling-rod. The lower pinion *b* is journaled in the cross-bar or portion *c* of the frame *c c'*, which is forked or slotted for that purpose, as shown at Fig. 3.

The plates *d* are secured to the rear end of the frame and the rear axle by the set-screws *f g*, which pass through slots, to permit the plates *d* to be raised or lowered by the adjusting-screws *e*. These plates *d* are provided with ears or projections *d'*, to which the upper ends of the parts *e'* of the frame *c c'* are pivoted. The frame *c c'* is provided with ears *h*, through which the set-screws *g* pass and hold it in position when adjusted.

By withdrawing the set-screws *g* or unscrewing the nuts the frame *c c'* may be swung out, so as to shift the pinions *b*, or thrown up onto the frame A, for transportation, when necessary. When small pinions *b* are used the frame A will be high enough to obviate the necessity of turning the frame out for transportation purposes.

By this arrangement various-sized pinions may be used, so as to give any desired motion to the tumbling-rod. The screws *g h*, as shown, are set-screws; but in use it will be advisable to pass the bolts through the framing and apply thumb or set nuts.

The brake-band *k* has one end attached to the lower cross-bar of the frame A, as shown in Fig. 2, from which point the band passes around the pinion *a*, down to the rear or short end of the lever *j*, to which it is fastened by the pin *m*. This band *k* is provided with a series of holes, *n*, so that it may be adjusted to fit the pinion *a*, or changed as it wears or stretches in use. The lever *j* is pivoted at *l* to the cross-bar of the frame A, and extends forward to the center of the master-wheel, where it is connected with the rod *i*, which passes up through the hollow center-pin or shaft of the master-wheel. The brake-band *k* fits over the pinion *a*; and by simply pulling up on the rod *i* or lifting the lever *j*, friction is applied to the pinion *a*, more or less, as may be desired. The rod *i* passes up through a tube, *i'*, in the transverse cross-bar W of the frame.

By this arrangement of brake-lever for operating the brake it may be carried off to one side of the machine, as shown, without in any

way interfering with its operation from the center by the rod *i*.

When it is desired to change the pinions the set-screws *g* are withdrawn or their nuts removed, when the frame *c c'* can be swung out upon its pivots, so as to afford easy access to the pinion for the purpose of changing the pinions *b*. The frame is then returned to position, when the set-screws *f* are loosened, and the adjusting-screws *e* turned up or down until the pinions *a b* properly mesh. The set-screws *f g* are then tightened, and the machine is ready for use.

What I claim as new, and desire to secure by Letters Patent, is—

1. The sliding plates *d*, in combination with the frame *c c'*, adjusting-screws *e*, and set-screws *f*, substantially as specified.

2. The combination of the plates *d*, adjusting-screws *e*, and set-screws *f*, with the frame *c c'*, ears *h*, and set-screws *g*, substantially as described.

3. The brake-band *k*, lever *j*, and pinion *a*, in combination with the rod *i*, tubular center-pin *i'*, and bar W, substantially as and for the purpose set forth.

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Witnesses:
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O. W. BOND.