

J. M. TOLAND.  
Horse-Power.

No. 211,117.

Patented Jan. 7, 1879.

Fig. 1.

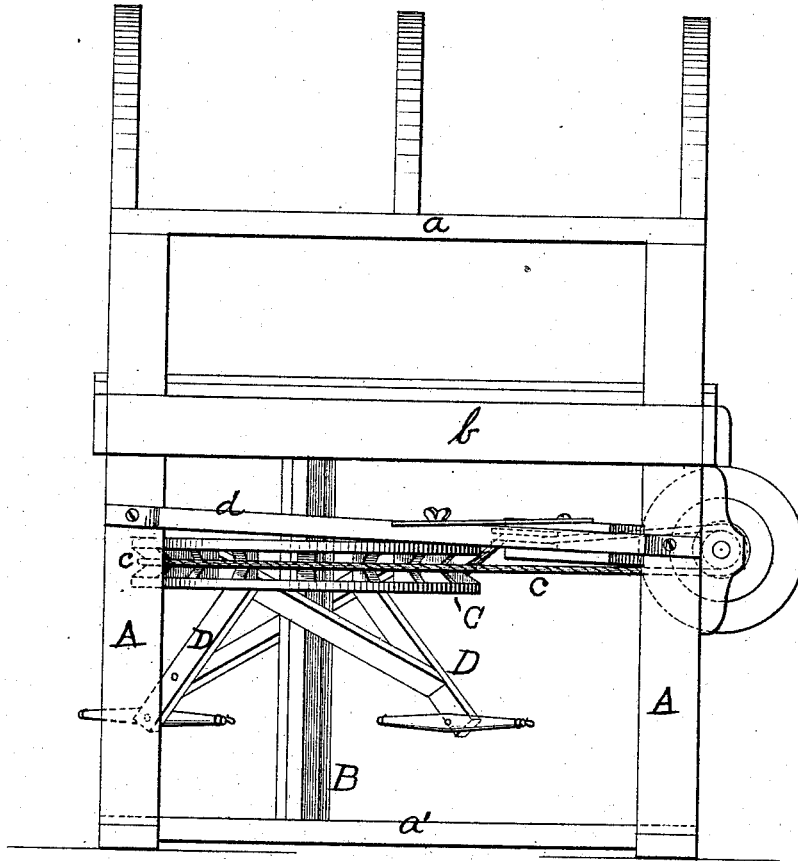
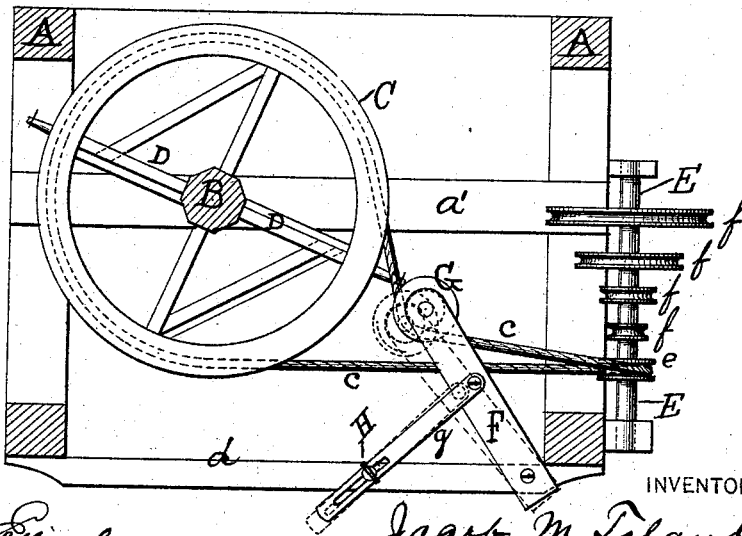


Fig. 2.



WITNESSES

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# UNITED STATES PATENT OFFICE

JACOB M. TOLAND, OF JONESBOROUGH, GEORGIA.

## IMPROVEMENT IN HORSE-POWERS.

Specification forming part of Letters Patent No. **211,117**, dated January 7, 1879; application filed October 16, 1878.

*To all whom it may concern:*

Be it known that I, JACOB M. TOLAND, of Jonesborough, in the county of Clayton and State of Georgia, have invented certain new and useful Improvements in Horse-Powers; and I do hereby declare that the following is a full, clear, and exact description thereof, which 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 the letters of reference marked thereon, which form a part of this specification.

Figure 1 is a side elevation, and Fig. 2 is a top-plan view, of a horse-power embodying my invention.

The object of my invention is to furnish a cheap and effective horse-power that can be easily operated, and of such simple construction that it may be easily built upon farms and plantations, and used for all the various purposes of thrashing, pressing, grinding, ginning cotton, &c.

My invention relates to that class of horse-powers in which a vertical king-post is provided with levers, to which are attached the single-trees, and above which is the large horizontally-grooved pulley or master-wheel, around which passes an endless rope or chain, connecting it with a vertical speed-pulley; and it consists, principally, in providing a tension or take-up to the endless rope, whereby the rope may always be kept up to its work, and any temporary obstructions in the working of the driven machinery may be promptly overcome, all of which will be hereinafter more fully described, and particularly pointed out in the claim.

A A A A are the uprights forming the frame, and are connected at the top by the cross-pieces *a*, and at the bottom by similar pieces, *a'*. B is the vertical king-post, which is journaled at its lower end in the cross-beam *a'*, and its upper end in the beam *b*. At a convenient height is secured the master-wheel C. Attached to and bracing it to the king-post is the lever D, to the lower end of which the power is applied.

The circumference of the wheel C is grooved

to receive the endless rope *c*, which passes over it and over a smaller pulley, *e*, on the countershaft E, which countershaft is provided with a series of different-sized pulleys, *f*, by which the speed of the driven machinery may be altered without changing the speed of the master-wheel C.

A lever, F, is pivoted at one end to the frame, and is provided with a tension-pulley, G, at its other end, the pulley G serving the double purpose of forming a track for the endless rope *c*, and taking up its slack caused by continual use. Heretofore this tension-pulley has been kept to its work by a weight, but this has been found in practice to be defective, because if a little extra work be put upon the driven machine the weight rises and allows the rope on the master-wheel to slip.

In my invention the lever F carrying the tension-pulley G has a pivoted lever, *g*, attached to it, which is provided with a slot, in which works a screw, H. It will readily be seen that by means of this slotted lever *g* the tension-pulley G may be rigidly kept up to its work without any danger of an extra strain causing the rope on the master-wheel to slip.

I do not claim, broadly, a horse-power, as shown in the patent to C. E. Macarty, No. 201,807.

Having thus described my invention, what I claim as new and useful, and desire to secure by Letters Patent of the United States, is—

In a horse-power, the master-wheel C, endless rope or chain *c*, counter-shaft E, in combination with the tension-lever F, one end of which is pivoted to the frame *d*, the other end provided with the pulley G, and having about its center the rigidly-adjustable lever *g*, provided with a slot and screws, H, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JACOB M. TOLAND.

Witnesses:

J. ADAMS,  
C. A. DANIEL.