J. G. TAYLOR.

Horse-Powers.

No. 158,146. Patented Dec. 22, 1874.

Fig. 1.

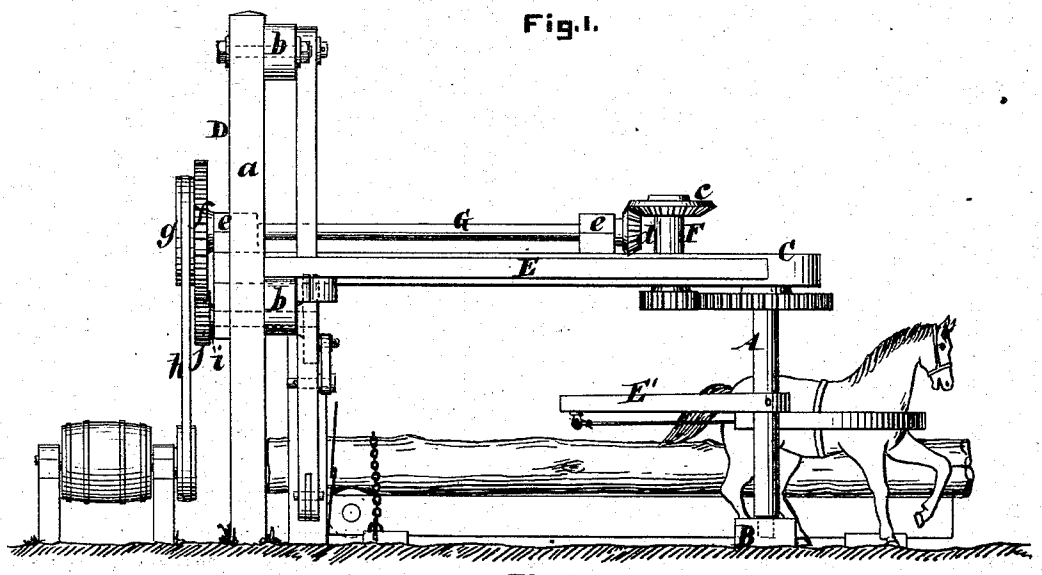
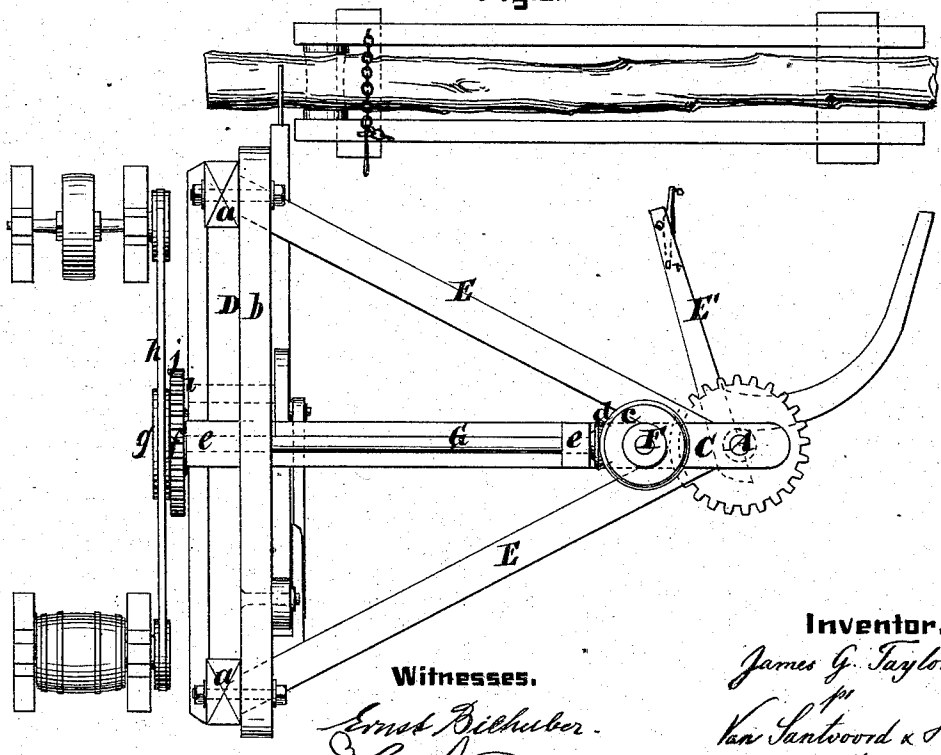


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

JAMES G. TAYLOR, OF BRACHER FALLS, NEW YORK.

IMPROVEMENT IN HORSE-POWERS.

Specification forming part of Letters Patent No. **158,146**, dated December 22, 1874; application filed November 28, 1874.

To all whom it may concern:

Be it known that I, JAMES G. TAYLOR, of Bracher Falls, in the county of St. Lawrence and State of New York, have invented a certain new and Improved Horse-Power, of which the following is a specification:

This invention is illustrated in the accompanying drawing, in which Figure 1 represents a side view. Fig. 2 is a plan or top view.

Similar letters indicate corresponding parts.

This invention relates to a horse-power, which is composed of an upright shaft, the lower end of which is stepped in a block secured in the ground, while its upper end has its bearing in a horizontal beam which extends from a frame composed of two upright beams and two or more cross-bars, the upright shaft carrying the sweep to which the horse is attached, and being geared together with a horizontal shaft which has its bearings in boxes supported by the horizontal beam, and from which motion is transmitted to the working machines, in such a manner that by means of such frame the horse-power can be readily put up in the woods, or on the field, or in any desirable place, and used for cutting logs, or for any other purpose.

In the drawing, the letter A designates a vertical shaft, the lower end of which is stepped in a block, B, which is let into the ground, while the upper end of said shaft has its bearing in a beam, C, which extends from a frame, D, and is steadied by braces E. The frame D consists of two uprights, *a a*, which are let into the ground at a suitable distance apart, and which are connected by traverses *b b'*, the lower one of which forms the support for the horizontal beam C.

On the shaft A is secured the sweep or lever E', to which the horse is hitched, and said shaft is geared together with a vertical countershaft, F, which has its bearings in the horizontal beam C, and which carries a bevel-wheel, *c*, that meshes in a bevel-wheel, *d*, mounted on the end of a horizontal shaft, G, which has its bearings in journal-boxes *e* secured to the beam C. On said shaft G is mounted a cog-wheel, *f*, which gears in a cog-wheel, *j*, mounted on a counter-shaft, *i*, that has its bearing in the traverse *b*, and from which motion is transmitted to a saw or to any other working machine. On the shaft G is also mounted a pulley, *g*, which serves to transmit motion, by a belt, *h*, to a churn, or to a grinding-stone, or to any other working machine. The counter-shaft *i* is so arranged that the cog-wheel *j* can be thrown out of gear with the cog-wheel *f*, so that the whole power can be applied to the machine or machines which depend for their motion upon the pulley *g*.

The principal advantage derived from this arrangement is, that the entire mechanism can be readily and easily transported to any desired place in a forest or on a field, and when the frame D is put up, and the shaft A and the horizontal beam C, with the shafts F and G, are in position, a horse-power is obtained which can be readily used for cutting logs or for driving any other working machine. The frame D may be connected with a shed, so that the working machines are protected against the influence of the atmosphere.

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

1. The vertical shaft F and longitudinal shaft G, and their respective gear-wheels, supported by the beam C, in combination with the frame D and the shaft A, having a gear-wheel and sweeps or levers, all constructed to operate substantially as herein shown and described.

2. The counter-shaft *i*, horizontal and vertical shafts G F, and their connecting gear-wheels, in combination with the frame D, beam C, and driving-shaft A, all constructed to operate substantially in the manner herein shown and described.

In testimony that I claim the foregoing, I have hereunto set my hand and seal this 21st day of November, 1874.

JAMES G. TAYLOR. [L. S.]

Witnesses:

H. K. ELLSWORTH,
H. F. TAYLOR,
C. T. HULBURD.