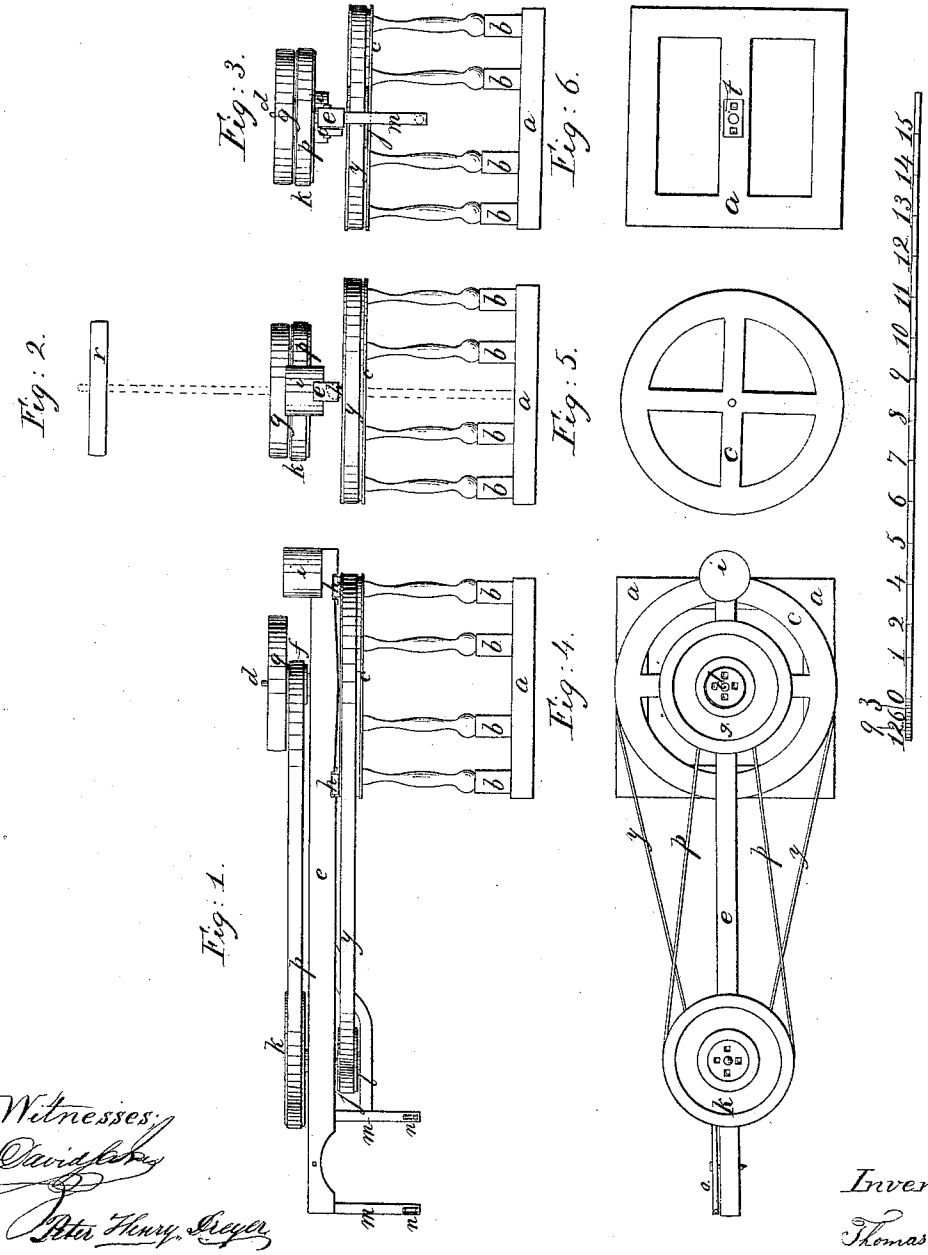
T. J. Wells,

Horse Power.

No. 2,152. Patented July 1, 1841.



Witnesses:
David Kerr
Peter Henry Geyer

Inventor;
Thomas J. Wells.

UNITED STATES PATENT OFFICE.

THOS. J. WELLS, OF NEW YORK, N. Y.

HORSE-POWER FOR DRIVING MACHINERY.

Specification of Letters Patent No. 2,152, dated July 1, 1841.

To all whom it may concern:

Be it known that I, THOMAS J. WELLS, of the city of New York and county and State of New York, have invented a new and Improved Horse-Power; and I do hereby declare that the following is a full and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a longitudinal elevation, Figs. 2 and 3 are end views, Fig. 4 is an upper view, Fig. 5 is an upper view of a stationary wheel, Fig. 6 is an upper view of the bed or under-frame.

To enable others to make and use my invention, I will proceed to describe its construction and operation.

I construct a square frame of wood letter *a* in Figs. 1, 2, 3 4 and 6 whereon I fasten eight or more posts represented by letter *b* in Figs. 1, 2, 3. On these I fasten a wooden wheel, letter *c* in Figs. 1, 2, 3, 4, and 5, which combination forms a stand. In the center of the above wheel I fasten an iron bolt letter *d* in Fig. 1, 3, 4 which passes through a wooden lever letter *e* in Fig. 1, 2, 3, 4 and also through the pulley *f* and driving pulley *g* in Fig. 1, 2, 3, 4 which are fastened together with bolts or spikes, a thimble passing through the center of both, made of cast iron which fits loose on the bolt. On the underside of the lever *e* two rollers *h* are fastened (in Fig. 1, 2) which revolve and bear on the stationary wheel *c*. At the end of the lever *e* above the stationary wheel *c* a weight letter *i* in Fig. 1, 2, 3 and 4 is fastened to balance the other end of the lever by which the horse is to draw; and where two pulleys *j* and *k* in Fig. 1, 2, 3, and 4 which are fastened to a shaft are placed; the shaft revolves in an iron step fastened in the brace letter *l*, and in a thimble which is fastened through the lever. The arms, letter *m* is Figs. 1 and 3, are for the purpose, to fasten the horse to, (that travels below the lever), two small pulleys letter *n*, in Fig. 1 being fastened to the lower ends, for the traces to vibrate on that are fastened to the whiffle-tree letter *o*, in Fig. 3 and 4. To gear the above described machine I place a leather band *y* on the periphery of the stationary wheel *c* and the pulley letter *j*, Fig. 1 and 3, below the lever, and another band on the periphery of the pulley letter *k* and *f* in Fig. 1, 2, 3, and 4, above the lever, on the periphery of the driving pulley *g* a band is placed to connect any machinery to which motion is to be given.

When the horse is in motion the leather band laps on the periphery of the stationary wheel, and being connected with the pulley letter *j* (Fig. 1, 3) under the lever, sets the same in motion, with the upper pulley letter *k* which is fastened on the same shaft, and being connected with another band to the pulley letter *f* above the stationary wheel (which creates a double gear) sets the driving pulley *g*, being fastened to the same also in motion, through which, motion is to be given to any machinery.

To have the driving pulley elevated (as shown by letter *r* in Fig. 2) so as to operate above a floor a shaft letter *s* in Fig. 2, one end of which must rest and revolve in a step letter *t* in Fig. 6 can be applied.

Different speed may be obtained by varying the diameter of the stationary wheel and pulleys.

The advantages of a machine of the above description is not only its portability and cheapness, but the great advantages that new settlers in the western country may derive, as the whole can be made of wood; and a decided advantage over other horse-powers constructed of iron cog wheels, when used in buildings occupied by several tenants, as the noise of my horse power when in motion is of so slight a character as to be imperceptible to a person in an adjoining room.

I do not claim as my invention the mere substitution of band for cogged wheels in the construction of a horse power, nor do I claim simply placing the double wheels on the horse sweep or lever to travel around the main or stationary wheel as this has been heretofore done with cog wheels having the axes of the traveling wheels within the periphery of the main wheel, the cogs of which were put on the inner periphery thereof; but

What I do claim as my invention and desire to secure by Letters Patent is—

Placing the traveling wheels on the sweep without the periphery of the main or stationary wheel in combination with the employment of bands as herein arranged.

THOMAS J. WELLS.

Witnesses:

WM. P. ELLIOT,

E. MAHER.