

(No Model.)

J. G. WALTON.
HORSE POWER.

No. 486,142.

Patented Nov. 15, 1892.

FIG. 1.

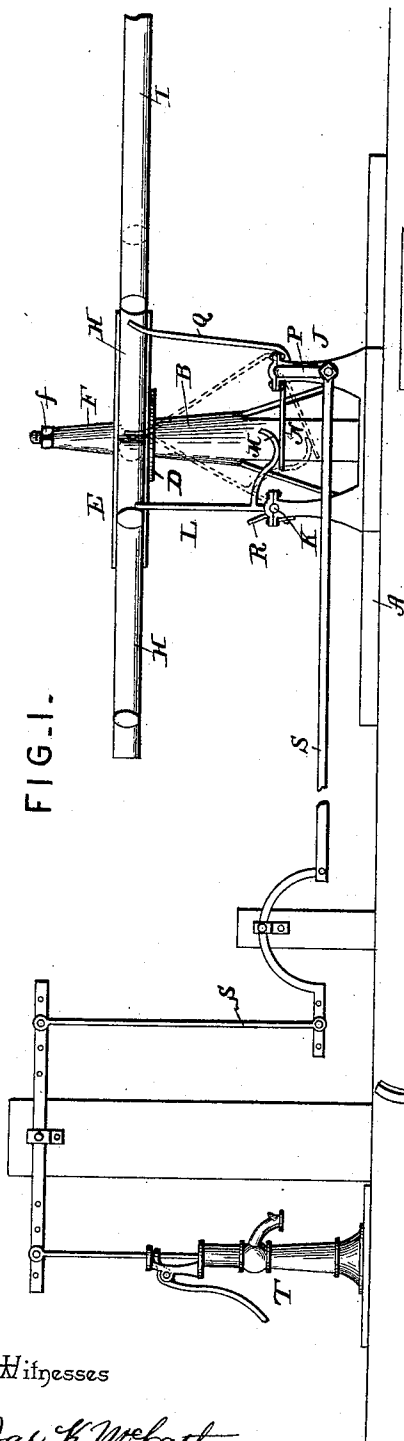


FIG. 2.

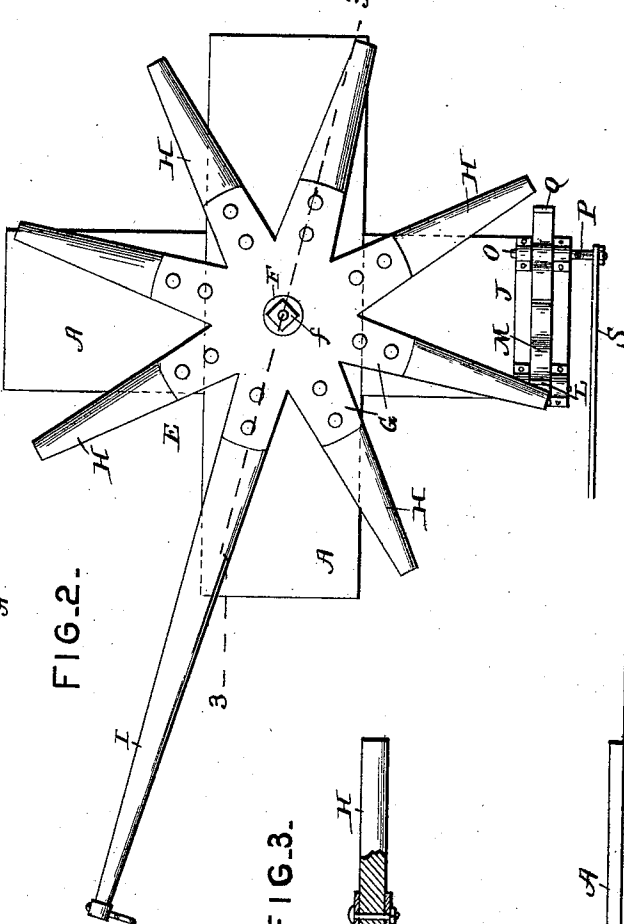


FIG. 3.

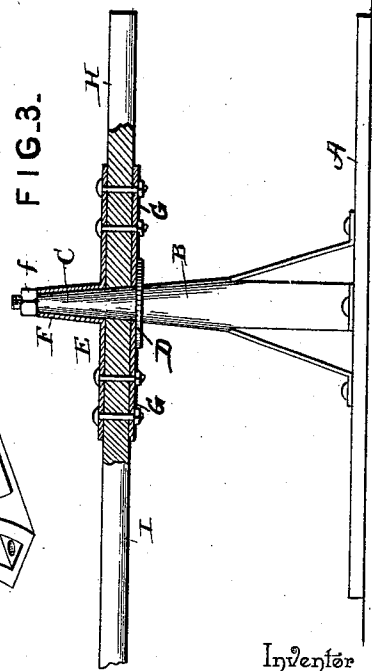
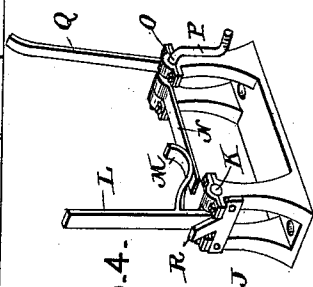


FIG. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

JACOB GIPSON WALTON, OF DAVILLA, TEXAS.

HORSE-POWER.

SPECIFICATION forming part of Letters Patent No. 486,142, dated November 15, 1892.

Application filed February 16, 1892. Serial No. 421,713. (No model.)

To all whom it may concern:

Be it known that I, JACOB GIPSON WALTON, a citizen of the United States, residing at Davilla, in the county of Milam and State of Texas, have invented a new and useful Horse-Power, of which the following is a specification.

This invention relates to horse-powers; and it has for its object to provide an improved power which is entirely cogless, and while avoiding all the objectionable features attending the use of cogged master-wheels and intermeshing cog-wheels at the same time provides just as much power, and which power is created more rapidly.

It is the object of this invention to provide such a power which will not only attain these ends, but which at the same time will be particularly adapted to be used in connection with all reciprocating apparatus, such as saws for sawing wood, pumps, &c.

With these and many other objects in view, which will readily appear as the nature of the invention is fully understood, the same consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a horse-power constructed in accordance with this invention and connected with a pump for operating the same. Fig. 2 is a plan view of the same. Fig. 3 is a vertical sectional view on the line 3 3 of Fig. 2. Fig. 4 is a detail in perspective of the actuating-levers.

Referring to the accompanying drawings, A represents a base or frame supporting the vertical axle B, terminating at its upper end in the tapered spindle C and having the supporting ledge or shoulder D. Resting upon said ledge or shoulder D and working over the tapered spindle C is the hub E, having the tapered or conical box F, fitting over the said tapered spindle and held thereon by means of the securing-nut f. The said hub E is provided with a series of radially-extending flanges G, within which are secured the radially-extending untired spokes H, forming a spider-wheel, which is carried around by an animal connected with the extended draft-spoke I, projecting beyond the ends or the circle of the spokes H. Located adjacent to the said spider-wheel and

secured to said base or frame A is the lever-casing or supporting-boxing J. Pivotaly mounted upon the bolt or shaft K in one end of said casing J is the upright lever-arm L, which is adapted to be struck by the ends of each spoke as the said spider-wheel rotates. The said lever-arm L is provided at its lower end with an inwardly-extended curved lever-foot M, projecting within the supporting-casing J and adapted to work upon the under lever-foot N, working in said casing beneath the same and mounted upon the crank or rock shaft O, journaled in said casing and terminating at one side of the same in the crank P, with which is connected the levers connecting the same with the device to be operated. The said under lever-foot M carries the supplemental vertical lever or lock arm Q, which is somewhat longer than the opposite lever L, mounted upon the pivot K described. It can now be readily seen that as the spider-wheel rotates or turns the spokes first engage the lever L, which is thus pressed inward, and causes the lever-foot M carried thereby to bear upon the inner end of the lever-foot N and depress the same, thus throwing the crank P in one direction. Just as the said crank has reached its limit in one direction the spoke has passed over the top of the lever L and engaged the taller lever Q, thus carrying the same away from the lever L and throwing the crank to its limit in the opposite direction. The same movement raises the lever-foot M and throws the lever L back against its stop R, secured to said casing J directly behind the lever and limiting the movement of the same to hold the same in a position to receive the next spoke. Rapid vibrations of the crank are thus caused and may be communicated through a system of connecting-rods and levers S to a pump T, which may be thus easily and rapidly operated by said power. It may be readily seen that the said power may also be connected with various other devices requiring a reciprocating movement to be operated, such as saws, &c.

The construction, operation, and adaptation of the herein-described power are thought to be apparent without further description.

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

1. The combination, with a vertical supporting-axle, of a wheel mounted upon said axle and having radiating spokes, a bearing located adjacent to said axle, a rock-shaft
5 mounted in said bearing and terminating in a crank at one end, a reciprocating pitman connected with said crank and the device to be operated, and a rock-arm mounted upon said rock-shaft and arranged in the path of said
10 spokes, substantially as set forth.

2. In a horse-power, the combination of a spider-wheel, an adjacent supporting-casing, a crank-shaft journaled in said casing, a lever-foot and upwardly-extending lever-arm
15 mounted on said crank-shaft, a lever-arm pivotally mounted in said casing and provided with a lower inwardly-extending foot working over the opposing lever-foot, substantially as set forth.

3. In a horse-power, the combination of a 20 spider-wheel and adjacent supporting-casing, a crank-shaft journaled in said casing, a lever-foot and an upwardly-extending long lever-arm mounted on said crank-shaft, a shorter lever-arm pivotally mounted in said casing 25 adjacent to said crank-shaft and provided with a lower curved lever-foot working over the opposing lever-foot, and a stop located in rear of said shorter lever-arm, substantially as set forth. 30

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

JACOB GIPSON WALTON.

Witnesses:

A. H. KERR,
M. S. PARK.