D. L. Lamon,

Horse Power.

No. 111,949. Patented Feb. 21. 1871.

Fig. 1.

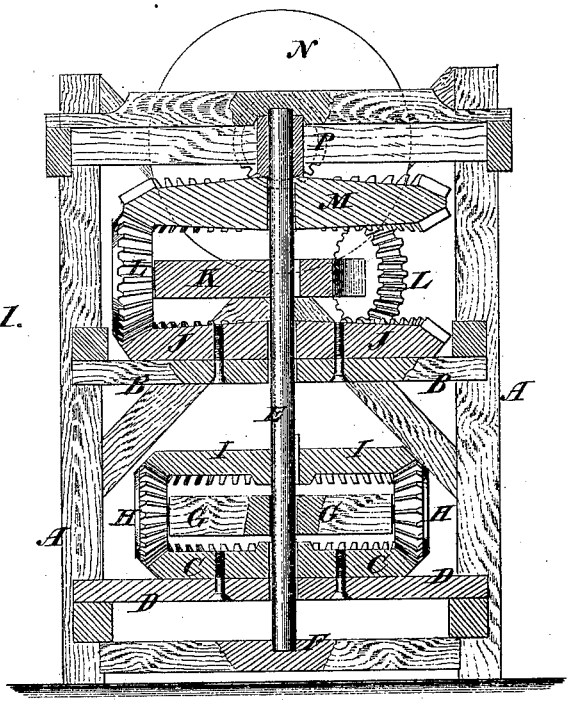
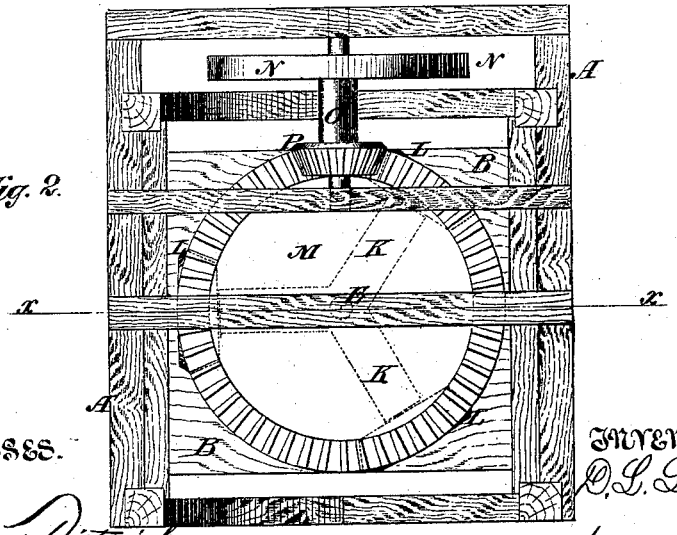


Fig. 2.



WITNESSES.

Gustave Dieterich

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DANIEL L. LAMON, OF BOSTON, GEORGIA.

Letters Patent No. 111,949, dated February 21, 1871.

IMPROVEMENT IN HORSE-POWERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, DANIEL L. LAMON, of Boston, in the county of Thomas and State of Georgia, have invented a new and useful Improvement 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 make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to a new and useful improvement in horse-powers for driving cotton-gins and other machinery; and consists in the combination and arrangement of gear-wheels for multiplying motion by horse-power, as hereinafter more fully described.

In the accompanying drawing—

Figure 1 represents a vertical section of the arrangement, taken on the line *x x* of fig. 2.

Figure 2 is a top or plan view.

Similar letters of reference indicate corresponding parts.

A represents the frame-work, by which the gearing is supported. As applied to driving cotton-gins, (and for some other purposes on the plantation,) this frame represents the frame of the gin-house.

B is the gin-floor.

The horse-power consists of two systems of gearing, one beneath the gin-floor, to which the power is applied; the other above the gin-floor, from which the motion is taken for driving the gin.

C is a bed-wheel, fixed to the lower floor D, through which the shaft E passes.

The shaft is stepped into the sill-timber F.

G is a spider, which is loose on the shaft, which carries two levers, for attaching the horses or other animals for driving the machinery.

This spider also carries two bevel pinion-wheels, H H, which mesh into the bed-wheel C, and also into the bevel-wheel I, which bevel-wheel is firmly keyed to the shaft. The upper gearing is driven by this wheel.

J is another bed-wheel on the gin-floor, through which the shaft E passes.

K is a spider, which is keyed to the shaft, bearing three (more or less) pinion-wheels, L, which mesh into the bed-wheel J, and also into the bevel-wheel M.

The latter wheel turns loosely on the shaft, and has cogs upon its upper side, as seen in fig. 2.

N is the band-wheel.

O is the band-wheel shaft.

P is a pinion-wheel on the band-wheel shaft, which meshes into the wheel M.

A belt is carried from the band-wheel N, for driving the gin.

It will be seen that this horse-power is stationary, and is adapted especially for driving cotton-gins.

The motion is multiplied from the first to the second system of gear-wheels, to give the required velocity to the gin-cylinder.

By means of the intermediate pinion-wheels the strain is so divided and equalized that the breaking of cogs is rendered nearly impossible.

By the use of two stationary bed-wheels and a single upright shaft the power is more directly applied, and the motion obtained with less friction than with ordinary horse-powers.

Having thus described my invention,

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

The combination and arrangement of the bed-wheels C and J, wheels I and M, pinion-wheels H H, L, and P, and shaft E, substantially as and for the purposes herein shown and described.

Witnesses: DANIEL L. LAMON.

J. J. HARMAN,
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