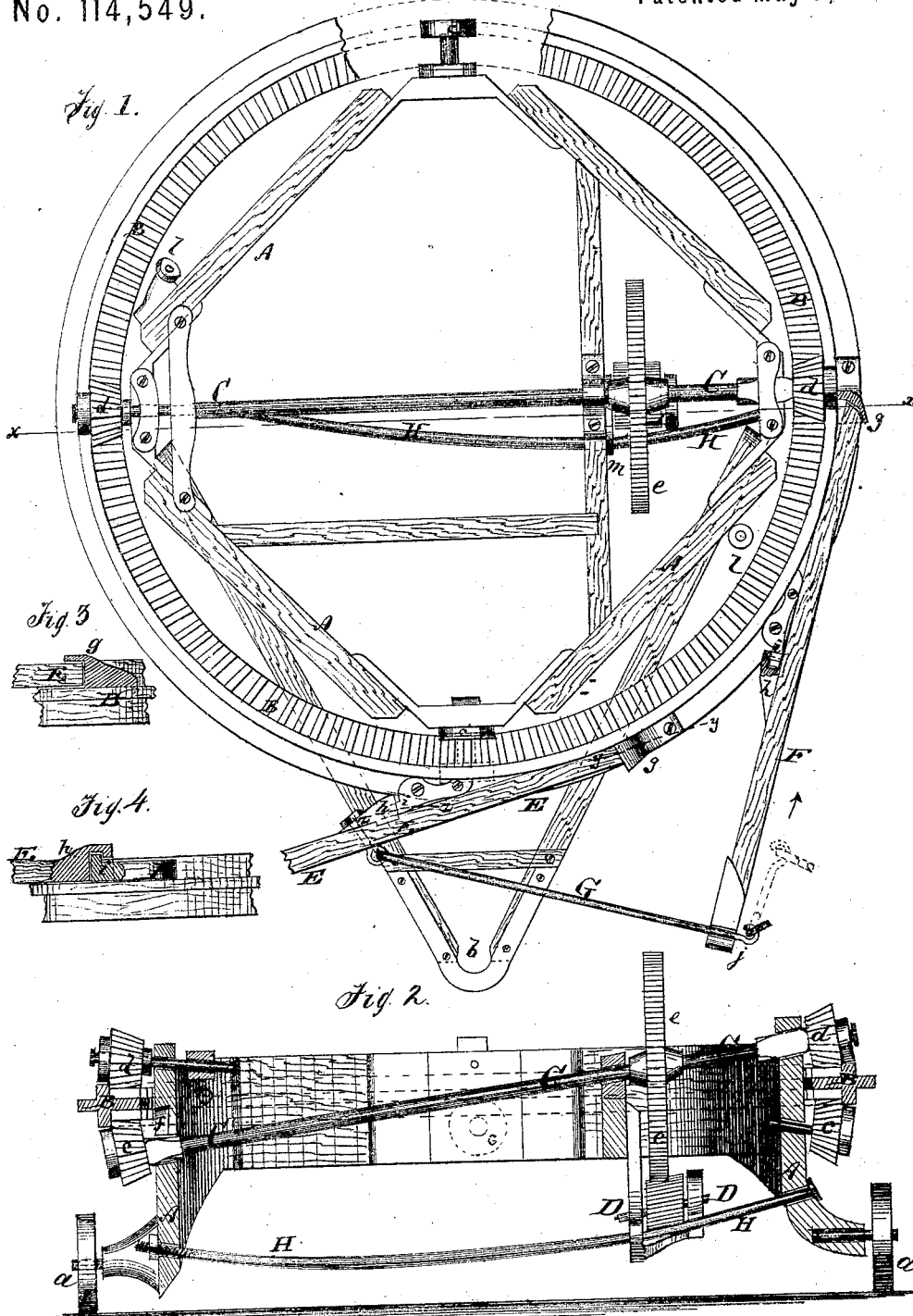


HOMER GLASS.

Improvement in Horse-Powers.

No. 114,549.

Patented May 9, 1871.



WITNESSES:

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Jm. H. C. Smith.

INVENTOR:
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per. *[Signature]*
ATTORNEYS.

United States Patent Office.

HOMER GLASS, OF RACINE, WISCONSIN.

Letters Patent No. 114,549, dated May 9, 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, HOMER GLASS, of Racine, in the county of Racine and State of Wisconsin, have invented a new and improved Horse-Power; 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, in which—

Figure 1 represents a plan or top view, partly in section, of my improved horse-power.

Figure 2 is a vertical section of the same taken on the plane of the line *x x*, fig. 1.

Figure 3 is a detail vertical section taken on the plane of the line *y y*, fig. 1.

Figure 4 is a detail vertical section taken on the plane of the line *z z*, fig. 1.

Similar letters of reference indicate corresponding parts.

This invention relates to a new arrangement of machinery for utilizing animal power in the driving of stationary machinery; and consists in a new combination of parts for sustaining the rotary wheel and connecting the draft-levers with the same, as hereinafter more fully described.

A in the drawing represents the supporting-frame of my improved horse-power.

It rests on wheels *a a*, or is otherwise supported in suitable manner. I prefer to set it on wheels, and so shape it that it can conveniently be moved over the ground by a team attached to it at *b*.

On four (more or less) friction-rollers, *c c*, which are hung to the frame A, rests a horizontal ring or wheel, B, which is continuously toothed on its upper and lower surfaces. Two of the rollers *c* are toothed to mesh into the lower teeth of B.

Above the wheel are hung to the frame A two toothed rollers, *d d*, which mesh into the upper teeth of B.

An inclined axle, C, which hangs in the frame A, connects one of the upper rollers *d* with the diametrically opposite toothed roller *c*, as shown in fig. 2.

This axle also carries a toothed wheel, *e*, from which motion is conveyed to a lower axle, D, that is connected in suitable manner with the machinery to be driven.

When power is by the animals applied to the wheel B, so as to rotate the same, the toothed rollers *c d* will be revolved in a steady and reliable manner and

with great velocity, and the axle C will thereby also be revolved to impart motion to the machinery.

One end of the axle C is hung in a vertically-adjustable box, *f*, which permits the adjustment of the toothed roller to greater or lesser friction.

The draft-levers E F are in pairs secured to the wheel B.

Each of these levers is, with its inner end, fitted into a socket, *g*, which is arranged on the wheel B, as in figs. 1 and 3.

To the side of each lever E F is furthermore secured a metal claw, *h*, which fits over and locks upon a hook-shaped projection, *i*, of the wheel B, as is clearly indicated in figs. 1 and 4.

A draft-bar, G, is secured to the lever E and fitted through an eye, *j*, at the end of lever F, so that it locks both levers to the draft, the direction of which is at right angles to the bar G, as indicated in fig. 1; thereby a very strong and reliable draft attachment is provided.

l l are small friction-rollers, which are arranged on the frame A to fit against the inner edge of the wheel B.

H is a bent truss-rod, extending from side to side of frame A, under the axle C. It serves to brace the sides of the frame and also to strengthen the axle, besides furnishing a support for the pendant *m*, in which one end of the lower axle D has its bearings. By tightening or slackening this truss-rod the frame of the gearing D can be raised or lowered.

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

1. In combination with a ring-wheel, B, and pinion D, the diagonal shaft C, having bevel-wheels *c d* on its opposite ends, and the intermediate wheel *e*, to impart a steady motion to the thrashing or other mechanism operated.

2. The truss-rod H and pinion D, arranged as and for the purpose specified.

3. The draft-levers E F, combined with the sockets *g*, claws *h*, and projections *i*, and with the draft-bar G, substantially as herein shown and described.

4. The truss-rod H, arranged on the frame A to brace the same and adjust the gear-frames, substantially as herein shown and described.

Witnesses:

CHAS. H. LEE,
W. T. EMERSON.

HOMER GLASS.