C. M. & G. Richards,

Horse Power.

No. 47,659. Patented May 9, 1865.

Fig: 1.

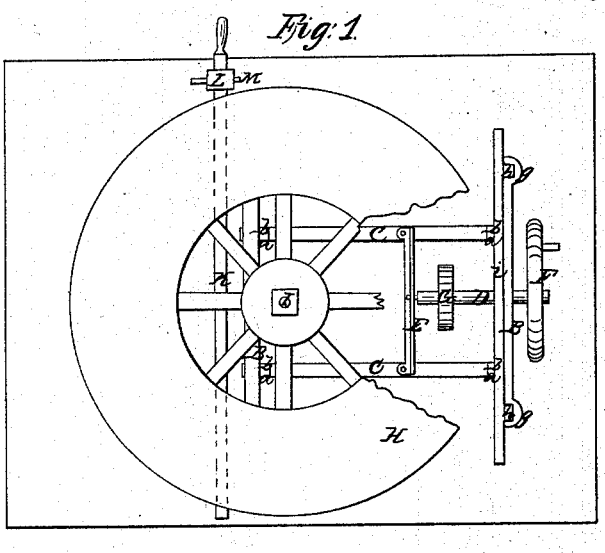


Fig: 2.

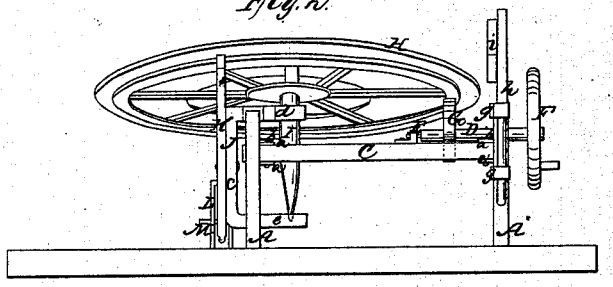
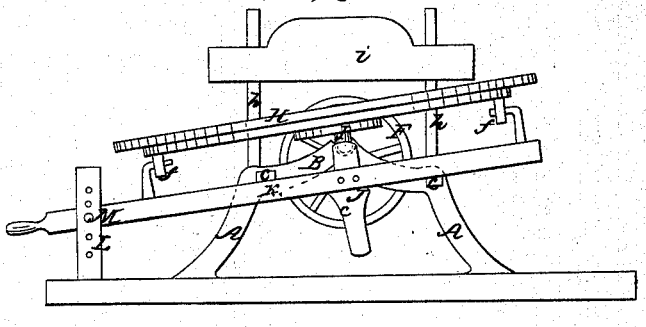


Fig: 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

C. M. RICHARDS AND G. RICHARDS, OF HARPERSVILLE, NEW YORK.

IMPROVEMENT IN ANIMAL-POWER.

Specification forming part of Letters Patent No. **47,659**, dated May 9, 1865.

To all whom it may concern:

Be it known that we, C. M. RICHARDS and G. RICHARDS, of Harpersville, in the county of Broome and State of New York, have invented a new and Improved Animal-Power; and we 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 drawings, forming part of this specification, in which—

Figure 1 is a plan or top view of my invention; Fig. 2, a rear elevation of the same; Fig. 3, a side view of the same.

Similar letters of reference indicate like parts.

This invention relates to a new and improved animal-power intended either for a horse, or a dog, or other small animal.

The invention is designed as an improvement on that class of animal-powers in which an inclined tread-wheel is used, and has for its object simplicity and economy in construction, and a ready adjustment of the tread-wheel as circumstances may require. The sides of the framing of the device are composed each of a pair of cast-metal legs, A, connected at their upper ends by a cross-piece, B, the legs and cross-piece being cast in one piece. These two sides are connected by wooden reaches C, two of the latter being used and fitted at their ends between lugs *a a*, at the inner surfaces of the sides, with bolts *b*, passing vertically through the lugs and the reaches. (See Fig. 2.)

D represents a short shaft, the outer bearing of which is at the center of the cross-piece B of one of the sides of the framing, and in the inner bearing is a metal bar, E, which is attached to the reaches C C, the former serving to strengthen and stiffen the latter. (See Fig. 1.) The shaft D has a crank-wheel, F, at its outer end, and a friction-wheel, G, upon it near its inner end, both of which are shown in Figs. 1 and 2.

H represents a tread-wheel, on which the animal stands and turns it with his feet. The shaft I of this tread-wheel is fitted in a frame, J, composed of an upright bar, *c*, having a top bar, *d*, and a lower bar, *e*, projecting from it at right angles, as shown in Fig. 2. The top bar, *d*, of this frame J is fitted in a bearing at the center of the cross-piece B of one of the sides of the framing of the machine.

To the upright bar *c* of the frame J there is attached a bar or lever, K, one end of which is fitted and works in a guide, L, provided with holes, through any of which a pin, M, passes. By adjusting this lever K the tread-wheel H may be set at a greater or less degree of inclination, as may be required. The bar or lever K has two friction-rollers, *f f*, upon it for the tread-wheel H to rest upon, and these rollers, with the wheel G on shaft D, support the tread-wheel; and as the latter is rotated by the animal, motion is communicated to shaft D through the medium of wheel G. By this arrangement a very simple and efficient animal-power is obtained. The tread-wheel is rendered capable of being adjusted at any time, even when the device is in use, and it is allowed to operate with but little friction. One of the sides of the framing is provided with sockets or eyes *g*, to receive wooden uprights *h h*, to the upper parts of which a board, *i*, is attached to serve as a fender.

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

1. The frame J, hung upon one or more journals, and provided with arms *d e*, which constitute bearings for the shaft I of the tread-wheel H, to permit the adjustment of the latter in the manner herein described.

2. In combination with the suspended frame J *d e*, the bar or lever K, provided with friction-rollers *f f*, and attached to the frame J, when used in connection with a tread-wheel, H, for the purpose specified.

3. The mode of constructing the framing of the machine—to wit, of two metallic sides connected by wooden reaches, braced by a transverse metal bar, E, which serve as an inner bearing for the shaft D, from which the power is taken, substantially as set forth.

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