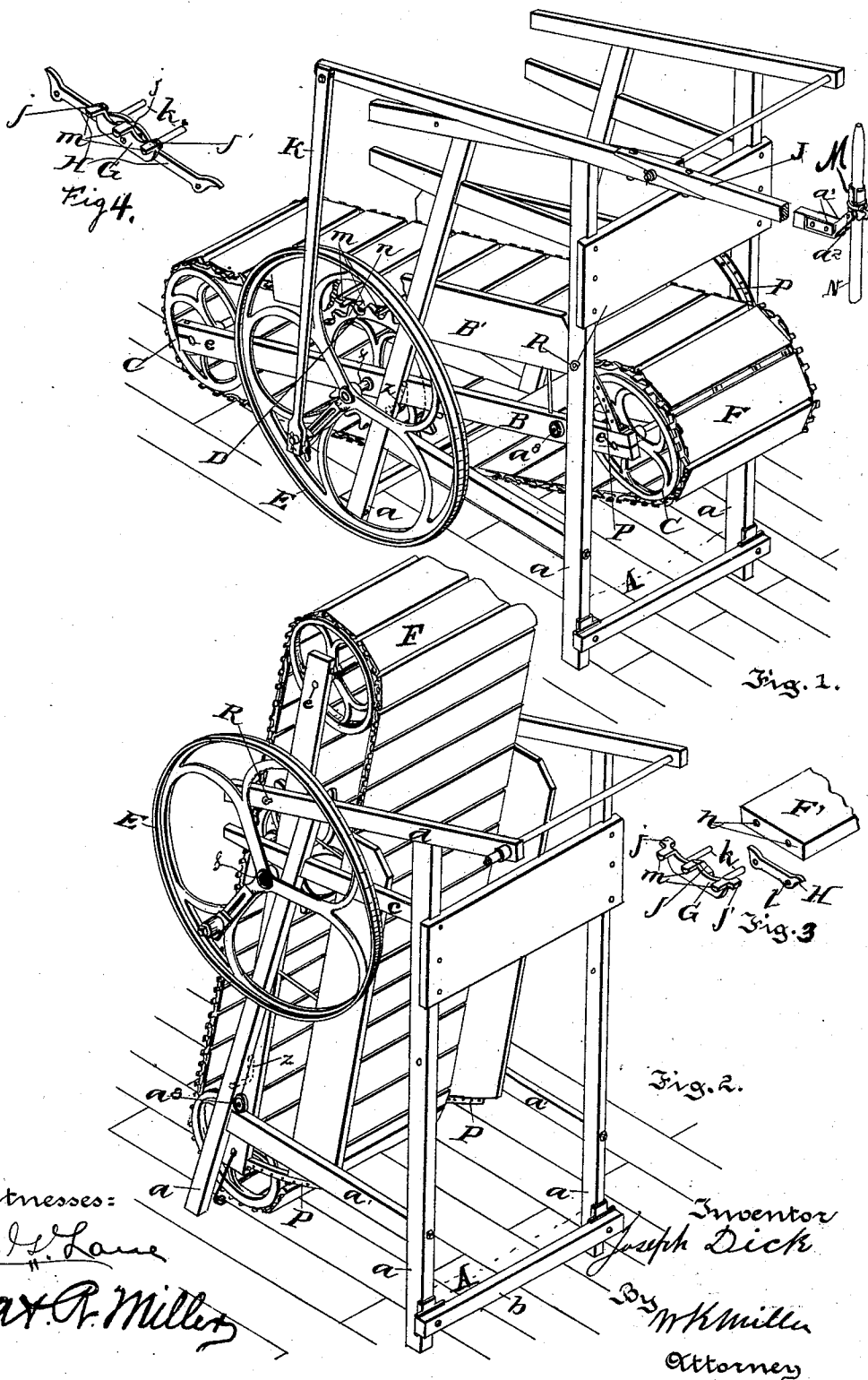


(No Model.)

J. DICK.
ANIMAL POWER.

No. 478,575.

Patented July 12, 1892.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOSEPH DICK, OF CANTON, OHIO.

ANIMAL-POWER.

SPECIFICATION forming part of Letters Patent No. 478,575, dated July 12, 1892.

Application filed June 29, 1891. Serial No. 397,804. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH DICK, a citizen of the United States, and a resident of Canton, county of Stark, State of Ohio, have invented a new and useful Improvement in Animal-Powers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification.

My invention relates to improvements in animal-powers, more particularly to that class of powers known as "dog-powers" used for churning and other light work.

With these ends in view my invention consists of certain features of construction and combination of parts, as will be hereinafter described, and pointed out in the claims.

Figure 1 of the accompanying drawings is a view in perspective of an animal-power illustrating my invention; Fig. 2, a similar view showing the platform folded up into the frame. Fig. 3 is a similar view comprising the two parts that form the links of the platform-chain and the end portion of a platform-board. Fig. 4 is a detail of the chain.

Similar letters of reference indicate corresponding parts in all of the figures of the drawings.

For the purposes of this specification I have shown my invention as applied to a reciprocatory movement; but it can as well be applied for rotary movement by placing a driving-belt on the crank-wheel.

A represents the supporting-frame, the side portions of which are in the form of the letter A, and is composed of corner-posts *a* and girders *a'*, *b*, *c*, and *d*, the girders *a'* serving the additional function of tracks.

Referring to Fig. 1 of the drawings, I will call attention to the construction of the platform and its connection with the supporting-frame. The platform-frame is composed of side bars C, having journaled at their ends cross-shafts *e*, on the end portion of which is mounted platform-carrying wheels or drums C, about which is placed the endless flexible platform, and about central therein a cross-shaft *f*, on which is mounted inside the bars B sprocket-wheels D and at its outer a crank and a band-wheel E. As the platform structure in such power must necessarily be very light, I prefer this central location of the

sprocket, as it brings the wheel and the engaging point with the platform between the front and the rear feet of the animal. The weight of animal will hold the parts in engagement. The chains by which the boards F', forming the platform, are secured together are of the form shown in Fig. 3, the plate portion G having on its inner face a central inwardly-projected lug *j* and at the upper end portions inwardly-projected lugs *j'* and inwardly-projecting dowel-pins *k*, which pass through the perforations *l* in the link H and into the perforation *h* in the end of the board F', (shown in Fig. 3;) or, if preferred, screws may be used instead of the dowel-pins, as shown. It will be seen by referring to Fig. 4 that the end portion of the link H will rest on the lug *j* and under the lug *j'* on the central portion of the plate G, thus forming a chain adapted to be secured to the ends of the board to form the platform that will yield in one direction to conform to the periphery of the carrying-wheels C and that will be absolutely rigid in the other, adapting it to form with the boards F' a bridge for the support of the animal between the sprocket-wheels D and carrying-wheels C. There is also provided on the outside of the chain-plate G outwardly-projected pins or studs *m*, adapted to engage the sprockets *n* on the wheel D, and by which the wheel is revolved.

For operating a dash-churn or similar work I have pivoted a working-beam J at the front end of the top piece *d* of the frame, and for convenience of packing for shipping or for storing, as well as to reduce the initial cost, I have made the beam of two parts, divided obliquely at its central portion and secured together by bolts, as shown, by which arrangement I am enabled to make beams of pieces of lumber that could not otherwise be used for such purpose. At the rear end of the beam J there is pivotally secured a connecting-rod K, which is suitably connected to the fly-wheel E. The rod N, which is to be reciprocated, is attached to the opposite end of the beam by a clamp M.

To support the platform in an inclined or nearly-horizontal position, as shown in Fig. 1, there is provided a bracket-support *z*, and at the front end of the side bars B perforated straps P, that extend from the end of the side

bars B to the side boards B'. A descending grade or inclination for the platform may be secured by adjusting the front end vertically and securing it in desired adjustment by passing the pin R through a perforation in the straps P, thus adapting the machine to the weight of the animal on the required speed of the machine.

To fold the platform, as shown in Fig. 2, I have provided on the sides of the bar B rollers a^8 to travel and rest upon the frame-girder a .

In operation the pin R is withdrawn from the strap P, the front end of the platform lowered, the rollers a^8 resting on the girder a' of the frame. The platform is then drawn back, the rear end raised up and turned forward over the front end and roller, and may be secured by placing the pin R in the perforation provided in the top piece d of the frame. The rear posts a of the frame A are drawn in at the top, forming an A-frame to allow the rear portion of the platform with shaft f to be folded in and over the roller a^8 . To restore the parts to their former position, withdraw the pin R and turn back the rear end of the platform. The roller a^8 will carry the front end forward, the rear portion resting on the bracket z . The front end is raised and secured by passing the bolt R through the post a and into a perforation in the strap P.

Having thus fully described the nature and

object of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In an animal-power, the combination of a supporting-frame having a girder on each side near the lower edge thereof, which girders also serve as tracks, a platform-carrying frame suspended in said supporting-frame and provided with devices at one end thereof to engage the girder, whereby the platform may be tilted from an inclined or horizontal to a vertical position and the devices caused to travel on the girders, a pair of wheels at each end of the platform-carrying frame, and an endless platform having sprocket-chains carried by said wheels, and a sprocket-wheel journaled centrally to said platform-carrying frame and in engagement with one of said sprocket-chains.

2. In an animal-power, the combination of a supporting-frame, a platform-frame provided at its end with wheels, and an endless platform consisting of slats, plates secured to each end thereof, and each plate provided with lugs $j' j j'$, projecting inwardly therefrom, studs m , pins k , and links H, substantially as set forth.

In testimony whereof I have hereunto set my hand this 25th day of June, A. D. 1891.

JOSEPH DICK.

Witnesses:

W. K. MILLER,
CHAS. R. MILLER.