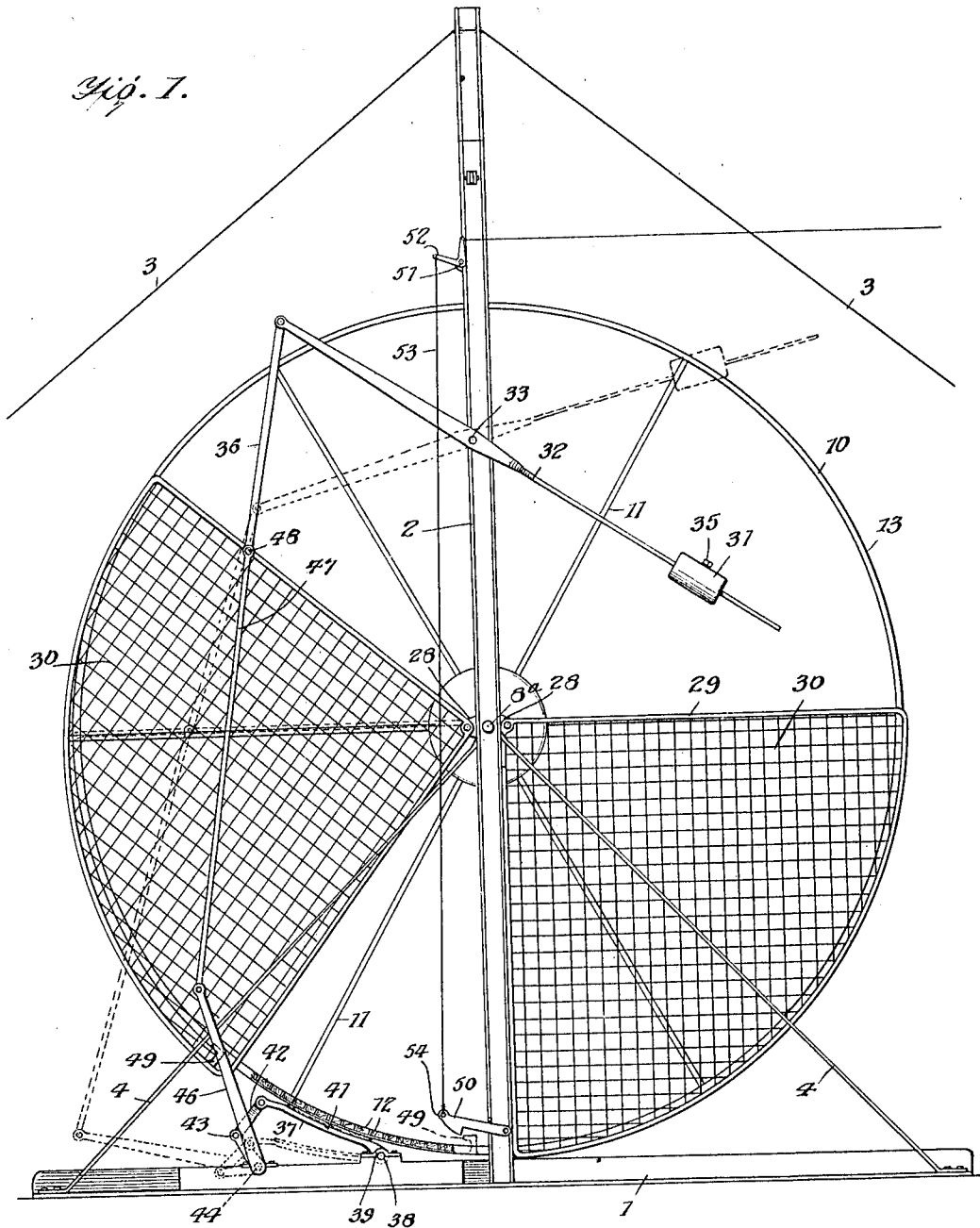


P. W. PETERS.
TREAD MOTOR.
APPLICATION FILED AUG. 27, 1909.

Patented Apr. 5, 1910.
2 SHEETS—SHEET 1.

954,339.



WITNESSES

L. H. Schmidt
C. E. Trimmer

INVENTOR
PETER W. PETERS,
BY *Munn & Co.*
ATTORNEYS

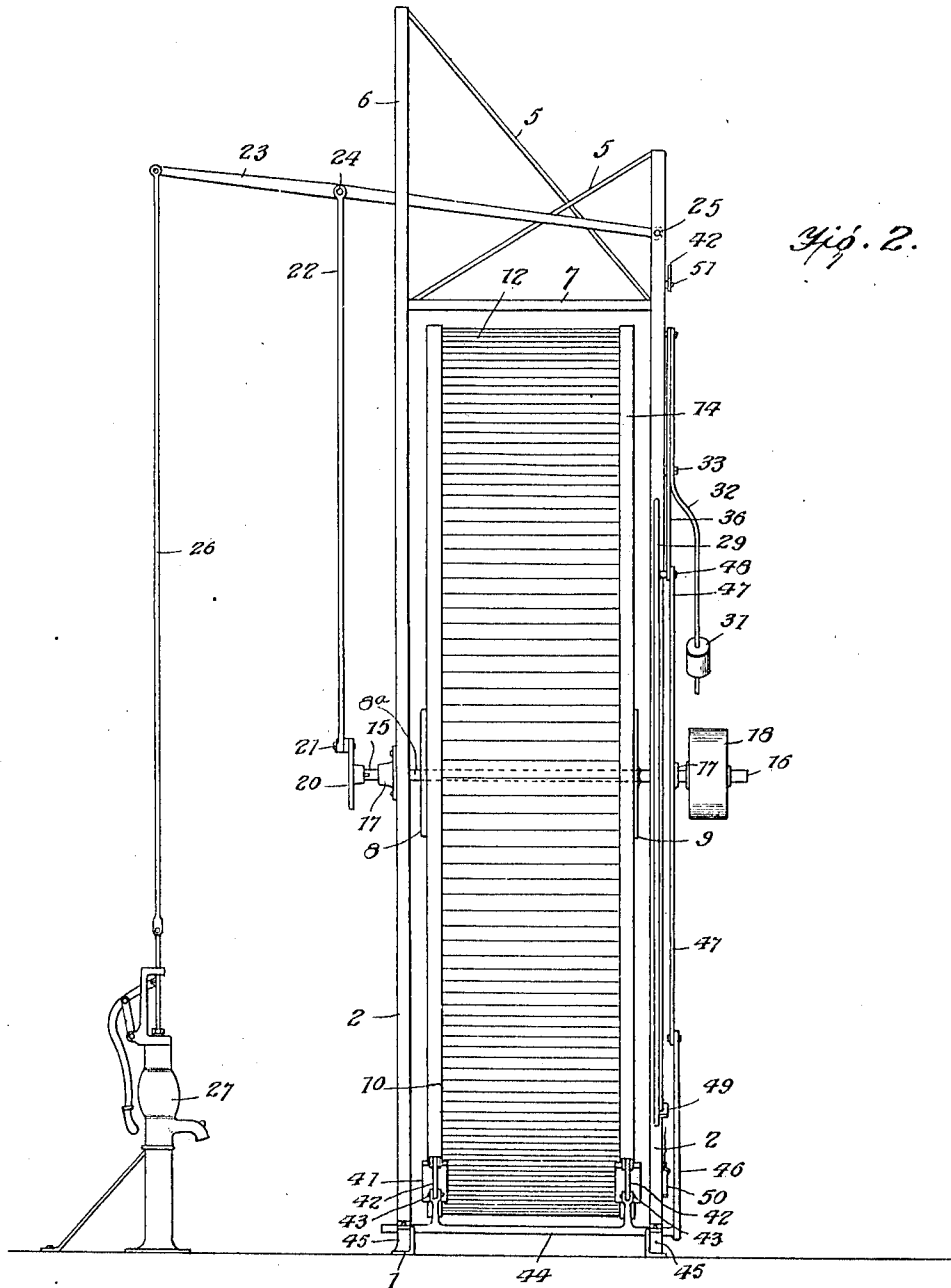
P. W. PETERS.
TREAD MOTOR.

APPLICATION FILED AUG. 27, 1909.

954,339.

Patented Apr. 5, 1910.

2 SHEETS—SHEET 2.



WITNESSES

L. H. Schmidt
C. E. Snider

INVENTOR
PETER W. PETERS,
BY *Munn & Co.*

ATTORNEYS

UNITED STATES PATENT OFFICE.

PETER WILLIAM PETERS, OF WOODLAND, WISCONSIN.

TREAD-MOTOR.

954,339.

Specification of Letters Patent.

Patented Apr. 5, 1910.

Application filed August 27, 1909. Serial No. 514,897.

To all whom it may concern:

Be it known that I, PETER WILLIAM PETERS, a citizen of the United States, residing at Woodland, in the county of Dodge and State of Wisconsin, have invented a new and useful Improvement in Tread-Motors, of which the following is a specification.

My invention is an improvement in tread motors and consists in certain novel constructions and combinations of parts herein-after described and claimed.

The object of the invention is to provide a smooth and easy running device of the character specified, provided with a gate which may be opened and closed to permit the ingress and egress of the draft animal, and wherein the act of opening the gate will lock the wheel from movement.

Referring to the drawings forming a part hereof, Figure 1 is a side view of the improvement, and Fig. 2 is a front view.

The embodiment of the invention shown in the drawings comprises a base 1, of suitable size and rectangular in shape, and at approximately the center of the base, and at each side thereof, is a standard 2, the said standards being preferably of angle iron as shown.

Guy wires 3 are connected to the tops of the standards, and braces 4 are arranged in front and behind the standards, and between the said standards and the base. One of the standards is of greater length than the other as shown at 6 in Fig. 2, and their upper ends are connected by a cross bar 7, and braces 5 are arranged in bridge fashion between the upper ends above the cross bar.

A wheel is journaled between the standards, the said wheel comprising a pair of hubs 8 and 9, each of which is connected to a rim 10, by means of spokes 11, and the rims are preferably of angle iron, one flange 13 of which is secured to the spokes, and the other 14 extends horizontally and is connected to the corresponding flange of the opposite rim by transverse tread plates or lags 12.

A shaft 8^a has its extended ends 15 and 16 journaled in bearings 17 in the standards. The end 16 may be provided with a pulley 18, from which power may be transmitted if desired, and the other end 15 is provided with a disk 20, having an eccentric wrist pin 21, to which is pivoted one end of a link 22, whose other end is pivoted to a walking beam 23, as at 24. The walking beam is

pivoted to the standard at one end as at 25, and the other is connected to the pump rod 26 of the pump 27. It is evident that the walking beam and its connections might be arranged in many different manners, depending upon the leverage to be attained, the said beam acting merely as a lever to transmit the power developed by the wheel to the pump.

A segmental skeleton frame 29 is arranged on each side of each standard, and the straight member of the frames are provided with ears 28, which are pivoted to the standards and one of the sides of each frame normally rests against the adjacent standard.

The sides of the gates form a right angle with each other so that the two gates on each side of the wheel cover the lower half thereof, and prevent the egress of the draft animal from the wheel. One of the gates is mounted to swing on the ear 28, and is counterbalanced by a weight 31, slidable on one end of a lever 32, which is pivoted intermediate its ends on the adjacent standard as at 33. The weight is retained in its adjusted position by means of a set screw 35, and the opposite end of the lever is connected by a link 30, with the movable frame or gate, one end of the link being pivoted to the frame, and the other to the end of the lever.

A brake shoe 37, is provided at one end with trunnions 38, which are pivoted in a bearing 39, on the base, and the shoe is adapted to engage the peripheral surface of the wheel, the engaging face being provided with a layer 41 of material having a high frictional coefficient. One end of a link 42 is pivoted to the opposite end of the shoe, and the other end is pivoted to an arm 43 on a shaft 44 journaled in a bracket 45 on the base, and the shaft is provided with another arm 46, which is connected by a link 47 with a pivot pin 48 on the frame, to which the link 36 is also connected.

The swinging gate is provided with a catch 49, and a latch 50 is pivoted to the adjacent standard, and is adapted to engage the catch to lock the gate from movement. An elbow lever 51 is pivoted to the standard above the center of the wheel, and one of the arms 52 thereof is connected by a flexible strand 53 with an eye 54 on the latch, while another strand 55 is connected with the other arm 56 of the elbow lever, and leads to the point from which it is desired to oper-

ate the latch which is preferably a float which will operate or lift the latch 50 to release the catch 49 automatically as the tank fills.

- 5 In operation, the movable frame which forms a gate is elevated to introduce the draft animal into the wheel, after which it is closed. The gate is opened and closed by the lever 32. The animal, in its attempted
10 forward motion rotates the wheel, which through the walking beam and its connections operates the pump. After the pumping is finished, the gate is opened to release the animal, and the opening of the said gate
15 operates the brake, so that the wheel is fixed as long as the gate is open.

I claim—

1. A device of the class described comprising a base, standards at the sides of the base,
20 a wheel between the standards comprising spaced hubs, a shaft journaled in the standards and on which the hubs are secured, a rim for each hub, spokes connecting the corresponding rims and hubs, and transverse
25 tread plates connecting the rims, segmental gates on each side of the wheel and closing the lower half thereof, one of said gates being mounted to swing on the standard, a lever pivoted on the standard, a weight adjustable on one end of the lever, a link connecting the other end with the swinging
30 gate, a brake shoe pivoted by one end adjacent to the wheel, a rock shaft provided with a plurality of arms, a link connecting one arm with the brake shoe, a link connecting the other arm with the movable gate, a disk provided with a wrist pin, a walking beam arranged transversely of the wheel, a link connecting one end thereof with the wrist
40 pin, and a releasable lock for the gate.

2. A device of the class described comprising a base, a standard at each side of the base, a wheel journaled between the standards, gates at each side of the wheel and normally closing the lower half thereof, one of
45 said gates being pivoted to the standard, a brake for the wheel, a common operating

means for operating the gate and setting the brake, a pulley rigid with the wheel at one side thereof, a disk provided with a wrist pin on the other side thereof, and a
50 releasable lock for the gate.

3. A device of the class described comprising a base, a standard at each side of the base, a wheel journaled between the stand-
55 ards, a gate on each side of the wheel and normally closing the lower half thereof, one of said gates being pivoted to the standard, a brake for the wheel, a common operating means for opening the gate and setting the
60 brake, a pulley rigid with the wheel at one side thereof, and a disk provided with a wrist pin on the other side thereof.

4. A device of the class described comprising a tread wheel consisting of spaced hubs,
65 a shaft on which the hubs are secured, standards in which the shaft is journaled, a brake shoe pivoted by one end and adapted to engage the periphery of the wheel to stop the same, a swinging gate for permitting ingress and egress to the wheel, means
70 for opening and closing the gate, and a connection between the gate and the brake for operating the same when the gate is opened.

5. A device of the class described, comprising a tread wheel, a swinging gate for
75 permitting ingress and egress to the interior of the wheel, a brake for the wheel, means for opening and closing the gate, a connection between the gate and the brake
80 for operating said brake when the gate is opened, and a releasable lock for the gate.

6. A device of the class described, comprising a tread wheel, a swinging gate for
85 permitting ingress and egress to the interior of the wheel, a brake for the wheel, and means for opening and closing the gate, and a connection between the gate and the brake for operating said brake when the gate is opened.

PETER WILLIAM PETERS.

Witnesses:

N. O. PETERS,
M. LABUN.