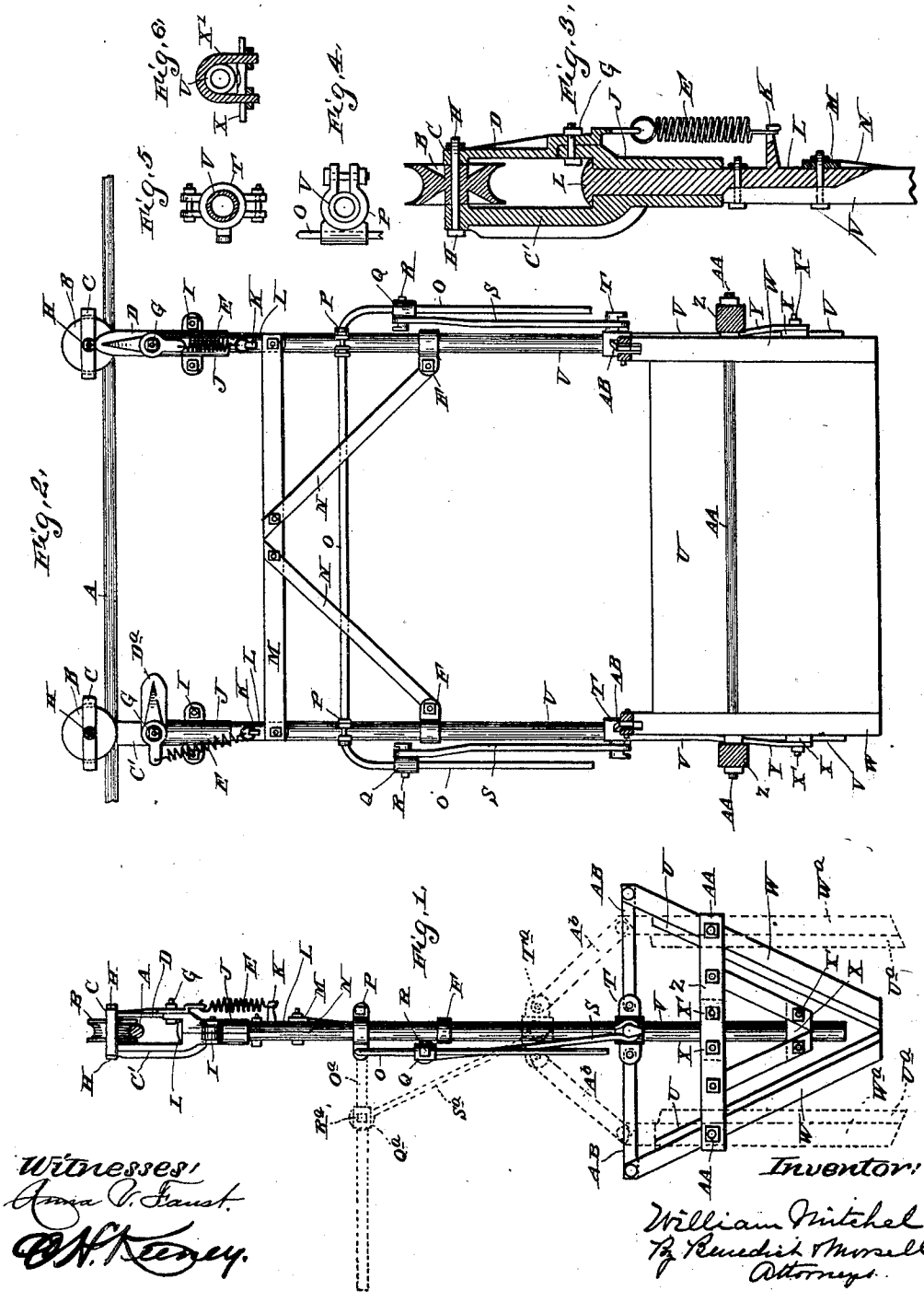
No. 674,870. Patented May 28, 1901.

W. MITCHEL.

MANURE CARRIER.

(Application filed Apr. 13, 1900.)

(No Model.)



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UNITED STATES PATENT OFFICE.

WILLIAM MITCHEL, OF KNEELAND, WISCONSIN.

MANURE-CARRIER.

SPECIFICATION forming part of Letters Patent No. 674,870, dated May 28, 1901.

Application filed April 13, 1900. Serial No. 12,688. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM MITCHEL, of Kneeland, in the county of Racine and State of Wisconsin, have invented a new and useful Improvement in Manure-Carriers, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

My invention relates to an improved carrier especially adapted for transporting manure or other material in bulk on a farm from a stable or cattle-pen to fields or other places for the deposit thereof.

The invention consists of the carrier and its parts and the combinations thereof, as herein described and claimed, or the equivalents thereof.

In the drawings, Figure 1 is an end elevation of my improved carrier. Fig. 2 is a side elevation of the same carrier in position on its track. Fig. 3 is a section of a hanger forming a part of the carrier and by which the carrier and load are supported on the track. Fig. 4 is a detail of a clamp secured rigidly to a hanger. Fig. 5 is a detail of a collar slidable on a hanger. Fig. 6 is a detail of a clip securing a cross-bar to a hanger.

In the drawings, A is the track on which the carrier is supported and travels. This track preferably consists of a steel-wire cable properly stretched and suitably supported extending from the place at which the carrier is to receive its load to the place or places of deposit, which when this carrier is used for transporting manure are ordinarily a stable or cattle-pen as the place of receiving the load and a distant field or fields to and over which the track runs where the load or loads are to be deposited. Two wheels B B are each mounted in a frame-like head C by means of a removable bolt H, which head is provided with a depending leg C′, having a lower portion of sleeve-like construction J, in which a headed member L is pivoted, so that the member C is rotatable thereon axially and the member L is supported in the member C. The construction of the frames C and their depending members C′ is such that the wheels B can be lifted from the track A and removed therefrom laterally and can be replaced thereon; but a guard D is pivoted medially by a bolt G on one side of the member C′ and is adapted to swing to position alongside of the wheel B and at the other side of the track A from the member C′. This serves as a retainer to hold the carrier on the track, while when the guard D is tilted it permits the removal of the carrier from the track. A spring E, secured to the lower extremity of the guard D and to a stud K, fixed on the pivot member L, is adapted to hold the guard D in position as a guard normally. These guards D are thus adapted to yield laterally when the carrier passes a bracket or other means, reaching out to and supporting the track A, the guard being adapted to tilt over laterally when it comes in contact with the obstructing bracket in the manner shown at D^a in Fig. 2. A rod V is spliced conveniently by means of bolts, and thereby secured to the member L, these rods V being continuations of the members L and C′ downwardly from the wheels B and forming the hangers constituting a part of the carrier-frame. These rods V are conveniently made of tubular gas-pipe. A strap or rail M extends from one rod V to the other rod V and is bolted thereto, thus securing them to each other, and the construction is preferably strengthened by means of braces N N, bolted to the strap M and secured to the rods V V conveniently by means of clamps F F, to which the braces are bolted. Near the lower extremities of the rods V V horizontally-disposed cross-bars Z Z are secured to the said rods, one to each rod, by means of clips X′, passing around the rods and bolted to the cross-bars. These cross-bars Z are preferably strengthened and more securely fixed on the rods V V by means of braces Y Y, secured thereto and extending therefrom to stay-plates X X, which stay-plates and braces are secured to the rods by other clips X′ X′, like those employed to secure the cross-bars Z to the rods. The rods V V, the cross-bars Z Z, the stay-plates X, and the braces running from the cross-bars to the stay-plates together form a framing that serves as an end or inclosure for the bucket of the carrier.

For holding and dumping the load the carrier is provided with tiltable sides or leaves, which consist, conveniently, of the timbers W W, pivoted medially by the rods A A in the outer extremities of the cross-bars Z Z.

A thin board U is secured to the inner surfaces of each two of the timbers W W, thus forming the leaves or sides of the bucket, and connecting-rods A B, pivoted to the upper extremities of the timbers W W, connect them, respectively, to two collars T, slidable, respectively, on each of the rods V V. When in horizontal position, these rods A B push the sides or leaves of the bucket apart at their upper edges, bringing their lower edges together, forming a bucket, as shown in full lines in Fig. 1. When the collars T are elevated to the positions shown in dotted lines at T^a, the rods A B will be brought to the positions A^b and the bucket will be opened, throwing the members of the leaves W and U into substantially vertical positions, as shown in dotted lines at W^a and U^a. As a means for conveniently raising and lowering the collars T T, and thereby opening and closing the leaves or walls of the bucket, rods S S, connected to stud-pins on the collars T T, are pivoted at their other extremities by stud-pins on collars Q Q, adjustable on lever-handles O O, pivoted at one extremity in bands P P, clamped to the rods V V. The collars Q Q are secured releasably to the lever-handles O by means of set-screws R R. When the lever-handles O O are swung outwardly and upwardly to lift the collars T T to the positions T^a the lever-handles will be swung up to the positions O^a and the collars Q to the positions Q^a and the rods S to the positions S^a, opening the bucket.

What I claim as my invention is—

1. In combination, a track, a carrier-frame provided with wheels traveling on the track and depending therefrom, cross-bars on the frame, bucket-leaves hinged medially on the extremities of the cross-bars, collars slidable vertically on the frame, and rods connecting the upper portions of the bucket-leaves to the collars.

2. In combination, a track, a carrier-frame including vertical rods depending from and adapted to travel on the track, cross-bars secured to the depending rods, bucket-leaves in pairs pivoted medially to and between the extremities of the cross-bars, collars slidable vertically on the rods, connecting-rods pivoted to the upper parts of the leaves and to said slidable collars, and means for sliding said collars and thereby opening and closing said bucket-leaves.

3. In a carrier, the combination with a traveling frame, of straight flat leaves hinged medially at a distance apart to the frame but so that their lower edges can close together, rods hinged to the upper portions of the leaves and extending toward each other, and collars slidable vertically on the frame to which the rods are pivoted.

4. In combination, in a carrier, a frame having centrally-disposed depending rods at a distance apart, bucket-leaves pivoted at a distance apart on the frame at opposite sides of the depending rods, collars slidable vertically on the rods, rods connecting upper portions of the leaves to the collars, swinging lever-arms pivoted on the vertical rods above the collars, and lifting-rods hinged to the collars and to the leaf-controlling rods medially.

5. In a carrier, a wheel-frame having a depending member at one side of the wheel, the wheel in and projecting above the wheel-frame, a straight vertically-disposed guard at the other side of the wheel pivoted medially below the wheel to the depending member and adapted when in upright position to prevent the wheel from escaping from the track, and a spring connected to the guard below its pivot and to the relatively stationary depending member adapted automatically to hold the guard upright releasably.

6. In a carrier, a depending frame having vertically-disposed end rods V, cross-bars Z secured to the rods, stay-plates X secured to the rods below the cross-bars, braces secured to the cross-bars and to the stay-plates, bucket-leaves hinged medially between and at the outer extremities of the cross-bars forming the sides of a bucket, collars slidable on the vertical rods, and rods connecting the levers above the cross-bars to the collars, the connecting-rods, the cross-bars, the stay-plates, the braces and the vertical rods forming material-retaining ends for the bucket.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM MITCHEL.

Witnesses:

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ANNA Y. FAUST.