

997,716.

C. M. STEVENSON.
FEED AND LITTER CARRIER.
APPLICATION FILED JAN. 23, 1911.

Patented July 11, 1911.

3 SHEETS—SHEET 1.

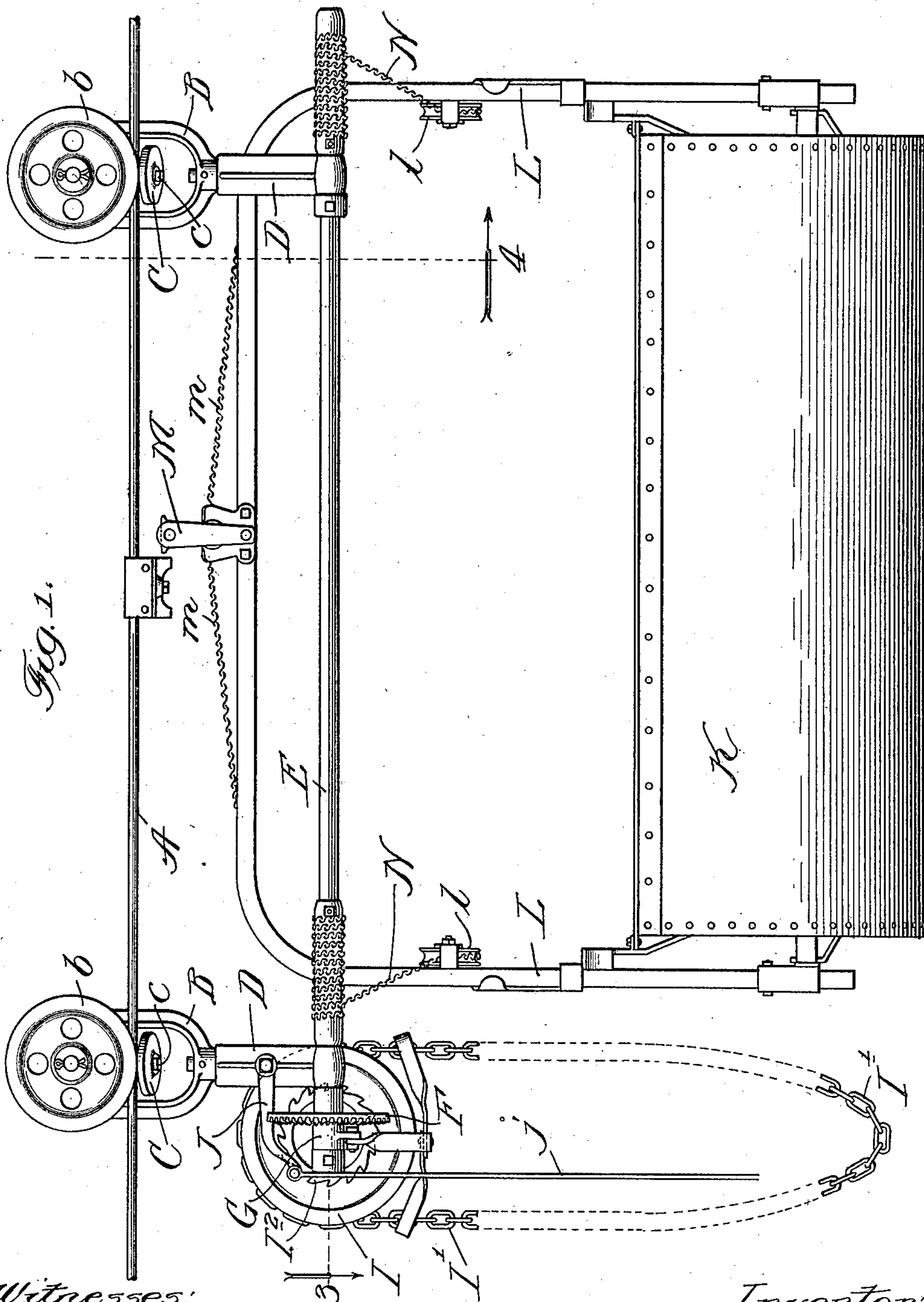


Fig. 1.

Witnesses:

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Chas. F. A. Quill.

Inventor:

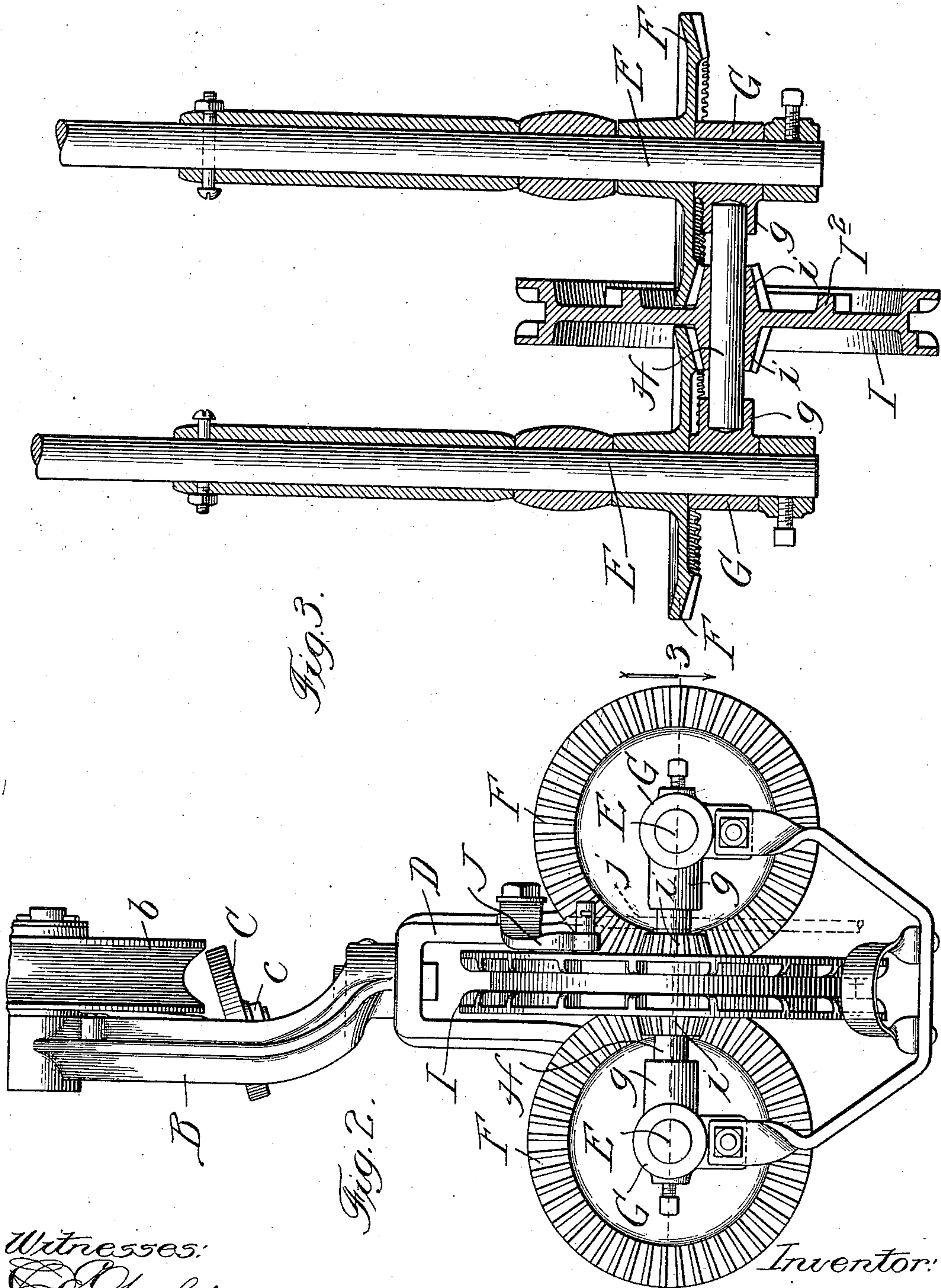
Charles M. Stevenson,
By Dymonforth, Lee, Britton & Miles,
Attys. #11.

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3 SHEETS-SHEET 2.



Witnesses:
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3 SHEETS—SHEET 3.

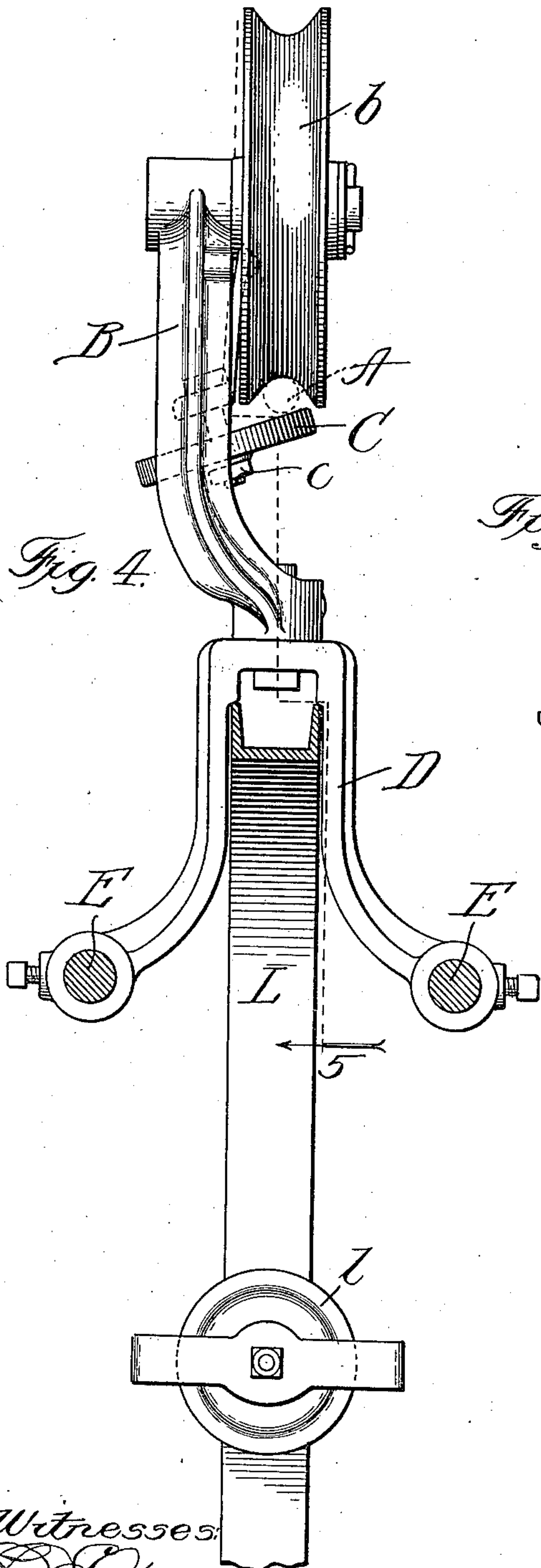
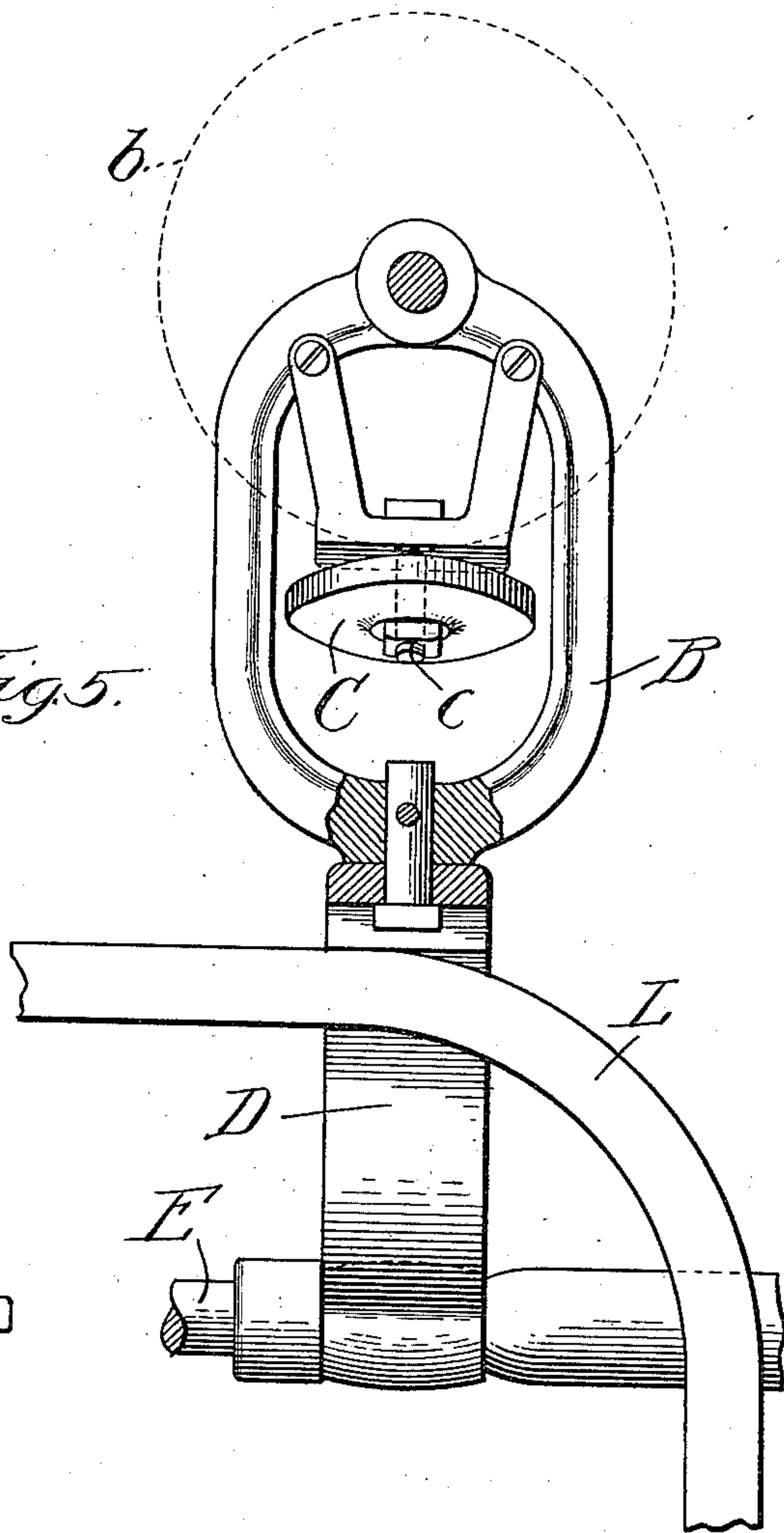


Fig. 4.

Fig. 5.



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UNITED STATES PATENT OFFICE.

CHARLES M. STEVENSON, OF ROCKFORD, ILLINOIS, ASSIGNOR TO HUNT, HELM, FERRIS & COMPANY, OF HARVARD, ILLINOIS, A CORPORATION OF ILLINOIS.

FEED AND LITTER CARRIER.

997,716.

Specification of Letters Patent. Patented July 11, 1911.

Application filed January 23, 1911. Serial No. 604,153.

To all whom it may concern:

Be it known that I, CHARLES M. STEVENSON, a citizen of the United States, residing at Rockford, in the county of Winnebago and State of Illinois, have invented a new and useful Improvement in Feed and Litter Carriers, of which the following is a specification.

My invention relates to certain new and useful improvements in feed and litter carriers, and is fully described and explained in the specification and shown in the accompanying drawings, in which:

Figure 1 is a front elevation of my improved device; Fig. 2 is an elevation of the left-hand end of the carrier viewed in Fig. 1; Fig. 3 is a horizontal section in the line 3 of Figs. 1 and 2; Fig. 4 is a section on the line 4 of Fig. 1, and Fig. 5 is a section in the broken line 5 of Fig. 4.

Referring to the drawings, A is a track upon which run pulleys *b* journaled in hanger-frames B. The pulleys are kept from jumping the track by disks C secured to the hanger-frames B by means of bolts *c*, sufficient lost-motion being allowed that the disks may be swung from the position shown in Fig. 4 where they underlie the track to a position in which their forward edges are substantially in the rear plane of the pulley. This construction is useful and desirable for the following reasons: Curves in this type of track are usually made of angle iron with the angle on the outside of the curve, and the invariable practice is to have the vertical member or depending member of the hanger on the inside of the curve where it will not have to pass over any track ends. The hangers, as illustrated here, will run along a straight track, and the pulleys will be held in proper engagement by means of the disks C, but when an angle iron curve is reached the disk will engage with the flat web of the angle iron and be swung out permitting the hanger to round the curve easily. The practice heretofore in devices for this purpose has been to place the member *x x* which holds the pulleys upon the track upon the opposite side of the track from the depending part of the hanger and to provide means for depressing the same in passing around curves, and this construction where the holding device is upon the same side as the depending member of the hanger is peculiarly simple.

Each of the hanger-frames B is swiveled to a yoke D which yokes are in all respects similar each to each. Journaled in the arms of these yokes are two shafts E each of which has non-rotatably secured upon it a miter gear F. The miter gears abut against the arms of the yokes D at the corresponding end of the structure and just beyond them are sleeves G loose upon the shafts E, each provided with a radial boss *g* in which is journaled a transverse shaft H, having centrally secured to it a wheel I over which runs, engaging with its periphery in a suitable manner, an endless chain I¹. The wheel I has at its center an integral gear *i* which meshes with the gears F, and it has intermediate of its radius, that is about midway between the gears *i* and the periphery, a projecting flange I² the outer surface of which is shaped into ratchet teeth, as is best seen in Fig. 1. The corresponding yoke D carries a dog J engaging with said teeth upon the flange I². The end of the dog carries a downwardly projecting wire *j* by means of which said dog can be raised to disengage it from the ratchet teeth. By this mechanism it will be obvious that the two shafts can be simultaneously rotated at equal speeds in opposite directions and that their rotation in one direction is normally prevented by engagement of the dog J with the ratchet teeth, but that such rotation can freely take place in the opposite direction.

K is a tub of usual form pivoted between the ends of a U-shaped frame L in unstable equilibrium and normally held in its upright position by means of latches which can simultaneously be raised by turning downward a tripping member M which is connected to the latches by chains *m*, all in accordance with common practice. The U-shaped frame L carries pulleys *l* over which run bights in chains N, the two ends of which are secured to and wrapped upon the shafts E. As a result, when the endless chain I¹ is pulled and the wheel I rotated, the chains will be wound upon or unwound from the corresponding shaft and the tub will be raised or lowered, as the case may be. The dog J is set so that the tub may be readily raised but so as to prevent its fall except when especially released.

When the tub is raised to its uppermost position it takes a position so that the U-shaped frame rises between the two shafts

and its upper portion strikes and is stopped in its movement by engagement with one of the yokes D. When the parts are in this position, the frame is firmly held in place, is quite steady, and the tripping device is brought into just the right plane to be engaged readily by the tripping block upon the track. The result therefore is that the tub is given a symmetrical support on two sides and rises to the highest possible point which is consistent with its remaining, as it necessarily must, below the level of the track.

I realize that considerable variation is possible in the details of the construction herein shown, and I do not intend to limit myself to this particular form, my intention being to cover as broadly as the state of the art permits all of the novel features herein shown.

What I claim as new and desire to secure by Letters Patent is—

1. In combination a track, hangers running upon the track, two members supported by the hangers, a tub-frame, means for raising and lowering the tub-frame, the tub-frame when raised passing between said members, and a tub pivoted in the frame.

2. In combination two hangers, two rotatable spindles journaled between the hangers, a chain attached to said two spindles and arranged to form a bight between the same and a tub supported by said bight.

3. In combination two hangers, two rotatable spindles journaled between the hangers, a chain attached to said two spindles and arranged to form a bight between the same, a tub-frame hanging in the bight and adapted to rise between the spindles and a tub pivoted in said tub-frame.

4. In combination two hangers, two rotatable spindles pivoted between the hangers, a pinion on each spindle, a wheel provided with rotating means, pinions on the wheel meshing with those on the spindles, a chain attached to the spindles and arranged to form a bight therebetween, and a tub supported in said bight.

5. In combination two hangers, two rotatable spindles journaled between the hangers, a pinion on each spindle, a wheel having rotating means, a pinion on said wheel meshing with those on the spindles, a ratchet on the wheel, a dog engaging there- with, a chain attached to the two spindles

and arranged to form a bight therebetween, and a tub supported by said bight.

6. In combination a track, a pair of hangers running thereon, two members each parallel with the track and beneath the same and lying on opposite sides of the vertical plane thereof, means for rotating one of said members, a chain attached to said two members and forming a bight therebetween, a tub-frame supported in said bight, and a tub pivotally supported in the tub-frame.

7. In combination a pair of hangers adapted to run upon a track, yoke-shaped members depending therefrom and two longitudinal members parallel to the track and on the two sides of the vertical plane thereof beneath the same carried by the ends of said yoke-shaped members, means for rotating one of said members, a chain connecting said members and forming a bight therebetween, a tub-frame adapted to rise between the said members and a tub pivotally supported in the tub-frame.

8. In combination a pair of hangers, two shafts carried thereby beneath the track and parallel to the sides, chains connected to the shafts and forming bights therebetween and a tub carried by the bights, a pinion upon each spindle, a sleeve upon each spindle, each sleeve having a radial boss, a transverse shaft journaled in said bosses, a wheel upon said shaft, a pinion upon said wheel engaging the pinions upon the spindles, a ratchet upon the wheel, a dog adapted to engage the ratchet and an endless flexible member running on the rim of the wheel to rotate the same.

9. In combination, a track, hangers running upon the track, two members supported by the hangers and extending longitudinally of the track beneath the same and on opposite sides of the vertical plane thereof, a tub-frame, means for raising and lowering the tub-frame, the tub-frame when raised passing between said members, and a tub pivoted in the frame.

In testimony whereof I have hereunto set my hand and affixed my seal this 21st day of January, 1911, in the presence of two subscribing witnesses.

CHARLES M. STEVENSON. [L. s.]

Witnesses:

R. H. JACOBS,

R. A. HEMENWAY.