

No. 762,517.

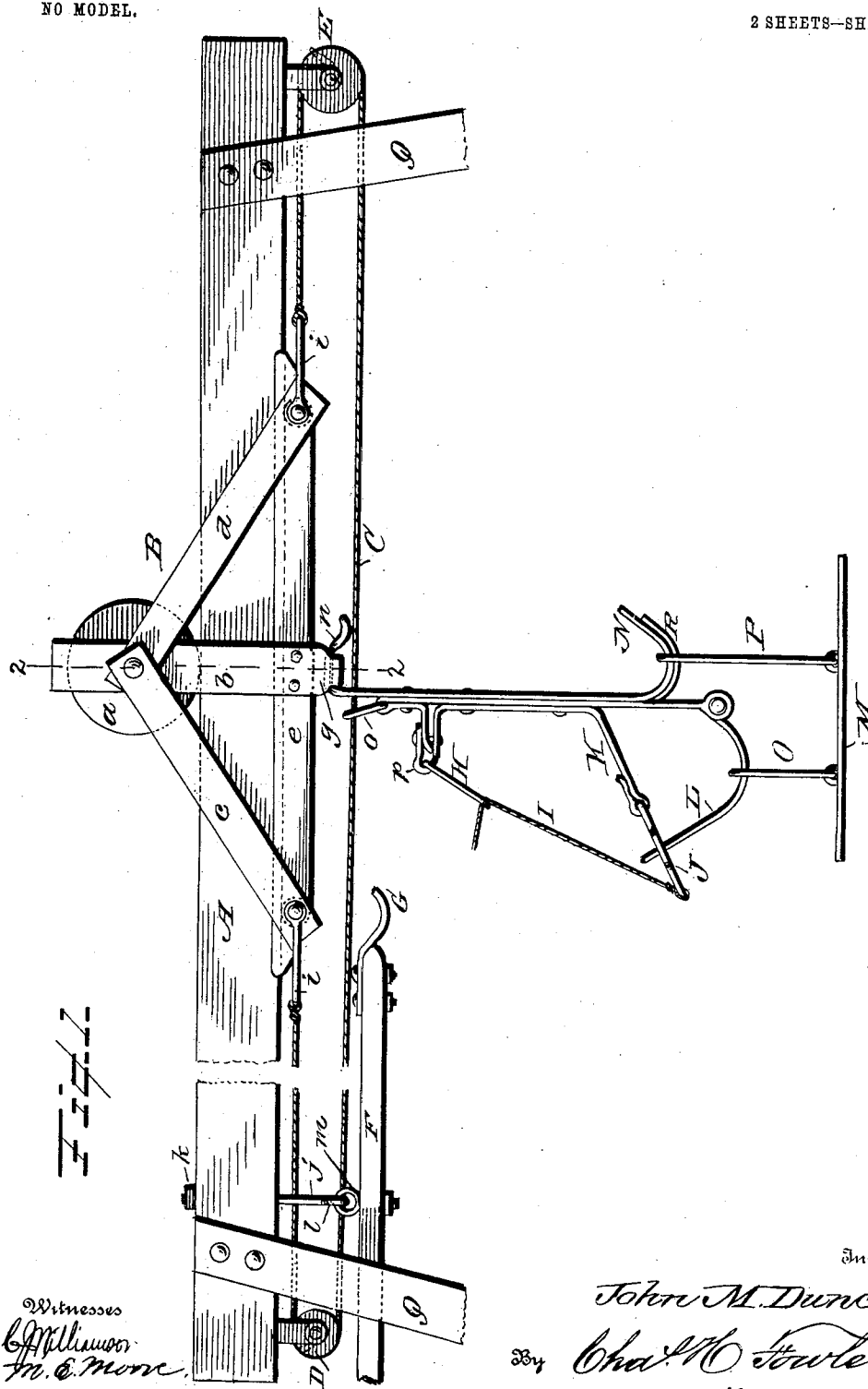
PATENTED JUNE 14, 1904.

J. M. DUNCAN.
LOADING OR UNLOADING DEVICE.

APPLICATION FILED MAR. 22, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



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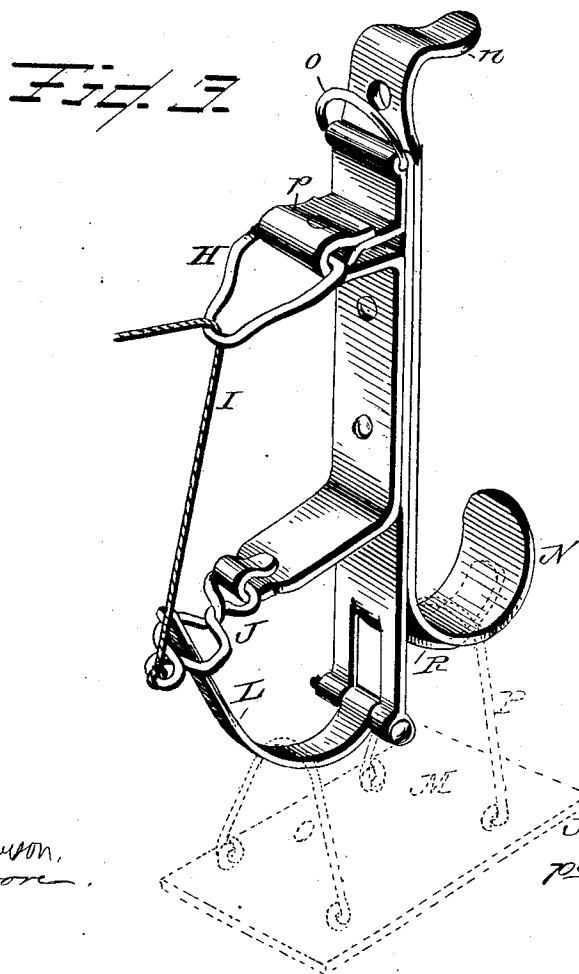
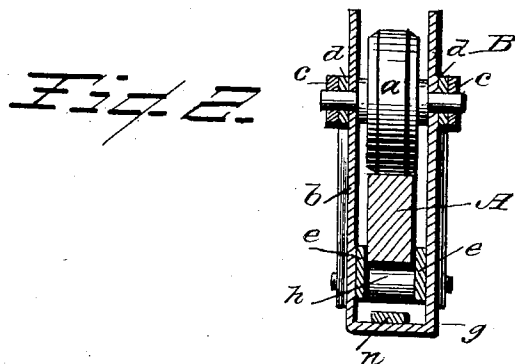
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

JOHN M. DUNCAN, OF BRAYS, MISSOURI.

LOADING OR UNLOADING DEVICE.

SPECIFICATION forming part of Letters Patent No. 762,517, dated June 14, 1904.

Application filed March 22, 1904. Serial No. 199,380. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. DUNCAN, a citizen of the United States, residing at Brays, in the county of Miller and State of Missouri, have invented certain new and useful Improvements in Loading or Unloading Devices; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The present invention has for its object to provide a simple and effective loading and unloading device, relating more particularly to that class commonly known as "overhead carriers," in which a beam or track is employed with which a suitable trolley engages, connecting with suitable chain or rope and pulleys and a device suspended from the trolley to carry and discharge the load at the point desired.

It is the purpose of the invention to render such loading and unloading devices as above referred to wherein the operation thereof will be materially improved in the means employed for carrying to the point of discharge the hay, straw, or other material and depositing it with comparative ease and expedition.

The invention consists in a loading and unloading device constructed substantially as shown in the drawings and hereinafter described and claimed.

Figure 1 of the drawings is a side elevation of a loading and unloading device constructed in accordance with my invention; Fig. 2, a transverse section taken on line 2 2 of Fig. 1; Fig. 3, a perspective view, on an enlarged scale, of the carrier, showing the deck or platform in dotted lines.

In the accompanying drawings, A represents a suitable beam or track of any desirable length and thickness with which engages a wheeled trolley B of any preferred construction.

In the present instance the trolley is shown as consisting of the trolley-wheel *a*, the upright hanger *b*, the angular braces *c* *d*, two upon each side of the track A, which are connected at their upper ends to the hanger *b*

and at their lower ends to the two longitudinal bars *e*, which embrace the sides of the track, as shown in Fig. 2 of the drawings. The hanger *b* is U shape, the lower end *g* forming a loop with which engages the carrier hereinafter described, and at each end of the two longitudinal bars *e* are antifriction-rollers *h*, which bear against the under side of the track A to render the trolley movable easily along the track.

In describing in detail the construction of the trolley I do not desire it to be understood that the invention is limited thereto, as any suitable trolley of whatever construction may be substituted for that shown without in any manner departing from the principle of the invention.

The trolley B has pivoted loops *i*, to which are connected the ends of a suitable rope or cable C, said cable passing over grooved pulleys D E, depending from the track A, or other means may be employed for suspending the cable that will ensure its perfect action.

A lever F is loosely suspended from the track A through the medium of an eyebolt *j*, secured to the track by a nut *k* engaging the screw-threaded end of the bolt, the eye *l* of the bolt engaging a ring *m* upon the lever, or any other suitable means may be employed that will admit the lever moving in any direction by suspending it from the track, said lever having a cam-hook G at its end, the purpose of which will be hereinafter described.

The carrier is constructed of metal and is provided with a hook *n* at its upper end, by which it is suspended from the loop *g* of the hanger *a*, and a link *o*, through which passes the cable C.

A loop H is loosely suspended from an arm *p*, which projects horizontally from the carrier, and through this loop passes a trip-cord I within convenient reach of the operator, the end of said cord being secured to trip J, which engages a hooked arm K near the lower end of the carrier.

The trip J may be of any suitable construction that will admit the end of a pivoted trip-arm L to engage and be disengaged, the trip be-

ing suitably pivoted to the hooked arm K or connected thereto in any suitable manner that will admit the trip being raised or lowered by the trip-cord I in operating the trip-arm.

5 A suitable platform or deck M is suspended from the trip-arm L and a bracket N, the bracket being on a much higher plane than the trip-arm, so that when the platform or deck is released by the trip-cord I it will assume a vertical position sufficient to discharge the load therefrom, but still be engaged with the carrier.

Suitable looped hangers O P are loosely connected with the platform or deck M and engage the curved trip-arm L and the bracket N, the hanger P being of greater length than the hanger O, so as to adapt them to engage the bracket and trip-arm, respectively, and enable the platform or deck to be held on a horizontal plane.

20 The pulleys D E may be operated by suitable cranks connected therewith or by any suitable means found most convenient, and the track A may be supported by suitable legs Q to hold it up from the ground, these features in constructing the device being an ordinary mechanical expedient and are left entirely with the one who constructs the device, as many features may be changed or modified in their general form as circumstances would require.

After the platform or deck M has been loaded or supplied with the material—such as hay, farm products, or any heavy weight such as stone, earth, or anything upon the farm or barnyard which is required to be loaded or unloaded from a wagon—the trolley B is moved along the track A through the medium of the cable C until the link *o* engages the hooked cam G, when by a further movement of the carrier and the movement of the link along the cam-surface of the hooked cam the lever F will be raised and pressed against the cable C, which will firmly hold the carrier stationary, and by pulling on the cord I the pivoted trip J will be raised, which movement will release the trip-arm L, and the arm will drop by gravity, which will allow the hanger O to release itself therefrom and the platform

or deck brought to such position as to unload automatically.

It should be understood that the cam-hook G does not necessarily have to extend any great distance through the eye *o* when the eye is brought in contact therewith, as the moment the ring strikes the hook it will throw the same up against the cable C.

To form a strengthening reinforce to the bracket N, a stay R is provided, which extends under said bracket, and in the present instance the stay is shown as being cut from the metal from which the carrier is constructed; but the stay may be provided in any suitable manner found best adapted to the purpose.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A loading and unloading device, comprising a suitable track, trolley, cable and pulleys connecting therewith to operate the same, a suitable carrier suspended from the trolley and provided with a link through which the cable extends, a lever suspended from the track and provided with a cam-hook for engaging the link, and means for supporting and releasing the means employed for carrying the load, substantially as and for the purpose set forth.

2. In a loading and unloading device, a lever loosely suspended from the track and a cam-hook upon the end of the lever and means for operating it, in combination with a carrier suspended from a track and adapted to move along the same, a loop at the upper end of the carrier and a pivoted trip near the lower end thereof, a pivoted trip-arm adapted to engage the trip, a cord extending through the loop and connected to the trip for operating the same, a curved bracket, and means for containing the load engaging the trip-arm and bracket, substantially as and for the purpose specified.

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

JOHN M. DUNCAN.

Witnesses:

J. W. BATTY,
O. P. BUMPASS.