

M. COONEY & W. SWANSTON.  
 Apparatus for Unloading Coal, &c., from Vessels.

No. 228,317.

Patented June 1, 1880.

Fig. 1.

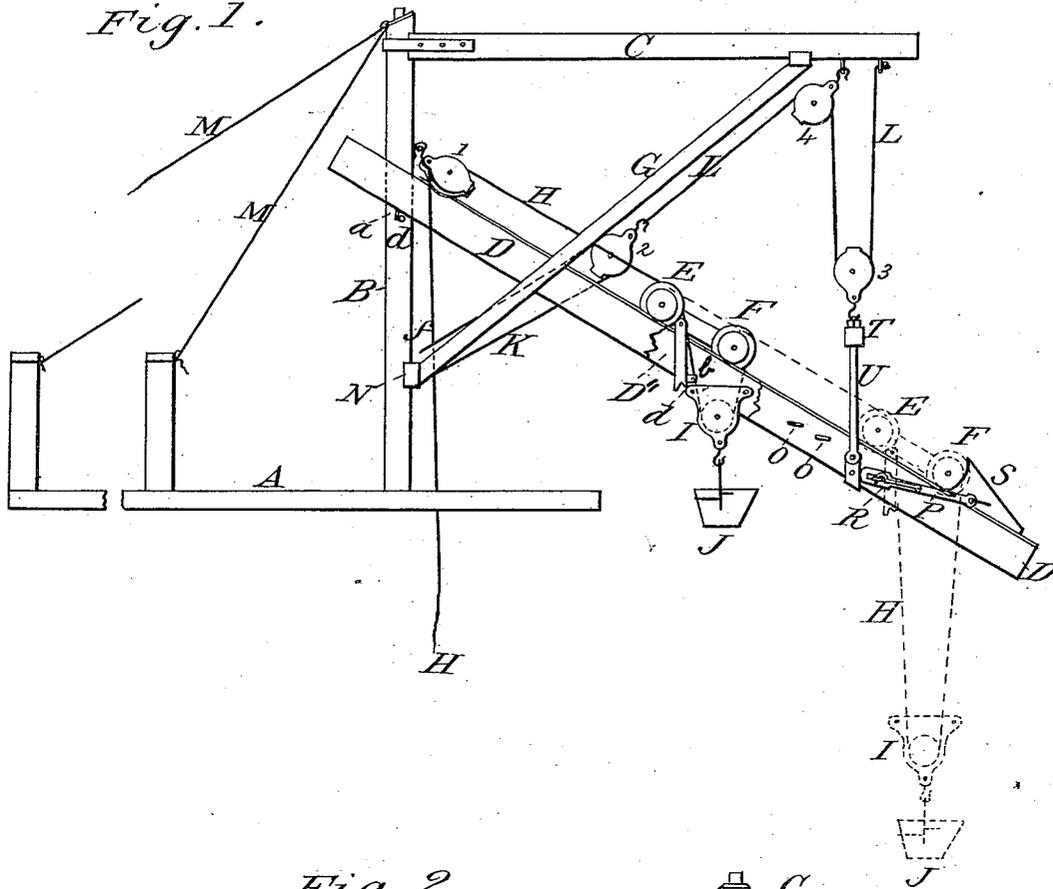
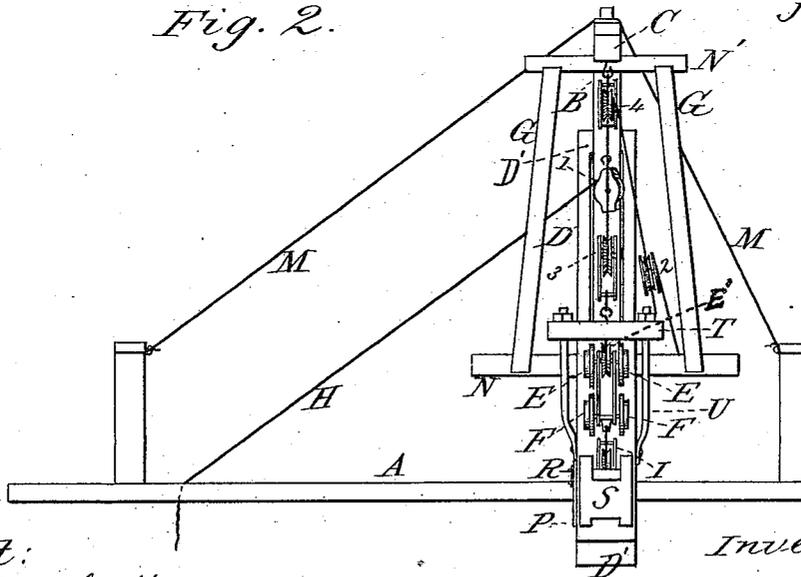


Fig. 2.



Attest:

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# UNITED STATES PATENT OFFICE.

MATTHEW COONEY AND WILLIAM SWANSTON, OF CHICAGO, ILLINOIS.

## APPARATUS FOR UNLOADING COAL, &c., FROM VESSELS.

SPECIFICATION forming part of Letters Patent No. 228,317, dated June 1, 1880.

Application filed May 31, 1879.

*To all whom it may concern:*

Be it known that we, MATTHEW COONEY and WILLIAM SWANSTON, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Apparatus for Unloading Coal, &c., from Vessels, of which the following is a specification, reference being had to the accompanying drawings, and letters marked thereon, illustrating the improvement.

The present invention relates to an improved apparatus for removing coal from vessels or cars and dumping the same into a yard or storehouse.

The nature of the invention consists in a strong derrick - standard, which supports the carrying-track and the bucket, and certain details specifically embodied in the claims.

The derrick proper and its arm are provided each with a cross-tree, to which braces outside of the carrying - track are attached, so as to give freedom of action to the said carrying-track and give to the derrick great strength at such points as will require the least material to attain that end.

The carrying - track is adjustable vertically between the braces, and the derrick, being pivoted to a suitable frame, permits the bucket to be dropped into different holes of a vessel at any height the latter may project out of the water; and, further, the carrying-truck which operates on the track is so constructed as to take the bucket "ashore" after it shall have been elevated to the under side of the track, as the whole is hereinafter fully described and shown.

In the drawings, Figure 1 is a side elevation of our improved apparatus; Fig. 2, a front elevation thereof.

A represents the platform or staging, which supports a pivoted derrick-standard, B, in the ordinary manner of derricks, ropes or chains M M being employed, as is the custom, in supporting such mechanism in a vertical position.

A cross-tree, N, is at its center securely fastened to the lower part of the derrick-standard B, and an arm, C, of proper strength, is secured to the top of the derrick, and to the forward part of this arm is attached a cross-tree, N'. Extending from these cross-trees are braces G G, which give a firm support to the

arm C and permit the track D to have a free vertical movement.

The track consists of two parallel pieces of timber, D, held at a proper distance apart by means of end frame-pieces, D', and plated on their upper part with metal to prevent too rapid wear. The derrick - standard B passes between this two-part track, which, at its rear end, is held thereto by stops *a* on the track, which engage pins *d*, projecting out from the derrick - standard. The forward end of the track is held in any desired inclined position by means of a stirrup, U T, which is secured to the track, and to which is attached a sheave-block, 3. A sheave-block, 4, is suspended from the forward end of the arm C, and on these two sheave-blocks passes a rope, L, which at one end is fastened to the arm C and at the other end fastened to a sheave-block, 2. A rope, K, fastened to the cross-tree N, passes under and over sheave - block 2 and extends down at *f*, at which place it can be grasped by the hand to adjust the track D, and said end may be fastened to a pin.

We are not confined to this means for adjusting the track, as a windlass may be employed and answer the purpose.

A four-wheeled truck, E F, is arranged to run on the track D, and to its frame, near the wheel E, is pivoted a stop-bar, D'', which is provided with a loop, *b*, Fig. 1.

The rope H, for elevating the bucket J, is fastened to the journal of the lower truck-wheels, F, and then passes under sheave I and through the loop *b* on stop-bar D'', and then over a sheave, E', which is placed on the journal of upper wheels, E, of the truck, and from thence passes over a sheave, 1, attached to the derrick - standard B, and down to a point where power can be applied to elevate the bucket J.

A buffer or stop, S, is held to the lower end of the track D by means of straps P P, which are fastened to said track by staples O and hooks R R. Several staples, O O, are driven into the track on both of its sides, that the buffer may stop the truck farther up on the track by moving it (the buffer) up and fastening it in place by passing the straps P P over and the hooks R R through the said staples. By this means the bucket J is first brought

vertically up until the sheave I comes in contact with the stop-bar D". It is then drawn inward by the movement of the truck on the track to a point where its contents are to be dumped.

We do not claim, broadly, to have invented mechanism whereby the aforesaid movement of the bucket J is attained; but, so far as we know, the construction and combination of parts to accomplish this purpose are new.

We claim and desire to secure by Letters Patent—

1. The combination of the derrick-standard B, arm C, braces G G, and cross-trees N N', for supporting, through the medium of the sheaves and ropes, the track D D, so as to have a free

vertical movement, as and for the purpose specified.

2. The adjustable buffer, S, combined with straps P P, staples O, and hooks R, to stop the truck at different points on the track, as specified.

3. The truck, combined with the sheave E' on the journal of the forward wheels, E, the stop-bar D", pivoted to the frame of the truck and provided with the loop b, the sheave I, track D, and ropes H and L, as specified.

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Witnesses:

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