

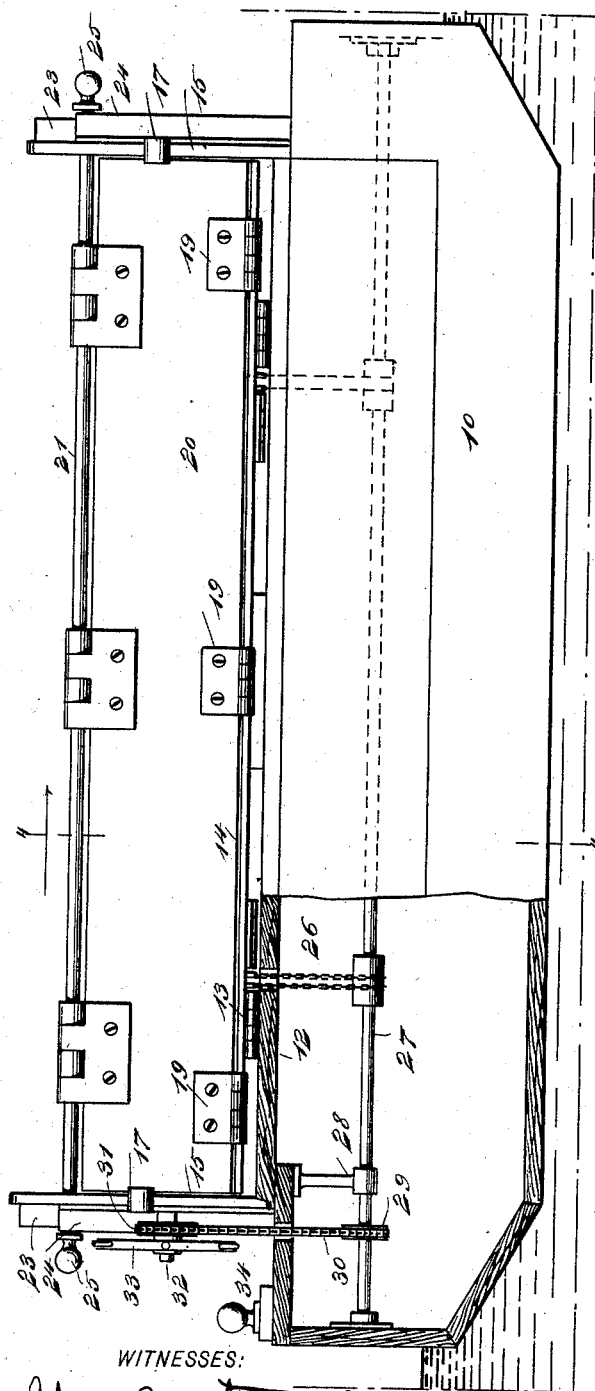
(No Model.)

2 Sheets—Sheet 1.

W. FALLON.
DUMPING SCOW.

No. 522,887.

Patented July 10, 1894.



WITNESSES:
John A. Bingham
W. Sedgwick

Fig. 1

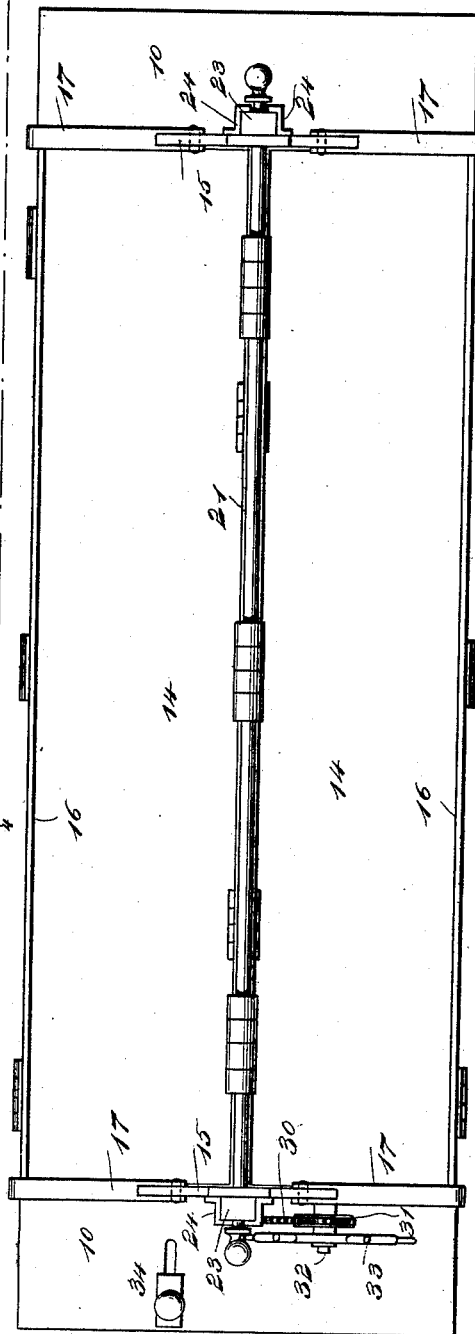


Fig. 2

INVENTOR,
W. Fallon
BY *Munn & Co.*
ATTORNEYS.

(No Model.)

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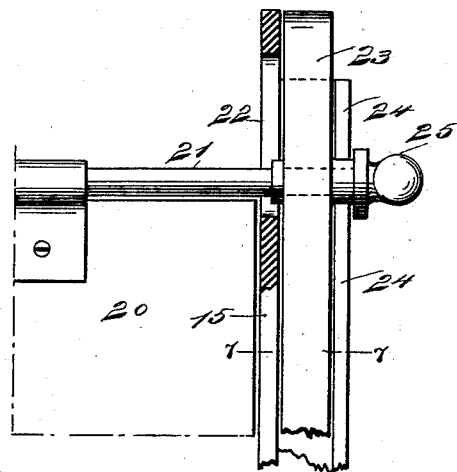
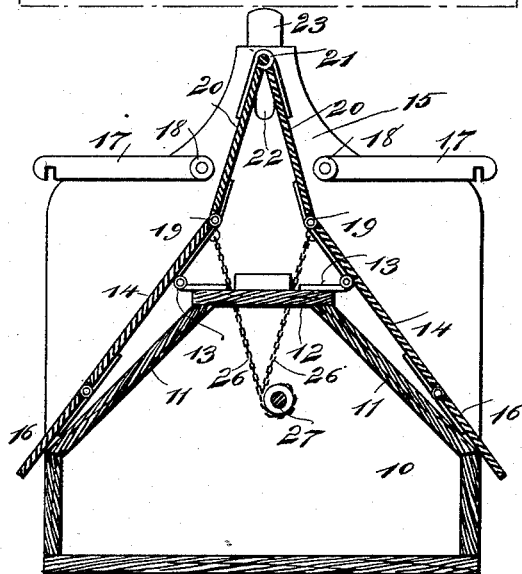
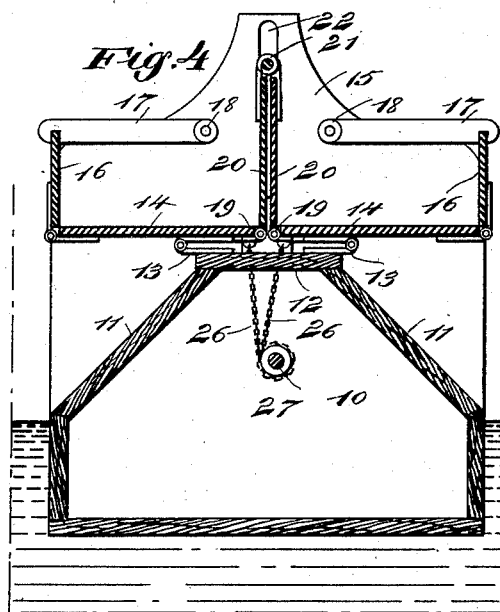
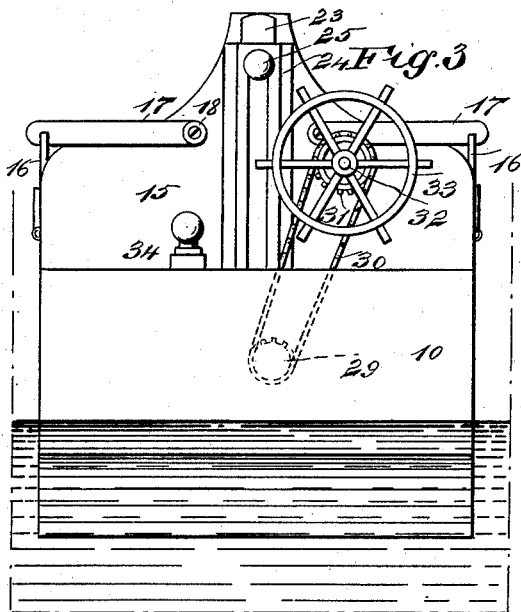


Fig. 5

Fig. 6

WITNESSES:

John A. Berghman
C. Sedgwick

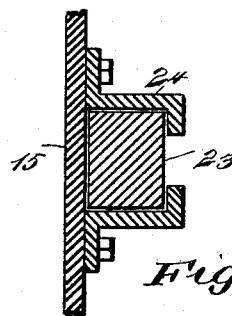


Fig. 7

INVENTOR

W. Fallon
BY *Munn & Co*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM FALLON, OF NEW YORK, N. Y.

DUMPING-SCOW.

SPECIFICATION forming part of Letters Patent No. 522,887, dated July 10, 1894.

Application filed February 23, 1894. Serial No. 501,193. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM FALLON, of the city, county, and State of New York, have invented a new and Improved Dumping Scow and Car, of which the following is a full, clear, and exact description.

My invention relates to improvements in dumping scows and cars, and is an improvement on the apparatus shown in Letters Patent of the United States, No. 330,101, dated November 10, 1885.

The object of my invention is to produce a very simple dumping apparatus adapted for use on a scow or car, which is constructed in such a way that the entire bottom and sides of the car may be thrown quickly into an inclined position so that the entire load is dumped on two sides of the car, the upper central portion of the car moving outward also to insure a perfect dumping.

A further object of my invention is to construct the apparatus in a simple and substantial manner, to provide a convenient means for throwing the car back to normal position, and to also provide a simple arrangement of latches to hold the sides of the car in an upright position when the car is loaded.

To these ends my invention consists of certain features of construction and combinations of parts, which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a broken side elevation, partly in section, of a scow showing my improvements. Fig. 2 is a plan view of the same. Fig. 3 is an end view of the scow. Fig. 4 is a vertical cross section on the line 4—4 of Fig. 1, showing the car in position to sustain its load. Fig. 5 is a similar section, but with the car in position to dump its load. Fig. 6 is a sectional elevation, showing the slide bar and slideway supporting a portion of the car, as hereinafter described; and Fig. 7 is a cross section on the line 7—7 of Fig. 6.

The scow 10 may be of any approved construction and my dumping apparatus is shown attached to it, but it will be understood that the scow serves merely as a support for the car above it, and that the platform of an ordi-

nary railway car may be utilized for the same purpose. The scow is provided, through a greater part of its length and throughout its amidships with inclined sides 11 which extend downward and outward from the flat central top portion 12 on which is hinged, as shown at 13, the two swinging bottom leaves 14 of the car, these leaves being arranged to swing between the end boards 15 of the car, which are stationary and are secured to the scow 10. The bottom leaves 14 have hinged to their outer edges the side leaves 16, which are adapted to swing downward, as shown in Fig. 5, or to turn upward, as shown in Fig. 4, in which case their top or outer edges are engaged by the swinging latches 17 which ride on the upper portions and opposite sides of the head boards or plates 15, the latches being pivoted to the said head boards at their inner ends, as shown at 18, and they drop by gravity into engagement with the leaves 16 and, as they rest on the edges of the head boards, they permit the leaves to drop out of engagement with them when the car is dumped.

The inner edges of the bottom leaves 14 are hinged, as shown at 19, to the center leaves 20 which lie normally in a vertical position, as illustrated in Fig. 4, and are hinged, at the top, to a supporting rod 21 which rod runs longitudinally through the upper portion of the car and moves in vertical slots 22 in the head boards 15, the rod also extending through the vertically movable slide bars 23 in which it is supported, these bars being arranged to move vertically in slideways 24 on the outer sides of the head boards, and it will be seen that by depressing the rod the leaves 20 are also depressed, so as to swing into a vertical position and when the car is dumped, the leaves swing outward at the bottom and the rod rises. The ends of the rod terminate in knobs 25 and levers or other devices may be applied to the knobs to move the rods by hand if necessary.

The car, when loaded, is arranged as shown in Fig. 4, and when it is to be dumped it is released at the bottom, as described presently, and the weight of the load being off the center, causes the leaves 14 to swing downward on the inclined sides 11 of the scow 10 or other support, and at the same time the leaves

16 also swing downward and outward into the position shown in Fig. 5, while the center leaves 20 separate at the bottom and thus two inclined planes are formed from which every vestige of the load slips.

The car is pulled back, that is the leaves 14 and 20 are pulled back to normal position, by means of chains 26 which are secured to the leaves 14, near their inner edges and extend downward through the top of the scow and are secured to a shaft 27 extending longitudinally through the hull of the scow, the shaft being hung in suitable hangers 28 and having thereon, near one end, a sprocket wheel 29 which engages a chain 30 extending upward through the scow top and over a second sprocket wheel 31 which is secured to a shaft 32 journaled on the outer side of one of the head boards 13, and the shaft 32 has a hand wheel 33 by which it may be turned and thus, by turning the hand wheel, the shaft 27 is turned, the chains 26 wound thereon, and the inner portions of the bottom leaves 14 pulled down, thus swinging the said leaves in a horizontal and the leaves 20 into a vertical position.

The side leaves 16 may be turned up into a vertical position, and when this is done the latches 17 catch and hold them. The slide 34 represents the arrangement which is used for locking the car in a horizontal position, but this arrangement I have not shown in detail as it forms no part of this invention, being substantially like the locking mechanism illustrated in my former patent referred to.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with the support having inclined sides, of a car on the support having a pair of bottom leaves hinged near the center to the upper portion of the support, a pair of center leaves hinged to the inner edges of the bottom leaves and to a vertically movable support above them, a pair of side leaves hinged to the outer edges of the bottom leaves, and latches to hold the side leaves in a vertical position, substantially as described.

2. The combination, with the support having inclined sides, of the car mounted on the support and comprising head boards fixed to the support, bottom leaves hinged at the upper edges of the inclined sides, a pair of center leaves hinged to the inner edges of the bottom leaves, a vertically movable rod extending longitudinally through the head boards and forming a support for the center leaves, a pair of side leaves hinged to the outer edges of the bottom leaves, and latches to lock

the side leaves in a vertical position, substantially as described.

3. The combination, of the support having inclined sides, the car mounted above the support and comprising a pair of bottom leaves hinged to the support above the inclined sides, a pair of center leaves hinged to the inner edges of the bottom leaves and having a hinge connection at the top, a pair of side leaves hinged to the outer edges of the bottom leaves, latches to lock the side leaves in a vertical position, and mechanism for swinging the bottom leaves into a horizontal position, substantially as described.

4. The combination with a support, and a car mounted thereon and comprising leaves pivoted to the support between their inner and outer edges to swing downwardly and dump at opposite sides, of a shaft journaled centrally and longitudinally in the support beneath the inner edges of the said leaves and connections between the shaft and the leaves inside of their pivotal points, substantially as described.

5. The combination with a support and a car mounted thereon and comprising leaves pivoted to the support between their inner and outer edges to swing downwardly and dump at opposite sides, of a shaft journaled centrally and longitudinally in the support beneath the inner edges of the said leaves, chains extending upwardly from said shaft to the inner edges of the leaves, a hand-wheel at one end of the body and sprocket wheels and chain connecting the hand wheel and shaft, substantially as described.

6. The combination, with the support having inclined sides and the slotted head boards mounted on the support at the ends of the inclined sides, of the vertically movable slide bars adjacent to the slots in the head boards, the rod extending through the slots and slide bars, and the car having bottom leaves hinged on the support, center leaves hinged to the inner edges of the bottom leaves and to the rod, and side leaves provided with suitable fastening devices, substantially as described.

7. The combination of the support, the outwardly swinging bottom leaf hinged to the support, the side leaf hinged to the outer edge of the bottom leaf, a lock for the side leaf, and a center leaf hinged at the bottom to the inner edge of the bottom leaf and at the top to a vertically movable support or hanger, substantially as described.

WILLIAM FALLON.

Witnesses:

WARREN B. HUTCHINSON,
C. SEDGWICK.