

(No Model.)

2 Sheets—Sheet 1.

F. P. EASTMAN.

DUMPING SCOW.

No. 301,972.

Patented July 15, 1884.

Fig 1

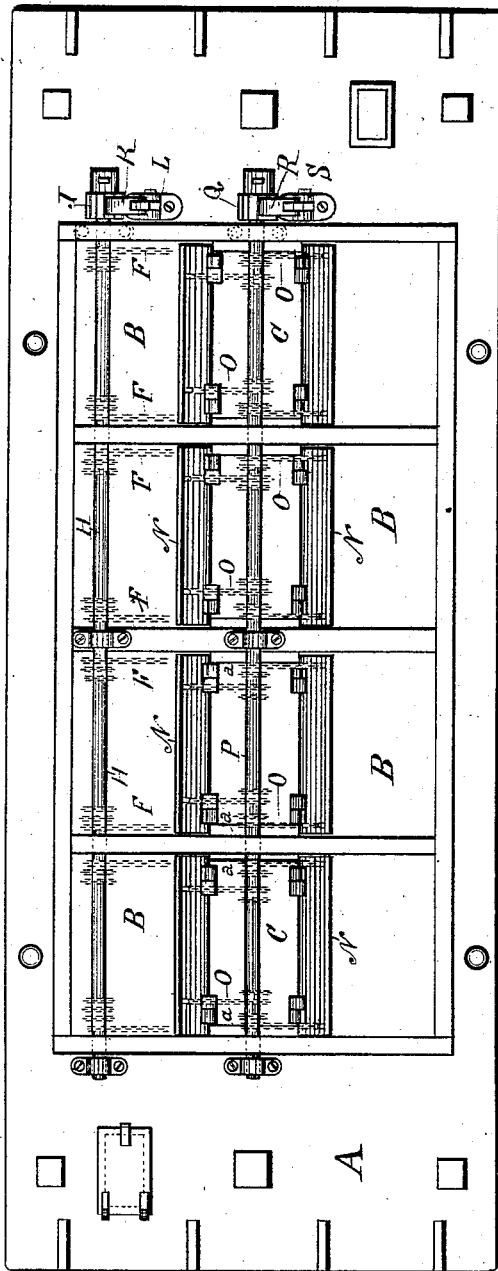
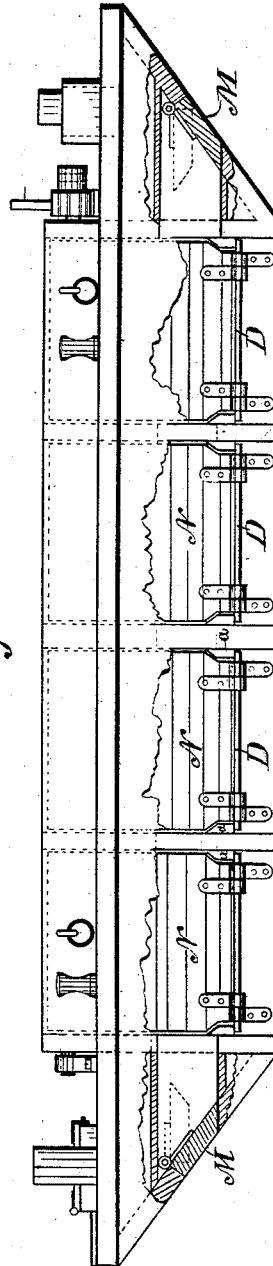


Fig 2



WITNESSES:

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INVENTOR:

F. P. Eastman
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ATTORNEYS.

(No Model.)

2 Sheets—Sheet 2.

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Fig 3

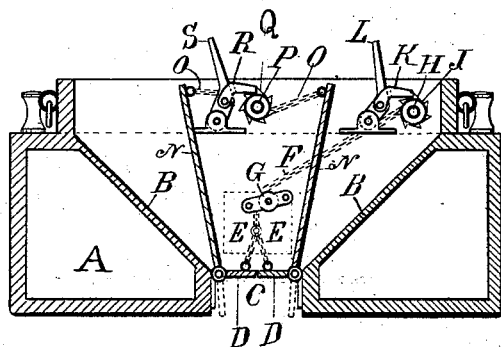
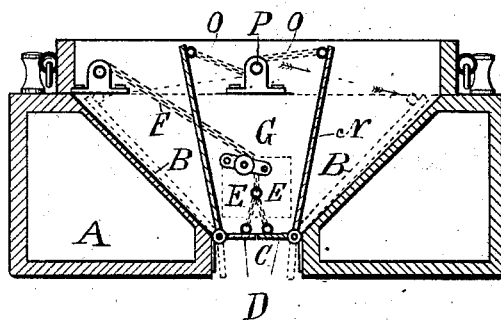


Fig. 4.



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UNITED STATES PATENT OFFICE.

FRANKLIN P. EASTMAN, OF NEW YORK, N. Y.

DUMPING-SCOW.

SPECIFICATION forming part of Letters Patent No. 301,972, dated July 15, 1884.

Application filed April 23, 1884. (No model.)

To all whom it may concern:

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

The object of my invention is to provide a new and improved dumping-scow which is so constructed that its capacity can be increased or decreased and the inclination of its sides adjusted according to the nature of the contents of the scow.

The invention consists of the combinations of parts and their disposition, substantially as hereinafter fully set forth and claimed.

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

Figure 1 is a plan view of my improved dumping-scow. Fig. 2 is a longitudinal elevation of the same, parts being broken out and others shown in section. Figs. 3 and 4 are cross-sectional elevations of the same, looking in opposite directions, and showing the mechanism for opening the bottom of the scow and adjusting the sides.

The scow A is provided with a well formed of two sides, B, inclined from the side edges of the deck of the scow downward toward the middle of the lower part of the same, and between the lower ends of the sides a longitudinal opening, C, is formed in the bottom part of the scow, which opening extends from the front to the rear. The said opening can be closed by a series of sea-gates, D D, hinged to the sides of the opening at the lower end of the inclined sides B, which gates are adapted to swing downward against the sides of the opening or can be raised to a horizontal position to close the opening. When they are raised in a horizontal position, they strike against the blocks a, which prevent them from being raised any higher. Chains E E are fastened to the inner or upper surface of the opposite gates, and the said chains E are fastened to a chain, F, passed over pulleys G, and the joint-chains E F have their upper ends secured on a horizontal shaft, H, on deck, provided at one end with a ratchet-wheel, J, with which a pawl, K, engages, which is pivoted

on a pivoted lever, L, whereby the shaft H can be revolved by means of the said lever and pawl. The joint-chains E F hold the gates raised—that is, in a horizontal position—thus closing the opening C and preventing the contents of the scow from dropping out through the said opening, all of which is of the usual construction. If the scow is to be emptied, the pawl K, which locks the shaft H, and thereby locks the gates D in place, is raised, so as to release the shaft H, thereby permitting the chains E F to uncoil and the gates D to swing downward. The contents of the scow then slide down the inclined sides and drop through the bottom of the scow. After the scow has been emptied, the gates are not raised immediately, but inwardly-swinging gates M, arranged in the ends of the scow, are swung inward and opened, thus permitting the water to rush through the well of the scow while the scow is being towed back from the dumping-ground, whereby the well is washed out clean. If mud, silt, or other like material is to be carried in the scow, the sides of the well need not have much inclination, as the said material slides down the sides of the well very easily; but if dry materials—such as garbage, sand, sweepings, &c.—are carried in the scow, the sides of the well must have a greater inclination, so that the said material can slide through the bottom opening of the scow very easily.

To facilitate adjusting the scow for either semi-fluid or dry material, a wing, N, is hinged to the lower end of each side B of the well in such a manner that the upper ends of the wings can swing laterally. To the upper ends of the said wings N chains O are secured, which have their opposite ends secured on a shaft, P, extending longitudinally over the well and journaled in the usual cross-bars extending over the well. The chains O are wound on the shaft P in opposite directions. The shaft P is provided at one end with a ratchet-wheel, Q, with which a pawl, R, engages, which is pivoted on a pivoted lever, S. By means of the lever S, pawl R, and ratchet-wheel Q the shaft P can be revolved in such a manner as to wind the chains O on the shaft P, thereby drawing the upper ends of the wings N toward each other and increasing their

inclination—that is, if sand, dry garbage, ashes, &c., are to be transported in a scow, the wings N are swung toward each other by winding the chains O on the shaft P, and thereby
5 a well is formed, the sides of which have a greater inclination, and the dry material can slide down the said sides very easily. When the material is to be dumped, the sea-gates D are opened in the manner previously de-
10 scribed.

If semi-fluid or like material is to be transported in the scow, the pawl R is raised or disengaged from the ratchet-wheel Q, so as to permit the upper ends of the wings N to swing
15 down on the inclined sides B of the well of the scow.

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

20 1. In a scow, the hinged or pivoted wings connected to the side walls of the well, whereby the angle of inclination of said walls may be varied, substantially as and for the purpose set forth.

25 2. In a scow, the combination of the hinged or pivoted wings connected to the side walls

of the well at their lower edges, and the hinged or pivoted gates connected to the sides of the bottom well-opening, together with means to operate the same, substantially as and for the
30 same purpose set forth.

3. The combination, in a scow, of the hinged or pivoted wings connected to the side walls of the well, chains connected to the upper ends of said wings, a shaft to which the upper
35 ends of said chains are attached, and means to revolve said shaft, substantially as and for the purpose set forth.

4. The combination, with a scow, of the hinged or pivoted wings connected to the side
40 walls of the well at their lower edges, chains connected to the free ends of the wings, a shaft extending longitudinally over the well, to which shaft the chains are fastened, a ratchet-wheel, Q, on the shaft, the lever S, and the
45 pawl R, substantially as and for the purpose set forth.

FRANKLIN P. EASTMAN.

Witnesses:

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C. SEDGWICK.