(No Model.)

2 Sheets—Sheet 1.

A. STIERLE.

DUMPING SCOW.

No. 278,829. Patented June 5, 1883.

Fig 1

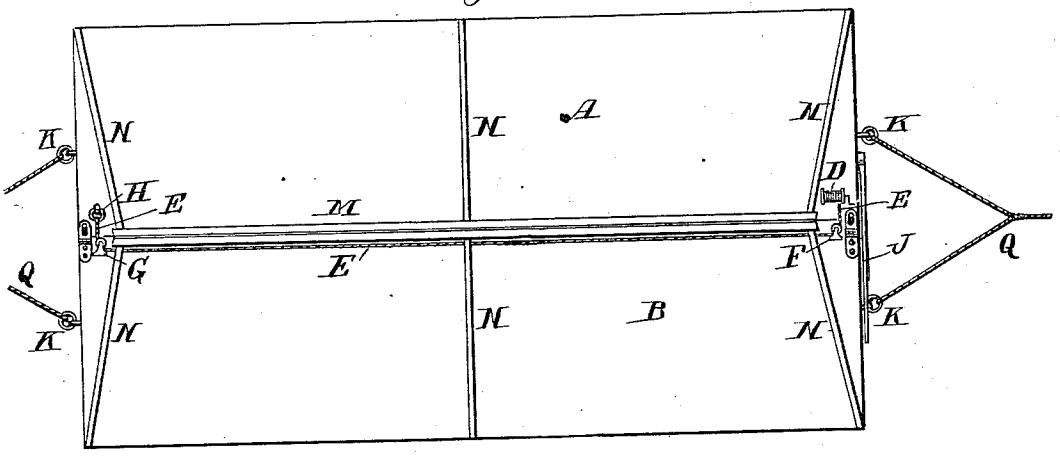


Fig 2

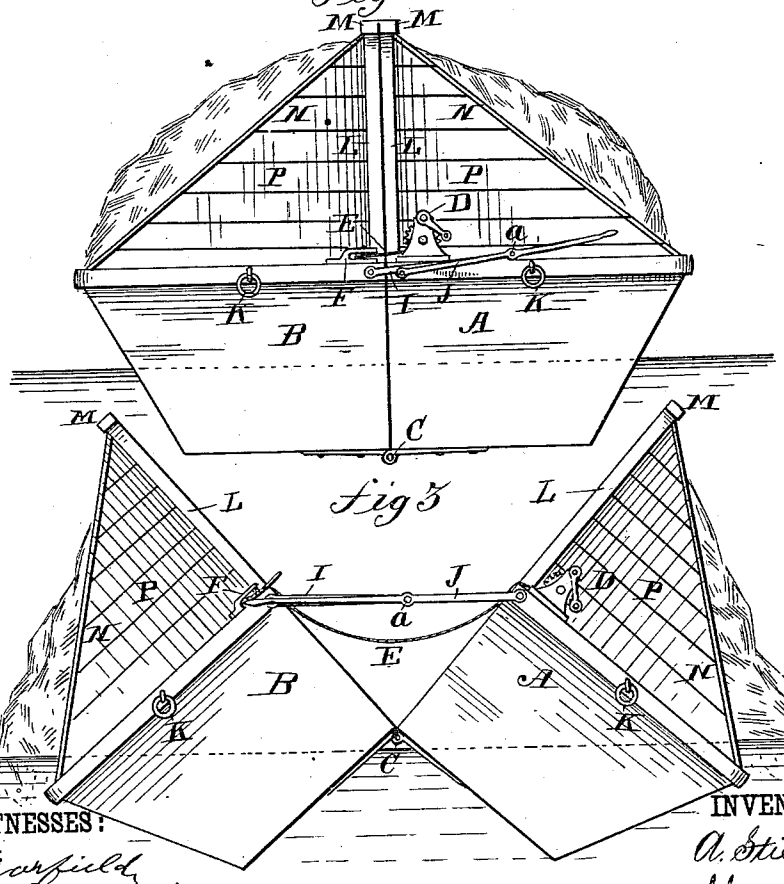


Fig 3

WITNESSES:

J. D. Garfield

C. Sedgwick

INVENTOR:

A. Stierle

BY Munn & Co.

ATTORNEYS.

N. PETERS. Photo-Lithographer, Washington, D. C.

(No Model.)

2 Sheets—Sheet 2.

A. STIERLE.

DUMPING SCOW.

No. 278,829.

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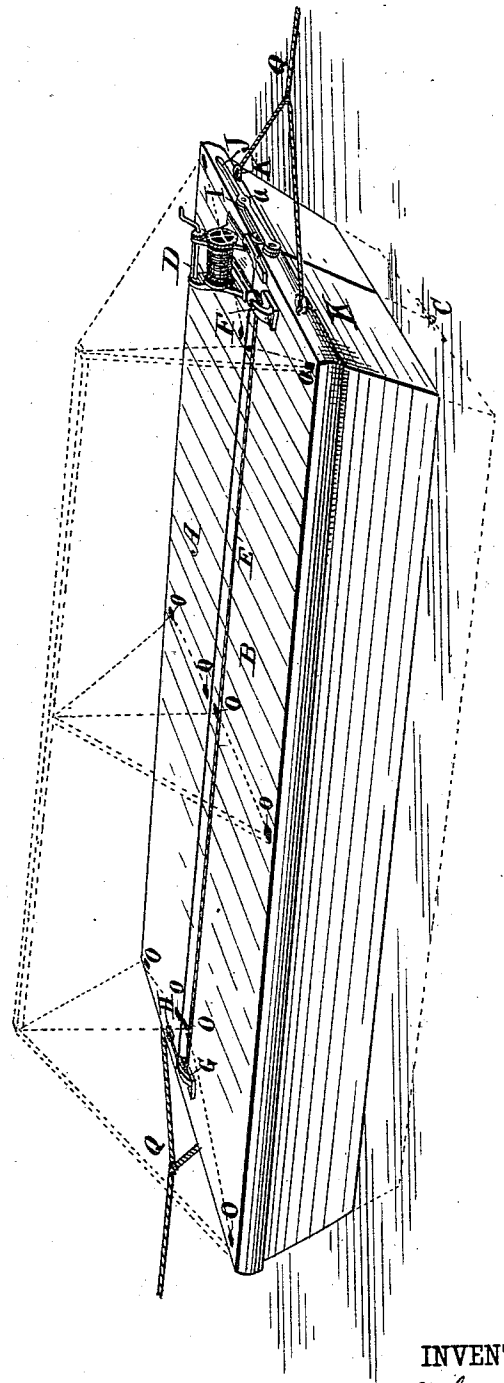


Fig 4

WITNESSES:

J. D. Garfield

C. Sedgwick

INVENTOR:

A. Stierle

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ATTORNEYS.

N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

ADAM STIERLE, OF PHILADELPHIA, PENNSYLVANIA.

DUMPING-SCOW.

SPECIFICATION forming part of Letters Patent No. 278,829, dated June 5, 1883.

Application filed August 30, 1882. (No model.)

To all whom it may concern:

Be it known that I, ADAM STIERLE, of the city and county of Philadelphia, Pennsylvania, have invented a new and Improved Dumping-Scow, of which the following is a full, clear, and exact description.

My invention relates to the class of boats called "dumping-scows," and its object is to provide such an arrangement and construction of parts that the load of the scow may be easily dumped, and after the scow is unloaded is firmly held for receiving and transporting a load.

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 as arranged for carrying a load. Fig. 2 is an end elevation of the same, showing the position of the parts of the dumping-scow when loaded. Fig. 3 is an end elevation of the scow shown when dumping, and Fig. 4 is a perspective view of the scow.

The scow is made in two longitudinal sections, A and B, these sections at their adjacent or inner sides being made at right angles with the deck of the scow, and their outer sides are inclined inward toward the bottom to such a degree that the center of gravity of each section will be outside of a perpendicular line drawn through the center of buoyancy of the immersed portion. The connection between the bottoms of the two sections is made by means of a series of heavy strap-hinges, C. (Shown in Figs. 2 and 3.) The pivots of these hinges form the center on which the sections A B turn when the load upon the scow is dumped. Upon the deck of section A, near its stern, is placed a windlass, D, of the usual well-known construction. A rope or chain, E, passes from the windlass D over a pulley, F, fixed on the deck of section B, opposite the windlass D, and from thence is carried along the inner side of section B to a pulley, G, placed at its bow, and from thence to a ring, H, secured to the bow of section A. With this construction the sections A B are prevented from opening, and are drawn together when open. For more securely holding the sections A B in position, open or closed, a toggle-joint is provided consisting of two levers, I J. One end of lever I is pivoted near the upper and inner corner of section B, and lever J is pivoted in similar position on section A. The free end of lever I is pivoted to the lever J at the point *a*. The part of the lever J extending beyond the point *a* serves as a handle to operate the toggle. When the handle of the lever J is thrown toward the section A the sections A B are held to each other; but when it is thrown toward section B the sections are held apart. To the front and rear ends of the sections A B rings K are secured, to which ropes Q are attached for connecting and towing the scows. On the inner sides of the decks of the sections A B, near their ends, are placed stanchions L L, that are connected at their upper ends by bars M M, and to these bars are secured bars N N, that are inclined downwardly to the outer edges of the sections A B, thus forming load-compartments. The lower ends of the stanchions L and the bars N are held to the sections A B by inserting them in mortises O made in the deck of the boat. These bars and stanchions form the frame-work of movable board partitions or panels P, that can be added or removed, as desired, to correspond with the height of loads of different character.

In operation, when the point of destination of the scow is reached a signal by the towing-boat is given to throw the windlass D out of gear, so that its rope may unroll from the barrel of the windlass. The two sections of scow, on account of their peculiar shape, will immediately open or careen in opposite directions, the careening being augmented by the load on the deck, and the material will slide off so soon as the angle of inclination of the deck exceeds the angle of friction of the material to be dumped. As soon as the sections are relieved of their load they rise in the water and will nearly shut together on their hinges, and are then wholly closed by the aid of the windlass. Should the material be sticky, as mud or clay, the toggle-bar will hold the two sections inclined and their decks partially submerged until they are washed clean by the action of the water. The space in front of the windlass, for the man to stand who operates it, may be inclosed by an iron railing, if desired.

The advantages of my dumping-scow are its

simplicity of construction and the rapidity with which it can be operated. The peculiar form of the sections gives the greatest strength with the least expenditure of material, and the scow can be used for other purposes besides dumping by simply locking the decks together by the windlass and toggle-joint. With the exception of the space left at the end for the windlass and pulleys, the whole deck is made available for carrying purposes.

The scow may be dumped in very shallow water, as the spreading of the sections in dumping and their subsequent reclosing allow an extraction of the scow from the ridges thrown up. When the sections are released the dumping is instantaneous, and may be done with but a moment's slackening of the tow-lines Q.

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

1. A scow made in two equal longitudinal sections hinged at the bottom, with the inner sides at right angles to the deck and the outer ones inwardly inclined toward the bottom, whereby the sections operate with respect to each other to turn in opposite directions when not fastened together.

2. The combination, with the sections A B, of the rope E, windlass D, pulleys F G, and ring H, whereby the sections are drawn and held together as described.

3. The combination, with the sections A B, of the two levers I J, pivoted at the upper and inner corners of said sections and to one another at the point *a*, the lever J being extended to form a handle, whereby the sections may be held together or apart, as described.

4. The combination, with the sections A B, of the end stanchions, S S, the bars M M, connecting them at their upper ends, and the bows N N, downwardly inclined to the outer edges of the sections, whereby movable panels or partitions are formed, as described.

ADAM STIERLE.

Witnesses:
WM. B. LIDDLE,
E. A. JIESELER.