

A. T. MORRIS.
Dumping Scows.

No. 138,179.

Patented April 22, 1873.

Fig. 1.

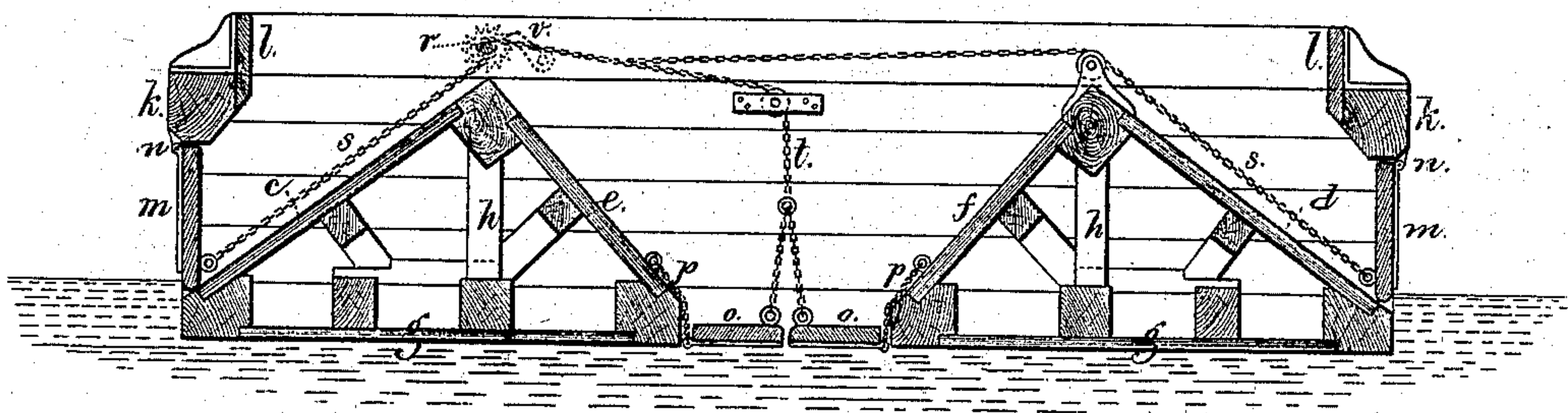
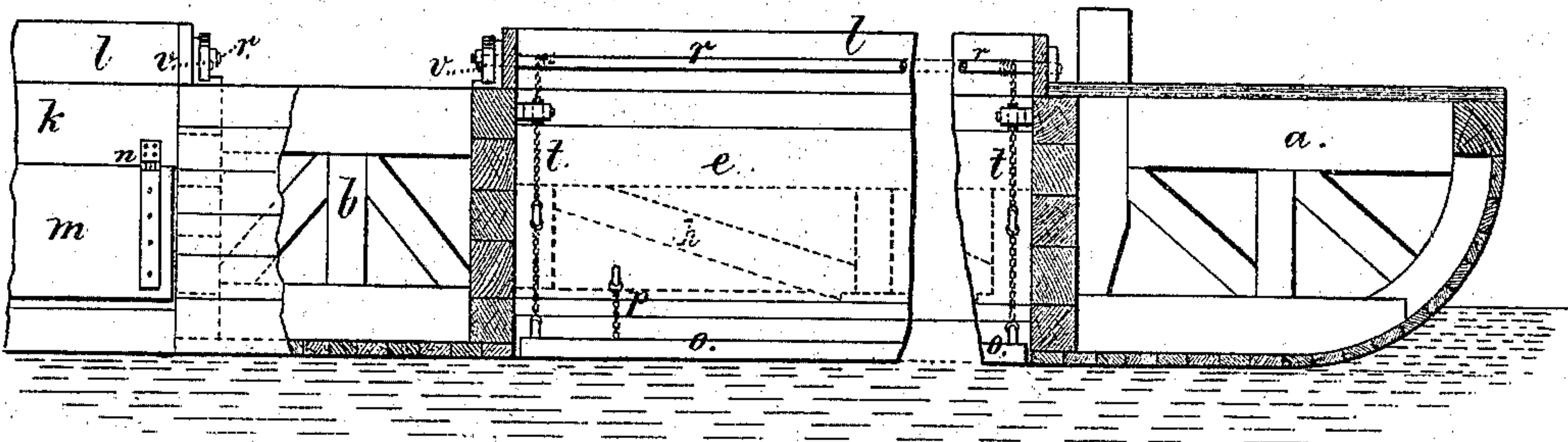


Fig. 2.



Witnesses,

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UNITED STATES PATENT OFFICE.

AUGUSTUS T. MORRIS, OF BLOOMFIELD, NEW JERSEY.

IMPROVEMENT IN DUMPING-SCOWS.

Specification forming part of Letters Patent No. **138,179**, dated April 22, 1873; application filed March 5, 1873.

To all whom it may concern:

Be it known that I, AUGUSTUS T. MORRIS, of Bloomfield, in the county of Essex and State of New Jersey, have invented an Improvement in Dumping-Scows, of which the following is a specification:

Before this invention scows had been built with discharge-openings and flaps or gates at the sides and inclined surfaces, upon which the mud or other material rested, and from which it slid down and discharged when the flaps were opened; but in scows of this character great risk existed that the material at one side would slide out and not at the other, and that the weight upon one side would tip the vessel and turn the same bottom upward. In other instances the material has been discharged from the bottom through openings provided with flaps swinging downwardly; but in this case the scow could not be discharged in shallow water where the filling material is usually required.

My present invention is made for obtaining the advantages of both said modes of discharge without the attendant disadvantages; and consists in a scow made with two double inclines running longitudinally of the vessel and forming three compartments for the mud or other material, in combination with flaps or doors that allow the material to discharge at both sides and at the bottom. By this construction the scow can be built much stronger and lighter than heretofore; and it is impossible to tip the same over, because neither side load is sufficient, and the floats formed by the inclines are at each side of the center instead of being central; and in shallow water the portions of the load that discharge at the sides relieve the scow of so much weight that it will rise in the water and give room for the flaps to open at the bottom and deliver the central portions of the load, even in cases where the depth of water is only sufficient to float the loaded scow. I also construct the scow with a central air-chamber to lessen the draft of water and to prevent the central part of the scow bending downward by reason of the load.

In the drawing, Figure 1 is a cross-section of the scow, and Fig. 2 is a longitudinal section and partial elevation of portions of the end and center of the scow.

The scow is formed of two end compartments, *a*, made water-tight, and the central

compartment *b* also water-tight. These are connected by the two longitudinal double inclines *c d e f*, that are closed by the bottoms *g* to form floats, and they are to be stiffened with longitudinal truss-braces *h*. The gunwale *k* or plank-shear is also provided as usual, and the combings *l* surround the space into which the mud or other material is deposited. The flaps *m* are hinged at *n* to the shear or gunwale *k*, and the flaps or doors *o* are connected by hinges or chains *p*. From the windlass-shaft *r* the chains *s* pass to the doors or flaps *m*, and the chains *t* serve to hold up the swinging edges of the flaps *o*. When these chains are all drawn up the doors or flaps *m o* are closed and sustained, so that the scow is ready for receiving the mud or other material into the two compartments between the center float *b* and the respective end floats *a a*.

In dumping the contents of the scow, the chains are all simultaneously liberated, or else the chains to the flaps *m* are first released from the windlass by turning back the pawl *v*, and the portions of the load resting upon the inclines *c* and *d* slide out laterally through the openings beneath the gunwale *k*. The portion of the load resting upon the inclines *e* and *f* either simultaneously slides down such inclines and is delivered through the opening between them, or else the rising of the scow, when the mud has been discharged from above the inclines *c d*, allows the flaps *o o* to fall and open the discharge-space sufficiently for the descent of the contents in the central portions of the compartments.

I claim as my invention—

1. The dumping-scow, made with the double inclines *c d e f*, in combination with the central and lateral discharge-openings and doors or flaps *m m o o*, substantially as and for the purposes set forth.

2. A dumping-scow, made with the central float *b* and end floats *a*, connected by the two double inclines *c d e f* and bottoms *g*, in combination with the lateral and central discharge-openings and the doors or flaps, substantially as set forth.

Signed by me this 27th day of February, A. D. 1873.

A. T. MORRIS.

Witnesses:

GEO. T. PINCKNEY,
CHAS. H. SMITH.