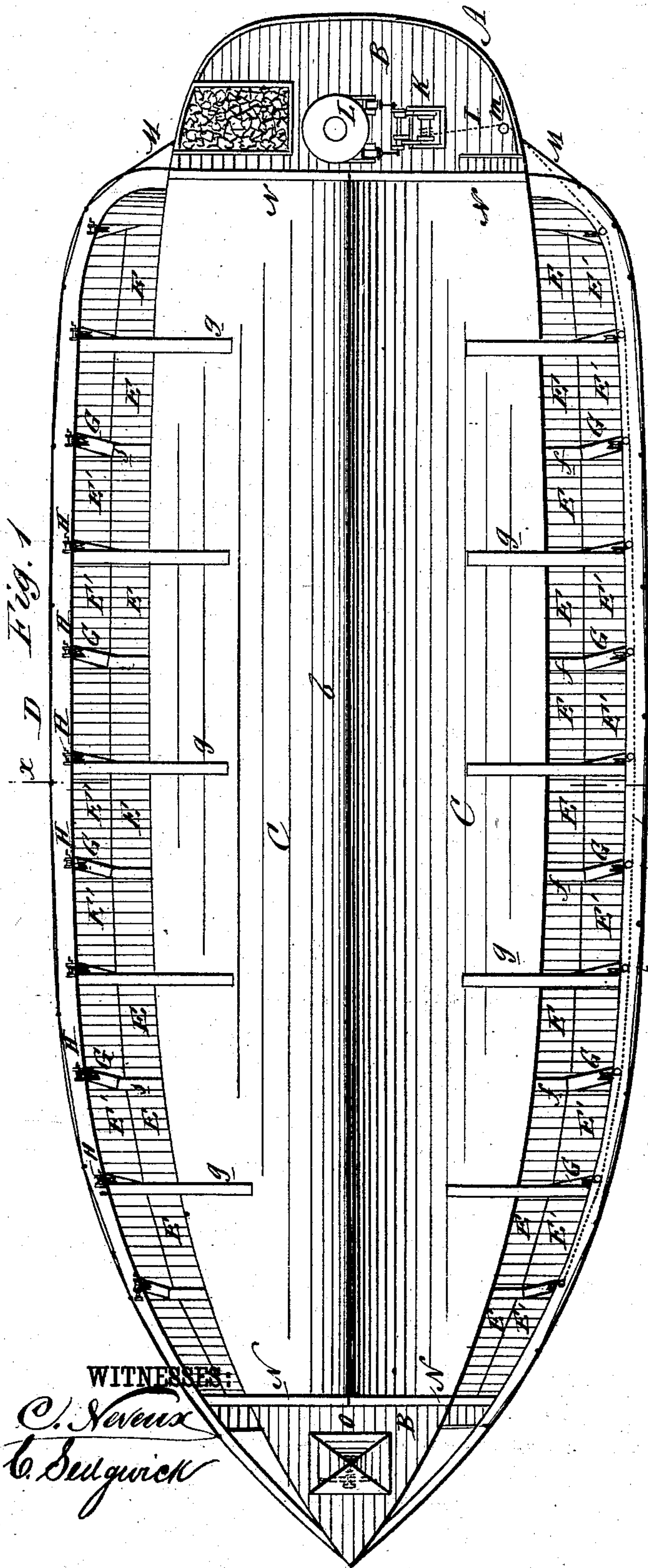


(No Model.)

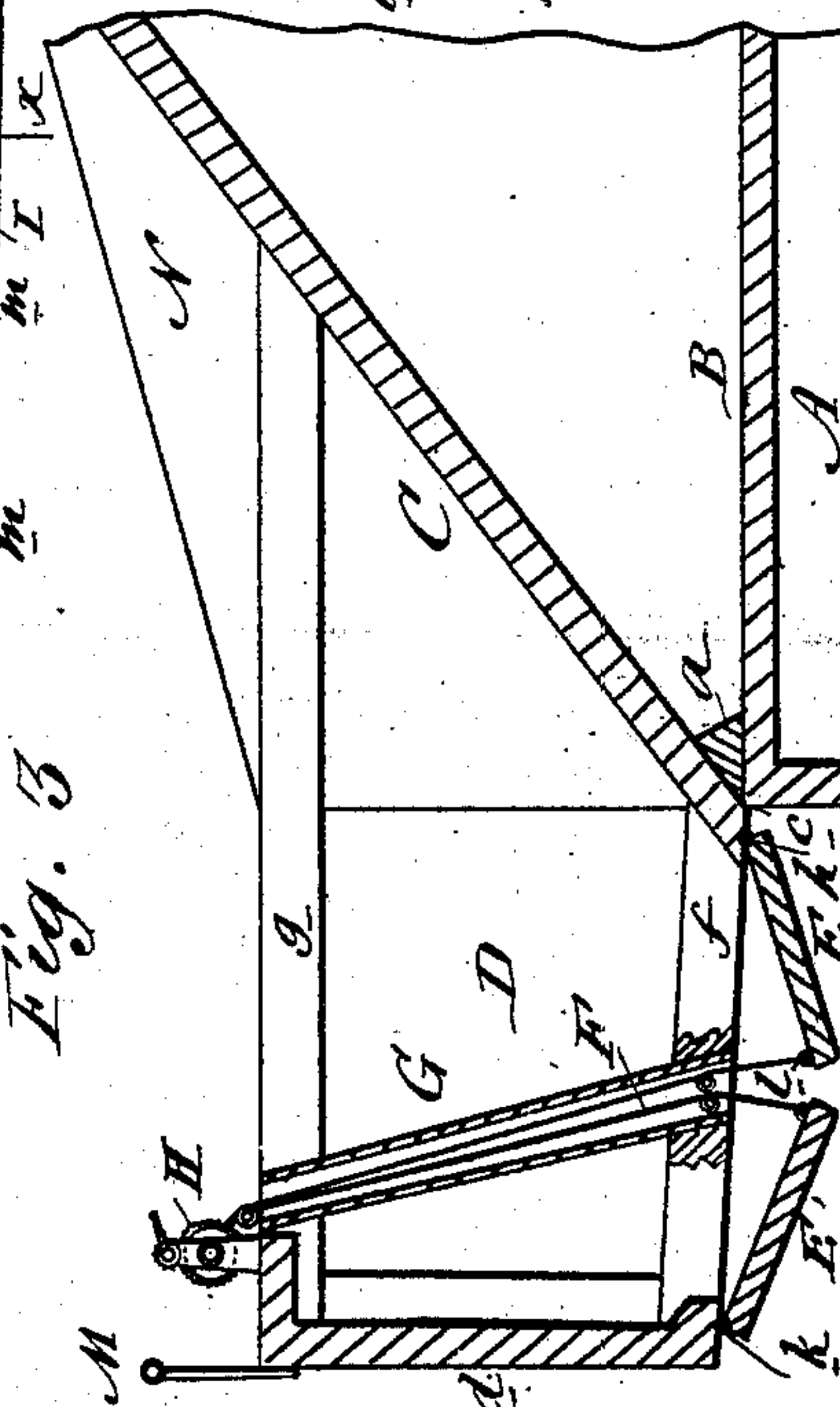
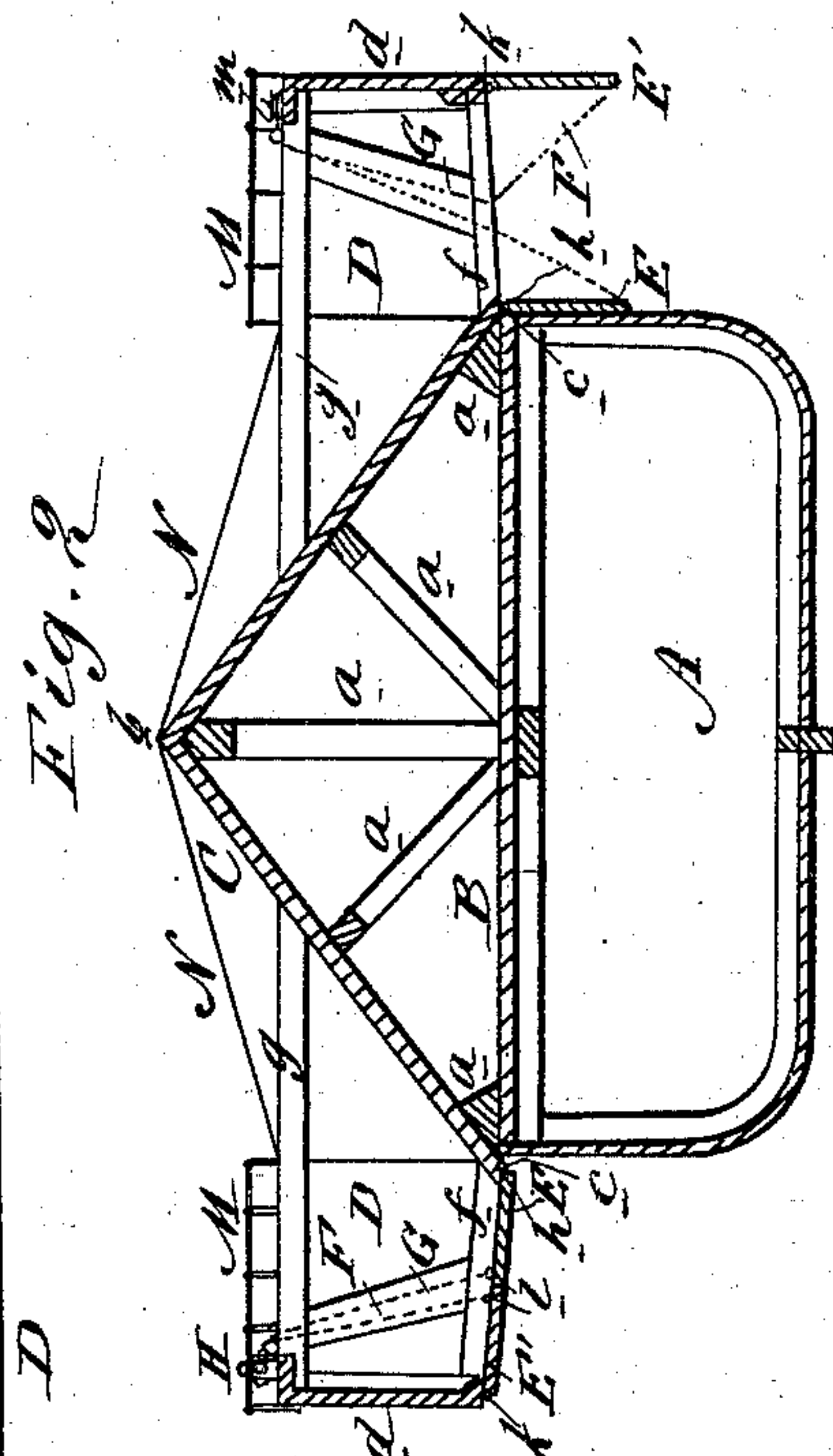
R. H. ELSWORTH.
Dumping Scow.

No. 239,471.

Patented March 29, 1881.



WITNESSES:
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UNITED STATES PATENT OFFICE.

ROBERT H. ELSWORTH, OF BAYONNE, NEW JERSEY.

DUMPING-SCOW.

SPECIFICATION forming part of Letters Patent No. 239,471, dated March 29, 1881.

Application filed January 8, 1881. (No model.)

To all whom it may concern:

Be it known that I, ROBERT H. ELSWORTH, of Bayonne, in the county of Hudson and State of New Jersey, have invented a new and Improved Dumping-Barge, of which the following is a specification.

The object of this invention is to provide an improved boat for transporting city-sweepings and offal to sea and safely and quickly discharging them.

The invention consists of a barge covered amidship for nearly its entire length with a peaked roof or deck that slopes downward on both sides from a central longitudinal line at an angle of about forty-five degrees to the side rails of the boat; and it consists, further, of hollow or box guards extending along each side of the boat or barge above the water-line, open at the top and provided at the bottom with doors that swing open downward, said doors being simultaneously operated by ropes or chains that are made fast to winches or other suitable devices, the intention being that the sweepings and garbage loaded on the sloping deck and in the guards shall be quickly discharged on either side of the barge by opening the guard-doors, so that even in very shoal water the barge-load may be discharged clear from the barge and without interfering with her movements; whereas the ordinary dumping-barges that discharge from the bottom often ground on their discharged load, and thus have their safety endangered and are delayed in their work.

Figure 1 is a plan view of the improved barge. Fig. 2 is a transverse sectional elevation on line *xx*, Fig. 1. Fig. 3 is an enlarged cross-sectional elevation on the same line *xx*, Fig. 1.

Similar letters of reference indicate corresponding parts.

In the accompanying drawings, A represents the hull of the barge, and B her main deck.

C is the peaked deck or roof, supported by braces *aa* and extending for nearly the whole length of the hull A, the said deck C being about one hundred and seventy feet long to a length of hull of two hundred feet, thereby leaving in the after part of said hull A room for an engine, boiler, and windlass for operating the guard-doors, and room also for coal-bunkers, &c., and at the forward part of the

barge room for a pilot-house. The deck C slopes on both sides from its central longitudinal line, *b*, at angles of about forty-five degrees to the side rails, *c*, so that the load thrown thereon will readily slide off.

On either side of the hull A are built the hollow or box guards D D, of the same length as the deck C, and about ten feet wide at their widest part. These guards D D are built to conform with the outlines of the sides of the hull A, and have their bottoms on a level with the side rails, *c*, and their sides *d* extending upward preferably about two-thirds the height of the deck C. Said guards D D are stayed to the barge by timbers *fg* or other suitable stays or braces, said timbers *fg* having their upper edges preferably beveled off, that they may offer little obstacle to the discharge of the load of sweepings or garbage which the barge may carry. The bottoms of the guards D D are provided throughout their length with doors E E', the doors E being hinged to the lower edge of the deck C, as shown at *h*, or to the hull A, the deck C in either case projecting sufficiently over said hinges *h* to cover and protect them from the sweepings or garbage, while the doors E' are hinged, as shown at *k*, to the sides of the guards D D, and when closed said doors E E' meet along the center lines of the guards D D. The timbers *f* afford the transverse divisions between the doors of each series E E'.

To the unhinged edges of the doors E E' are fastened, by eyebolts *l* or other suitable devices, chains or ropes F, those of each pair of doors E E' being passed up through suitable tubular protectors, G, to hand-winches H, that are fixed on the outer edges of the guards D, or connected on each guard D with one main chain, I, that is led aft over rollers *m* and made fast to a windlass, K, which is operated by an engine, L. Either or both of these devices or any other convenient device may be used for operating the doors E E'—as, for instance, the chains or ropes F may be connected with a chain running centrally along the barge to the windlass K. Said protectors G are designed to protect the chains F from the interference of the sweepings, garbage, &c., composing the load of the barge A.

The bottoms of the guards D D are inclined

upward at a slight angle from the hull A outward, to modify the upward force of the waves that may strike up under the guards.

5 A suitable railing, M, for the safety of the operators at the winches H, is fixed on the edge of the guards D D, as shown.

N represents the vertical ends of the deck C and the guards D D, designed to be of sufficient height to prevent the falling off of any of the
10 load of sweepings, &c., carried on the deck C and guards D D.

The pilot-house O may be located as shown, or fixed on the forward end of the deck C, or in any other convenient position.

15 When the barge A is receiving a load of street-sweepings or other material the doors E E' are closed, and so held by the chains F, and for discharging the load the chains F are simultaneously let go, when the weight of the
20 material in the guards D D forces open the doors E E', and the entire contents of the deck C and guards D D are thereby instantly discharged by their own gravity.

25 It is designed to furnish these barges with steam-power for their propulsion, and to construct them in such a manner that they can

safely run out to sea and deposit their loads of sweepings, garbage, &c., at any desired distance from shore.

A barge of the dimensions above given will
30 safely carry from five hundred to seven hundred tons of city refuse at a load.

I am aware that it is not new to make dumping-scows with end and central floats, central and lateral discharge-openings, doors, and
35 elongated inclines; but

What I claim as new is—

1. An improved dumping-barge constructed, substantially as herein shown and described, with central peaked deck or roof, C, and hollow
40 guards D D, provided with bottom doors, E E', operated as set forth.

2. In a dumping-barge, the combination, with the central peaked deck, C, of the hollow guards D D, with hinged doors E E', and operating chains or ropes F, substantially as
45 herein shown, and for the purpose described.

ROBERT H. ELSWORTH.

Witnesses:

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