

G. B. MARTIN.

Construction of Canal-Boats.

No. 134,555.

Patented Jan. 7, 1873.

Fig. 1.

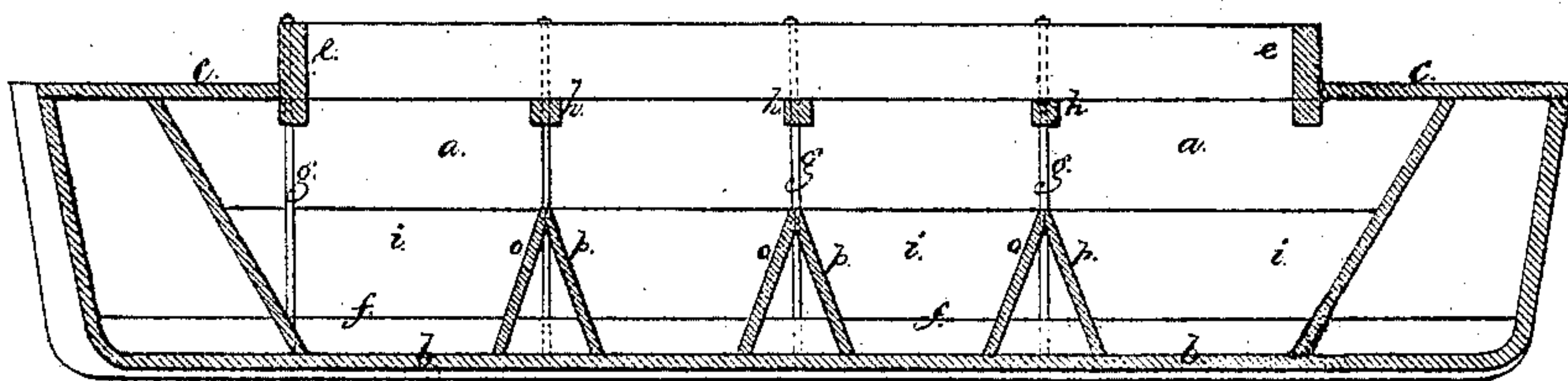
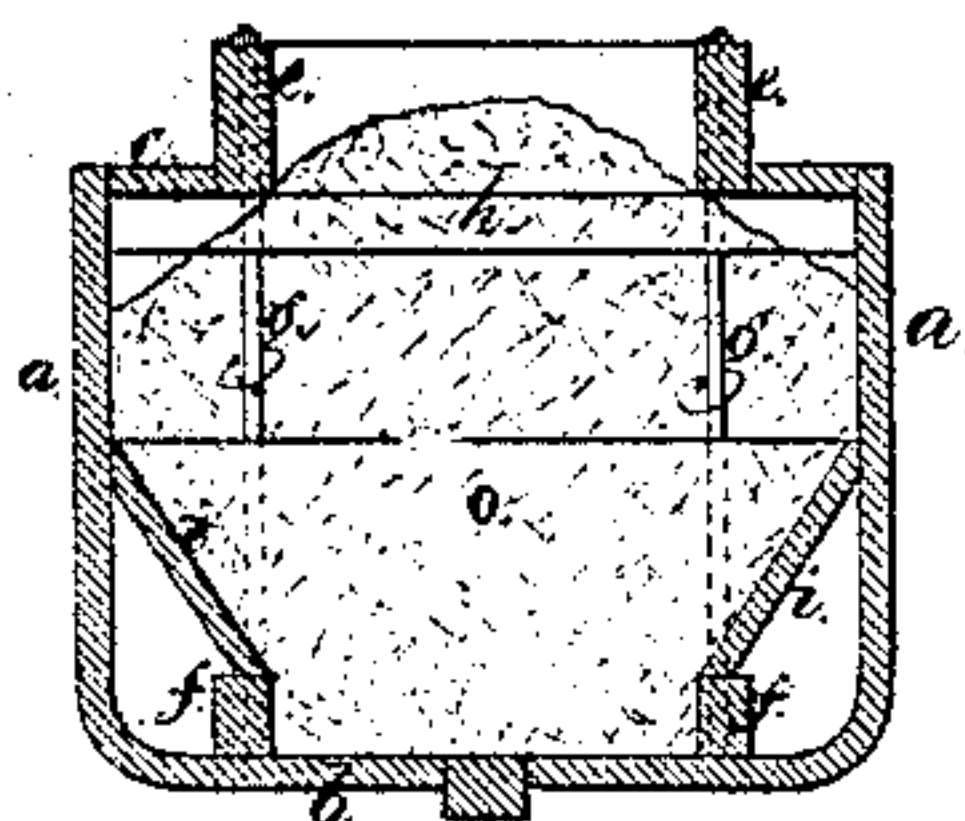


Fig. 2.



Witnesses,

Chas. H. Smith
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UNITED STATES PATENT OFFICE.

GEORGE B. MARTIN, OF NEW YORK, N. Y.

IMPROVEMENT IN THE CONSTRUCTION OF CANAL-BOATS.

Specification forming part of Letters Patent No. 134,555, dated January 7, 1873

To all whom it may concern:

Be it known that I, GEORGE B. MARTIN, of the city and State of New York, have invented an Improvement in Boats for Carrying Coal and other Materials in Bulk, of which the following is a specification:

Barges have been made in which the coal is contained in bins with hopper-shaped bottoms and openings through which the coal is allowed to run and discharge into a bucket or car. In this case the boat had to be made with especial reference to the reception of the bins, and the coal being kept at some distance from the bottom, rendered the barge top-heavy and liable to roll or upset except when provided with ballast that diminished the carrying capacity of the boat.

The ordinary canal-boat is objectionable for coal, grain, &c., because the articles have to be shoveled from the sides to the central portion of the boat so as to be contiguous to the hatchway or opening through which the bucket or scoop is hoisted.

Buckets have been constructed for elevating coal, grain, and other articles. An example may be seen in the scoop and elevator shown in the patent of E. Morris, No. 5,966. The present barge or boat is especially available with elevators of this character.

My invention consists in a boat or barge in which there is a range or ranges of hopper-shaped bins, the sides of which slope in such a manner as to throw the coal or other material to the center beneath the opening or hatch and in a position to be entirely removed by a scoop or bucket working from above, thus avoiding the labor and expense of clearing out the coal from the sides of the vessel into range of the scoop or bucket employed in its removal.

In the drawing, Figure 1 is a longitudinal section of the improved boat, and Fig. 2 is a cross-section of the same.

The boat is made with the sides *a a*, bottom *b*, and deck *c*. The length, breadth, and height are of any desired dimensions, and the ends may be more or less curved. The hatchway is made of the desired width to suit the character of scoop or elevator employed in removing the material, and from the combings *e* of the hatchway to the keelsons *f* there are

tie-rods *g* that serve to connect the parts and strengthen the boat. These tie-rods are applied at or near the cross-beams *h*. There may be diagonal braces longitudinally of the boat between the tie-rods. At the sides of the vessel are the inclined boards *i* resting upon or adjacent to the keelsons *f*, so that material that may lie in the boat in bulk will be kept away from the sides of the boat, and caused to run toward the center of the boat as the cargo is removed by an elevator or excavating device acting through the hatchway. By the inclined partition *i* the labor of shoveling from the sides of the vessel is avoided without materially lessening the carrying capacity of the boat. The inclines *o p* running transversely of the vessel divide up the cargo space and form hopper-shaped bins that cause the material to run into a central space beneath the hatchway, where the excavating device has free access, so that the cargo can be removed with very little manual labor.

The partitions *o p* may be movable so as to divide up the cargo according to quality or to the owners thereof, and such partitions may extend up to the hatch-combings.

This construction of vessel renders the same much more strong, stiff, and less liable to injury by the heavy masses of coal or other material than the boats and barges heretofore constructed.

I claim as my invention—

1. A boat for coal or other material in bulk provided with the longitudinal inclined partitions *i* and transverse inclined partitions *o p* to direct such material to a central position below the hatchway for removal, as set forth.

2. A boat made with keelsons *f* connected to the hatch-combings and with inclined partitions *i o p* for separating the cargo and facilitating its removal, as set forth.

3. The inclined partitions *i* applied to and combined with the boat, and extending from the keelsons to the sides of the boat, for the purposes and as set forth.

Signed by me this 16th day of October, A. D. 1872.

GEORGE B. MARTIN.

Witnesses:

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