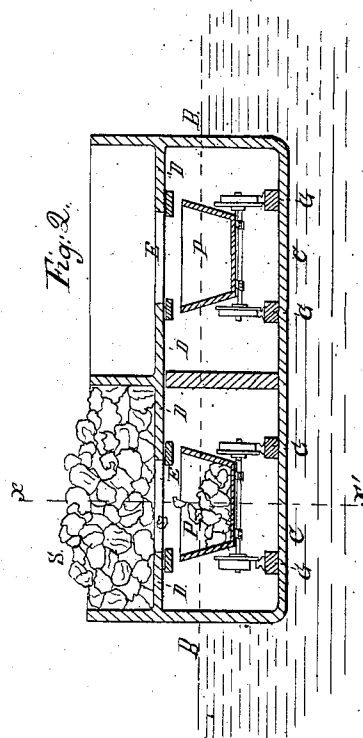
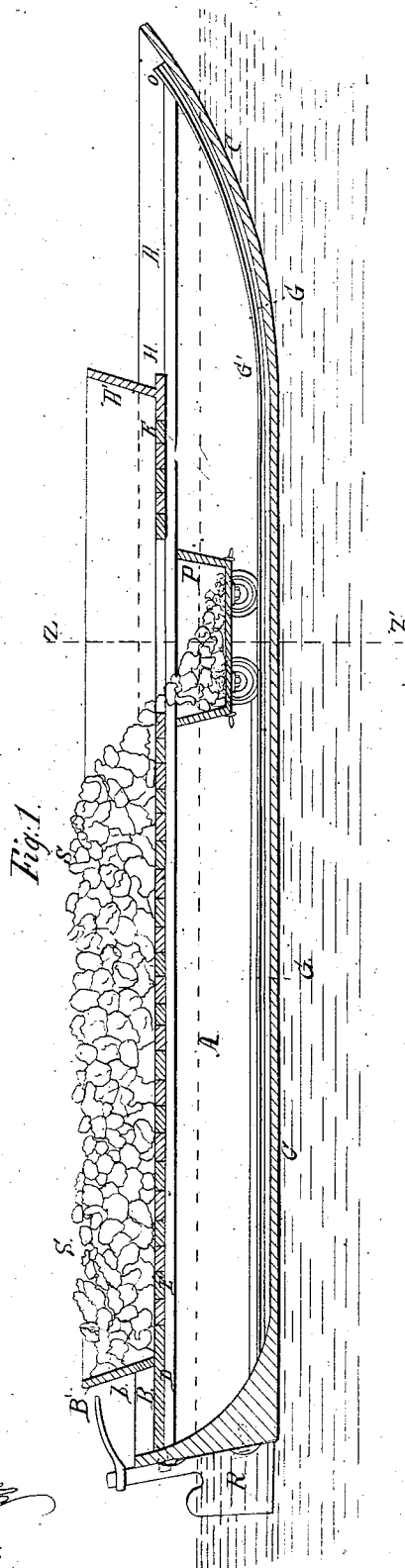


R. Hartley.

Scow.

No 103,607

Patented May 31, 1870.



Witnesses.
H. J. Gough
Camille Dwy.

Inventor.
R. Hartley

United States Patent Office.

ROGER HARTLEY, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO THE
AMERICAN COAL-BARGE COMPANY, OF BRISTOL, CONNECTICUT.

Letters Patent No. 303,607, dated May 31, 1870.

IMPROVEMENT IN COAL-BARGES.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, ROGER HARTLEY, of the city of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and Improved Coal-Barge; and I do hereby declare that the following is a full and exact description thereof, which will enable others skilled in the art to make and use my invention, reference being had to the accompanying drawings forming part of this specification, in which—

Figure 1 is a longitudinal sectional view of my improved coal-barge through the line $x x'$, and

Figure 2 is a transverse sectional view of the same through the line $z z'$.

The same letters of reference indicate like parts in the two figures.

My invention relates to that class of boats or flats known as coal-barges, which are used for transporting coal a short distance, and the object of my invention is to avoid the shoveling or other manual handling of the coal when unloading it from the coal-barge or coal-flat.

A is a coal-flat or barge built of any convenient shape or material as best adapted to the locality where it is to be used.

B B are the gunnels or sides; and

O O is the bottom planking.

D is the deck, which is formed of the parts D D D, which are stationary or permanently fastened, and of the part E E, which is formed of loose planks, resting rabbets or ledges provided for the purpose of receiving them. The planks E E E and α can be removed at pleasure, as will be explained below.

The deck D is properly stayed, supported, and braced by uprights, stanchions, fore-and-aft bulkheads, or braces, so that it can receive a load of coal without giving.

G G G G are stringers or fore-and-aft pieces of timber which run the whole or part of the whole length of the barge, and which are provided at their upper part or top with iron rails to protect them, and receive the wheels of coal wagons.

The deck D does not cover the entire length of the barge. At one end, either the stern or bow, it leaves a space, H O, uncovered and open, and in that open space the pieces G G G G and rails gradually raise upward, either according to the shape of the boat, as in my drawings, or by being supported on blocks, but in either case they raise gradually, so that the point G' is down to the general level of the railroad G all over the bottom of the barge, and the point O may be made to correspond with a stationary railroad fixed on a pier or any suitable landing.

P P are coal-wagons running on the rails G G G G, and having a free motion under the deck D in the hole of the coal-barge, so that they can be pushed to any part of the boat, and always be under the longitudinal hatches left between the parts D and D, and covered by the loose planking E E E.

R is the rudder; and

S S is the load of coal.

Operation.

The planking E E E being all put in place, the boat or flat is brought under a coal-scaffold and loaded in any of the ordinary ways; but the coal is placed on the deck in the bins formed by the gunnels B and the athwartship-bulkheads B' B'.

The barge is now floated to the spot where it is desired to unload the coal, and there it is moored and made fast in such way that the point O of the rails G G G G will match and correspond with a railroad of some kind susceptible of adapting itself and correspond with the railroads G G G G of the coal-barge.

The coal-wagons P P are now brought in the barge, and under the deck D, where the coal is loaded, so that by removing a portion of the loose planking E E, just over the wagon P, the coal will drop in said wagon; as represented in fig. 1.

As soon as the wagons P P are loaded they are pushed until they are at the point G', when they can be pulled up the inclined plane or part G' O, and out of the barge on the unloading railroad by steam or other motive power.

By repeating the operation the whole of the load of coal can be removed from the coal-barge in a short time, and without any shoveling or other handling of the coal.

I do not claim a barge or vessel in which rails are provided for a car to transport cargo from one point to another, but I am not aware of any previous instance where the vessel has been provided with an incline passing from above the water-line down to a roadway or tunnel beneath the bins or receptacles for the coal or cargo, so that the cars or carts, into which the material is received, can be drawn along such roadway up the incline and out of the barge or vessel.

I claim as my invention—

A barge or vessel with receptacles above a tunnel or roadway, combined with an incline at the end of the tunnel coming up above the water-line, substantially as and for the purposes set forth.

ROGER HARTLEY. [L S.]

Witnesses:

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