

(No Model.)

J. GOOD.
Grain Barge.

No. 233,748.

Patented Oct. 26, 1880.

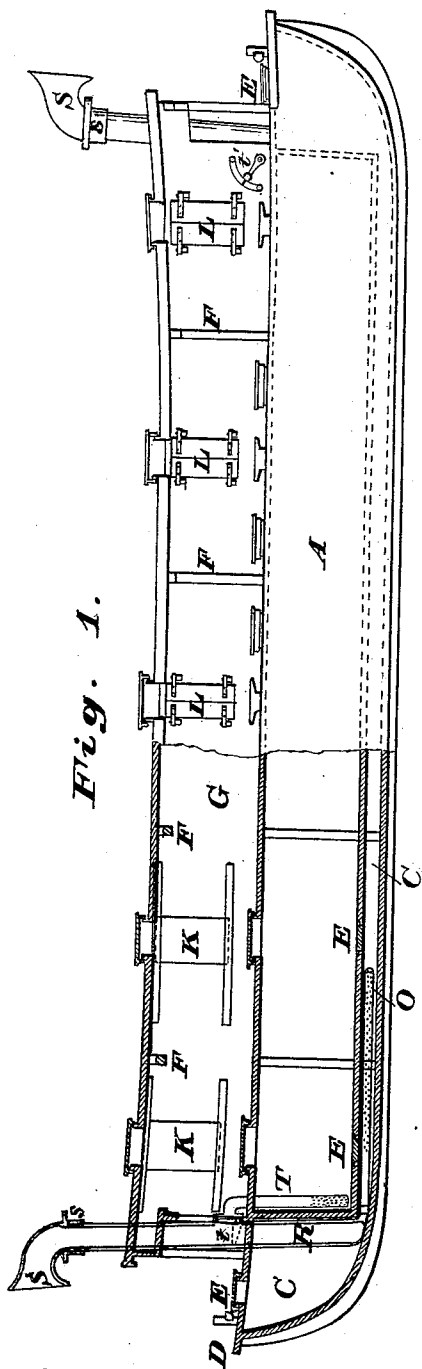


Fig. 1.

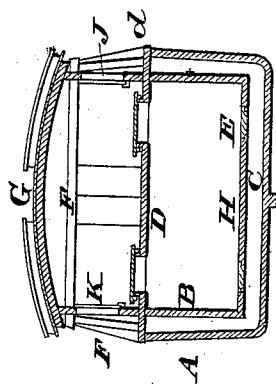


Fig. 3.

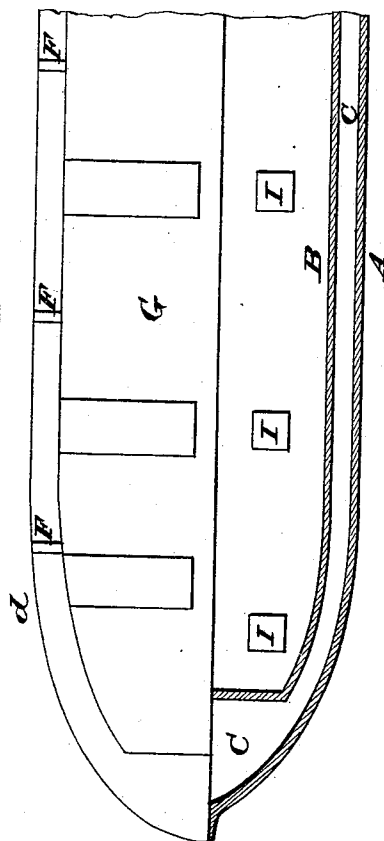


Fig. 2.

Attest.
P. Knight
Walter Allen

Inventor
James Good
By Knight Bros.
Atty.

UNITED STATES PATENT OFFICE.

JAMES GOOD, OF ST. LOUIS, MISSOURI, ASSIGNOR TO MISSISSIPPI VALLEY
TRANSPORTATION COMPANY.

GRAIN-BARGE.

SPECIFICATION forming part of Letters Patent No. 233,748, dated October 26, 1880.

Application filed July 23, 1880. (No model.)

To all whom it may concern:

Be it known that I, JAMES GOOD, of St. Louis, in the county of St. Louis and State of Missouri, have invented a new and useful Improvement in Grain-Barges, of which the following is a specification.

My improvement consists in providing at each end of the barge two or more trunks, whose lower end connects with the extreme bottom of the jacket of the barge, and is also connected by means of a branch pipe with the bottom of the hold, a valve having a suitable handle being furnished to connect either branch pipe with the main trunk.

In the accompanying drawings, Figure 1 is a part side elevation and part longitudinal section of a barge embodying my invention. Fig. 2 is a part top view and part horizontal section below the main deck of a portion of such a barge. Fig. 3 is a transverse section.

A is the shell, hull proper, or outer hull of my grain-barge. Supported within and firmly secured to hull A is my inner hull, B, constituting the vessel's hold.

The space, interstice, or jacket C, formed around and beneath the inner hull, B, by the inclosing-shell A, is covered by a deck, D, that projects over the interstice C, so as to form a guard, *d*.

Hatchways E in decks D and H permit access to said interstice C for any purpose, and also permit the insertion of siphon or other pumps or ejectors for rapid discharge of any bilge-water. Both hulls being made as near water-tight as possible and the interstice kept dry by pumping or otherwise, the cargo is effectually protected against wetting.

Erected upon and firmly framed to the guards *d* are gallow-frames or stanchions F, which support and securely brace a cargo-box, G, erected upon the main deck D.

It is intended that all the hatchways be provided with tightly-fitting caps I, capable of being securely fastened to prevent the passage of water.

The frame-work of the cargo-box is incased within and without. Its sides are pierced with port-holes J, which are closed within by sliding panels K and on the outside by shutters L.

A barge of this construction having become leaky from any cause can have its cargo-box, and usually also its hold, maintained clear of water, so as to preserve its grain or other contents from injury and to keep the craft afloat until it can be stranded in water shallow enough to place the cargo-box high and dry and its contents salvable in good condition.

In order to secure in the greatest degree the advantages above recited, I provide at each end of the barge one or more tubes or trunks, R, whose lower end communicates with the extreme bottom of the jacket C, and is perforated, as at O. The trunk R is surmounted with a bell-mouthed muzzle, S, secured by a screw-threaded collar, *s*.

A valve-guarded branch pipe, T, conducts from trunk R to bottom of hold B. The valve *t* of this branch pipe is operated by a suitable handle, *t'*. By operation of this handle the valve may either be placed in the position represented, so as to close the branch pipe, or it may be placed in position indicated by dotted lines, so as to open said branch pipe, and at the same instant to close the lower portion of the trunk and shut off communication with the jacket. In the condition of the parts here shown air is collected by that bell-mouth which is for the time being opposed to the wind, and is driven through the jacket and escapes by the trunk at the other end. By shifting the valve *t* a portion or all of the atmospheric contents of the trunk may in like manner be driven through the hold; or either trunk being connected with a blower, air may be artificially forced through either jacket or hold, or both.

After removal of the bell-mouth the suction of a steam or other exhaust pump may be either screwed to the top of the trunk or inserted within it, and made available to draw out any water that may have found its way into the jacket; or, by placing valve *t* in position shown by dotted lines, the same pump may be used to rid the hold of water.

This device proves to be especially adapted for the expeditious raising of stranded and partly sunken vessels in such shallow and changing channels as constitute the Mississippi and its affluents after a long drought. For

example, when one barge of a fleet or tow
springs a leak, effort is generally made to
strand her on the nearest sand-bar, and, if
practicable, at so shallow a depth as to place
5 her upper deck above water-level. Such op-
erations will be greatly facilitated by the con-
struction here described, and will liberate the
captain to proceed with the balance of his tow.
The abundant circulation of air which this
10 plan secures affords complete ventilation of
the grain and conduces to maintain the mate-
rials of the barge in sound condition.

I claim as new and of my invention—

The trunk R, communicating with the ex-
treme bottom of jacket C by branch pipe O, 15
and provided with a branch pipe, T, commu-
nicating with the bottom of the hold, and the
valve *t*, operated by a handle, *t'*, as and for
the purpose set forth.

In testimony of which invention I hereunto 20
set my hand.

JAS. GOOD.

Attest:

GEO. H. KNIGHT,
J. L. LOGAN.