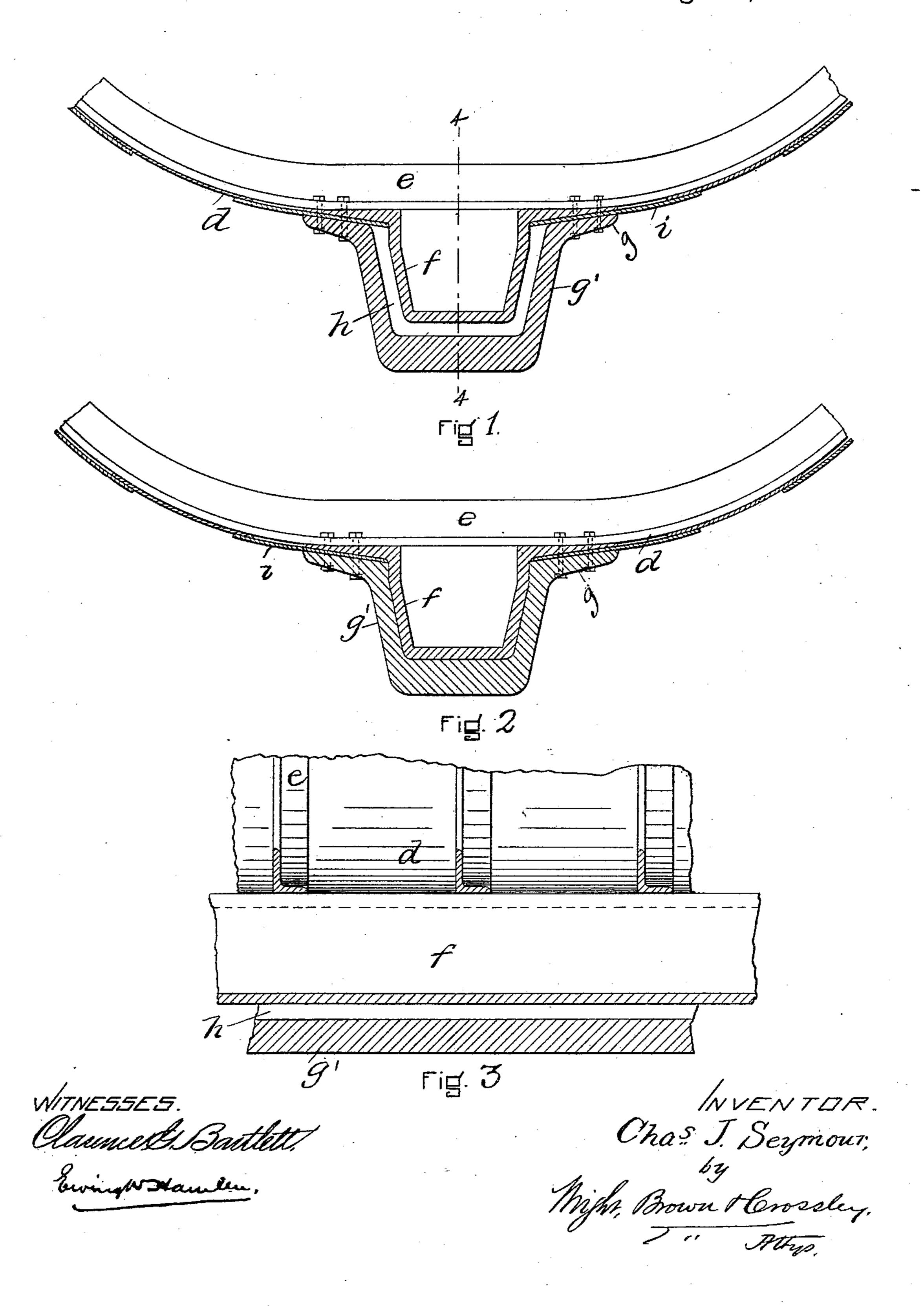
## C. J. SEYMOUR. BARGE OR OTHER VESSEL.

No. 457,622.

Patented Aug. 11, 1891.

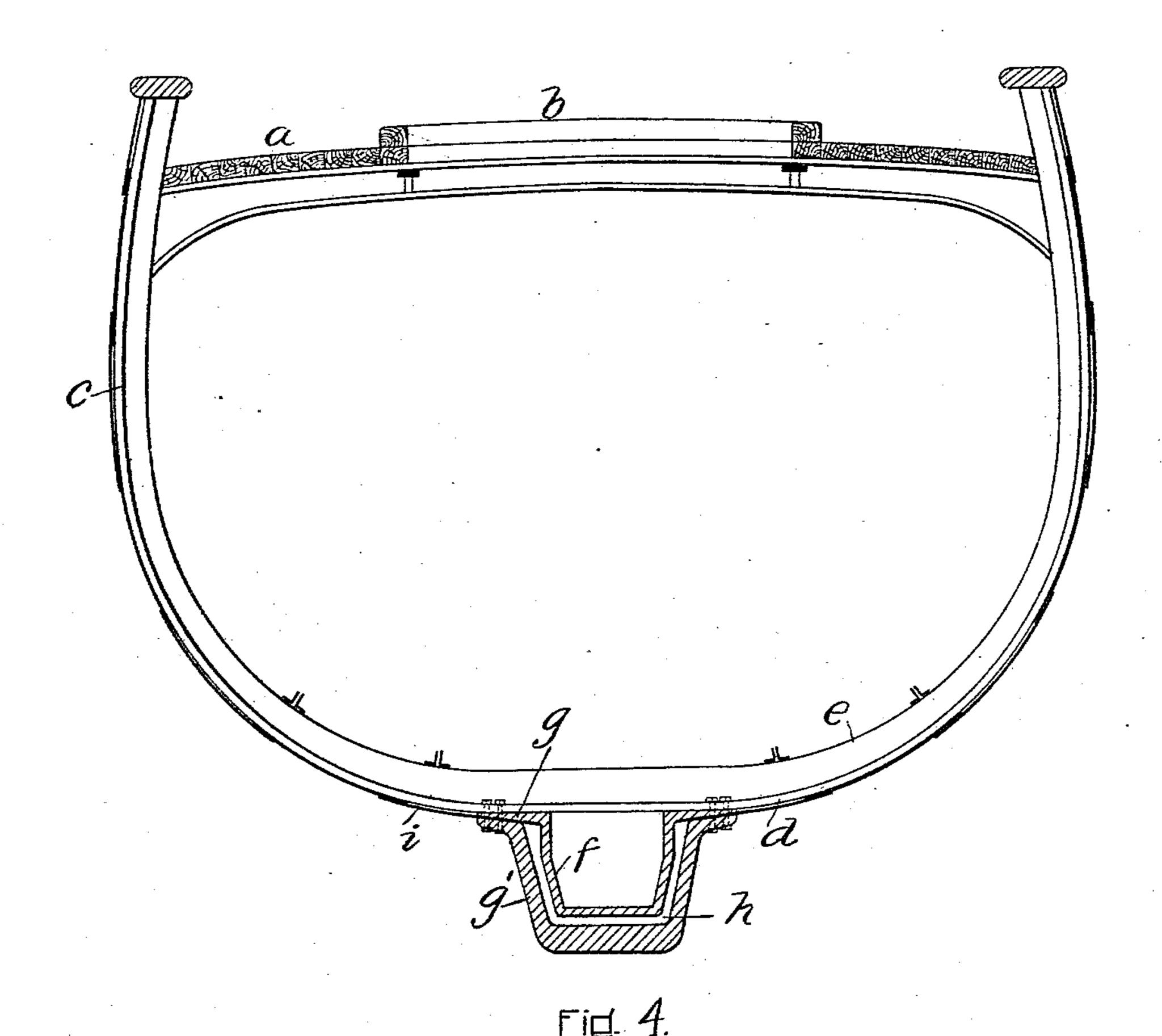


(No Model.)

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No. 457,622.

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WITNESSES. Olarencest. Bartlett Europessanden. INVENTUR.
Chas J. Seymour
Might, Brown Horosoley,

Mays.

## United States Patent Office.

CHARLES J. SEYMOUR, OF BROOKLINE, MASSACHUSETTS.

## BARGE OR OTHER VESSEL.

SPECIFICATION forming part of Letters Patent No. 457,622, dated August 11, 1891.

Application filed August 30, 1890. Serial No. 363,573. (No model.)

To all whom it may concern:

Be it known that I, CHARLES J. SEYMOUR, of Brookline, in the county of Norfolk and State of Massachusetts, have invented certain 5 new and useful Improvements in Barges and other Vessels, of which the following is a specification.

My invention relates to boats, barges, and vessels generally, and particularly to such 10 sea craft as are employed to transport grain, coal, &c.; and it has for its object the provision of a construction whereby the conveying devices for unloading the vessels may be employed at a point which will not raise the cen-15 ter of gravity of the boat, nor take up any part of the storage-room in the hold, nor weaken nor otherwise harm the strength of the vessel, but rather strengthen the same.

My invention consists in providing a ves-20 sel with a hollow keel, of metal or other material, below the framing-ribs of the vessel in such manner that it will form a trough or passage-way for conveying devices below the said ribs, and at the same time constitute a keel, 25 all as is hereinafter more fully set forth and claimed.

Reference is to be had to the annexed drawings, and to the letters of reference marked thereon, forming a part of this specification, 30 the same letters designating the same parts or features, as the case may be, wherever they occur.

Of the drawings, Figure 1 is a cross-section of a boat or barge constructed in accordance 35 with my invention. Fig. 2 is a like view of the keel and immediately adjacent portions, drawn to an enlarged scale. Fig. 3 is a detail sectional view taken on the line 4 4 of Fig. 1. Fig. 4 is a cross-section through a 40 barge equipped with my improvement.

In the drawings, a designates the deck of the vessel.

b is the hatchway.

c is the sides.

d is the bottom, and e are the ribs, which 45 may be constructed of angle-irons or other suitable materials.

The keel is made as a hollow trough f, having flanges g, which may be bolted to the ribs 50 e or other suitable part of the vessel below the bottom. The hollow or trough-shaped keel may be constructed of iron and be formed in sections properly jointed or connected, and may be protected by a guard g', of form simi-

lar to the trough-shaped keel f, and arranged 5 outside of or below the same at a short distance therefrom, so as to leave a space h between the keel f and the guard g', as is shown in Figs. 2 and 4, or the keel and guard may be arranged the one in contact with the other, 60 as is shown in Fig. 2. In either case the sheathing i on the outside of the boat or vessel at the keel may be secured between the flanges of the keel and guard, as is illustrated in the drawings.

An important feature of my invention resides in the fact that the keel is, in fact, hollow or open—that is, formed as a trough or passage-way for conveying devices which may be employed in unloading vessels, which con- 70 veying devices may be supplied with material through openings in the bottom of the vessel between the ribs e, communicating with the hollow keel, as is clearly shown in Fig. 3.

It is obvious that changes may be made in 75 the form and arrangement of parts and features comprising my invention without departing from the nature or spirit thereof.

Having thus described the nature of my invention and ascertained a way in which the 80 same may be constructed and used, I declare that what I claim is—

1. A vessel, boat, or barge provided with a hollow or trough-formed keel or passage-way below the bottom thereof and below the ribs 85 and openings in the bottom of the vessel communicating with the said hollow keel, as set forth.

2. A vessel, boat, or barge provided with a hollow or trough-formed keel or passage-way 90 below the bottom thereof, and a guard q' to the keel, arranged outside or below the same and conforming in shape to the outside surface of the said hollow keel, as set forth.

3. A vessel, boat, or barge provided with a 95 hollow or trough-formed keel or passage-way below the bottom thereof, a guard to the keel, arranged outside or below the same, and a sheathing secured at its lower point between the keel and keel-guard, as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 16th day of August, A. D. 1890.

CHARLES J. SEYMOUR.

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Witnesses:

ARTHUR W. CROSSLEY, EWING W. HAMLEN.