(No Model.)

H. SEE.

CONSTRUCTION OF ROADWAYS FOR VESSELS, &c.

No. 563,074. Patented June 30, 1896.

FIG. 1.

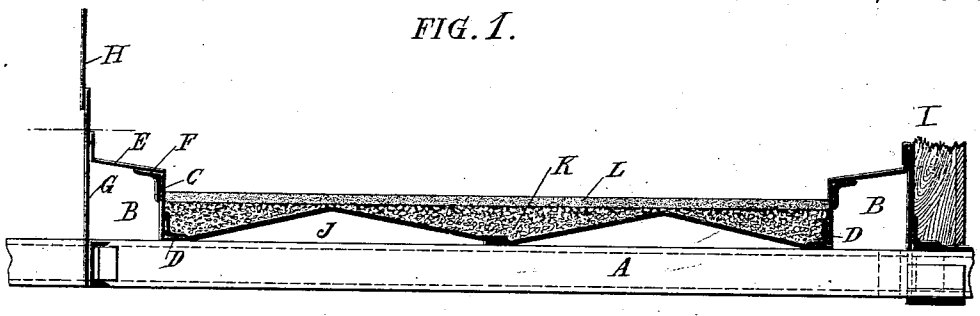
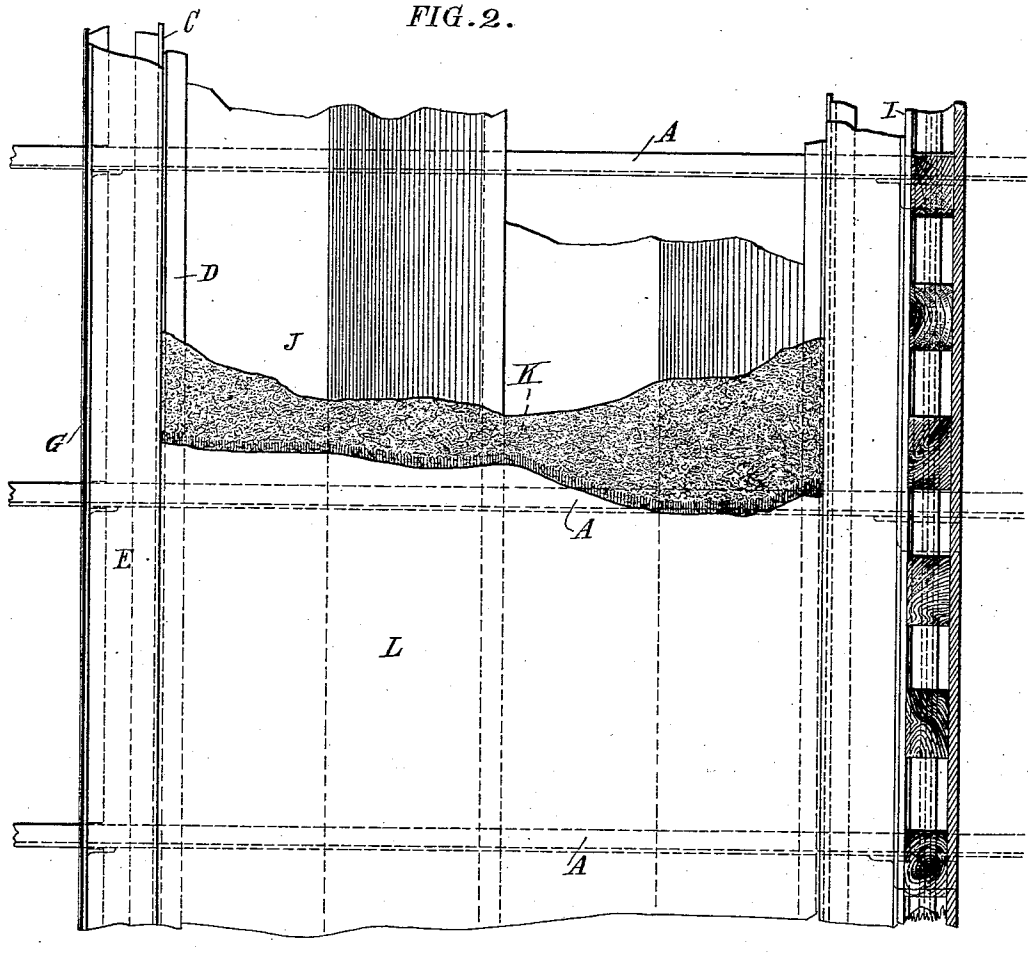


FIG. 2.



WITNESSES:

H. R. Moller

I. S. Van Wart

INVENTOR

Horace See

BY Lester Benjamin

his ATTORNEY.

ANDREW B. GRAHAM, PHOTO-LITHO. WASHINGTON D.C.

UNITED STATES PATENT OFFICE.

HORACE SEE, OF NEW YORK, N. Y.

CONSTRUCTION OF ROADWAYS FOR VESSELS, &c.

SPECIFICATION forming part of Letters Patent No. 563,074, dated June 30, 1896.

Application filed January 21, 1896. Serial No. 576,276. (No model.)

To all whom it may concern:

Be it known that I, HORACE SEE, of the city, county, and State of New York, have invented a new and useful Improvement in the Construction of Roadways for Vessels, Buildings, &c., of which the following is a specification.

The object of my invention is to provide a new mode of constructing roadways of concrete or asphalt or both upon the beams of buildings, or more particularly upon the beams of vessels.

My invention is intended especially for use in the construction of ferry-boats and other floating structures. On ferry-boats especially, owing to the great wear which comes upon the deck, forming the roadway, due to the transport of heavy loaded teams, it has been found very desirable to construct such roadways of asphalt, concrete, or like material which will resist the wear and at the same time not be subject to the objections attending the use of exposed metal plating. The construction of such a roadway, however, is attended with considerable difficulty and has not hitherto been accomplished. The strains to which such a roadway is subjected on a floating structure, due to the constant movement of the vessel, and to the fact that the structure is not a rigid one, are apt to cause breaking and cracking in the pavement of asphalt or like material, so that it speedily becomes unfit for use or requires constant care and renewal.

It will be seen that in my invention (which for the first time overcomes this difficulty) I provide a trough-like shell of metal plates, which shell comprises in itself both the coamings and the supporting metal deck or flooring, and that in the trough thus formed a pavement of asphalt or like material is placed. Such a shell as this, together with the asphalt on it, forms a sufficiently elastic structure, and one which will accommodate itself in sufficient degree to the internal movements of the hull, so that in practice I find that the asphalt does not become injured, as is the case when such an elastic arrangement is not provided.

My invention consists in the details of construction hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a transverse section, and Fig. 2 is a plan view, of my improved construction, the said plan view having parts broken away to show other parts beneath.

A A A represent the horizontal deck or floor beams. Resting upon these beams and separated by a distance equal to the desired width of the roadway are coamings B. Each coaming consists of a vertical metal plate C, which is secured to the beams A A, and an upper bent or flange plate E, which is secured to the plate C by angle-irons F, and a back plate G, which may be secured to any suitable support, as, for example, a wall or bulkhead, as indicated at H or I.

Between the coamings B and resting upon the beams A are metal plates J. These plates overlap each other at the central part of the roadway, and at their outer edges are connected to the plate C by angle-irons D. The plates J are preferably of angular form in cross-section, as shown in Fig. 1, but they may be flat.

It will be seen from the foregoing that a shallow trough is formed between the coamings above the plates J, and into this trough is packed first a layer of concrete K and above that a layer of asphalt L, which is made smooth. The top of the asphalt does not reach to the top of the coamings. The advantage of this construction is its simplicity, the entire absence of any wood therein, and also its lightness, which especially adapts it for marine use or on the elevated floors of buildings.

It will also be observed that both coamings and the roadway are open underneath, so that no space is afforded for the accumulation of dirt or moisture.

I claim—

1. The combination of supporting-beams, a pavement of asphalt, concrete or equivalent material thereon, and at each side of said pavement hollow metal coamings extending above the surface of said pavement and open on their under side, substantially as described.

2. The combination of supporting-beams, walls above said beams, a pavement of asphalt concrete or equivalent material resting on said beams, and on each side of said pavement, and, between said pavement and said walls, hollow metal coamings open on their under side and

extending above the surface of said pavement, substantially as described.

3. In a floating structure a roadway consisting of a trough-like shell of metal plates forming coamings on each side, and a flooring between said coamings; the said coamings being hollow and open beneath, and the said flooring being exposed on its under side, and within said trough-like shell a pavement of asphalt, concrete or equivalent material not extending above said coamings, substantially as described.

4. The combination in a floating structure of metal-supporting beams, bulkheads thereon, hollow metal coamings open on their under side and projecting inwardly between said bulkheads, and metal flooring on said beams extending between said coamings, and a pavement of asphalt, concrete or equivalent material on said flooring, and having its upper surface lower than the upper surface of said coamings, substantially as described.

5. The combination of supporting-beams, hollow metal coamings each consisting of a vertical plate C, a flanged upper plate F and a back plate G, plates J resting on said beams, means for rigidly connecting the outermost plates J to said coaming-plates C, and a pavement of asphalt, concrete or equivalent material on said plates and extending from coaming to coaming, substantially as described.

HORACE SEE.

Witnesses:
A. H. FRIES,
J. J. MEARA.