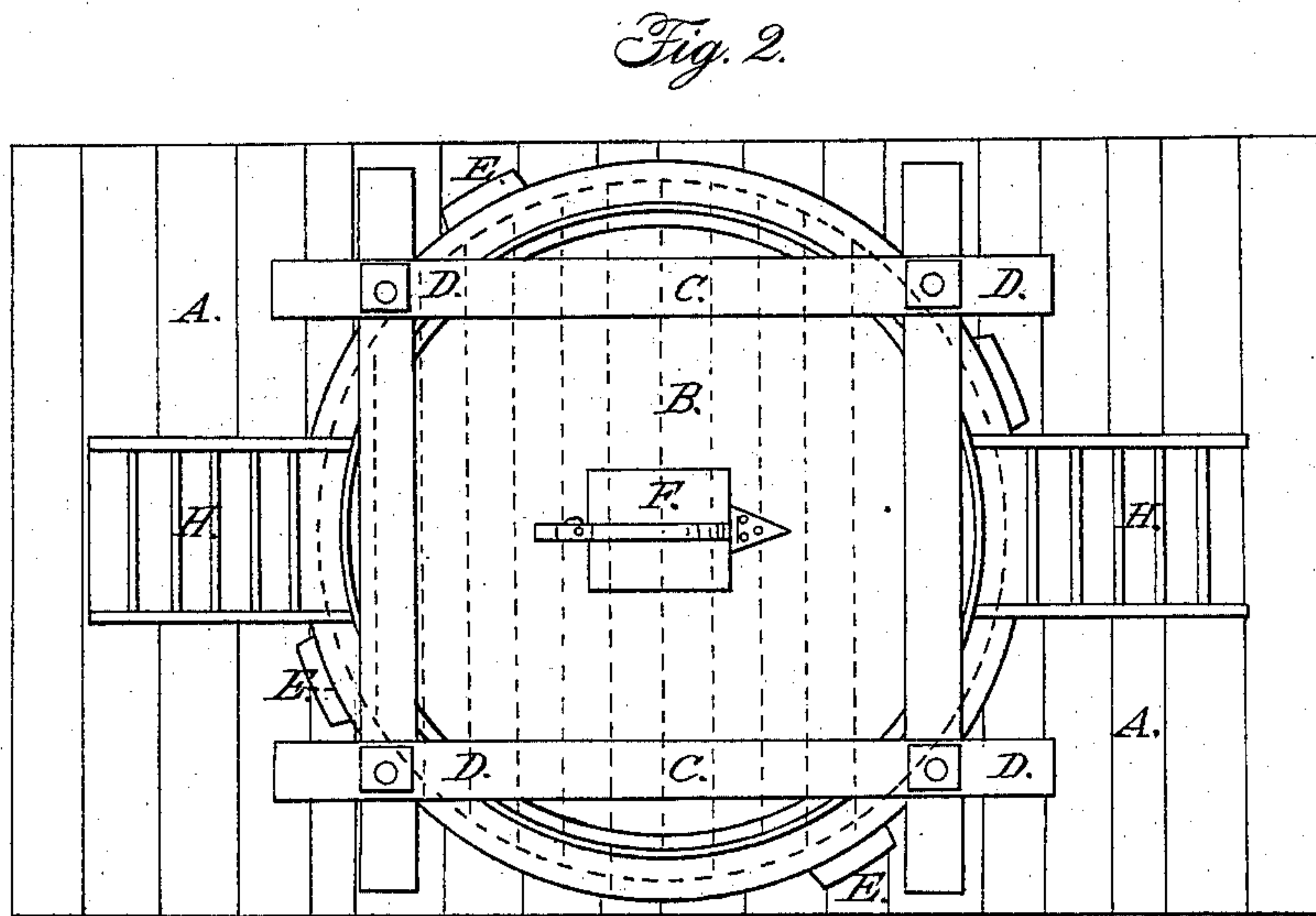
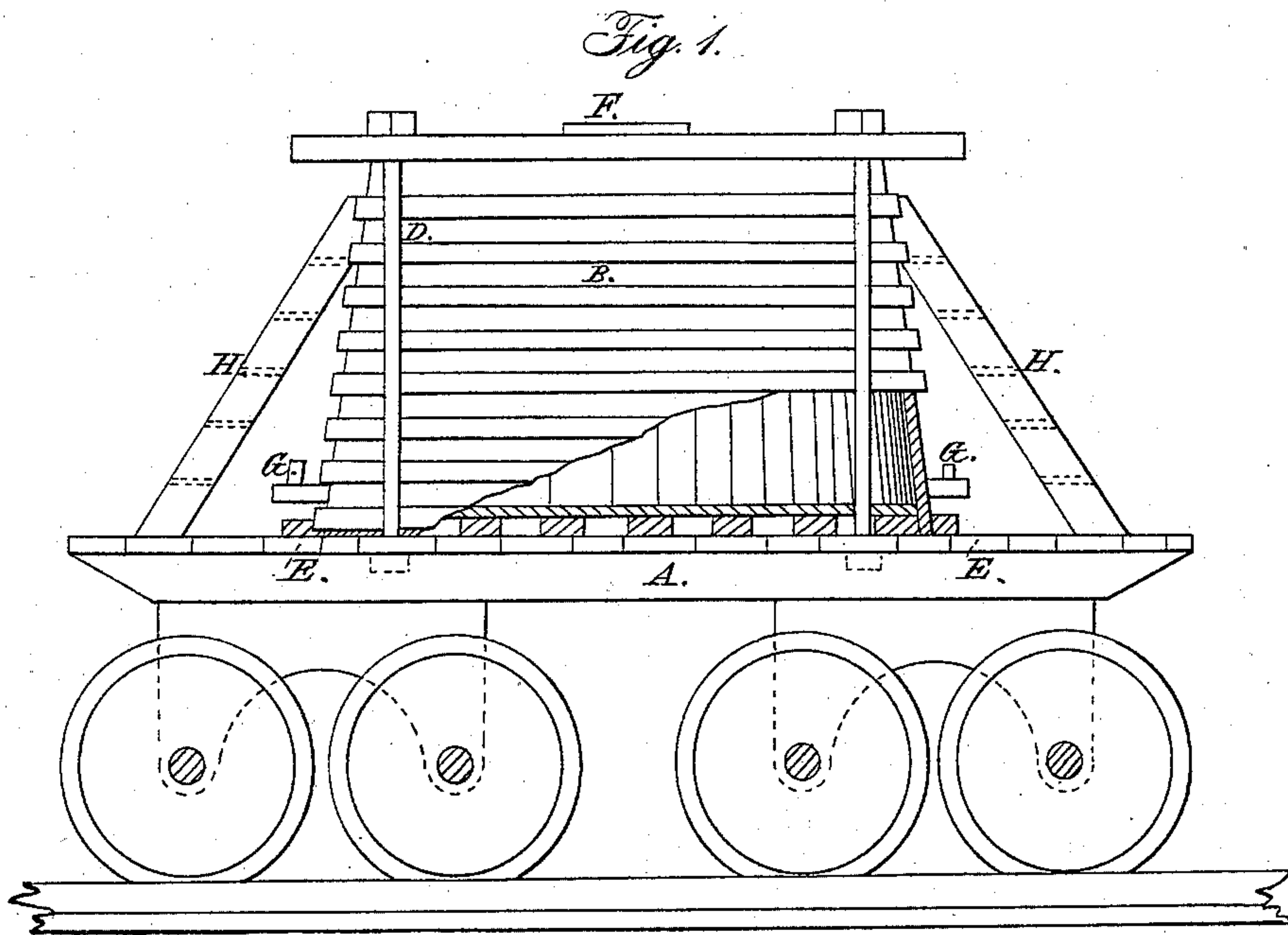


DENSMORE & YOST.

Freight Car.

No. 55,830.

Patented June 26, 1866.



Witnesses:

A. H. Yeakman.
W. Clayton.

Inventor:

Jas. Densmore.
Geo. W. Yost. by Atty.
W. Clayton.

UNITED STATES PATENT OFFICE.

J. DENSMORE, OF MEADVILLE, AND G. W. N. YOST, OF CORRY, PA.

IMPROVED CAR FOR TRANSPORTING PETROLEUM.

Specification forming part of Letters Patent No. 55,830, dated June 26, 1866.

To all whom it may concern:

Be it known that we, JAMES DENSMORE, of Meadville, and GEORGE W. N. YOST, of Corry, Pennsylvania, have invented a new and Improved Tank-Car for Carrying Petroleum or Other Liquid Substances in Bulk on Railways; and the description thereof hereinafter written we declare to be full and exact.

Our invention is a combination of the invention of James Densmore and Amos Densmore of a two-tank car, for which a patent was granted to them and issued on the 10th day of April, 1866, and of our invention of an improvement and modification thereof of a one-tank car, for which we have made an application for a patent simultaneously herewith; and it consists of three light, tight, firm tanks, of wood or iron or other material, combined with the platform of a common railway flat car so fastened and attached as to make them a fixed and component part of the car, so as to carry the substance in bulk instead of in barrels, casks, or other vessels or packages, as has been done universally heretofore, and thereby save carrying the weight of the barrels, casks, or other vessels or packages.

Our combination is a three-tank car, instead of a one-tank car or a two-tank car; and it consists of three tanks attached to and made part of the platform of a common flat car—one upon the middle of the platform, and one at each end directly over the trucks—and is peculiarly adapted to such railway flat cars as those whose platforms are so narrow as not to admit of round tanks of a diameter great enough to hold five to six tons to the tank of the substance to be carried without making the tanks greater in height than is practically desirable; but it is readily adaptable to and can be used upon flat cars with platforms of any width.

In the accompanying drawings, Figure 1 is a side view, and Fig. 2 is a top view, of our invention; and the following full and exact description of the construction and operation thereof will enable others to make and use it.

Upon the car-platform A A A put three firm, light, tight tanks, B B B, round, elliptical, square, or of other form, of wood staves, hooped, or of sheet-iron, riveted and calked, or of any other firm light material; but for lightness, simplicity, durability, and cheap-

ness combined hooped wood staves are preferable. Put one tank on each end of the platform, directly over each truck, and one directly upon the middle. If round or square, make the bottom diameter of the tanks equal to the diameter of the platform; if oblong, make the conjugate diameter equal to the diameter of the platform, and the transverse diameter as much greater as is practicable to lessen the height as much as is desirable and still obtain the requisite capacity. Make a top as well as bottom end or head to the tanks. If of staves, let the chines of the bottoms project just two inches below the bottom heads, and put three to five cleats two inches thick upon the bottom heads transversely to the staves or planks thereof, even and flush with the ends of the bottom chines, to serve as solid bearers for the bottom heads to rest on when the tanks are full.

On the tops of the tanks, resting upon the top chines, put square frames of four bars each, C C C, C C C, and C C C, and of such a size that the center of each of the four corners of each frame will be directly over the outside edge of the tanks. Through the corners of these frames, and close to the outsides of the tanks, put the three sets of bolts, D D D D, D D D D, and D D D D, and down through the platform.

Fasten and press the tanks to the car by screws and collars or washers upon the ends of the bolts below the platform and above the corners of the frames. The frames and bolts, when pressed and screwed tightly, while they fasten the tanks to the car, act at the same time as guys or braces, and tend to prevent the tanks from jarring and being affected by the swaying motion of the car while running. Around each tank, and close against the bottom, bolt four heavy cleats or stops, E E E E, E E E E, and E E E E, to keep the tanks firmly in their places, and to prevent any sudden stopping or starting of the car from moving them therefrom.

In the top heads of the tanks cut man-holes, through which to pour in the substance to be carried, and for a man to get into the tanks for any purpose. Around the man-holes put casings projecting two inches above the top surfaces of the top heads, and over the man-holes and casings put covers or man-heads

F F F, with staples and hasps with which to fasten them down, the casings and man-heads to be fitted on closely and tightly, so as to prevent all water, rain, snow, dirt, or other thing from running, leaking, or falling into the tanks and mixing with the substance to be carried therein. At some point on the outsides of the tanks, on a plane with the top surface of the bottom heads, insert faucets G G G, through which to draw off the contents of the tanks.

Up the sides next the ends of the platform of the two tanks (over the two trucks of the car) put steps H H, and across the spaces between the tanks and the tops thereof put runway-planks I I, so that the brakeman or other person can pass over the car with facility.

What we claim as our invention, and desire to secure by Letters Patent, is—

The combination of the two-tank car with the one-tank car, being the three tanks B B B, attached to and combined with the car-platform A A A by means of the frames C C C C, C C C C, and C C C C and the bolts D D D D, D D D D, and D D D D, when constructed in the combination hereinbefore described, and for the application to the purposes hereinbefore written, or when done by any other mechanical construction substantially the same and which will produce the same results.

JAMES DENSMORE.
GEORGE W. N. YOST.

Witnesses:

JO. C. CLAYTON,
L. E. GUIGNON.