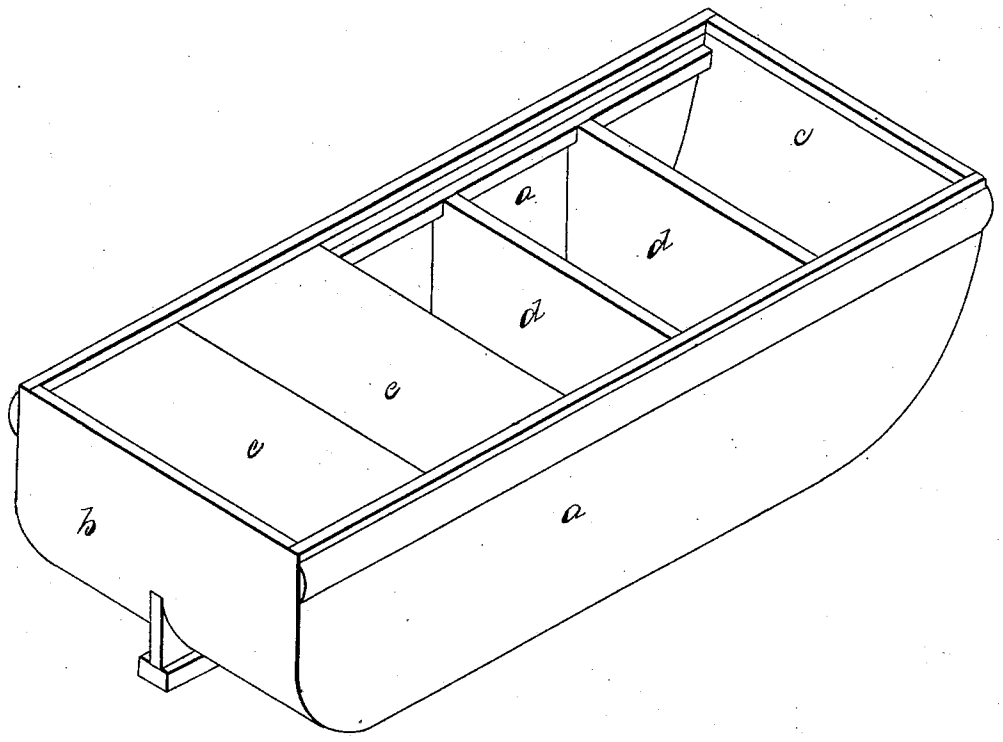
R. C. Glyde,

Vessel for Transporting Oil.

No. 34,359. Patented Feb. 11, 1862.



Witnesses

James H. Bailey

M. G. Cushing

Inventor:

Richard C. Glyde

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

RICHARD C. GLYDE, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN VESSELS FOR TRANSPORTATION OF CARBON AND OTHER OILS.

Specification forming part of Letters Patent No. **34,359**, dated February 11, 1862.

To all whom it may concern:

Be it known that I, RICHARD C. GLYDE, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in the Mode of Transporting Carbon Oil; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the annexed drawing, forming part of this specification, which represents a boat, a vessel designed for conveying carbon-oil in bulk from place to place by water.

The oil which is procured in large quantities in certain localities in the United States by boring into the earth, commonly known as "carbon oil" or "petroleum," is ordinarily put into barrels and thus transported from the wells to market. The barrels used for this purpose must be of the very best and most expensive kind, made of oak, tightly fitted together, and then coated inside with glue to prevent the leakage of the oil, which is of so penetrating a character that a tight oak barrel without the glue coating is ineffectual to prevent a serious loss by wastage of the oil through the pores of the wood. The costliness of these barrels and the necessity of carrying them back from the oil market to the wells, often a very great distance, is a very serious drawback to the value of the oil, which is now found in such large quantities that its market price is greatly reduced without a corresponding diminution of the expense of barreling and transportation. It so happens that the oil is generally found near some stream or river, often shallow, but generally navigable for small boats of light draft. It is therefore generally taken to market by water, but hitherto in barrels such as described, which are too costly to throw away and have to be carried back empty in boats. Here, therefore, is an indication of a want of some cheap and efficient mode of conveying the oil by water in bulk to avoid the trouble and expense of barreling at the wells. The simplest plan would be of course to pour the oil into small flat-bottomed boats, well calked to prevent leakage. This plan will not answer, however, with boats of ordinary construction, for the following reasons: In shallow streams where ripples occur the boat is liable to have one end or the other tilted up, the result of which would be that the oil being in bulk and in a large quantity would flow suddenly to the lower end inside of the vessel and overflow the sides of the boat, resulting in a frequent and considerable loss. If the stream on which the boat were floating were deep enough for steamboats, and the oil-boats were towed along, the waves caused by the steamboat would cause such a rocking of the oil-boat as would result in like manner in the overflow and loss of oil; or, if the waves of water washed over the sides of the oil-boat the water would sink to the bottom of the boat, displacing the oil, which would thereby be lost. To obviate these difficulties and render practicable the transportation of carbon oil by water, I have contrived an oil-boat or vessel which is represented in the accompanying drawing, and which I will proceed to describe.

The boat may be made of any convenient size or shape; but I prefer to make it with a flat bottom, with sides parallel, or nearly so, in order to gain the greater capacity with the least possible draft. The boat should be tightly built and well calked.

In the drawing, *a a* are the sides of the boat; *b*, the stern, and *c* the bow or forward end. At intervals of a few feet apart I place partitions *d d*, which are fitted closely to the sides and bottom of the boat, and rise nearly to the level of the top of its sides, as seen in the drawing. By this means I divide the boat into a number of compartment of the width of the boat, but very short. The oil is poured into these compartments, which may be filled up nearly to their brim with the fluid. Now, it is manifest that in case of the tilting of the boat by passing over a ripple or shoal place in the stream the difference in height of the oil at the opposite ends of each compartment will be very slight, being as much less in each compartment than it would be in the whole boat without compartments, as the length of each compartment is less than the length of the whole boat. Besides this, the division of the oil into separate portions prevents the violent surging of the fluid contents of the boat, which would result from the motion of the boat, and which would swamp it if the oil were in one mass.

In order still further to prevent any loss of oil by the longitudinal motion or side rocking of the boat, or by the breaking of water over its sides, I cover each compartment with a deck-head, *e*. These deck-heads extend from

the center of one partition *d* to the center of the next one, so that the deck-heads are supported by the partitions. These deck-heads may be fitted so closely as to prevent the oil from passing up between them, and are a great advantage in diminishing the loss of oil by evaporation.

Having thus described my improvement, what I claim as my invention, and desire to secure by Letters Patent, is—

1. The use, for the transportation of oil in bulk, of boats divided by partitions into separate compartments, substantially in the manner hereinbefore described.

2. The use, for the transportation of oil in bulk, of boats divided into compartments covered over with deck-heads, in the manner substantially as hereinbefore described.

In testimony whereof I, the said RICHARD C. GLYDE, have hereunto set my hand.

RICHARD C. GLYDE.

Witnesses:

JAMES M. BAILEY,

M. G. CUSHING.