UNITED STATES PATENT OFFICE.

ARTHUR E. STILWELL, OF KANSAS CITY, MISSOURI.

OYSTER OR FISH CAR.

SPECIFICATION forming part of Letters Patent No. 609,370, dated August 16, 1898.
Application filed January 15, 1898.
Serial No. 669,740. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR E. STILWELL, residing at Kansas City, Jackson county, State of Missouri, have invented certain new and useful Improvements in Oyster or Fish Cars, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to oyster and fish cars; and it consists of the novel construction, combination, and arrangement of parts hereinafter shown, described, and claimed.

Figure 1 is a side elevation of the body of an oyster and fish car constructed in accordance with the principles of my invention, a portion thereof being in section in order to more clearly illustrate the same. Fig. 2 is a top plan view of my improved oyster and fish car. Fig. 3 is an end elevation thereof. Fig. 4 is an enlarged transverse sectional view taken approximately on the line 4 of Fig. 2. Fig. 5 is an enlarged sectional view taken approximately on the line 5 of Fig. 2 and showing one of the caps which normally closes the receiving-openings of the car, being loaded. Fig. 6 is a view in perspective of a swinging gate that is used as a chute while the contents of the car are being discharged. Fig. 7 is an enlarged detail sectional view taken approximately on the line 7 of Fig. 1 and showing the outlet-door swung open and the gate swung downwardly in position to form a chute. Fig. 8 is an enlarged side elevation of a portion of the cap, which view is taken looking in the direction indicated by the arrow 8 in Fig. 4. Fig. 9 is a side elevation of the upper portion of the cap opposite from the side seen in Fig. 8, and said view being taken looking in the direction indicated by the arrow 9 in Fig. 4. Fig. 10 is an enlarged detail sectional view taken approximately on the line 10 of Fig. 4.

In the construction of my improved oyster and fish car I make use of a series of longitudinally-extending timbers 1, suitably framed together at their ends by the transverse timbers 3, and the base or frame thus formed may be strengthened by suitable truss-rods 5 or in any manner well known to the car-builders' art. Framed into and extending upwardly from the four corners of the base are corner-posts 4, between which are arranged at suitable intervals vertical posts 5, and between certain of said vertical posts are arranged suitable braces 6. The longitudinally-extending side timbers 7 connect all of the posts and braces on the sides 60 of the structure thus formed, and said side timbers 7 are framed together at their ends by the transverse timbers 8, which timbers are framed to the vertical posts and braces at the ends of the structure. Thus a rectangular skeleton frame for my improved car is formed.

The floor of my improved car is constructed of the transversely-extending timbers 9, the side faces of said timbers being formed at 70 slight angles relative to the top and bottom faces and in such a manner as to make the top faces of said timbers somewhat narrower than the bottom faces. Thus when said timbers are laid side by side to form the floor there will be V-shaped spaces formed between said timbers. The timbers extend from the outside pair of longitudinally-extending timbers near to the center of the car, and the meeting inner ends of said timbers are elevated. In this manner the floor is formed, which gradually descends from the center each way to the side walls of the car. The meeting ends of these floor-timbers 8 are held together by means of nails or bolts or in any suitable manner, while their outer ends are rigidly held to the outer pair of transversely-extending timbers 1 by means of nails or bolts.

The side walls 10 of my improved car are constructed of timbers which are formed in every way similar to the floor-timbers, the timbers of said side walls extending longitudinally of said car and being fixed in any suitable manner to the vertical posts 5 and braces 6. The ends of the timbers comprising the side walls of the car are held by nails or bolts to the corner-posts 4. The end walls 11 of the car are constructed of timbers in every way similar to the timbers of the floor and side walls, and the timbers forming said end walls extend transversely of the car-body and are fixed to the inside of the posts 5 and braces 6 at the ends of the car-body.
The timbers forming the end walls just described are secured at their ends to the corner posts of the car by means of nails or bolts or in any suitable manner.

5 The roof 12 is constructed of timbers in every way similar to the timbers of the floor and side walls, which roof-timbers extend longitudinally of the car and are supported by transversely-extending timbers 13, which are framed to the under side of the side timbers 7 of the top frame of the car-body.

The timbers comprising the roof of the car just described are secured at their ends by means of nails or bolts to the transversely-arranged end timbers 8.

A suitable runway 14 is located upon and extends longitudinally across the top of the car at a point midway between the side walls thereof.

20 Located at suitable intervals throughout the length of the car are transverse partitions 15, which perform the function of breakwaters. These partitions are so constructed that spaces are left between the timbers of said partitions, thus allowing the water within the car to readily flow from one compartment to the other. These partitions very effectually prevent the body of water within the car from being forcibly thrown or dashed from one end of the car to the other during any rough travel or jerking that the car might receive in its travel, and said partitions also prevent the oysters and fish within the car from being thrown or gravitated into one end of the car, which action might ensue while the car is being hauled roughly up or down grade or being "bumped" around in the railroad-yards in making up the train.

Formed in the side walls 10 of the car at suitable intervals are rectangular openings 16, which openings are immediately above the floor of said car, and said openings are normally closed by hinged doors 17, the same being provided with suitable means whereby they may be locked when open. The doors are arranged in a pair of doors for each compartment of the car or each space set off by the partitions 15, and said doors are preferably arranged directly opposite one another in the side walls 10.

Sheet-metal gates 18 are constructed of the base portions 19 and wings 20, bent at right angles to said base portions, and one of said gates is pivoted in each one of the openings 16 in such a manner that when the door is closed the portion 19 of said gate will occupy a vertical position immediately in front of the inner face of the door 17, while the wings 20 of said gate extend out from the car, the lower edges of said wings resting directly upon the floor 9. When the car-door is open, these gates 18 may be swung outwardly until the portions 19 assume a horizontal position and the wings 20 vertical positions, and in this manner suitable chutes are formed which are of great assistance in removing the contents of the car.

Formed in the roof 12 of the car at suitable points are circular openings 21, and fixed to the top of the car-roof and extending upwardly therefrom and inclining said openings 21 are heavy sheet-metal cylinders 22. Said inlet-cylinders 22 are normally closed by the caps 23, which telescope into said inlet-cylinders, and each of said caps is provided with a hooded ventilator 24 of suitable construction.

A hasp 25, carried by each of the caps 23, is arranged to engage a staple 26, carried by each inlet-cylinder 22, and rods 27 are carried by said caps 23, which rods extend downwardly through lugs 28, fixed to the exterior 80 of the inlet-cylinders 22, opposite from the staples 26. These rods 27 are of such a length that they will remain in said lugs 28 when the caps 23 have been raised out of the inlet-cylinders 22. When said caps have been so raised, they may be swung laterally around behind the inlet-cylinders 22 and allowed to rest upon the runway 14. Said caps are swung into this position when the cargo is being loaded into the car. It is my intention to locate a space between the inlet-cylinders 22 and ventilator-caps in the roof above each compartment of the car, although more or less cylinders and caps therefor may be used.

The V-shaped spaces between the timbers 95 comprising the walls and floor of my improved car may be caulked, if desired, or filled with a suitable material which will soon harden, and thus a perfectly water-tight car is constructed, which is one of the objects of my invention. In some instances, if the timbers of the floor and sides of the car are properly constructed, it will not be necessary to caulk the spaces between the same, as the water which is carried by the car will cause said timbers to slightly swell, and thus make water-tight joints between all of said timbers.

It is my intention to load a car of my improved construction at a seaport with a cargo of oysters and fish and with a sufficient amount of water from which said oysters and fish will later on be removed by means of a sluice to some interior destination as rapidly as possible, thus delivering the oysters and fish to the market in a comparatively fresh and native state.

My improved car is simple in construction, comparatively light in weight, and affords very effective, simple, and convenient means whereby fresh oysters, fish, and the like may be transported a long distance and kept in a comparatively fresh state.

By providing the ventilators 24 in the tops of the caps 23 the air within the interior of the car is always fresh. By opening the doors 17 and holding or locking the gates 18 in their upright or closed positions the water within the car may be drawn off without discharging any of the oysters or fish. After said water is drawn off 130 the gates may be lowered and said oysters and fish readily removed through said doors and through said gates, which now perform the function of chutes.
Although I have shown and described a certain construction in carrying out the spirit of my invention, I do not desire to be limited to the construction shown and described, as other constructions may be employed as suitable for carrying out my invention as the one herein described. For instance, the breakwater-partitions in place of being open for the transmission of water from one compartment to the other may be water-tight—that is, I can so construct my car as to have a water-tight receptacle provided with water-tight compartments, and each of said compartments being provided with a receiving and discharge orifice or opening. Again, the receiving-orifice may be modified, the only necessary requirement being to have some suitable receiving-orifice and means for closing and ventilating the same.

The doors and means for locking the same may be modified, the only necessary requirement being to have some suitable means of being made water-tight, and the discharge-openings and the doors for the same may be one or a series; also, the receiving-orifices may be one or a series, the main object of my invention being to provide certain mechanical means adapted to transport oysters and fish in their native element and preserve the same in their native state.

I claim—

1. In an oyster and fish car, a water-tight car-body constructed with receiving-openings in the top, discharge-openings in its sides adjacent its bottom, which bottom is constructed of transverse timbers slightly inclined from the sides of the car to the center thereof, substantially as specified.

2. In an oyster and fish car, a water-tight car-body and breakwater-partitions arranged transversely within said car-body, substantially as specified.

3. In an oyster and fish car, a water-tight car-body, in the top of which is formed the receiving-openings, and ventilator-caps normally closing said openings, substantially as specified.

4. In an oyster and fish car, a water-tight car-body, breakwater-partitions arranged transversely within said car-body, in the top of which car-body is formed a plurality of receiving-openings, and ventilator-caps normally closing said openings, substantially as specified.

5. In an oyster and fish car, a water-tight car-body constructed with discharge-openings in its sides adjacent its bottom, doors normally closing said openings, and gates hinged in said openings so as to close when the doors are closed and to swing downwardly and form discharge-chutes when said doors are open, substantially as specified.

6. In combination with an oyster and fish car having discharge-openings formed in its sides, the gate 18 provided with the wings 20, 65 which gate swings in the opening and forms a chute for the discharge of the contents of the car, substantially as specified.

7. In an oyster and fish car, a water-tight car-body, in the top of which body is formed ventilated receiving-openings and in the sides of which car-body is formed a series of discharge-openings, doors normally closing said discharge-openings, partitions arranged transversely within the car-body, and gates hinged in the discharge-openings in front of the doors therefor, which gates swing downwardly to form chutes when the doors are open, substantially as specified.

8. In an oyster and fish car, a water-tight car-body, a series of partitions arranged transversely within said car-body thus forming compartments, in the top of each compartment in said car-body there being formed a plurality of receiving-openings, ventilated covers for said openings, and in the side walls of each compartment of the car there being formed discharge-openings, doors normally closing said discharge-openings, and gates hinged in said openings, which gates swing downwardly and form discharge-chutes when the doors are open, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

Witnesses:

ARTHUR E. STILWELL.

EDGAR J. MAYER,
E. S. MOSHER.