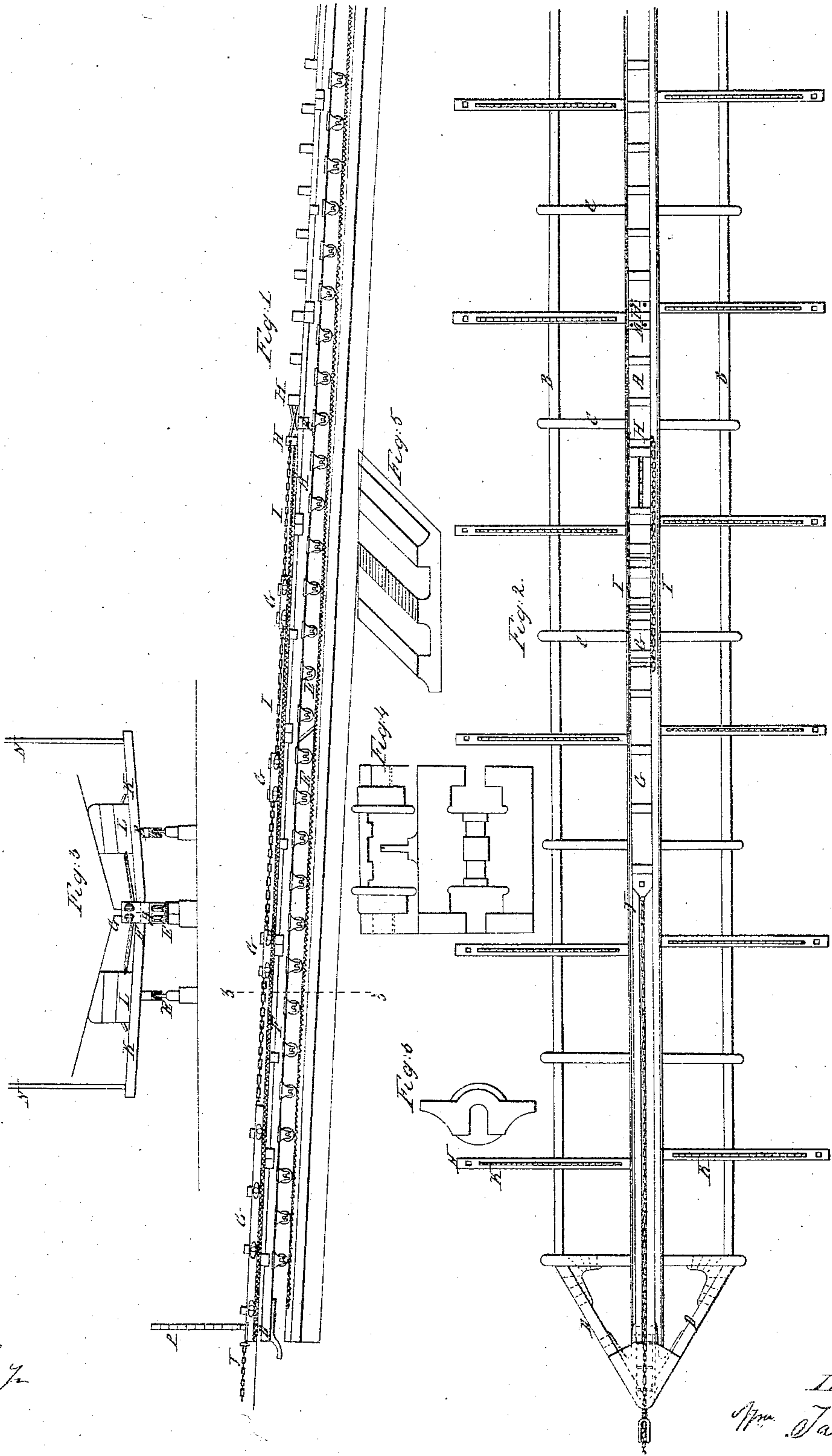


W. Talbot.

Marine Railway.

N^o 41,452.

Patented Feb. 2, 1864.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM TALBERT, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN MARINE RAILWAYS.

Specification forming part of Letters Patent No. 41,452, dated February 2, 1864.

To all whom it may concern:

Be it known that I, WILLIAM TALBERT, of the city and county of Washington, and District of Columbia, have invented certain new and useful Improvements in Marine Railways; and I do hereby declare that the same are described and represented in the following specification and drawings.

To enable others skilled in the art to make and use my improvements, I will proceed to describe their construction and operation, referring to the drawings, in which the same letters indicate like parts in each of the figures.

Figure 1 is a side elevation of a marine railway with my improvements, and showing the movable blocks or cars in their proper places to support a vessel on the cradle. Fig. 2 is a plan or top view showing the movable blocks or cars run together next to the stationary blocks, ready to take on a vessel. Fig. 3 is a cross-section on *z z*, Fig. 1. Fig. 4 is the under side of the movable block or car; Fig. 5, a portion of the track; Fig. 6, a wheel axle, and box.

The nature of my invention and improvements in marine railways consists in making a railway or track on the cradle for about one-half its length at the upper end, and providing one, two, three, or a series of movable blocks or cars to run on said railway-track, which movable blocks or cars are so constructed and connected by chains fastened to each side that they may be placed together on the lower end of the railway-track, (when the cradle is run down or placed at the foot of the marine railway,) where the fore foot of a vessel is placed on the upper movable block or car, which is drawn up, taking the vessel with it onto the cradle, and when the first block has moved a proper distance the chains start the second movable block, and when that has moved a proper distance the chains start the third block, and so on in succession, until all the movable blocks are properly placed and arranged under the keel of the vessel and she has been drawn onto the cradle.

In the accompanying drawings, which represent a marine railway with a cradle upon it provided with my improvements, A is the center piece, and B B the side rails, of the cradle, which are connected together by the bars C C, which have scores cut across them so as to lock onto the center piece and side rails; and there are also scores cut in the cen-

ter piece and rails to receive the bars C C, and they are all bolted together, making a strong frame or cradle. The side pieces, C C, at the upper end of the cradle, are connected to the center piece, A, by the diagonal bars D D, which are firmly fastened to the center piece and side rails, and also to the upper bar C by knees and straps, which are strongly bolted to them, and also by metal plates placed top and bottom and bolted through, as shown in the drawings. On the under side of the center piece and side rails a series of stands are fastened and provided with wheels E E, which roll on the marine railway-track as the cradle is moved up and down the track. On the top of the upper portion of the center piece, A, for about one-half its length, (more or less,) I fasten a railway-track, F, provided with a rack between the rails. The movable blocks or cars G G are provided with wheels to run on the track F, which cars are connected to each other and to the first stationary block H by the chains I I, and when the cars are run to the lower end of the track these chains fall each side of the center piece, A, and troughs may be arranged on the center piece to receive them. The first or upper car G is made twice as long as the others, to receive the fore foot of the vessel; and this car is provided with an eyebolt or staple, J, by which it is drawn on the rail-track F. Between the stationary block H and the lower end of the cradle there are a series of stationary blocks, H H, as shown in the drawings, fastened to the center piece, A.

There are a series of scores in the center piece, A, and corresponding scores in the side rails, B B, for the ways K K of the bilge-blocks L L, which ways may be made in the form shown in the drawings, and the ends at the center piece are held down by the track F, and by the brackets M M below the track F, toward the lower end of the cradle.

The ways K K are fastened to the rails B B by knees fastened to the side rails to hold them in their proper places. There are some rails fastened on the ways K K with a rack in the middle for the pawls on the bilge-blocks, which run on the rails and are held down by brackets fastened to the bilge-blocks, so as to project under the rails on the ways. There are some standards, N N, at the ends of the ways K K, to which standards the lines which

traverse the bilge-blocks and raise the pawls to them are fastened, and some pulleys may be fastened to the ways K K to guide the bilge-block lines. A pawl is attached to the rear or lower end of each of the cars G G, which falls into the rack between the track F to prevent the cars from running back when they are drawn up, and the upper car, which receives the fore foot of the vessel, may have six or more wheels under it. On the upper end of the upper car I erect a graduated standard, P, as shown in the drawings.

To use my improvements in taking a vessel up on a railway, I run all the movable blocks or cars against each other at the lower end of the track F, and then run the cradle down the railway until the standard P on the upper car indicates sufficient water on the upper car to receive the fore foot of the vessel, and then haul the fore foot of the vessel onto the upper car, and apply power to the car and haul it up on the track F, drawing the vessel with it, and as the chain, which connect the cars are drawn tight or straight the cars move forward in succession and are arranged at proper distances in succession on the track. When the vessel has been hauled her whole length on the cradle, the power is applied to the cradle, and it is drawn up on the railway; and when it is apparent that the keel of the vessel at the stern rests on the cradle, so as to lift her up in the water, the bilge blocks

should be hauled under to hold the vessel upright on the cradle. When the cars are drawn up on the track F, the pawls on the rear ends of the cars catch in the rack between the track F and hold the cars from running back. When the vessel is ready to be launched, the pawls on the cars must be all triced or tied up, so as to leave the cars free to run to the lower end of the track F as the vessel runs off of the cradle.

I believe I have described and represented the improvements in marine railways which I have invented so as to enable any person skilled in the art to make and use them without further invention or experiment.

I will now state what I desire to secure by Letters Patent—to wit:

1. In combination with the cradle of a marine railway, a rail-track on the cradle, with one, two, three, or movable blocks or cars, for the purpose of taking the fore foot of a vessel, with the vessel itself, onto the cradle, substantially as described.

2. In combination with the above-mentioned movable blocks or cars, the chains which connect the cars and place them at proper distances apart under the vessel as she is drawn onto the cradle, substantially as described.

WM. TALBERT.

Witnesses:

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