

(No Model.)

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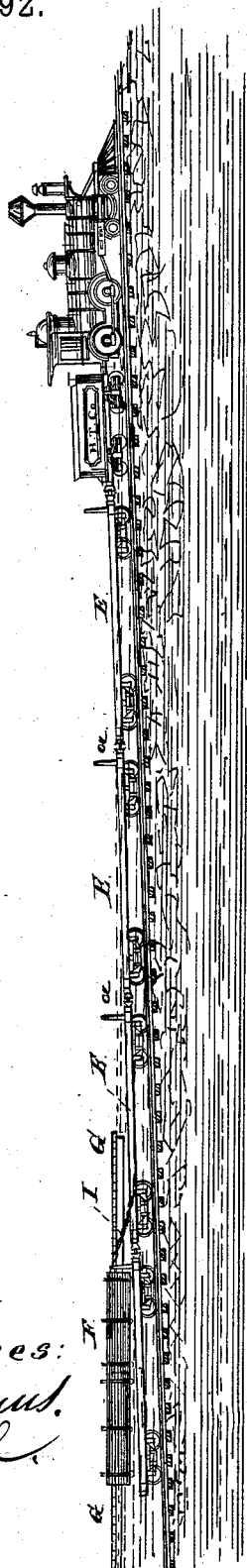
S. T. McKNIGHT.

DEVICE FOR LOADING AND LANDING FLOATING LUMBER CRIBS.

No. 264,892.

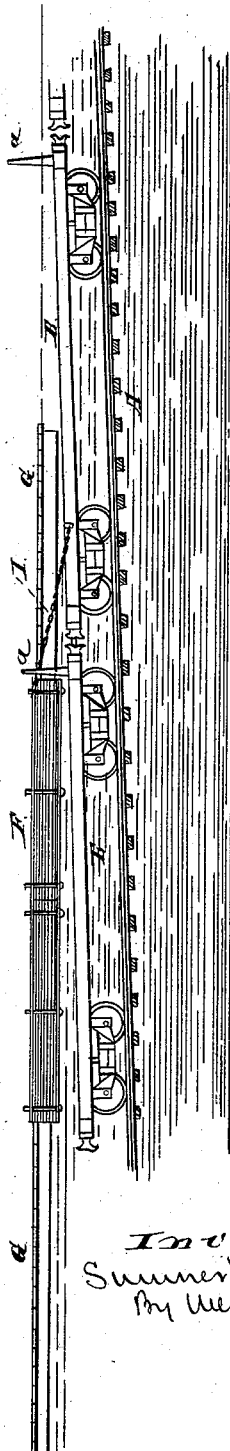
Patented Sept. 26, 1882.

Fig. 1.



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Fig. 2.



Inventor:
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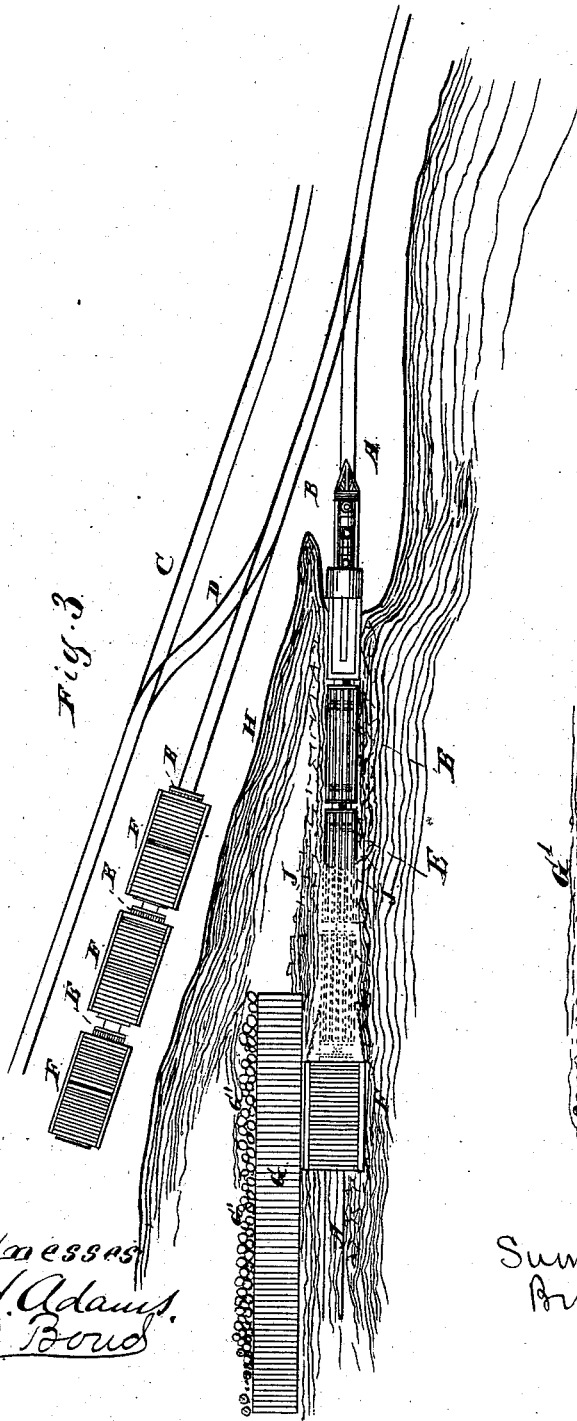
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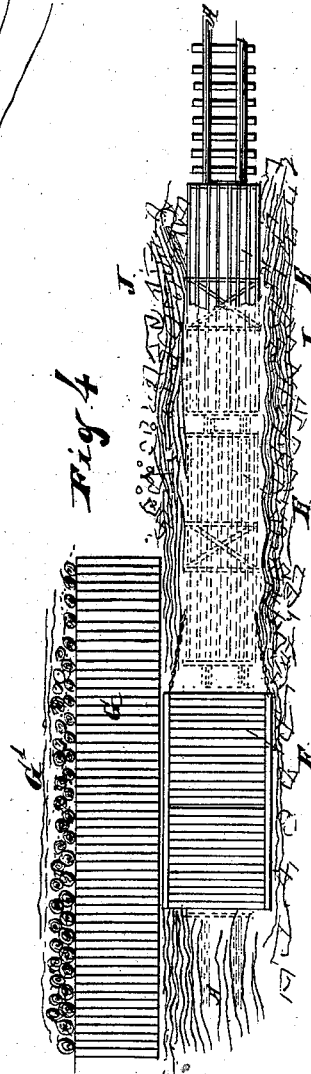
S. T. McKNIGHT.

DEVICE FOR LOADING AND LANDING FLOATING LUMBER CRIBS,
No. 264,892. Patented Sept. 26, 1883.

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Witnesses
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(No Model.)

3 Sheets—Sheet 3.

S. T. McKNIGHT.

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Fig. 5.

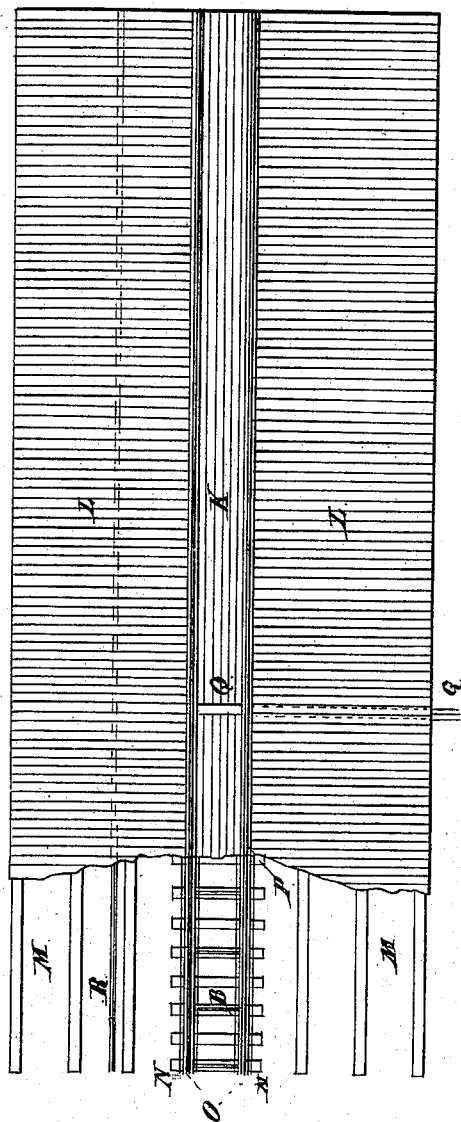


Fig. 6.



Fig. 7.



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UNITED STATES PATENT OFFICE.

SUMNER T. MCKNIGHT, OF HANNIBAL, MISSOURI.

DEVICE FOR LOADING AND LANDING FLOATING LUMBER-CRIBS.

SPECIFICATION forming part of Letters Patent No. 264,892, dated September 26, 1882.

Application filed August 18, 1882. (No model.)

To all whom it may concern:

Be it known that I, SUMNER T. MCKNIGHT, residing at Hannibal, in the county of Marion and State of Missouri, and a citizen of the United States, have invented new and useful Improvements in Means for Loading and Landing Floating Lumber-Cribs, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figures 1 and 2 are side elevations of a sunken train of platform-cars in position for loading a crib; Figs. 3 and 4, front views, showing the arrangement of tracks and floating dock; Fig. 5, a plan of the parts used for washing lumber; Fig. 6, a longitudinal section, and Fig. 7 a cross-section.

The object of this invention is to take cribs of lumber from running streams of water without the trouble or difficulty of landing them on the bank or of taking the cribs to pieces in the water and to clean the lumber after it is taken out; and its nature consists in sinking a sufficient length of railway-tracks in water a sufficient depth to enable a platform or car to be run under a floating crib, or for floating a crib over a car when in position; in the method of hitching the floating crib to the cars to prevent it from "ducking;" in the arrangement of tracks by which the work may be conveniently and rapidly accomplished; in providing means for conveniently washing the lumber so taken out with its mud, sand, or other dirt, and in the several combinations hereinafter set forth and claimed as new.

In the drawings, A indicates the sunken track; B, C, and D, bank or shore tracks; E, platform car or cars; F, lumber-cribs; G, floating dock; G', piling; H, water-line; I, chain; J, ballast; K, middle platform; L, side platform; M, supports or stringers upon which the platforms L are supported; N, railway bars or rails; O, stringers underneath the rail; P, space between the platforms L and the tread of the rails; Q, water or conduit; R, water pipe or hose, and a guide-stakes at the front end of the platform-cars for adjusting the lengthwise position of the platform or flat in relation to the crib to be landed.

The several land or shore tracks are laid in the usual manner, and are provided with the

necessary switches for the operation herein-after described.

The sunken or submerged track is constructed in the usual manner; and in addition to the usual structure it has an additional rail at each side as guard-rails, which rails act as an extra precaution for keeping the cars on the track as against any lateral pressure, which may be created by running water and by any tendency to float. This double-rail track is sunken, and in order to prevent the riffling of the water caused by its introduction into a running stream from washing it away at one side so as to move or dip the structure I cover or fill it with the ballast J, and extend such ballast from one to twelve feet beyond the ends of the ties, according to the strength of the current or the tendency of the soil to wash. When thus finished there is no tendency in the stream to move the track or to so wash as to misplace it. The length of the track and its angle with reference to the bank of the stream or water will be controlled, to a considerable extent, by the depth of the water and the pitch of the bottom, it being understood that the track will be long enough to permit a car to sink sufficiently at its outer end in water to receive its load in low water, and a train of platform-cars or flats will be made up long enough to reach the proper position. If the stream is shallow, it will require a larger number, and if the banks are steep it will require a less number, of cars in the stream to enable the last one to be placed in the proper position. Alongside of this submerged track a floating dock, G, is placed, which, if it is permanently anchored, will be made long enough to take the crib above the car at varying stages of water. The principal office of the floating dock is that of a guide for bringing the lumber-cribs into position by means of the current of the stream or river. This floating dock may be made of two or more timbers held in position by planks spiked or nailed thereto; or it may be made of two or more timbers fastened together. It is usually, however, of sufficient floating capacity to allow one or more persons to move with freedom along its length. This floating dock may be held in position by supports from the bank by anchors

and chains or by piles, or otherwise, as may be desired; but in either case it will be so held that it can be adjusted to the line of the rails when the varying stages of water are sufficient to carry its guide-line too far out of the way in rising or falling.

The submerged track A is connected with the bank or shore track B in the proper place by an ordinary switch. This track B is provided with a parallel track, C, and the two tracks are connected together by the siding or switch-track D, as shown, or in other substantially similar manner, which manner will be varied to suit the condition of the banks and other conditions of the locality in which it is placed.

In operation a sufficient number of empty cars from which to make up the loaded train are placed on the track C. A train of three or more cars, according to the required distance, is made up and taken to the submerged track, down which it is backed until the last car is in the position shown at Fig. 2. The lumber-raft, having been hitched to the shore above the floating dock G, has one or more cribs, according to the length of the lumber, detached from it, which crib is guided down against the floating platform over the car E, which platform, with the aid of the attendants and the current, keeps the crib in position until it can be attached by the chains I to the car by the guide-stakes *a*, which are made strong enough for the strain, or to the car or flat in front of the one which has received it. This method of attaching the crib high up or to the car forward of the car which is to receive it is important, as by so attaching it ducking is prevented, and it will not get down and get under or entangled with the floating platform, so that it will not get out of its proper position for forming the load of the car which receives it, for with the amount of lumber which is usually placed in one of these cribs it will be difficult without machinery to properly balance the crib on the car after it has been landed. When the crib has been brought to the right position, and the car backed to receive it, the chains are made fast to the crib and the engine started. The weight of the crib gets gradually onto the car, and as it nears the shore it is lifted from the water and drawn out and switched back onto the track B, where it is detached and left to stand until a sufficient number of cars have been loaded for a train. When the loaded car is detached the engine and the empty cars back down the switch-track D, and take another car and back it under, pull out a crib, and continue the operation until the raft is all landed or a sufficient train made up, when they are hauled out and delivered to the lumber-yards, or to such stations along the line of the road as may be desired. It will be seen by this arrangement of tracks that by the use of a submerged track with a floating guide-platform a lumber-raft made up of cribs can be expeditiously and accurately loaded on the cars, drawn out, the cars made

into a train, and the lumber delivered at the desired point or points with a great saving of time and the avoidance of the disagreeable labor in water and the slow handling of wet boards.

I have shown and described my improvements as adapted to running streams of water, where they are the most applicable and the most easily worked. It will, however, be understood that they can be used with any body of water where cribs are floated, and also where there is no current, as the cribs may be rowed, towed, or otherwise brought against the guide-platform G, so as to be properly over the car. When lumber has been floated down a running stream of water the cribs usually become sanded, and the spaces between the boards filled with sand, mud, or other filth, which it is important to remove; and as it would be difficult to wash the crib after it has been loaded upon the car and landed, I have devised and provided means for effectually washing the cribs and for disposing of the water used in such washing. This part of my improvement is usually located in the yard when the lumber is to be stacked for storage or drying, and in constructing this I place the platform K between the rails at the end of the track and crowd it up in the center to carry the water to the rails, and I provide side platforms, L, at the sides of the track, inclined downward, as shown at Fig. 7. The rails N are laid upon thin wide stringers O, which are usually timbers three by ten inches in thickness and width, so that the planks of the platforms may be spiked to these stringers at the edge of the tread of the rails, and by laying the inner ends of the planks where they come in contact with the stringers in asphalt or other suitable cement openings or drains P are made between the inner edges of the platform and the rails, which carry off the water which flows down and prevents it from coming under the platform of the track and keeping the ground wet and soft. These conduits or passages P are connected at one or more suitable places with side pipes or drafts, Q, which conduct the water to a proper place for its escape. Water is brought to the proper position by the pipe or hose R, with which other pipe or hose may be connected so as to wash the crib, and, if necessary, wash each lower board as the one above it is removed, and the stronger the head of water employed the more perfect and complete the washing will be.

Instead of the platform K, a water-passage formed of cement and stone or of stone or brick, where the soil is suitable, may be used therein, so as to form a water-passage under the ties, into which all of the water may be permitted to flow. By this arrangement lumber can be cleaned as fast as it can be removed for the purpose of stacking for storage or drying, and by the use of my entire system of lifting, transporting, and washing lumber great economy is had in the handling of lumber-cribs transported by floating, and the lum-

ber, when dry and fit for use, is nearly, if not quite, as clean as though it had not been placed in the water after the sawing.

What I claim as new, and desire to secure by Letters Patent, is as follows:

1. The combination of the submerged track A with the floating dock or guide G, for locating and loading floating cribs on cars, substantially as specified.
2. The combination of the submerged track A with the tracks B, C, and D, whereby a loaded train can be made up by means of a partly-unloaded one, substantially as specified.
3. The combination and arrangement of the chains I, having an elevated or forward hitch, with the crib F, to prevent the ducking of the crib, substantially as set forth.
4. The combination of the floating dock or guide G with the piles or stops G' and means for adjusting the edge of the dock with the

line of the submerged rails, substantially as described.

5. The combination of the track B with the platforms L, substantially as and for the purpose specified.

6. The stringers O and rails N, in combination with the platforms L L and K and conduit Q, substantially as specified.

7. The combination of the platforms L with the rail N and stringer O, for forming the gutter P, substantially as described.

8. The combination and arrangement of the platform K, rails N, and stringers O with the inwardly-inclined platforms L and pipe or hose R, substantially as and for the purposes specified.

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Witnesses:

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