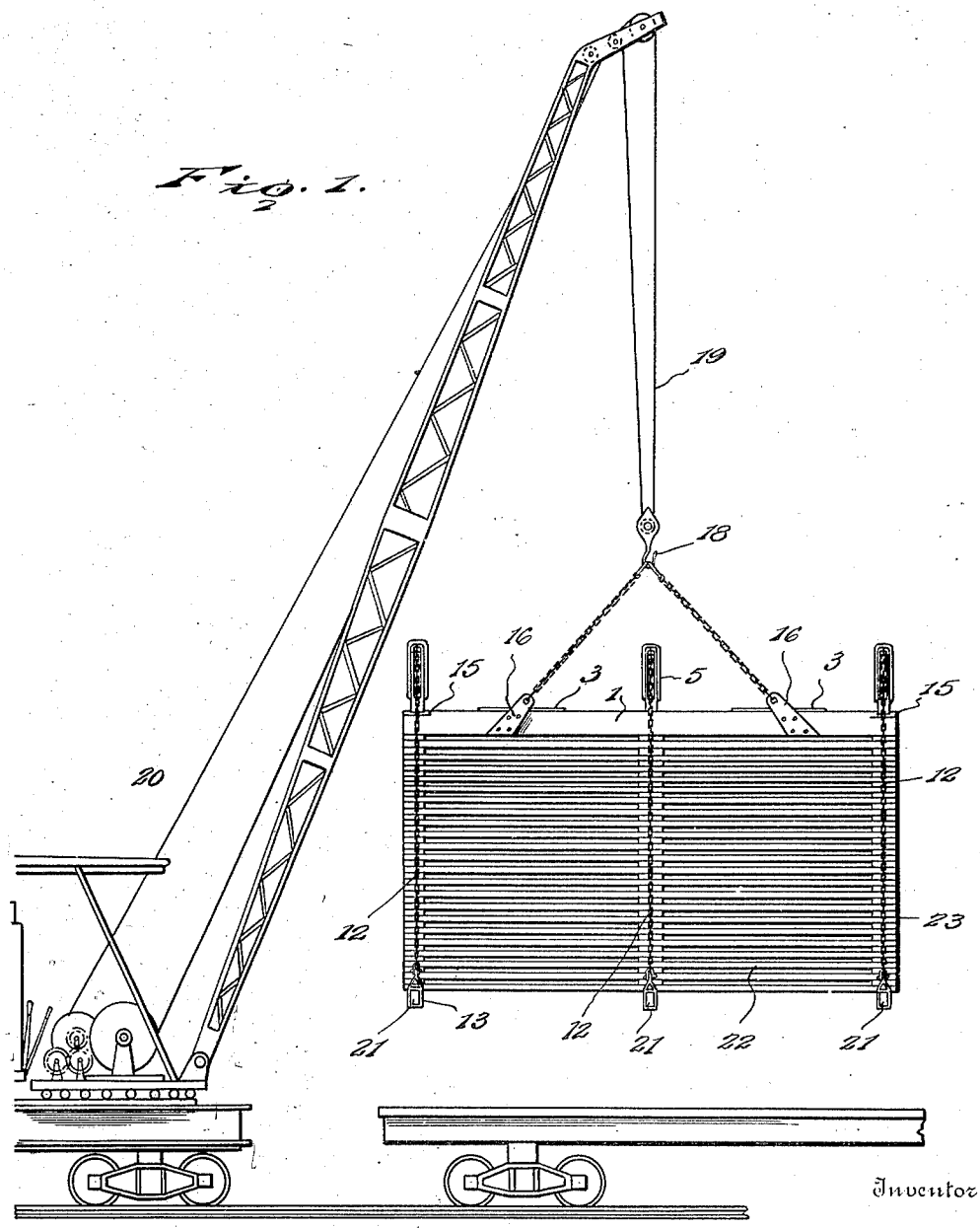
June 10, 1930. E. W. HUTCHINGS 1,762,271

LUMBER CRADLE.

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Fig. 1.



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Fig. 2.

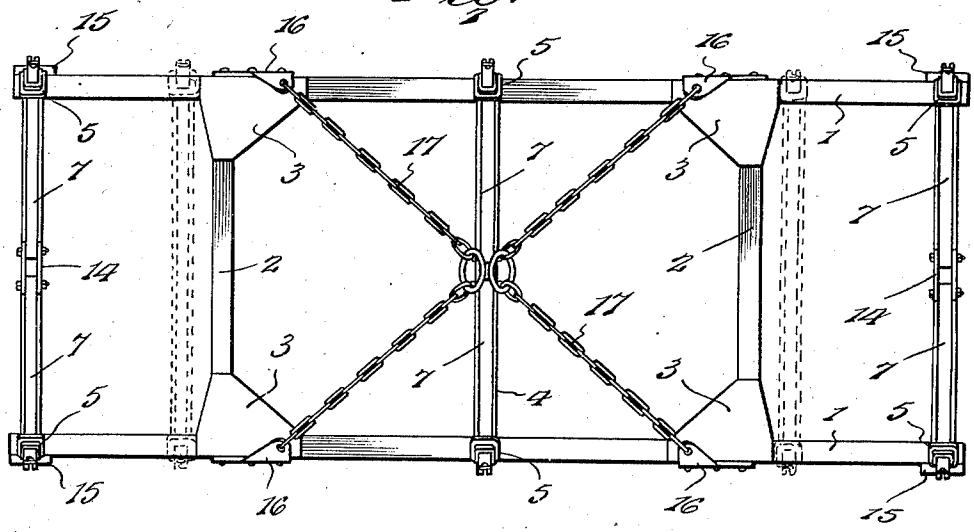


Fig. 3.

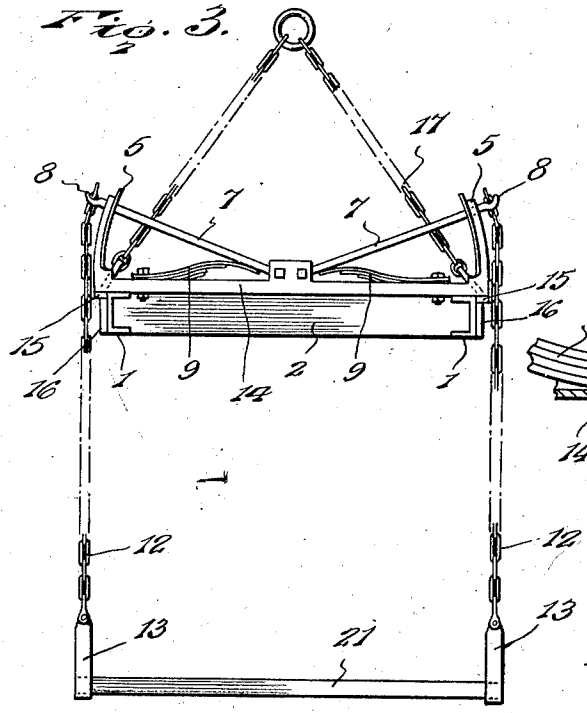
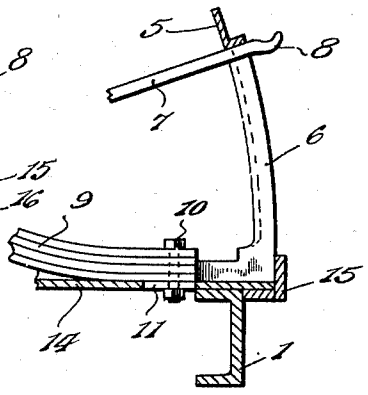


Fig. 4.



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UNITED STATES PATENT OFFICE

EDWARD W. HUTCHINGS, OF PERRY, FLORIDA

LUMBER CRADLE

Application filed February 6, 1929. Serial No. 337,966.

This invention has for its object the provision of means whereby the handling of lumber will be expedited. A particular object of the invention is to provide a simple, inexpensive and efficient device whereby boards or the like may be handled in a unit adapted for assembly in a pile for drying, or for transfer from a pile to a car or vice versa. The invention provides a support or carrier of such construction that a plurality of boards of any length may be assembled in a unit and the unit transferred bodily to a pile quickly and without requiring severe effort on the part of the laborers. The invention is illustrated in the accompanying drawings and will be hereinafter fully set forth.

In the drawings:

Figure 1 is an elevation showing a unit of lumber as it is transferred from or loaded onto a car or truck for transportation.

Fig. 2 is an enlarged top plan view of the cradle removed from the hoisting mechanism.

Fig. 3 is an end view of the same, and

Fig. 4 is an enlarged detail section.

In carrying out the invention, there is provided a frame consisting of side bars 1 which are preferably channel bars, as shown most clearly in Figs. 3 and 4, and cross beams 2 secured to and connecting the side bars intermediate the ends of the same, as will be understood upon reference to Fig. 2. The cross beams 2 are fitted to the side bars and are rigidly connected therewith at the tops of the same by gusset plates 3 which are riveted, welded or otherwise secured to the side bars and the cross bars, a very strong and rigid frame being thus attained. At the center of the frame, there is secured a cross bar 4 having its ends formed into upstanding arcuate arms 5 which are vertically slotted, as shown most clearly at 6 in Fig. 4. Pivotally mounted upon the bar 4 immediately adjacent the center thereof are levers 7 which have their outer ends extending through the slotted arms 5 and formed into hooks, such as shown at 8 in Figs. 3 and 4. Elliptical springs 9 are secured upon the bar 4 adjacent the outer ends of the same and extend inwardly therefrom with their free ends bearing against the under sides of the respective levers 7, and the springs are preferably secured in place by bolts 10 passing through longitudinal slots 11 in the bar 4 so that the tension of the springs may be adjusted as may be deemed advisable. Suspension chains 12 are engaged with the hooks 8 and depend therefrom and are provided at their lower extremities with stirrups 13, as shown. Outwardly beyond the cross beams 2, cross bars 14, constructed in all respects the same as the cross bar 4, are mounted upon the side bars 1 but the cross bars 14 merely rest upon the side bars and may be slid along the same so that the suspension chains carried by the levers mounted thereon will be set according to the length of the lumber which is to be handled. In order to maintain the end cross bars 14 in proper relation to the side bars and prevent lateral displacement thereof, guides 15 are provided at the ends of said bars, said guides being conveniently in the form of right angular brackets or cleats secured firmly in any convenient manner to the extremities of the bars and at the base of the arcuate arms 5 thereof. These guides fit against the outer surfaces of the side bars, as shown clearly in Fig. 4, so that the end bars will be prevented from lateral displacement and at the same time may be easily slid along the side bars.

Secured to the outer sides of the side bars 1 adjacent the gusset plates 3 are brackets 16 which project above the side bars, as shown clearly in Fig. 1, and have eyes or openings in their upper extremities whereby they are adapted to be engaged by the lower ends of cables or chains 17 which are adapted to be fitted to a hook 18 upon a hoisting cable 19 which is carried by a crane or other hoisting mechanism, indicated at 20, and which may be of any approved construction.

In the use of the cradle, base bars 21 are engaged at their ends in the stirrups 13 and constitute foundations upon which lumber to be dried may be piled, as indicated at 22 in Fig. 1. The lumber is placed lengthwise across the base bars 21 and spacers 23 are interposed between the successive layers of the lumber to provide for a circulation of air in the usual manner. A unit consisting of the

base bars 21, the boards 22 and the spacers 23 may be prepared ready for engagement with the cradle and the cradle frame then lowered onto the unit with the suspending chains 12 disposed at the sides thereof in an obvious manner. The stirrups 13 are then engaged over the ends of the base bars 21 and the crane manipulated to raise the loaded cradle and carry it to the place of deposit. The springs 9 serve to cushion the strain imposed on the chains 12 and the levers 7 as the hoisting force is applied to the lumber unit and also maintain the chains taut while the unit is being handled. It may sometimes be more convenient to engage the base bars 21 in the stirrups 13 before the lumber unit has been prepared and then to place the boards and spacers on the suspended base bars until a unit of the desired dimensions has been formed. When the unit has been carried to the place of deposit, for instance, over a truck or car onto which it is to be loaded, the crane is manipulated to lower the cradle until the base bars are resting upon the truck or car and the stirrups 13 are then simply shifted laterally to be released from the base bars. The cradle may then be returned to be loaded with a second unit and the process repeated indefinitely.

It will be readily noted that the use of my improved cradle permits a unit of lumber of any desired dimensions within the capacity of the cradle to be formed and then transferred bodily to the drying yard or to a car, as may be necessary. In transferring the units to a drying yard, the units are superposed one upon another when the base bars of each successive unit will constitute spacers to provide for circulation of air between the adjoining units and the several units may be arranged in vertical columns spaced from each other, each column consisting of superposed units with air spaces between the successive units. As the piled units reach a considerable height, successive units may be arranged in staggered relation so as to guard against possible falling of the lumber and also facilitate the circuitous circulation of air through the piled lumber to attain the most efficient drying. The cross beams 2 and the gusset plates 3 furnish ample supports for workmen who may ride with the several units to the place where they are to be deposited in order that the release of the stirrups 13 and the chains 12 may be very quickly effected, but in order to provide ample support for such riders, a platform may, if desired, be built upon the side bars 1 between the cross bars, as will be understood. The device is very simple in construction and the arrangement of its parts and has been found highly efficient in use.

Having thus described the invention, I claim:

1. A lumber cradle comprising a frame, hoisting means connected with the frame, a plurality of pairs of suspending levers yieldably mounted transversely upon the frame and projecting beyond the sides thereof, and suspension elements engaged with and depending from the free ends of said levers, the lower ends of said suspension members being provided with means to support a load and the outer pairs of levers being adjustable toward or from the ends of the frame.

2. A lumber cradle comprising a frame, a cross bar secured upon said frame at the center thereof, other cross bars slidably mounted on the end portions of the frame, means for preventing lateral displacement of the last-mentioned bars, and lumber-suspending elements carried by all the bars.

3. A lumber cradle comprising a frame, cross bars mounted on the frame and provided at their ends with upstanding vertically slotted arms, suspension levers pivoted upon the respective bars and having their outer ends extending through the slotted arms, cables engaged with and depending from the ends of the levers, yieldable means for holding the levers raised, and stirrups carried by the lower ends of the suspension elements.

4. A lumber cradle comprising a frame, suspension elements mounted on the frame and yieldably held in raised position, brackets secured to the sides of the frame, and hoisting elements engaged with said brackets.

5. A lumber cradle comprising a frame, hoisting devices connected to the frame, cross bars mounted on the frame, levers pivoted on the respective cross bars to oscillate in vertical planes transverse to the frame, springs secured on the cross bars and bearing against the under sides of the respective levers, and suspending devices carried by the free ends of the levers.

6. A lumber cradle comprising a frame, hoisting devices connected to the frame, cross bars mounted on the frame, levers pivoted on the cross bars to oscillate in vertical planes transverse to the frame, elliptical springs bearing at their inner ends against the under sides of the levers and secured at their outer ends upon the respective cross bars and adjustable toward or from the ends of the cross bars, and suspending devices carried by the free ends of the levers.

In testimony whereof I affix my signature.

EDWARD W. HUTCHINGS. [L. S.]