

(No Model.)

2 Sheets—Sheet 1.

H. G. WADLEY.
LOADING DEVICE FOR LUMBER KILNS.

No. 506,286.

Patented Oct. 10, 1893.

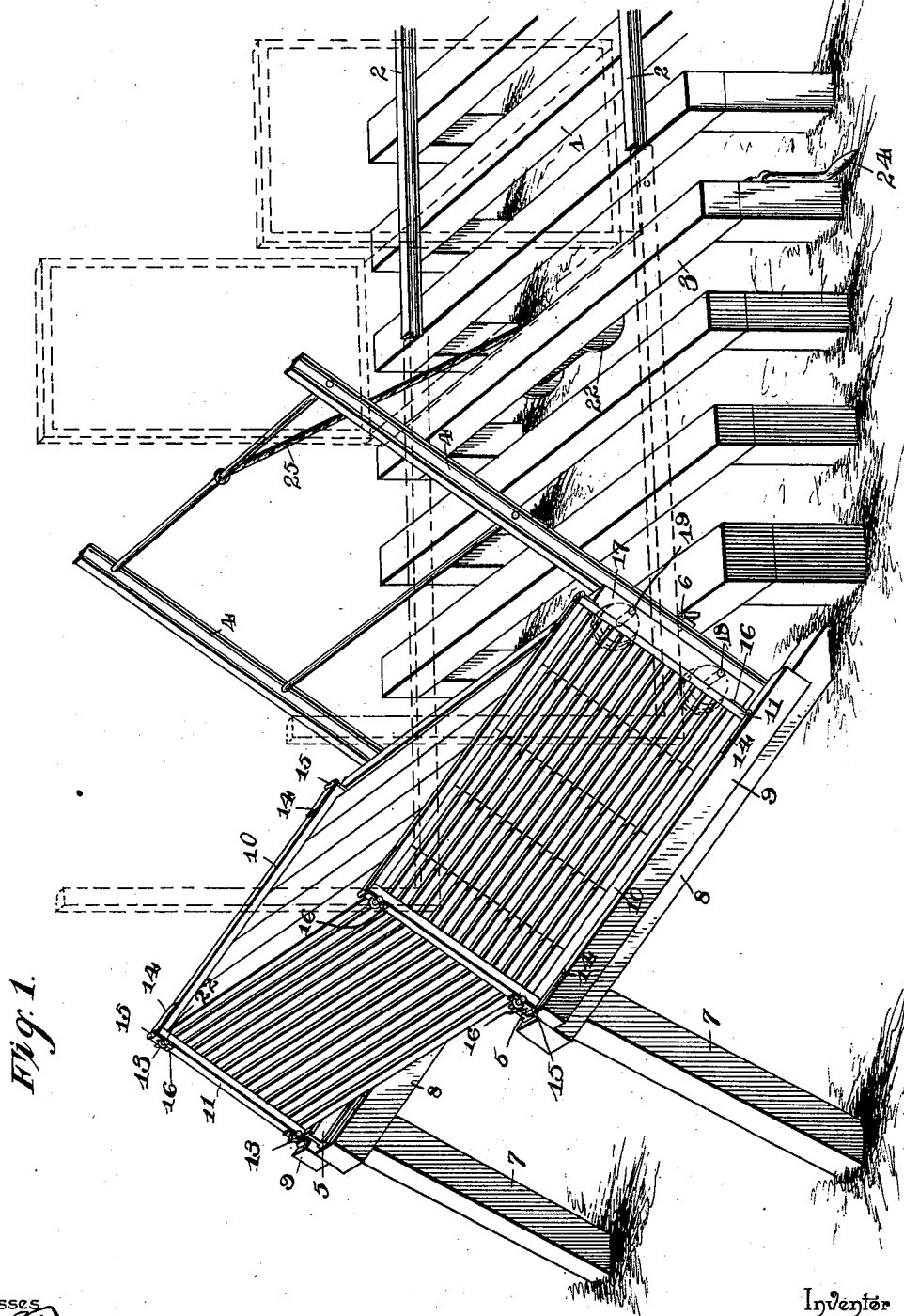


Fig. 1.

Witnesses

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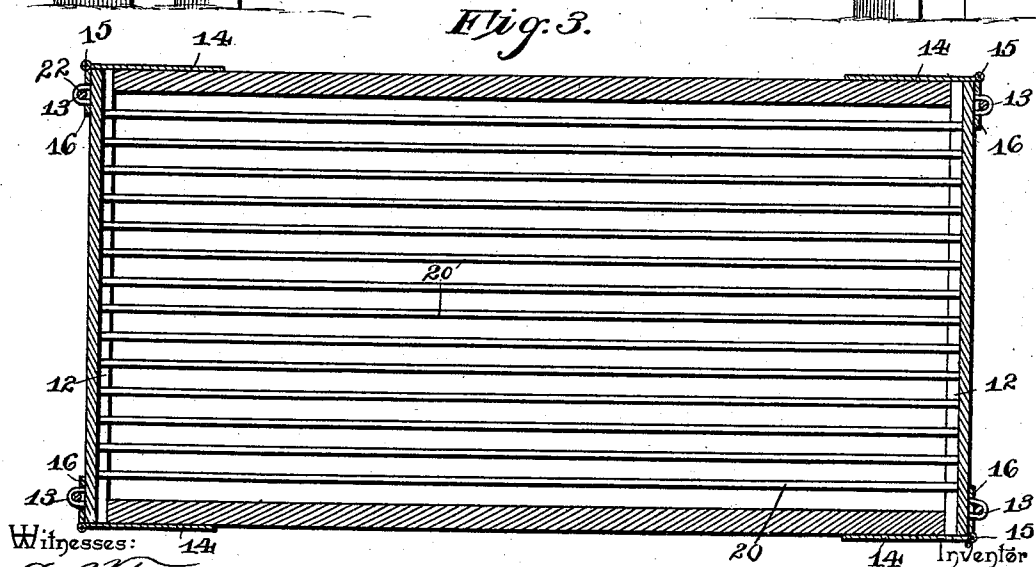
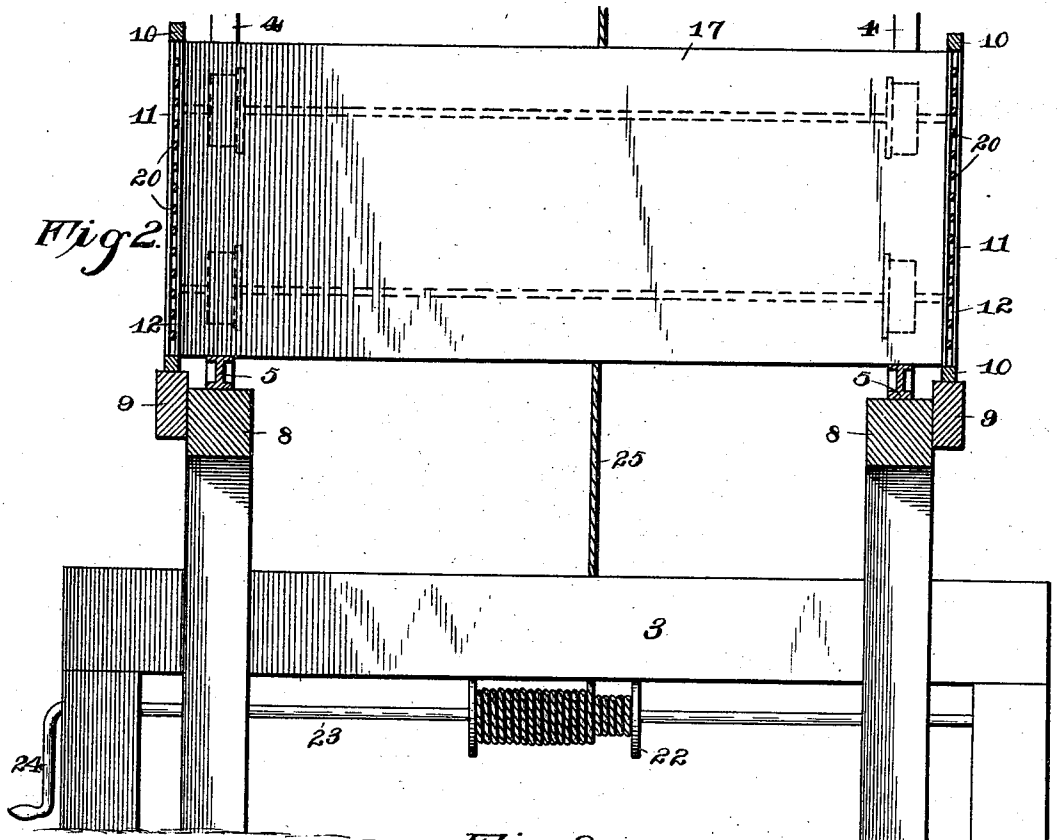
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2 Sheets—Sheet 2.

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Witnesses:

Chas. Ford.

Hun G. Wadley.

By *H & S* Attorneys.

W. S. Duwall.

Chas. Snowles.

UNITED STATES PATENT OFFICE.

HUN G. WADLEY, OF WYTHEVILLE, VIRGINIA.

LOADING DEVICE FOR LUMBER-KILNS.

SPECIFICATION forming part of Letters Patent No. 506,286, dated October 10, 1893.

Application filed May 9, 1893. Serial No. 473,577. (No model.)

To all whom it may concern:

Be it known that I, HUN G. WADLEY, a citizen of the United States, residing at Wytheville, in the county of Wythe and State of Virginia, have invented a new and useful Loading Device for Lumber-Kilns, of which the following is a specification.

My invention has for its object the provision of a cheap and convenient apparatus for transporting and packing lumber in driers, the same being so constructed as to facilitate the reception of the lumber and transportation thereof from the point of reception to the drier.

With these and various other objects in view the invention consists in certain features of construction hereinafter specified and particularly pointed out in the claims.

Referring to the drawings:—Figure 1 is a perspective view of an apparatus constructed in accordance with my invention, the same being shown as in the act of receiving lumber, the apparatus being shown in dotted lines in the position it assumes after the lumber has been received and is in the act of being transported to the drier. Fig. 2 is a transverse sectional view through the series of clamping frames, the tilting track, and the inclined rest. Fig. 3 is a vertical longitudinal sectional view of one of the clamping frames.

Like numerals of reference indicate like parts in all the figures of the drawings.

Upon any suitable trestle-work 1 there is mounted a track 2 which leads from any drier adapted to receive lumber. The trestle is extended beyond the track 2, as indicated at 3, and may comprise in its make-up any suitable construction. Upon this extension of the trestle there is mounted a pair of rails 4, the same projecting to a point beyond the end of the extended trestle and there provided with vertical extensions 5 so that when viewed as a whole the rail is L-shaped. The rails 4 together with their extensions are constructed of I-iron and in rear of the angle formed by the meeting of the extensions 5 with the rails 4 they are hinged as at 6 to the end tie of the trestle.

Immediately in advance of the extended portion of the trestle there is supported by a series of inclined braces 7, whose lower ends are buried in the earth, an inclined rest, the

same being disposed at about an angle of about forty-five degrees. This rest comprises a series of inclined beams or timbers 8, whose lower ends are buried in the ground and whose upper ends project above the inclined braces 7 and are suitably connected. One side of each of the timbers 8 has applied and secured thereto a flange 9, the upper edge of which is somewhat above that of the beam 8 and which extends from the upper end of said beam to a point near the lower end. Between these flanges 9 the branches 5 of the rails 4 take or become seated when the rails are tilted forward upon the rest for a purpose hereinafter described. The flanges 9 project beyond the upper faces of the beams 8 one-half the width of the branches 5 of the rails 4.

I construct and employ a series of lumber-clamping frames, the number of frames employed varying with the length of boards to be accommodated by the kiln. In the present instance I have illustrated only two of such clamping frames, and each of the same consists of opposite side bars 10 and connecting end bars 11. The end bars 11 are grooved intermediate their edges and longitudinally from end to end as at 12 and are provided upon their outer sides near their ends with staples 13. The side bars which are interposed between the end bars have applied to their exterior faces at their ends metal plates 14 to the outer ends of which are hinged as at 15 hasps 16 slotted to take over the staple 13 of the end bars.

A truck 17 of any desired construction is supported by front and rear axles 18 and wheels 19 upon the tracks or rails 2 and 4, and is designed to move from the rest to the drier for the purpose of transporting the frames and boards carried thereby.

The operation of the apparatus is as follows: The truck is mounted in position and moves along the rails 4 until it abuts against the vertical extensions 5 thereof, the weight of the truck being sufficient to cause the rails to tilt upon the hinges 6 so that the rails 4 are elevated and the extensions 5 rest flatly upon the upper sides of the beams 8 at the inner sides of the flanges 9. Two or more clamping frames are now placed in position upon the flanges 9 at the sides of the extensions 5 of the rails 4, the outer end bar 11 and the upper side bar 10 being removed. A spac-

ing bar 20 is now placed upon the upper side of the lower bar 10 of the clamping-frame, the lower end of the bar resting in the groove 12 of the rear end bar 11. A similar bar is then placed in the opposite frame, and a series of planks slid down the bars, the ends of the planks resting thereon and therefore extending from one frame to the other. After a tier of planks has been placed in position, a second set of spacing bars is placed upon the planks, after which a second tier of planks is mounted upon the bars and so on until the planks and bars nearly fill the frames, after which the front end bars 11 are swung up so as to engage the front ends of the spacing bars and the filling of the frames is continued until completed. Finally the upper side bar 10 is swung to position, the hasps sprung over the staples and tapered keys or pins 21 driven into the hasps, whereby the ends of the planks and the bars are all snugly clamped within the frames and the two frames and the planks now combine to form a single unitary and solid structure. A windlass 22 is located under and between the rails 4, the same being supported by a suitable shaft 23 having a crank-handle 24 by which the windlass may be rotated. Tie-rods connect the rails 4, and to one of these a chain or cable 25 is attached, the lower end of said chain or cable being attached to the windlass, and thus it will be seen by an operation of the windlass the rails 4 may be drawn down upon the trestle and the lumber and clamps elevated to a vertical position, after which the whole may be run down the rails 2 and 4 and into the kiln or drier. When mounted therein the truck may be returned and the operation repeated until the kiln or drier is filled with the lumber to be dried.

From the foregoing description in connection with the accompanying drawings it will be seen that I have provided a very cheap and simple apparatus adapted to be used in connection with any ordinary lumber-drier, the same being so constructed as to facilitate the packing of lumber in such a manner as to permit of a ready and thorough circulation of hot air, and of a ready introduction of the lumber to the clamping frames, and a securing of the lumber therein, and finally for an easy transportation of the lumber in large quantities to the drier.

I do not limit my invention to the various details of construction herein shown and described, but hold that I may vary the same to any degree and extent within the knowledge of the skilled mechanic.

Having described my invention, what I claim is—

1. In an apparatus of the class described, the combination with a trestle, and a pair of tilting rails terminating in stops and mounted on the trestle, of an upwardly inclined rest arranged in advance of the trestle, said rails being adapted to receive a lumber-carrying truck, and frames adapted to abut against and

extend above said stops and a track leading from said rails, substantially as specified.

2. In an apparatus of the class described, the combination with a trestle, a pair of tilting L-shaped rails hinged between their ends thereto, and means for lowering the same, of an upwardly inclined rest arranged beyond the end of the trestle and adapted to receive and support the rails when tilted, a truck mounted for movement on the rails, and lumber-carrying frames supported by the truck and adapted to abut against the vertical ends of the tilting-rails and be supported by the rest, substantially as specified.

3. In an apparatus of the class described, the combination with a trestle, a pair of rails terminating at their front ends in stops and hinged to the end of the trestle and projecting beyond the same, a windlass, a rope or chain connected to the windlass and to the free end of the rails, a truck arranged upon the rails, and lumber-clamping frames carried by the truck, of an upwardly inclined rest arranged in advance of the trestle and adapted to support the rails when tilted, and the frames substantially as specified.

4. In an apparatus of the class described, the combination with a tilting-support, of an upwardly inclined rest beyond the same, and a plurality of lumber-clamps, comprising opposite side and end-bars detachably connected, substantially as specified.

5. In an apparatus of the class described, the combination with a trestle, a pair of tilting rails hinged thereto and projecting therebeyond and terminating at their forward ends in vertical extensions, said rails being formed of I-beams, a truck mounted for movement on the rails, an inclined rest consisting of beams 8 having flanges 9 projecting thereabove and adapted to embrace the extensions 5 of the rails, and lumber clamping frames arranged upon the truck and seated upon the upper edges of the flanges, substantially as specified.

6. The clamping frame consisting of the opposite side and end bars, the said bars being interposed between the end bars and the latter provided with longitudinal grooves upon their inner faces, the metal straps secured to the outer faces of the side bars at the ends and provided with the hinged hasps, the staples extending from the end bars and adapted to be engaged by the hasps, and the tapered locking pin extending through the staples, combined with a tilting track, a support at the end of the same, and a truck located on the track and adapted to support the clamping-frame, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

HUN G. WADLEY.

Witnesses:

J. H. SIGGERS,
E. G. SIGGERS.