

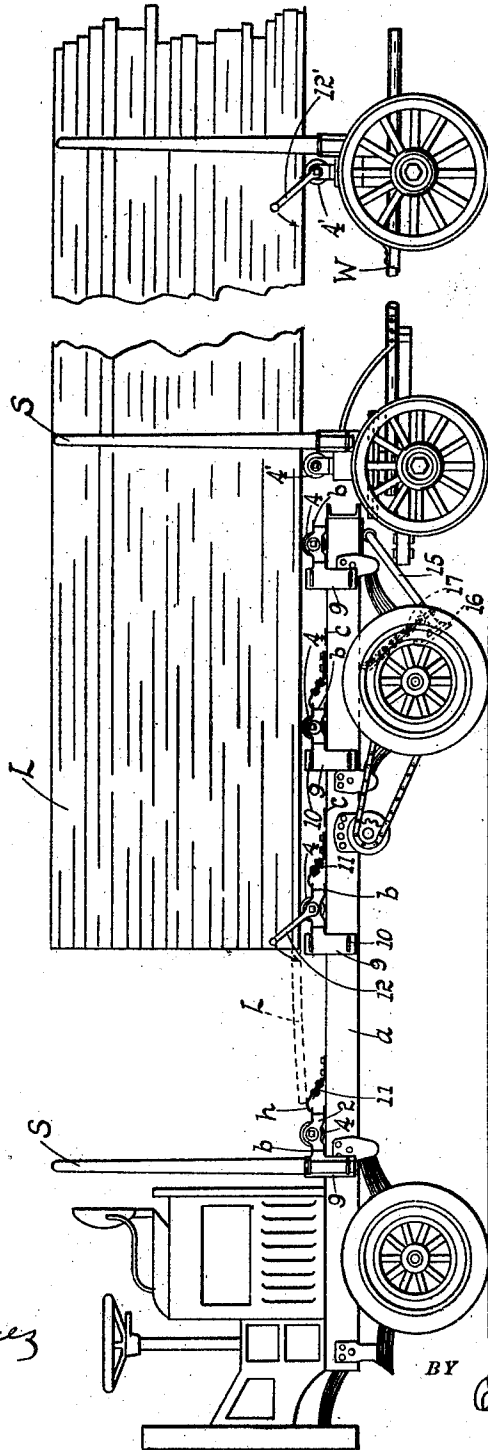
P. W. KARCHES.
LUMBER TRUCK.
APPLICATION FILED JAN. 20, 1912.

1,036,636.

Patented Aug. 27, 1912.

4 SHEETS—SHEET 1.

FIG. 1.



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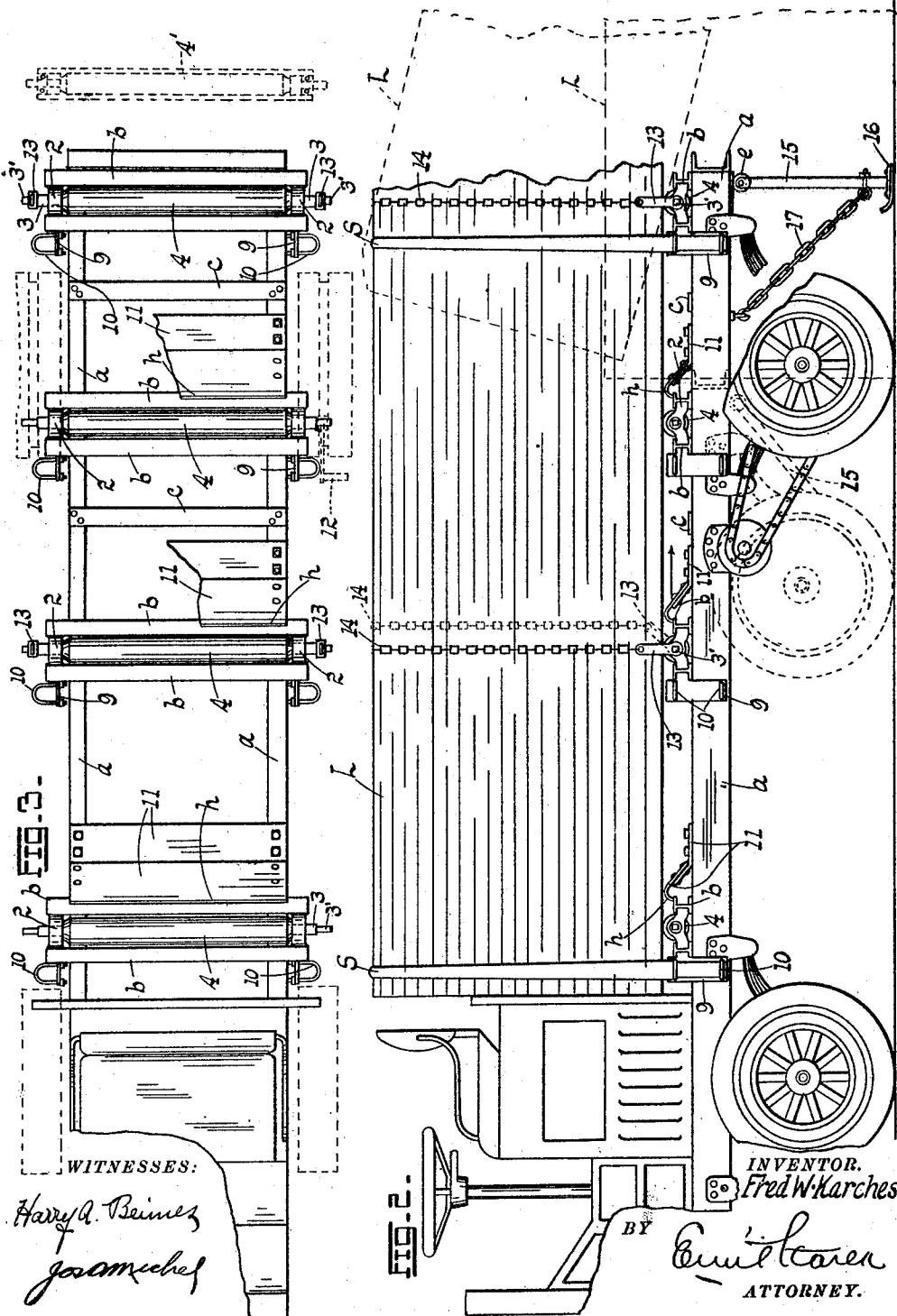
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4 SHEETS—SHEET 2.



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FIG. 2.

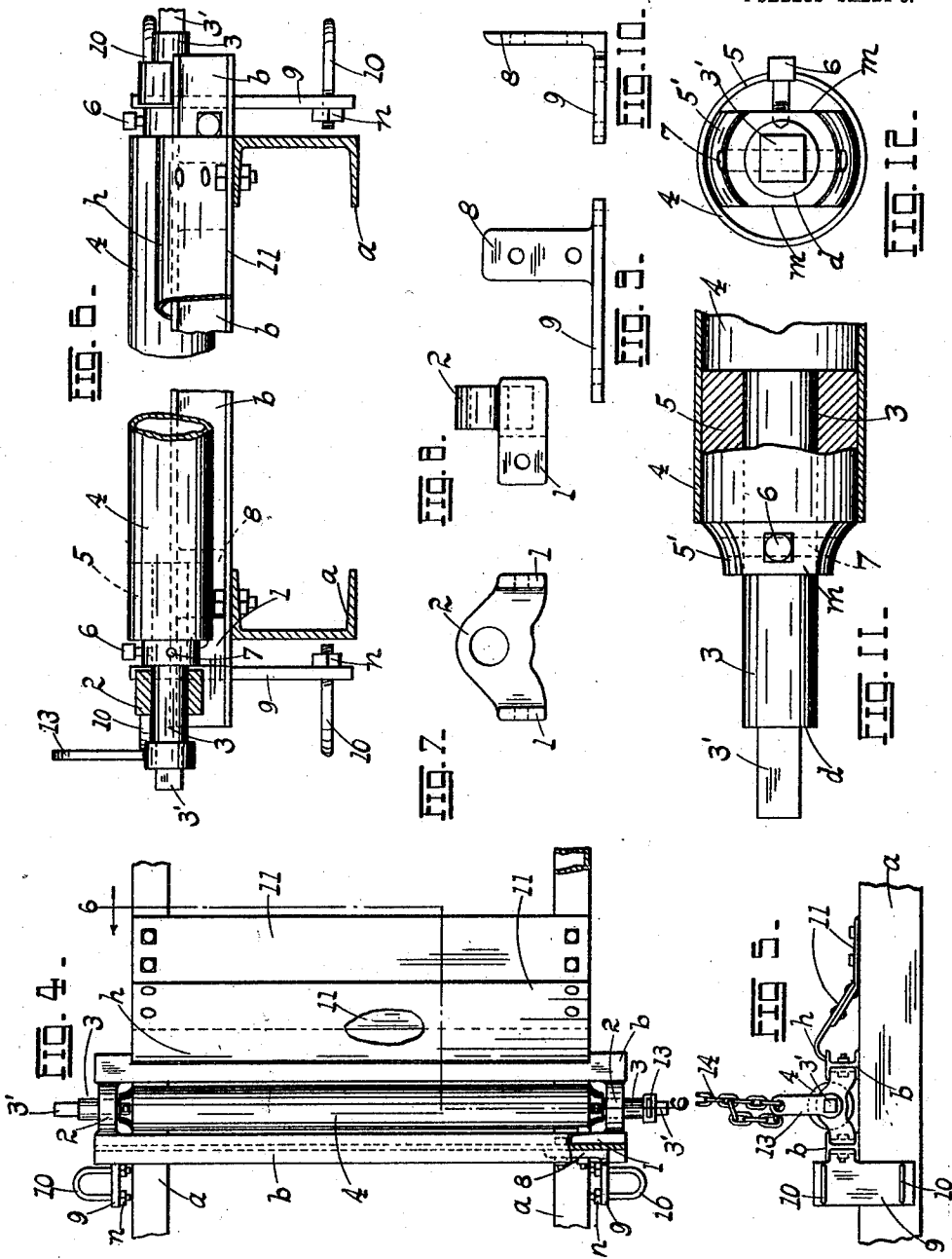
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4 SHEETS—SHEET 3.



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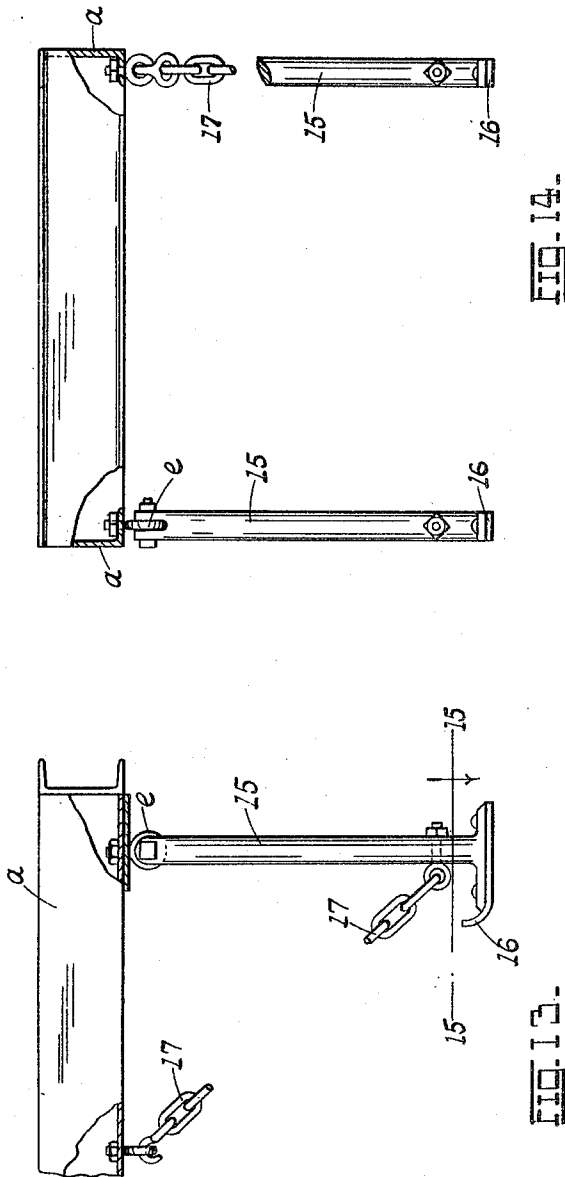
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4 SHEETS—SHEET 4.



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LUMBER-TRUCK.

1,036,636.

Specification of Letters Patent.

Patented Aug. 27, 1912.

Original application filed February 4, 1911, Serial No. 606,570. Divided and this application filed January 20, 1912. Serial No. 672,453.

To all whom it may concern:

Be it known that I, FRED W. KARCHES, a citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Lumber-Trucks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention has relation to improvements in lumber-trucks; and it consists in the novel details of construction more fully set forth in the specification and pointed out in the claims.

In the drawings, Figure 1 is a side elevation of a motor-truck showing the lumber being loaded from the "dead" wagon; Fig. 2 is a side elevation of the motor-truck with lumber loaded; Fig. 3 is a top plan of the motor-truck, with lumber removed; Fig. 4 is a top plan of one end of the motor-truck frame showing the roller over which the lumber travels and on which it finally rests, and showing also the guide-shield or buffer which directs the advancing lumber onto the roller; Fig. 5 is a side view of Fig. 4; Fig. 6 is a combined elevation and vertical cross-section on the broken line 6-6 of Fig. 4; Fig. 7 is an inside elevation of the bearing for the spindle of the roller; Fig. 8 is a side view of Fig. 7; Fig. 9 is a longitudinal edge view of the casting or bracket to which the stake-stirrups are secured; Fig. 10 is a top edge view of Fig. 9; Fig. 11 is a combined section and elevation of one end of the roller and spindle therefor; Fig. 12 is an end view of Fig. 11; Fig. 13 is a side view of the rear end of the motor-truck showing the shoe-braces dropped to lowest position during the unloading operation; Fig. 14 is a rear elevation of Fig. 13; and Fig. 15 is a horizontal section on the line 15-15 of Fig. 13.

The present is a division of the application on which there issued to me U. S. Letters Patent numbered 999,310, dated August 1, 1911 for lumber truck loader, the subject-matter of the claims of which is directed to the load-binder. The present application is confined to the construction of the delivery-truck and contemplates the several objects and advantages fully stated therefor in the patent aforesaid, the primary object being the facilitating of the loading and unloading of the lumber.

In detail the invention may be described

as follows:—Referring to the drawings, *a* represents the longitudinal side channel members (or equivalent structural members) of the motor-truck frame, the same being connected at the ends, and at intermediate points by cross I-beams *b*; and braces *c*, the whole constituting the truck frame or body of the motor-truck, though in practice any equivalent frame may answer the purpose in view. The I-beams *b* are arranged in pairs, the terminal web portions of the said I-beams having secured thereto the side wings 1 of the roller-bearings 2, said bearings supporting the terminal spindles 3 of the pipe rollers 4 operating between the I-beams. The ends of the pipes 4 are provided with hollow bushings 5 (Fig. 11) having conical reduced terminals 5' projecting beyond the piping, said terminals having opposite flat faces *m* one of which receives a set-screw 6 to initially hold the spindle 3 inserted into the bushing, the spindle being finally locked in place by a pin 7 inserted through registering openings in the terminal 5' and spindle, between the faces *m*, *m*. The bushing 5 may be driven into the pipe 4 or secured thereto in any mechanical manner. The outer ends of the spindles 3 terminate in square or polygonal portions 3' leaving shoulders *d* for a purpose presently to appear. Secured to the outer face of the web of preferably the forward member of each pair of I-beams, is the lateral horizontal wing 8 of a vertical bracket 9 through which are passed the arms of the superposed stake-holders or stirrups 10, the stirrups being held in place by nuts *n* (Fig. 6) or equivalent mechanical manner, the stakes *S* being inserted between the stirrups and I-beams as shown.

Located rearward (or on the loading side) of each pair of I-beams *b* (or their equivalents) is a shield or buffer 11 made preferably of two sections of sheet metal riveted together, the lower section being bolted to the frame members *a*, the edge of the upper section resting on the adjacent member *b*, the crown *k* of the shield being raised somewhat above the member *b*. The shield extends substantially the full length of the roller 4, across the truck frame. Over the projection, 3' of the roller spindle may be temporarily passed the socket of a crank or handle 12 during the loading operation, after which the projection receives the socket

of a chain-anchor 13, a chain or band 14 being passed around the lumber L, the ends of the chain being secured to the opposite anchors 13. Hinged to a pair of eye-bolts *e* at the rear of the motor-truck frame are props or supports 15 the lower free ends of which terminate in shoes or runners 16 having front upturned ends (Figs. 13, 15) and when dropped to touch the ground are anchored by chains 17 to the truck-frame by any suitable fastening means. When not in service, the props 15 are swung up (Fig. 1) and held in a raised position by the same chains.

15 The lumber in the yard is first deposited on a "dead" wagon W (Fig. 1) which is drawn from one pile to another until the entire load is deposited thereon, this method permitting the motor-truck to deliver the load previously deposited thereon to the customer, builder or consumer. The "dead" wagon is likewise provided with rollers 4' equipped with crank-handles 12' (Figs. 1, 3).

25 The operation of the loader may be described as follows:—Assuming that the "dead" wagon W has first been loaded in the yard, the empty motor-truck is run into the yard and the "dead" wagon moved up to the rear of such truck (Fig. 1). Thereupon the operator turns the crank 12' to impart rotation to the roller 4' in proper direction to advance the load onto the motor-truck. The advancing lumber runs over the rollers 4 on the motor-truck frame, being assisted in such advance by the rotation of the rollers 4 through the crank-handles 12 in the hands of an assistant. A handle may be temporarily attached to a roller-spindle wherever necessary or desirable, as quite obvious from the drawings. Should the boards (in a small load of thin material) tend to sag in front (see dotted position in Fig. 1) and fail to pass freely over the rollers 4, they will strike the buffer or shield 11, the inclination of which is such as to direct the sagging board over the ridge or crown *h* of said shield, and onto the roller 4 as obvious from the drawing. Without the shield 11, the sagging edge of the board might strike the roller below the middle and thus fail to pass freely over the roller. During the loading operation, the props 15 are out of commission. After the lumber is loaded, the cranks 12 are removed, and in their place the anchor-arms 13 are substituted, a chain 14 being secured to each pair of anchors as pointed out in my patent aforesaid. When the lumber is to be discharged or unloaded from the motor-truck, the chains 14 are removed, and the props 15 are swung down (Fig. 2) so as to take the strain off the rear of the truck due to the passage of the load of lumber thereover. In the unloading, the anchors 13 are re-

moved, the cranks 12 are restored, and the rollers 4 are turned in the opposite direction. The lumber thus is rolled back until the rear free end of the load drops on the ground, the load assuming an inclined position such as shown in the upper dotted view in Fig. 2. When that happens, the truck is withdrawn from under the raised end of the lumber pile, thus allowing the front end of such pile to drop onto the ground (see bottom dotted pile Fig. 2). In thus running the truck from under the lumber, the shoes 16 are brought into requisition for then they act as sleigh runners, and prevent the props 15 from penetrating the ground.

It will be seen from the foregoing that the motor-truck need never be out of commission for purposes of delivery, any great length of time. The only time it is standing still is during the few moments the pile is wheeled thereonto from the "dead" wagon, which latter is a permanent adjunct of the yard where the lumber is piled. The "dead" wagon may be a motor wagon or drawn by animals according to the desire of the dealer. Any design of "dead" wagon may of course, be employed.

While specifically referred to as a lumber-truck loader, it is obvious that other material may be handled, such as rails, sheet iron, and the like. To permit the rollers 4 to support the lumber after the same is once loaded, the tops of the rollers must necessarily be above the tops of the I-beams 4, and the ridges or crowns *h* of the shields 11 must be depressed below the rollers. The props 15 are independent of one another to allow for any unevenness of the ground to which they are dropped during the unloading operation.

Having described my invention, what I claim is:—

1. In combination with a delivery-truck provided with a frame composed of longitudinal side members, and cross members arranged in pairs and spaced apart, rollers mounted between the members of the several pairs of cross-members and raised above the same to support the material being loaded, and shields inclined to the rollers and to the adjacent cross members and resting on the latter, the shields having ridges disposed in planes above their lines of support on the cross members and below the upper edges of the rollers.

2. In combination with a delivery-truck provided with a frame composed of longitudinal side members, and cross members arranged in pairs and spaced apart, rollers mounted between the members of the several pairs of cross-members and raised above the same to support the material being loaded, and inclined shields secured to the frame and provided with crowns or ridges raised above the tops of adjacent cross-members

and depressed below the upper edges of the rollers, the shields being spaced from the rollers and out of contact therewith.

3. In combination with a delivery-truck, 5 provided with a frame having cross members arranged in pairs, rollers mounted between the members constituting the pairs of cross-members, brackets secured to the ends of the sides of one of the members of each 10 pair of cross-members, and stake-holders carried by the brackets.

4. In combination with a delivery-truck provided with a frame composed of longi-

tudinal side structural members, and cross I-beams arranged in pairs and spaced apart, 15 rollers mounted between the members of the several pairs of I-beams, brackets secured to the outer faces of the webs of one member of each pair of I-beams, and stake-holders carried by the brackets.

In testimony whereof I affix my signature, 20 in presence of two witnesses.

FRED W. KARCHES.

Witnesses:

EMIL STAREK,

JOS. A. MICHEL.