

M. RYAN.
 END GATE FOR WAGONS.
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1,061,409.

Patented May 13, 1913.

Fig. 1.

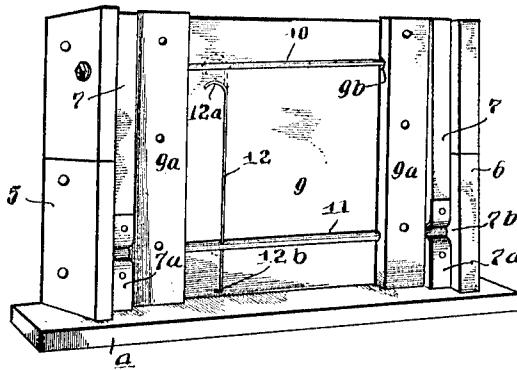


Fig. 2.

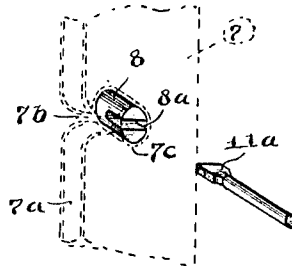
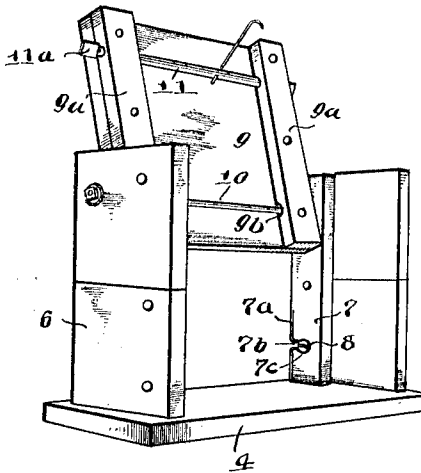


Fig. 4.

WITNESSES:

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END-GATE FOR WAGONS.

1,061,409.

Specification of Letters Patent.

Patented May 13, 1913.

Application filed August 7, 1912. Serial No. 713,726.

To all whom it may concern:

Be it known that I, MORGAN RYAN, citizen of the United States, residing at Chatsworth, in the county of Livingston and State of Illinois, have invented certain new and useful Improvements in End-Gates for Wagons, of which the following is a specification.

This invention relates to improvements in end gates for wagons and similar devices, and the especial objects of the improvements embodied herein is to provide an end-gate that will afford a strong and effective closure when in operative position and that may be quickly and easily released and opened without entirely removing or disconnecting it or the supporting and locking attachments.

To this end and to accomplish other objects of utility, I have invented the end gate hereinafter described and claimed, and which is illustrated in a preferred form in the accompanying drawings, in which:—

Figure 1 is a perspective view of my improved end gate in closed position; Fig. 2 is a perspective view showing the gate open, and Fig. 3 is a fragmentary detail, showing on an enlarged scale, the locking members of my improved gate.

Referring to the details of the drawing, the numeral 4 indicates the rear portion of the bottom board of the box of a wagon, and 5 and 6, the corresponding portions of the side boards of the box.

7 represents vertical cleats which are bolted to the inner sides of the boards 5 and 6 at a short distance forward of the rear ends of the latter. In each of the cleats, near its lower end and rear face, is cut an opening which forms a throat or entrance to a round recess, which recess and throat are faced by a strap or band of metal 7^a bent to conform to the walls of the cut portion and the cleat and thus providing a cylindrical socket 7^c, having an entrance 7^b at the rear face of the cleat. Within each socket 7^c, is placed a plug 8 having a slot 8^a formed therein, said plug being so arranged as to turn on its longitudinal axis, but without endwise movement.

9 represents the end gate which is reinforced on its rear side, and ends, by vertical cleats 9^a. Notches 9^b extend transversely through the upper portion of the cleats 9^a adjacent the gate and provide loose bear-

ings for a rod 10 which passes through suitable openings in the side boards 5 and 6, and is held in place by a nut on one end, and a loop or handle on the other end, the latter not appearing in the drawing, as it is a well known feature of end gate rods. This rod serves to tie the sides of the box together in the usual manner, and also provides a support for the end gate when the latter is raised as indicated in Fig. 2. The notches 9^b are longer than the cross-diameter of the rod 10, so as to allow for slight vertical movement incident to the turning of the end gate on the rod.

11 represents a round bar which passes through suitable slots in the lower portion of the cleats 9^a and its ends are flattened to provide tongues or bolts 11^a which are adapted to engage and be disengaged from the slots 8^a in the socket plugs 8 when they are passed through the throats 7^b of the plates 7^a, such passage being permitted when the tongues and plugs are turned to bring them in registry with the throats 7^b. This turning of the rod 11 is effected by a hand operated member 12 which passes through a hole in the rod 11 and the upper end of which is bent to form a hook 12^a which may be hung upon the rod 10, and the lower end is bent at right angles as at 12^b to prevent the member 12 from becoming accidentally disengaged from said rod 11.

From the construction shown and described, it will be seen that the end gate is normally hung on the rod 10, and locked in closed position by turning the bar 11 and sockets 8 so that the slots 8^a are out of registry with the throats 7^b of the plates 7^a, and when in this position the member 12 will prevent the bar from turning. If the operator wishes to raise the gate 9 or swing it upon the rod 10, he must first raise the member 12 to the position indicated by dotted line, Fig. 1, and then by pulling outwardly and downwardly upon said member, the bar 11 will be turned so the tongues may pass through the throats 7^b, whereupon the continued operation of the member 12, in an upward direction will throw over the gate into the position shown in Fig. 2, thus permitting the removal of the contents of the wagon box thus equipped.

It is obvious that the structure described is adapted for use as a closure in other con-

nections than wagons, hence I do not wish to be understood as limiting myself to end gates, but

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

1. In combination with a laterally slotted support, a plug rotatably mounted in the support, and having a slot adapted to register with the slot in the support, a closure pivotally mounted on said support and means for locking said closure in closed position, said means consisting of a rotatable bar having a tongue adapted to pass through the slot in the support and engage the slot in the plug.

2. In combination with a laterally slotted support, plugs rotatably mounted in the support and having slots adapted to register with the slots in the support, a closure pivotally mounted on said support, a locking-bar rotatably mounted on the closure and

having ends adapted to engage the slots in the supports and plugs and to turn the latter, and means for rotating said bar.

3. In combination with laterally slotted supporting side pieces, plugs rotatably arranged in the slots in said side pieces and having slots adapted to register with the slots in the side-pieces, a gate swingingly mounted between said side pieces, a bar rotatably mounted in said gate and adapted to engage and rotate said plugs, and a member slidably mounted in said bar and adapted to lock it against rotation and to facilitate its rotation when in another position.

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

MORGAN RYAN.

Witnesses:

J. C. CORBETT,
JOHN M. FISCHER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."