

(No Model.)

J. H. MOORE.

FASTENING DEVICE FOR END GATES AND SCOOP BOARDS.

No. 525,111.

Patented Aug. 28, 1894.

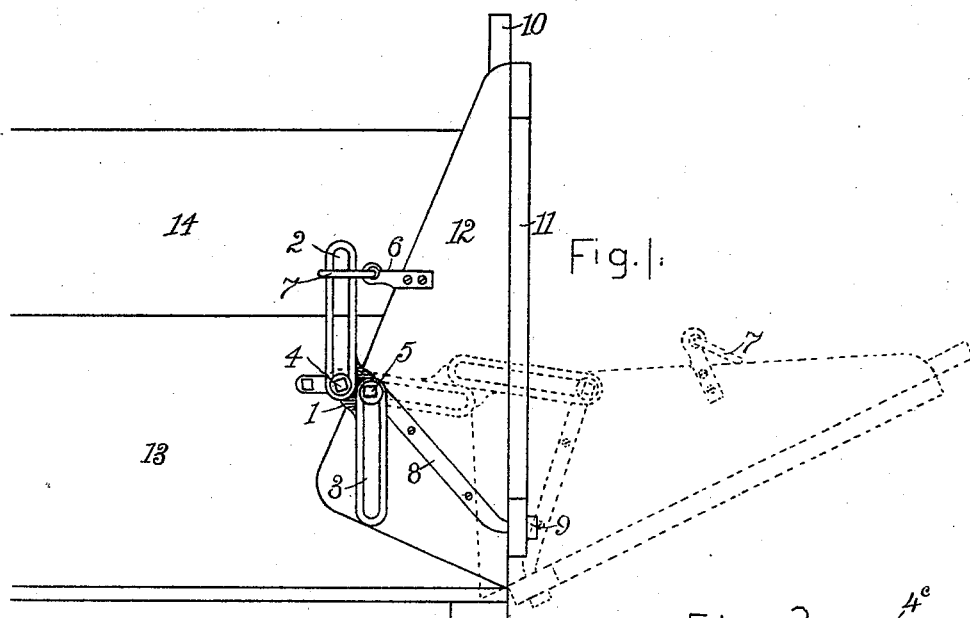


Fig. 1.

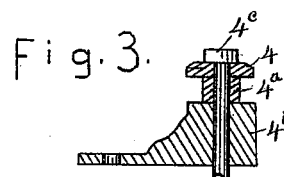


Fig. 3.

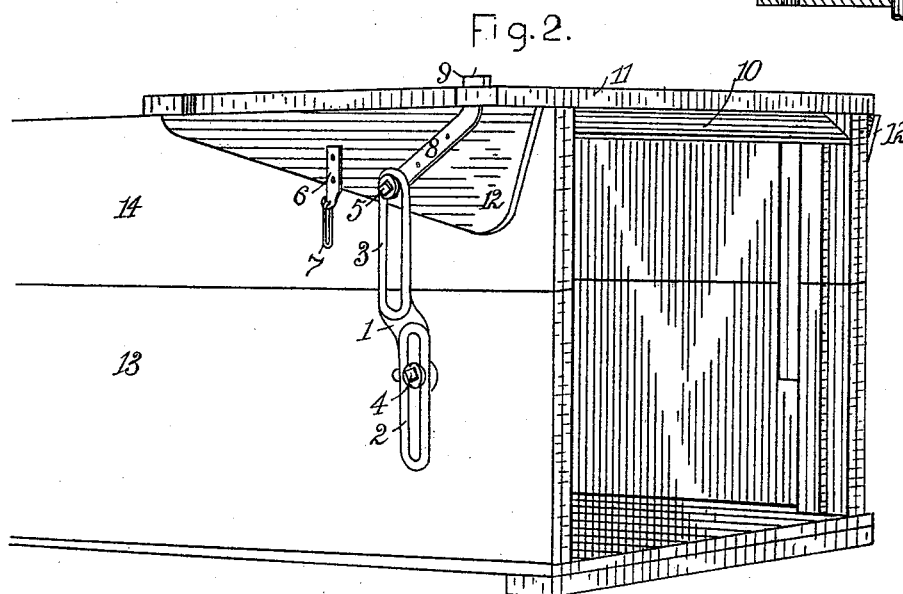


Fig. 2.

WITNESSES  
*Helen Graham*  
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INVENTOR  
JOSIAH H. MOORE.  
by his attorney.  
*W. P. Graham.*

# UNITED STATES PATENT OFFICE.

JOSIAH H. MOORE, OF DECATUR, ILLINOIS, ASSIGNOR TO FELIX B. TAIT,  
OF SAME PLACE.

## FASTENING DEVICE FOR END-GATES AND SCOOP-BOARDS.

SPECIFICATION forming part of Letters Patent No. 525,111, dated August 28, 1894.

Application filed May 2, 1894. Serial No. 509,759. (No model.)

*To all whom it may concern:*

Be it known that I, JOSIAH H. MOORE, of Decatur, in the county of Macon and State of Illinois, have invented certain new and useful Improvements in a Combined End-Gate and Scoop-Board, of which the following is a specification.

This invention is designed to lock end gates firmly closed, to permit them to be readily converted into scoop boards, and to enable them to be raised freely to permit the dumping of the contents of the beds. It is embodied in the structure hereinafter described, which is cheap, strong and durable, and not likely to get out of order, and it is defined in the appended claims.

In the drawings forming part of this specification Figure 1 is a side elevation of the rear end of a wagon bed, showing, in solid lines, the end gate closed, and also showing in dotted lines the end gate resting in position to form a scoop board. Fig. 2 is a perspective representation of the end of the bed with the gate raised and resting thereon preparatory to dumping a load. Fig. 3 is a central horizontal section through a boss, pin and bolt that preferably enter into the construction of the connections between the bed and the gate.

A lower side board of a bed is shown at 13, and an upper one at 14. The end gate comprises the board 10, secured to frame 11 on the inside thereof, and the side pieces, or wings, 12, which project rearward at right angles with frame 11, and fit outside the end of the bed.

Arm 1 is slotted at 2 and at 3, the slots are separate, they each extend from an end of the arm to near the center thereof, and they preferably lie in adjacent parallel lines.

Pin 4 is secured to board 13 and it extends through slot 2 of the arm. Pin 5 is fastened to the wing of the gate and it extends through slot 3. The pins bear such relation to each other that when the end gate is closed, as shown in Fig. 1, they are in the same horizontal plane, or nearly so, and at the inner ends of their respective slots of the arm. With the pins in this position the arm is forced to assume a vertical position, and it is held in such position by link 7, which fits over the upper end of the arm and is secured to the

wing of the end gate by means of the hooked strap 6. The rearward, or opening, stress of the gate is at right angles, or nearly so, to the surfaces of the slots and it develops little or no tendency to tilt the arm; the upward stress is against the ends of the slots, which are close together, and the link is far enough from the pins to gain sufficient leverage to easily counteract the tilting tendency of the upward stress together with what little may result from the rearward pull. The link affords a second connection between the gate and the bed, which tends to hold the upper end of the gate more firmly in position, as well as to strengthen the entire connection, the jar of the wagon resulting from travel tends to force it farther onto the arm, rather than to detach it, and it is easily swung over the end of the arm whenever desired.

To convert the end gate into a scoop board the link is swung clear of the arm and the upper end of the gate is swung downward, as shown in dotted lines in Fig. 1, leaving the lower end of the gate resting on the bottom of the bed and the outer end sustained by the arm, or arms rather, as both sides of the bed are equipped in the manner above described.

To prepare the wagon for dumping the link is detached, as before stated, and the end gate is swung up onto the bed as indicated in Fig. 2. This operation is easily performed for the reason that the gate may first move backward away from the bed, and thereby be relieved from the pressure of the load.

The side boards 13 and 14 are the ordinary sides of a wagon bed, and are immaterial to this invention. The gate is preferably made as described, though not necessarily so, in all particulars, at least. Pin 4 is preferably constructed something like the illustration in Fig. 3, where 4<sup>b</sup> is a bracket having a boss, the pin 4 is reduced at 4<sup>a</sup> to fit the slot of the arm, and 4<sup>c</sup> is a bolt that extends through the pin and the boss and secures both to the bed. This construction is cheap, strong and easily applied, and it furnishes a good guide for the motion of the arm, but the essential thing in this relation is a pin secured in proper position to the side of the bed and adapted to the slot of the arm, and any device that meets these requirements will suitably conform to

the invention. Pin 5 is preferably constructed somewhat like pin 4, and in this structure it is strengthened by a strap 8 which extends to frame 11 and is secured thereto by a nut, or  
5 otherwise. It is necessary in a mechanical sense that the connection of the pin with the wings should be secure, but the manner of making it secure is immaterial so far as the invention is concerned. The link 7 acts as a  
10 detachable catch to hold the upper end of the arm when the gate is closed, and other forms of catches may be substituted therefor. It is very desirable that the link shall be connected with the wing, but it is not impossible to hold  
15 the arm, after a fashion, with a catch secured to the bed.

Having thus described my invention and pointed out the essential and non-essential features of the structure used to exemplify  
20 it, I claim as new and desire to secure by Letters Patent—

1. The combination with a bed and an end gate therefor, of an arm having two slots extending one from each end of the arm to near

the center thereof, a pin attached to the bed 25 and extended through one of the slots, a pin attached to the gate and extended through the other slot, and a catch to hold the arm in the position it assumes when the gate is closed, substantially as set forth. 30

2. The combination with a bed and an end gate therefor, of an arm having two slots extending one from each end of the arm to near the center thereof, in adjacent parallel lines, a pin attached to the bed and extended 35 through a slot of the arm, a pin attached to the gate and extended through the other slot, the pins being in approximately the same horizontal plane when the gate is closed, and a link on the gate adapted to engage the upper end of the arm, substantially as set forth. 40

In testimony whereof I sign my name in the presence of two subscribing witnesses.

JOSIAH H. MOORE.

Witnesses:

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L. P. GRAHAM.