

(No Model.)

J. T. DUNCAN.
LOCKING DEVICE FOR WAGON END GATES.

No. 532,040.

Patented Jan. 8, 1895.

Fig. 1.

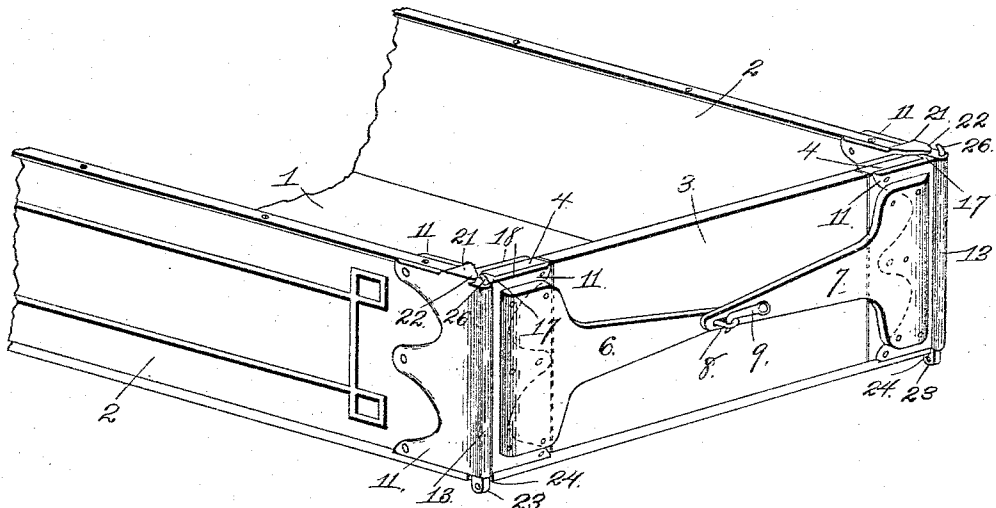


Fig. 2.

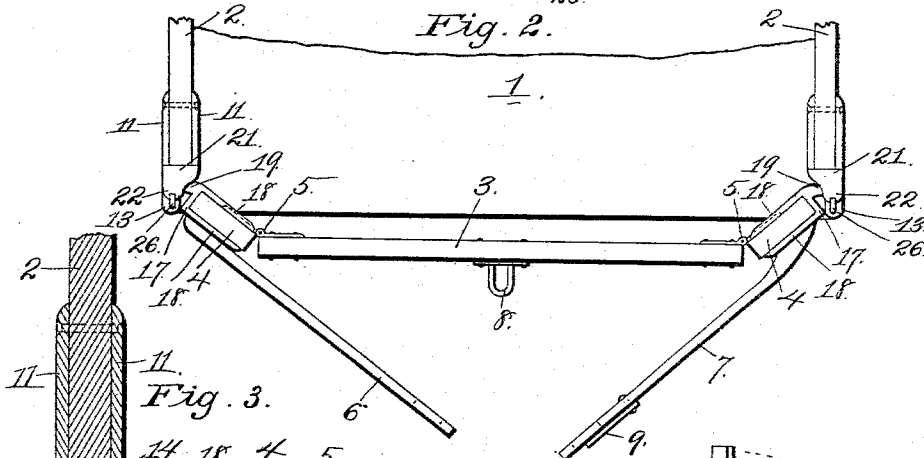


Fig. 3.

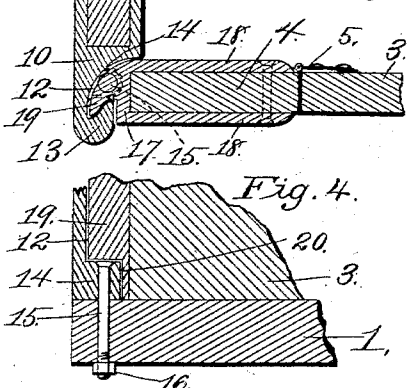


Fig. 4.

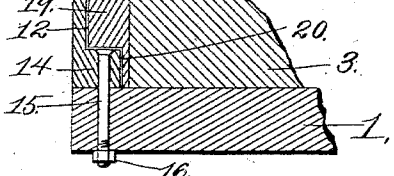
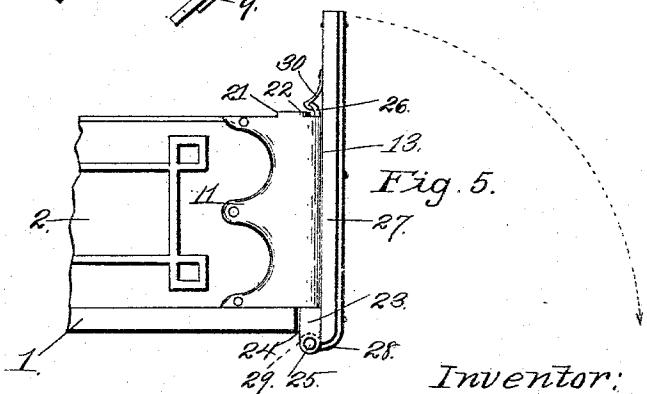


Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

JOSEPH T. DUNCAN, OF DELPHOS, KANSAS.

LOCKING DEVICE FOR WAGON END-GATES.

SPECIFICATION forming part of Letters Patent No. 532,040, dated January 8, 1895.

Application filed January 22, 1894. Serial No. 497,706. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH T. DUNCAN, of Delphos, Ottawa county, Kansas, have invented certain new and useful Improvements in Locking Devices for Wagon-Bodies, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to end-gates, and more particularly to attachments for securing the end-gates in or removing them from position easily and expeditiously relative to the wagon-body, and the object of the invention is to produce attachments of the character which are simple, strong, durable and inexpensive of construction.

To the above purpose, my invention consists in certain peculiar and novel features of construction and arrangement, as hereinafter described and claimed.

In order that my invention may be fully understood, reference is to be had to the accompanying drawings, in which—

Figure 1. is a perspective view of a portion of the wagon body, the sides and end thereof being connected by brackets constructed in accordance with my invention. Fig. 2. is a top plan view of the same, and showing the manner of manipulation necessary to disconnect the end from the sides. Fig. 3. is a horizontal sectional view of one corner of the wagon body. Fig. 4. is a vertical transverse sectional view of the lower end of a corner of the wagon body. Fig. 5. is a side elevation of the rear portion of a wagon body, and showing a swinging gate, forming the end of the wagon body.

A portion of a wagon body is shown consisting of the bottom 1, sides 2, and end 3. This end 3 is provided with an extension 4 at each end; said extensions 4 being hinged at 5 at their inner margins, to the outer margins of the end 3. Secured to the outer side of one of the end sections 4, is a bracket or lever 6, and secured to the outer side of the other end section 4, is a bracket or lever 7. These levers 6 and 7 extend longitudinally of the outer side of the end 3, and their overlapping ends are provided with registering slots which engage a staple 8, projecting centrally from the outer side of the end-board 3, and this staple is engaged by the pivoted

hook 9, carried by one of the said levers. When the levers 6 and 7 are thus secured against the outer side of the end-board 3, the hinged pieces 4, 4, are held rigidly in line with the said end-board 3.

Secured to the end of each side 2 of the wagon body, is a bracket 10, and this bracket is provided with the vertical and parallel arms 11, 11, which, embracing the opposite sides of the said side 2, are secured in such position by screws or other suitable means. That portion of the bracket projecting beyond the end of the sides 2 is recessed at its inner side at 12, and said extension is formed at its outer end with a hook-portion 13; said hook-portion 13 being preferably, in plan view, of less width than the body portion of the bracket. Projecting inwardly from the recessed side 12, of and at the lower end of said bracket, is a lug or ear 14, and this lug or ear, resting directly upon the bottom of the wagon body, has a vertical bolt 15, passed therethrough, and also through the bottom of the wagon, and a retaining nut 16, engages its projecting and threaded end, so as to secure the side rigidly to the bottom of the wagon.

A bracket 17 is provided with the vertical parallel arms 18, which embrace the opposite sides of each end-piece 4 of the end-board 3, and these brackets are secured rigidly thereto by screws or other suitable means. Each bracket 17, is formed at its outer end with an outwardly projecting and vertical hook-portion 19, the outer surface of which is segmental, so as to operate pivotally within the recess 12 as hereinafter explained. In order that the hook-portion 19 may fit and operate within the recess 12, the lower end of the hook-portion 19, is recessed or cut away at 20, to receive the lug or ear 14. The lower ends of the end-brackets 17 lie in the same plane as the lower ends of the brackets 10, and upon the bottom of the wagon, and the upper ends of the brackets 17 lie flush with or in the same horizontal plane as the upper ends of the brackets 10. The bottom of the wagon limits the downward movement of the end-board 3 proper, and its component parts. To prevent the said end-board moving accidentally or being moved upward, the upper ends of the brackets 10 are formed, each with an outwardly projecting flange 22, the lower sur-

faces of which lie in the same plane with and upon the upper ends of the hook-portions 19 of the brackets 17. A continuation of these flanges 22, in the opposite direction, rests upon the upper side of the metallic wear-strips, secured by screws in the usual manner upon the upper edge of the side-portions 2 of the wagon body. In the practical use of wagons these wear-strips become loose and therefore dangerous, and also rattle to a considerable extent in the passage of the wagon. With these flanges 21 bearing upon each end of the said strips, it will be impossible for them to become loosened.

The operation of disconnecting the end-board from the sides is as follows: The hook 9 is disengaged from the staple 8, and the ends of the levers 6 and 7 are pulled outward so as to simultaneously operate the hook-portions 19 of each bracket pivotally, and move the end-board 3 bodily outward; the end-board breaking at the hinge-joints 5, to allow of this movement. As the levers continue to move outward the hook-portion 19, of each bracket 17, is entirely disengaged from its respective companion hook 13. To place the end-board in position, the ends of the hook-portions 19, are introduced slightly in the recesses 12, as shown in Fig. 2. The levers 6 and 7, at their free ends, are now forced inwardly until they lie and are secured against the outer side of the end-board 3. Projecting vertically downward from the outer end of each bracket 10, is an ear or lug 23, and these ears or lugs, occupying recesses 24 formed in the bottom of the wagon to receive them, being oppositely disposed, are connected by a transverse and horizontal bolt 25. Projecting inwardly from the upper end of each hook-portion 13, of the brackets 10, is a hook 26; the object of which will be presently explained.

When it is desired to utilize the wagon for the conveyance of stock or corn, the end-board carrying the bracket 17 is removed. An end-board or gate 27, in depth considerably greater than the wagon body, carries strap-irons 28, and these strap-irons, projecting inwardly from the end of said board, are formed with eyes 29, which pivotally engage the cross-bolt 25. Secured to the inner side of said end-board or gate, are a pair of spring catches 30, or their equivalents, which engage the hooks 26, and thus support the end-board or gate

in its vertical position, as shown in Fig. 5. When used as a stock-wagon, the end-board 27, is thrown pivotally in the direction of the arrow, Fig. 5, until its free margin rests upon the ground so as to form an inclined chute or passage for the stock, whether passing into or out of the wagon.

From the above description, it will be seen that I have produced means for securing the end-board to the sides of a wagon body, which entirely obviates the use of cleats, rods, threaded straps, &c.; which is easy of manipulation and positive and reliable in operation, and which is simple, strong, durable, and inexpensive of construction.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a fastening device for end-gates, the combination with a bracket comprising a pair of parallel arms 11, embracing and secured to opposite sides of the sides of the wagon-body, a vertical and inwardly disposed hook-portion 13 at its rear end, and a lug 22, overlapping or bridging the cavity at the front and inner side of the hook-portion, of an end-gate, a section 4, hinged thereto, a lever carried by said section, and a bracket comprising the parallel arms 18, embracing the opposite sides and secured firmly to said hinged section, and an outwardly and rearwardly projecting hook-portion 19, engaging the first-mentioned hook and the cavity and bearing against the bottom of the wagon and the under side of the lug 22, substantially as described.

2. In a locking device for end-gates, the combination substantially as hereinbefore described, of brackets secured to the sides of the wagon-body and provided with hooks 26, at their upper ends, and lugs 23 at their lower ends, and a bolt connecting said lugs, of an end-gate pivotally supported upon said bolt, and spring-catches 30, carried by said end-gate and engaging the hooks 26, of the brackets.

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

JOSEPH T. DUNCAN.

Witnesses:

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M. R. REMLEY.