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G. HENERY.

END GATE FOR VEHICLES.

APPLICATION FILED NOV. 14, 1905.

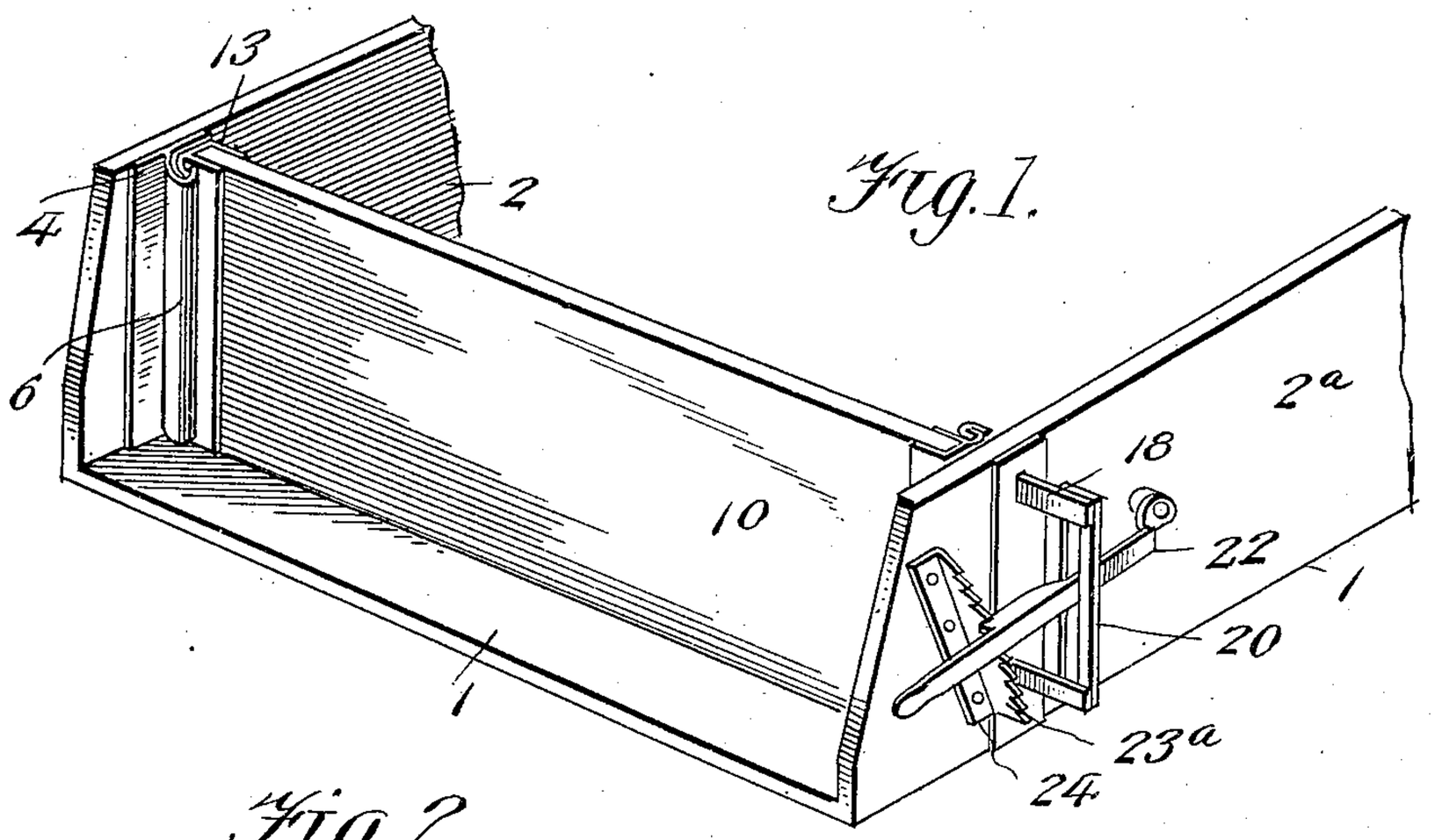


Fig. 1.

Fig. 2.

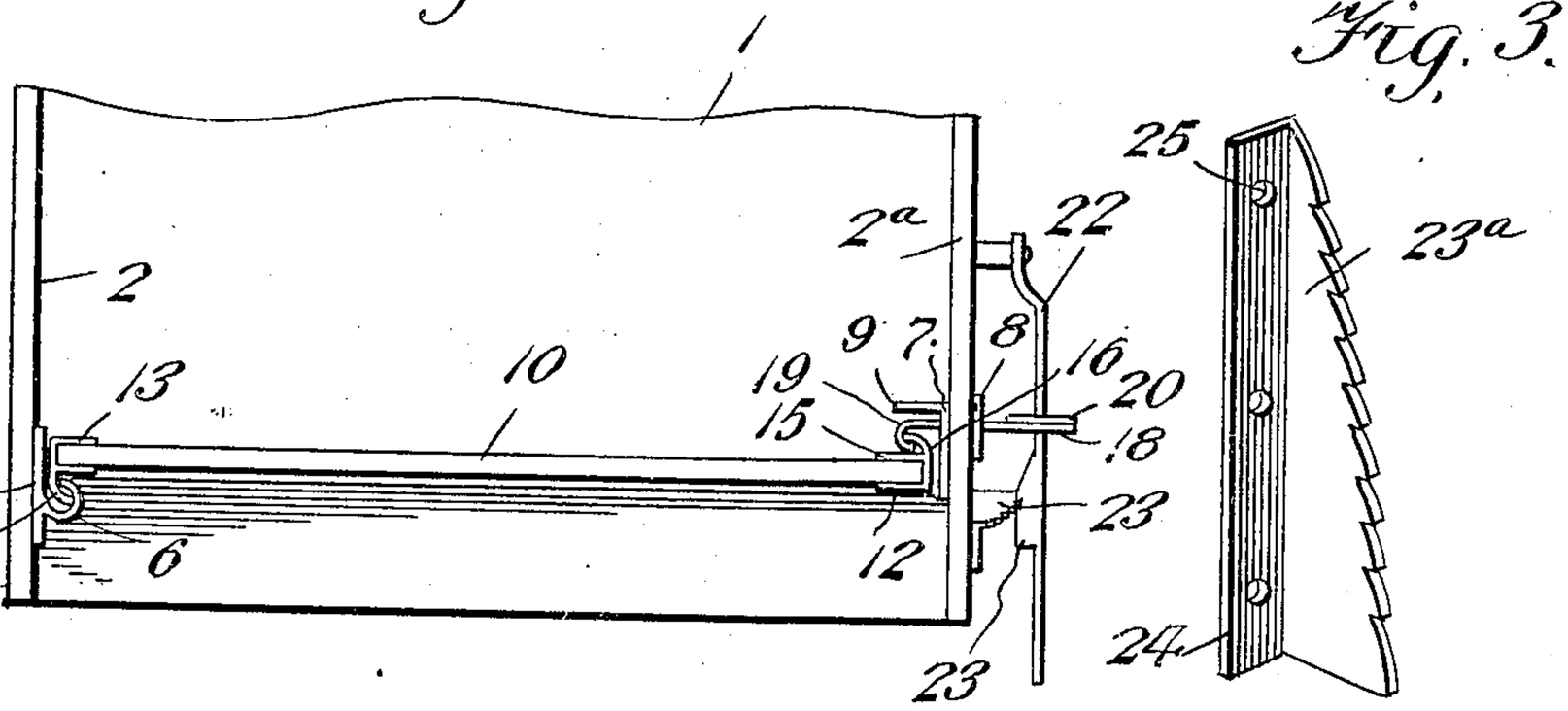
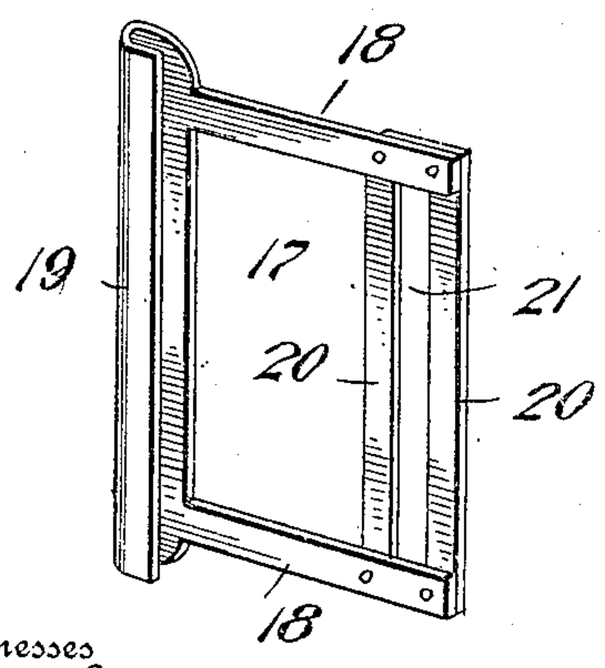


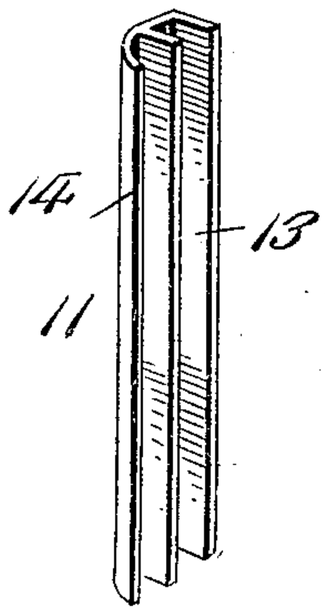
Fig. 3.

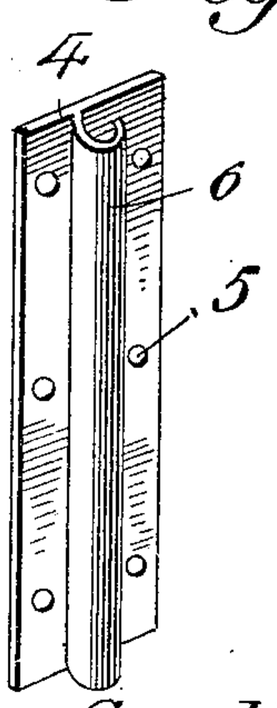
Fig. 4.

Fig. 5.

Fig. 6.







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END-GATE FOR VEHICLES.

No. 835,423. Specification of Letters Patent. Patented Nov. 6, 1906.

Application filed November 14, 1905. Serial No. 287,368.

To all whom it may concern:

Be it known that I, GRANT HENERY, a citizen of the United States, residing at Zanesville, in the county of Muskingum and State of Ohio, have invented new and useful Improvements in End-Gates of Wagons, Cars, and other Vehicles, of which the following is a specification.

My invention relates to end-gates; and its primary object is to provide a novel and highly useful device of this character which can be swung horizontally, so as to facilitate the removal of the gate.

A further object of the invention is to provide novel means by which the end-gate may be locked in closed position and readily and quickly released and which also serves to hold the sides of the wagon against rattling.

A still further object of the invention is to provide an end-gate and locking means of simple and durable construction and which can be manufactured and sold at a comparatively low cost.

With the above and other objects in view the invention consists in the construction, combination, and arrangement of parts hereinafter fully described, claimed, and illustrated in the accompanying drawings, wherein—

Figure 1 is a perspective view illustrating the application of an end-gate constructed in accordance with my invention. Fig. 2 is a top plan view. Fig. 3 is a detail perspective view of the ratchet-bracket. Fig. 4 is a detail perspective view of the locking member. Fig. 5 is a similar view of one of the members of the hinge, and Fig. 6 is a similar view of the other member of the hinge.

Referring to the drawings by reference-numerals, 1 designates the bottom, and 2 and 2^a the sides, of a wagon-body of the usual form and construction. The side 2 has secured to the inner surface thereof a vertically-arranged hinge member 3, said member comprising an attaching-plate 4, provided with a plurality of openings 5, through which may pass suitable fastening means to secure the hinge member in applied position, and a hinge-barrel 6. The side 2^a of the wagon-body is provided with spaced openings, (not shown,) and has secured to the inner and outer surfaces thereof plates 7 and 8, respectively, these plates being provided with openings alining with the openings in the side 2^a, the plate 7 being provided with an inwardly and interiorly disposed flange 9 for a purpose to be presently stated. The end-gate 10 has one of its ends provided with a hinge member 11 and its other end with a latch-engaging member 12. The hinge member 11 is provided with a channeled portion 13, adapted to receive the end of the gate 10, and with a hinge-barrel 14, adapted to engage the hinge-barrel 6 of the member 3, whereby to secure the gate in applied position for horizontal movement. The latch-engaging member 12 is also provided with a channeled portion 15 for the reception of the other end of the gate 10 and is provided with an inwardly-directed flange 16.

A locking member 17 is provided with rearwardly-directed arms 18, slidably mounted in the openings in the side 2^a and plates 7 and 8, and with a curved portion 19, adapted to be brought into engagement with the flange 16 of the lock-engaging member 12 to lock the gate 10 in closed position and retain the sides 2 and 2^a of the wagon-body against rattling. The flange 9 of the plate 7 prevents the contents of the wagon from accumulating about the locking member, whereby to insure its easy operation. The extremities of the arms 18 are connected by means of two vertical bars 20, spaced apart to provide a way or guide 21, said way or guide being positioned beyond the outer surface of the side 2^a. A lever 22 is pivotally mounted on the outer surface of the side 2^a and projects through the guide 21, and at a point in rear of the guide 21 said lever is provided with an integrally-formed and horizontally-disposed ratchet 23, working over the inclined ratchet 23^a. The ratchet is provided with a flange 24, having openings 25, through which may pass suitable fastening means to secure it in applied position.

In order to secure the end-gate 10 in applied position, the hinge member 11 thereof is caused to engage the hinge member 3, secured to the inner surface of the side 2, after which the gate is swung to bring the lock-engaging member 12 in position for engagement with the locking member 17. After the gate has been thus positioned the lever 22 is swung downward, this downward movement of the lever serving to bring the curved portion 19 of the locking member into engagement with the curved portion 16 of the locking member 12, whereby the gate is secured in applied position and whereby the sides 2 and 2^a of the wagon-body are retained against rattling. The downwardly and outwardly inclined

ratchet-face of the ratchet-bracket 23 causes the lever 22 to move outward from the outer surface of the side 2^a, and this outer movement thereof, in view of its engagement in the way 21, causes the locking member 17 to engage the lock-engaging member 12 on the gate 10. By releasing the lever 22 and causing it to move upward and inward the locking member 17 is moved out of engagement with the lock-engaging member 12, thereby releasing the gate 10 and permitting it to be swung horizontally to clear the rear end of the wagon-body.

From the foregoing description, taken in connection with the accompanying drawings, the construction and mode of operation of the invention will be understood without a further extended description.

Changes in the form, proportions, and minor details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

Having fully described and illustrated my invention, what I claim is—

1. The combination with the sides of a wagon, of an end-gate hingedly secured to one of said sides to be swung horizontally, a lock-engaging member secured to the free end of the end-gate, a locking member slidably mounted upon one of said sides, and means for moving said locking member into and out of engagement with said lock-engaging member.

2. The combination with the sides of a wagon, of an end-gate hingedly secured to one of said sides to be swung horizontally, a lock-engaging member secured to the free end of the end-gate, a locking member slidably mounted upon one of said sides, and a lever by means of which said locking member may be moved into and out of engagement with said lock-engaging member.

3. The combination with the sides of a wagon, of an end-gate hingedly secured to one of said sides to be swung horizontally, a lock-engaging member secured to the free end of the end-gate, a locking member slidably mounted upon one of said sides, an inclined ratchet-plate, and a lever having engagement with said locking member and movable over said inclined ratchet-plate, whereby to move the locking member into and out of engagement with the lock-engaging member.

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

GRANT HENERY.

Witnesses:
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