No. 849,263. PATENTED APR. 2, 1907.

E. W. OLSON.

WAGON END GATE.

APPLICATION FILED SEPT. 10, 1906.

FIG. 1

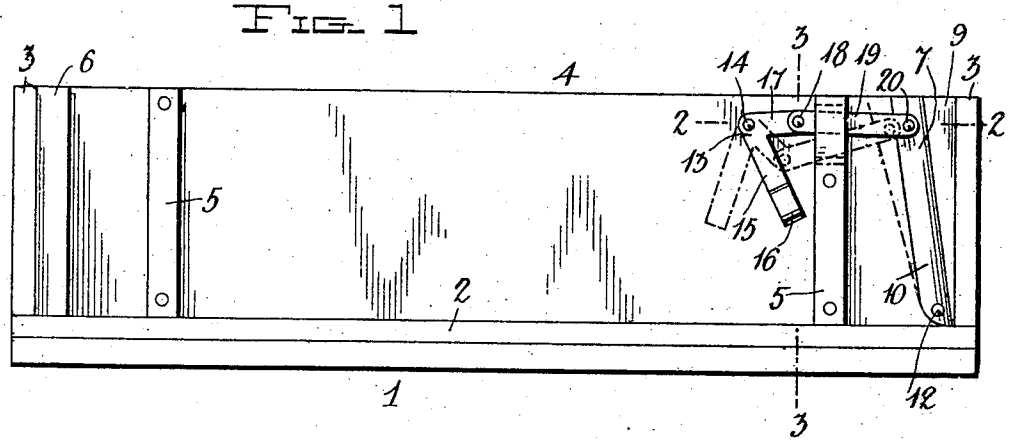



FIG. 2

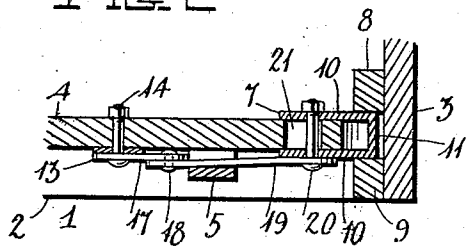



FIG. 3

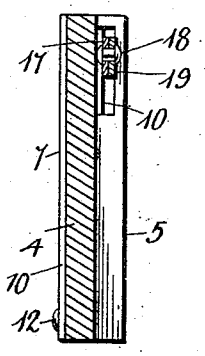
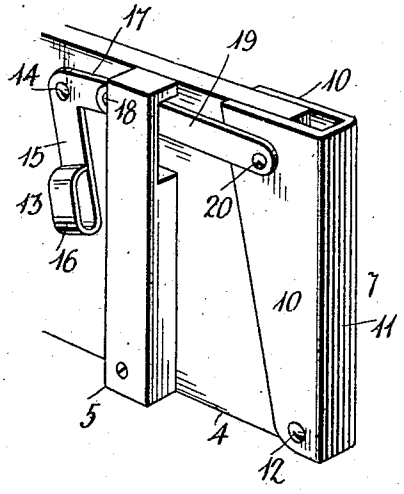



FIG. 4




Witnesses

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# UNITED STATES PATENT OFFICE.

EVERETT WILLIAM OLSON, OF GARFIELD, KANSAS.

## WAGON END-GATE.

No. 849,263. Specification of Letters Patent. Patented April 2, 1907.

Application filed September 10, 1906. Serial No. 333,964.

*To all whom it may concern:*

Be it known that I, EVERETT WILLIAM OLSON, a citizen of the United States, residing at Garfield, in the county of Pawnee and State of Kansas, have invented certain new and useful Improvements in Wagon End-Gates; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in end-gates for wagons and other vehicles; and it consists in the construction, combination, and arrangement of parts hereinafter described and claimed.

The object of the invention is to provide a wagon end-gate with a simple, strong, durable, and comparatively inexpensive fastening means which will permit it to be quickly and easily secured to or removed from the wagon-body.

The above and other objects are accomplished by means of the construction illustrated in the accompanying drawings, in which—

Figure 1 is a rear end elevation of a wagon-body, showing my improved end-gate therein, the gate being shown in its locked position in full lines and in its released position in dotted lines. Fig. 2 is a horizontal section taken on the plane indicated by the line 2 2 in Fig. 1. Fig. 3 is a detail vertical section taken on the plane indicated by the line 3 3 in Fig. 1, and Fig. 4 is a perspective view of one end of the end or tail gate.

Referring to the drawings by numeral, 1 denotes a portion of a wagon-body having a bottom 2 and sides 3, and 4 denotes my improved end-gate. The latter is rectangular in form and is strengthened upon its outer face by cross bars or cleats 5, arranged adjacent to its ends. One end of the gate 4 is adapted to fit between the usual vertically-extending parallel cleats 6, secured upon the inner face of one of the sides 3 of the wagon-body adjacent to the rear end of said side.

Mounted upon the opposite end of the gate 4 is a locking plate or member 7, which is adapted to fit between two parallel cleats 8 9, arranged vertically upon the inner face of the end of the other side 3 of the wagon-body. The inner cleat 8 is of rectangular form, while the outer cleat 9 is tapered or beveled from its upper end, which is of the same thickness as the cleats 6 8 to its lower end. The locking member 7 is preferably formed from a piece of heavy sheet metal bent or doubled upon itself so as to be of substantially U form in cross-section and to fit over the end of the gate 4, which end is beveled forwardly or in an opposite direction to the bevel of the cleat 9. The locking member or cleat 7 is also slightly tapered from its upper to its lower end, and its parallel inner and outer portions 10 are adapted to slide in contact with the opposite faces of the gate 4. The connecting portion or outer edge 11 of the plate or member 7 is the part that enters between the cleats 8 9, and it is adapted to be moved into and out of engagement with said cleats in order to lock and unlock the end-gate in the wagon-body.

The lower end of the locking member 7 is pivoted adjacent to the bottom of the gate 4 by a transverse rivet, pin, bolt, or the like 12, and its upper end is adapted to be swung longitudinally with respect to the gate by means of a lever 13. The latter is in the form of a bell-crank and is pivoted at 14 upon the outer face of the gate 4 adjacent to its upper edge. Its long arm 15 is bent to form a hand-loop 16. A short arm 17 of the bell-crank has pivoted upon it at 18 one end of a link 19, which projects through a recess or opening in the adjacent cleat 5 and has its opposite end pivoted upon a rivet, bolt, or the like 20, provided upon the upper portion of the member 7. This pivot 20 preferably extends through both of the parallel portions 10 of said member and works in a slot 21, formed in the gate 4.

It will be seen upon reference to Fig. 1 that the parts 13 19 form a toggle connection between the upper member 7 and the gate 4 and that when the parts are in the full-line position (shown in Fig. 1) the pivot 18 passes a straight line drawn through the pivots 14 and 20, and thereby locks the member 7 in its projecting position.

When the handle 16 of the lever 13 is swung to its dotted-line position, the upper end of the member 7 will be swung inwardly, as shown in dotted lines in Fig. 1, so that the end-gate may be readily removable from the wagon-body by swinging its right-hand end outwardly and then slipping its left-hand end from between the cleats 6.

From the foregoing description, taken in connection with the accompanying drawings,

the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as defined by the appended claims.

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

1. The combination with a wagon-body having seats upon the inner faces of its two sides, of an end-gate adapted to have one of its ends engage one of said seats, a locking member pivoted upon the opposite end of said gate and adapted to enter the other of said seats, and means for swinging said locking member into and out of its seat.

2. The combination with a wagon-body having seats upon the inner faces of its two sides, of an end-gate adapted to have one of its ends engage one of said seats, a locking member pivoted upon the opposite end of said gate and adapted to enter the other of said seats, and a toggle connection between said locking member and said gate for moving said toggle into and out of its seat, a bell-crank pivoted upon said gate, and a link connecting one arm of said bell-crank to said locking member, substantially as described.

3. The combination with a wagon-body having spaced cleats upon the inner faces of its two sides, the outer cleat on one side being tapered, of an end-gate having one end beveled and its other end adapted to enter between the cleats on one side of the wagon, a locking member pivoted upon said gate, and a toggle connection between said member and said gate for swinging said member into and out of engagement with said tapered cleat.

4. The combination with a wagon-body having spaced cleats upon the inner faces of its two sides, the outer cleat on one side being tapered, of an end-gate having one end beveled and its other end adapted to enter between the cleats on one side of the wagon, a locking-plate of substantially U form in cross-section telescoping the beveled end of the gate and adapted to coact with said tapered cleat, said locking-plate being pivoted at one of its ends, and means for swinging the opposite end of said gate, substantially as described.

5. The combination with a wagon-body having spaced cleats upon the inner faces of its two sides, the outer cleat on one side being tapered, of an end-gate having one end beveled and its other end adapted to enter between the cleats on one side of the wagon, a locking-plate of substantially U form in cross-section telescoping the beveled end of the gate and adapted to coact with said tapered cleat, said locking-plate being pivoted at one of its ends, a lever pivoted upon said end-gate, and a link connecting said lever, substantially as described and for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

EVERETT WILLIAM OLSON.

Witnesses:
T. ELMER WILSON,
JOHN J. WINNIE.