

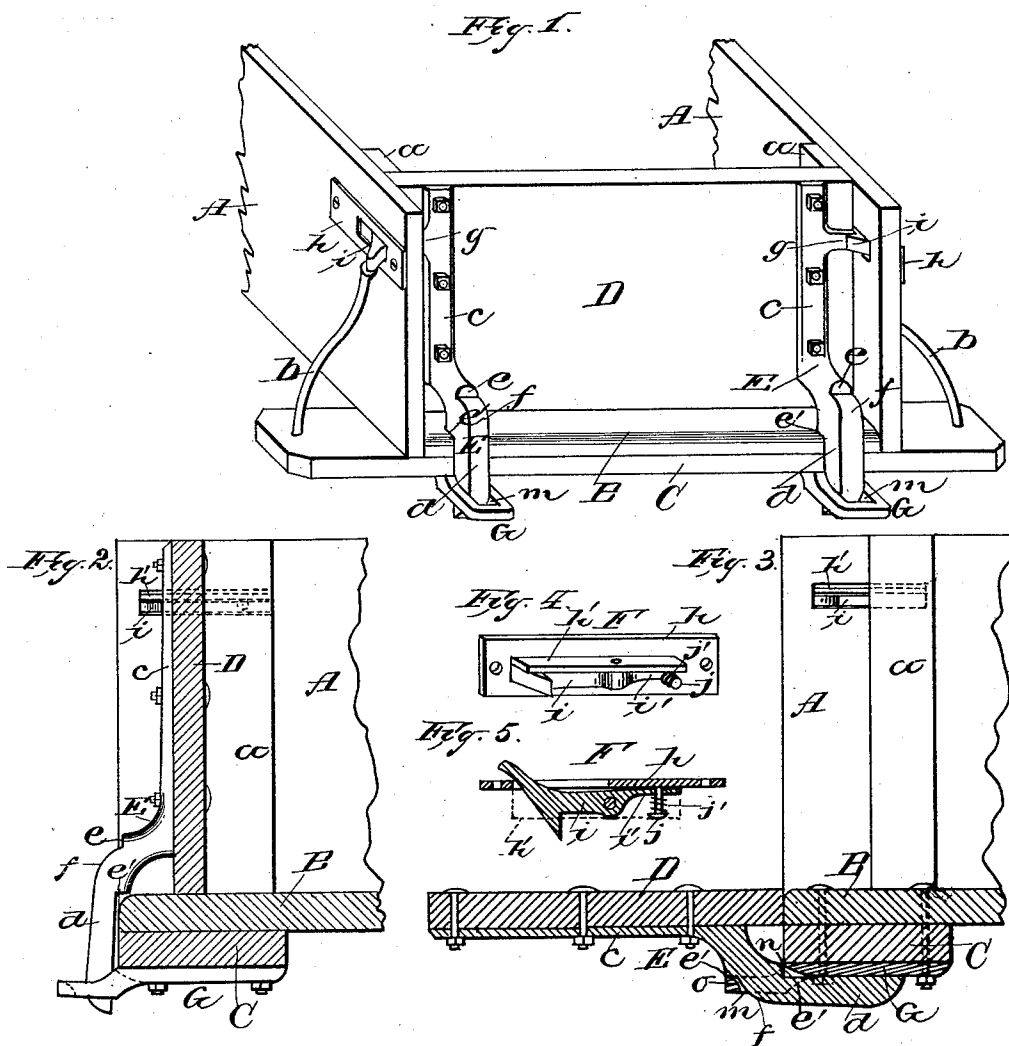
(No Model.)

J. C. ALTSCHWAGER.

END GATE HINGE.

No. 341,307.

Patented May 4, 1886.



Witnesses:

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END-GATE HINGE.

SPECIFICATION forming part of Letters Patent No. 341,307, dated May 4, 1886.

Application filed December 21, 1885. Serial No. 186,308. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. ALTSCHWAGER, of London, in the county of Dane, and in the State of Wisconsin, have invented certain new and useful Improvements in End-Gate Hinges; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to end-gate hinges; and it consists in certain peculiarities of construction and combination of parts, as will be hereinafter described with reference to the accompanying drawings, in which—

Figure 1 represents a perspective view showing the application of my invention; Fig. 2, a vertical longitudinal section of Fig. 1, with the end gate in its closed position; Fig. 3, a similar view with the end gate opened, and Figs. 4 and 5 detail views of the end-gate lock.

A A represent the side-boards of a wagon-body, said side-boards being provided with inner vertical cleats, *a a*. These side-boards are joined in the usual manner to the bottom B of the wagon-body, to the under side of which bottom is secured a transverse cleat, C, the latter having its ends extended beyond said side-boards and united thereto by brace-rods *b b*.

D is an end-gate, which comes against the vertical cleats *a a* on the side-boards A A. To this end-gate are bolted or otherwise secured the strap portions *c c* of angle-irons E E, each of which latter forms the upper section of my improved hinge. The lower portions or shanks, *d d*, of these angle-irons are provided with outer and inner shoulders, *e e'*, and are rounded off, as shown at *f*. The strap portion of each angle-iron is provided with an outwardly-projecting lug, *g*, adapted to engage a suitable lock, F, on the adjacent side-board A, the preferred form of such lock being illustrated by Figs. 4 and 5, and consists of a slotted plate, *h*, having a flange, *h'*, to which is pivotally connected a thumb-latch, *i*, the inner end, *i'*, of this latter part being perforated to work on a pin, *j*, extended from the flange-plate and supporting a spring, *j'*, designed to bear against said inner end of the latch, and thus retain the latter in operative position. The slotted plates *h* of the end-

gate locks are intended to be secured to the outer sides of the boards A A, which latter are suitably mortised to permit the working of the operative parts of the locks. If desired, the lugs *g* may be omitted from the angle-irons and the latches *i* directly engage against the end-gate.

G G are plates adapted to be bolted or otherwise secured to the under side of the transverse cleat C, and each of these plates forms the lower section of my end-gate hinge. The outer end of each plate G is offset and slotted at *m* to receive the shanks *d* of one of the angle-irons E, that portion of the plate immediately in the rear of the slot being beveled to form a knife-edge bearing, *n*, for the shoulder *e'* of said angle-iron, while at the opposite end of the slot the plate is slightly rounded, as shown at *o*. When the end-gate is in its closed position, the angle-irons secured thereto have the lower extremities of their shanks *d* retained in the slotted outer ends of the plates or hinge-sections G, while the thumb-latches *i* of the spring-locks F engage the lugs *g* on the upper or strap ends of said irons. To open the end of the wagon-body, the thumb-latches are disengaged from contact with the angle-irons, and the gate drawn to the rear in a downward direction, thus causing the shanks *d* of said angle-irons to slide in the slots of the plates G until the shoulders *e'* come against the bearings *n*. The gate will now swing down and out to a horizontal plane, and the shoulders *e* of the angle-iron shanks come against the upper outer extremities of the plates, as shown by Fig. 3, the rounded portions *f o* of the respective parts permitting this engagement to be more readily effected. The end-gate being now in its opened position is on the same horizontal plane and flush with the bottom of the wagon-body, and thus forms an extension thereof to facilitate loading and unloading, while the inner faces of the angle-iron shanks come snugly against the under side of the plates, thereby acting as braces to prevent said end-gate from being forced from the position above described, as any strain brought thereon will be compensated for at the point of contact between said shanks and plates.

Should it be desirable at any time to entirely

remove the end-gate from the wagon-body, it is only necessary that this gate be vertical, or at such an angle that the shoulders *e* of the angle-irons will be out of contact with the outer extremities of the plates G, when said gate can be readily lifted out.

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

1. An end-gate hinge consisting of an upper section, in the form of an angle-iron, having a strap portion provided with a projecting lug, and a shank provided with an inner and outer shoulder, and a lower section, in the form of a plate, having its outer end slotted to receive said shank, in combination with a suitable locking mechanism designed to be secured to a side-board of a wagon-body, to engage the lug on the strap portion of said upper hinge-section, as set forth.

2. A two-section end-gate hinge, the upper section thereof consisting of an angle-iron, E, having a shank, *d*, provided with shoulders *e* and rounded portion *f*, and the lower section consisting of a plate, G, having an offset and slotted outer end, *m*, knife-edge bearing *n*, and rounded portion *o*, substantially as and for the purpose set forth.

3. A two-section end-gate hinge having its upper section, in the form of an angle-iron, provided with an outwardly-projecting lug, and its lower section, in the form of a plate, having a slotted outer end adapted to receive

the shank of said angle-iron, in combination with a mortise-lock consisting of a flanged plate having pivotally secured thereto a thumb-latch provided with a perforated end and adapted to engage the lug on the angle-iron, an inwardly-projecting pin passed through the perforated end of the latch and supporting a spring designed to retain said latch in operative position, substantially as and for the purpose set forth.

4. The combination, with a wagon-body provided with a transverse cleat, C, and end-gate D, of an end-gate hinge, the upper section thereof consisting of the angle-iron E, provided with a lug, *g*, and shank *d*, having shoulders *e* and rounded portion *f*, and the lower section consisting of a plate, G, having an offset slotted outer end, *m*, knife-edge bearing *n*, and rounded portion *o*, and a mortise-lock, F, adapted to be secured to a side-board of the wagon-body, and composed of a slotted flanged plate, *h*, pivotally connected and perforated thumb-latch *i*, pin *j*, and spring *j'*, all arranged to operate substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

JOHN C. ALTSCHWAGER.

Witnesses:

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