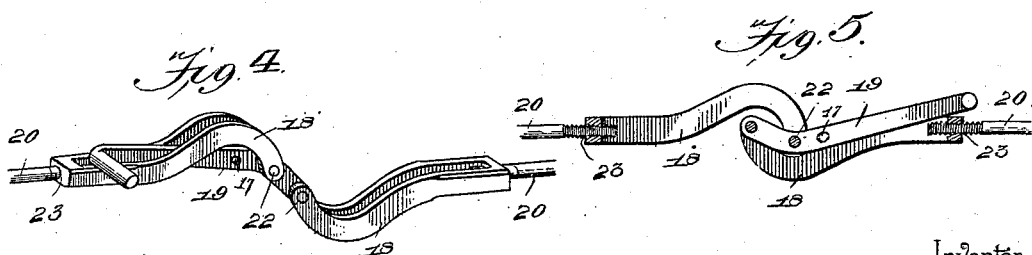
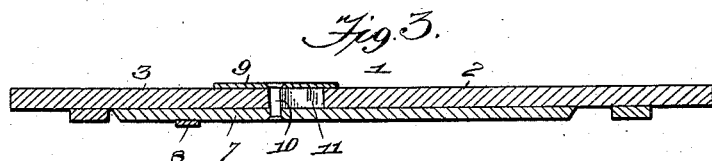
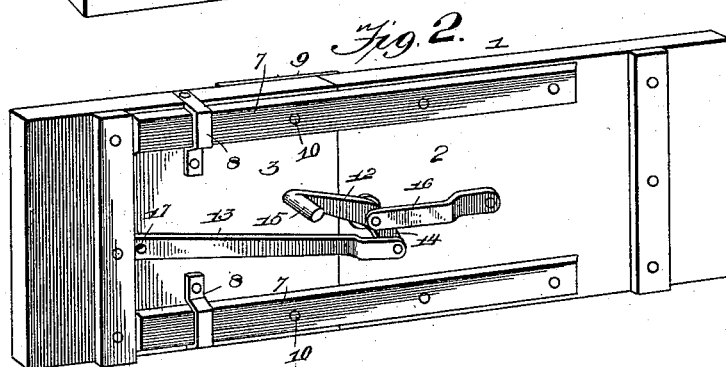
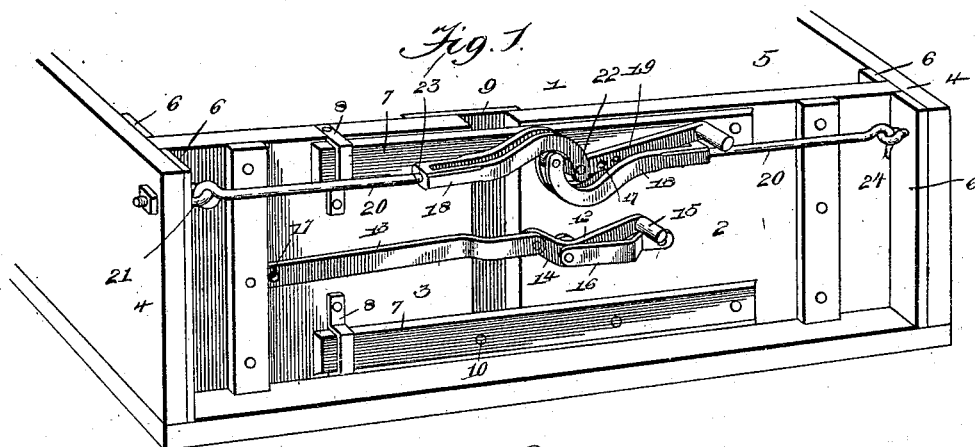


(No Model.)

J. W. ORTMAN.  
END GATE.

No. 553,258.

Patented Jan. 21, 1896.



Inventor

Witnesses

John C. Shaw.  
J. F. Riley

By *his* Attorneys,

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# UNITED STATES PATENT OFFICE.

JAMES WILLIAM ORTMAN, OF GILLIVAN, OHIO.

## END-GATE.

SPECIFICATION forming part of Letters Patent No. 553,258, dated January 21, 1896.

Application filed April 6, 1895. Serial No. 544,799. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES WILLIAM ORTMAN, a citizen of the United States, residing at Gillivan, in the county of Madison and State of Ohio, have invented a new and useful End-Gate, of which the following is a specification.

The invention relates to improvements in end-gates.

The object of the present invention is to improve the construction of end-gates and to provide one which will be simple and inexpensive in construction and which may be readily engaged with and removed from the cleats of the sides of a wagon-body without sliding it vertically.

Another object of the invention is to prevent the sides of a wagon-body from spreading and leaving the end-gate, and to dispense with the nutted rods usually employed for that purpose and to avoid the laborious operation of removing such nuts and withdrawing the rods from the perforations or openings of a wagon-body.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

In the drawings, Figure 1 is a perspective view of the rear portion of a wagon box or body having an end-gate constructed in accordance with this invention. Fig. 2 is a detail perspective view of the end-gate. Fig. 3 is a detail sectional view of the end-gate, illustrating the manner of slidingly connecting the sections thereof. Fig. 4 is a detail perspective view of the connecting device. Fig. 5 is a central longitudinal sectional view of the central portion of the connecting device, illustrating the position of the parts when locked.

Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates an end-gate composed of sections 2 and 3 slidingly connected to form an extensible and contractile end-gate, adapted when contracted or shortened to be placed between the sides 4 of a wagon-body 5, and capable of having its length increased to engage with or fit between pairs of cleats 6, mounted vertically on the inner faces of the sides of the

wagon-body. The section 2 is provided at its top and bottom on its outer face with cleats 7, disposed horizontally and overlapping the inner portion of the section 3, and arranged within keepers 8 thereof. A vertical plate 9 of sheet metal is secured to the inner face of the section 2 and extending therefrom and overlapping the other section 3 and connected with the cleats 7 by fastening devices 10, and the section 3 is provided at its inner end with horizontal slots 11, receiving the fastening devices 10 and permitting the section 3 to slide inward past the fastening devices.

The sliding sections 2 and 3 are operated by a bell-crank lever 12, fulcrumed at its angle on the section 2 and a link 13 pivoted to the lever 12 and to the section 3. The operating-lever has a short arm 14, which is connected to the link 13 and the lever is provided at its other end with a handle or projection 15, and the pivot or fulcrum is supported by a brace 16 disposed horizontally on the section 2. The outer end of the link is provided with a series of perforations 17 to receive the pivot and to afford an adjustable connection whereby the sliding movement of the sections 2 and 3 of the end-gate may be regulated.

When the handle end of the lever is swung downward, as illustrated in Fig. 1 of the accompanying drawings, it is supported by the brace at one end, and its other end to which the link 13 is pivoted is located slightly above the pivot or fulcrum, and any tendency of the sections to slide inward forces the lever against the brace, whereby the sections are rigidly locked against inward movement. When the handle end of the lever is swung upward the short arm swings downward and moves the sections 2 and 3 of the end-gate toward each other, decreasing its length and disengaging its ends from the cleats of the sides of the wagon-body and enabling the end-gate to be removed without sliding it vertically. The end-gate may also be placed in position by arranging it between the sides when in a contracted condition, and then extending the slides.

The sides of the wagon-body are locked against outward movement or separation, and are held tightly against the ends of the end-gate by a connecting device, comprising two

oppositely-disposed slotted bars 18, having parallel sides forming the slots or spaces, a lever 19 connecting the inner ends of the slotted bars and adjustable rods 20 engaging eyes 21 of the sides of the wagon-body. The slotted bars have their inner ends oppositely curved or slightly hook-shaped and adapted to interlock, as illustrated in Fig. 1 of the accompanying drawings, and the lever 19 is pivoted at one end to the inner end of one of the slotted bars in the slot thereof and is pivoted to the other slotted bar a short distance from such end, whereby when the lever is swung downward, as illustrated in Fig. 1 of the accompanying drawings, the inner ends of the slotted bars are caused to overlap and interlock.

The bar 18 to which the end of the lever is pivoted curves upward, and the inner end of the other slotted bar curves downward, and when the lever is swung adjacent to the first or upwardly-curved slotted bar it partially enters the slot thereof, so as to cause its end to swing upward in the recess or bend of the other slotted bar and to lie above the pivot thereof. By swinging the lever 19 in the opposite direction the inner curved ends of the slotted bars are disengaged and separated. The inner ends of the adjustable rods are threaded, and engage threaded openings 23 of the outer terminals of the slotted bars, and by rotating the rod they are extended or drawn inward to regulate the length of the connecting device to suit the width of the wagon-body and to enable the sides thereof to be drawn inward against the end-gate with the desired degree of tightness. The outer end of one of the adjustable rods is provided with an eye which is linked into one of the eyes of the sides of the wagon-body, and the outer end of the other adjustable rod is provided with an open eye or hook 24 for detachably engaging the other eye of the wagon-body.

It will be seen that the wagon-body has its sides closely and securely held against the

end-gate, and that the latter may be readily placed in the way formed by the cleats of the sides without sliding it vertically, and that the connecting device may be readily operated to release the sides of the wagon-body and to relieve the end-gate of the pressure exerted on its ends by the connecting device.

It will also be apparent that the means for operating the sliding sections of the end-gate are very simple, and that a strong and durable connection between the sections is provided.

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 this invention.

What I claim is—

The combination with a wagon body, of a connecting device comprising a pair of bars composed of parallel sides and having an intervening longitudinal slot or space in each and having their inner terminals oppositely curved and provided at their outer terminals with threaded perforations communicating with the spaces or slots between the sides, an operating lever fulcrumed intermediate of its ends between the sides of one of the bars at the inner end thereof and pivoted at its inner end to the other bar in the slot or space, and adapted to lie in the slots or spaces, and the rods 20 secured to the sides of the wagon body and having their inner ends threaded and fitted in the perforations of the outer ends of the bars and adapted to be advanced in the spaces or slots of the same, whereby the connecting device may be lengthened or shortened to suit wagon bodies of different widths, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JAMES WILLIAM ORTMAN.

Witnesses:

JOHN MATLOCK,  
JACOB MCNEAL.