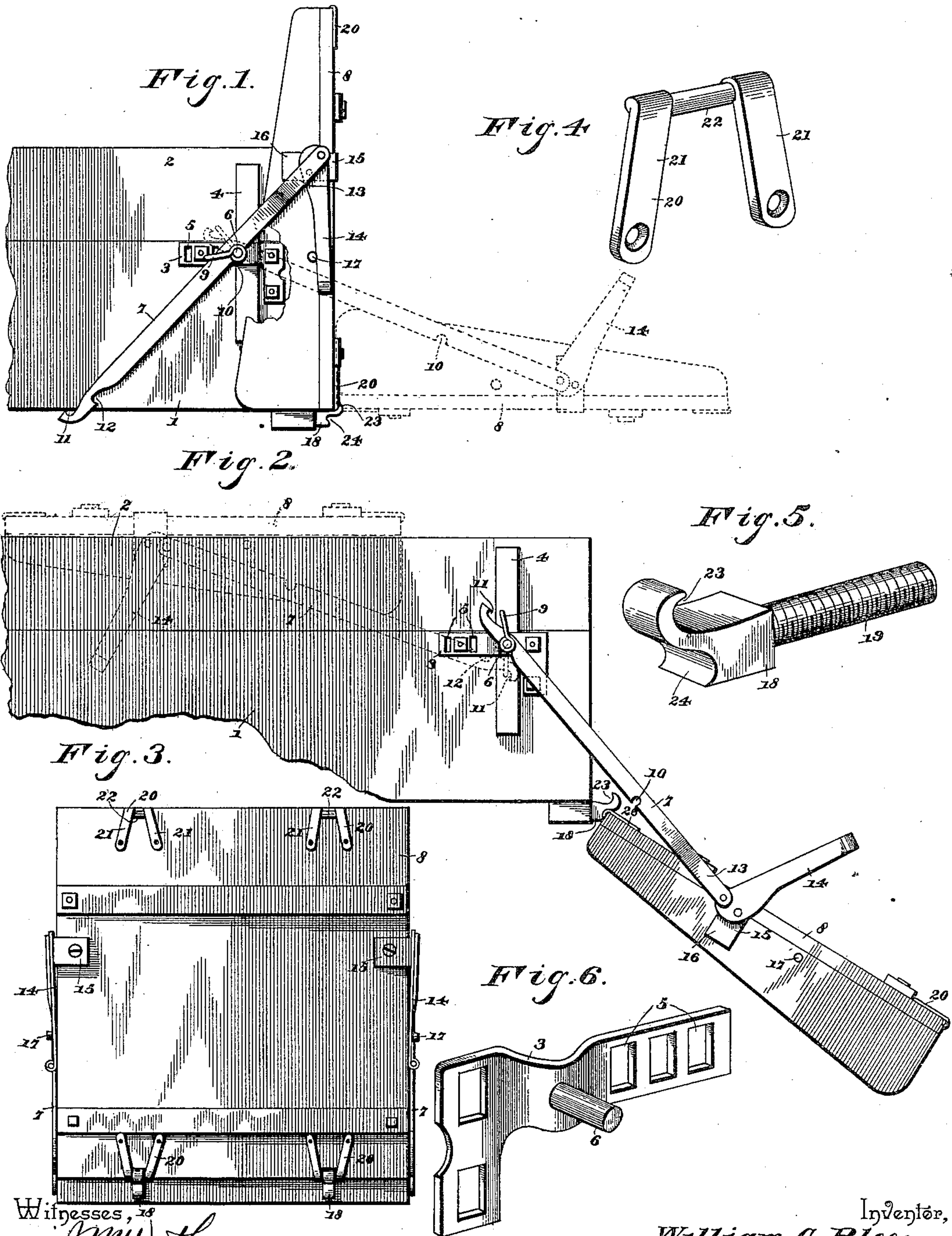


(No Model.)

W. C. BLEE.  
END GATE.

No. 429,006.

Patented May 27, 1890.



Witnesses,

J. M. Withers,  
J. P. Riley

By his Attorneys,

Chas. Snow & Co.

Inventor,  
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# UNITED STATES PATENT OFFICE.

WILLIAM C. BLEE, OF MANILLA, IOWA.

## END-GATE.

SPECIFICATION forming part of Letters Patent No. 429,006, dated May 27, 1890.

Application filed March 26, 1890. Serial No. 345,398. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM C. BLEE, a citizen of the United States, residing at Manilla, in the county of Crawford and State of Iowa, 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 simplify and improve the construction by which end-gates are secured to wagon-bodies, and to enable them to be readily attached to the bodies without injuring or changing the construction of the latter, and to enable the end-gates to be readily changed from one position to another, and to adapt them to serve as a seat, shoveling-board, and skid.

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 claims hereto appended.

In the drawings, Figure 1 is a side elevation of a wagon provided with my improvements, the end-gate being shown in full lines in its vertical position at the rear of the body, its horizontal position for shoveling being illustrated in dotted lines. Fig. 2 is a similar view, the end-gate being shown in full lines inclined and forming a skid and in dotted lines in position to form a seat. Fig. 3 is a rear elevation. Fig. 4 is a detail view of one of the leaf-plates. Fig. 5 is a detail view of one of the hooks. Fig. 6 is a detail view of one of the side plates.

Referring to the accompanying drawings, 1 designates a wagon-body, which is preferably provided with an extension or box 2 and has secured to its side plates 3. The plates 3 are provided with openings 5 to receive bolts, by means of which they are secured to the body of the wagon, and by means of which the tension of the locking-levers can be regulated, and they have projecting laterally from them pins 6, that are arranged to be engaged by side bars 7 of an end-gate 8, and are provided with loops 9, that serve as guides for the side bars 7 while being adjusted when the end-gate 8 is changed from one position to another. The side bars 7 are provided with notches 10 and 12, that are arranged upon one side of the bar, and the notch 11, that is ar-

ranged in the opposite edge. The notches 11 and 12 are arranged at the end of the side bar and are adapted to engage the pin 6 when the end-gate is being used as a seat, a shoveling-board, and a skid, and when the wagon is being dumped the end-gate in this latter position being arranged the same as when serving as a seat. The side bars have their ends 13 pivoted to locking-levers 14, that are fulcrumed on plates or knees 15, secured to the end-gate and having one arm arranged upon the side or wing 16 and the other arm fastened to the back.

When the gate is in its vertical position, as illustrated in full lines in Fig. 1 of the accompanying drawings, the notch 10, which is arranged intermediate of the ends of the side bar, engages the laterally-projecting pins 6 of the plate 3, and the locking-levers are swung downward parallel with the vertical edge of the end-gate, which position carries the pivot of the side bar back of the fulcrum or pivot of the locking-lever, and the said locking-lever engages a stop 17 and is prevented moving forward. The rear edge of the bottom of the wagon-body is provided with a pair of hooks 18, that have threaded shanks 19, adapted to be screwed in the bottom cleat, and the said hooks 18 are adapted to be engaged by leaf-plates 20, which are secured to the outer face of the end-gate at the upper and lower edges thereof, and consist of the diverging sides 21, that are perforated and secured to the end-gate by screws, and are connected by a cylindrical portion or pintle 22, that is adapted to rest in the curved recess 23 of the upper edge of the hook 18 to hinge the end-gate to the wagon-body when the former is being used as a shoveling-board, or to close the rear end of the body, and to engage a curved notch 24 in the lower edge of the hook when the end-gate is being employed as a skid, and is arranged in an inclined position, as illustrated in dotted lines in Fig. 1 of the drawings.

In adjusting the end-gate and changing its position from a vertical one to close the back of the wagon to a horizontal one to form a shoveling-board the locking-levers are raised and the notch 10 is lifted out of engagement with the pins, which are brought in engagement with one of the notches at the end of



the side bar, and to arrange the end-gate for dumping and to form a seat the locking-levers are raised and the end-gate is disengaged from the hooks of the cleat at the bottom of the body and the notches of the side bars rest upon the pins 6, when the end-gate may be readily swung upon the top of the body, as illustrated in dotted lines in Fig. 2. The side bars are then disengaged from the pins and move forward until the notches in the reverse side of the bar engage the loops 9 on the pin 6.

In arranging the end-gate to serve as a skid it is let down as for shoveling and disengaged from the hooks of the bottom cleat, and reversed to bring the pintles of the leaf-plates at the upper edge of the end-gate in engagement with the curved notches 24 of the hooks.

From the foregoing description and the accompanying drawings the construction, operation, and advantages of the invention will readily be understood, and it will be seen that the end-gate can be readily attached to the wagon and removed therefrom without loosening or removing, bolts, nuts, or pins.

What I claim is—

1. The combination of the side plates provided with laterally-projecting pins and adapted to be secured to a wagon-body, the side bars provided with notches arranged to engage the laterally-projecting pins, and the locking-levers adapted to be fulcrumed to an end-gate and being pivotally connected to the side bars, substantially as described.

2. The combination of the plates designed to be secured to a wagon-body and having laterally-projecting pins and provided with swinging loops, the side bars having the

notches 10 and 11 arranged upon one side and the notch 12 upon the opposite side, and the locking-levers pivotally connected to the side bars, substantially as described.

3. The combination of the hooks 18, having threaded shanks and provided in their upper edges with curved recesses 23 and in their lower edges with curved notches 24, the leaf-plates comprising the diverging sides and the pintle or cylindrical portion connecting the sides, the end-gate, the side bars, the locking-levers pivotally connected to the side bars, and the plates provided with laterally-projecting pins arranged to be engaged by the side bars, substantially as described.

4. The combination of the plates 3, provided with the openings 5, adapted to receive bolts, and having the laterally-projecting pins and the swinging links secured to the pins, the hooks 18, having the curved recess 23 in their upper faces and the curved notch 24 in their lower faces, the end-gate provided at its upper and lower edges with the leaf-plates arranged to engage the notches and recesses of the hooks, the locking-levers fulcrumed to the end-gate, and the side bars pivotally connected to the locking-levers and provided with notches arranged to engage the laterally-projecting pins and the loops, substantially as described.

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

WILLIAM C. BLEE.

Witnesses:

C. J. GALLAGHER,  
JOHN GLEISER.