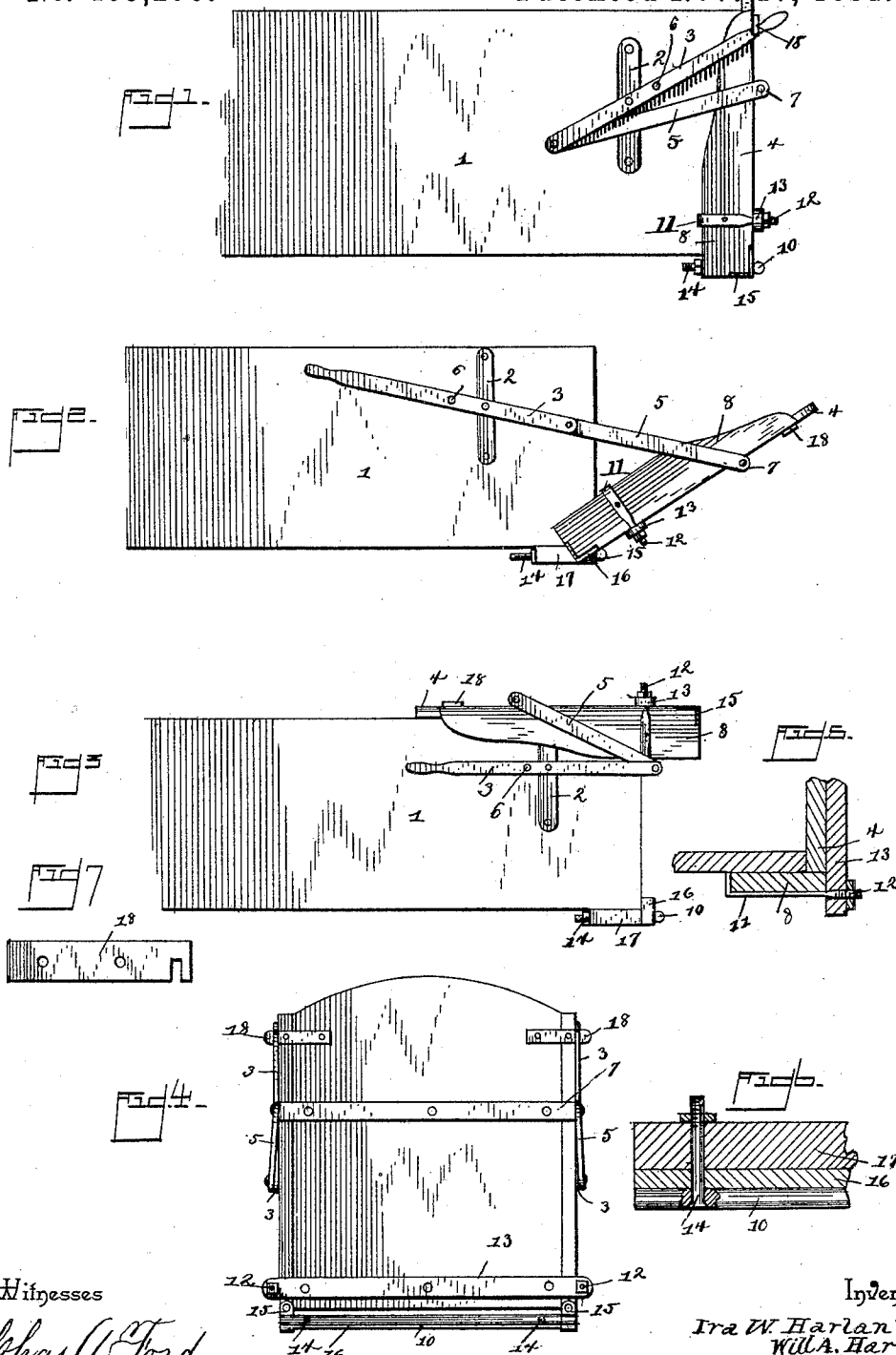


(No Model.)

I. W. & W. A. HARLAN.
WAGON END GATE.

No. 463,276.

Patented Nov. 17, 1891.



Witnesses

Chas. H. Ford.
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UNITED STATES PATENT OFFICE.

IRA W. HARLAN AND WILL A. HARLAN, OF MOMENCE, ILLINOIS.

WAGON END-GATE.

SPECIFICATION forming part of Letters Patent No. 463,276, dated November 17, 1891.

Application filed June 4, 1891. Serial No. 395,095. (No model.)

To all whom it may concern:

Be it known that we, IRA W. HARLAN and WILL A. HARLAN, citizens of the United States, residing at Momence, in the county of Kankakee and State of Illinois, 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 of end-gates, and to enable the same to be readily adjusted for dumping or scooping.

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-body provided with an end-gate constructed in accordance with this invention and shown locked. Fig. 2 is a similar view, the end-gate being in position for scooping. Fig. 3 is a similar view, the end-gate being in position for dumping. Fig. 4 is an end elevation of the wagon-body, the gate being in the position shown in Fig. 1. Figs. 5 and 6 are detail sectional views. Fig. 7 is a detail view of one of the hooks on the end-gate.

Referring to the accompanying drawings, 1 designates a wagon-body provided on its sides, near its rear end, with vertical cleats 2, on which are fulcrumed levers 3, which are connected with an end-gate 4 by bars 5, and are provided intermediate its ends with series of perforations 6, to receive the bolts that secure the levers to the cleats to enable the levers to be adjusted.

The end-gate 4 is provided near its top with a horizontal cleat 7, to the ends of which are pivoted the bars 5, which have their other ends pivoted to the ends of the levers 3, and the end-gate has its wings 8 arranged on the outer faces of the sides of the body to strengthen and support the latter and prevent the same spreading under a heavy load. The wings 9 extend below the end-gate and engage a rod 10 of the wagon-body, and they are secured to the end-gate by hooks or L-shaped plates 11, arranged on the outer faces of the wings and provided with threaded

portions 12, and having their other ends bent at an angle and engaging the edges of the wings. The threaded portions pass through extended ends of a cleat 13, secured to the end-gate and arranged in the bottom thereof, and the said threaded portions are engaged by nuts arranged on the outer face of the cleat 13.

The rod 10 is secured to the wagon-body by bolts 14, and is round and extends laterally from the body, and is engaged by the lower extended ends of the wings, which are provided with L-shaped wear-plates 15. The bolts 14 pass through perforations of the rod 10, and are arranged in openings of bottom cleats 16 and 17, secured to the bottom of the body, and are engaged by nuts which prevent the withdrawal of the bolts.

The end-gate is adapted to be readily arranged in a vertical position, as illustrated in Fig. 1, and in an inclined position, as shown in Fig. 2, for scooping, and in a horizontal position on top of the body for dumping or to serve as a seat.

The end-gate is locked in its vertical position by the levers 3, which engage hooks 18, secured to the end-gate near the top thereof and projecting laterally therefrom. The hooks are formed by plates, which are provided with recesses or notches in their lower edges. The levers may be readily sprung into engagement with the hooks or removed therefrom.

By constructing the wings of the end-gate as shown and by employing the round rod, the necessity of recessing the lower extended ends of the wings to engage a bottom cleat, which is the usual construction employed, is obviated.

What we claim is—

1. The combination, with a wagon-body, of an end-gate, the hooks secured to the end-gate and arranged near the top thereof and projecting laterally therefrom, the bars pivoted to the end-gate, and the levers fulcrumed on the body and having their lower ends pivoted to the bars and having their upper ends adapted to engage the said hooks, whereby the end-gate is securely locked in its vertical position, substantially as described.

2. The combination of a body provided with the bottom cleats 16 and 17, the round rod

provided with bolts passing through the bottom cleats and secured to the same by nuts, the end-gate provided with wings having their lower ends extended and adapted to engage the rod, the L-shaped wear-plates secured to the lower ends of the wings, the cleat 13, secured to the end-gate near the bottom of the same and projecting laterally, the hooks 11, arranged on the outer faces of the wings and having their ends bent at an angle and engaging the same and provided with threaded portions passing through the ends of the

cleats and secured thereto by nuts, the levers fulcrumed to the body, and the bars pivoted to the levers and to the end-gate, substantially as described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

IRA W. HARLAN.
WILL A. HARLAN.

Witnesses:

ARTHUR J. BYRNE,
A. N. ROSENCRANTS.