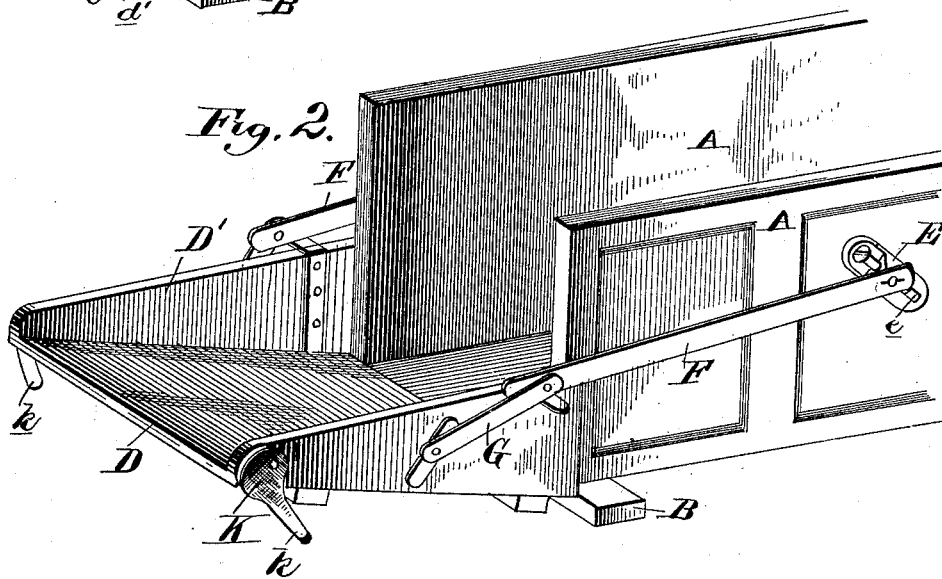
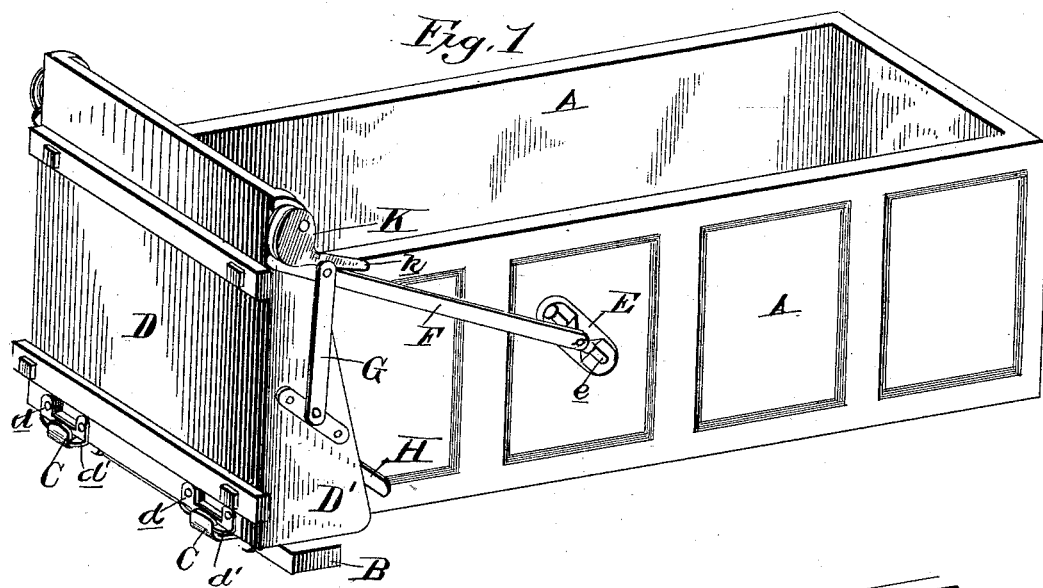


(No Model.)

W. W. BONER.
END GATE FOR WAGONS.

No. 422,875.

Patented Mar. 4, 1890.



Witnesses:
F. H. Cornwall
L. S. Bacon

Inventor
Wm. W. Boner
per Jos. H. Hunter
att'y

UNITED STATES PATENT OFFICE.

WILLIAM W. BONER, OF HARLAN, IOWA, ASSIGNOR OF TWO-THIRDS TO
RILEY CASS AND JAMES McARTHUR, OF SAME PLACE.

END-GATE FOR WAGONS.

SPECIFICATION forming part of Letters Patent No. 422,875, dated March 4, 1890.

Application filed December 17, 1889. Serial No. 334,121. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. BONER, a citizen of the United States, residing at Harlan, in the county of Shelby and State of Iowa, have invented certain new and useful Improvements in End-Gates for Wagons, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to an improvement in end-gates for wagons; and it consists in the construction and arrangement of parts hereinafter described and claimed.

The object of my invention is to provide a strong, efficient, and durable end-gate for wagons, having formation adapting it to be used as a chute, and locking and adjusting mechanism, permitting of its being readily and quickly manipulated. I attain these objects by the construction illustrated in the accompanying drawings, forming a part of this specification, wherein like letters of reference indicate corresponding parts in the several views, and in which—

Figure 1 is a perspective view of a wagon and the gate in closed position, and Fig. 2 is a similar view with the gate opened.

In the drawings, A represents the box of a wagon, and B the cross-bar secured to its under rear end. To the cross-bar B is secured two retainers or rests C', curved upward and extending beyond the box.

D is an end-gate formed with tapering sides D' and having two clips d secured on its lower edge, which engage with and rest in the rests C. These clips have side projections d' extending out on either side of the rests. They are also formed with a reduced central portion, permitting the ends of the rests to extend above the same when the gate is down, and thus prevent the longitudinal movement of the same.

To support the gate when in its lowered position and to permit of a secured and simple means for locking the same when closed, I place on the side of the box a post or standard E, having a base with elongated slots e therein, through which the securing-bolts pass, the slots permitting an adjustment of the post when necessity requires.

To the outer ends of the posts are pivotally

secured swinging bars F, having rounded outer ends and extending beyond the end of the box.

To the sides of the gate near their centers is pivoted a short arm G, which extends up and is pivotally secured to the bar F a short distance above its outer end.

H represents a rest consisting of a metal tongue secured to the sides of the gate and extending laterally from and over the edges thereof at a point near their lower ends below the arm G.

On the upper ends of the sides of the gate I pivot grooved locking-cams K, having handles k extending out therefrom.

When the gate is closed, the outer ends of the bars project beyond the cams as the latter are turned back, and are tightly pressed down and locked in the cams when they are turned forward, thus preventing the upper end of the gate from moving.

As the gate is lowered the bars F rest on the tongue H, and thereby support the gate in its lowered position.

It will be seen that the only permanent connection between the gate and the box is at the posts E, the result of which permitting the gate to be swung back and up onto the front of the box or to drop the lower end of the gate below the cross-bar B, the ends of the bar acting as rest-bars F when in this position.

I am aware that many minor changes in the construction and arrangement of parts of my device can be made and substituted for those shown and described without in the least departing from the nature and principle of my invention.

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

1. In an end-gate, the combination, with the pivoted connecting-bars secured to the box and gate, of cams on the gate above and engaging with the outer ends of the bars to lock the gate, substantially as described.

2. The combination, with the box, of a gate having supporting tongues or rests on its sides, bars pivoted to the box, and arms pivoted to the gate and to the bars, and cams pivoted on the upper ends of the gate

above the bars for locking the gate by contacting with the bars, substantially as described.

5 3. The combination of the box and gate, the long pivoted bars F, the short arms G, pivoted to the gate and bars, the tongue H on the sides of the gate below the arms, and grooved cams on the upper end of the gate

for locking the same by contacting with the bars, substantially as described. 10

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM W. BONER.

Witnesses:

D. Z. GANSER,

E. M. HERTERT.