

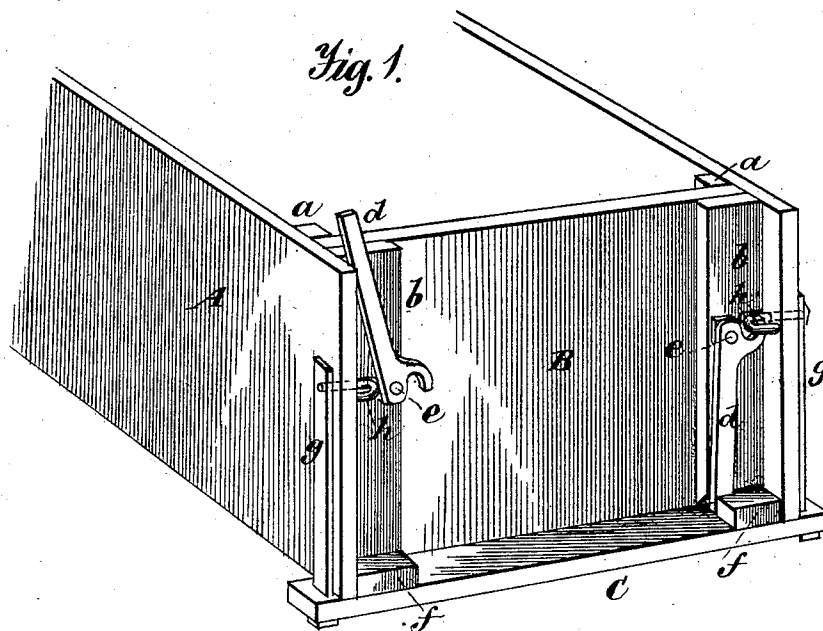
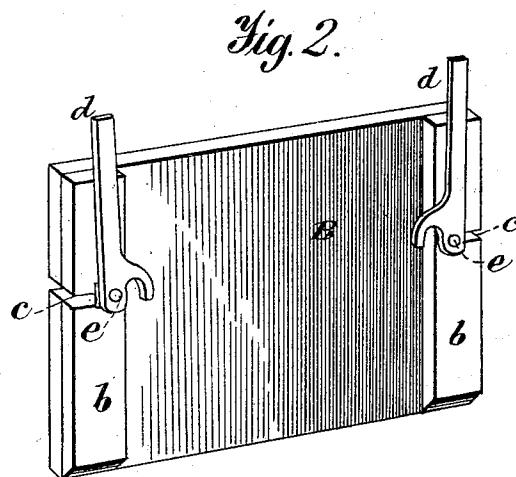
(No Model.)

J. H. FRAZEE & G. M. CULVER.

END GATE FOR WAGONS.

No. 281,989.

Patented July 24, 1883.



Witnesses.
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UNITED STATES PATENT OFFICE.

JAMES H. FRAZEE AND GEORGE M. CULVER, OF RUSHVILLE, INDIANA;
SAID CULVER ASSIGNOR TO SAID FRAZEE.

END-GATE FOR WAGONS.

SPECIFICATION forming part of Letters Patent No. 281,989, dated July 24, 1883.

Application filed January 22, 1883. (No model.)

To all whom it may concern:

Be it known that we, JAMES H. FRAZEE and GEO. M. CULVER, citizens of the United States, residing at Rushville, in the county of Rush and State of Indiana, have invented certain new and useful Improvements in End-Gates for Wagon-Bodies, of which the following is a specification, reference being had therein to the accompanying drawings.

10 Our invention relates to end-gates for wagon-bodies, and to an improved means for retaining end-gates in place; and it consists of strap-cleats against which the end-gate rests, in connection with cam-hooks pivoted to the straps
15 on the end-gate and staples or loops secured to the sides of the box into which the cam-hooks enter and lock the gate securely in place.

Similar letters of reference indicate similar parts throughout the drawings.

20 Figure 1 is a perspective of one end of the box, and Fig. 2 is a detached view of the gate.

A represents a wagon-box; B, the end-gate, which rests against cleats *a a*, placed on the inner sides of the box a short distance from
25 the rear ends of the same.

The end-gate, B, is formed of one piece of material, except that two cleats, *b b*, are secured across its ends on the outer face of the same. About midway the width of gate B an angular
30 recess, *c c*, is formed across the outer edges of said gate and the cleats *b b*. At the inner face of recesses *c c*, and on the outside of cleats *b b*, are pivoted cam-hooks *d d*. Said cam-hooks are formed of metal, and have curved hooks or
35 projections on one side near the end of the same. At the base of said cam-hook projections a perforation is formed, through which pins *e e* pass, and on which said cam-hooks are pivoted. The main arm or free end of
40 cam-hooks *d d* is formed of sufficient length to pass down the outer face of cleats *b b* to the lower end of the same, or to the point of contact of said cleats with the bottom of vehicle-body.

Two cleats, *f f*, equal in length to the width
45 of cleats *b b*, are secured on either side to the bottom of the body in rear of and a short distance from cleats *b b*, the purpose of which is to provide for the reception and retention of the ends of the arms of cam-hooks *d d* by
50 leaving a space between said cleats, into which the outer ends of the cam-hooks will freely

move. To the rear end of the body, on the under face of the same, is secured a cross-bar, C, that is held in place by means of metal straps
55 *g g*, that pass up on the outside of the side-boards of the body. The lower ends of said straps pass through perforations in the outer ends of cross-bar C. The upper ends of straps *g g* are perforated to receive the outer end of staples *h h*. The inner portion of said staples
60 project on the inside of the side-boards of the body at a point on a line with the pivot-pins *e e* and the recesses *c c*. The staples *h h* are formed to present a loop to the ends of the curved arms of cam-hooks *d d*, that pass into
65 said staples when the outer arms of said hooks are turned downward, and pass between the cleats *f f* and *b b*, thus holding the end-board or tail-gate in place. When the outer ends of cam-hooks *d d* are turned upward in a reverse
70 position, the curved arms of said cam-hooks are disengaged from the staples *h h*; the tail-gate is then pushed outward from the top, when the lower ends of cleats *b b* are brought
75 in contact with the upper inner edge of cleats *f f*, that act as fulcrums for said tail-gate until the gate, in its outward movement from the top, is brought down to the upper face of cleats
80 *f f*, when it is easily withdrawn. In replacing the tail-gate it is passed edgewise along the face of cleats *f f* until its lower edge reaches the lower outer face of cleats *a a*, when it is turned to an upright position, the staples *h h*
85 passing through the recesses *c c*, the cam-hooks turned downward, and the curved hooks engaging with the staples *h h*, the outer arms of said cam-hooks passing between the cleats *b b* and cleats *f f*, by which said arms are held firmly in place.

We are aware of the patent to Adair, No. 90 174,403, March 7, 1876, "end-gate," its construction, and arrangement of the various parts, and therefore do not broadly claim the same.

We are also aware of the patent to Bander, 95 No. 252,415, January 17, 1882, its construction, and the arrangement of the various parts, and do not therefore broadly claim the same. Placing the stops E on the cleats of the end-board a short distance below the point at which
100 the cam-hooks are pivoted is very objectionable and unsafe, as the jolting of the vehicle

when in use tends to throw the short arms of the cam-hooks off the stops E, when the cam-hooks readily unhook and the end-gate falls out. Further, the stops E are easily broken
5 by throwing the end-gate on the ground when loading and unloading the vehicle. With our construction the arms or free ends of the cam-hooks are formed much longer, and their outer ends are held by cleats on the bottom boards
10 of the vehicle, between which and the cleats of the end-gate they are securely wedged. No stops are used on the cleats of the end-gate in our construction.

Having thus described our invention, what
15 we desire to secure by Letters Patent is—

The combination of the end-gate B, having cleats, recesses, and pivoted cam-hooks, as described, with the body A, having cross-bar C, straps *g g*, staples *h h*, and cleats *f f*, all arranged and operated substantially as shown and speci- 20 fied.

In testimony whereof we affix our signatures in presence of two witnesses.

JAMES H. FRAZEE.
GEORGE M. CULVER.

Witnesses:

PAUL I. BEACHBARD,
LEONIDAS LINK.