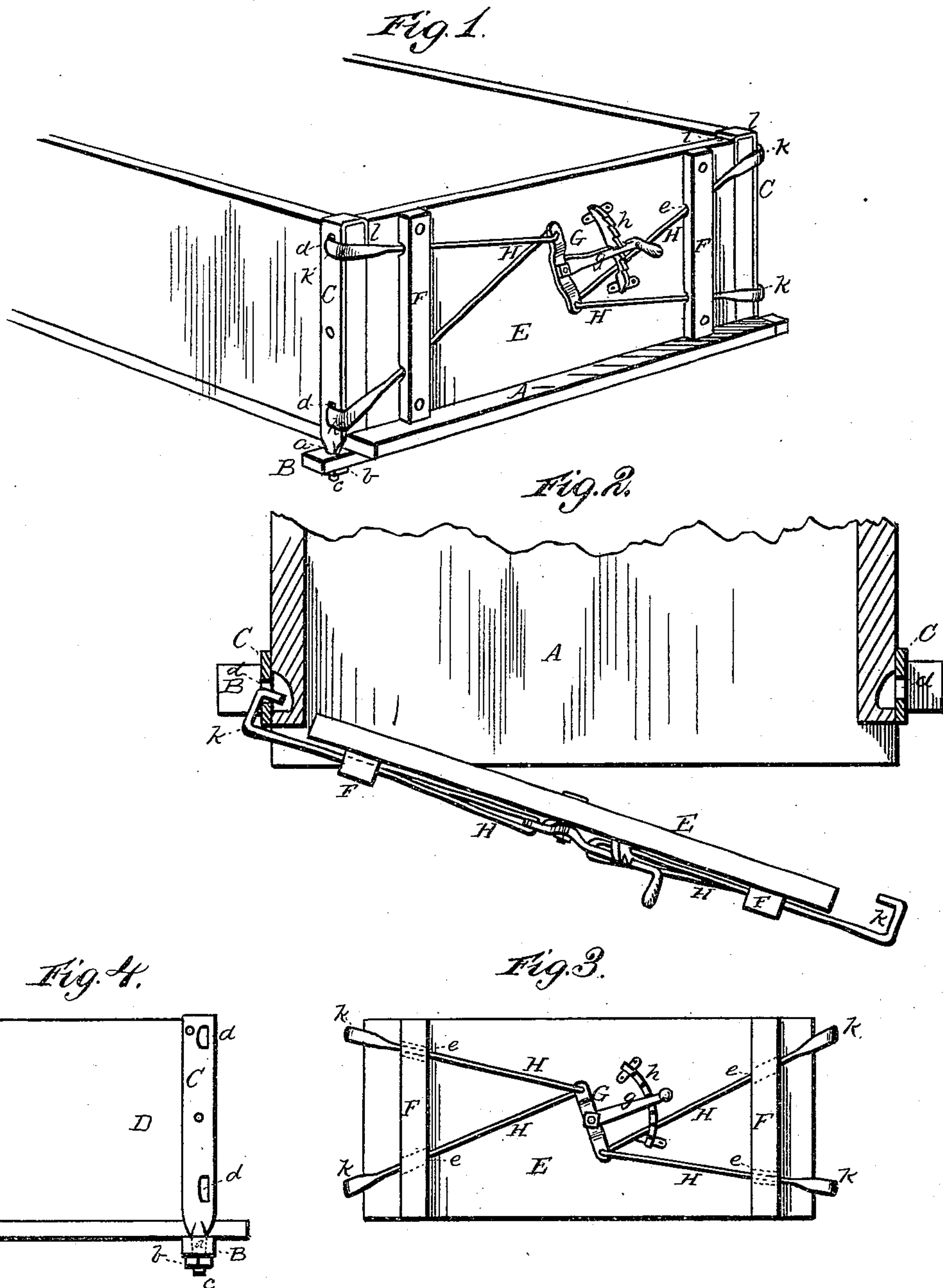


(Model.)

H. A. RIGGS.  
End Board for Wagons.

No. 234,614.

Patented Nov. 16, 1880.



WITNESSES  
*Robert Everett*  
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# UNITED STATES PATENT OFFICE.

HERBERT A. RIGGS, OF GRASS LAKE, MICHIGAN.

## END-BOARD FOR WAGONS.

SPECIFICATION forming part of Letters Patent No. 234,614, dated November 16, 1880.

Application filed September 18, 1880. (Model.)

*To all whom it may concern:*

Be it known that I, HERBERT A. RIGGS, of Grass Lake, in the county of Jackson and State of Michigan, have invented a new and valuable Improvement in End-Boards for Wagons; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a perspective view of this invention. Fig. 2 is a top view of the same with sides of wagon in horizontal section. Fig. 3 is a rear view of the end-gate, and Fig. 4 is a detail of the end of the wagon side.

This invention has relation to end-boards for wagons; and it consists in the construction and novel arrangement of the center lever pivoted to the end-board, the diagonal clamp-rods, extending beyond the corners thereof, and the strap-cleats on the sides of the wagon, having catch slots or holes; and it also consists, in connection with the above devices, of the ways arranged through the end-board cleats, and the manner of securing the lower ends of the strap-cleats to the transverse cleat under the bottom of the wagon, all as hereinafter shown and described.

In the accompanying drawings, the letter A designates the wagon-bottom, having under it, near its end, a transverse cleat, B. CC represent strap-cleats, the upper ends, *l*, of which are carried over the edges of the sides D of the wagon in hook form. These cleats are bolted to the sides of the wagon at the ends thereof. At the lower ends the cleats are made round and threaded to pass through holes *a* in the cleat B, nuts *b* being passed upon the threaded ends *c* of said strap-cleats, as shown in the drawings. In the strap-cleats are made slots or holes *d*, near the upper and lower ends thereof.

E represents the end-board of the wagon, which is designed to fit neatly between the ends of the sides thereof, and is provided on

its rear surface with cleats F, through which are formed guideways *e*.

G represents a lever pivoted to the middle of the end-board, and provided with an arm, *g*, which is arranged to engage with a ratchet, *h*, which is secured to the end-board.

To the lever G, above and below its pivot-bolt, are connected the diagonal clamp-rods H H, each of which is made with an end hook, *k*, usually of broad form, as shown in the drawings, these end hooks projecting beyond the ends of the end-board far enough to clear the wagon sides and the strap-cleats thereon.

The diagonal rods pass through the ways *e* of the cleats F, and are designed, when the end-board is in position between the sides of the wagon, to be drawn toward the center of the end-board by turning the lever G so that the end hooks, *k*, will engage firmly with the slots or holes *d* of the strap-cleats.

The clamp-rods are held in engagement by means of the ratchet *h*, which is arranged to engage with the lever-arms, as shown in the drawings.

Usually the holes or recesses *d* in the strap-cleats are somewhat undercut toward the ends of the wagon sides, so as to afford a bearing to the end hooks of one side of the end-board when the end hooks of the other side are disengaged. In this manner the end board or gate may be made to swing laterally, forming a guide, when it is desired to discharge potatoes, corn, or similar articles into a basket or other small receptacle. So, also, the lower hooks of the end-gate may be disengaged and the upper ones engaged with the upper slots, *d*, and thereby the gate may be arranged to swing upon the upper hooks to discharge under its lower edge.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination, with the strap-cleats C, having the upper and lower catch-slots, *d*, and the end-gate E, fitting between the wagon sides of the center lever, G, the ratchet *h* engaging its arm *g*, and the diagonal clamp-rods



H, having end hooks, *h*, projecting beyond the ends of the gate near its corners, substantially as specified.

2. The end-gate E, having the center lever, 5 G, ratchet *h*, diagonal clamp-rods H, cleats F, and guideways *e* in said cleats for said clamp-rods, substantially as specified.

3. The combination, with an end-gate having clamp-rods drawing toward its center, of 10 the strap-cleats C, having the upper and lower

catch-slots, *d*, the hooked upper ends, *l*, and the threaded lower ends, *c*, the under cleat, B, and the nuts *b*, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence 15 of two witnesses.

HERBERT A. RIGGS.

Witnesses:

FRANK DWELLE,  
H. S. SMITH.