

S. G. THOMAS.

Improvement in End Gates for Wagons.

No. 123,430.

Patented Feb. 6, 1872

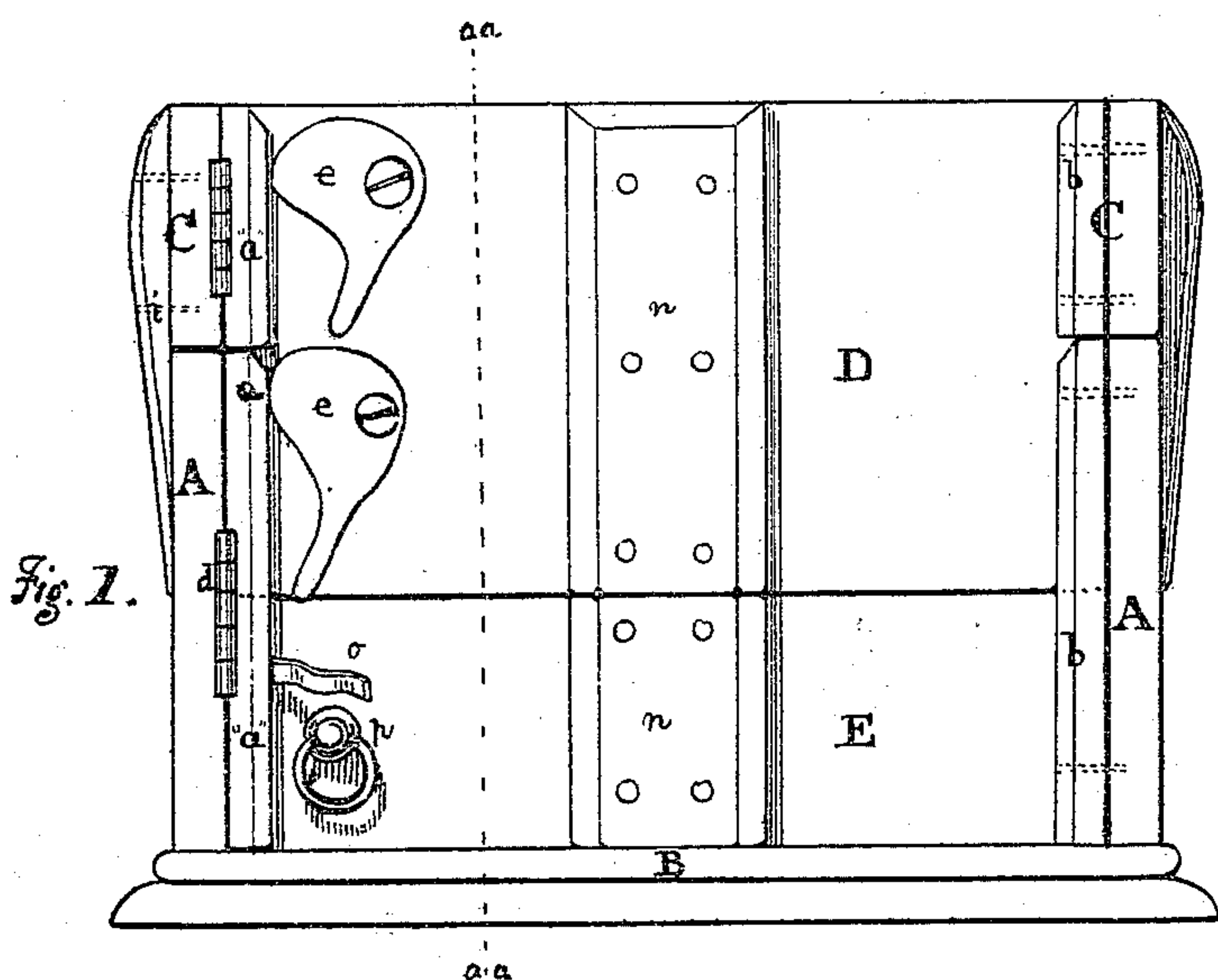


Fig. 1.

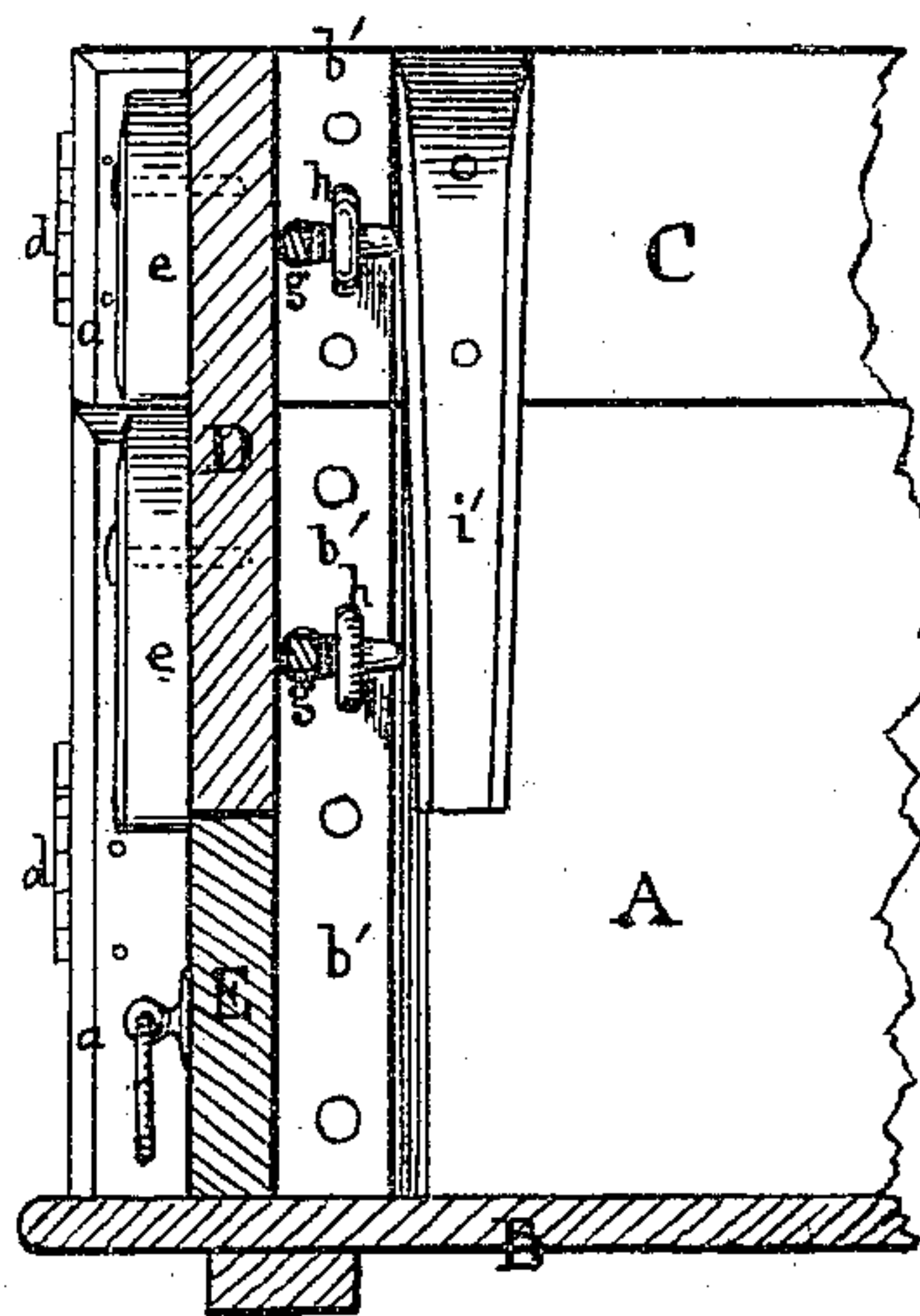


Fig. 2.
(See Thro' aa-aa.
fig. 1.)

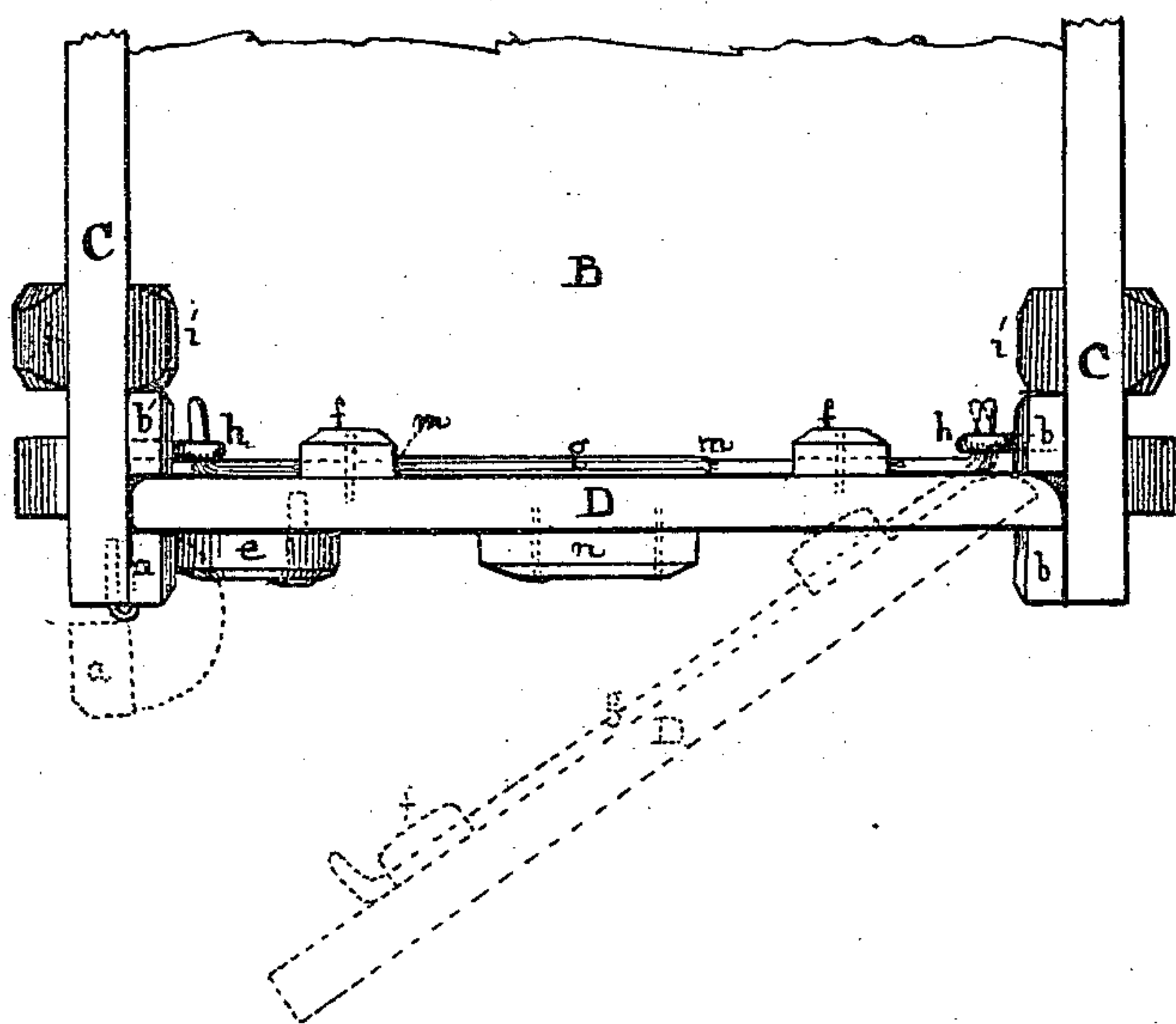


Fig. 3.

Witnesses
Henry H. Wells
James Moore.

Samuel G. Thomas
by Edmund Thurston
his attorney

UNITED STATES PATENT OFFICE.

SAMUEL G. THOMAS, OF EDEN, ILLINOIS.

IMPROVEMENT IN END-GATES FOR WAGONS.

Specification forming part of Letters Patent No. 123,430, dated February 6, 1872.

To all whom it may concern:

Be it known that I, SAMUEL G. THOMAS, of Eden, in the county of Iroquois and in the State of Illinois, have invented an End-Gate for Wagons, changeable for upper and lower boxes of wagons; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawing making a part of this specification, in which like letters of reference refer to like parts, and in which—

Figure 1 represents an elevation of rear of wagon with end-gate in position, showing the addition of an upper box in connection with this gate; Fig. 2, a vertical cross-section of gate through line *a a a a*, Fig. 1; Fig. 3, plan of gate, showing mode of inserting the gate between the stationary cleats and the hinged cleats.

This is a changeable upper and lower end-gate, and consists of two separate parts or divisions, E D. The longest division, D, is used for the wagon-box proper when no upper box is attached, but is used with the smaller division E below it when the upper box is attached, as seen in Fig. 1. Both are held between cleats in the usual manner at one end, and are secured by a hinged cleat or cleats at the other, the latter being kept closed against the side of the wagon by cams attached to the gate. In connection with this plan, as a means of bracing the opposite sides of the wagon, the larger division of the gate has two horizontal rods on its inner surface or back, which slide in slots in vertical bars or braces, each rod having a rectangular hook at either end, which enters an eye set in the inner cleats at corresponding points to the said hooks.

A represents the wagon-sides; B, the bottom-board; *a*, hinged cleats; C, the "top box," one side being made with one of the outer cleats *a* hinged to the said side near the straddle-cleats *i i*, which hold the box in position on the lower one, A. In other respects it does not differ from other similar boxes now in use. *b b* are the two stationary cleats at the opposite side to the hinged cleat *a*. *b'* is a third stationary cleat behind the gate and the hinged cleat. D is the larger end-gate, of the same depth as the lower box or wagon proper, having two vertical cleats or braces, *f f*, behind it, through slots in which two horizontal rods, *g g*, slide, one near the up-

per edge of the board, the other near the lower edge. Each rod terminates at either end in a rectangular elbow or hook, which enters a corresponding eye, *h*, set in stationary cleats *b b* of the upper and lower boxes A C, two eyes, *h*, to each box. The rods *g g* are each squared at one or both ends where they pass through the slots in the cleats *f f*, said square or flattened parts terminating in small shoulders *m m*, to prevent the rod from undue protrusion when not attached to the eyes *h h*. The outer face of this gate, and indeed both gates, may have a strong cleat, *n*, attached to their centers; and this larger gate D, further, has two cams, *e e*, attached at that end adjacent to the hinged clamps or cleats *a a*, to engage with and keep the same shut. E is the smaller gate or "division," and is merely a plain board with a cleat, *n*, and a ring or handle, *p*, at the end nearest to the hinged cleat *a*, and is made of the same depth as the upper box C, but always occupies the lower place when the upper box is attached to the wagon. It will be seen that these boards are retained in cleats, all fixed ones, at one side of the wagon, as also are the interior cleats on the other side of boxes, the outer cleats *a a* only being hinged to the sides, so that they may be opened to admit the end-gate.

The operation of this changeable upper and lower end-gate is as follows: The larger gate D, when used with an upper box, C C, is placed above the smaller gate E, and is attached to and braces both the upper and lower boxes C A, by means of the rods *g g* on its inner side, in the following manner: The hinged cleats *a a* being opened, one end of the gate is inserted within the stationary cleats *b b b b* of the boxes C A, the inner corner of the gate being rounded for this purpose, first pulling or letting the rods *g g* drop toward that end of the board as far as the shoulders *m m* will allow them, and inserting their hooks simultaneously into the respective eyes *h h* on the upper and lower cleats *b b*. The other end of the gate is then swung against the stationary cleats *b' b'* of the upper and lower boxes on the other side of wagon, and the hinged cleats *a a* shut against it, and the cams *e e* are then brought against them to retain them, and the gate is secured, at the same time forming, by its interior rods, a strong brace to unite the sides of the upper and lower

boxes at once. When the upper box is dispensed with, of course the smaller gate is not used at that time, and but one of the rods *g g* comes into use—*i. e.*, the upper one—and then fills the place of the common rod or brace in wagon-ends. In unloading some kinds of articles the lower gate, *E*, may be alone removed, leaving the upper one, *D*, remaining.

What I claim as my invention is—

1. The large end-gate *D* with its sliding rods *g g*, in combination with the eyes *h h h h* of upper or lower boxes *A C*, or both, and the cleats *b b b*, and the hinged cleat or cleats *a a* of upper or lower boxes *A C*, or both, and the upper box *C* and lower box *D*, or both.

2. In combination with the gate *D* and the hinged cleats *a a*, the cams *e e*, or equivalents, for closing the hinged cleats *a a*, or either of them.

3. In combination with the gate *D*, the wagon-bottom *B*, and the wagon-box *A A* and its cleats *b b b a*, the smaller gate *E*, substantially as described.

In testimony that I claim the foregoing end-gate for wagons I have hereunto set my hand this 11th day of December, A. D. 1871.

SAMUEL G. THOMAS.

Witnesses:

WM. JACK,
JAMES M. MARTIN.