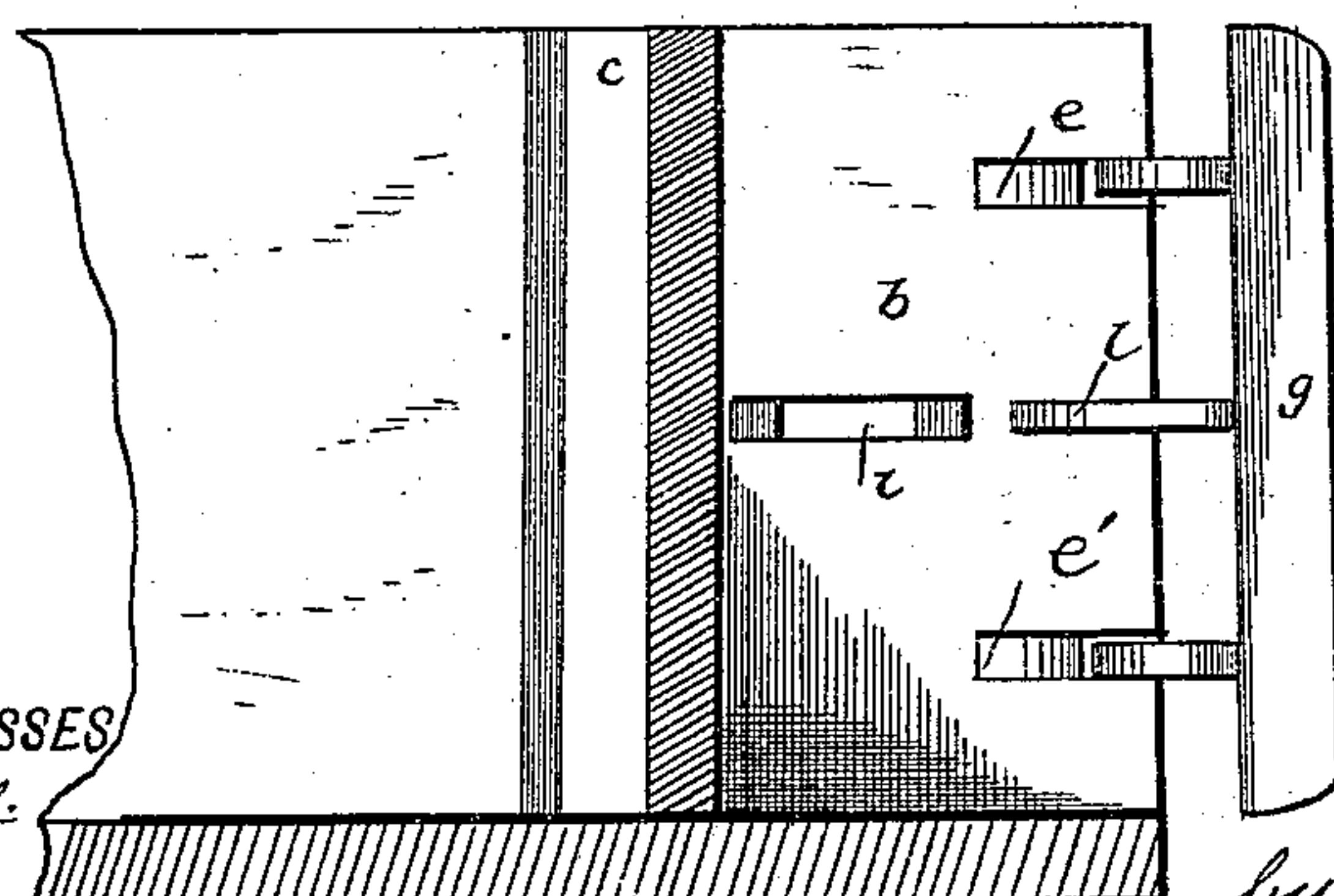
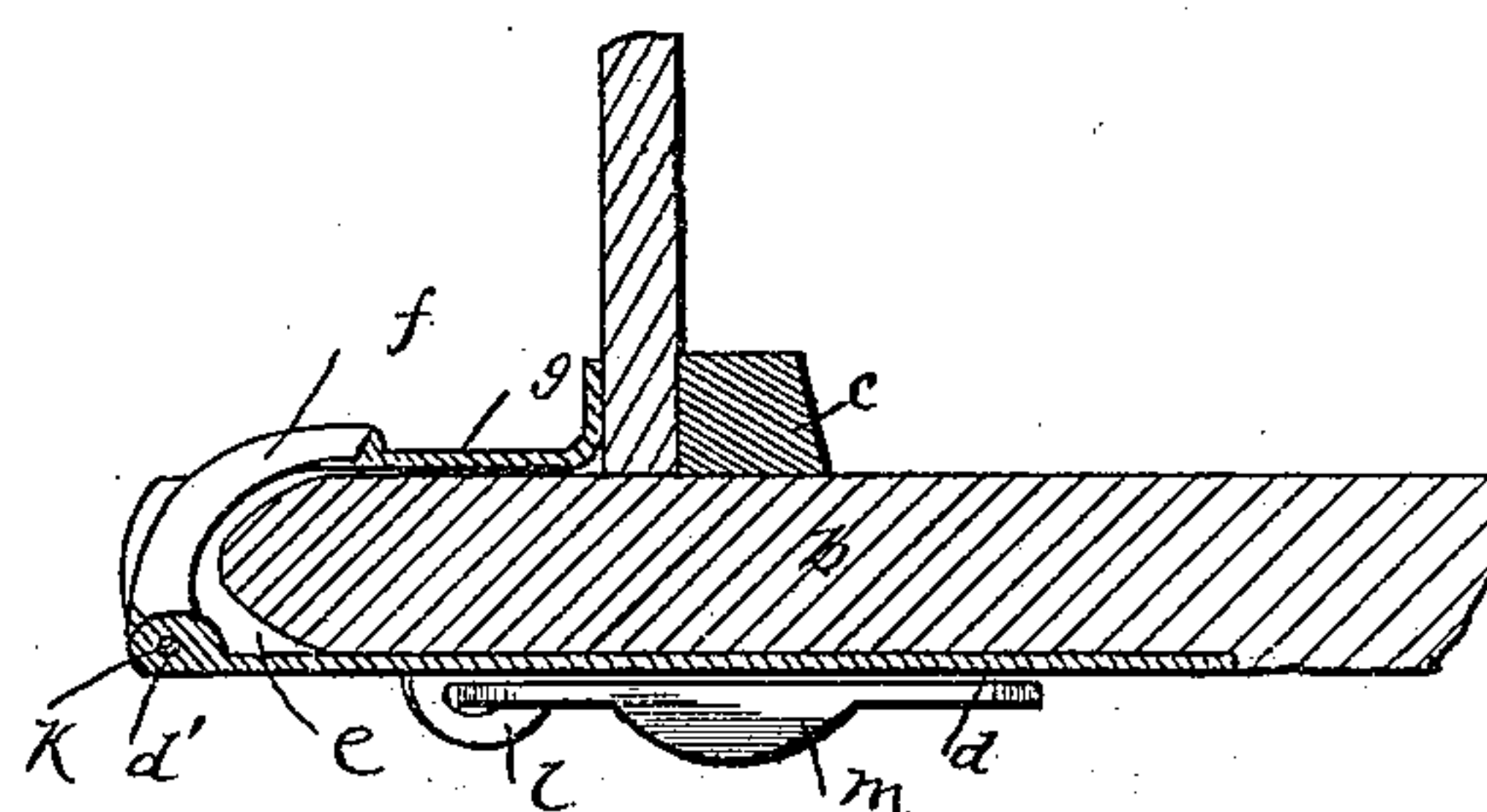
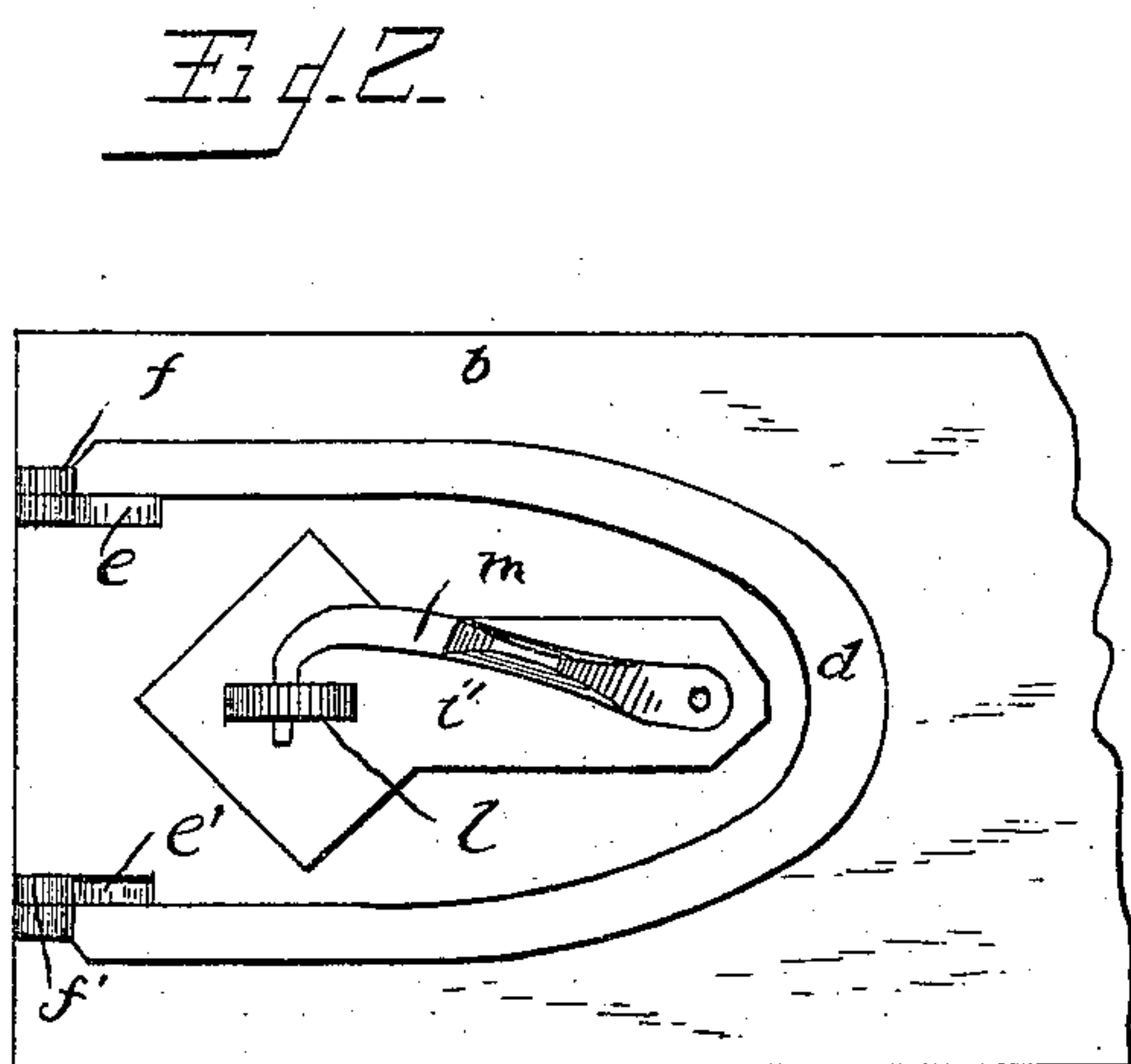
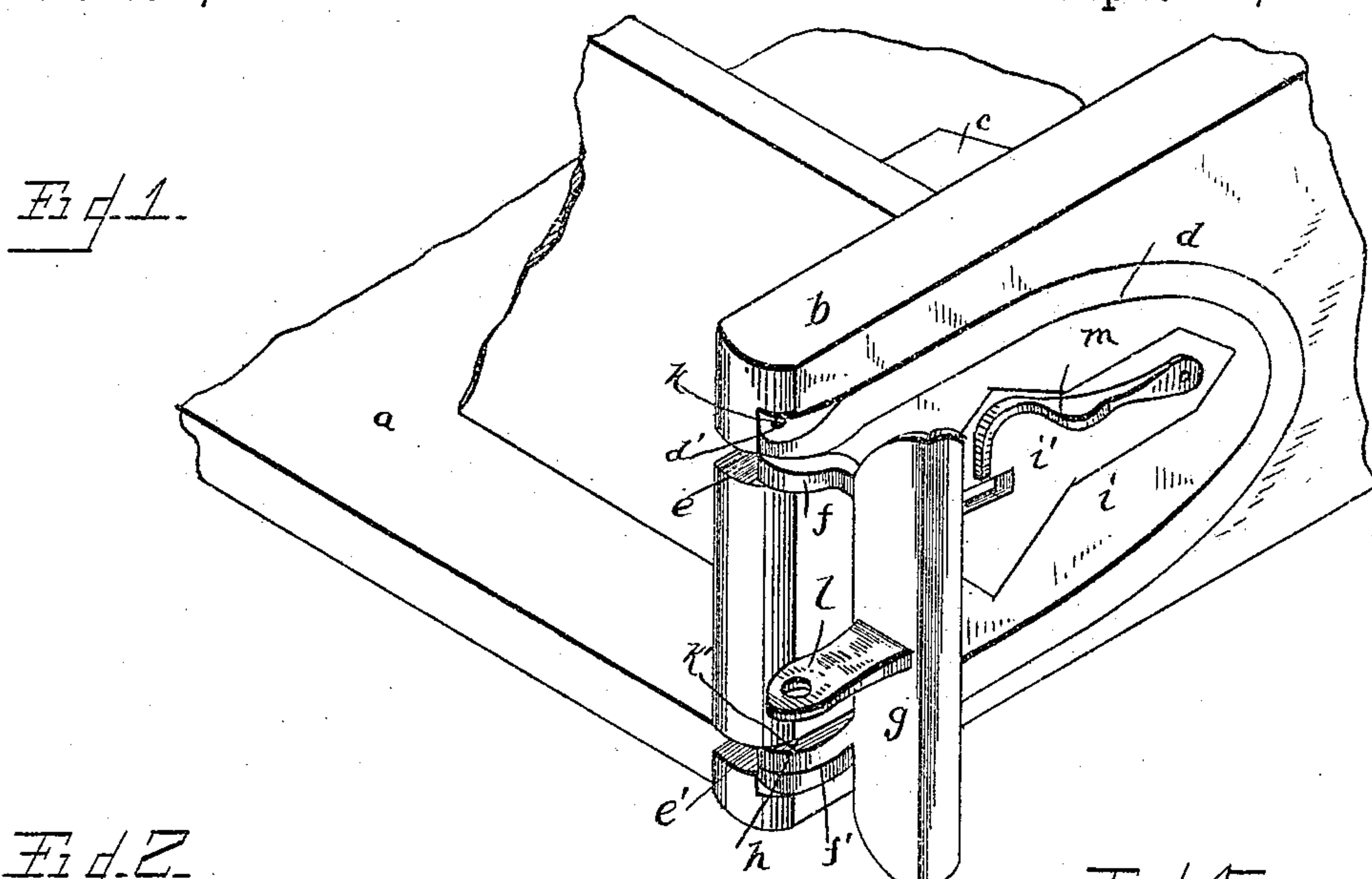


(No Model.)

J. H. WARREN.
CLEAT FOR END GATES.

No. 297,477.

Patented Apr. 22, 1884.



WITNESSES
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UNITED STATES PATENT OFFICE.

JOHN HOWARD WARREN, OF BURLINGTON JUNCTION, MISSOURI.

CLEAT FOR END-GATES.

SPECIFICATION forming part of Letters Patent No. 297,477, dated April 22, 1884.

Application filed January 30, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. WARREN, a citizen of the United States, residing at Burlington Junction, in the county of Nodaway and State of Missouri, have invented a new and useful Cleat for End-Gates, of which the following is a specification, reference being had to the accompanying drawings.

Figure 1 is a view in perspective of my improved hinged cleat for the end-gates of wagons, the cleat being swung open. Fig. 2 is a side elevation from the outside, the cleat being closed. Fig. 3 is a side elevation from the inside, the cleat being swung partially open; and Fig. 4 is a horizontal section taken through the upper arm of the hinge.

This invention has relation to hinged cleats for holding the end-gates of a wagon-box removably in place; and it consists in the construction and novel arrangement of parts, as will be hereinafter fully described, and particularly pointed out in the claim appended.

Referring by letter to the accompanying drawings, *a* designates the wagon-box, a portion of which only is shown, that being sufficient to illustrate my invention. *b* designates the rear end of the right-hand side-board of the wagon-box *a*, provided on its inner face with the ordinary stationary wooden cleat, *c*. The opposite side-board of the wagon-box is provided with the usual two vertical stationary wooden cleats to receive the end of the end-gate between them. The outer face of the side-board *b* is provided with a metal U-shape or horseshoe-form frame, *d*, the points of the arms of which are provided with eyes *d'*, which, when the frame *d* is secured in place by screws or bolts, occupy the recesses *e e'* in the rear vertical edge of the side-board *b*. Any other form or shape of frame *d* may be used, or separate arms with eyes may be used in lieu of the frame *d*, without departing from the character of the invention. The recesses *e e'* extend into the side-board *b* sufficiently far to form seats for the arms *f f'* of the metallic cleat *g*. The inner ends of the arms *f f'* are provided with eyes *h h*, and pin-
tles or headed bolts *k k* are passed through the eyes *d'* and *h*, to form the hinges between

the metal frame *d* and the metallic cleat *g*. The arms *f f'* of the metallic cleat *g* are curved, as shown, in order that the cleat proper may be swung in against the inner face of the side-board *b*, which is provided with a metal-faced opening, *i*, for the reception of a perforated staple-stud, *l*, on the plane face of the metallic cleat *g*. The metal facing *i'* for the opening *i* is let into the outer face of the side-board *b* flush with said face, and is provided with a pivoted hook, *m*, for engaging the staple-stud *l* and locking the cleat *g* against the outer face of the end board or gate. By this construction it is not necessary to lift the end-gate out of the grooves between the cleats; but by raising the hook from its seat in the staple-stud the metallic cleat *g* may be swung around to the outside of the side-board *b* and the wagon backed up to receive or part with its load, the end-gate being pulled out backward. To place the end-gate in position, its left-hand end, in this instance, should be introduced between the two stationary wooden cleats, its right-hand end pushed in against the stationary wooden cleat *c*, and the hinged metallic cleat closed in against the outer face of the end-board and locked in position by the hook. Any board of proper length and width can be used for the end-gate; or two or more boards may be used for this purpose.

This device is simple, durable, and useful, and is not likely to get out of order. It is light and much more easily operated than the end-gates commonly used, and as it does not require to be lifted from its grooves there is no danger of it becoming bound between the cleats.

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

In an end-gate for wagons, the combination, with the side-board *b*, of the wagon-box having the wooden cleat *c*, the end recesses, *e e'*, and the metal-faced opening *i*, having the pivoted hook *m* on the outside of the face-plate of the metal frame *d* let into the outer face of the board *b*, and provided with the eyes *d' d'* at the ends of its arms, and the

metal cleat *g*, having perforated arms *f f'*,
hinged to the arms of the frame *d*, and work-
ing in the recesses *e e'*, and the staple-stud *l*
on its front or inner face, said cleat *g* being
5 adapted to be turned back out of the way of
the end of the wagon-box when open, substan-
tially as specified.

In testimony that I claim the foregoing as
my own I have hereto affixed my signature in
presence of two witnesses.

JOHN HOWARD WARREN.

Witnesses:

A. S. BOLLINGER,
JOHN H. BRYANT.