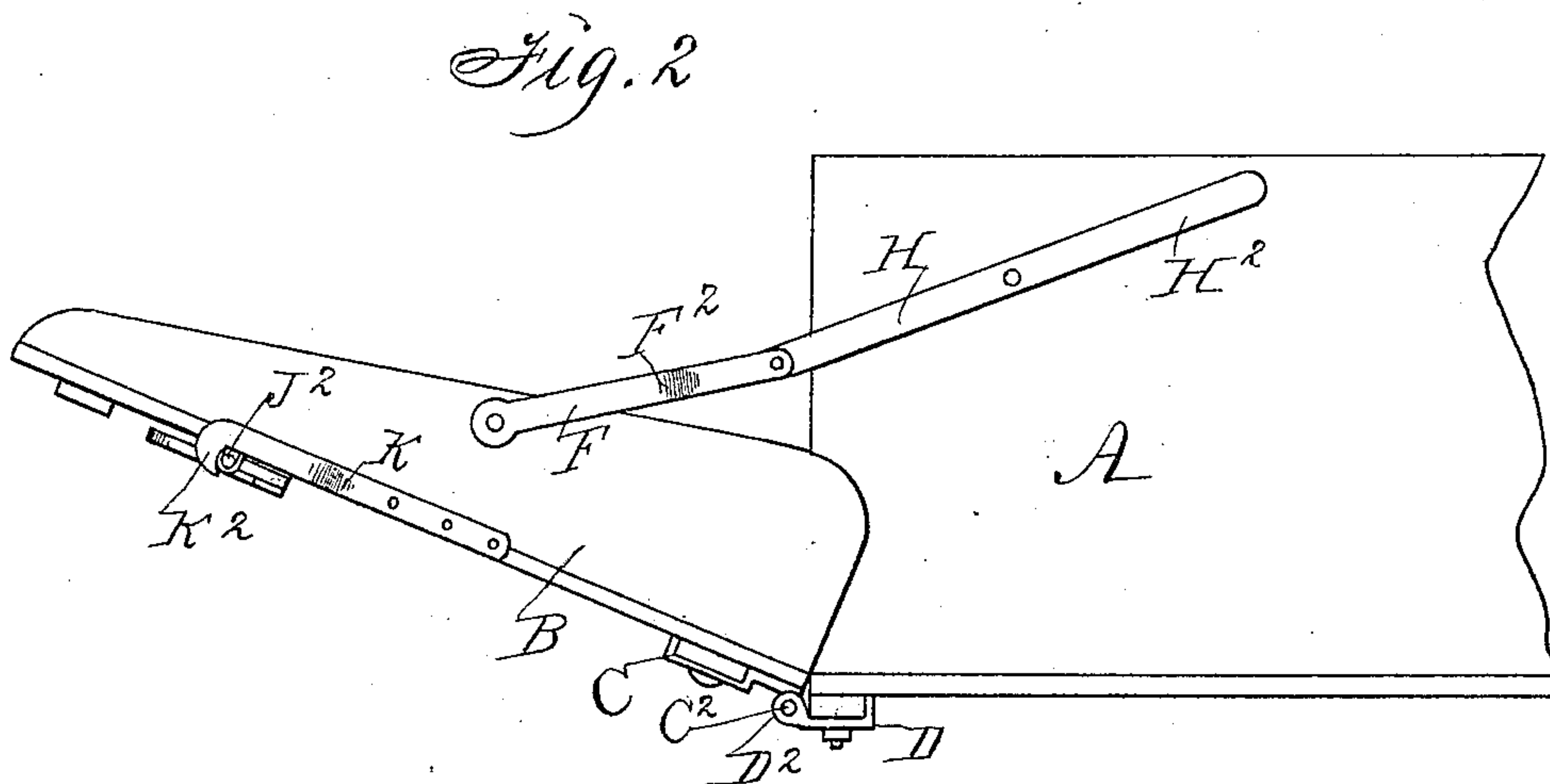
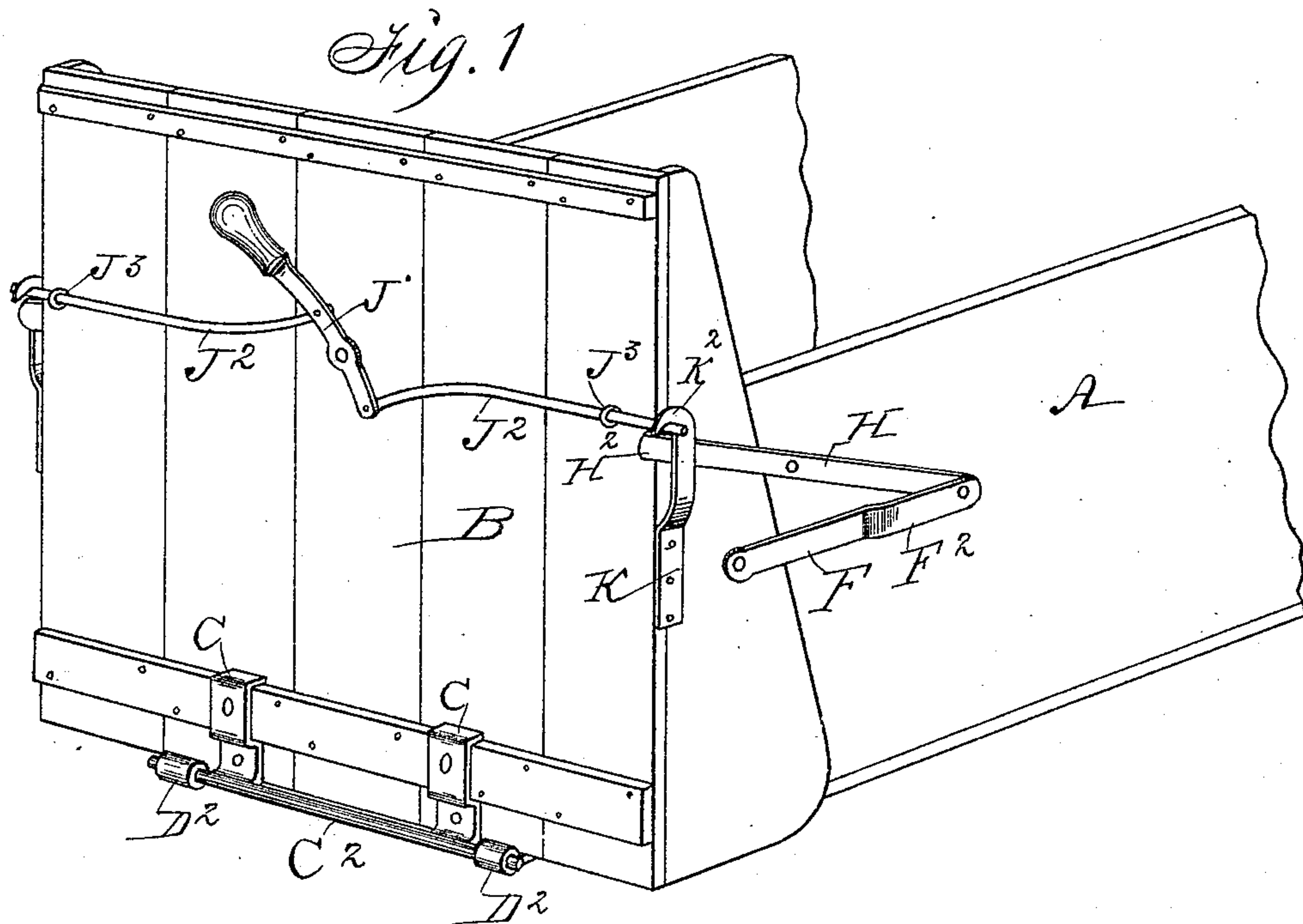


(No Model.)

G. H. JOHNSON.  
END GATE.

No. 470,197.

Patented Mar. 8, 1892.



Witnesses: Inventor: George H. Johnson,  
W. P. Smith. }  
R. H. Orwig, } By Thomas G. Orwig, Atty.

# UNITED STATES PATENT OFFICE.

GEORGE H. JOHNSON, OF JAMAICA, IOWA.

## END-GATE.

SPECIFICATION forming part of Letters Patent No. 470,197, dated March 8, 1892.

Application filed October 12, 1891. Serial No. 408,521. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE H. JOHNSON, a citizen of the United States of America, residing at Jamaica, in the county of Guthrie and State of Iowa, have invented a new and useful Improvement in End-Gates, of which the following is a specification.

My improvement relates to the end-gate shown and described in my application for Letters Patent, Serial No. 402,709, filed August 15, 1891.

My present primary object is to produce an improved locking device for the end-gate when in a closed position; and my invention consists in the construction and combination of the various parts which constitute the locking device, as hereinafter set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the end portion of a wagon-box with an end-gate hinged thereto and closed and locked with my improved locking device. Fig. 2 is a side view of the same, showing the end-gate open and in position as required for use as a shoveling-board.

Referring to the aforesaid drawings, the letter A is used to designate the wagon-box, and B the end-gate, which is of common form and hinged to the box in the following manner:

C represents clips fixed to the lower portion and rear face of the end-gate and connected by an integral rod C<sup>2</sup>, running parallel with the under edge of the same and its ends extended beyond the said clips. D also represents clips detachably connected to the wagon-box and each is provided at its rear end with an eye or loop D<sup>2</sup>, adapted to receive the ends of the rod C<sup>2</sup>, thereby securing a strong, durable, and detachable hinged connection between the end-gate and wagon-box.

The elbow-joint used to support the end-gate in a horizontal position differs from that shown in my former application in that the arm F, pivoted to the end-gate, has an outward bend F<sup>2</sup> in its approximate center, and the arm H, pivoted to the wagon-box is extended some distance beyond the pivotal point. This free end of the arm is designated by the symbol H<sup>2</sup>, and the said bend in the arm F is required to allow the rear ends of

the arms F and H when closed to be placed in vertical alignment with each other, as shown in Fig. 1.

A lever J, pivoted to the central portion of the end-gate, has the bolts J<sup>2</sup>, pivotally connected therewith on opposite sides of its fulcrum with their outer ends which are extended in diverse ways and supported by means of eyebolts J<sup>3</sup>.

K designates a clip fixed to the sides of the end-gate and provided with an outward bend at its central portion and with a hook k<sup>2</sup> at the top in juxtaposition to the ends of the bolts J<sup>2</sup>.

The practical operation of my invention is as follows: The end-gate being hinged to the wagon-box, as described, and the locking and supporting device attached thereto, as set forth, it will be seen that the end-gate will be firmly supported in an approximately horizontal position, as required, to adapt it for use as a shoveling-board when open, as shown in Fig. 2, and the extension H<sup>2</sup> of the arm H will be interposed between the clip K and the end-gate when it is closed and admit the outer ends of the bolts J<sup>2</sup> to be inserted between the hook K<sup>2</sup> and the extension H<sup>2</sup>, as required, to prevent the latter from moving upward, thereby securely locking the end-gate to wagon-box.

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

1. In a wagon end-gate having a hinged connection with a wagon-box, the combination of a lever fulcrumed to the rear of the end-gate, bolts pivoted to the said lever on opposite sides of its fulcrum and extended in diverse directions therefrom, a clip fixed to each side of the end-gate, bent outward at its central portion, and provided with a hook at its top, two arms on each side of the wagon, pivoted to each other at their meeting ends, the one pivoted to the end-gate and the other to the wagon-bed, so as to support the end-gate in an approximately horizontal position when opened, and an extension on the end of the arm pivoted to the wagon-box, adapted to be interposed between the said clip and the end-gate, substantially in the manner set forth, for the purposes stated.

2. An improved wagon end-gate fastening



device consisting of a lever fulcrumed to the rear of the end-gate with two rods or bolts extending therefrom in opposite directions and pivoted to the lever on different sides of its fulcrum, a clip fixed to each side of the end-gate, two arms on each side of the wagon pivotally connected with each other, the one bent in its central portion and connected with the end-gate and the other pivoted in its approximate center to the wagon-bed, so that its free end will pass between the said clip and the end-gate when closed, and means whereby the said arms may be retained therein by the said bolts, substantially as shown and described.

3. A wagon end-gate fastening and locking device comprising two jointed arms or braces,

each pivoted at one of its ends to the end portion of an end-gate and the other portion of each jointed brace pivoted to the outside surface of the side and rear portion of a wagon-box, metal bars fixed to the ends of the end-gate and bent outward at their top portions to overlap the free ends of the jointed braces when the end-gate is closed and provided with hooks at their extremities that project rearward, sliding bolts in bearings fixed to the rear face of the end-gate and adapted to engage the said hooks, in the manner set forth, for the purposes stated.

GEORGE H. JOHNSON.

Witnesses:

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