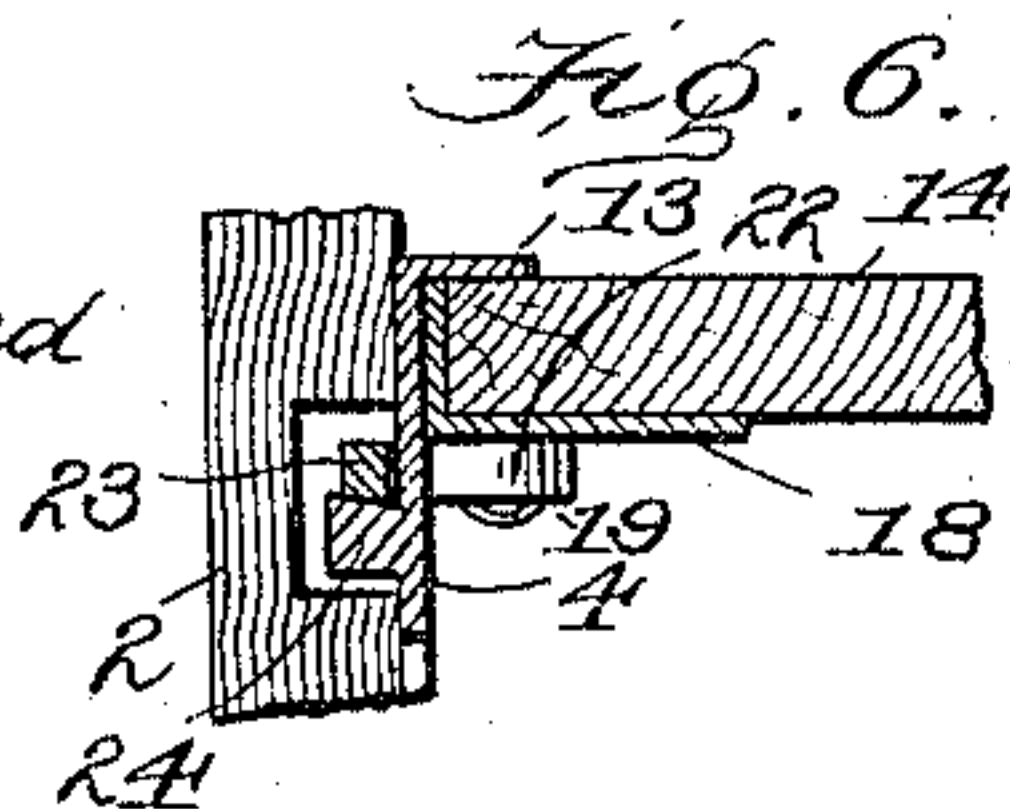
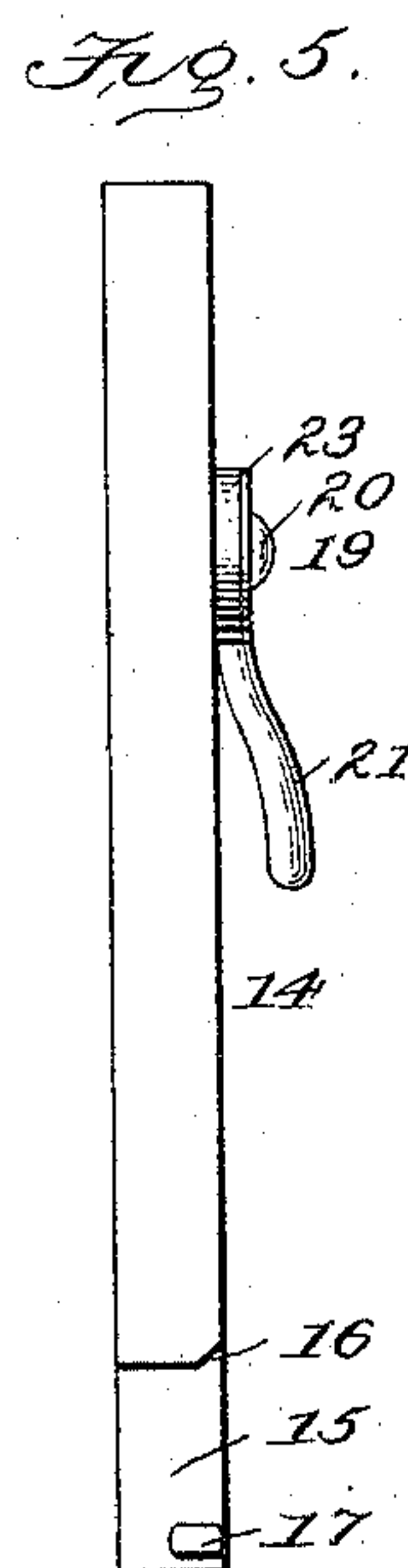
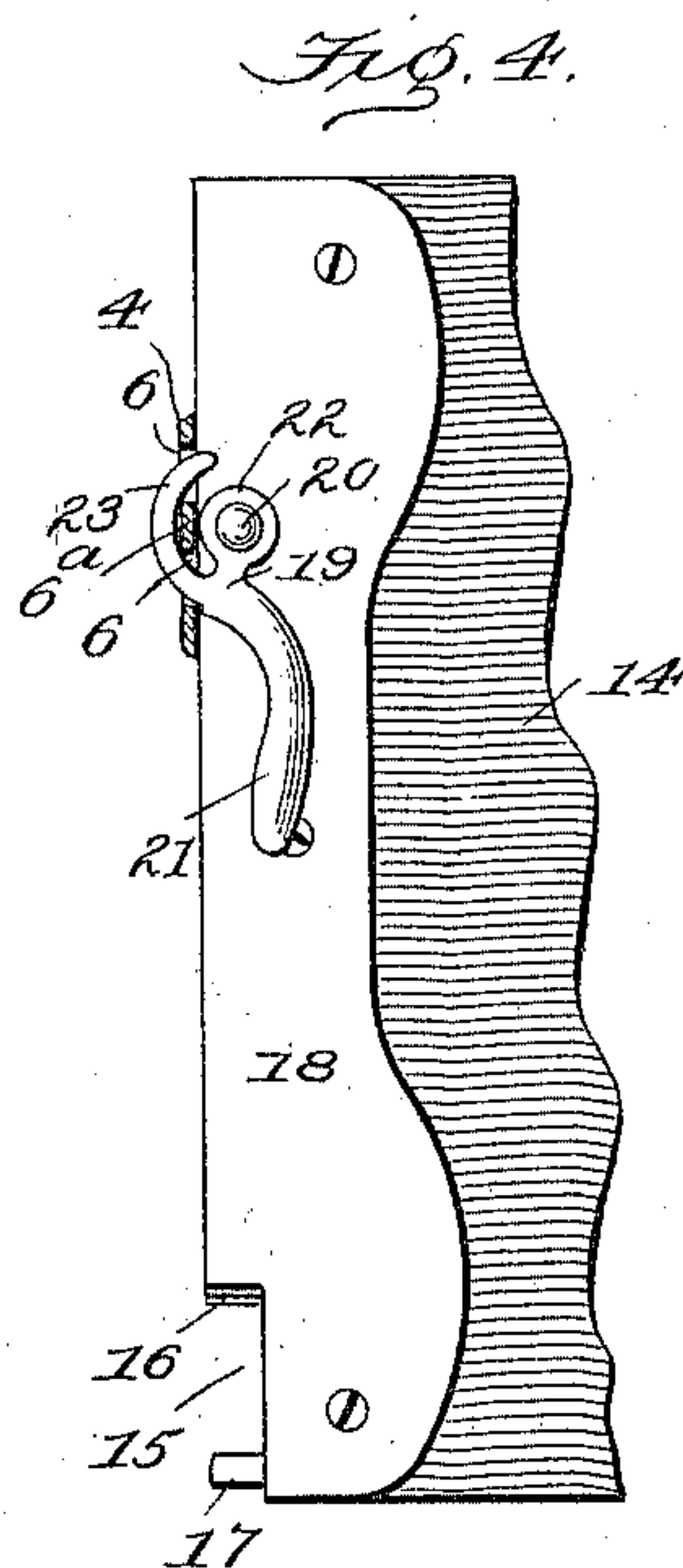
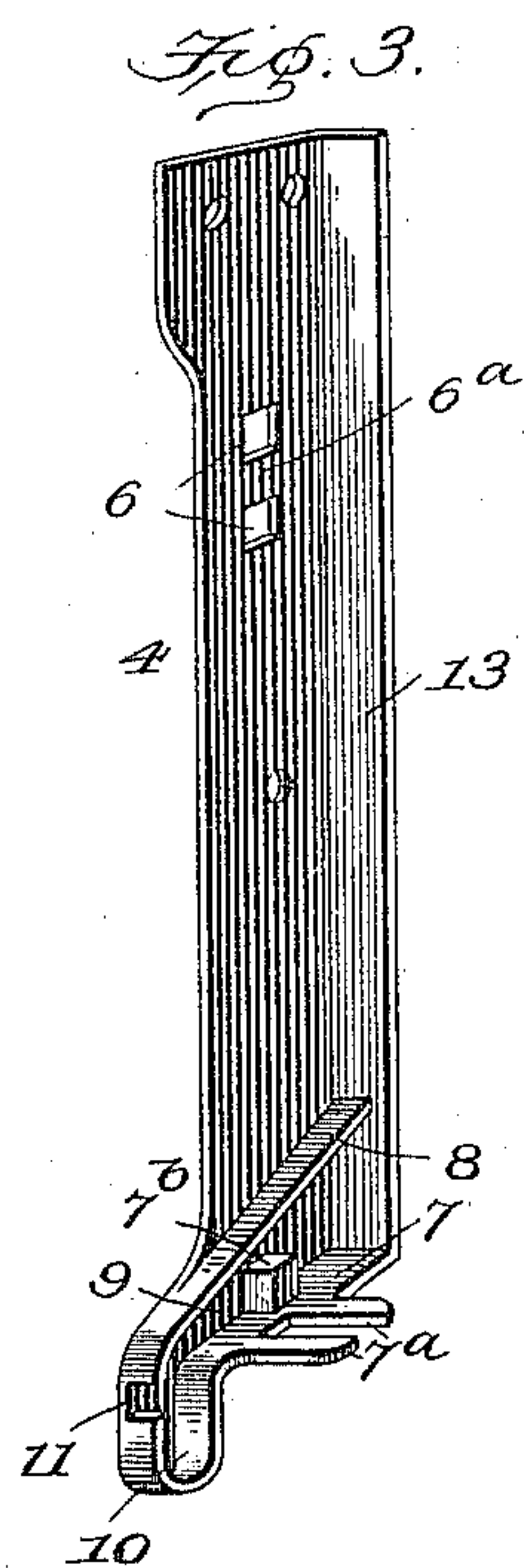
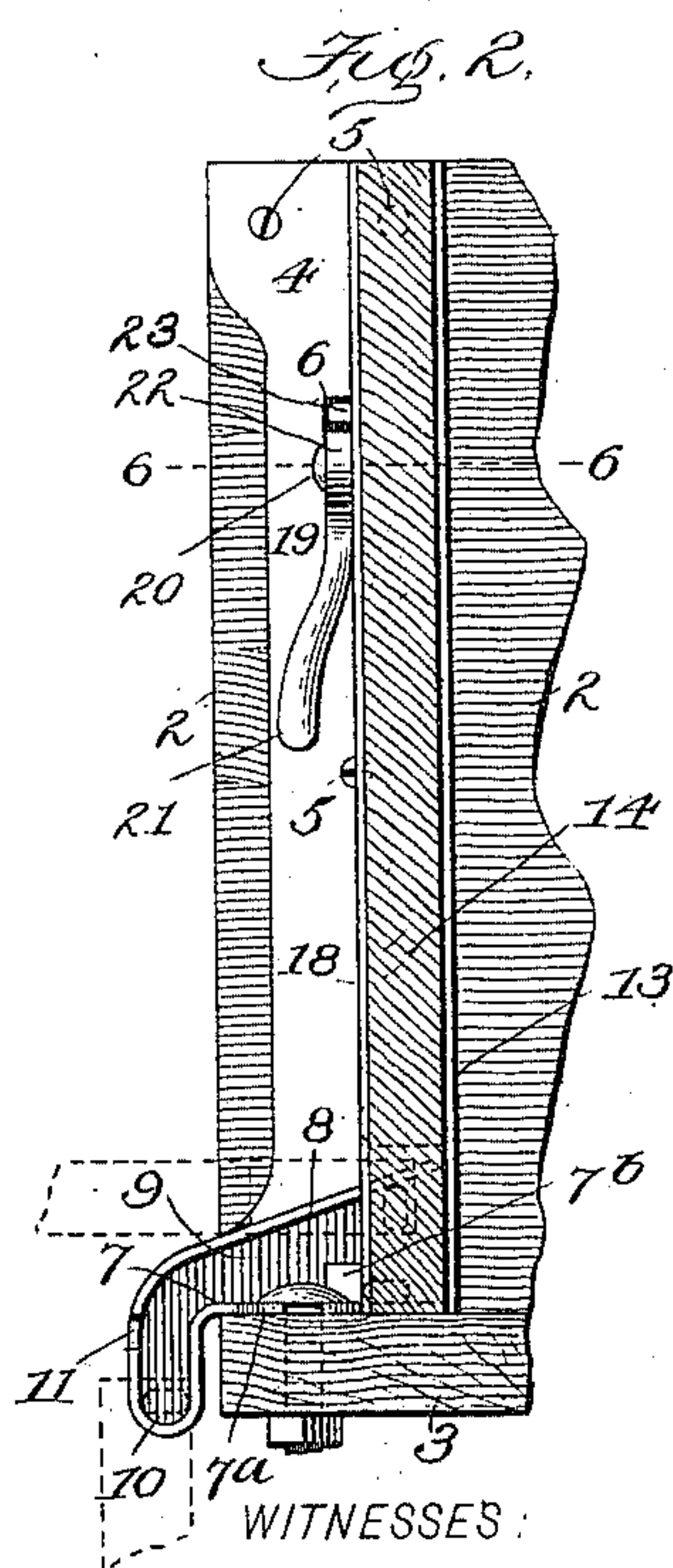
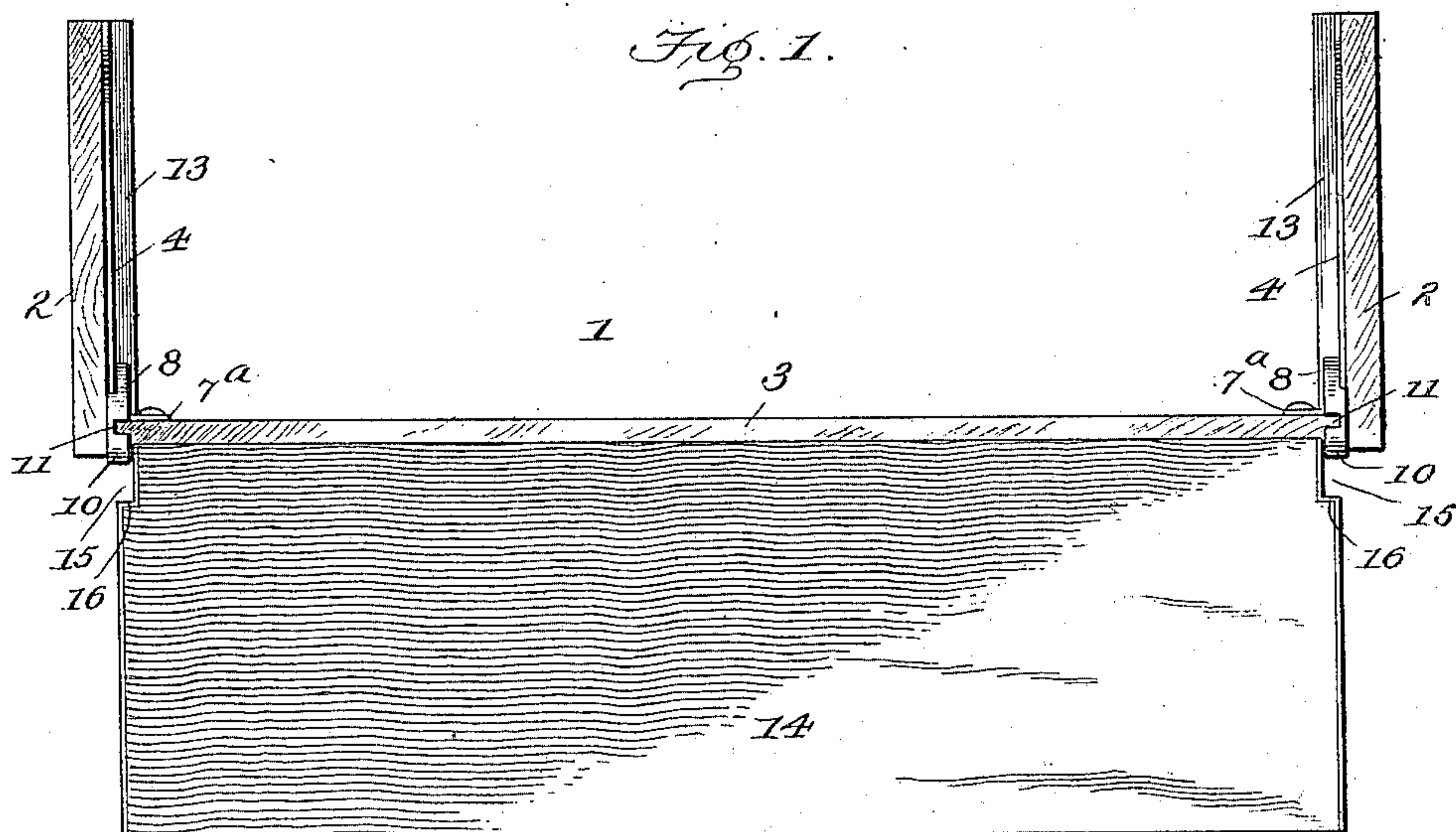


(No Model.)

W. L. SMITH.  
END GATE FOR WAGONS.

No. 600,898.

Patented Mar. 22, 1898.



INVENTOR

Wm. L. Smith

BY  
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ATTORNEYS.



# UNITED STATES PATENT OFFICE.

WILLIAM L. SMITH, OF LA CROSSE, WISCONSIN.

## END-GATE FOR WAGONS.

SPECIFICATION forming part of Letters Patent No. 600,898, dated March 22, 1898.

Application filed July 9, 1897. Serial No. 643,968. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM L. SMITH, a citizen of the United States, residing at La Crosse, in the county of La Crosse and State of Wisconsin, have invented certain new and useful Improvements in End-Gates for Wagons; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has reference to wagon end-gates, and relates particularly to fasteners therefor; and its object is to provide a novel and improved fastener designed to serve the combined functions of a lock to hold the gate closed and a support to maintain it in a vertical position when let down below the wagon-body and also in a horizontal open position in line with said body in order to enable the said gate to be employed as a support on which the driver or attendant may stand in loading and unloading.

With this and other objects in view the invention consists in the novel constructions and combinations of parts hereinafter more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings, illustrating the invention, Figure 1 is a rear end elevation of a wagon-body equipped with my invention, the end-gate being let down. Fig. 2 is a vertical transverse section of the same with the end-gate closed. Fig. 3 is a perspective view of the keeper-plate removed. Figs. 4 and 5 are side and end views, respectively, of the end-gate. Fig. 6 is a horizontal sectional view.

Referring now more particularly to the accompanying drawings, 1 designates the wagon-body, 2 the side-boards, and 3 the bed or bottom boards thereof. In accordance with my invention I equip each side-board with a keeper-plate 4, fitting on the inner side thereof and formed with apertures for the passage of screws, bolts, or other suitable fastening devices 5 to secure the same thereto and with two vertical locking-slots 6, which are adapted to be engaged by the fastening member on the end-gate, as hereinafter described.

The plate is provided at the bottom with inwardly-projecting guide-flanges 7 8, form-

ing a guideway 9, the bottom flange 7 having a lateral slotted extension 7<sup>a</sup> for the passage of a fastening screw or bolt to secure the plate to the wagon-bed and in rear thereof a stop-lug 7<sup>b</sup>. The said two flanges are connected at the rear or outer side of the plate and form a vertically-disposed socket 10, the upper flange 8 being provided at the upper end of said socket with a slot or opening 11 and inclining gradually upward therefrom to the inner side of the plate, at which point the guideway 9 has the greatest depth. The keeper-plate is formed at its inner side with a vertical stop-flange 13, which closes the inner end of the guideway 9 and serves to prevent the end-gate 14 from tilting inward.

The end-gate is provided with a recess in each lower side edge, into which the flange 8 extends. At the upper end of this recess is a guide-shoulder 16, which rides on said flange, and at the bottom a laterally-projecting stop-lug 17, which projects into the guideway 9.

A fastener-plate 18 is secured at each side of the gate and a fastener 19 is fulcrumed to a pivot-bolt 20 thereon. This fastener is of novel construction and comprises an outwardly-curved handle 21, formed at its inner end with a head or enlargement 22 and a segment-hook 23, having its inner face or edge beveled at one side, as shown. This hook is adapted to be passed through the locking-slots 6 to engage the keeper 6<sup>a</sup>, formed thereby to hold the gate closed, as shown in Fig. 2. The beveled face of the hook in locking and unlocking binds by frictional contact against a segment-rib 24, which forms a positive locking connection.

The operation of my improvement will be readily understood. When the gate is closed and held by the fastener, the lug 17, abutting against the lug 7<sup>b</sup>, prevents the lower end of the gate from moving outward, while the flange 13 limits the inward movement of the gate. By sliding the gate backward until the lugs 17 occupy the sockets 10 the gate may be opened to its fullest extent and allowed to hang below the wagon-bed. If it is desired to support the gate in a horizontal position in the plane of the wagon-bed, this may be accomplished by sliding the gate to a point about midway of the guideway 9 and



then tilting the upper end downward to cause the shoulder 16 to rest upon the flange 8 and the lug 17 to bear against the under side of said flange, as shown by dotted lines in Fig.

5 1. When the gate is in this position, it affords a support on which the driver or an attendant may stand in loading or unloading the wagon.

10 It will be understood that the keeper and fastener plates are made in rights and lefts for attachment to the opposite side-boards of the wagon and opposite ends of the gate.

The end-gate may be readily removed and connected with the vehicle by means of the 15 slots 11 in the flange 8.

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

20 1. In end-gate fastenings, the combination with the side-board of a vehicle, of a keeper-plate 4 secured to said side-board and provided at its lower end with upper and lower inwardly-projecting flanges 7 8 forming a 25 guideway and connected at their outer ends to form a vertical depending socket 10, the said flange 7 being provided with a stop-lug 7<sup>b</sup> and the flange 8 with a slot 11, and a flange

13 on the inner edge of the plate, and an end-gate formed at its lower end with a recess 15 30 to receive said flange 8, a shoulder 16 to ride on the flange 7, a lug 17 adapted to traverse said guideway, and a fastener adapted to engage the keeper-plate to hold the end-gate closed, substantially as described. 35

2. In end-gate fastenings, the combination of a keeper-plate secured to the inner side of the side-board of the vehicle and provided at its lower end with upper and lower inwardly-projecting flanges forming a guideway hav- 40 ing a vertical socket at one end which projects below the wagon-bed, a vertical longitudinal stop-flange closing the other end of the guideway, and locking-slots, an end-gate having a recessed lower edge formed with a 45 shoulder and lug adapted to traverse said guideway, and a fastener to engage said locking-slots, substantially as shown and described.

In testimony whereof I affix my signature 50 in presence of two witnesses.

WILLIAM L. SMITH.

Witnesses:

WILLIAM TONAWER,  
WALTER C. WINTER.