

No. 688,292.

Patented Dec. 10, 1901.

D. D. BURWELL.  
END GATE.

(Application filed Apr. 9, 1901.)

(No Model.)

Fig. 5.

Fig. 1.

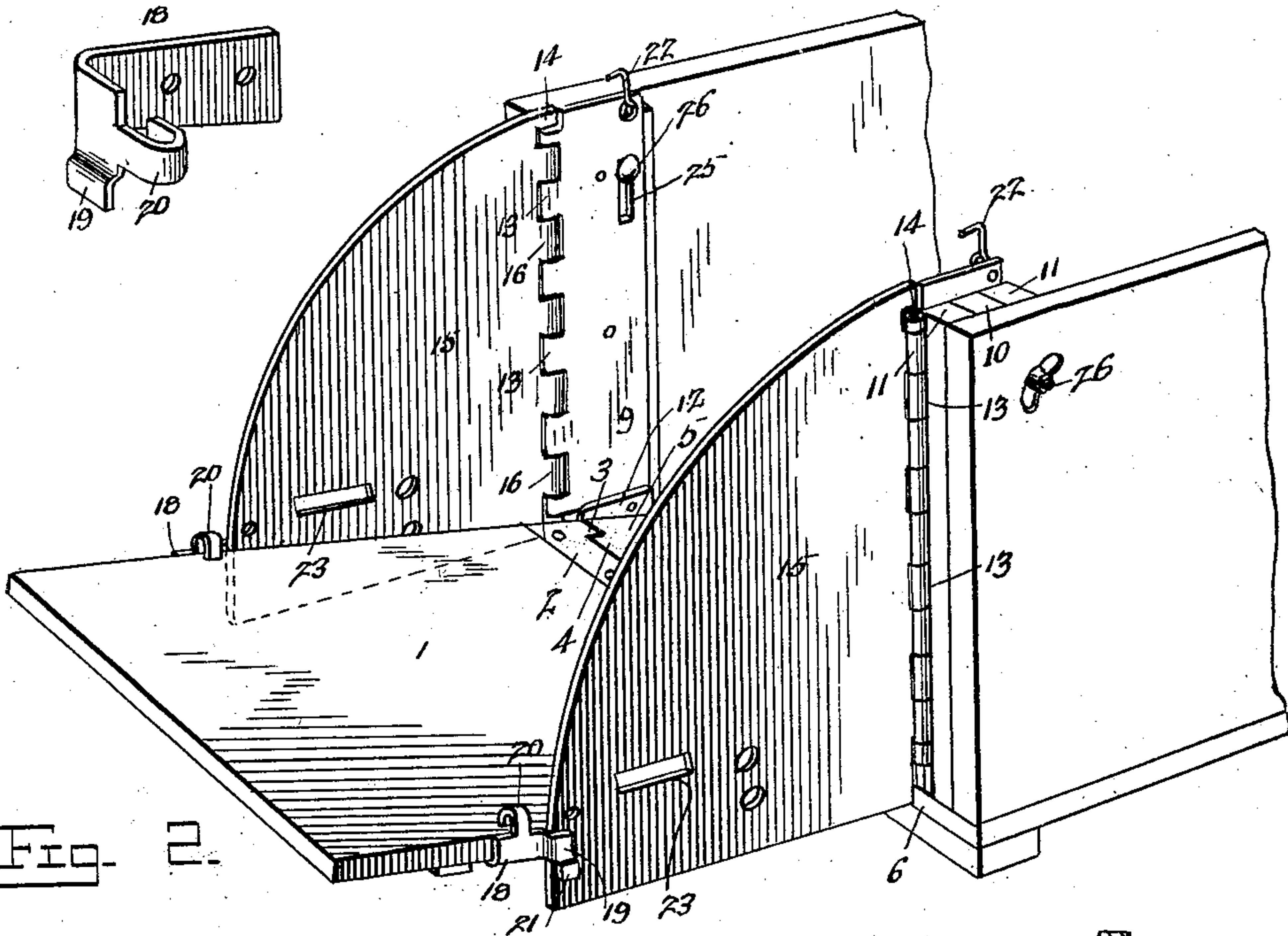
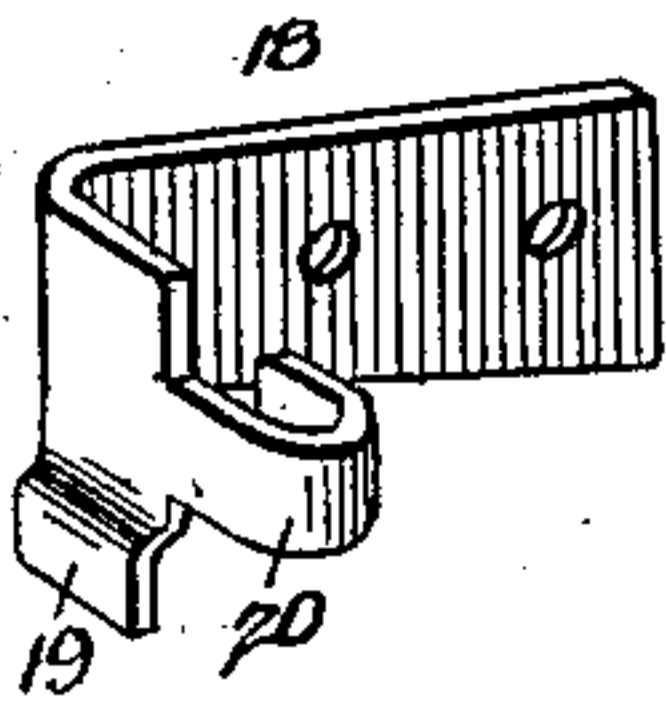


Fig. 2.

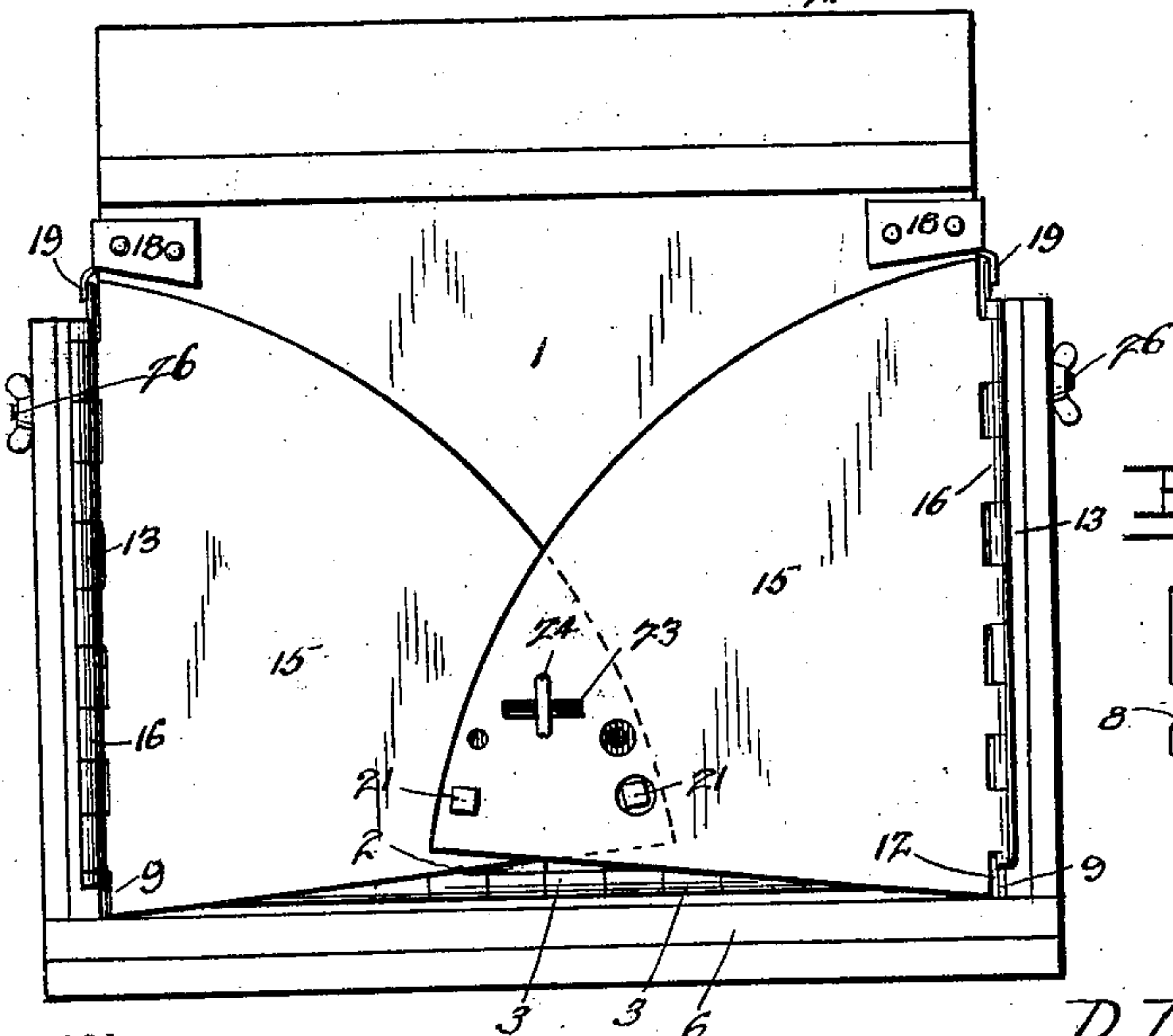


Fig. 3.

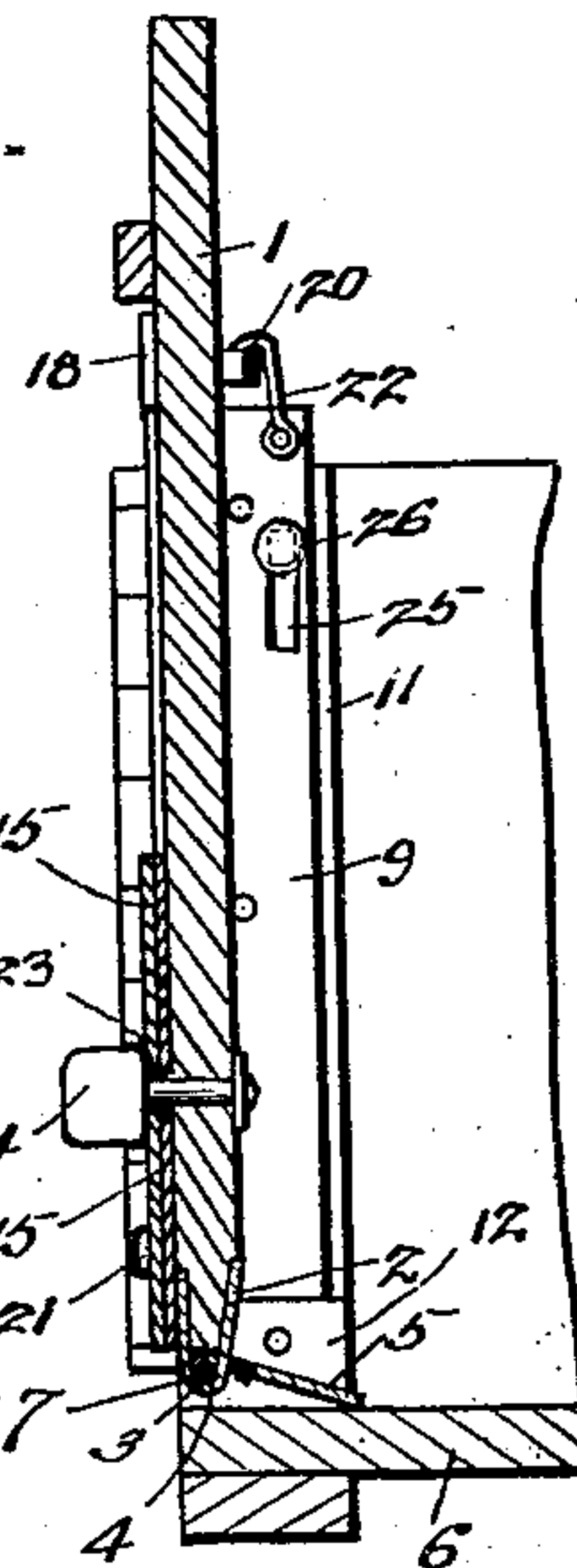
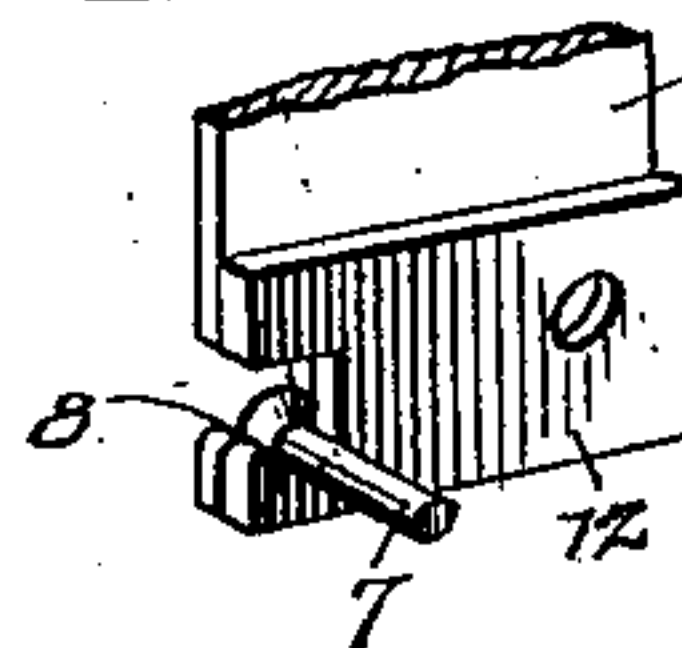


Fig. 4.



Witnesses

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# UNITED STATES PATENT OFFICE.

DALLAS D. BURWELL, OF CLARINDA, IOWA.

## END-GATE.

SPECIFICATION forming part of Letters Patent No. 688,292, dated December 10, 1901.

Application filed April 9, 1901. Serial No. 55,079. (No model.)

*To all whom it may concern:*

Be it known that I, DALLAS D. BURWELL, a citizen of the United States, residing at Clarinda, in the county of Page and State of Iowa, have invented a new and useful End-Gate, of which the following is a specification.

The invention relates to improvements in end-gates.

The object of the present invention is to improve the construction of end-gates for wagons and to provide a simple, strong, and inexpensive one adapted to be readily applied to an ordinary wagon body or bed and capable of being swung downward to an inclined position to form a shoveling-board and of being arranged for dumping.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of an end-gate constructed in accordance with this invention and shown applied to a wagon-body and arranged to form a shoveling-board. Fig. 2 is an elevation of the same, the end-gate being closed. Fig. 3 is a vertical sectional view. Fig. 4 is a detail view illustrating the construction for detachably hinging the lower edge of the end-gate. Fig. 5 is a detail view of one of the side plates or castings of the end-gate.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates an end-gate provided at its lower edge with a binding-strip 2, of sheet metal or other suitable material, having its bend or connecting portion extending beyond the end-gate and cut away at intervals to form a series of eyes 3, which are spaced apart to receive eyes 4 of a plate or apron 5. The plate or apron 5, which overlaps the bottom of the wagon-body 6, is adapted to prevent any of the material escaping at that point, and it is connected with the end-gate by a transverse pintle 7, passing through the said eyes and extending laterally beyond the end-gate and arranged in open bearing-recesses 8 of plates 9. The binding-strip and the hinged apron or plate also serve to protect the end-gate and the bottom of the wagon-

body to prevent such parts from becoming worn or otherwise injured by shoveling.

The side plates, which are provided with open bearing-recesses 8, have cleats 10 secured to them and arranged between vertical cleats 11 of the sides of the wagon-body. The vertical cleats 10 are suitably secured to the side plates, which are constructed of sheet metal or other suitable material and which may, if desired, be detachably secured to the cleats 11 of the wagon-body to assist in retaining them in place. The lower portions of the side plates 10 are reinforced by stout metal plates 12, which are provided with open bearing-recesses similar to those of the side plates. The vertical outer edges of the side plates are provided at intervals with eyes 13, receiving vertical pintles 14, which hinge wings 15 to the side plates, and the said wings are provided with corresponding eyes 16, arranged between and registering with the eyes 13. The wings are constructed of sheet metal similar to the side plates, and the metal is rolled to form the said eyes 13 and 16. The wings are arranged to swing horizontally, and they are adapted to be swung outward, as illustrated in Fig. 1 of the accompanying drawings, to retain the material on the end-gate when the latter forms a shoveling-board, and they are capable of being closed against the end-gate when the latter is in a vertical position, as shown in Fig. 2.

The end-gate is provided at opposite sides with plates or castings 18, having tongues 19 and provided with eyes or hooks 20, and the said tongues 19, which are outwardly offset, are adapted to engage over the upper edges of the wings and to engage over the upper edges of the plates 9. The wings have curved upper edges and are provided with stops 21, arranged to support the end-gate in an inclined position when the latter is swung downward to form a shoveling-board. The stops which receive the tongues preferably consist of bolts, and the wings are provided with perforations arranged at different elevations and adapted to receive the said bolts to enable the end-gate to be supported at different inclinations. The tongues engage over the upper edges of the plates 9 when the end-gate is in a vertical position, and the said eyes 20 are adapted to be engaged by hooks 22,



mounted on the side plates 9 and adapted to hold the upper portion of the end-gate when the lower edge of the same is disengaged from the wagon-body. When it is desired to arrange the end-gate for dumping, the hooks 22 are engaged with the eyes 20, and the end-gate is raised slightly to disengage the horizontal pintle from the open bearing-recesses. When the lower horizontal pintle is thus disengaged, the bottom of the end-gate may be swung outward. The wings are provided with slots 23, arranged to register when the said wings are closed against the end-gate, as illustrated in Fig. 2, and adapted to receive a pivoted button 24, which is turned transversely of the slots to lock the wings in their closed position. The side plates are also provided with vertical slots 25, receiving a pair of bolts 26, having heads at their inner ends and provided at their outer ends with thumb-nuts.

In order to enable the wings to fold flat against the end-gate, they are provided with openings arranged to receive the stops for supporting the end-gate in an inclined position to form a shoveling-board.

It will be seen that the end-gate is simple and comparatively inexpensive in construction, that it is adapted to be readily applied to an ordinary wagon body or bed, and that it affords an efficient shoveling-board and is adapted also to be arranged for dumping.

What I claim is—

1. A device of the class described comprising the vertical side plates designed to be mounted on the sides of the wagon-body, the wings having curved edges and hinged to the side plates and provided with stops, and the end-gate hinged at the bottom and provided with tongues engaging over the edges of the wings and adapted to be supported by the said stops, substantially as described.

2. A device of the class described comprising the vertical side plates, the wings hinged to the side plates and provided with adjust-

able stops adapted to be raised and lowered, and the hinged end-gate provided with means for engaging the stops, substantially as described.

3. A device of the class described comprising the vertical side plates provided at their lower ends with bearing-recesses, the wings hinged to the side plates, the end-gate provided with a pintle detachably engaged with the said recesses, the plates mounted on the end-gate at opposite sides thereof and provided with eyes and having tongues engaging the upper edges of the wings and the upper edges of the side plates, stops mounted on the wings, and fastening devices arranged at the upper ends of the side plates and adapted to engage the eyes, substantially as described.

4. A device of the class described comprising side plates provided with bearings, an end-gate provided at its lower edge with a binding-strip having eyes arranged at intervals, an apron also provided at intervals with eyes registering with the said eyes, a pintle passing through the said eyes and arranged in the said bearings and hinging the apron to the end-gate and connecting the latter to the side plates, and wings, substantially as described.

5. A device of the class described comprising side plates provided with slots and designed to be mounted on the sides of a wagon-body, bolts passing through the slots, wings hinged to the side plates, an end-gate hinged at the bottom and provided thereat with a hinged apron, and a locking device mounted on the end-gate for holding the wings, substantially as described.

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

DALLAS D. BURWELL.

Witnesses:

W. H. BURWELL,  
WM. WEHMILLER.