

(No Model.)

2 Sheets—Sheet 1.

W. A. HALL.  
END GATE.

No. 457,274.

Patented Aug. 4, 1891.

Fig. 1.

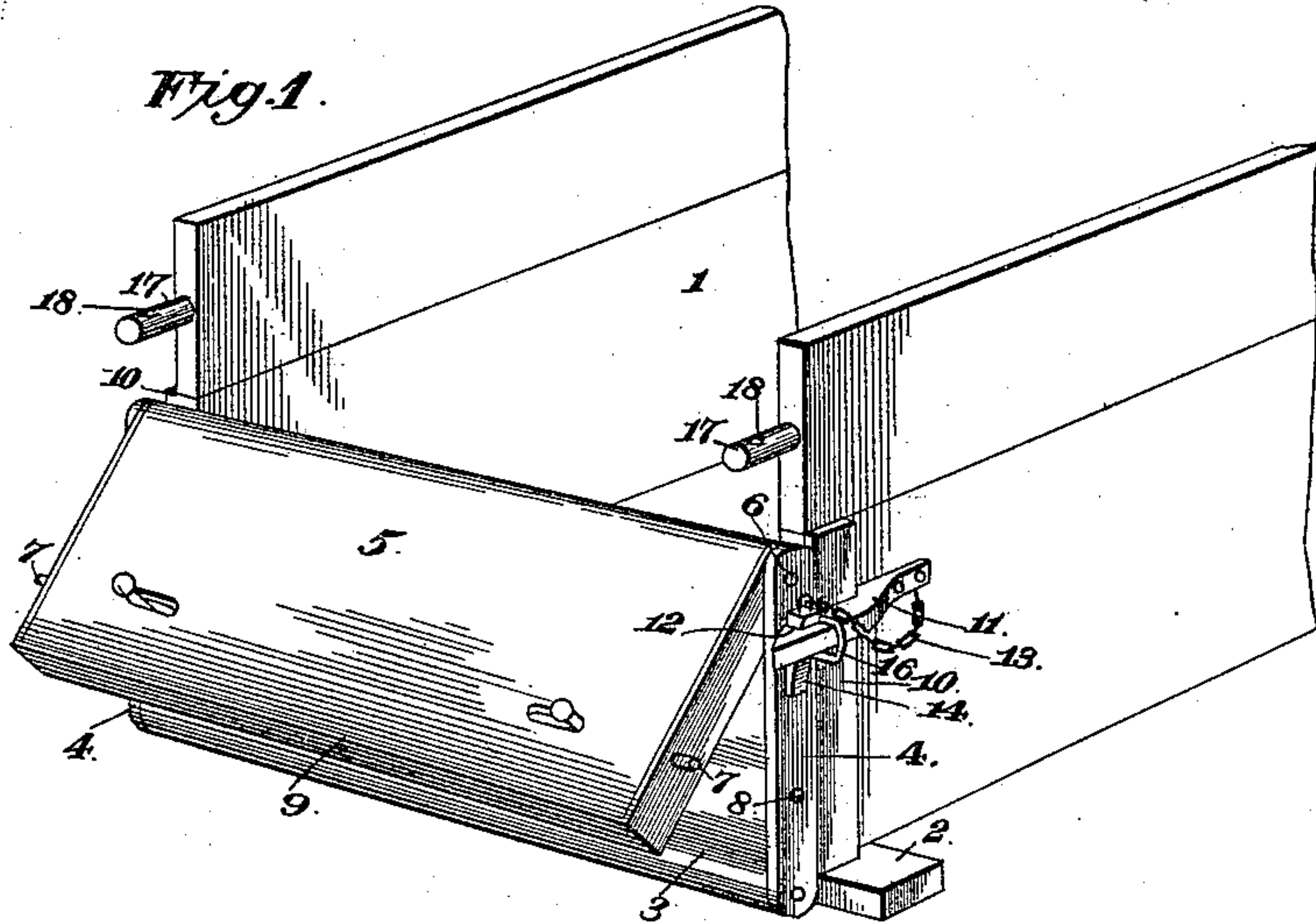


Fig. 2.

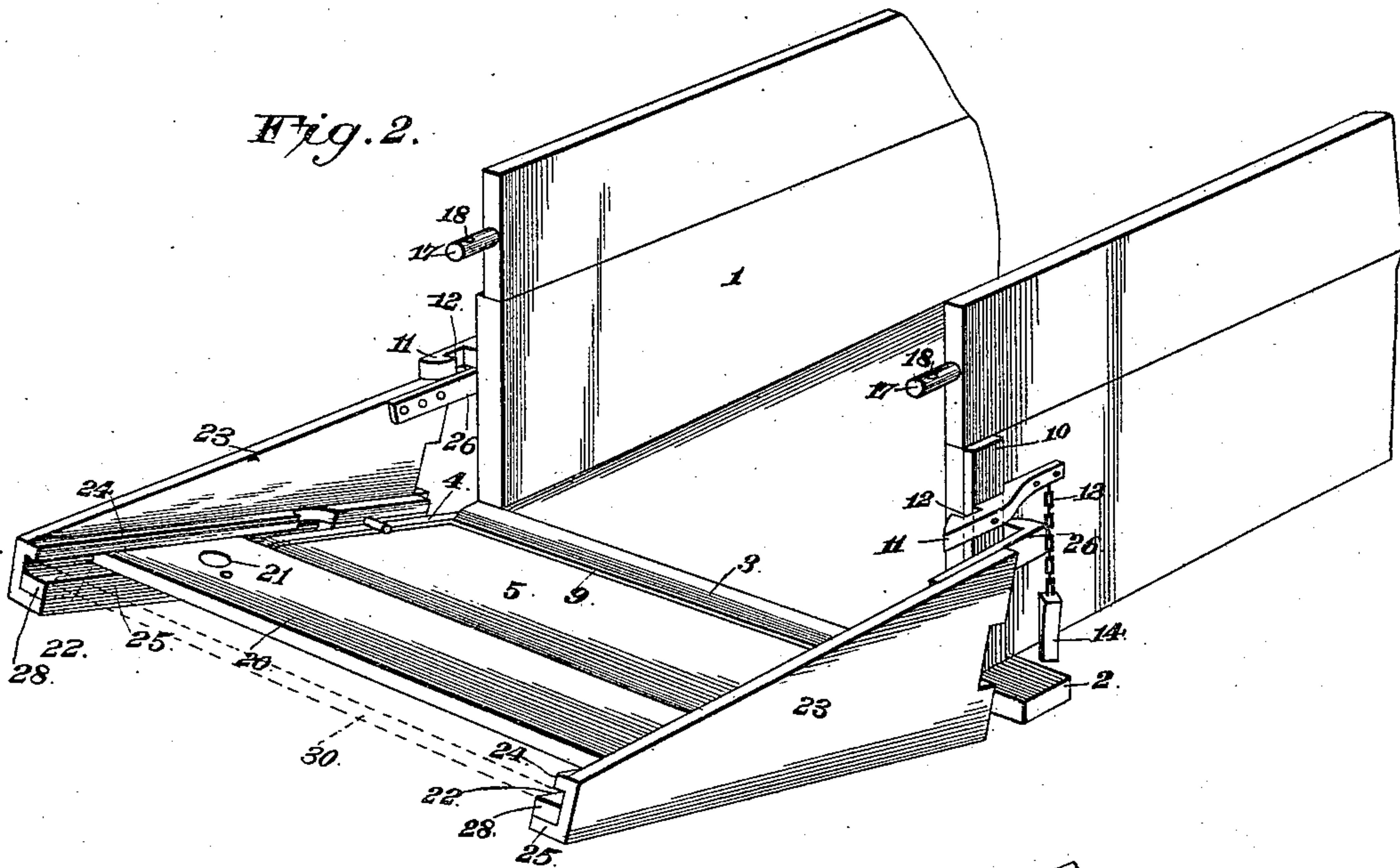
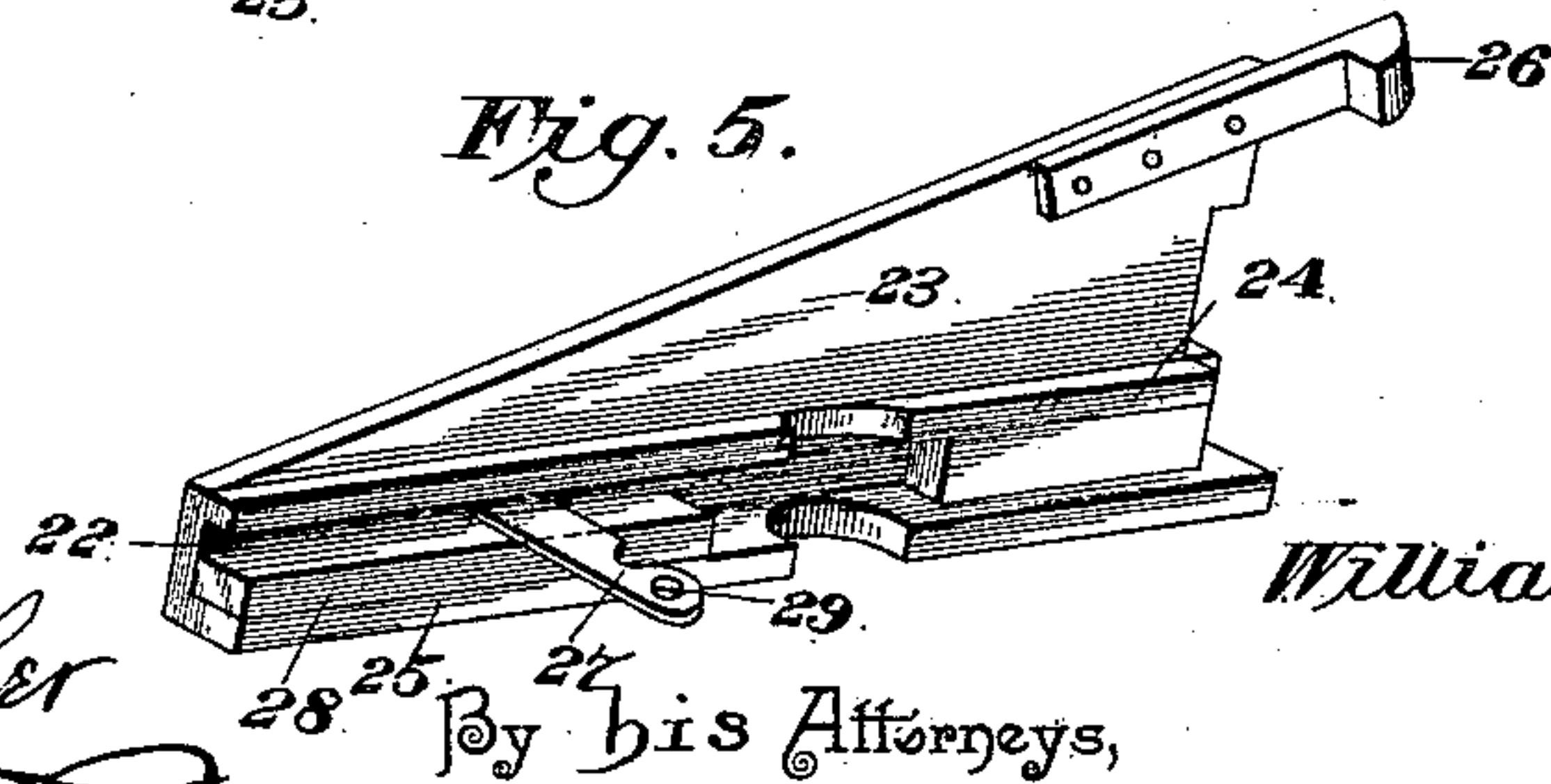


Fig. 5.



Witnesses

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By his Attorneys,

*C. A. Snow & Co.*

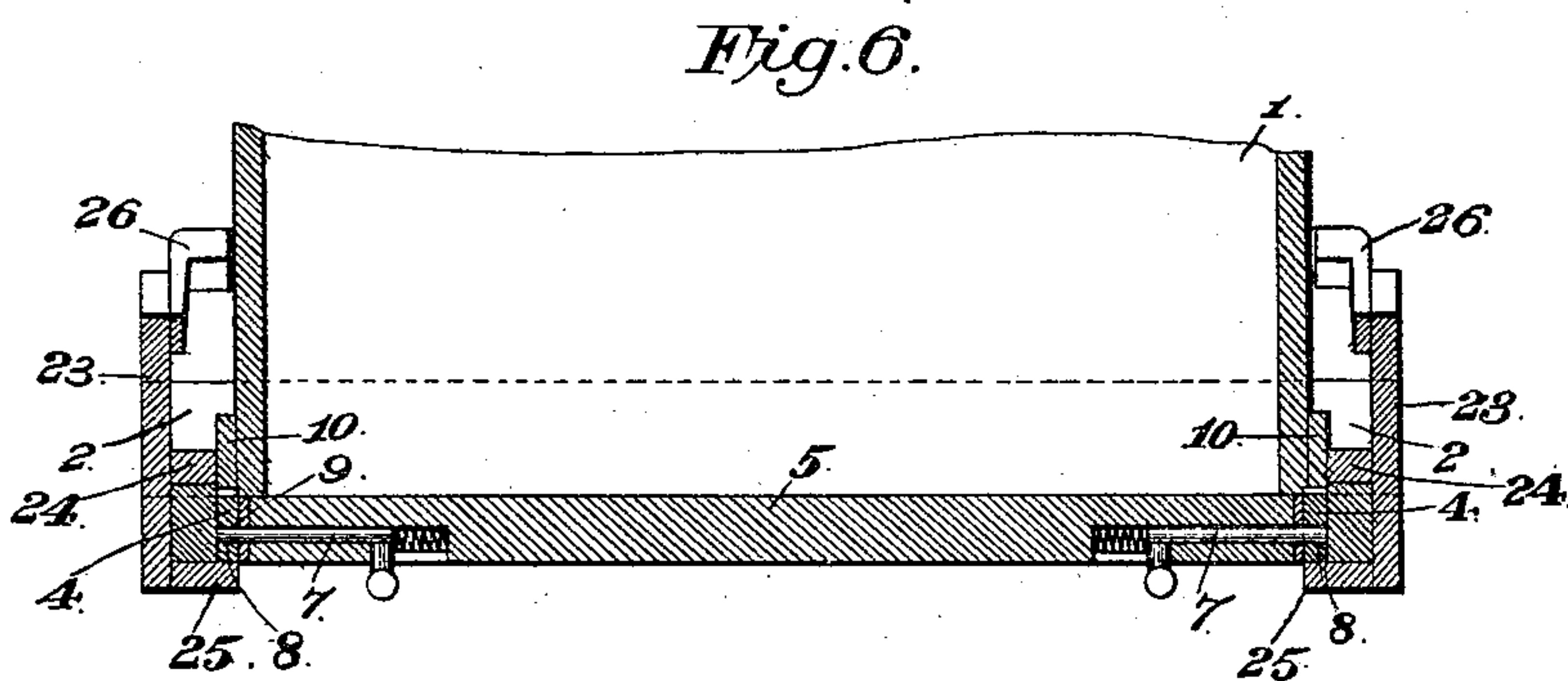
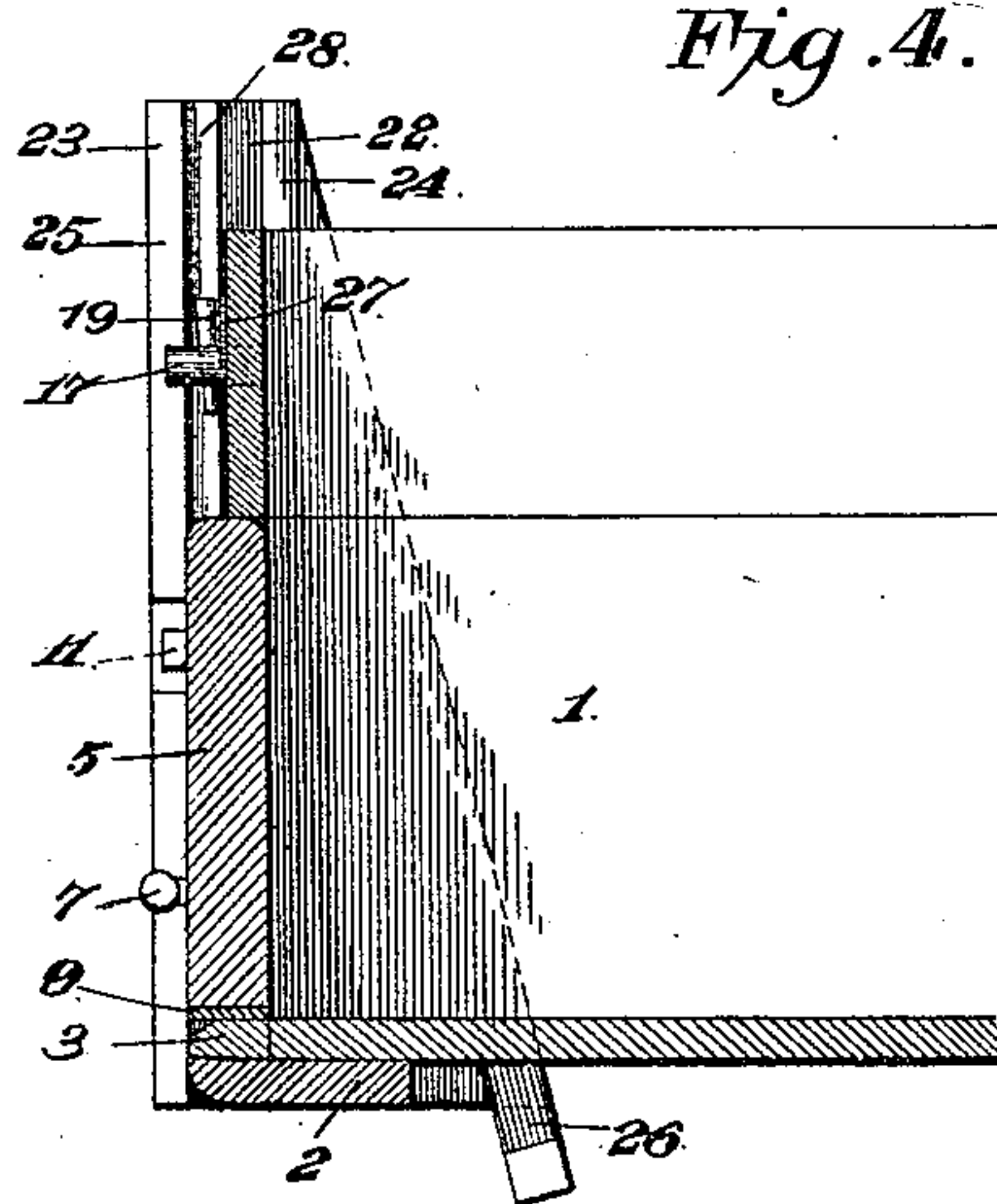
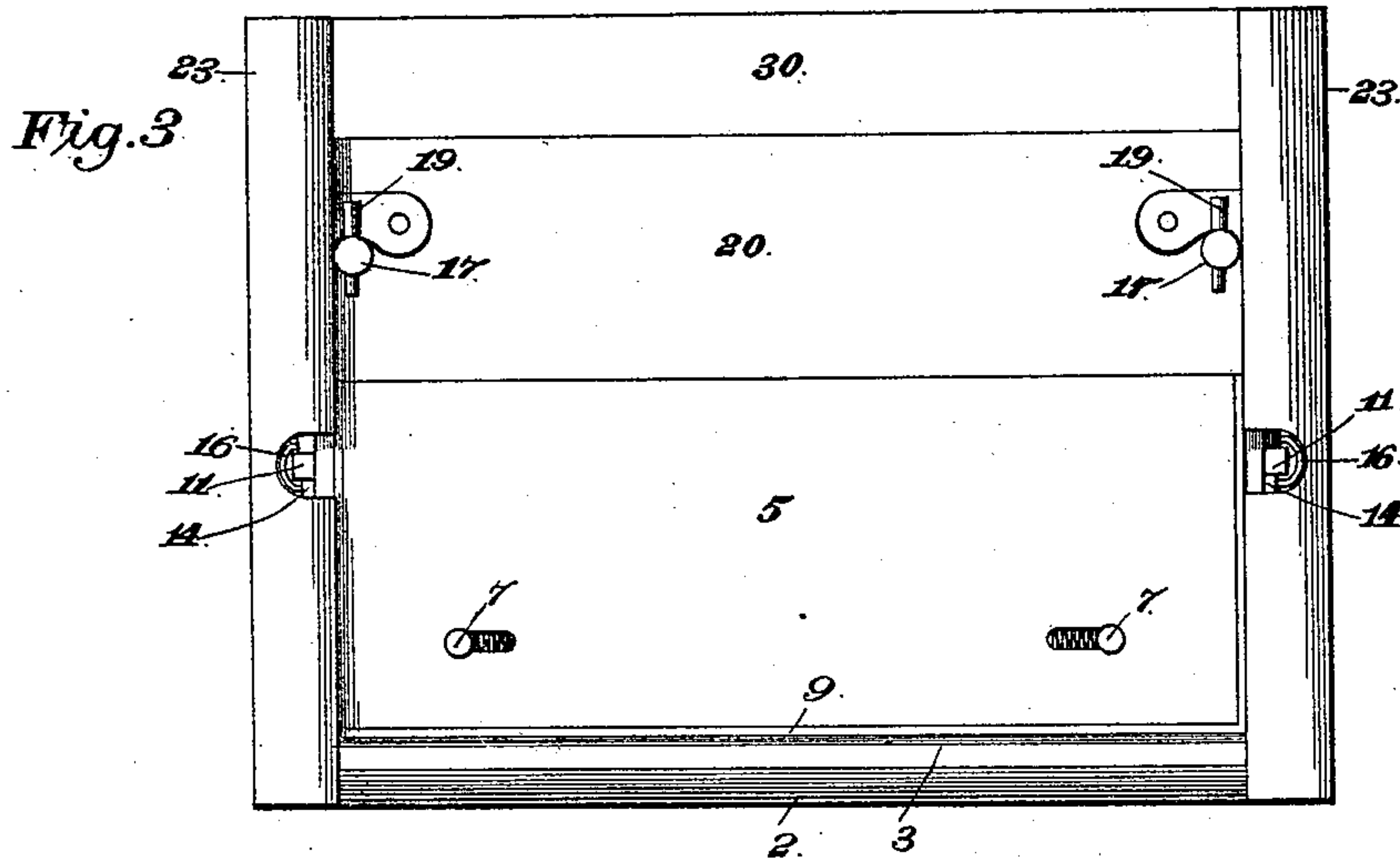
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# UNITED STATES PATENT OFFICE.

WILLIAM ALBERT HALL, OF RUSKIN, NEBRASKA.

## END-GATE.

SPECIFICATION forming part of Letters Patent No. 457,274, dated August 4, 1891.

Application filed February 12, 1891. Serial No. 381,209. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM ALBERT HALL, a citizen of the United States, residing at Ruskin, in the county of Nuckolls and State of Nebraska, 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 simplify and improve the construction of end-gates and enable the same to be readily opened at the top or bottom for shoveling or dumping, and to provide wings adapted to be readily removed from the end-gate and quickly replaced thereon when it is desired to employ the end-gate for shoveling.

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, the wings being removed and the end-gate being swung open at the bottom for dumping. Fig. 2 is a similar view, the wings being in position and the end-gate being lowered for shoveling. Fig. 3 is a rear elevation. Fig. 4 is a vertical sectional view. Fig. 5 is a detail perspective view of one of the wings. Fig. 6 is a horizontal sectional view.

Referring to the accompanying drawings, 1 designates a wagon-body having its rear bottom cleat 2 projecting beyond the sides of the body and provided with a bar 3, to the ends of which are secured hinged bars 4. The bars 4 have their lower ends hinged to the bar 3 and have pivoted between their upper ends an end-gate 5, which is adapted to be swung outward at its bottom on the pivots 6 for dumping and to be lowered in the usual manner by means of the hinged bars 4, and the lower end or bottom of the end-gate is held between the bars 4 by spring-actuated bolts 7, which are arranged within the end-gate and adapted to engage openings 8 of the hinged bars. The end-gate 5 has its lower and side edges bound by a metal strap 9, which is provided with openings to permit the passage of

the bolts and to enable the same to successively withstand the strains incident to their use. The sides of the body are provided with vertical cleats 10, arranged on the outer faces of the sides, and secured to the sides and to the cleats 10 are horizontally arranged the rearwardly-projecting arms 11, extending from the body and provided on their inner faces with recesses 12, designed to receive pins 14, attached to the sides of the body by chains 13. The pins 14 are arranged in the recesses 12 and retain the end-gate in a vertical position by preventing staples 16, arranged on their outer faces of the hinged bar 4 to receive the arms 11, from slipping from said arms.

The top box of the body is provided on its inner face with rearwardly-extending pins 17, provided with perforations 18 to receive pins 19, which secure a top board 20 to the sides of the top box, said pins 17 passing through openings 21 in the board 20. The top board 20 projects beyond the sides of the top box, and is arranged to engage grooves or ways 22 of removable wings 23, which are of the usual shape and gradually taper toward their upper ends and have secured to their inner faces cleats 24 and 25, which form the groove or way 22. The lower ends of the wings are recessed to receive the extended ends of the bottom cleat 2 and are provided with hooks 26, which engage the vertical cleats 10 to hold the end-gate in an inclined position for shoveling, as illustrated in Fig. 2 of the accompanying drawings. The wings are retained in their vertical position when the end-gate is closed by plates 27, secured to a strip 28, arranged within the groove 22, adjacent to the outer cleat 25, and the plate 27 has its end perforated and adapted to be arranged flat against the top board 20, between the pin 19 and the board, and the wing is secured against lateral movement by a pin passing through the perforation 29 and a perforation of the top board. The cleats 24 and 25 are recessed to receive the arms 11, and the wings are extended above the top board 20 to receive a supplemental board 30.

When desired, the wings can be entirely removed from the end-gate, as illustrated in Fig. 1, and they may be employed, as in Fig.



3, and then the end-gate is adapted to be lowered for shoveling, as shown in Fig. 2.

Having described my invention, what I claim is—

5 1. The combination, with the wagon-body, of the bar 3, secured thereto, the bars 4, hinged to the bar 3, the end-gate pivoted between the upper ends of the hinged bars 4, and the wings detachably connected to the end-gate and provided with cleats forming ways to receive the  
10 hinged bars, substantially as described.

2. The combination of the body provided at its sides with vertical cleats 10, the end-gate hinged to the body, the upper box provided with rearwardly-projecting pins, the top  
15 board 20, arranged above the end-gate and completing the top box and secured to the pins, and the removable wings provided at their lower ends with hooks arranged to engage the  
20 vertical cleats 10, and having near their upper ends plates 27, extending inward and adapted

to be secured to the top board, substantially as described.

3. The combination of the body provided with rearwardly-extending arms 11, having  
25 recesses in their inner faces, the bars 4, having their lower ends hinged to the body and provided at their upper ends with loops 16, the end-gate having its upper end pivotally connected to the bars 4, means for securing  
30 the end-gate to the bars at a point below the pivotal point, and the pins engaging the recesses of the arms and securing the loops thereon, substantially as described.

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

WILLIAM ALBERT HALL.

Witnesses:

WILLIAM N. GARLICK,  
J. A. NICOL.