

(No Model.)

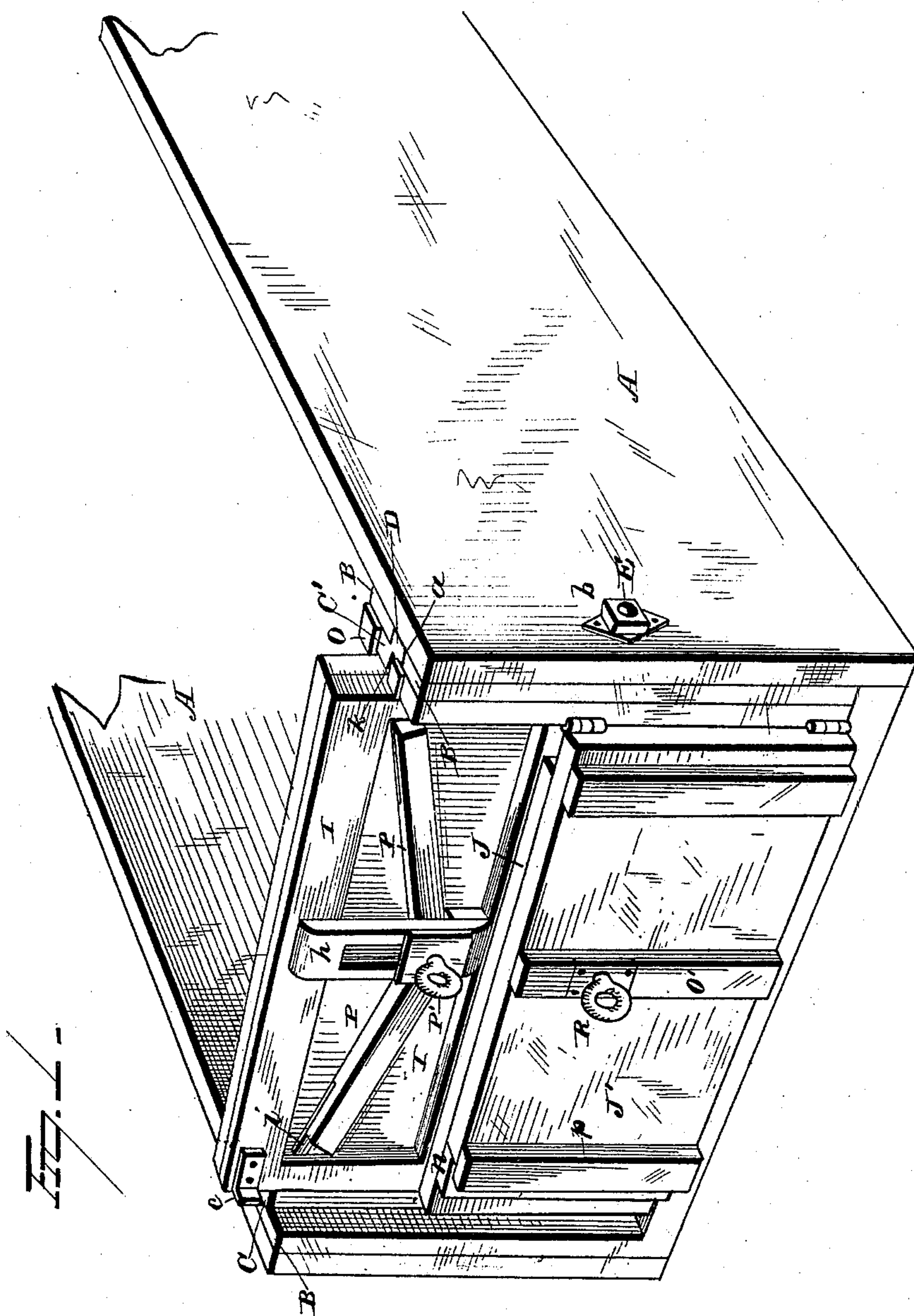
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G. W. HOLLY.

COMBINED END GATE AND SHOVELING BOARD.

No. 257,329.

Patented May 2, 1882.



WITNESSES

*Edw. Nottingham*  
*Am. Bright*

INVENTOR

*Geo. W. Holly*  
*By A. S. Symour*  
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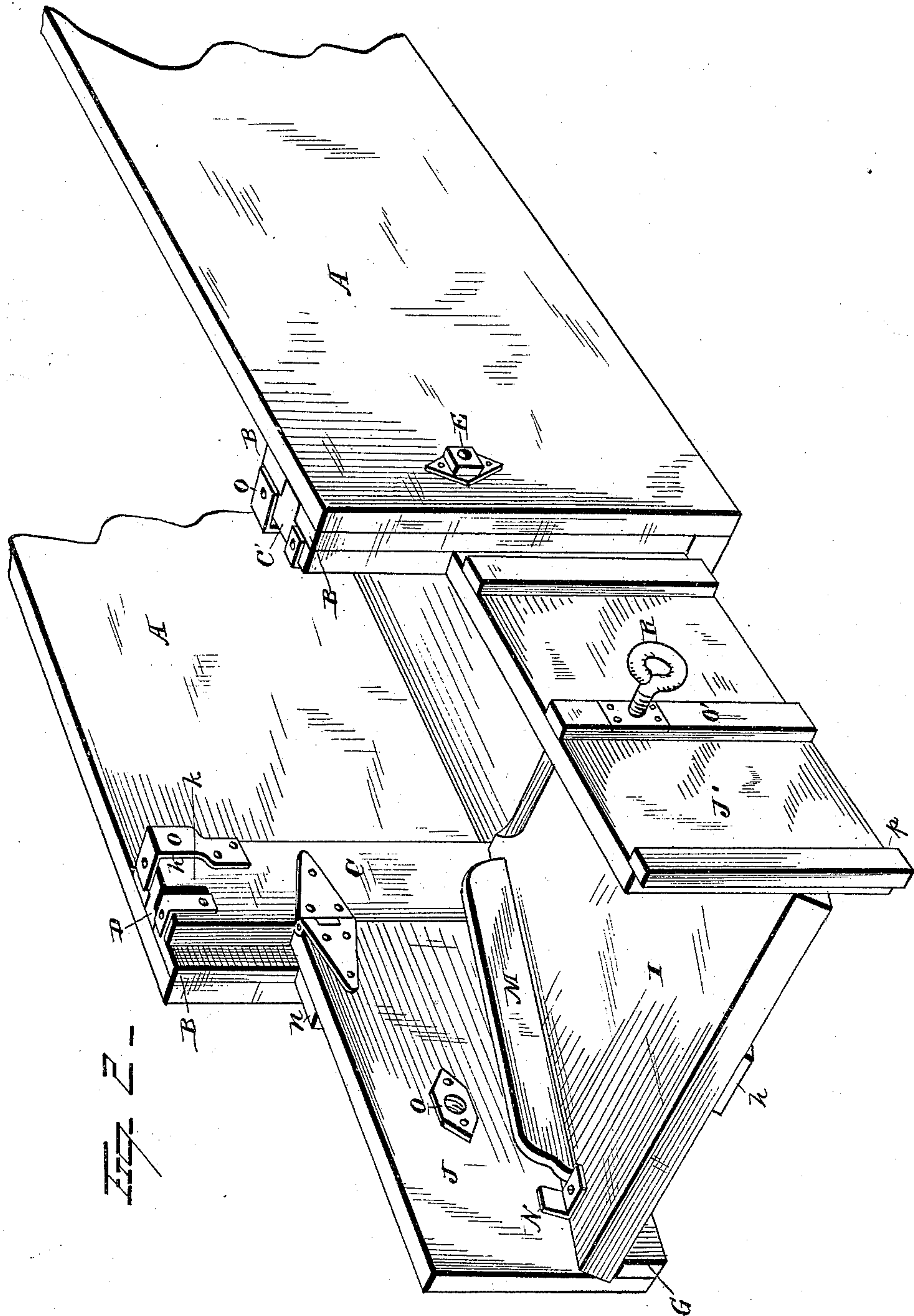
3 Sheets—Sheet 2.

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WITNESSES

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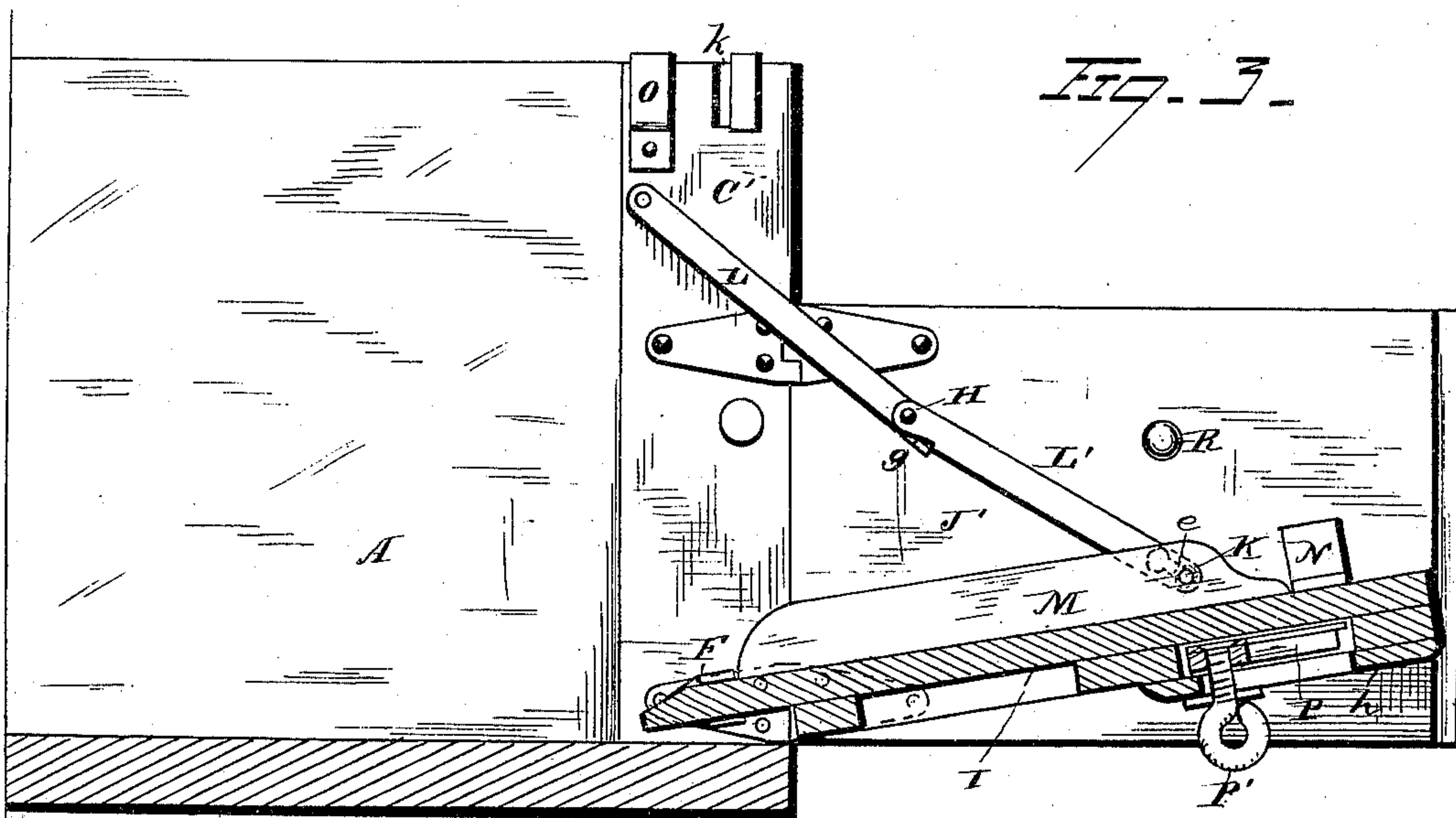
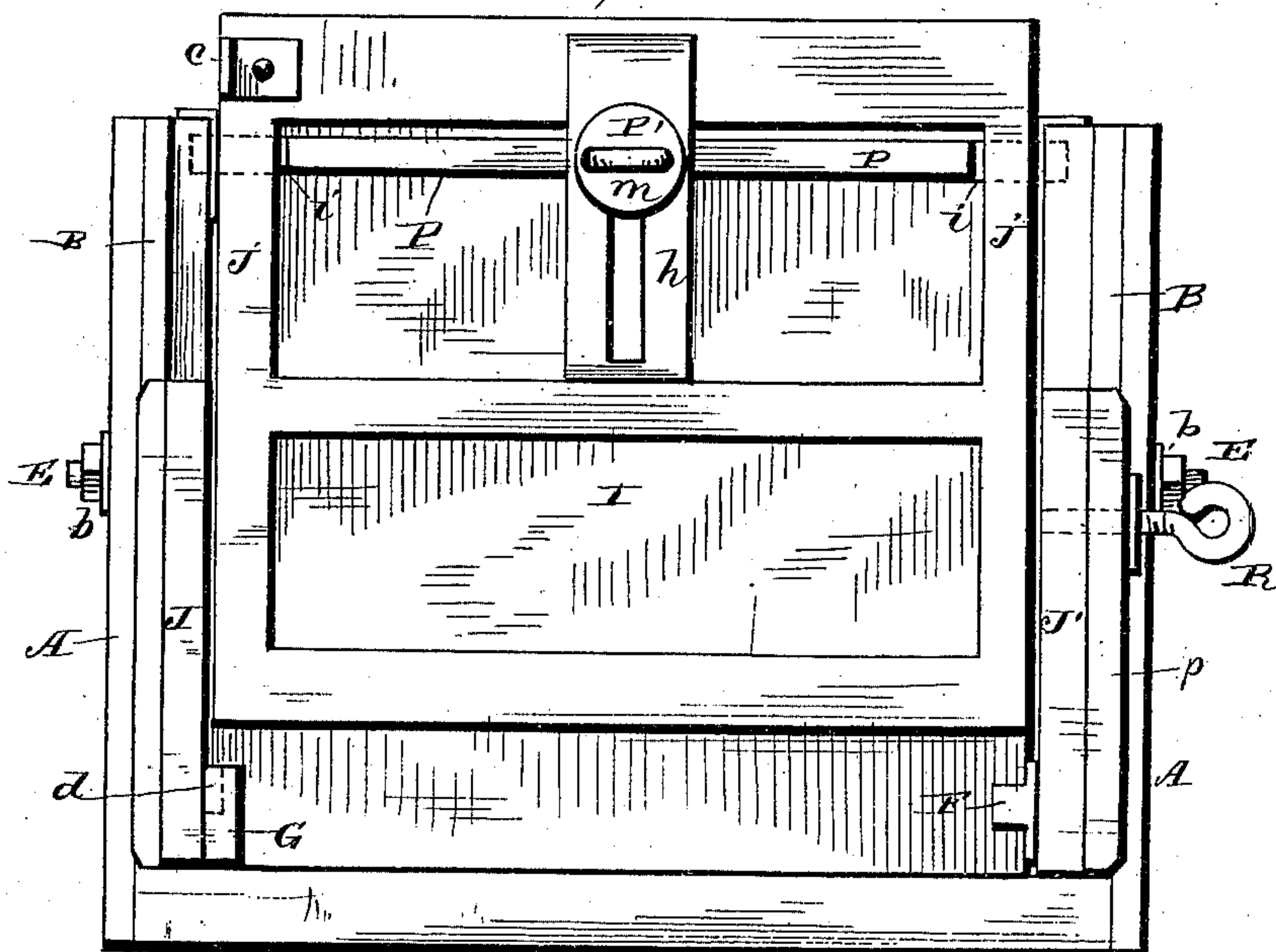


Fig. 3.



WITNESSES

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# UNITED STATES PATENT OFFICE.

GEORGE W. HOLLY, OF CAMANCHE, IOWA.

## COMBINED END-GATE AND SHOVELING-BOARD.

SPECIFICATION forming part of Letters Patent No. 257,329, dated May 2, 1882.

Application filed August 6, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. HOLLY, of Camanche, in the county of Clinton and State of Iowa, have invented certain new and useful  
5 Improvements in Combined End-Gate and Shoveling-Platform; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable  
10 others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in combined end-gate and shoveling-platform, the object of the same being to provide a device that can be manufactured at small initial  
15 cost, that will be easy of operation, and so adapted by its peculiar construction as to form a strong and substantial end-gate which  
20 will withstand all pressure brought to bear thereon, and a shoveling-platform with sides, which prevents the contents of the wagon from falling out, the said shoveling-board enabling  
25 the workmen to unload at the bottom of the wagon and not on top of the load, as is ordinarily done with the old style of end-gates.

With these ends in view my invention consists in certain details in construction and combinations of parts, as will be more fully explained, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view with the shoveling-board up and the gates closed and locked. Fig. 2  
35 is a similar view with the parts open. Fig. 3 is a longitudinal sectional view, and Fig. 4 is a rear view with the gates open.

A represents the body of an ordinary wagon, having the cleats B secured thereto in the usual way in which the ordinary tail-board is generally placed.

C and C' are the supporting-pieces, to which platform, end-gate, supporting-hinges, and links are secured, the said supporting-pieces being provided with the ribs D, which extend  
45 throughout their entire length, and are adapted to enter the space between the cleats and hold the parts in position. The supporting-pieces C and C' are still further strengthened and secured in this position by the bolts E, which  
50 latter pass through the sides of the wagon-body A and supporting-pieces C C', and are

retained therein by the nuts b. The bolts prevent the accidental displacement of the supporting-pieces C C', and also prevent them, together with the shoveling platform or board  
55 I, from jumping up when passing over rough roads, which motion has a tendency to loosen the parts.

To the lower ends of the supporting-pieces the pivot-clamps F are attached, which form  
60 the pivots for the lower end of the shoveling-board, and allow the same to turn freely and be removed from the wagon, when desired. These clamps F can be of any construction whatever; but the form shown in the draw-  
65 ings answers all the required purposes, and instead of using pivot-clamps pivot-bolts can be used with good results. This shoveling-board I is adapted to be let down when it is desired to load or unload the wagon, and is retained  
70 firmly in this position by the lip c, which fits in a groove, d, in the cleat G on the inside of the inner gate, J, and the jointed connecting-links H. This jointed connecting-link H is  
75 pivoted at its upper end to the supporting-piece C', and at its lower or outer end to the headed bolt K, secured to the side of the shoveling-board I. This jointed connecting-link H is provided at its outer end, where it is connected with the shoveling-board, with a round  
80 opening, e, having a slot of smaller size than the opening, communicating therewith and running outward toward the end of the link. The eye or opening thus formed enables the link to be connected at pleasure by inserting the  
85 head of the bolt K in the round opening e and pulling the shoveling-board I outward until the neck of the bolt enters the slot communicating with the round opening which holds the parts in place, and disconnecting the same by  
90 reversing the operation, when the shoveling-board can be taken out entirely, leaving the gates J and J' in position, which will perform the function of an ordinary tail-gate with good results.

A finger or projection, g, is formed on the under surface of the upper link, L, which abuts against the under surface of the lower link, L', and prevents the jointed link H from moving  
95 in the wrong direction during the operation of closing the shoveling-board. Side pieces M are secured to the shoveling-board near its  
100



outer sides, which prevent the contents of the wagon from falling down between the shoveling-board I and gates J J' and clogging the space between them, and consequently retarding the process of loading or unloading.

The upper ends of the shoveling-board are provided with lips N, securely fastened thereto, which are adapted to enter the space under the straps O, secured to the supporting-pieces when the board is in an upright position, and prevents the sides of the wagon from bulging out, the said board being also assisted in this function by the hinged gates J J', which, when closed and locked, materially assist the shoveling platform or board in resisting the outward or bulging pressure at the rear end of the wagon. This shoveling-platform I is held up in position and prevented from swinging backward and bearing against the hinged gates J and J' by the sliding arms P. These sliding arms are situated on the outside of the shoveling-platform, near the upper end thereof, and behind the longitudinally-slotted piece h, the two inner ends being hinged together in any suitable manner, and the outer ends being provided with metallic lips or projections i, which pass through the side pieces, j, of the shoveling-platform, and enter the metallic-lined slots k in the supporting-pieces C C'. A hand-screw, P', is passed through the longitudinal slot in the piece h and enters the sliding arms at or near their hinged connection, and may, if desired, form the holding-pin for the hinge. This hand-screw P' is adapted to lock the arms in any position, and is provided with a loose collar, m, on the outside of the piece h, which forms a hard bearing for the said screw P', and prevents the piece h from being worn away by the constant tightening of the said screw. The two supporting-pieces C and C' are of unequal widths, the piece C being wider than the piece C' by the thickness of one of the hinged gates, J or J', which construction allows the said gates, which are hinged to the sides of the said supporting-pieces C and C', to lie close together, and when locked by the bolt R to rest parallel, the gate J, having the cleat G thereon, being on the inside, so as to rest against the shoveling-platform I.

The gate J is provided with one brace, n, near its hinged end, which serves the double purpose of a strengthening-piece and a shoulder to abut against the outer edge of the cleat B and prevent the gate from being moved outward beyond the line of the side of the wagon-body, while on the opposite side of the wagon the extreme end of the gate abuts against the supporting-piece C. The gate J' is strengthened by three or more braces, which assist in strengthening the parts and give a neat and finished appearance to the wagon. The gates J and J' are adapted, when in a closed position, to rest parallel with each other and to be retained in this position by the hand-bolt R, which passes through the gate J' and into a female screw-threaded socket, o, secured

or set in the gate J. These gates J and J' can be of any desired size and length so as to nearly overlap, as shown, or can be of such size to overlap just enough to allow them to be firmly connected by the hand-bolt R. In the present instance I have shown the shoveling-platform I as of the same height as the wagon-body A, and the end-gates J and J' the same length as the height of the shoveling-platform, and in this case the hand-bolt R would be placed about midway of the gate J' in the brace o'. When the gates J and J' are closed the brace p overlaps the brace n and gives the whole structure a neat and finished appearance.

When the improved end-gate is used on dumping wagons or carts the shoveling-platform, if desired, can be pivoted at the top, so that its lower end will swing outward. To do this the lower end of the platform is taken out of the pivot clamps and bolts, or a rod may be passed through the supporting-pieces and through loops or rings secured on the top of the tilting-platform, and thus form hinges for the latter to swing on. When the end-gates are closed the tilting-platform is held up against the pivot-clamps as firmly as if they were in the clamps, and when the gates are opened and the wagon dumped the shoveling-platform will swing outwardly from its lower end, and when the wagon is righted after dumping will resume its vertical position by gravity.

In some cases the width of the wagon-body is greater than the average gage, and in this case thicker cleats can be put on or strips of wood introduced between the supporting-pieces C C' and the cleats B and secured by the bolts E, thereby enabling one size of gate and shoveling-board to be used on all sizes of wagons. So, also, can the grooves a in the cleats be finished with beveled sides, in which a beveled strip on each of the supporting-pieces enter, which will effectually hold the parts in position without the aid of the bolts already described. So, also, can supporting-brackets or any other suitable devices be secured either to the end-gates or the shoveling-platform, for the purpose of holding the extreme end of the shoveling-board on the side thereof, which is supported by the jointed link H; but the construction shown and previously described answers all the necessary purposes for ordinary loads.

It is evident that numerous changes, both in the construction and arrangement of the different parts, might be resorted to without departing from the spirit and scope of my invention; and hence I would have it understood that I do not limit myself to the exact construction and arrangement of parts shown and described, but consider myself at liberty to make such changes and alterations as come within the spirit and scope of my invention.

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

1. The combination, with a wagon-body pro-



vided with cleats and supporting-pieces removably secured to the body, of a shoveling-platform pivoted to the supporting-pieces and provided with a central slotted piece and arms, substantially as described, for locking said platform to the side supporting-pieces, as set forth.

2. The combination, with a wagon-body having two supporting-pieces provided with straps, of a pivoted shoveling-platform provided with projections which fit under said straps, and with a central slotted piece, two locking-arms, and a locking-screw, said arms entering slots of the supporting-pieces, substantially as set forth.

3. The combination, with a wagon-body, of the pivoted shoveling-platform, and means for locking the same to the side pieces of the wagon, and two end-gates, the inner one being provided with a vertical cleat to prevent the swinging of the gate beyond the line of the side of the wagon, while the other is hinged at the opposite side of the wagon and provided with an end brace, which overlaps the cleat of the inner gate, substantially as set forth.

4. The combination, with a wagon-body, of the pivoted removable shoveling-platform, and two sliding arms for locking the platform to

the side pieces of the wagon, and two end-gates hinged at opposite sides of the wagon and arranged so that the outer gate will overlap and lie parallel with the inner one, and a locking-screw for firmly holding the gates in place, substantially as set forth.

5. The combination, with a wagon-body, of two removable supporting-pieces of different widths, two end-gates arranged to overlap and lie parallel to each other, and a pivoted shoveling-platform having hinged supporting-links and side pieces or guards, substantially as set forth.

6. The combination, with a wagon-body, of side pieces provided with metallic-lined slots, a pivoted shoveling-platform having sliding locking-arms arranged to enter said slots, and two end-gates overlapping each other and provided with a central locking-bolt, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 27th day of July, A. D. 1881.

GEORGE W. HOLLY.

Witnesses:

FRANK D. SMITH,  
JOHN T. WATERS.