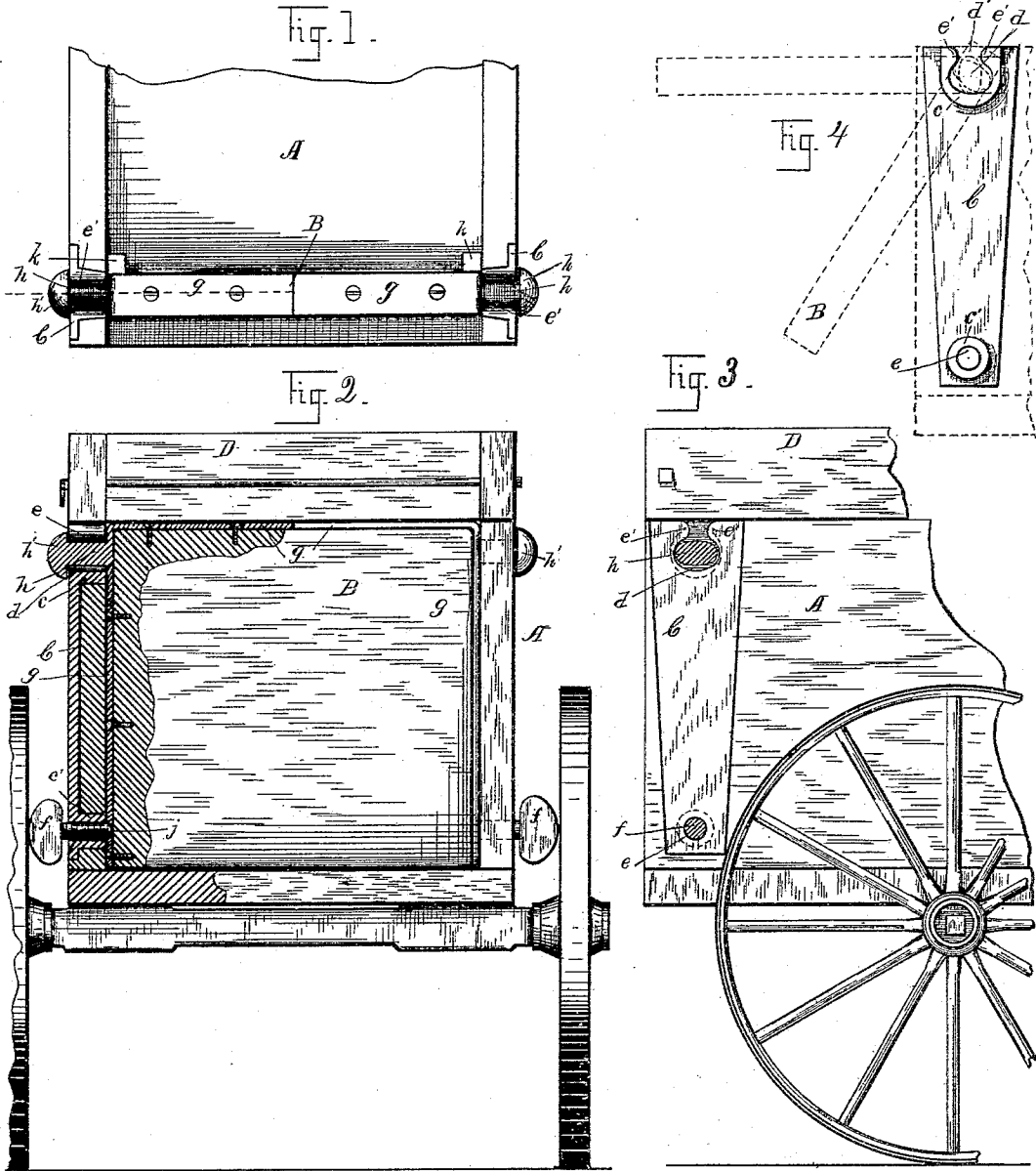


(No Model.)

P. BARTZEN.
END GATE.

No. 378,352.

Patented Feb. 21, 1888.



Witnesses

C. B. Wash.
E. J. Clinco.

Inventor,

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UNITED STATES PATENT OFFICE.

PETER BARTZEN, OF HURON, OHIO.

END-GATE.

SPECIFICATION forming part of Letters Patent No. 378,352, dated February 21, 1888.

Application filed November 14, 1887. Serial No. 255,071. (No model.)

To all whom it may concern:

Be it known that I, PETER BARTZEN, a citizen of the United States, and a resident of Huron, county of Erie, and State of Ohio, have invented certain new and useful Improvements in End-Gates for Wagons, of which the following is a specification, the principle of the invention being herein explained, and the best mode in which I have contemplated applying that principle so as to distinguish it from other inventions.

The object I have in view is the production of an improved form of swinging removable end-board for wagon-boxes.

Referring to the drawings, Figure 1 is a plan view of my improved end-gate for wagons. Fig. 2 is an end view of the wagon, showing the end-gate partly in section and partly in elevation, with the extra box in position. Fig. 3 is a side view of the wagon, parts being broken away and sectioned. Fig. 4 is an inner face view of the supporting-plate, the gate being shown in two positions by dotted lines.

A is the wagon-box, and B the end-gate of the same. Said wagon-box is provided on either side and near its rear portion with the supporting-plates C. Said plates are provided, respectively, at their upper and lower portions with the horizontal shoulders c' , projecting through the thickness of the side-board and flush with the inner side of the same. Said shoulders c are provided with the annular horizontal opening d , connecting at its upper portion with slot d' , shoulders e' having horizontal screw-thread opening e , and through each said opening is turned thumb-screw f , correspondingly threaded. Plates C are secured to the wagon in any suitable manner. The side edges as well as the upper edge of the gate have secured to them the binding-strips g . Integral with said strips, and projecting horizontally from the two outer and upper corners of said gate, are the elliptical trunnions h , flattened in their vertical diameter, and each provided on its outer end with the annular shoulder h' . Said trunnions are respectively journaled in said openings d , and act as pivots on which the

gate may be swung. The horizontal diameter of the trunnion is greater than the width of slot d' , while its vertical diameter is less. This prevents the gate being raised up free from the box while in a vertical position, but permits said removal when the gate has been swung to a horizontal position.

At the lower portion of the gate the strips g are each provided with the annular openings j , which register with the screw-thread openings e . Binding-strips k are secured to each side-board of the box adjacent to the gate when in closed position, and thus any inward swing of said gate is prevented.

To secure the gate against movement, it is moved to a vertical position, or until the openings j register with the openings e . The thumb-screws are then turned up until they engage with said openings j . When the thumb-screws are loosened, the gate may be swung outward, as shown in the dotted lines of Fig. 4.

I have shown a second or supplemental box, D, superimposed on the ordinary box, A. This will serve to show that the gate may be swung equally as well when such a supplemental box is used as when it is not used.

The foregoing description and accompanying drawings set forth in detail mechanism in embodiment of my invention. Change may therefore be made therein, provided the principles of construction respectively recited in the following claim are retained and employed. I therefore particularly point out and distinctly claim as my invention—

The combination of wagon-box A, plates C, provided with openings d d' , end-gate B, provided with trunnions h , journaled in said openings, and thumb-screws f , adapted to engage with said gate, substantially as set forth.

In testimony that I claim the foregoing to be my invention I have hereunto set my hand this 11th day of November, A. D. 1887.

PETER BARTZEN.

Witnesses:

J. M. GARRETT,
G. H. HIGGINS.