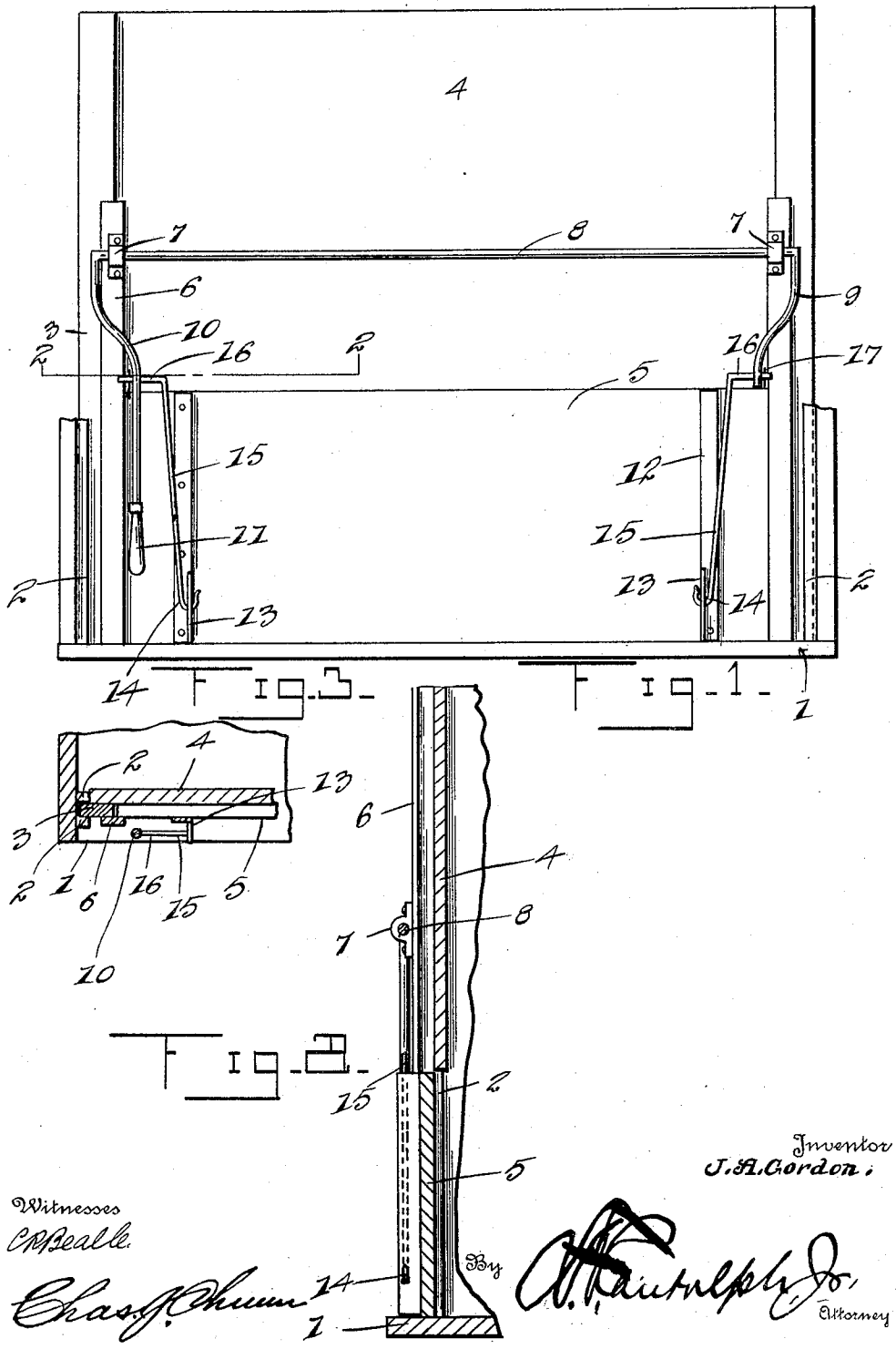
J. A. GORDON.

WAGON END GATE.

APPLICATION FILED MAY 2, 1914.

1,204,971. Patented Nov. 14, 1916.



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UNITED STATES PATENT OFFICE.

JAMES A. GORDON, OF BARNUM, IOWA.

WAGON END-GATE.

1,204,971. Specification of Letters Patent. Patented Nov. 14, 1916.

Application filed May 2, 1914. Serial No. 835,857.

To all whom it may concern:

Be it known that I, JAMES A. GORDON, a citizen of the United States, residing at Barnum, in the county of Webster and State of Iowa, have invented certain new and useful Improvements in Wagon End-Gates, of which the following is a specification.

My invention relates to improvements in wagons and more particularly to end gates therefor, and has for its primary object to provide an extremely useful and inexpensive end gate that may be readily attached to various kinds of farm wagons without necessitating any material change in the construction of the wagon and which will enable dumping of the contents of the wagon without necessitating removal of the gate from the wagon, as is generally the practice.

Another object of my invention is to provide an end gate of the character described that comprises a stationary section and a vertically slidable section said stationary section being arranged uppermost whereby the vertically slidable section when raised will permit removal of the contents of the wagon, said gate being secured between the guide cleats usually found on wagon bodies in place of the ordinary removable end gate.

An object of extreme importance is to provide novel means to facilitate lifting and lowering of the slidable section that may be operated in an easy and expeditious manner and is simple as to construction, said means saving a great deal of time in being positioned on the left hand side of the vehicle so that it is readily accessible to the operator.

Another object of importance is to generally improve devices of the character described so as to render them more practical, reliable and efficient in operation, simple as to construction, inexpensive to manufacture, and more commercially desirable.

The above and additional objects are accomplished by such means as are illustrated in the accompanying drawings, described in the following specification and then more particularly pointed out as claimed.

With reference to the drawings, wherein I have illustrated the preferred embodiment of my invention as it is reduced to practice, and throughout the several views of which similar reference numerals designate corresponding parts, Figure 1 is a rear elevation of my improved end gate showing the same attached to a wagon body. Fig. 2 is a vertical sectional view taken through the end gate. Fig. 3 is a fragmentary horizontal sectional view taken on the line 2—2 of Fig. 1.

Referring to the drawings by characters of reference the numeral 1 designates as an entirety a rectangular wagon body of the usual construction and provided upon opposite sides adjacent the rear ends thereof with spaced vertical guide cleats 2 of the usual construction.

My improved end gate is designed to be positioned within the space between the guide cleats 2 and secured in such position and consists of a pair of vertical bars or standards 3 that are positioned between the cleats 2 and secured at their lower ends in such position by suitable fastening means. Secured upon the inner faces of the standards 3 adjacent the tops thereof, is a top end gate section 4 which comprises a rectangular board that may be constructed if desired of a number of pieces (not shown). This top section 4 is stationary and secured in any suitable manner to the standards 3. A lower vertically slidable gate section 5 is slidably mounted between the standards 3 and disposed to slidably engage the outer edges of the standards. It will thus be seen that the lower gate section 5 is offset with section 4 so as to be free to slide upwardly while the upper section 4 acts as a guide to slidably receive the section 5 upon its outer face.

Mounted upon the outer faces of the standards 3 adjacent the outer edges thereof are preferably metallic guide strips or plates 6 which are secured by suitable fastening means and overlap the ends of the lower gate section 5. These guide strips 6 extend for a distance equivalent to practically two-thirds of the length of the standards 3 and serve as guides for the slidable section 5. When the gate sections 4 and 5 are in position they overlap to prevent leakage of the material contained in the wagon body. Journaled transversely of the strips 6 adjacent the upper ends thereof in suitable bearing members 7 is a rotatable and horizontal shaft 8. The ends of the shaft 8 extend outwardly of the bearing members 7 and have formed integrally therewith downwardly extending arms 9 and 10. The arm 10 is considerably longer than the one 9 and provided at its outer end with a hand grip

11 and serves as a lever, as will be later more fully described.

Mounted upon the outer face of the slidable section 5 adjacent the ends thereof are vertically reinforcing strips 12 that are provided adjacent their lower ends with outwardly and right angularly extending flanges 13 which are provided with openings to accommodate hooks 14 formed on the lower ends of rods 15. The rods 15 are provided at their upper ends with right angular extensions 16 that extend through openings in the arms 9 and have cotter pins 17 inserted through their extended ends. The opening to receive the extension 16 in the arm 9 is at the extreme free end thereof while the opening in the arm 10 is arranged practically centrally of the end of said arm.

In operation, when it is desired to raise the lower slidable section 5 the grip 11 is grasped and the arm 10 lifted upwardly. When the arm 10 is lifted upwardly an upward pull is communicated to the lower section 5 through the medium of the arm 9 and rods 15. It will be readily seen that the lower section 5 may be quickly lifted so as to extend between the shaft 8, upper ends of the guide strips 6 and upper section 4. The arms 9 and 10 are extended for quite a distance at right angles to the shaft 8 and then curved inwardly so that the inwardly curved portions may be readily connected with the rods 15, that are connected with the lower section at points spaced from the ends thereof.

In practice, I have found that the form of my invention, illustrated in the drawings and referred to in the above description, as the preferred embodiment, is the most efficient and practical; yet realizing that the conditions concurrent with the adoption of my device will necessarily vary, I desire to emphasize the fact that various minor changes in details of construction, proportion and arrangement of parts may be resorted to, when required, without sacrificing any of the advantages of my invention, as set forth.

What I claim is:—

The combination with a vertically sliding wagon end gate, of standards located at the opposite ends of the gate, plates mounted on the standards and having their inner longitudinal edges extending laterally beyond the longitudinal edges of the standards, bearings secured to said plates, a horizontally disposed shaft located above the end gate and journaled in said bearings, the opposite ends of the shaft extending downwardly and inwardly in converging relation and each having an aperture therein, vertically disposed angle bars carried by the end gate and located adjacent the opposite ends thereof and each having one of its flanges extending outwardly and provided with an opening, vertically disposed rods located adjacent the opposite ends of the gate and each having its upper end extended angularly and loosely received by the opening in the adjacent end of the shaft, the said vertically disposed rods having their lower ends provided with hooks adapted to engage in the openings in the outwardly extending flanges of the angle bars, and a manipulating handle formed on one end of the shaft.

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

JAMES A. GORDON.

Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."