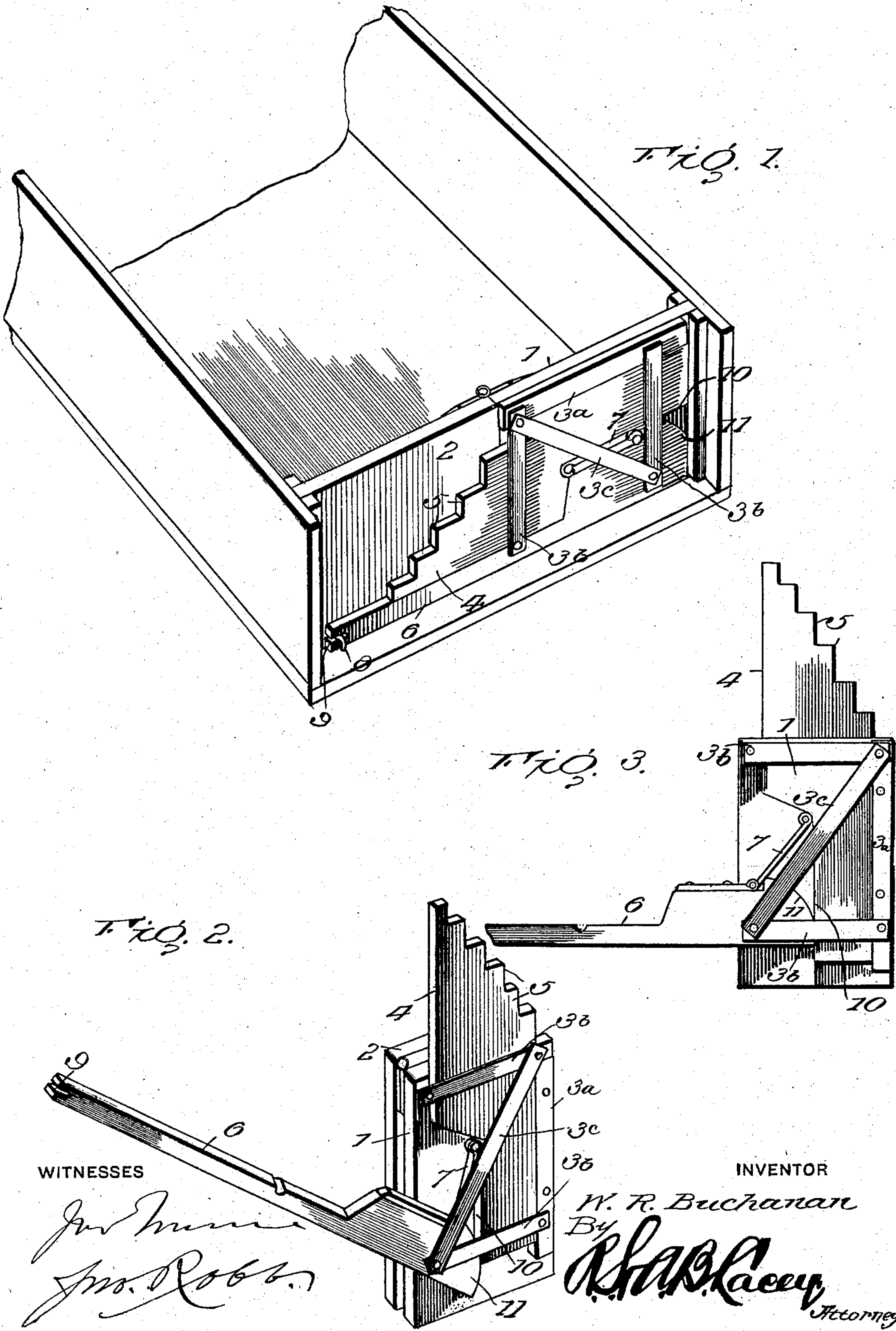


No. 741,765.

PATENTED OCT. 20, 1903.

W. R. BUCHANAN.
WAGON JACK AND END GATE.
APPLICATION FILED JUNE 10, 1903.

NO MODEL.



UNITED STATES PATENT OFFICE.

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WAGON-JACK AND END-GATE.

SPECIFICATION forming part of Letters Patent No. 741,765, dated October 20, 1903.

Application filed June 10, 1903. Serial No. 160,914. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. BUCHANAN, a citizen of the United States, residing at Eldorado, in the county of Saline and State of Illinois, have invented certain new and useful Improvements in Jacks and End-Gates, of which the following is a specification.

This invention aims to provide in a single article an end-gate and a lifting-jack for use in connection with the ordinary form of wagon. As is well known, occasion often arises when a vehicle of this character is being used to adjust parts of the wagon structure, necessitating a lifting of the same from the ground. The advantage will therefore be seen to be of no small importance to provide upon the end-gate, which is always to be found in its proper position upon the vehicle-body, a lifting means which will to a certain extent form a part of such end-gate.

The above is the object of my invention, and I accomplish the same by the provision of a peculiar operating mechanism which co-operates to hold the parts of the end-gate in position when the same are assembled for use as the end-gate and which are adapted for ready adjustment, so as to modify the relation of the parts of the end-gate so that the same will form a part of the wagon-jack structure.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and drawings hereto attached.

While the essential and characteristic features of the invention are susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the device, the parts being assembled in the positions proper for use of the same as an end-gate. Fig. 2 is a perspective view of the device preparatory to use of the same as a wagon-jack, the operating-lever being shown in extended position. Fig. 3 is a side elevation showing the lever extended.

Corresponding and like parts are referred to in the following description and indicated

in all the views of the drawings by the same reference characters.

In carrying out my invention I provide an end-gate of any suitable structure, preferably consisting of the hinged sections 1 and 2, which sections will be designated for purpose of description as relatively fixed and movable members, respectively. The sections 1 and 2 are hinged at corresponding end portions, and upon the relatively fixed section are disposed guides. These guides consist of a longitudinal bar 3^a and transverse bars 3^b, a diagonally-disposed bar 3^c being provided to insure perfect rigidity of the structure. Within the guides above described is disposed for longitudinal slidable movement a lift-bar 4, which lift-bar is provided with stop portions 5 after the usual manner, upon which the weight of the wagon-body is received in a manner which will be readily comprehended. The lift-bar is operated by a lever 6, which lever is connected thereto by a bar 7, pivoted to said lever and having pivotal connection with the lift-bar 4.

When the sections of the end-gate are aligned for use of the device as an end-gate, the lever is locked to the relatively movable section 2 by a pivoted member 8 thereon, which co-operates with the notched end portion 9 of the lever to hold the parts of the end-gate rigidly in their position illustrated in Fig. 1 of the drawings. The lower portion of the lift-bar 4 is cut away, as shown at 10, and the lower portion of the lever 6, when the latter is fixed in position, is disposed adjacent the cut-away portion of the bar. The lower end of the lever is provided with a cam 11, which cam abuts against the lower end of the lift-bar when the lever is in an extended position to lift the said bar, so that the greater the weight being raised necessarily the greater is the pressure exercised upon the point of connection of the pivoted bar 7 with the lever. The greater this pressure is of course the greater the frictional contact of the cam 11 with the lower end of the lift-bar, so that the said bar is pivotally locked in its elevated position by the weight of the body which is resting thereon.

When the device is used as an end-gate, the lift-bar and lever serve to brace the same

as well as to lock the sections of the gate in relative position. When the end-gate is removed and the device is intended for use as a wagon-jack, the finger-piece 8 is properly disposed and the relatively movable section 2 is folded down upon the other section, 1, this movement disengaging the same from the operating-lever 6. This lever may be properly manipulated so as to operate the lift-bar to lift the wagon or carriage body.

The device is substantially of simple structure embodying an extreme simplicity as regards the number of parts utilized and is of consequent desirability because of the cheapness of construction and ease of operation.

Having thus described the invention, what is claimed as new is—

1. In a device of the class described, the combination with an end-gate, of a lift-bar mounted for movement upon the said end-gate, and an operating-lever for coöperation with the lift-bar and adapted for locking engagement with the end-gate when out of operation.

2. In a device of the class described, the combination of an end-gate comprising sections, a lift-bar mounted for movement upon one of the aforesaid sections, an operating-lever pivoted adjacent the lift-bar, and lock means disposed upon the other section of the end-gate and adapted for coöperation with the operating-lever.

3. In a device of the class described, the combination of an end-gate comprising pivoted sections, a lift-bar mounted for longitudinal movement upon one of the aforesaid sections, an operating-lever pivoted to the aforesaid section adjacent the lift-bar, and lock means extended from the opposite section of the end-gate and adapted for coöperation with the operating-lever to rigidly position the sections of the said end-gate.

4. In a device of the class described, the combination with an end-gate comprising pivoted sections, guides projected from one of the aforesaid sections, a lift-bar slidably

mounted in the aforesaid guide, an operating-lever pivoted adjacent the lift-bar, and lock means disposed upon the opposite section of the end-gate and adapted to coöperate with the operating-lever to rigidly position the sections of the said end-gate.

5. In a device of the class described, the combination with an end-gate consisting of pivoted sections, guides projected from one of the aforesaid sections, a lift-bar slidably mounted within the aforesaid guide, an operating-lever pivoted to the section carrying the lift-bar, a pivoted bar connecting the lift-bar with the said operating-lever, and lock means disposed upon the opposite section and adapted to coöperate with the outer portion of the said operating-lever.

6. In a device of the class described, the combination, with an end-gate comprising pivoted sections, guides disposed upon one of the sections, a lift-bar mounted for slidable movement within the aforesaid guides and having its lower portion cut away, an operating-lever pivoted to the said section adjacent the lift-bar and provided with a cam at its lower end, a pivoted connecting-bar connecting the lift-bar and operating-lever and disposed within the cut-away portion of the lift-bar before described, the upper end of the operating-lever being provided with a notch, and a lock member disposed upon the opposite section of the end-gate and adapted to coöperate with the notched end portion of the operating-lever to lock the same to the said section, manipulation of the said pivoted lock member permitting disengagement thereof from the operating-lever and folding down of the last-mentioned section upon the other section of the end-gate.

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

WILLIAM R. BUCHANAN. [L. S.]

Witnesses:

A. L. WILBUR,

C. C. BUCHANAN.