

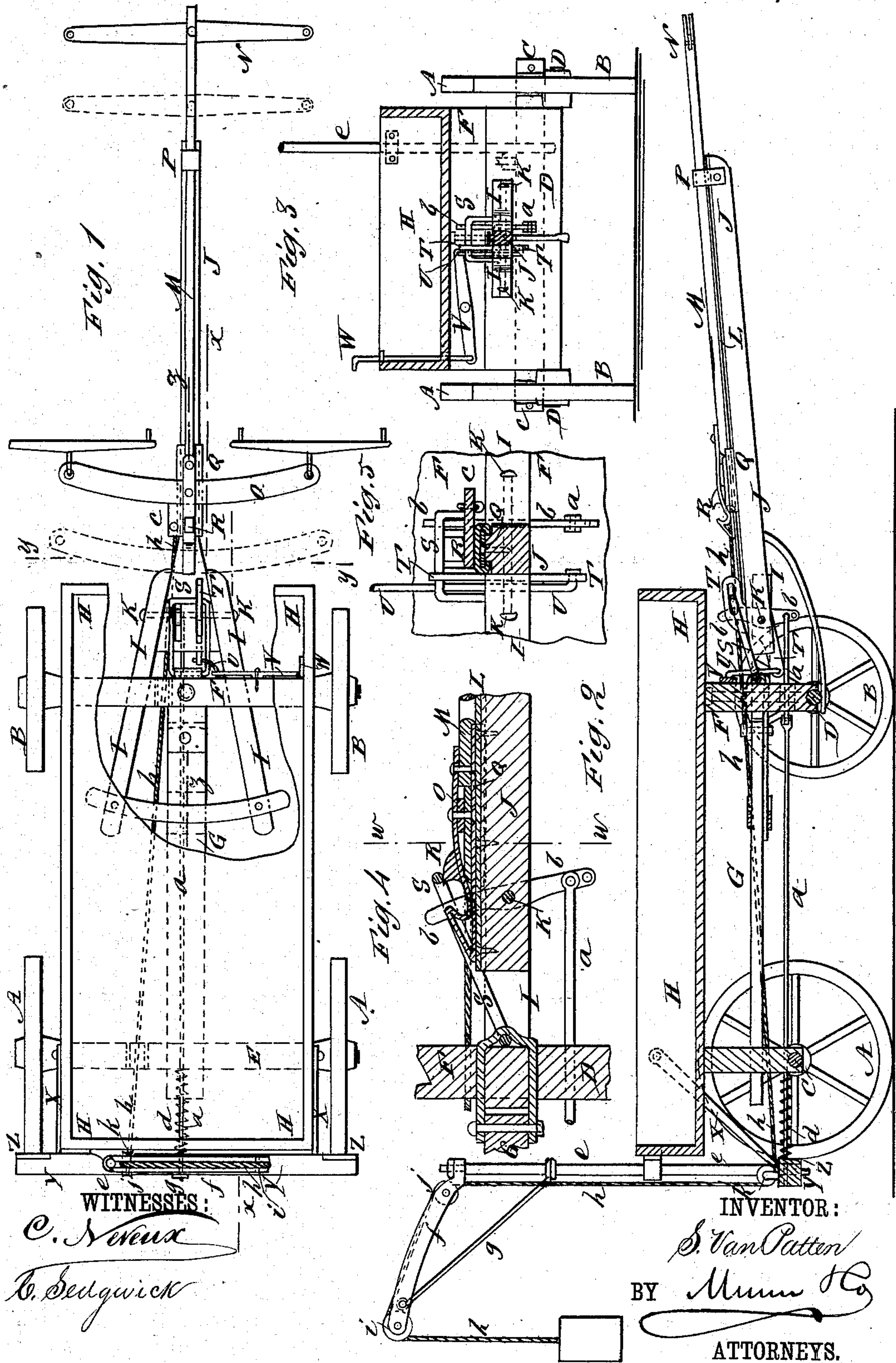
(No Model.)

S. VAN PATTEN.

WAGON.

No. 251,659.

Patented Dec. 27, 1881.



UNITED STATES PATENT OFFICE.

SILAS VAN PATTEN, OF DUANESBURG, NEW YORK.

WAGON.

SPECIFICATION forming part of Letters Patent No. 251,659, dated December 27, 1881.

Application filed September 24, 1881. (No model.)

To all whom it may concern:

Be it known that I, SILAS VAN PATTEN, of Duanesburg, in the county of Schenectady and State of New York, have invented a new and useful Improvement in Wagons, of which the following is a full, clear, and exact specification.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my improvement, part of the wagon-body being broken away. Fig. 2 is a sectional side elevation of the same, taken through the line *x x*, Fig. 1. Fig. 3 is a sectional end elevation of the same, taken through the line *y y*, Fig. 1. Fig. 4 is a sectional side elevation of a part of the same, enlarged, taken through the line *z z*, Fig. 1. Fig. 5 is a sectional end elevation of a part of the same, enlarged, taken through the line *w w*, Fig. 4.

The special object of this invention is to provide wagons constructed in such a manner that they can be loaded and unloaded by the action of the team while attached to the said wagons.

A represents the rear wheels, B the forward wheels, C the rear axle, D the forward axle, E the rear bolster, F the forward bolster, G the reach, H the body, and I the forward hounds, of an ordinary wagon.

To and between the forward ends of the hounds I is hinged the tongue J, by a pin or bolt, K. The tongue J may be made a little shorter than an ordinary wagon-tongue, and to its upper side is attached a plate, L, upon which rests and slides an extension-tongue, M.

To the forward end of the extension-tongue M is attached the neck-yoke N, and to its rear part is pivoted the double-tree O, so that the neck-yoke and double-tree will always be at the same distance apart, in whatever position the said extension-tongue may be. The forward part of the extension-tongue M passes through a keeper, P, attached to the forward end of the tongue J.

To the lower side of the rear end of the extension-tongue M is attached a plate, Q, the side edges of which are bent over; or its lower side is dovetailed to grasp and slide upon the

plate L, to keep the said rear end of the extension-tongue M close to the hinged tongue J.

To the rear end of the extension-tongue M is attached a block, R, the upper side of which is recessed in the form of a double hook, as shown in Figs. 2 and 4, to receive the forward end of a link, S, and has the upper side of its ends beveled or inclined, so that the end of the link S will pass into the said recess automatically from either direction. The rear end of the link S is hinged to the axle D, the bolster F, the block-tongue, when used, or the rear end of the tongue J, as the construction of the wagon-gearing may render most convenient. With this construction, when the link S is in the recess of the block R the extension-tongue will be held from sliding, and the wagon can be drawn and backed, the same as an ordinary wagon. The forward end of the link S passes through a short slot in the forward end of the lever T, which is made with an offset in its middle part, and is fulcrumed at the said offset to the bolt K, that hinges the tongue J to the hounds I.

To the rear end of the lever T is pivoted the lower end of a short connecting-bar, U, the upper end of which is pivoted to the inner end of a short lever, V. The lever V is pivoted at its middle part to the forward side of the bolster F, and to its outer end is pivoted the lower end of a rod, W, which passes up at the side or end of the wagon-body H into such a position that it can be conveniently reached and operated by the driver to raise the link S out of the recess in the block R and release the extension-tongue M.

To the sides of the rear part of the body H are pivoted the upper ends of two bars, X, which incline rearward and downward, and to their lower ends is attached the brake-bar Y, the bars X being made of such a length as to support the brake-bar Y in such a position that the brake-shoes Z will bear properly against the wheels A.

To the brake-bar Y is attached the rear end of a rod, *a*, which passes forward through guide-holes in the axles C D or bolsters E F, or between the said axles and bolsters, or under the said axles, and is pivoted at its forward end to the lower end of a short lever, *b*. The rod *a*

is jointed at or near the king-bolt or the joint in the reach, as the construction of the wagon may require, so that the said rod *a* will not interfere with the cramping of the wagon in turning. The lever *b* is fulcrumed at its middle part to the bolt *K*, that connects the tongue *J* with the hounds *I*, and its upper end projects above the said tongue *J* into such a position that when the link *S* is raised out of the recess in the block *R*, and the wagon presses forward against the horses, a side extension, *c*, of the block *R* will strike against and press back the upper end of the lever *b*, drawing the rod *a* and brake-bar *Y* forward, so that the brake will be applied by the forward pressure of the wagon. When the forward pressure of the wagon ceases the brake-bar will be withdrawn from the wagon-wheels by a spiral spring, *d*, placed upon the rod *a*, with its forward end resting against the rear axle, *C*, and its rear end resting against the brake-bar *Y*.

To the brake-bar *Y*, near one corner of the wagon-body *H*, is pivoted the lower end of the derrick-post *e*, the arm *f* of which is strengthened by the brace *g*.

h is the hoisting-rope, the rear end of which is connected with the substance to be loaded upon or unloaded from the wagon, and which may be a fork-load of hay or grain, a stone, or any other loading. The rope *h* passes over pulleys *i j*, pivoted to the outer and inner ends of the derrick-arm *f*, around a pulley, *k*, pivoted to the brake-bar *Y*, through guide-holes in the axles *C D* or bolsters *E F*, or between the said axles and bolsters, and its forward end is attached to the side extension, *c*, of the block *R*, or some other support attached to the rear end of the sliding or extension tongue *M*, so that the rope *h* will be drawn forward to raise the loading by disengaging the link *S* and starting the horses, and will be lowered by backing the horses.

With this construction, the derrick being pivoted to the brake-bar, the weight of the derrick-load will apply the brake, so that the wagon will not be moved by the movement of the extension-tongue *M* in raising and lowering the said derrick-load.

If desired, and with some wagons this arrangement is preferable, the derrick can be pivoted to the axle *C* at the side of the wagon-body. In this case the rope *h* should be passed

around a guide-pulley pivoted to the said axle *C* before being passed around the pulley *k*, pivoted to the brake-bar *Y*, so that the weight of the derrick-load will apply the brake and hold the wagon stationary.

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

1. The combination, with the link *S*, hinged to axle, of the extension-tongue block *R*, recessed on the upper side in the form of a double hook, and having the upper side of its ends beveled, whereby the link will pass into said recess automatically from either direction, as described.

2. The combination, with the link *S*, hinged to axle, and the bolt *K*, connecting the tongue and hounds, of a lever, *T*, having a front-end slot for the reception of the link, and fulcrumed at its middle offset to said bolt, as shown and described.

3. The combination, with the hinged link *S*, of the slotted lever *T*, the connecting-bars *U W*, and the connecting-lever *V*, substantially as herein shown and described, whereby the said hinged link can be readily raised to unlock the extension-tongue, as set forth.

4. The combination, with the tongue *J* and the extension-tongue *M*, of the plate *L*, the keeper *P*, and the dovetailed plate *Q*, substantially as herein shown and described, whereby the said extension-tongue is kept in place while moving forward and back, as set forth.

5. The combination, with the suspended brake-bar *Y*, the extension-tongue *M*, and the wagon-gearing, of the rod *a* and lever *b*, substantially as herein shown and described, whereby the brake will be applied by the rearward movement of the said extension-tongue, as set forth.

6. The combination, with the brake-bar *Y*, the extension-tongue *M*, and the wagon-gearing, of the derrick *e f g* and the hoisting-rope *h*, substantially as herein shown and described, whereby the forward and backward movements of the extension-tongue will raise and lower the derrick-load and apply the brake, as set forth.

SILAS VAN PATTEN.

Witnesses:

JAMES T. GRAHAM,
C. SEDGWICK.