J. W. CASTLEMAN.

APPARATUS FOR LOADING AND UNLOADING WAGONS, &c.

No. 192,415. Patented June 26, 1877.

Fig. 1

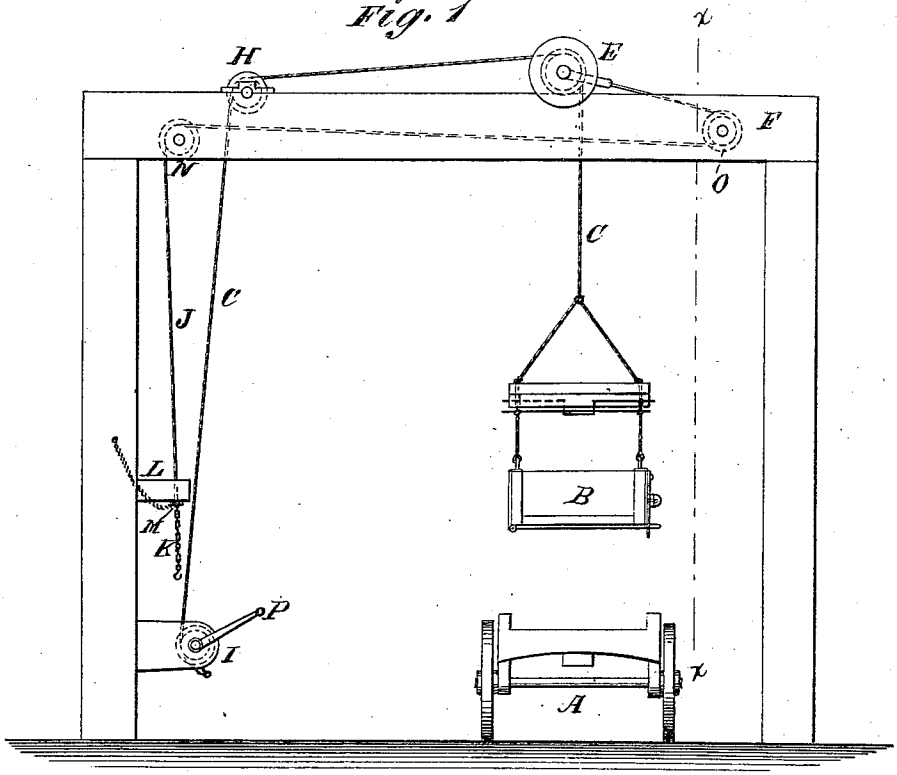


Fig. 2

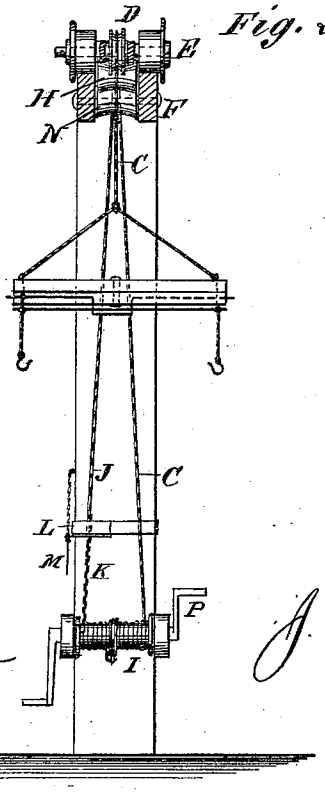


Fig. 3

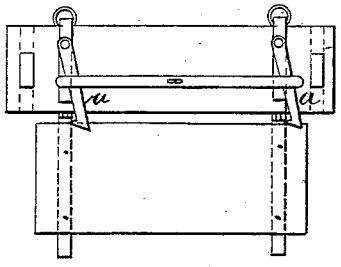
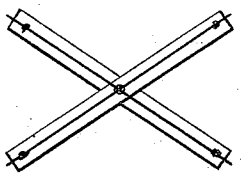


Fig. 4



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UNITED STATES PATENT OFFICE.

JAMES W. CASTLEMAN, OF CUMBERLAND IRON-WORKS, TENNESSEE.

IMPROVEMENT IN APPARATUS FOR LOADING AND UNLOADING WAGONS, &c.

Specification forming part of Letters Patent No. **192,415**, dated June 26, 1877; application filed March 10, 1877.

To all whom it may concern:

Be it known that I, JAMES W. CASTLEMAN, of Cumberland Iron-Works, in the county of Stewart and State of Tennessee, have invented a new and Improved Apparatus for Loading and Unloading Wagons, Cars, &c., of which the following is a specification:

My invention consists of apparatus for raising the box of a wagon or other vehicle or carriage from the truck, moving it over the truck, and holding it while the load is discharged by opening the bottom, also for raising a loaded box or body and placing it on the car or other truck.

Figure 1 is a side elevation of my improved apparatus. Fig. 2 is a vertical transverse section on line *x x*, Fig. 1. Fig. 3 is a detail view of the wagon-box. Fig. 4 represents a device for spreading the ropes that are attached to the wagon-box.

Similar letters of reference indicate corresponding parts.

A represents the truck of a wagon, car, or other carriage; B, the body or box thereof; C, a rope by which the body is suspended from a pulley, D, of a traveler, E, arranged to move forward and backward along the beams F, which are supported on the posts G, to be erected at the place of loading or unloading, or mounted on a portable platform of any kind.

The rope C passes from pulley D over guide-pulley H, down to the windlass I, mounted on one of the posts.

J is another rope, which also winds on the windlass, but in the opposite direction of the other, and it has a chain at K, and a hook whereby it can be detached from the windlass when required and fastened to the staple L by a pin, M.

This rope passes over the guide-pulley N, along the beams F, around pulley O, and back to the traveler E. The windlass is geared with the hand-crank P for being turned easily, and it has a ratchet and pawl for holding it when desired. A drum may be placed on the windlass-shaft, on which a chain may be made to work for operating the windlass by horse-power when it may be preferred.

When the box is to be raised from the truck the rope C is hitched on to it; after the traveler has been shifted along over the box, the rope J is detached from the windlass and fastened to the staple L, to hold the traveler, and the windlass is then operated until the box is raised up to the height required, then rope J is connected to a part which is wound over the windlass, and disconnected from the staple, and the turning of the windlass is continued, which draws the traveler along the beams F to the place of delivery, the rope J, meantime, unwinding from the windlass in the same measure as the other winds on, and thus preventing the traveler from running too far.

When the box arrives at the desired point for discharging, the latch *a*, which holds the bottom shut, is detached and the load discharged, after which the windlass is turned the other way until the box arrives over the truck, when the rope J is again disconnected at the hook and fastened to the staple to hold the traveler while the windlass is turned enough to let the box down on the truck again.

The box may be loaded on the ground and be raised up and placed on the truck by the same apparatus.

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

The combination, with ropes C J winding in opposite directions on the windlass of a loading mechanism, of the hook-chain K, staple L, and the pin M, arranged substantially as and for the purpose specified.

JAMES W. CASTLEMAN.

Witnesses:

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