No. 615,534. Patented Dec. 6, 1898.

W. J. DONALDSON.

TRUCK LIFTER.

(Application filed Oct. 26, 1897.)

(No Model.)

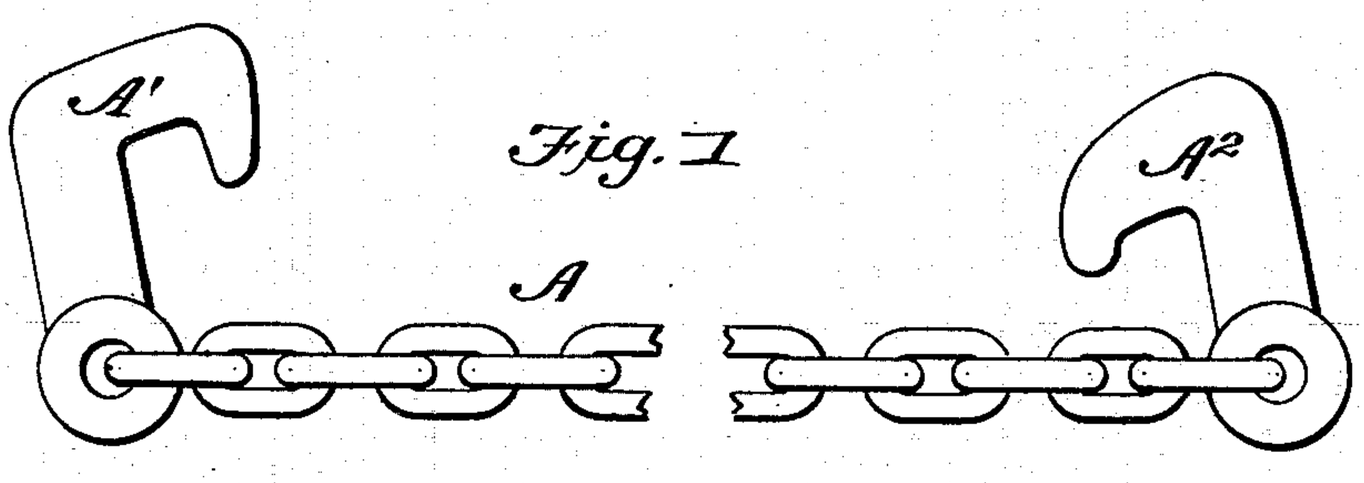


Fig. 1

Fig. 2.

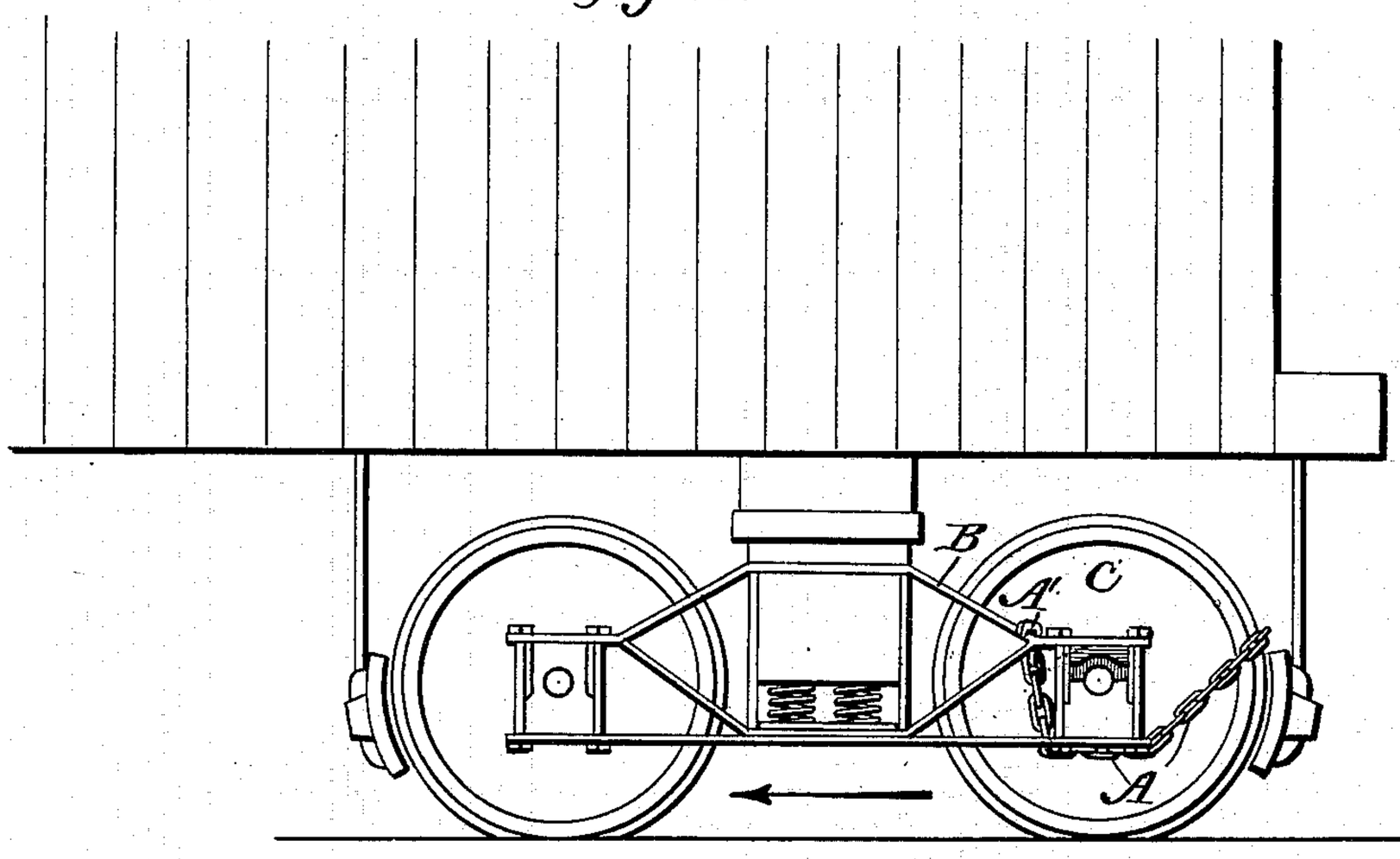


Fig. 4.

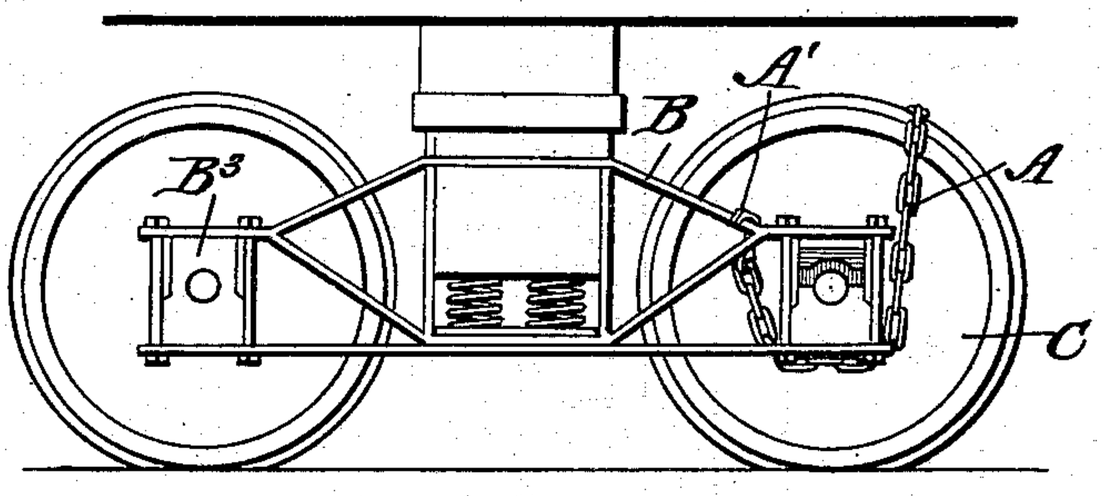


Fig. 3.

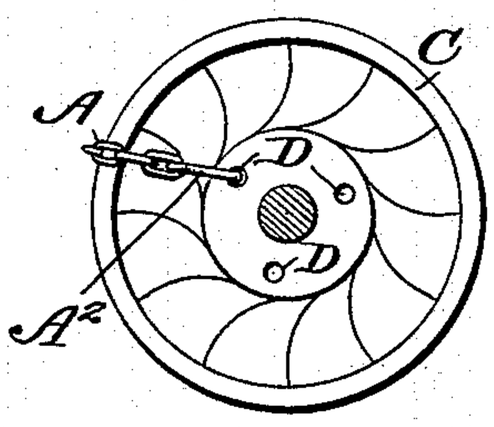
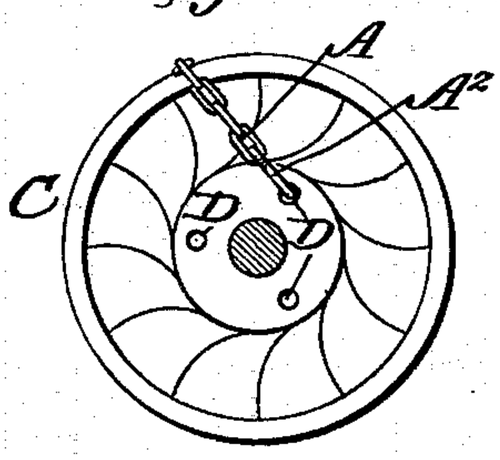


Fig. 5.



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WILLIAM JOHN DONALDSON, OF LA GRANGE, TEXAS.

TRUCK-LIFTER.

SPECIFICATION forming part of Letters Patent No. 615,534, dated December 6, 1898.

Application filed October 26, 1897. Serial No. 656,426. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM JOHN DONALDSON, of La Grange, in the county of Fayette and State of Texas, have invented a new and useful Improvement in Truck-Lifters, of which the following is a specification.

My invention is in the nature of a novel car-truck lifter designed to raise the corner of any car-truck while it is under the car for the purpose of removing and applying journal-bearing brasses when necessary on account of hot boxes or journals or when the brasses are worn out.

Figure 1 is a view of the locking chain or sling. Fig. 2 is a side view of a car, showing the sling applied to the truck. Fig. 3 is an inside view of the wheel to which the sling is locked. Figs. 4 and 5 are outside and inside views, respectively, of the same wheel and sling shown in Figs. 2 and 3, but showing the position the parts assume when the car has been advanced a little and the journal-box has been lifted off the journal.

A is a chain of short strong links, preferably about three-inch links, made of material three-fourths of an inch thick, the entire chain being about five feet five inches long. At each end it is provided with hooks, the one at one end of the chain being shaped as shown at A′ and the one at the other end being shaped as shown at A^2, the better to engage the parts with which they are intended to coöperate. This chain is designed to form a sort of sling, and for this purpose one of its hooks A′ is hooked over the arch-bar B of the truck, as shown in Fig. 2, and is then passed down inside or outside of the journal-box and under the same to the periphery of the wheel C, over which it passes, and its end is then extended inside this wheel to the hub, and its hook A^2 is hooked into one of the air-holes D, which are formed in the hub, as shown in Fig. 3. It is calculated that the entire length of the chain will be thus taken up, so that there is little or no slack in the same. When so coupled, the chain forms a sling in which is inclosed the journal-box. To raise the journal-box, it is only necessary to move the car in the direction of the arrow in Fig. 2, and the effect of this is to cause the wheel to start to wind up the chain, the chain passing with the periphery of the wheel to a point about six inches higher, as shown in Figs. 4 and 5, which causes the sling to rise and lift the journal-box slightly, as shown in Fig. 4, in which it will be seen the wedge and journal brasses are no longer pressed upon by the journal-box and may be freely removed and replaced. At B^3, Fig. 4, and also on the left of Fig. 2, is shown the journal-box of the other wheel with its wedge and brass bearing removed.

After a new wedge and brass bearing have been inserted the truck is lowered and the weight of the same brought to bear again upon the brass bearing by simply backing the car.

The lifter-sling is preferably made of a chain; but it may be a wire or other form of cable or any flexible or jointed sling of sufficient strength.

My invention is specially designed for loaded or empty freight-cars, but may be applied to any other form of car desired. It is a very simple and practical method, requiring less than two minutes to remove and apply any brass, whereas the ordinary method of raising by a small screw-jack, bar, and block occupies from fifteen to twenty minutes of valuable time on railway-lines. It also saves all the hard manual labor by causing the engine to do the work.

My method does not in any way injure or damage any part of either truck-wheel or track and is much less expensive than any other device used for the same purpose. It also saves delays in running, and as it occupies so little time and labor to operate it trainmen will not take chances of cutting journals from hot boxes, which is often incurred rather than risk the loss of time required by the old method in changing the bearings. My method also saves oil, waste, and coach-grease, as the old packing is not removed, but simply pressed down in the bottom of the box by the journal as the corner of the truck rises, and when lowered the packing is simply stirred up and used again without any waste of lubricating material. I have also demonstrated the fact that in the use of my method no bar or lever is necessary to hold the wheel down to the track, as is necessary with a screw-jack, as the same weight is on the wheel as was before the lifter was applied and wound up, the sling holding the wheel down on the track.

My lifter simply pulls down on the wheel and up on the corner of the truck, and when the lifter is wound up tight it slides the wheel and can do no damage to the wheel or any part of the truck.

In defining my invention I wish to be understood that I do not in the use of my invention restrict myself to any particular design of sling or hooks nor to the fastening of the sling to any particular part of the truck, or wheel, or axle.

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

The combination with the wheel and axle and the journal-box and frame of a car-truck; of a flexible sling having grappling connections at its ends, connected at one end to the journal-box frame and anchored at the other to move with the wheel to cause the rotary movement of the latter to lift the journal-box from its bearing on the journal and at the same time hold down the wheel on the track substantially as and for the purpose described.

WILLIAM JOHN DONALDSON.

Witnesses:
JOHN H. CARTER,
W. H. GREGORY.