J. WILEY, 2nd.

Car Starter.

No. 62,911. Patented Mar. 12, 1867.

Fig. 1.

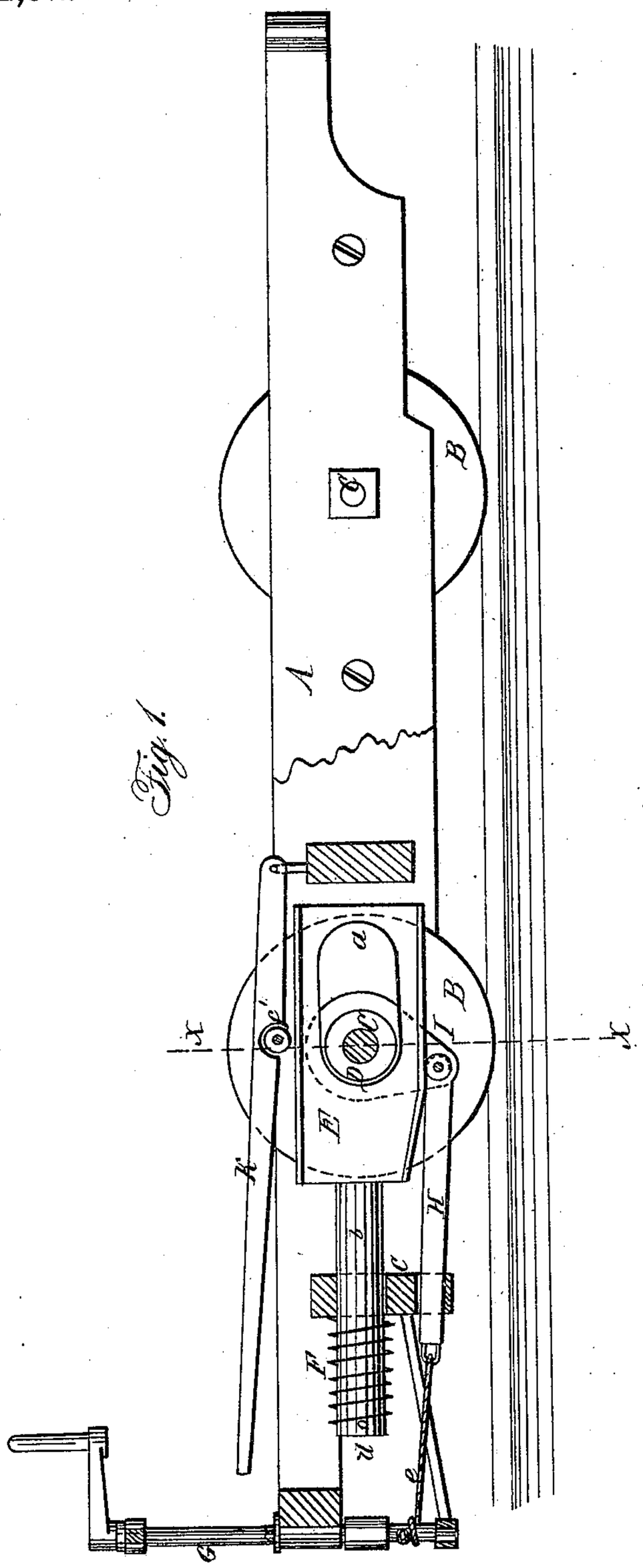
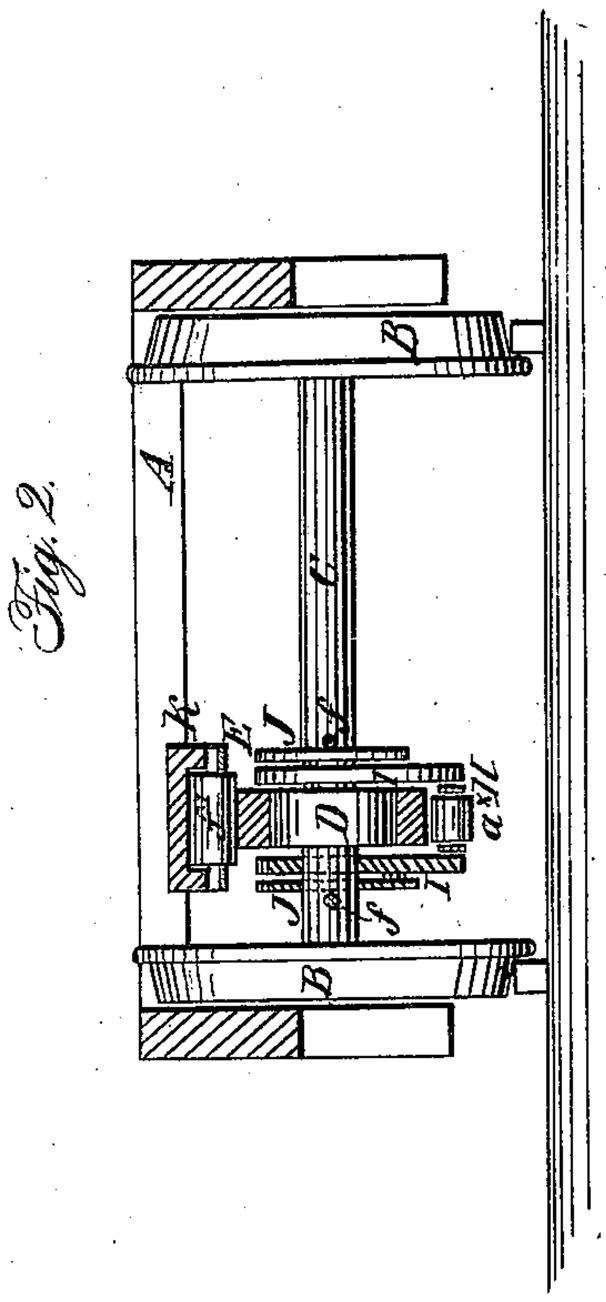


Fig. 2.



Witnesses:

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JOHN WILEY, 2D, OF SOUTH READING, MASSACHUSETTS.

Letters Patent No. 62,911, *dated March* 12, 1867.

IMPROVED CAR-STARTER AND BRAKE.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOHN WILEY, 2d, of South Reading, in the county of Middlesex, and State of Massachusetts, have invented a new and improved Car-Starter and Brake; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to a new and improved brake mechanism for railroad cars, constructed and arranged in such a manner that the device, when applied or operated as a brake to retard the movement or fully stop the cars, will retain or hold the power which accomplishes that result, and be capable of giving it out or applying it in such a manner as to start, or aid in starting, the cars.

The object of the invention is to obtain a very simple and efficient device for the purpose, one which may be manipulated with the greatest facility, and capable of being constructed and applied to a car at a very moderate expense. In the accompanying drawings—

Figure 1 is a side view of a car truck, partly in section, having my invention applied to it.

Figure 2, a transverse vertical section of the same, taken in the line *x x*, fig. 1.

Similar letters of reference indicate corresponding parts.

A represents the truck-frame of a railroad car, and B, the wheels thereof. These parts may be of usual construction, and, therefore, do not require a special description. On one of the axles C of the truck there is firmly keyed a wheel, D, which is fitted and works within an oblong slot or opening, *a*, in a slide, E, said slide being provided with a horizontal cylindrical projection, *b*, which passes through a cross-bar, *c*, of the truck, and has a spiral spring, F, upon it, the inner end of the spring bearing against the cross-bar *c*, and the outer end bearing against a pin, *d*, which passes through *b* near its outer end, (see fig. 1.) G is an upright windlass at one end of the truck-frame A, the lower end of said windlass being connected by a chain, *e*, with a sliding-bar, H, at the under side of the slide E, the rear end of H having the lower ends of two eccentrics I I attached to it, said eccentrics being fitted on the ends of a friction-roller, $a^{\times}$, in the rear of the slide. These eccentrics are placed loosely on the wheel D, one at each side of the slide E, and are retained in position on the axle, or prevented from laterally sliding thereon by circular plates J, secured in position by pins *f* passing through the axle, (see fig. 2.) The roller $a^{\times}$ bears against the under side of the slide E; and the ends of the slot or opening *a* in slide E are of semicircular form, corresponding to the diameter of the wheel D. K is a foot-lever or treadle, having a friction-roller, *f'*, inserted in its under side, which rests upon the upper surface of the slide E.

The operation is as follows: When it is designed to retard the motion of the car, or stop it entirely, the driver turns the windlass G, and thereby draws the sliding-bar H and the lower ends of the eccentrics I I forward, which throw or press upward the slide E, and cause the lower edge of the opening *a* in the slide to bear against the lower edge of the wheel D on the axle; and said wheel will force the slide back, and compress the spring F, the resistance of which retards or stops the car. In starting the car, the brakeman releases the windlass G, and at the same time presses down the foot-lever or treadle K, which causes the upper edge of the slot or opening *a* to bear upon the upper edge of the wheel D, and the slide E will, under the action of the spring F, be drawn forward, and the wheel D and axle C rotated in the direction to start or assist in starting the car. I would remark that a device of the kind described is applied to each axle of the truck, as street or city cars, for which the invention is chiefly designed, are not turned at the end of their route, the team being changed from one end to the other. I would further remark that, if the car is not fully stopped by the compression of the spring F, a great deal of friction is created by the contact of the forward semicircular end of the slot or opening *a* with the wheel D.

I claim as new, and desire to secure by Letters Patent—

The slide E, provided with the oblong opening *a*, and cylindrical projection *b*, working through the cross-bar *c*, spring F, wheel D, upon the axle C, treadle K, eccentrics I I, sliding-bar H, chain *e*, and windlass G, when all are constructed and arranged to operate as herein set forth, for the purpose specified.

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Witnesses:

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