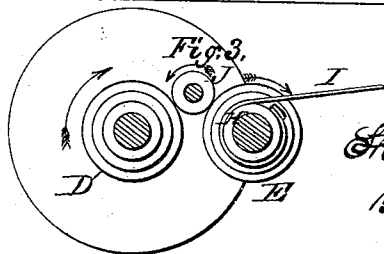
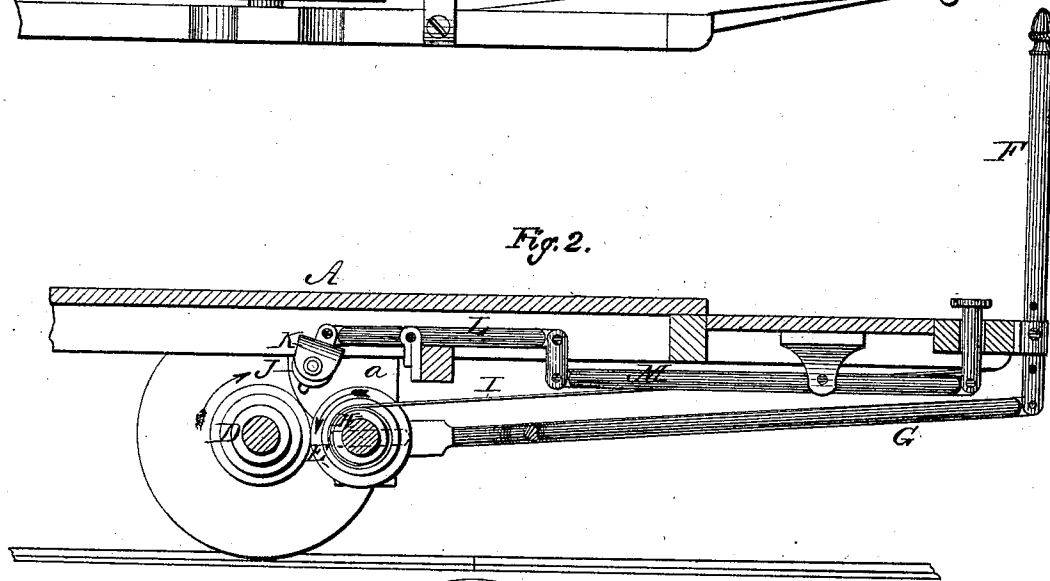
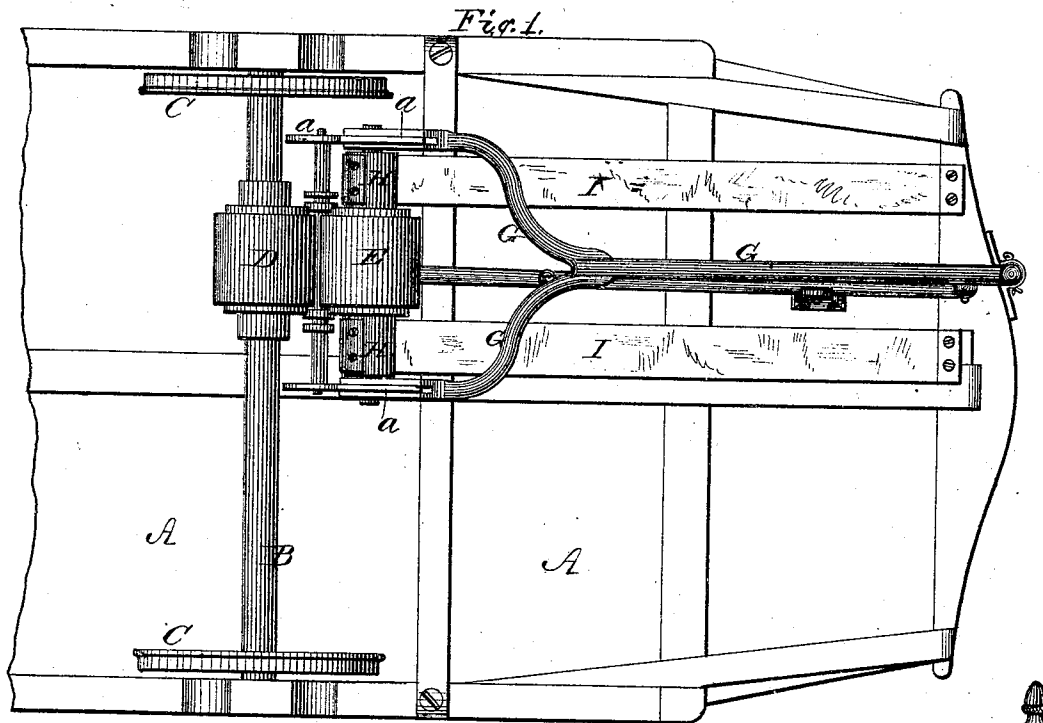


S. JONES.
Car-Starters.

No. 151,293.

Patented May 26, 1874.



Witnesses:
H. H. Dodge
W. Steiger

Inventor:
Stacy Jones.
By his attys.
Dodge & Son.

UNITED STATES PATENT OFFICE.

STACY JONES, OF DARBY, PENNSYLVANIA, ASSIGNOR OF ONE-HALF HIS
RIGHT TO CHARLES BONSALE, OF SAME PLACE.

IMPROVEMENT IN CAR-STARTERS.

Specification forming part of Letters Patent No. 151,293, dated May 26, 1874; application filed
April 6, 1874.

To all whom it may concern:

Be it known that I, STACY JONES, of Darby, in the county of Delaware and State of Pennsylvania, have invented certain Improvements in Car-Starters, of which the following is a specification:

This invention relates to that class of car-starters in which a spring applied to check the motion of the car is put under tension thereby, and afterward applied to assist in starting the car again. The invention consists in a novel combination and arrangement of three drums and other devices, as hereinafter explained.

Figure 1 is a bottom plan view of a horse-car provided with my starting devices. Fig. 2 is a longitudinal central section of the same, and Fig. 3 a detail view.

A represents the body of the car; B, the front axle, and C the wheels on the ends of said axle, all of which parts are constructed and arranged in the ordinary manner. On the axle B I secure firmly a drum, D, and by the side and in front of said drum mount a second drum, E, the shaft or journals of which are supported in depending plates *a*, secured to the car-body, as shown in Figs. 1 and 2. The plates *a* are provided with horizontal slots, in which the journals of the drum rest, as shown by dotted lines in Fig. 2, so that the drum may be moved up in contact with the drum D, or backward therefrom. On the end of the car-platform I pivot an upright hand-lever, F, and to the lower end of the same connect a bar, G, having its inner end forked, and its arms mounted on the journals of the movable drum E, as shown in Fig. 1, so that by moving the hand-lever the drum may be carried forward and backward, as before mentioned. On each end of the drum E there is a smaller drum, H, to each of which there is secured a long rubber spring, I, which extends forward, and has its end secured to the front of the car, as shown in Figs. 1 and 2. Above and between the drums D and E I mount a third drum, J, the journals of which rest in vertical slots in the depending plates *a*, before mentioned, so that the drum can rise and fall. The journals of this last drum J are also mounted in a yoke, K, attached to the end of a horizontal lever, L, which lever is pivoted at its middle to the car,

and connected at its forward end to a second horizontal lever, M, which latter is also pivoted at its middle to the car, and provided at its front end with a foot-piece or pedal, extending up through the platform of the car, as clearly shown in Fig. 2. When the foot-piece is depressed the drum J is forced down between and in contact with both the lower drums, as shown in Fig. 3.

The operation is as follows: When the car is to be stopped the hand-lever F is thrown forward, and the drum E thereby forced up against the drum D, which latter, turning with the axle, turns the drum E and its small drums H in the direction shown by the arrows in Fig. 2, so as to wind the rubber springs upon the drums H. The springs, being thus put under tension, aid in stopping the car, and tend to revolve the drum E in the direction indicated by the arrow in Fig. 3. When the car is to be started the foot-piece is depressed, and the drum J thereby forced down in contact with the others, while at the same time the hand-lever is released and the lower drums allowed to separate from each other, so that the parts stand in the positions shown in Fig. 3. The drum urged toward the right by the springs tends, through the medium of the drum J, to turn the drum D and the car-wheels forward, and thus aids materially in starting the car.

The drums may be made of wood or metal, and may have their faces covered with rubber or leather, or roughened, in order to increase the friction or cohesion between them, and prevent them from slipping.

It is obvious that the arrangement of the three drums may be varied, and that other devices may be used for operating them, and also that, instead of rubber springs, springs of metal may be employed.

Having thus described my invention, what I claim is—

In combination with the drum D, secured on the axle, the movable drums E and J and springs I, substantially as shown and described.

STACY JONES, M. D.

Witnesses:

DAVID MAUL,
GEO. S. PATCHET.