

G. TURNER.
Car-Starters.

No. 155,126.

Patented Sept. 15, 1874.

Fig. 1.

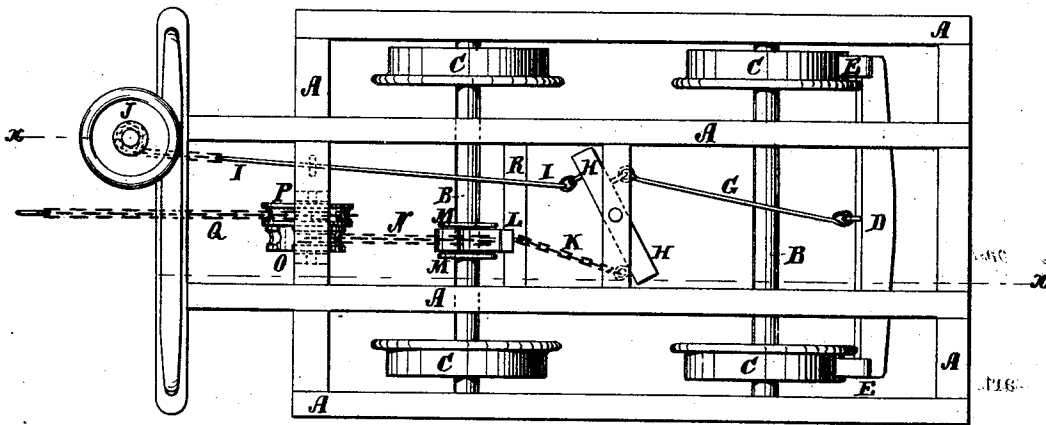
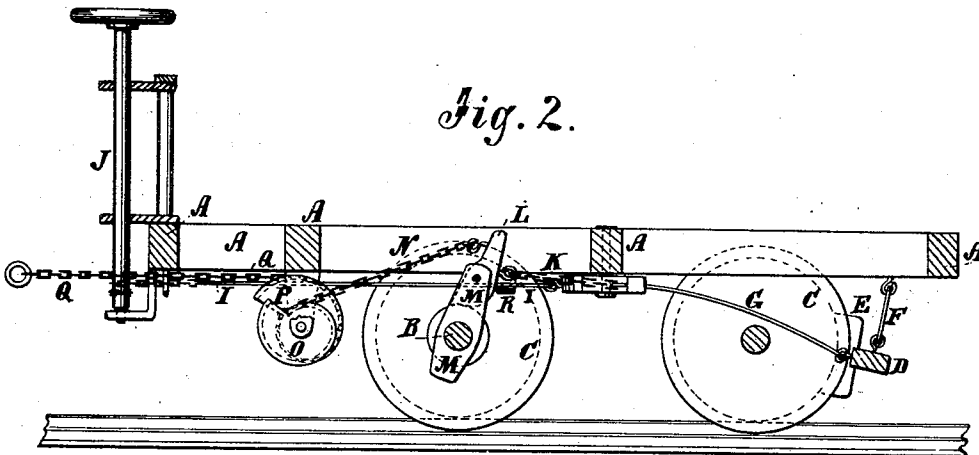


Fig. 2.



Witnesses:

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Per

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UNITED STATES PATENT OFFICE.

GEORGE TURNER, OF KALAMAZOO, MICHIGAN, ASSIGNOR TO HIMSELF AND
M. WATTLES, OF SAME PLACE.

IMPROVEMENT IN CAR-STARTERS.

Specification forming part of Letters Patent No. **155,126**, dated September 15, 1874; application filed
August 10, 1874.

To all whom it may concern:

Be it known that I, GEORGE TURNER, of Kalamazoo, in the county of Kalamazoo and State of Michigan, have invented a new and useful Improvement in Brake-Adjusted Car-Starter, of which the following is a specification:

Figure 1 is a top view of my improved device, shown as applied to the frame and wheels of a car-truck. Fig. 2 is a vertical longitudinal section of the same, taken through the line *x x* of Fig. 1.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved car-starter which shall be so constructed that the operation of applying the brake will set the starter ready to operate when the draft is again applied, and which shall, at the same time, be simple in construction, convenient in use, and effective in operation.

The invention consists in the combination of the friction-dog with the brake-lever, and with the axle of a car-truck; in the combination of the two scroll or cam wheels with the friction-dog, the brake-lever, and the draft-chain.

A represents the frame, B the axle, and C the wheels, of a car-truck to which my improvement has been applied. D is the brake-bar, to the ends of which the brake-shoes E are attached, and which is suspended from the truck-frame A by rods or chains F. To the brake-bar D is attached the end of a rod or chain, G, the other end of which is attached to the brake-lever H. The lever H is pivoted to the frame A, and to it, at a greater distance from its pivoting-point than the point of attachment of the rod or chain D, is attached the end of a rod or chain, I, the other end of which is attached to the brake-shaft J, which works in bearings at the end of the car, and to which power is applied by means of a hand-wheel, in the ordinary manner. To the brake-lever H is also attached one end of a chain, K, the other end of which is attached to the friction-dog L,

which is pivoted in a stirrup or keeper, M, in such a position that its inner end may bear against the axle B, or against a small smooth pulley attached to said axle. The stirrup or keeper M rides upon the axle B. To the forward side of the friction-dog L, and at a greater distance from its pivoting-point than the chain K, is attached one end of the chain N. The chain N passes around a scroll or cam wheel, O, and its other end is attached to said wheel at its point of smallest diameter. With the scroll or cam wheel O is rigidly connected another scroll or cam wheel, P, placed in a reversed position. To the scroll or cam wheel P, at its point of smallest diameter, is attached the end of the chain Q, which passes around said wheel, and through guides attached to the truck-frame, and to its end the draft is applied.

By this construction the brake is applied in the usual manner, and the movement of the brake-lever in applying the brake draws back the friction-dog L, and turns back the cam-wheels O P, so that when the draft is again applied it may be with the greatest advantage of leverage. As the draft is applied, the dog L is drawn forward, which grasps the axle B, and carries it with it, thus starting the car.

R is a bar, which is attached to the frame A in such a position as to trip the dog L at the proper time, and thus release the axle B.

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

1. The combination, with the axle of a car-truck, of the friction-dog L, pivoted in a stirrup, M, draft-chain K, brake-lever H, and a scroll-wheel, O, for winding up the chain I, as shown and described.

2. The combination of the two scroll-wheels O P with the friction-dog L, the brake-lever H, and the draft-chain Q, substantially as shown and described.

GEORGE TURNER.

Witnesses:

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