N. VAN VIELE.

Car-Starter.

No. 203,512. Patented May 7, 1878.

Fig. 1.

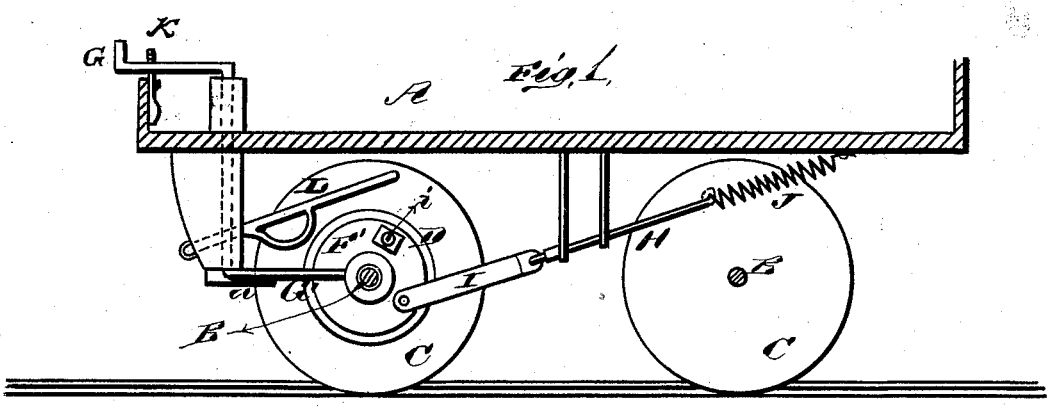

Fig. 2.

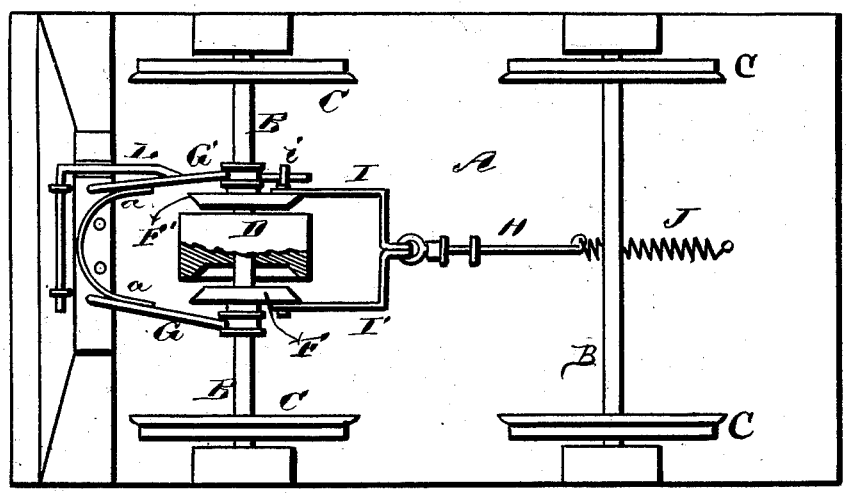

Fig. 3.

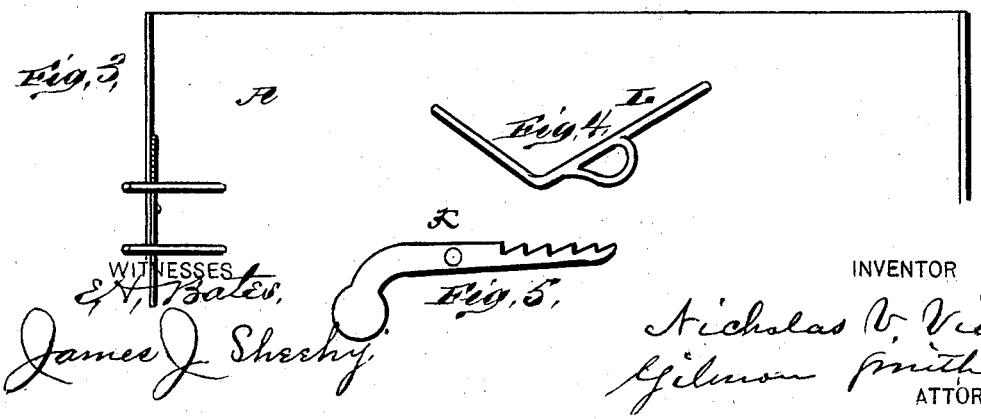

Fig. 4.

Fig. 5.

WITNESSES.

E. A. Bates.

James J. Sheehy.

INVENTOR

Nicholas V. Viele

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ATTORNEYS

UNITED STATES PATENT OFFICE.

NICHOLAS VAN VIELE, OF ELMIRA, NEW YORK, ASSIGNOR OF THREE-FOURTHS HIS RIGHT TO URSULA VIELE, OF SAME PLACE.

IMPROVEMENT IN CAR-STARTERS.

Specification forming part of Letters Patent No. **203,512**, dated May 7, 1878; application filed March 16, 1878.

To all whom it may concern:

Be it known that I, NICHOLAS VAN VIELE, of Elmira, in the county of Chemung and State of New York, have invented a new and valuable Improvement in Car-Starters; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a longitudinal vertical section of a car with my car-starter applied. Fig. 2 is a bottom view of car, showing the same; and Figs. 3, 4, and 5 are details thereof.

The nature of my invention consists in the construction and arrangement of a car-starter, as will be hereinafter more fully set forth.

The annexed drawings, to which reference is made, fully illustrate my invention.

A represents the body of the car. B are the axles, provided with the wheels C C, and to which the car-starting mechanism is applied. On the center of the axle B is secured a drum, D, having in each side a circular recess with inclined walls, as shown. These recesses are for the purpose of receiving friction-disks F F′ placed loosely on the axle, one on each side of the drum, and formed with beveled edges to correspond with the inclined walls of the recesses in the drum.

The disks F F′ are formed with circumferentially-grooved hubs, in which fit the ends of two angular levers, G and G′, the upper ends of which are intended to be either within the car or upon the platform of the same.

The disks are, on their outer sides, provided with suitable pins, from which pivoted arms I I′ connect with a rod, H, and this with a spring, J.

a a are springs operating against the levers G G′, for throwing the disks F F′ away from the drum D.

By turning the lever G outward, the same being then held in a ratchet-bar, K, the friction-disk F will be thrown in gear, and, by means of the arm I, pull the spring J, and, by means of the connecting-arm I′, turn the friction-disk F′ in the opposite direction.

When the car stops, the lever G′ is moved to the left, which throws the friction-disk F′ in gear with the drum, and thus holds the car still. When ready to start, let off the lever G, and, the spring J contracting, will move the car in the same direction as before, through the medium of the disk F′; and when the car-axle has made part of a revolution, a pin, *i*, in said disk F′ comes against a spring-lever, L, and lets off the disk F′, which leaves the car free to run, as before. When the disk F′ is thrown in gear, the lever L catches on the end of the lever G′, and holds said disk in place until released by the pin *i*, as described.

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

The combination, with the drum D on the car-axle, of the friction-disks F F′, levers G G′, with springs *a a*, connecting-arms I I′, spring J, spring-lever L, and pin *i*, all constructed and operating substantially as and for the purposes set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

NICHOLAS VAN VIELE.

Witnesses:
H. S. SMITH,
MORRIS T. BANKS.