

No. 714,623.

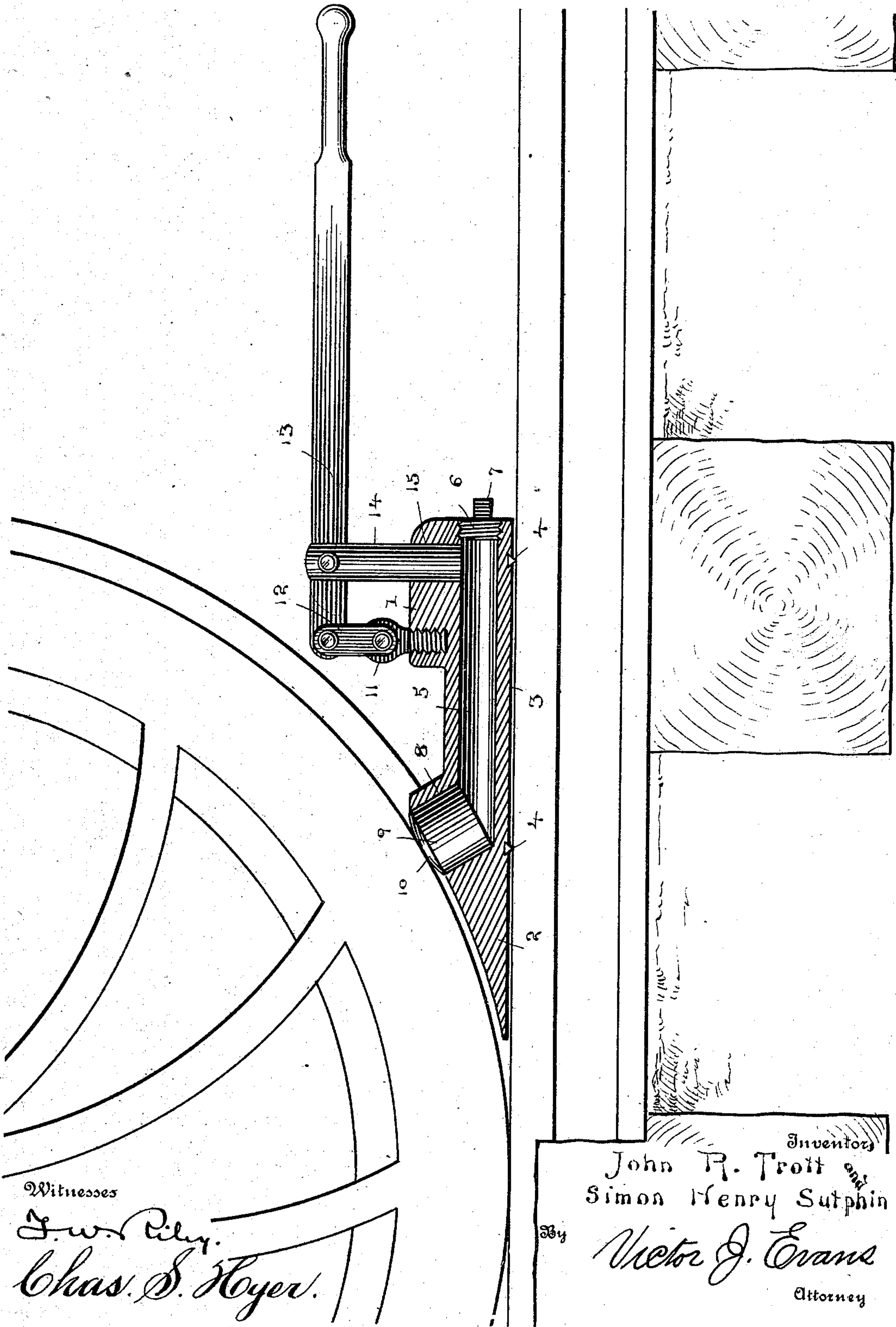
Patented Nov. 25, 1902.

J. R. TROTT & S. H. SUTPHIN.

CAR STARTER.

(Application filed Aug. 13, 1902.)

(No Model.)



UNITED STATES PATENT OFFICE.

JOHN ROSS TROTT AND SIMON HENRY SUTPHIN, OF VIRDEN, ILLINOIS.

CAR-STARTER.

SPECIFICATION forming part of Letters Patent No. 714,623, dated November 25, 1902.

Application filed August 13, 1902. Serial No. 119,574. (No model.)

To all whom it may concern:

Be it known that we, JOHN ROSS TROTT and SIMON HENRY SUTPHIN, citizens of the United States, residing at Virden, in the county of Macoupin and State of Illinois, have invented new and useful Improvements in Car-Starters, of which the following is a specification.

This invention relates to a car-starter, and the purpose of the same is to provide a simple and effective device which can be easily arranged on a track-rail under a car-wheel and quickly operated with forceful pressure in relation to a car-wheel to start the latter and having means under control of liquid-pressure.

The invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

The accompanying drawing shows a side elevation of a portion of a car-wheel, a track-rail, and the improved starter in longitudinal vertical section.

The numeral 1 designates the body of the device, having a forwardly-projecting extension or foot 2, tapered downwardly toward its free end for easy insertion under the lower rear portion of a wheel-rim, the bottom 3 of the body being horizontally straight and provided with transversely-extending knife-edge grips 4 to take into the upper surface of the head of the rail to which it is applied. Extending longitudinally through the center of the greater portion of the body 1 is a cylindrical liquid-chamber 5, opening out through the rear end of the body and closed at said end through the medium of a screw-plug 6, having a rearwardly-projecting lug or analogous device 7 for convenience in removing and applying the same. Communicating with the forward terminal of the chamber 5 is an upwardly-inclined socket 8 of greater diameter than the said chamber and having a cylindrical pressure-head 9 movably mounted therein and formed with a convex bearing end 10. In the upper part of the rear extremity of the body 1 is an upstanding screw-support 11, which is pivotally connected to the lower end of a link 12, having its upper end also pivoted to the forward extremity of an operating-lever 13, movably attached to the upper extremity of a plunger 14, slidable

through a vertical opening 15 in the rear outer portion of the said body, the said opening 15 communicating with the rear of the chamber 5.

In preparing the improved starter for use the plug 6 is removed and the chamber 5 filled with a suitable liquid, the pressure-head being pressed inwardly its full extent during such filling operation. After the liquid has been disposed in the chamber 5 the plug 6 is reapplied and the starter is ready for use. In arranging the starter for engagement with a car-wheel or the like it is placed on the upper surface of the head of a track-rail, as clearly shown in the drawing, and the convex outer end of the pressure-head 9 is brought to bear against the rim of the wheel. The plunger 14 is then depressed by bearing downwardly on the lever 13, and the compression of the liquid into chamber 5 will force the head 9 forcefully outward from the forward extremity of the body against the wheel-rim and start the latter to move. The expulsion of the head 9 will be regulated by the downward pressure exerted on the lever 13, and after the wheel has moved away from engagement with the head 9 the starter may be shoved along or reset on the track-rail and the same operation repeated to insure a starting movement of the car-wheel. By elevating the plunger 14 the liquid will be allowed to recede and permit the head 9 to assume its lowered position, as shown.

It will be understood that the plunger 14 and head 9 will be supplied with suitable packing-rings or other analogous devices for insuring a tight joint between the same and the parts of the body with which they engage to prevent leakage and obtain the full benefit of the pressure of the liquid within the chamber 5.

The improved device will be found exceptionally useful for the purpose for which it has been devised, and for different applications changes in the proportions, dimensions, and minor details may be resorted to without in the least departing from the principle of the invention.

Having thus fully described the invention, what is claimed as new is—

1. A car-starter comprising a body having a longitudinally-extending liquid-chamber

therein, a movable pressure-head arranged at an upward angle of inclination and operated by the liquid within the chamber, and a vertically-disposed plunger cooperating with
5 the rear portion of the chamber and adapted to force the head upwardly and outwardly when depressed.

2. A car-starter comprising a body having means for holding it in applied position on a
10 track-rail and also provided with a longitudinally-extending horizontally-disposed liquid-chamber and communicating with an up-

wardly-inclined socket, a pressure-head movably mounted in said socket, a plunger movable through the rear portion of the body and
15 adapted to enter the said chamber, and a lever for operating said plunger.

In testimony whereof we affix our signatures in presence of two witnesses.

JOHN ROSS TROTT.

SIMON HENRY SUTPHIN.

Witnesses:

WM. F. JENKS,

J. W. JONES.