

(No Model.)

S. RUNSER.
TRACTION DEVICE FOR LOCOMOTIVES.

No. 450,532.

Patented Apr. 14, 1891.

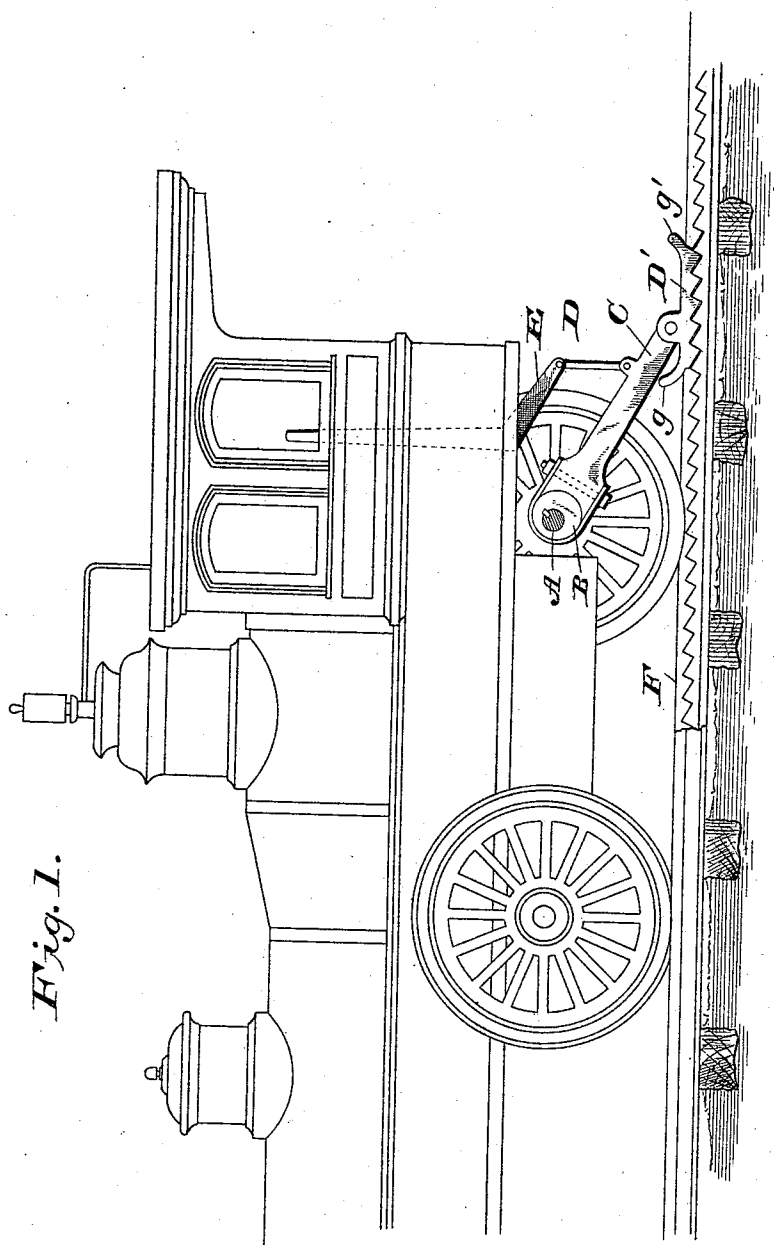


Fig. 1.



Fig. 2.

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TRACTION DEVICE FOR LOCOMOTIVES.

SPECIFICATION forming part of Letters Patent No. 450,532, dated April 14, 1891.

Application filed January 17, 1891. Serial No. 378,125. (No model.)

To all whom it may concern:

Be it known that I, SEBASTIAN RUNSER, a citizen of the United States of America, residing at Greenville, in the county of Mercer and State of Pennsylvania, have invented certain new and useful Improvements in Traction Devices for Locomotives; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in traction devices for locomotives.

The object of the invention is to provide means whereby the forward movement of the engine will be assisted directly from the main axle supporting the driving-wheels; and it consists in the construction and combination of the parts, as will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a side view showing my improvement attached to a locomotive, the way being provided with a ratchet-plate, with which one of the push-bars engages; and Fig. 2 is a detail view.

A refers to the hind axle of a locomotive, which carries the driving-wheels, said axle being located, preferably, beneath the cab. Upon this axle are rigidly secured eccentrics B, to which are connected, by means of straps and bolts, push-bars C, so that when said axle revolves a throw will be given to the push-bars, which will materially assist in driving the locomotive. At a suitable point upon each of the push-bars is pivotally attached one end of a link D, the other end connecting with a lever E, which extends into the cab to engage a rack.

F refers to rack or ratchet bars which are secured between the rails and with which the push-bars C engage when said push-bars are lowered. The lower end of the push-bars have preferably hinged thereto a shoe D', having an extended rear end. These shoes are also provided at their front and rear with upwardly-projecting portions *g* and *g'*, the front portion abutting against the under side of the push-bar when the same is raised,

so that the shoe will always be in an operative position when the push-bar is lowered.

This device is especially designed for use where there are steep grades and in starting a locomotive, and at such points upon the road I provide the rack-bars hereinbefore described, and where said rack-bars are not located the shoe will contact with the ties and operate effectively. I use two or more push-bars on the same shaft or axle and have the eccentric set opposite each other.

Having thus described my invention, I claim—

1. In combination with the driving-wheel and axle of a locomotive, an eccentric secured upon the axle and provided with a push-bar, and a lever extending into the cab and connected to the push-bar, substantially as shown, for raising and lowering the same, for the purpose set forth.

2. In combination with the axle A, provided with driving-wheels and eccentrics B, push-bars secured to said eccentrics and provided at their lower ends with pivoted shoes having serrated faces, and links connected to said push-bars and to a lever, substantially as set forth.

3. In combination with the drive-wheels of a locomotive, an axle provided with eccentrics, upon which are mounted push-bars, the lower ends of which have pivoted thereto shoes with transverse serrated faces, and rack-bars located between the tracks, so that the serrated shoes may engage therewith, substantially as set forth.

4. In combination with the push-bar C, a shoe D, pivotally secured thereto and provided with an upward projection *g* at its forward end, which contacts with the push-bar when raised, said shoe being provided on its under face with transverse serrations, a lever connected by a link to the push-bar for raising and lowering the same, and an eccentric for projecting the same, said eccentric being carried by the driving-axle, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

SEBASTIAN RUNSER.

Witnesses:

HERMAN SCHULTZ,
HARVEY J. GRAVES.