



# United States Patent Office.

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*Letters Patent No. 78,537, dated June 2, 1868.*

## IMPROVED RAILWAY-TRACK SCRAPER.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, SAMUEL A. OTIS, of Boston, in the county of Suffolk, and State of Massachusetts, have invented certain new and useful Improvements in Track-Scrapers; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

To enable others skilled in the art to make and use my invention, I will proceed to describe its nature, construction, and use.

The nature of my invention consists, first, in arranging the two shoes of a scraper and the connecting parts in such a manner that the shoes may automatically adjust themselves to the varying gauge of the track; second, in combining with the shoe a small roller, which allows the shoe to run very nearly but not quite in contact with the rail; third, combining with the scraper a peculiar device, so arranged that the scraper may be raised from or lowered to the track by a lever, which may be operated by the foot or hand.

### *Drawings.*

Figure 1 is a side elevation of a part of a car, showing my improved track-scraper attached.

Figure 2 is a plan of the same.

Figure 3 is an end elevation of the same.

In all the drawings, B B represent the shoes or scraper, shaped as shown in the drawings, each being provided with a small truck-wheel, K, which serves to keep the shoe slightly elevated above the track, and consequently to save the wear of the shoe.

M, figs. 2 and 3, is a rod, passing freely through the shoes, having a head or screw-nut on each end, one of which is shown in fig. 1 by P. Q Q are sleeves, sliding freely upon the rod M, one end of each bearing against the shoe, and the opposite end against the forked spring O O. By the above arrangement of the rod M, sleeves Q, and spring O, it will be seen that the shoes B B may be made to approach each other, and thus accommodate themselves to a narrow gauge, the length of the rod M being such as to admit of the shoes B B fitting upon the widest gauge likely to occur on ordinary roads.

To admit of the above-described action, the supporting-arms C C of the shoes are made flexible.

R R are housings, upon which the arms C C are hinged. L is a lever, attached to the bar C'. E is a link, attached to the lever L, and to the arm F of the rocker-shaft D, so if the said rocker-shaft is operated, as it may be, by the lever G, the end of the lever L will be raised or lowered, carrying with it the arm C C and shoes B B. G G' are two arms, extending from the lever G, which serve as levers to be acted upon by pressure of the foot; thus, in fig. 3, by pressing hard upon the arm G'', it will be pushed over towards T, which action would raise the arm F, and, through it, the link E the lever L, and thus the shoes B B. If the foot be placed upon the arm G', fig. 3, the shoes B B will be borne hard down upon the track.

T, fig. 3, is a circular plate, having a number of perforations, as shown, into which the pin, not shown in the drawings, attached to the handle H, may enter, and thus hold the lever G, and consequently the shoes B B, in any desired position.

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

1. The combination and arrangement of the shoes B B, sleeves Q Q, rod M, and fork O O, substantially as described and for the purpose set forth.
2. The combination, with the lever G, in a track-scraper machine, of the foot-lever G' G'', substantially as described and for the purpose set forth.
3. The combination and arrangement of the lever L, the link E, and the rocker-shaft D, made substantially as described and for the purpose set forth.

SAMUEL A. OTIS.

Witnesses:

FRANK G. PARKER,  
A. HUN BERRY.