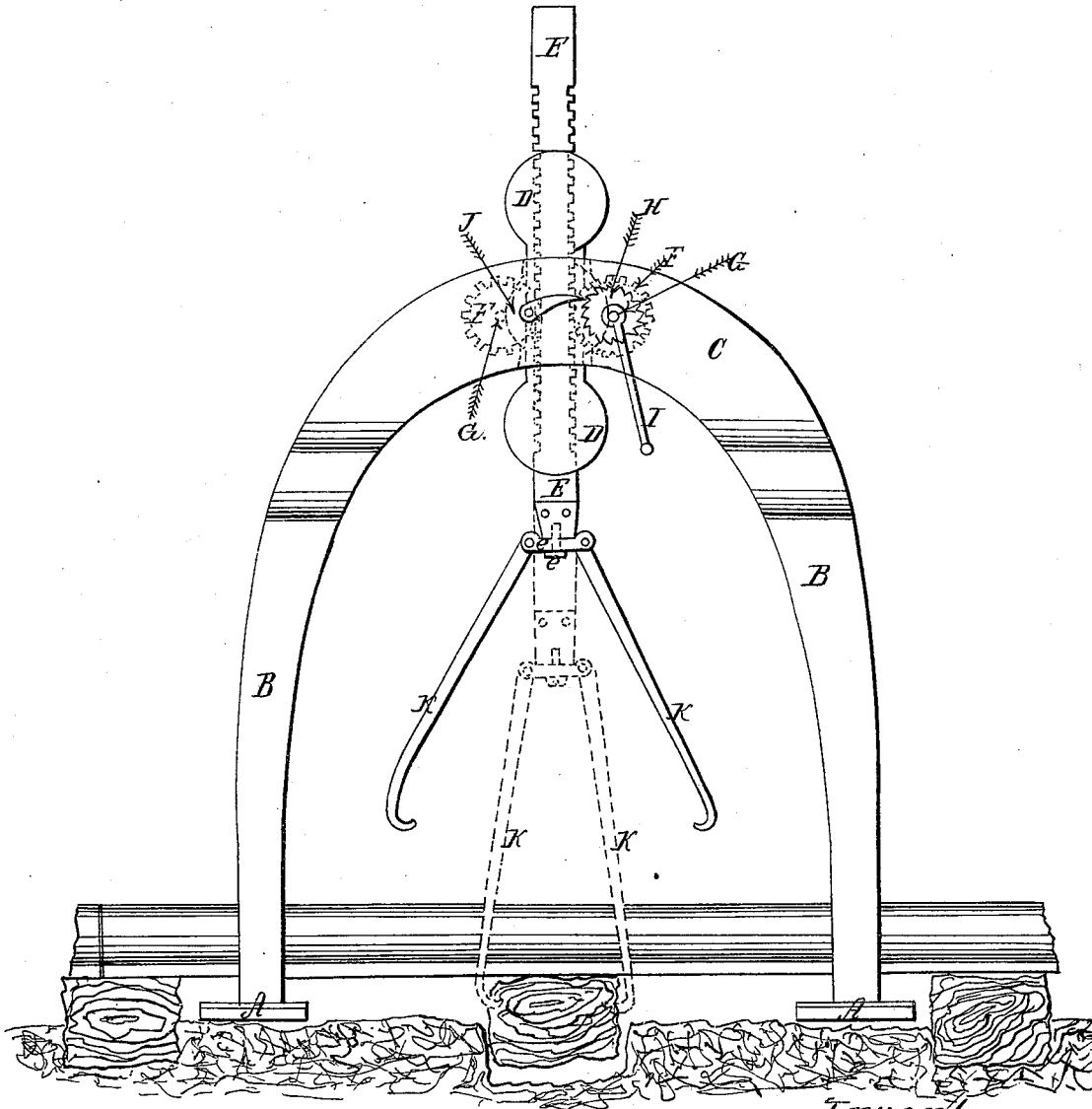


*J. Temple,
Lifting Jack.*

N^o 51,523.

Patented Dec. 12, 1865.



*Witnesses:
Geo. Johnson
J. S. Peyton.*

*Inventor,
James Temple
by his attorney
S. S. Farnsworth*

UNITED STATES PATENT OFFICE.

JAMES TEMPLE, OF SELIN'S GROVE, PENNSYLVANIA, ASSIGNOR TO HIMSELF
AND H. P. HOTTENSTEIN.

IMPROVED MODE OF RAISING RAILROAD-TRACKS.

Specification forming part of Letters Patent No. 51,523, dated December 12, 1865.

To all whom it may concern:

Be it known that I, JAMES TEMPLE, of the town of Selin's Grove, in the county of Snyder, in the State of Pennsylvania, have invented a new and Improved Machine for Raising Railroad-Tracks; 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.

The nature of my invention consists in providing a simple and powerful mechanical device for raising railroad-tracks, whereby a large saving of labor and cost is obtained.

From various reasons, not necessary to mention, (well known to most persons,) railroad-tracks will settle at different points, the opposite rails not being on a level, thus giving rise to a rolling or rocking motion of the cars, and sometimes leading to accidents. This necessitates the laying off of roads into sections, generally of five miles each, five men being assigned to each section to keep watch, repair, &c., and the raising is generally done with crow-bars by hand and the propping up or underpinning with the same and other hand-tools. This operation is slow, laborious, and expensive.

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

Figure 1 represents an elevation of my machine. Parts connected therewith are represented in adjacent drawings, designated by same letters of reference.

In the drawings, A A represent the feet of the machine, B B the legs sufficiently separated to straddle a tie or rail or the whole track, if desired. In the center of the top circular or arched part, C, I secure the mechanical device to accomplish the desired result. This mechanism consists of a vibrating rack-bar, D, a pinion-bar, E, which slides in the former, one or more wheels, F, to gear in the pinion-bar, these latter being attached to arbors G, which carry a ratchet-wheel, H. These arbors work in

curved slots, so as to accommodate the pinion-wheels each may carry to the rack-bar. If both feet, A, are not on a level the rack-bar will not be perpendicular; neither the pinion-bar which moves through it.

This is a self-adjusting device. The vibrating bar D is not pivoted—that is, it does not vibrate on an axle passing through it, but vibrates on its circular part J, which works in corresponding parts of the top frame, forming a circular joint, permitting a limited vibratory motion. Turning the crank or cranks I raises or lowers the hooks K, which are secured to E by a swivel, e, affording them a motion of rotation. To raise the track in order to underpin, &c., all that is necessary is to first lower the hooks and grasp any desired part, turn the crank in the opposite direction and raise the same, underpin, &c., and move to another point.

A machine weighing fifteen pounds is capable of raising some eight hundred pounds, while one weighing thirty-five pounds will raise three tons. It must be easily seen what labor can be saved thereby. On each five-mile section, into which railroads are generally divided, some five men are employed to repair, and as watchmen. Using my machine two can be dispensed with on each section. That is a saving of eighteen thousand dollars on each and every one hundred miles.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The combination of the vibrating rack-bar D with the rack or pinion bar E, constructed and operating substantially as described, for the purpose set forth.

2. The combination of said parts D and E with pinion-wheels F and frame C B, operating conjointly to produce the result above mentioned.

JAMES TEMPLE.

Witnesses:

S. S. FAHNESTOCK,
JOHN S. HOLLINGSHEAD.