

L. GROVER.
Track-Lifters.

No. 133,934.

Patented Dec. 17, 1872.

Fig. 1.

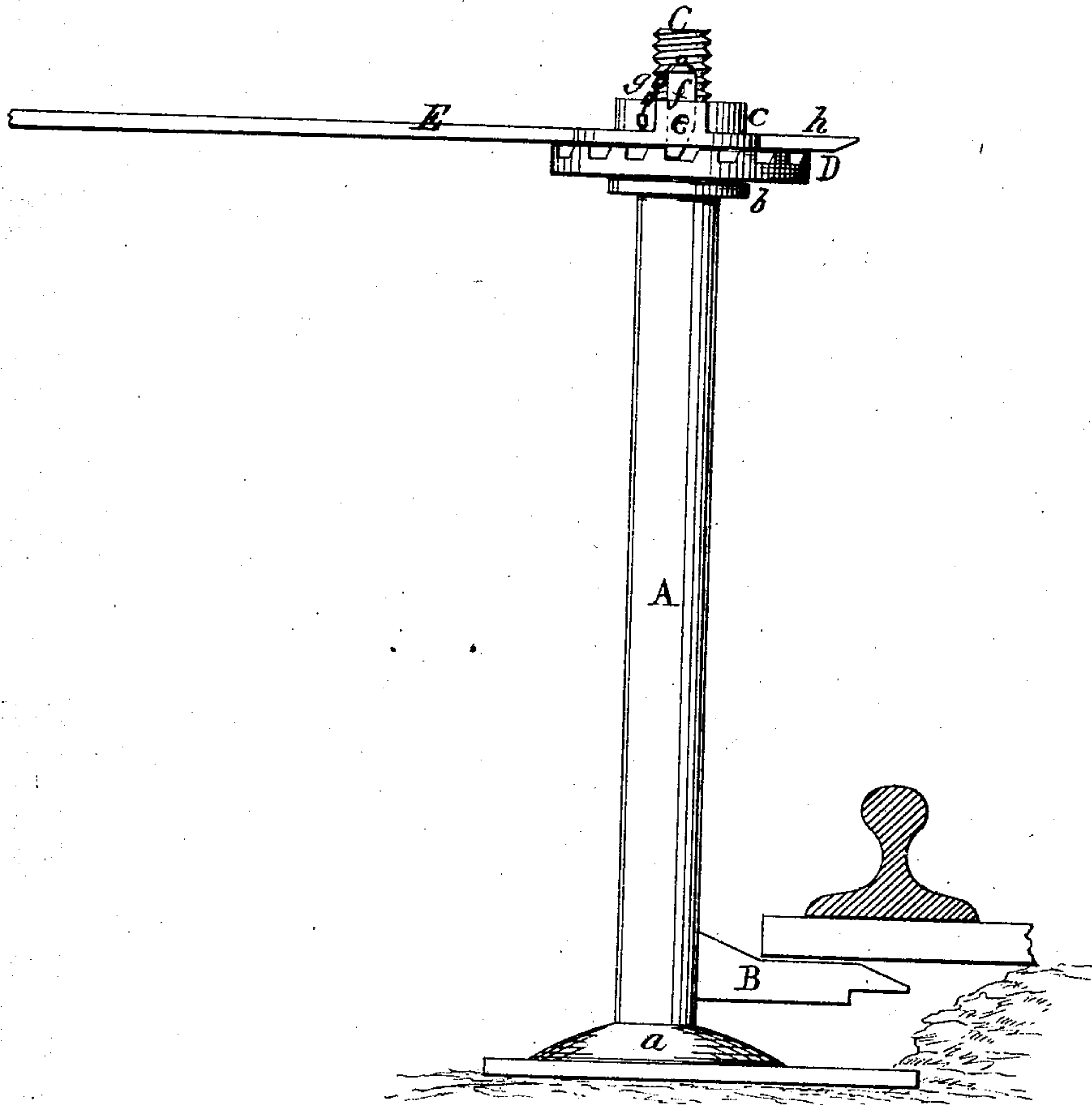
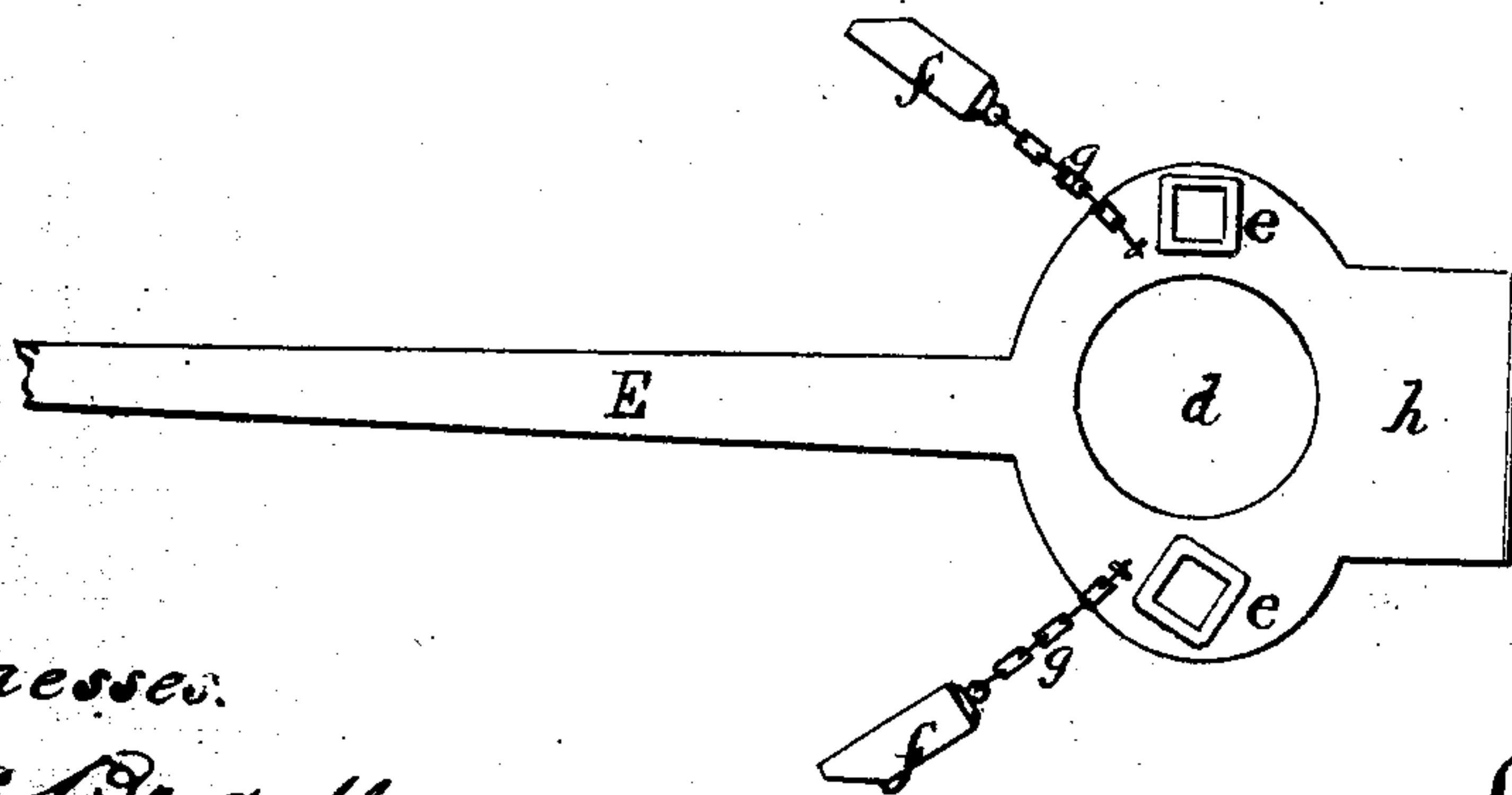


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

LEONARD GROVER, OF HOMER, MICHIGAN.

IMPROVEMENT IN TRACK-LIFTERS.

Specification forming part of Letters Patent No. **133,934**, dated December 17, 1872.

To all whom it may concern:

Be it known that I, LEONARD GROVER, of Homer, in the county of Calhoun and State of Michigan, have invented an Improved Track-Lifter, of which the following is a specification:

The subject of this invention is an improved jack intended for use in lifting railroad tracks for purposes of repairing the road-bed. The invention consists in the combination, with a column or standard, of a screw carrying a foot for supporting the track, and means for operating the screw; also, in the combination, with the hand-lever, of removable and reversible teeth loosely-fitting sockets in the lever; also, in the construction of the lever with a spade-like extension to be used in digging under the cross-ties so that the jack may be placed in position.

In the drawing, Figure 1 is a side elevation of a track-lifter constructed according to my invention in position for operation, and Fig. 2 is a plan view of the lever detached.

Similar letters of reference indicate like parts in the two figures.

The device consists essentially of a column or standard, A; a foot, B, for supporting the track; a screw, C, carrying the foot, and means for raising and lowering the screw. The column A is, preferably, made of iron, cast hollow, and is provided with a base, *a*, of sufficient area to afford a firm support. Within the column, and extending from the bottom to a short distance above the top thereof, is placed a screw, C, which carries at its lower end a projecting foot, B, the column having a long vertical slot, which forms a passage and guides for the foot. The foot B is made in about the form shown, and is intended to support the track, as shown in the drawing. At the top of the column is a flange, *b*, on which rests a toothed wheel, D. This wheel is formed with a hub or boss, *c*, threaded to correspond with the screw C. The teeth of the wheel D are beveled on one side, as shown. The hand-lever E is made with a large opening, *d*, so that it loosely encircles the boss *c* and rests on the wheel D. The lever is provided with open sockets *e e*, in which are loosely fitted teeth *f f*. These teeth are removable and reversible, being made with one side straight and the other beveled. To prevent the teeth from be-

ing lost they are connected by chains *g g* with the lever. The lever E is constructed with a broad flat extension, *h*, which is intended to be used as a spade or shovel for digging under the track to form a cavity, into which the base of the jack and the foot are inserted. The end or edge of the spade is preferably beveled.

In the use of my invention the earth is excavated from under the portion of the track which is sunken to permit the insertion of the foot of the jack, as illustrated in the drawing. The lever is then placed upon the toothed wheel, and operated by the workman in the manner of a ratchet and pawl device, the operator standing in one position and alternately moving the lever toward and away from him, the teeth only catching in the former direction. The screw and foot being thus raised, the track is elevated to the desired height and supported until the repair is completed. To lower the screw and foot the teeth are reversed, and the lever operated as before.

I am aware that a lifting-jack has been constructed with a removable and reversible tooth, and therefore I do not claim this feature, broadly. This part of my invention consists in the peculiar construction and arrangement shown and described, and which I believe to be new.

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

1. The removable hand-lever, constructed to loosely encircle the hub of the toothed wheel, and carrying reversible teeth to engage with the teeth of the wheel, as herein described.

2. The construction of the hand-lever of a track-lifter, substantially as herein described, with a spade-like extension for digging purposes.

3. The combination of a column, A *a b*, a screw, C, foot B, toothed wheel D *c*, and hand-lever E, all operating substantially as herein described, and for the purpose specified.

To the above specification of my invention I have signed my name this 10th day of October, A. D. 1872.

LEONARD GROVER.

Witnesses:

JAMES H. CAMPBELL,
JOHN C. FITZ GERALD.