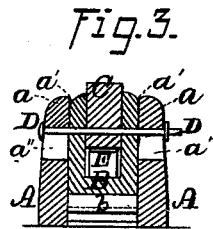
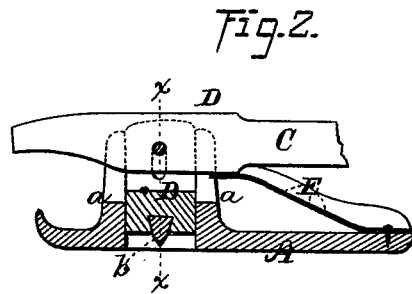
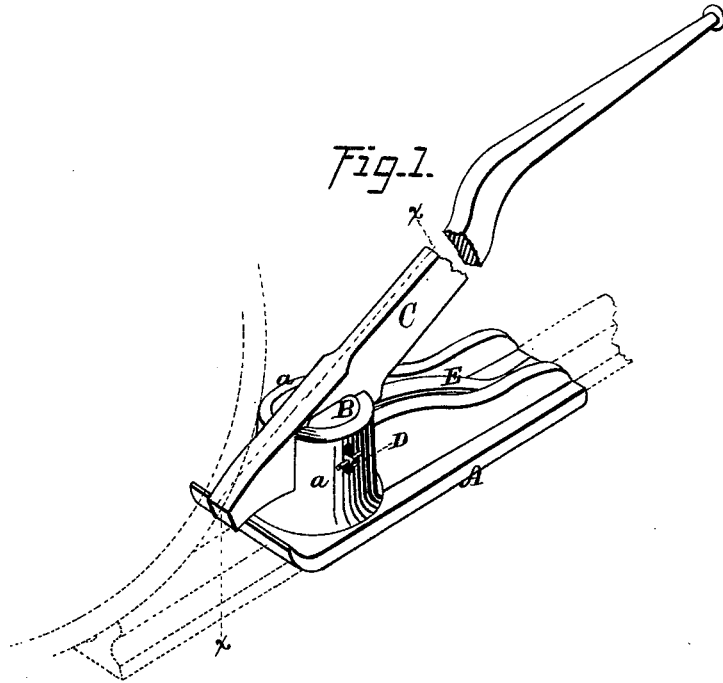


M. G. COLLINS.

PINCH-BAR.

No. 183,138.

Patented Oct. 10, 1876.



WITNESSES—
Jas. C. Hutchinson—
H. L. Hazard.

INVENTOR—
M. G. Collins, by
Orindle and Co., his atty.

UNITED STATES PATENT OFFICE.

M. GRIER COLLINS, OF READING, PENNSYLVANIA.

IMPROVEMENT IN PINCH-BARS.

Specification forming part of Letters Patent No. **133,138**, dated October 10, 1876; application filed August 2, 1876.

To all whom it may concern:

Be it known that I, M. G. COLLINS, of Reading, in the county of Berks, and in the State of Pennsylvania, have invented certain new and useful Improvements in Pinch-Bars; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making a part of this specification, in which—

Figure 1 is a perspective view of my improved bar as arranged for use. Fig. 2 is a central longitudinal section of the forward portion of the same, and Fig. 3 is a transverse section upon line *x x* of Fig. 1.

Letters of like name and kind refer to like parts in each of the figures.

The design of my invention is to increase the efficiency and ease of operation of bars employed for moving cars upon railroad-tracks; and it consists in the peculiar construction and combination of parts by means of which the fulcrum is caused to engage with the rail whenever the outer end of the bar is pressed downward, substantially as and for the purpose hereinafter specified.

In the annexed drawing, A represents the shoe of my device, which has a width somewhat greater than the width of a rail, and at its ends is curved outward and upward, so as to enable it to slide easily over the rail-joints. Near the front end of the shoe A is a cylindrical boss, *a*, which extends upward to a sufficient height, and at its axial center is provided with a round opening, *a'*, that receives and contains a correspondingly-shaped block, B, which block is loosely fitted, so as to slide freely therein. Passing horizontally through the upper end of the boss *a*, and through the block B, is a right-angled groove, within which is loosely fitted the flat end of a pinch-bar, C, which bar is held in position therein by means of a bolt, D, that passes transversely through said parts, and serves as a pivotal bearing for said bar. The openings *a''* within the boss *a* for the reception of said bolt are elongated vertically, for the purpose of allowing the latter—said block B and said bar C—to have certain vertical motion independ-

ent of the shoe. The spring E, secured at one end to the upper side, at the rear end of the shoe A, and at its free end bearing against the lower side of the bar C, immediately in rear of the block D, sustains said parts in an elevated position, except when pressed downward, as hereinafter described. A bit, *b*, extending transversely across and projecting downward from the lower end of the block B, completes the device, the operation of which is as follows: The bar is placed in position in rear of a wheel, its short end being between the latter and the rail, its rear end elevated, and the shoe resting upon said rail. The weight of the rear end of the bar will overcome the resistance of the spring, and press the fulcrum-block downward until the bit at its lower end engages with the rail, and holds the shoe firmly in position, when, by pressing downward upon the outer end of said lever, the wheel being operated upon will be moved forward. Upon raising the outer end of the lever the spring will withdraw the bit from engagement with the rail, when the device may be pushed forward until in position for a repetition of the operation described.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

The shoe A, provided with the hollow boss *a*, having vertically-elongated horizontal openings *a''* at its sides; the block B, fitted within said boss, and provided at its lower end with the bit *b*; the bar C, pivoted within the upper end of said block by means of the bolt D, and the spring E, arranged to sustain the weight of said bar and block, said parts being constructed and combined to operate in the manner and for the purpose substantially as specified.

In testimony that I claim the foregoing I have hereunto set my hand this 1st day of August, 1876.

M. GRIER COLLINS.

Witnesses:

GEO. S. PRINDLE,
H. C. HAZARD.