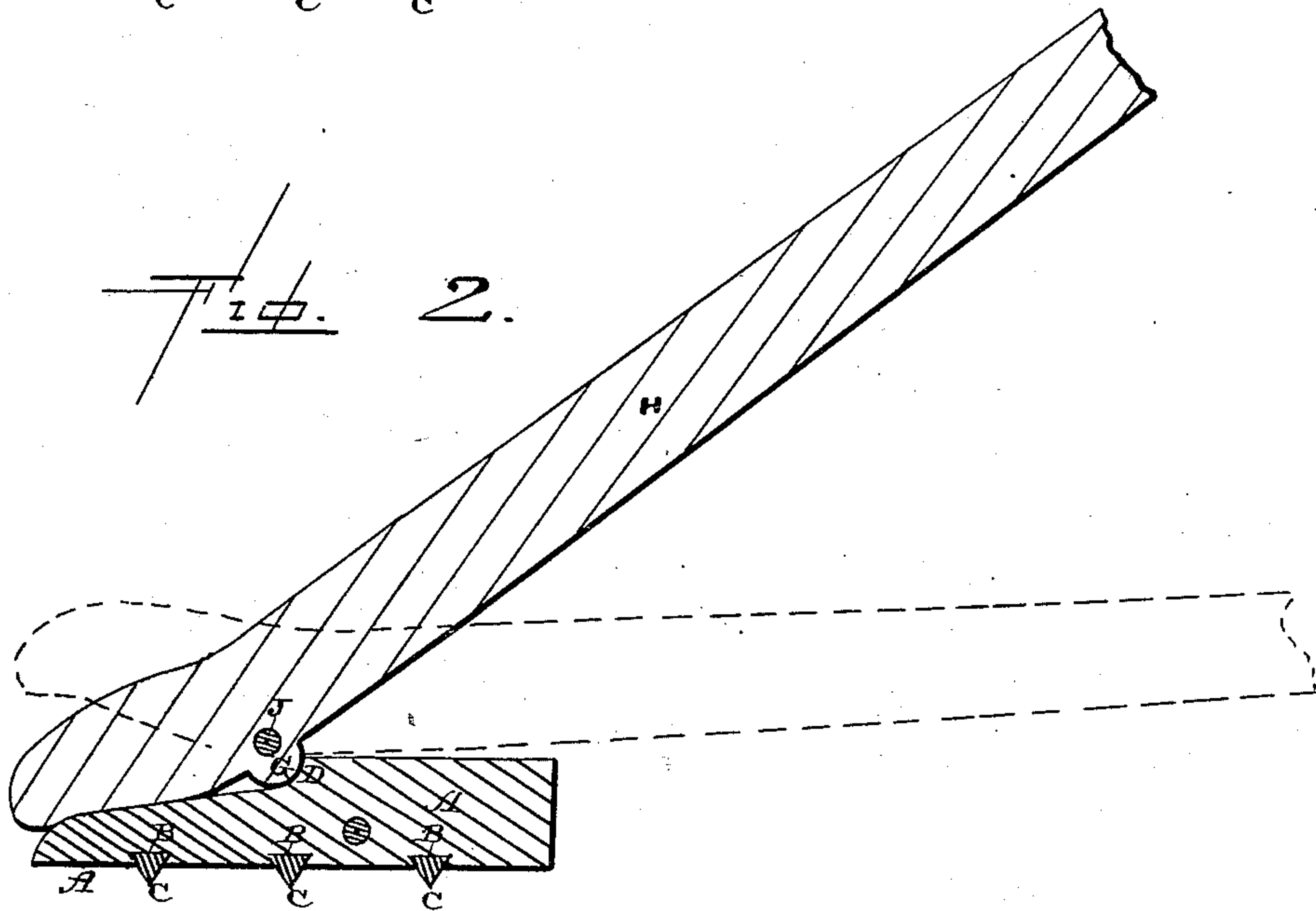
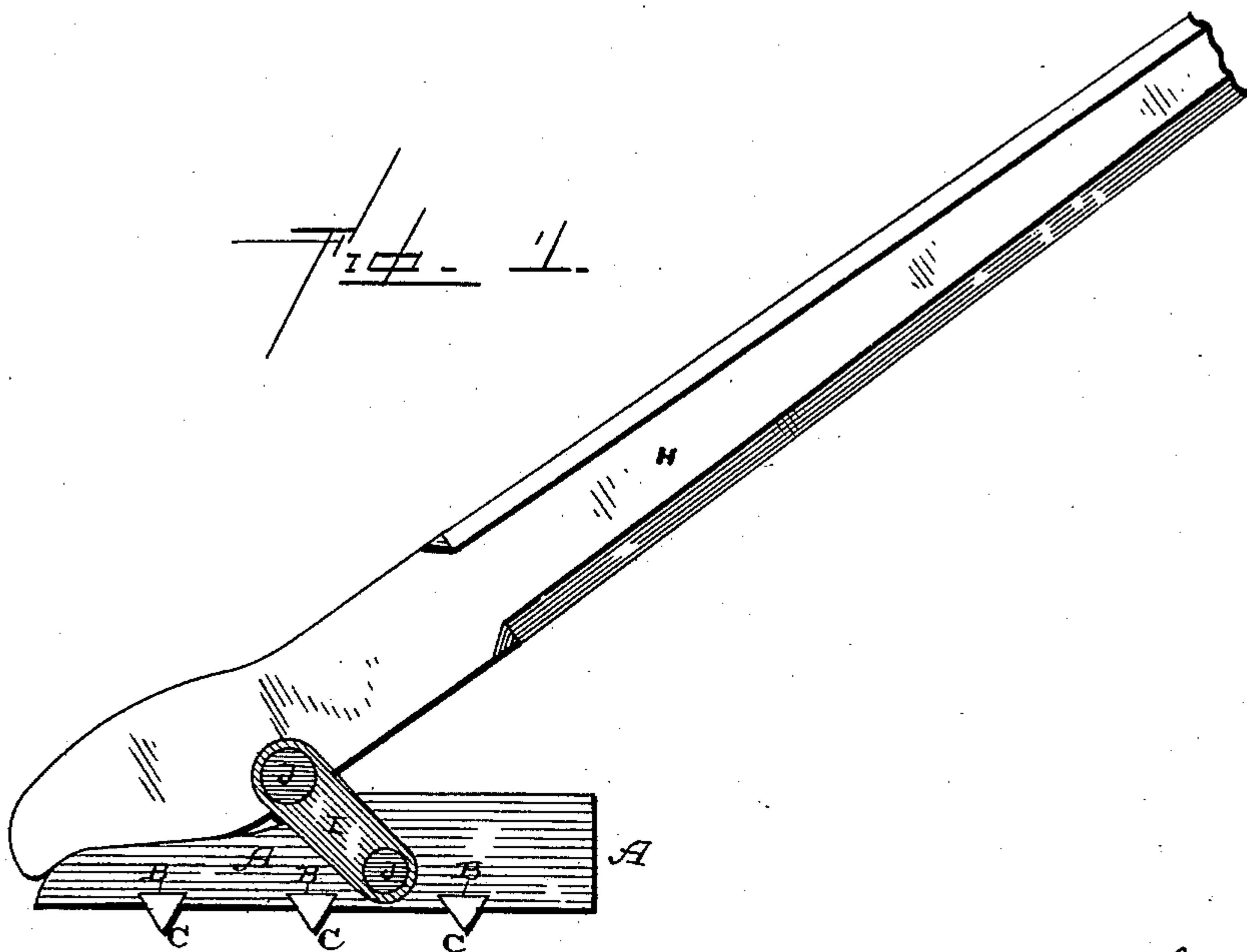


(No Model.)

J. BIRD.  
CAR MOVER.

No. 384,502.

Patented June 12, 1888.



WITNESSES,  
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# UNITED STATES PATENT OFFICE.

JOHN BIRD, OF WARREN, ILLINOIS.

## CAR-MOVER.

SPECIFICATION forming part of Letters Patent No. 384,502, dated June 12, 1888.

Application filed March 22, 1888. Serial No. 268,090. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN BIRD, of Warren, in the county of Jo Daviess and State of Illinois, have invented certain new and useful Improvements in Car-Movers; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in car-movers; and it consists in the combination of a shoe, provided with a seat upon its top for the fulcrum of the operating-lever to work in, connecting-straps, and the sharp-edged pieces of steel which are inserted in the bottom of the shoe for the purpose of biting into the surface of the rail and holding the shoe in position, as will be more fully described hereinafter.

The object of my invention is to connect the lever to the shoe by means of connecting-straps, and form upon the top of the shoe a bearing for the fulcrum of the lever to catch in and thus prevent the lever from moving backward upon the shoe.

Figure 1 is a side elevation of a car-mover which embodies my invention. Fig. 2 is a vertical section of the same.

A represents the shoe, which will be of any suitable length or width, and which is provided with a suitable number of dovetailed recesses, B, in its under side to receive the triangular-shaped pieces of hardened steel C, which are intended to bite into the top of the rail, and thus hold the shoe in place. By making these pieces of steel C of the same width upon all three of their sides and making them interchangeable in the recesses B, after one edge has become dulled or injured in any way the piece can be removed and turned partially around, and thus a new edge brought into use. Three of these sharpened pieces are here shown; but I do not restrict myself to any particular number, for this may be varied at will. More than one piece is necessary in order to hold the shoe rigidly in place while a heavy car is being moved. Upon

the top of this shoe is formed the concave shoulder or bearing D, against which the curved fulcrum G of the lever H bears. This lever H is loosely connected to the shoe by the connecting-links I and pivotal bolts J, and these links allow a free limited movement between the shoe and the lever; but the fulcrum by catching against the shoulder prevents any backward movement of the lever in relation to the shoe. This fulcrum, when the point of the lever has been made to catch under the car, will serve as the pivotal point upon which the lever turns, while the shoulder upon the shoe prevents the lever from giving backward before the strain which is brought to bear upon the lever. The links allow the lever a free pivotal movement, but keep it always in contact with the shoe and prevent the two from becoming separated at any time.

In using this car-mover, the outer end of the lever is raised to its full extent, and then the shoe and the lower end of the lever are forced along the rail under the edge of the wheel, and then, when a downward pressure is exerted upon the outer end of the lever, this pressure is transferred through the fulcrum to the central part of the shoe, so as to bring the pressure equally upon all of the sharp-edged steel pieces C, which are thus made to bite equally into the rail and prevent the shoe from moving backward. Where the fulcrum of the lever does not bear directly over the center of the steel pieces which are to bite into the rail, the shoe is liable to slip upon the rail and give backward under the heavy pressure which is necessary to move a heavily-loaded car.

The action of the steel pieces C is to bite into the surface of the rail, so as to prevent the shoe A from slipping backward, as described in the specification. In moving heavy cars, each one of these steel pieces leaves a perceptible mark upon the upper edge of the rails where they have bitten into the rail.

Having thus described my invention, I claim—

1. The combination of a shoe having a shoulder or bearing formed upon its top with the lever having a fulcrum which catches against



the shoulder or bearing, the connecting-links, and the steel pieces which are inserted in the bottom of the shoe, substantially as shown.

2. The combination of the shoe provided with sharp edges to bite into the rail and a shoulder or bearing upon its top with the lever which is loosely connected by means of links with the shoe, and which is provided

with a fulcrum to catch against the shoulder on the shoe, substantially as set forth.

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

JOHN BIRD.

Witnesses:

ROB. HAWLEY,

JAMES BAYNE.