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F. MERTSHEIMER.

CAR MOVER.

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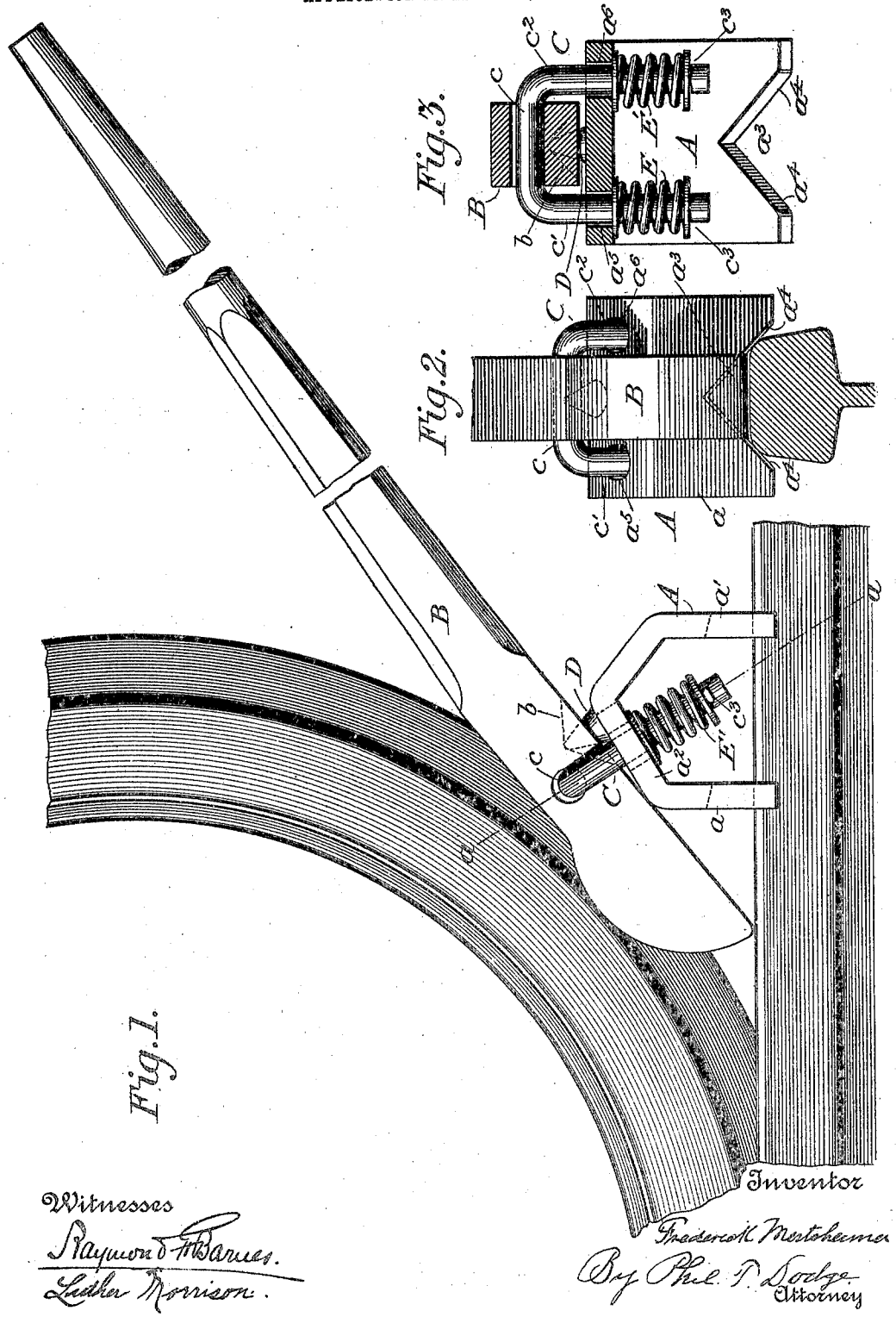

Witnesses
Raymond F. Barnes.
Ludlow Morrison.

Inventor
Frederick Mertsheimer
By Phil. T. Dodge
Attorney

UNITED STATES PATENT OFFICE.

FREDERICK MERTSHEIMER, OF KANSAS CITY, MISSOURI.

CAR-MOVER.

No. 816,873. Specification of Letters Patent. Patented April 3, 1906.

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To all whom it may concern:

Be it known that I, FREDERICK MERTSHEIMER, of Kansas City, county of Jackson, and State of Missouri, have invented a new and useful Improvement in Car-Movers, of which the following is a specification.

This invention relates to car-movers of the type embodying a bar or lever adapted to fulcrum or pivot on a fulcrum-block resting on the tread of the rail and connected with the bar, so that as the bar is advanced in following up the car-wheel the fulcrum-block will be carried along with it to take a new grip on the rail.

The invention consists, mainly, of an improved connection between the lever and the block which while permitting a pivotal motion of the lever with reference to the block in order to engage the car-wheel and force the car forward will when the bar is advanced along the rail to follow up the car hold the block closely up against the bar and cause it to maintain its operative relation to the bar ready for a new action of the latter, thereby avoiding the necessity of using the hand or foot to set the block in proper position.

The invention consists also in the details of construction and combination of parts hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of my improved device, a portion of the car-wheel, and a portion of the rail, the said device being shown in operative relation ready for action on the car-wheel. Fig. 2 is a front elevation of the same. Fig. 3 is a transverse sectional elevation on the line *a a* of Fig. 1.

Referring to the drawings, my improved device comprises as its essential features a fulcrum block or frame A, adapted to rest on the tread of the rail, a bar or lever B, sustained by the block and adapted at its lower end to engage the tread of the car-wheel, and a connection C between the lever and the block adapted to hold the parts together and permit the lever to be moved relatively to the block in its action on the car-wheel.

The fulcrum-block S is in the form of an arched plate, comprising a front upright limb a, a rear upright limb a', and a forwardly and downwardly sloping connecting portion a^2, the lower ends of the limbs being formed with notches a^3, provided with knife-edges a^4, adapted to span the sides of the tread of the rail, as shown in Fig. 2, and thus maintain for the time being a firm grip thereon. At its upper elevated end the connecting portion a^2 of the fulcrum-block has rising from it a fulcrum-pin D, on which the lever B is seated so as to rock or fulcrum, the said lever being formed on its under side with a counterbore or conical socket b to receive the pin and prevent a relative slip of the parts, as the lever is moved up and down in its action against the car-wheel.

The connection C between the lever and block constitutes the main feature of my invention and consists of a U-shaped link having its horizontal portion c extending loosely through a horizontal hole in the lever and having its two legs c' and c^2 extending downwardly through openings a^5 and a^6 in the sloping connected portion a^2 of the fulcrum-block, which legs are encircled by spiral springs E E', bearing at their upper ends against the under side of the block and bearing at their opposite ends against pins c^3, extending through the legs at their lower ends, the tendency of the springs when thus arranged being to hold the block yieldingly and close up against the lever, with the fulcrum-pin engaged in the socket of the lever.

In the operation of the device the fulcrum-block is set squarely on the tread of the rail, with the lower end of the lever engaging at its upper surface against the tread of the car-wheel. The upper end of the lever being depressed, it will fulcrum on pin D, causing its lower end to rise and forcing the wheel forward, the spiral springs being compressed and placed under a tension as the legs of the link are drawn outward through the fulcrum-block. In advancing the device to take a new grip in following up the car-wheel the upper end of the lever is elevated until its lower end rests on the tread of the rail, and it is then slid forward on the rail until its lower end is again in position to engage the car-wheel, the spiral springs in the meantime expanding and acting to force the fulcrum-block up against the lever and maintain it there, so that when the block is lowered onto the rail it will occupy its proper operative relation to the lever, and the latter will be ready for action without further adjustment or set of the block. It is seen, therefore, that the springs will at all times when the pressure on the lever is relieved maintain the block closely up against the lever in its proper position for action of the lever on the car-wheel, thereby avoiding the necessity for using the foot or hand to position the block. The holes in the

block, through which the legs of the connecting-links extend, are elongated in the longitudinal direction of the block in order to permit the link to tip slightly in the pivotal action of the lever, so as to prevent the parts from binding.

The essence of the invention resides in the connection between the lever and fulcrum-block, which connection while permitting of a pivotal motion of the lever with reference to the block will maintain the latter close up against the lever, and thus insure its proper operative relation to the lever when the latter is moved up in following the car-wheel.

Having thus described my invention, what I claim is—

1. In a car-mover, the combination with a fulcrum member adapted to rest on the rail, of a coöperating lever adapted to engage the car-wheel and supported by and having a pivotal motion with reference to the fulcrum member, and a spring acting respectively on the lever and fulcrum member and tending to draw them together.

2. In a car-mover the combination of a fulcrum-block adapted to rest on the rail, a lever pivoted to said block and adapted to be engaged with the car-wheel, and means for holding the block yieldingly against the lever.

3. In a car-mover, the combination of a fulcrum-block a lever, a link connecting said parts pivotally, and a spring acting respectively against the block and link.

4. In a car-mover, the combination of a fulcrum-block, a lever adapted to fulcrum thereon, a link jointed to the lever and extending loosely through the block, and a spring encircling the link and bearing at one end against the block and at its opposite end against the link.

5. In a car-mover the combination of a fulcrum-block, a lever adapted to fulcrum thereon, a U-shaped link having its horizontal portion mounted loosely in the lever and having its legs extending loosely through the block, and spiral springs encircling said legs on the under side of the block, and bearing respectively against the block and legs.

6. In a car-mover, the combination of a fulcrum-block, a fulcrum-pin extending upwardly therefrom, a lever provided in its under side with a socket to receive the pin and movable relatively to the same on an axis coincident with the end of the pin, and a link connection between the lever and block.

7. In a car-mover, the combination of a fulcrum-block adapted to rest on the rail, a coöperating fulcrum-lever, one of said parts having a socket and the other a fulcrum-pin to enter the socket, the said lever being movable relatively to the block on an axis coincident with the end of the pin, and a connection between the lever and the block.

In testimony whereof I hereunto set my hand, this second (2d) day of January, 1906, in the presence of two attesting witnesses.

FREDERICK MERTSHEIMER.

Witnesses:

JAMES B. PECK,

FRED B. MERTSHEIMER.