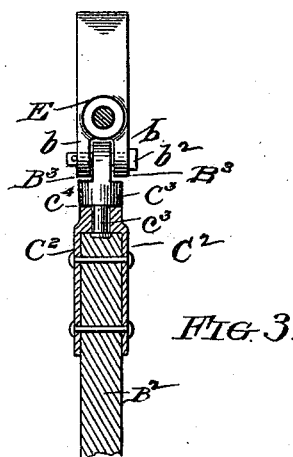
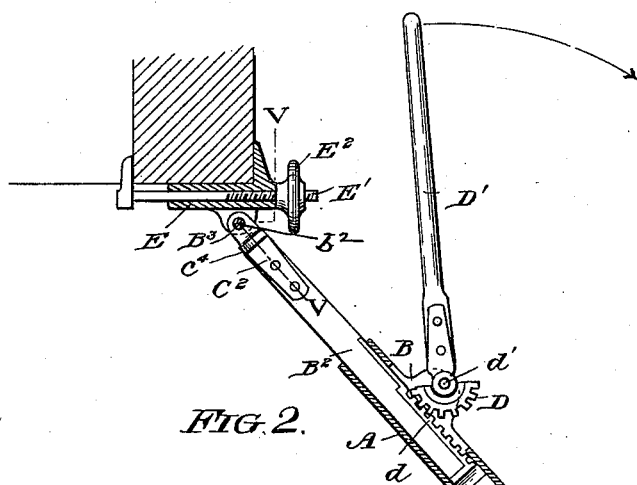
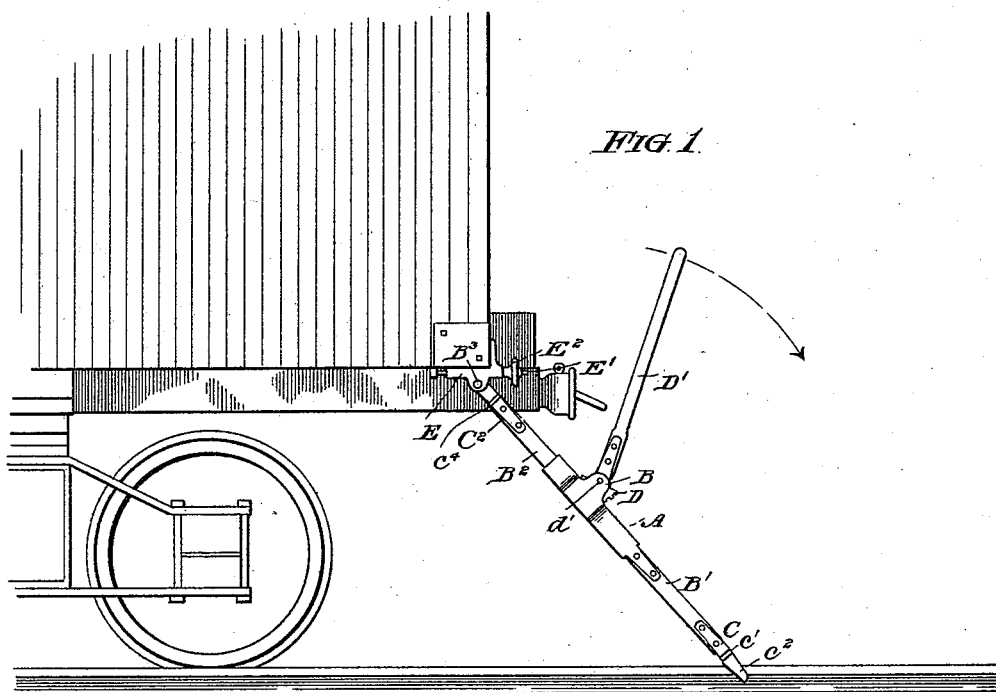


R. W. DRINKER.
CAR MOVER.

No. 455,035.

Patented June 30, 1891.



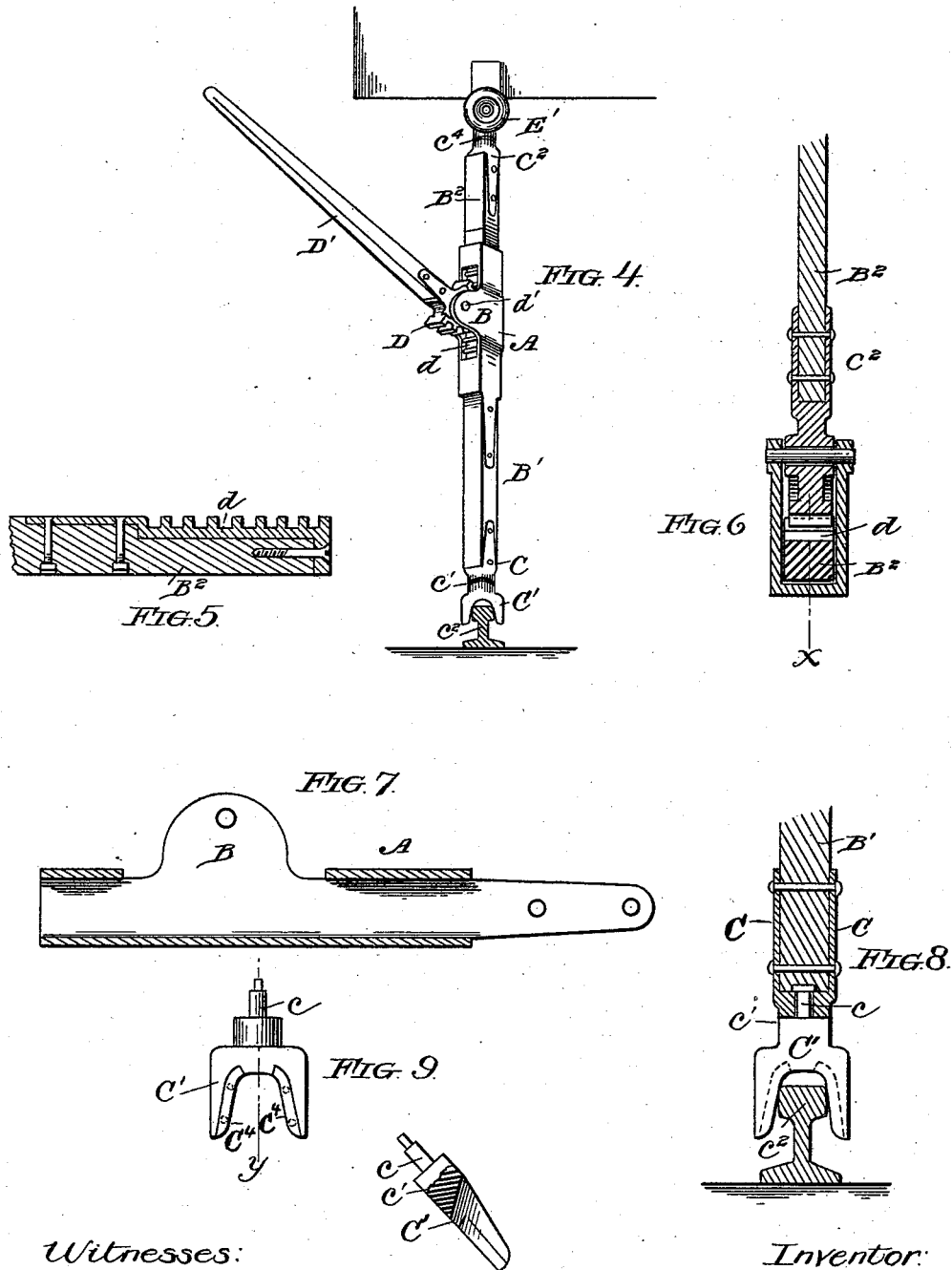
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Witnesses:

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FIG. 10.

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UNITED STATES PATENT OFFICE.

ROBERT W. DRINKER, OF KILBOURN CITY, WISCONSIN.

CAR-MOVER.

SPECIFICATION forming part of Letters Patent No. 455,035, dated June 30, 1891.

Application filed February 7, 1891. Serial No. 380,619. (No model.)

To all whom it may concern:

Be it known that I, ROBERT W. DRINKER, a citizen of the United States of America, residing at Kilbourn City, in the county of Columbia and State of Wisconsin, have invented certain new and useful Improvements in Car-Movers, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in devices for moving rail-cars and other heavy bodies; and it consists, essentially, of the mechanism set forth in the annexed drawings, in which—

Figure 1 is a perspective side elevation of my invention as applied to the moving of a rail-car. Fig. 4 is an upright elevation of same, and Figs. 2, 3, 5, 6, 7, 8, 9, and 10 are parts of same in detail and section in detail.

Like letters indicate like parts throughout the several views.

A is a rectilinear sleeve or tube having an opening on one side near the middle provided with the lugs B on the side of said opening, as shown, said lugs being provided with holes through their sides for a bolt to secure the cogged segment D therein. The lower end of said sleeve or tube is adapted to receive the upper end of the rectilinear bar or piece of timber B', the upper end of said bar being securely bolted and fastened in the lower end of said sleeve or tube, as shown in the drawings. The lower end of said bar B' is embraced and securely bolted into the shoe C, as shown, said shoe C being provided with a socket in its bottom adapted to receive a spur or spindle from the square shouldered shank *c* of the bifurcated foot C', the sole of said shoe resting upon said square shoulder *c*, said spur and said socket forming the joint or swivel *c'*, said spur or spindle being securely fastened in said socket to prevent its being pulled out, as shown. The inner bifurcated edges of said foot C' are beveled and shod or armed with the steel blades C⁴, which are so constructed and attached that they may be removed for sharpening, if required. This novel feature of construction is illustrated and shown by Figs. 9 and 10 of the drawings.

Said foot is adapted to embrace the rail and affords sufficient friction to prevent slipping. The upper end of said sleeve or tube A is

adapted to receive the bar B², the lower end and upper side of the lower end of said bar being provided with the rack *d*, which is securely bolted thereon, as shown, said bar and rack being adapted to slide down into said sleeve or tube A to meet the end of said bar B', and the upper end of said bar B² is embraced in the shoe C² and securely bolted and fastened therein. Said shoe C² has a socket in its sole adapted to receive the spur or spindle *c*³ from the wrist C³, having a square shoulder, which rests upon the sole of said shoe C², said spur or spindle being securely fastened in said socket, so as not to be drawn out, as shown, said spur and socket forming the joint or swivel *c*⁴ between the wrist and said shoe. The upper end of said wrist C³ is provided with a hole, and is held by the bolt *b*² between the lugs *b*, and forms a hinge upon the under side of the movable jaws E, said bolt passing through corresponding holes in said lugs and wrist forming the hinge-joint B³.

D is a cogged segment, which is held between the lugs B by the bolt *d'*, which passes through said segment D and said lugs, the cogs upon its periphery being adapted to engage the cogs upon the side of said bar B² within said sleeve or tube A, as shown in the drawings.

D' is a lever, which is securely bolted and fastened into said cogged segment D and by means of which said segment is operated.

E are movable jaws adapted to attach the machine to the car. Said jaws are operated by means of the screw E' and the wheel E², as shown. The hinge B³ upon the under side of said jaws affords the necessary accommodation of movement, so that the body of the machine can be placed at any required angle with the foot C' resting upon the rail, the prongs of the bifurcation embracing the rail, and the joints or swivels *c'* and *c*⁴ allow the body of the machine to be revolved, so as to bring the lever D' in any required position for operation. The said bars B' and B² are placed end to end in the same plane and operate longitudinally against each other in a right line, owing to the fact that they are connected together by the rectilinear sleeve or tube A in the manner shown, said bar B' being bolted into the lower end of said sleeve or tube and said bar B² being operated within

said sleeve or tube by means of the rack d and the cogged segment D and the lever D' , as hereinbefore shown and described.

The letter v , Fig. 2, indicates the position from which the section Fig. 3 is taken, and y , Fig. 9, indicates the position from which the section Fig. 10 is taken.

Operation: The several parts of the invention hereinbefore described and shown in the drawings having been provided and adjusted, the operation is extremely simple. By forcing down the lever D' the cogs on the periphery of the cogged segment D engage the rack d upon the bar B^2 within the sleeve or tube A, carrying said bar upward and forward with great force against the attaching-jaws E and the car to be moved, sending said car forward upon the rail. Now when the lever D' is raised after the downward stroke the sleeve or tube A and the attached bar B' are raised, said sleeve A sliding up over the bar B^2 , the foot C' following automatically upon the rail—that is, the bar B^2 being attached to the car in the manner shown, the sleeve or tube and the bar B' , with the bifurcated foot C' , (all connected in the manner shown,) must move up together, since the bar B' cannot come down, and hence said sleeve or tube, the bar B' , and the foot C' become automatic in action as said lever is moved up and down, the foot C' moving automatically forward by steps upon the rail as the car is propelled forward.

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

1. In a car-mover, the combination of an upper and lower bar placed end to end in a right line in the same plane, and a rectilinear sleeve or tube having an opening in one side near the middle and provided with strong lugs or ears, a rack securely bolted and fastened to the upper side of said upper bar near its lower end, and the upper end of said lower bar being securely bolted into said sleeve or tube, the cogged segment secured between said lugs or ears by a bolt, the cogs upon the periphery of said segment being adapted to engage the rack upon said upper bar within said sleeve or tube, the lever securely bolted to said segment and by means of which said segment and said bars are actuated, the upper and lower joints or swivels, the hinge on the under side of the connecting-jaws formed by the wrist, lugs, and bolt, the bifurcated foot, and the steel blades upon the inner edges of said foot, as and for the purposes set forth and described.

2. In a car-mover, the combination of two rectilinear bars placed end to end in the same plane and a sleeve or tube, a rack secured to

the upper bar near its lower end, and the upper end of the lower bar being securely bolted into said sleeve or tube, said bars operating against each other longitudinally in the same line, said sleeve or tube having an opening on one side near the middle provided with strong lugs or ears, the cogged segment held between said lugs or ears by a securing-bolt, the cogs upon the periphery of said segment being adapted to engage the rack on said upper bar within said sleeve or tube, the lever securely bolted to said segment and by means of which said segment is operated, the shoe provided with a socket embracing the lower end of said lower bar, the bifurcated foot having the spur or spindle securely fastened into said socket and forming a joint or swivel, the steel blades upon the inner edges of said bifurcated foot, the shoe provided with a socket embracing the upper end of said upper bar, the wrist provided with a spur or spindle and having a square shoulder resting upon the upper shoe, said spur or spindle being securely fastened into said socket and forming a swivel, the lugs upon the under side of the connecting-jaws, said lugs and said wrist being connected by a securing-bolt and forming a hinge, and the securing-jaws actuated by the screw and wheel, as and for the purpose set forth and described.

3. In a car-mover, the combination of the two rectilinear bars B' and B^2 , placed end to end, and the sleeve or tube A, said bars operating longitudinally against each other through said sleeve in the same plane, the upper end of said lower bar B' being bolted and securely fastened into the lower end of said sleeve or tube, and the lower end of said bar B' being embraced and securely bolted into the shoe C, having a socket adapted to receive a spur or spindle from the shank of the bifurcated foot C' , having the square shoulder c , said shoe resting upon said shoulder c , and said socket and spur or spindle forming the swivel c' , said bifurcated foot C' being provided with the steel blades C^1 , the lugs B on the side of an opening in the side of said sleeve or tube, said opening adapted to receive the cogged segment D, the lever D' , the rack d , the bolt d' , the hinge B^3 , the wrist C^3 , the spur c^3 , the shoes C and C^2 , the joint or swivels c' and c^1 , the connecting-jaws E, the screw E' , and the wheel E^2 , as and for the purposes substantially as set forth and described.

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

ROBERT W. DRINKER.

Witnesses:

A. D. BOWMAN,
E. C. BAYERLEIN.