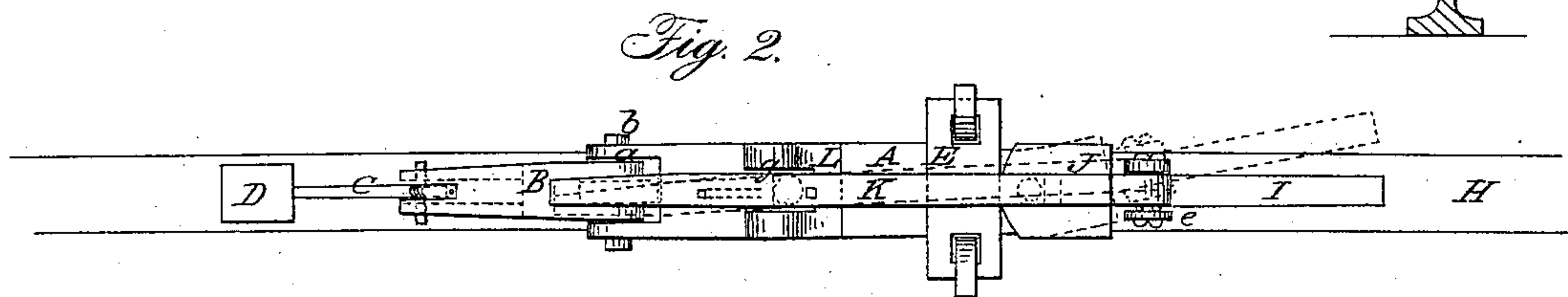
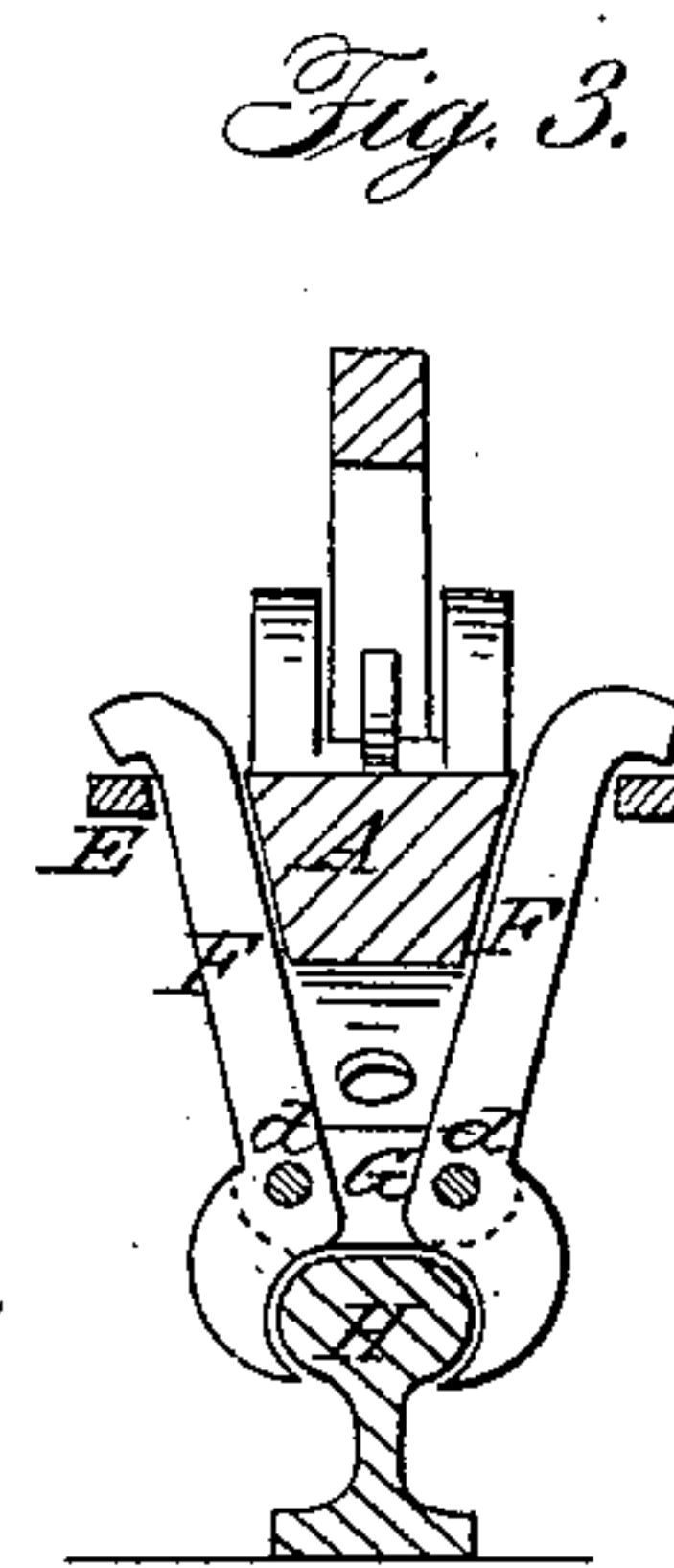
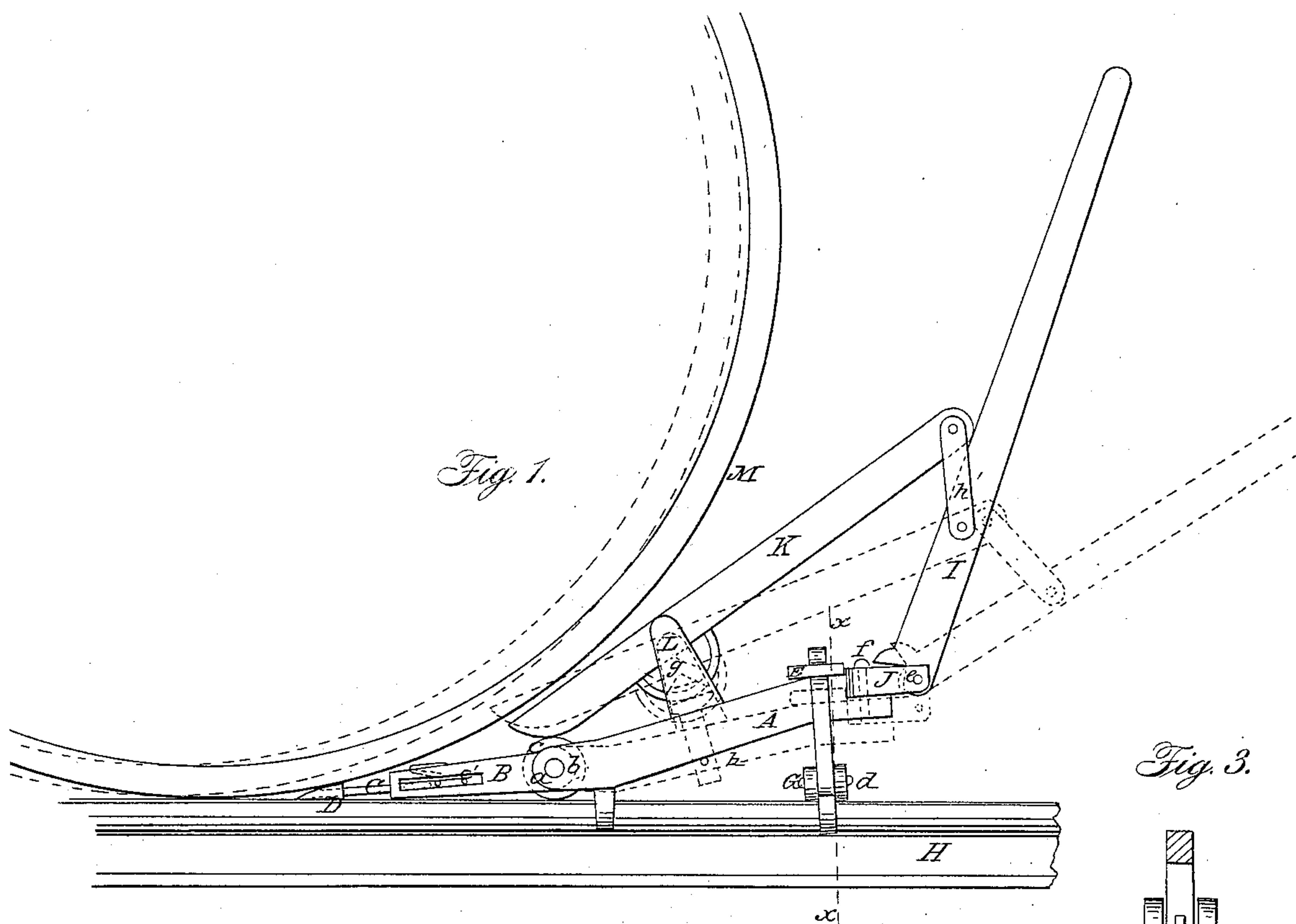


H. N. De GRAW.

Car Starter.

No. 14,154.

Patented Jan. 29, 1856.



UNITED STATES PATENT OFFICE.

H. N. DEGRAW, OF PIERMONT, NEW YORK.

MACHINE FOR REPLACING RAILROAD CARS.

Specification of Letters Patent No. 14,154, dated January 29, 1856.

To all whom it may concern:

Be it known that I, HENRY N. DEGRAW, of Piermont, in the county of Rockland and State of New York, have invented a new and Improved Implement for Moving Locomotives and Cars upon the Track; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a side view of my improvement represented applied to the wheel of a locomotive. Fig. 2, is a plan or top view of ditto. Fig. 3 is a transverse vertical section of ditto, (α), (α), Fig. 1, showing the plane of section.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists in a novel combination, for operation together, of a self adjusting packing wedge, propulsive lever or levers with fulcrum attached and rail gripping jaws, all constituting the one implement and whereby the locomotive and cars may be moved upon the track with the greatest facility, the wheels being retained in proper place as they are moved at each operation of the levers and the implement also firmly secured to the rail.

To enable others skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A, represents a bar of suitable dimensions to one end of which a short bar B, is attached by a joint (a), the pin (b), of said joint having a small roller or wheel (c), upon it which is fitted in a slot in the end of the bar B.

C, is a rod or bar which works horizontally in the outer end of the bar B, the opening in the bar, B, in which the rod C, is fitted and works, having an india rubber or other spring (c') within it which acts against the inner end of the rod C, and has a tendency to keep it outward from the block B. To the outer end of the rod C, a wedge D, is fitted. The wedge is not permanently attached to the rod C, but is fitted loosely upon it.

To the outer end of the bar A, a short cross piece E, is attached having apertures through its ends in which jaws F, F, are fitted said jaws being attached by pivots (d), to a short bar G, underneath the bar A, but detached from it. The bar A, is directly

between the two jaws F, F, and its sides are somewhat beveled as shown in Fig. 3. The lower ends of the jaws F, F, are curved to correspond to the form of the rail H, which they grasp when the implement is used as will be presently shown.

I, is a lever the lower end of which is attached by a joint (e) to a block, J, which is secured by a bolt (f) to the outer end of the bar, A, the block J, being allowed to turn on the bar A.

K, is a lever which rests upon a knife edged bearing (g), in a head L, which is allowed to turn on the bar A, the head having a rod or pin (h), attached to its under side which rod or pin passes through the center of the bar see Fig. 1. The outer end of the lever, K, is connected by a link (h') to the lever, I.

Operation: The bar, A, is placed by the operator upon the rail H, directly in front or behind one of the wheels M, of a locomotive or car, and the wedge D, is forced underneath the wheel and the rod C, is forced in the end of the bar, B, the spring (c') being compressed as the wedge is shoved underneath the wheel. The jaws F, F, of course are placed over the rail H, and the lever, I, is then brought downward and the inner or lower end of the lever, K, will be forced upward and as said lever bears against the wheel, M, it will be turned a certain distance corresponding to the length of the stroke or movement of the lever K. As the wheel M, moves the wedge will follow, it being forced out from the block B, by the spring (c') and the wedge D, will hold the wheel in its position while the lever I, is elevated to be again depressed to move the wheel. As the lever, I, is depressed the bar A, will spread the upper ends of the jaws F, F, and cause their lower ends to bind firmly against the sides of the rail H, thus securing the implement firmly to the rail. When the lever I, is raised the bar A, is shoved forward or toward the wheel in order to force the rod C, into the block B, so that the wedge will follow the wheel when it is again moved. The levers I, K, may when necessary be moved a certain distance laterally in consequence of the block J, and head L, so that they will not interfere with adjoining wheels.

The above implement is intended to be used for moving disabled locomotives upon the rails and also cars in cases where they

require to be moved short distances in the vicinity of machine shops or upon switches and turnouts.

The invention is simple and effective and 5 cost of manufacture trifling.

I do not claim as new any of the devices, separably considered, making up this combination; but

I do claim as new and useful, and desire 10 to secure by Letters Patent,—

The combination of the self adjusting packing wedge (D) attached to an elastic or yielding rod (C), with the bars (B and A), operating levers (I, K), and gripping 15 jaws (F F), constructed and arranged for operation together in such a manner that, while upon the depression of the hand lever, which effects the movement of the car or

locomotive wheel, the gripping jaws are made to firmly grasp the rail to secure a 20 steady fulcrum for the operation of the lever, the packing wedge follows up the movement of the wheel to retain it in the place to which it has been moved; and upon raising the hand lever the gripping jaws are 25 released, and the whole implement may be run forward on the rail for a further joint action of the self adjusting packing wedge and grip of the jaws as a prop, to follow up the work, repeatedly and progressively, as 30 set forth.

H. N. DEGRAW.

Witnesses:

ISAAC M. DEDERER,
E. ELLEN DEDERER.