

No. 611,921.

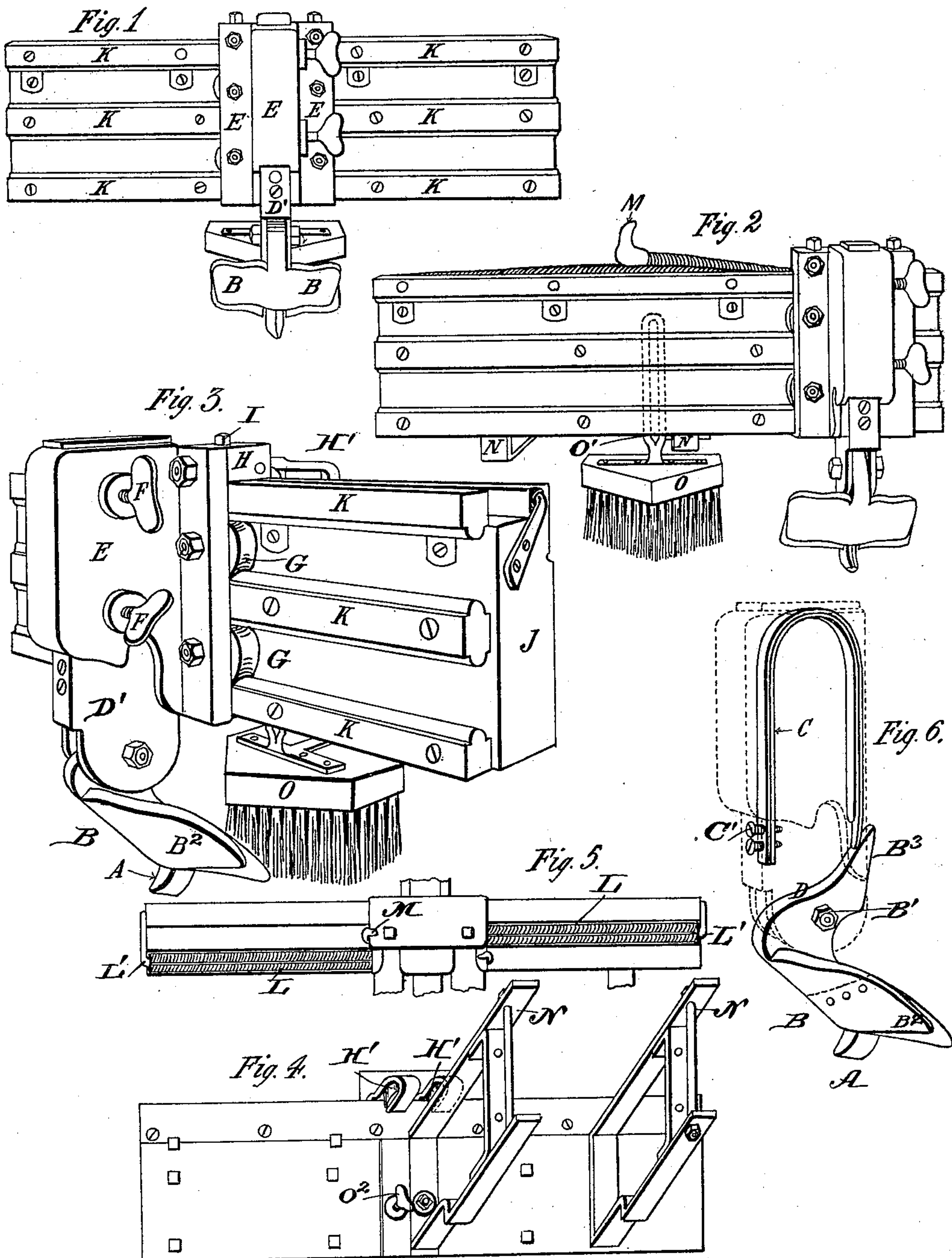
Patented Oct. 4, 1898.

L. F. MEYER.
GIRDER RAIL GROOVE CLEANER.

(Application filed Nov. 5, 1897.)

(No Model.)

2 Sheets—Sheet I.



WITNESSES:

W. A. Bloude
P. B. Furman

INVENTOR

Louis F. Meyer

BY *Munn & Co.*

ATTORNEY.

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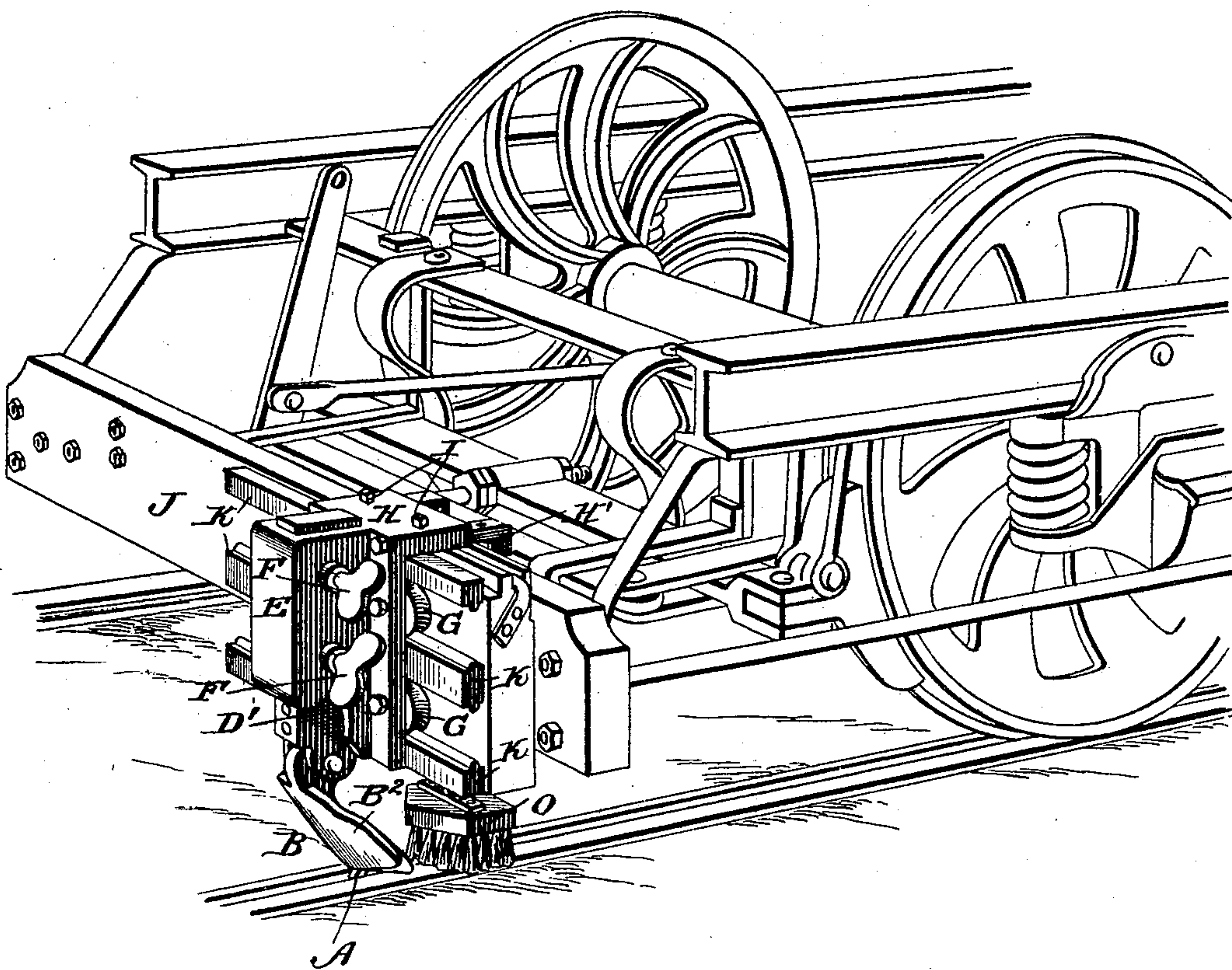
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2 Sheets—Sheet 2.

Fig. 7.



WITNESSES:

W. S. Blondel.
P. B. Turpin.

INVENTOR

Louis F. Meyer.

BY *Munn & Co.*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

LOUIS F. MEYER, OF RICHMOND, VIRGINIA.

GIRDER-RAIL-GROOVE CLEANER.

SPECIFICATION forming part of Letters Patent No. 611,921, dated October 4, 1898.

Application filed November 5, 1897. Serial No. 657,559. (No model.)

To all whom it may concern:

Be it known that I, LOUIS F. MEYER, residing at Richmond, in the county of Henrico and State of Virginia, have invented a new and useful Improvement in Girder-Rail-Groove Cleaners, of which the following is a specification.

My invention is an improvement in cleaners for grooved girder-rails, and has for an object to provide a cheap and practicable cleaner which will not easily get out of order and in which the only part subject to wear may be replaced at a small cost and by which to secure a clean smooth track which will prevent the bumping and jolting complained of by the traveling public, will avoid the frequent repair of motors and armatures necessitated by the use of a dirty rail, besides dispensing with the services of a force of rail-cleaners, and doing the work more thoroughly and satisfactorily than is ordinarily accomplished by hand.

My invention consists in certain novel constructions and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a front view of my cleaner with the plow in normal position. Fig. 2 is a similar view with the plow thrown to one side, as occurs in rounding a curve. Fig. 3 is a front perspective view of my cleaner. Fig. 4 is a rear perspective view of the cleaner. Fig. 5 is a top plan view of the cleaner. Fig. 6 is a detail perspective view showing the plow and its actuating-spring, and Fig. 7 is a perspective view showing my cleaner in position for use.

In carrying out my invention I provide a plow B and a brush O, arranged in rear of said plow, and support said parts so they may be adjusted vertically to properly set them for operation, and arrange the plow B so it may yield laterally to properly follow the curves in the road, while the brush O is held from lateral movement, so it will not follow the rail on the curves, but will clear such rail, so the brush will not remove the oil or other lubricant commonly used on the curves of rails.

In the construction shown I provide a main frame or block J, which in practice is secured

by clamps N upon the guard-beam of the car-truck, as will be understood from Fig. 7. This block J forms a track for the carriage E, being provided with rails K, upon which the rollers G of said carriage move, as best shown in Fig. 3. As shown in said figure, the carriage may move laterally upon the block J and is held to said block by the rollers G and by an overhanging bracket H, which projects rearwardly from the front to the rear of the block J and has rollers H', operating in rear of the said block J, as shown in Figs. 3 and 4. Where desired, screws I may be used to regulate the brackets H.

In connection with the carriage E, which forms a support for the plow, as presently described, I provide spring devices by which said plow is yieldingly held as to its lateral movement. These spring devices are preferably coil-springs L, held at one end L' to the block J, extending at their other ends past the carriage E and provided with hooks M, engaging with said carriage and preferably with its brackets H, as shown. These springs act upon the carriage in opposite directions, and so tend to hold it normally about midway between the ends of the block J, as shown in Fig. 1, and yet permit it to yield laterally in either direction, as will be understood from Fig. 2. The carriage E is socketed to receive the hollow standard D', to which the plow B is pivoted at B'. Such standard D' is adjustable vertically in the carriage E and may be held in any adjustment by the set-screws F.

The plow B is formed with a diamond point A and with the wings B², which operate to keep the groove clean and deposit the rubbish on the sides of the rail clear of the car-wheel. In rear of the pivot B', I provide the plow with an extension B³, which engages the free end of a bow-spring C, which is fitted in and held at C' to the hollow standard E', as will be understood from Fig. 6. By this means the point of the plow is held to its work, and yet can yield to avoid breakage in case of any unusual obstruction.

The brush O is arranged in rear of the plow and runs directly behind such plow when the latter is in its normal position, as when the car is running on a straight line. This brush O is a steel-wire brush pointed at its front

end and provided with a slotted shank O', by which it may be held by its clamp-screw O² in any desired vertical adjustment.

The necessity of a clean rail and its advantages in saving wear and tear on the running-gear and electrical appliances are too well known to require special references; but it will be seen that by my invention I provide a simple construction which can be readily applied to any ordinary car-truck and will effectually clean the girder-rail groove and will avoid removing the oil used at the curves of the rail, as before referred to.

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

1. A girder-rail-groove cleaner comprising a laterally-movable plow and a brush in rear thereof and held from lateral movement, the brush being arranged to run directly behind the plow when the latter is in normal position as when cleaning a straight rail, substantially as described.

2. A girder-rail-groove cleaner comprising the block or support having rails and the carriage engaging said rails and movable laterally thereon and the plow on said carriage, substantially as described.

3. A girder-rail-groove cleaner comprising the block the carriage movable laterally thereon and provided with the plow and the springs secured at one end to the block and connected

at their other ends with the carriage, substantially as described.

4. A girder-rail-groove cleaner comprising the block having guide-rails, the carriage having rollers engaging said rails, said carriage being provided with a plow, the brush supported on the block in rear of the said plow and the spring devices engaging said carriage, substantially as described.

5. In a girder-rail-groove cleaner, the combination of the body or block the laterally-movable carriage having a socket, the standard adjustable vertically in said socket, the plow pivoted to said standard and the spring carried by the standard and actuating the pivoted plow, substantially as described.

6. The improved girder-rail-groove cleaner herein described consisting of the body or block having rails, the brush carried by said block, the carriage having rollers engaging the rail, said carriage being provided with a socket, the spring devices for resisting the lateral movement of the carriage, the hollow standard adjustable vertically in the socket of the carriage, the plow pivoted to the standard and a bow-spring engaging the plow, substantially as described.

LOUIS F. MEYER.

Witnesses:

JOHN SCHROEDER,
E. C. GARRISON.