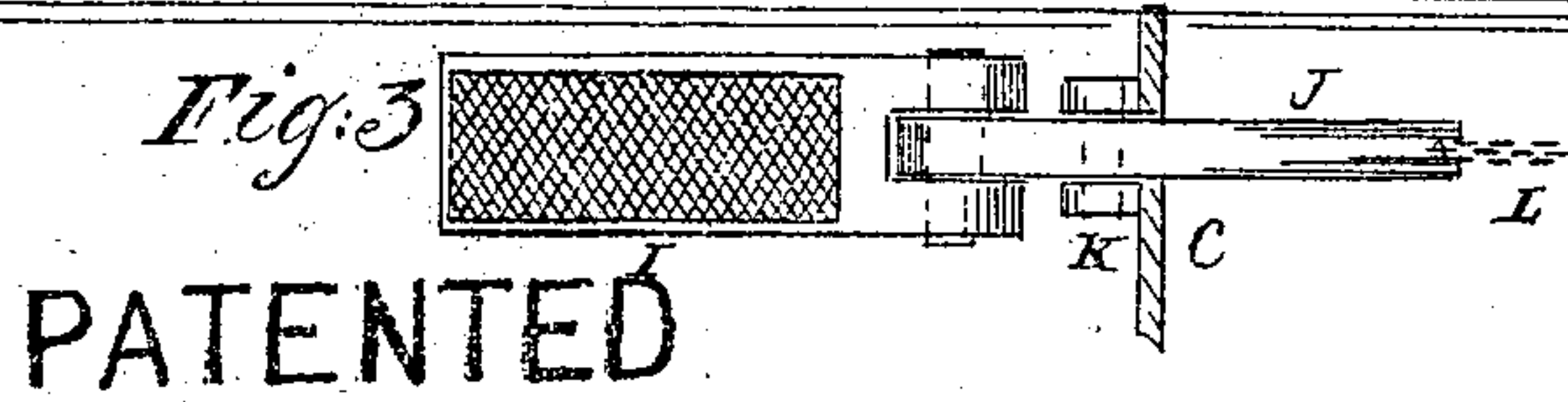
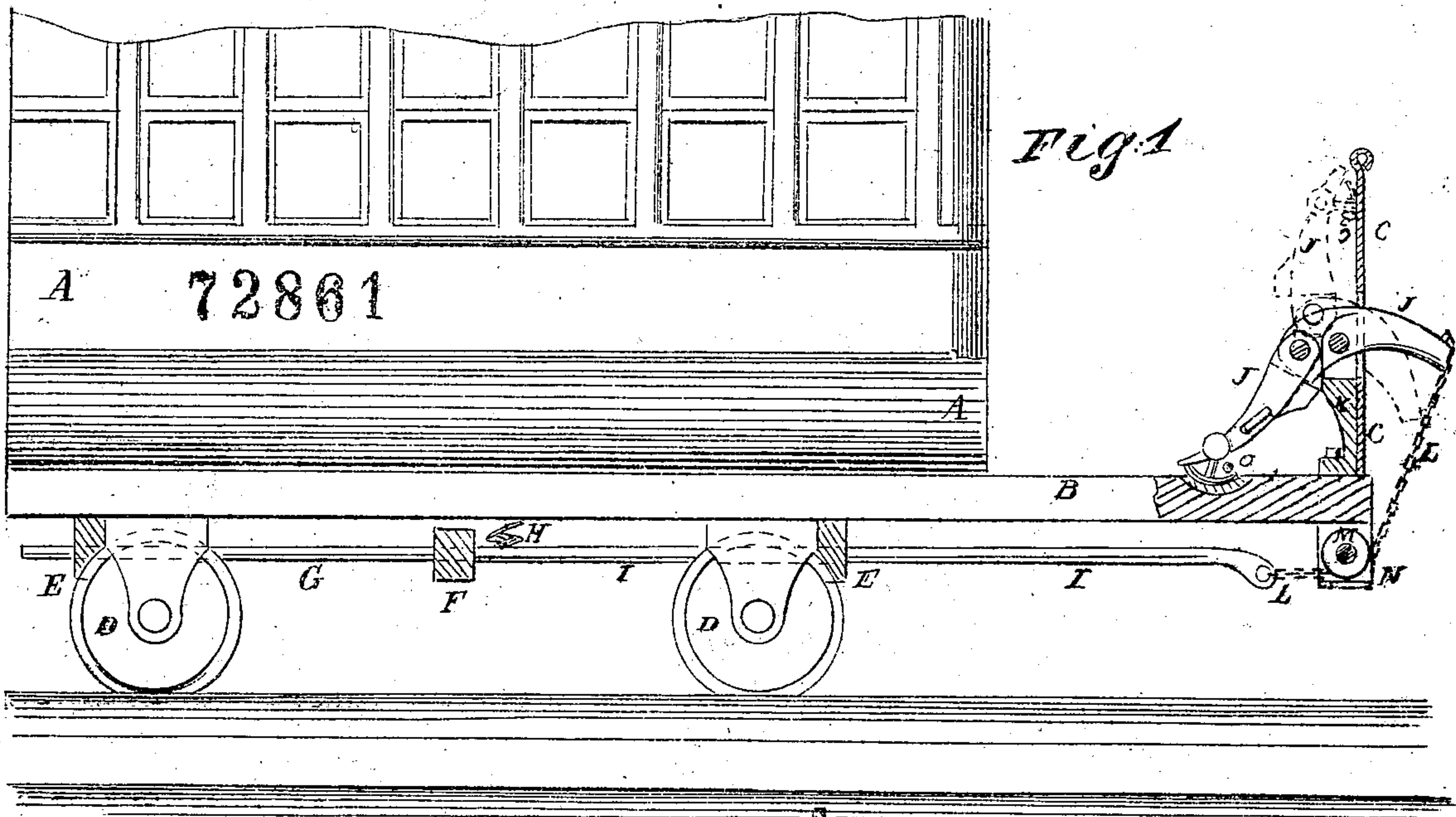
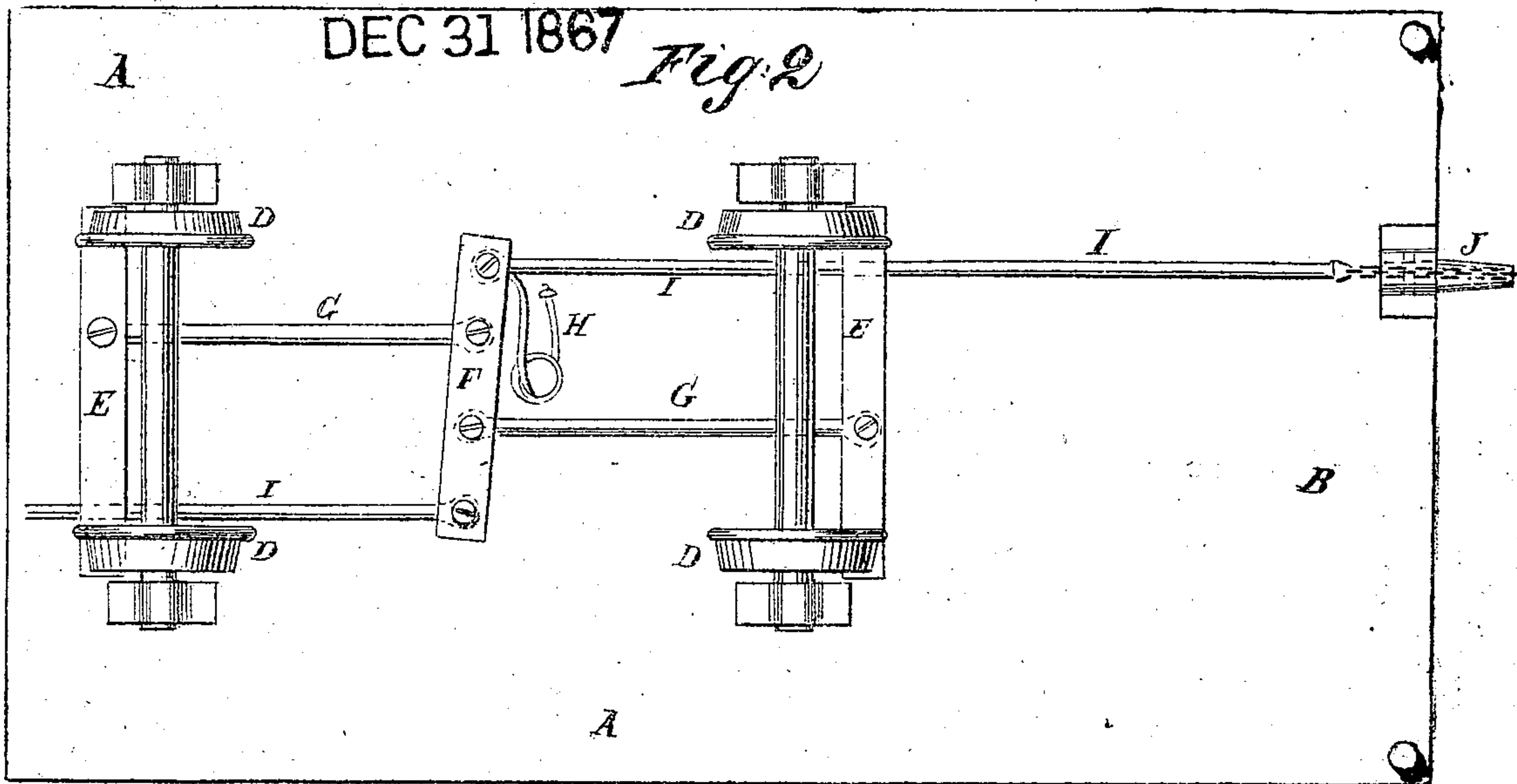


Katzenberg's Street-Car-Brake



PATENTED

DEC 31 1867



Witnesses,
W. C. Ashkett
Thos. Ince

Inventor:
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per Munn &
Attorneys

United States Patent Office.

JACOB KATZENBERG, OF NEW YORK, N. Y.

Letters Patent No. 72,861, dated December 31, 1867.

IMPROVED CAR-BRAKE.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JACOB KATZENBERG, of the city, county, and State of New York, have invented a new and useful Improvement in Street-Car Brakes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view, partly in section, of a street-car, to which my improvement has been attached.

Figure 2 is an under side view of the same.

Figure 3 is a detail top view of the foot-lever.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improvement in the manner of applying the brake which shall be simple in construction and effective in operation, and which will allow the brake to be applied with full force by the driver, while at the same time both his hands may be free to manage the horses; and it consists in the jointed foot-lever attached to the platform of the car, and constructed and connected with the brake, in the manner hereinafter more fully described.

A represents the body of a street-car; B is the platform; C is the platform-railing; D are the wheels; E are the brake-bars; F is the lever; G are the rods by which the power is communicated from the lever F to the brake-bars E. H is the spring by which the brake-bars E are moved back from the wheels D, and I is the rod by which power is applied to the lever F. About the construction of all these parts there is nothing new. J is the foot-lever, which is pivoted to supports K, attached to the platform B or to the railing C, or to both. The forward end of the lever J projects through the platform-railing C, and is connected with the forward end of the bar or rod I by a short chain, L, which passes around the friction and guide-pulley M, pivoted to supports N, attached to the under side of the platform B. The inner part of the lever J is jointed, as shown in the drawing, in such a way that a shoulder formed upon the said jointed part may strike against the end of the other part when the said jointed part is pressed downward, while at the same time the said jointed part may be free to be moved upward, and may be turned up against the railing C out of the way when not required for use, as shown in red lines in fig. 1. The jointed part of the lever J is so formed as to furnish a good hold for the driver's foot in applying the brake. O is a small hook, pivoted to the edge or side of the jointed part of the lever J, which, when the said part is turned up out of the way, may be hooked into an eye attached to the railing C, to hold the said part in position, and prevent it from being jarred or shaken down. The hook O may also be used to hold the lever J when pressed down to apply the full force of the brake to the wheels. When not in use, the hook O may be hooked into an eye attached to the side or edge of the said jointed part of the lever J, to prevent it from swinging about. By means of the foot-lever J, the driver can apply the brake with his foot with any desired force, or with the whole power of the brake, while at the same time both his hands are free to be employed in the management of his horses.

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

The jointed foot-lever J, pivoted to supports K, attached to the platform B or railing C, or to both, and connected with the brake-rod I by a chain, L, passing around a friction-pulley, M, substantially as herein shown and described, and for the purpose set forth.

• The above specification of my invention signed by me, this third day of December, 1867.

JACOB KATZENBERG.

Witnesses:

WM. F. McNAMARA,
JAMES T. GRAHAM.