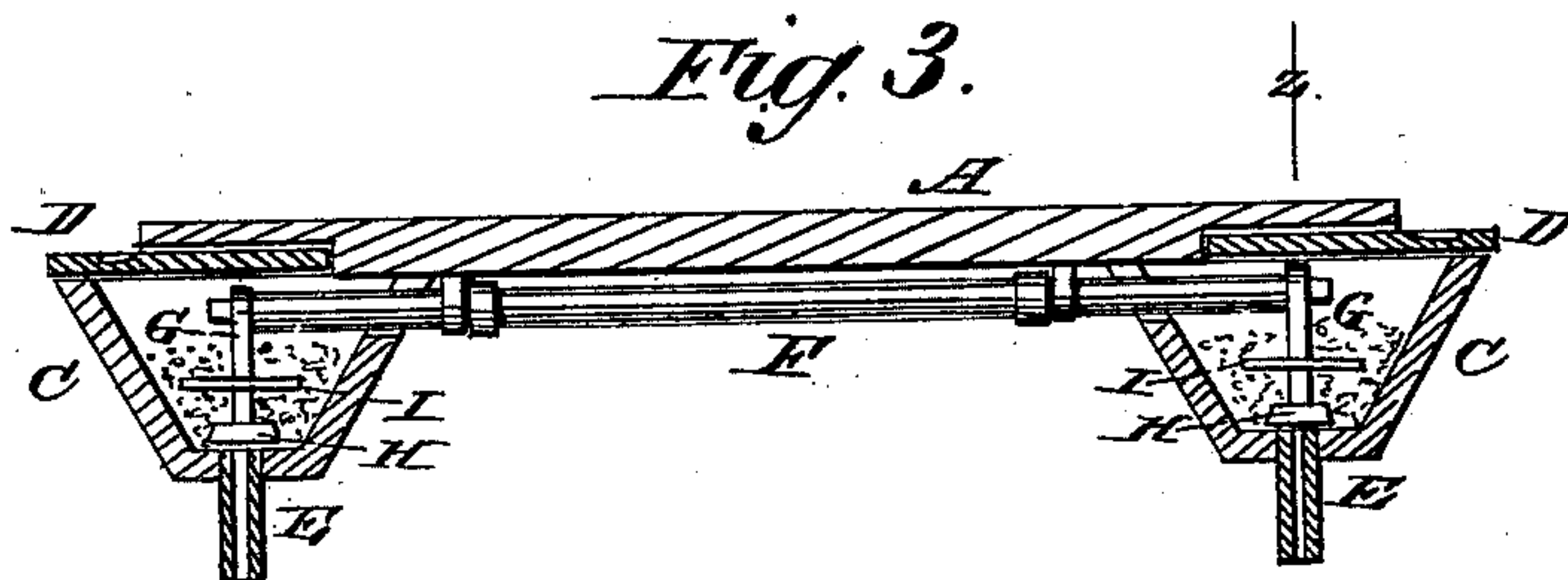
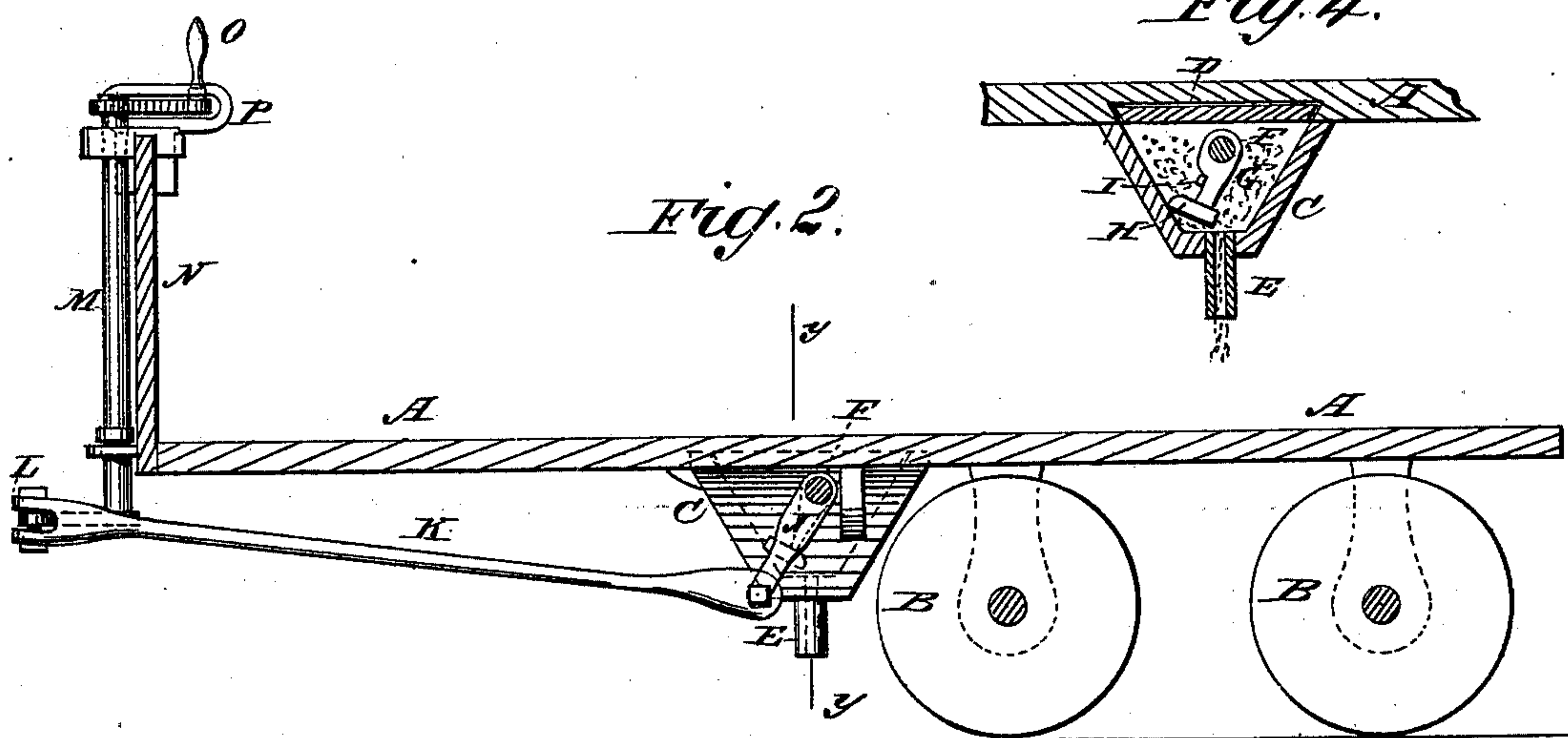
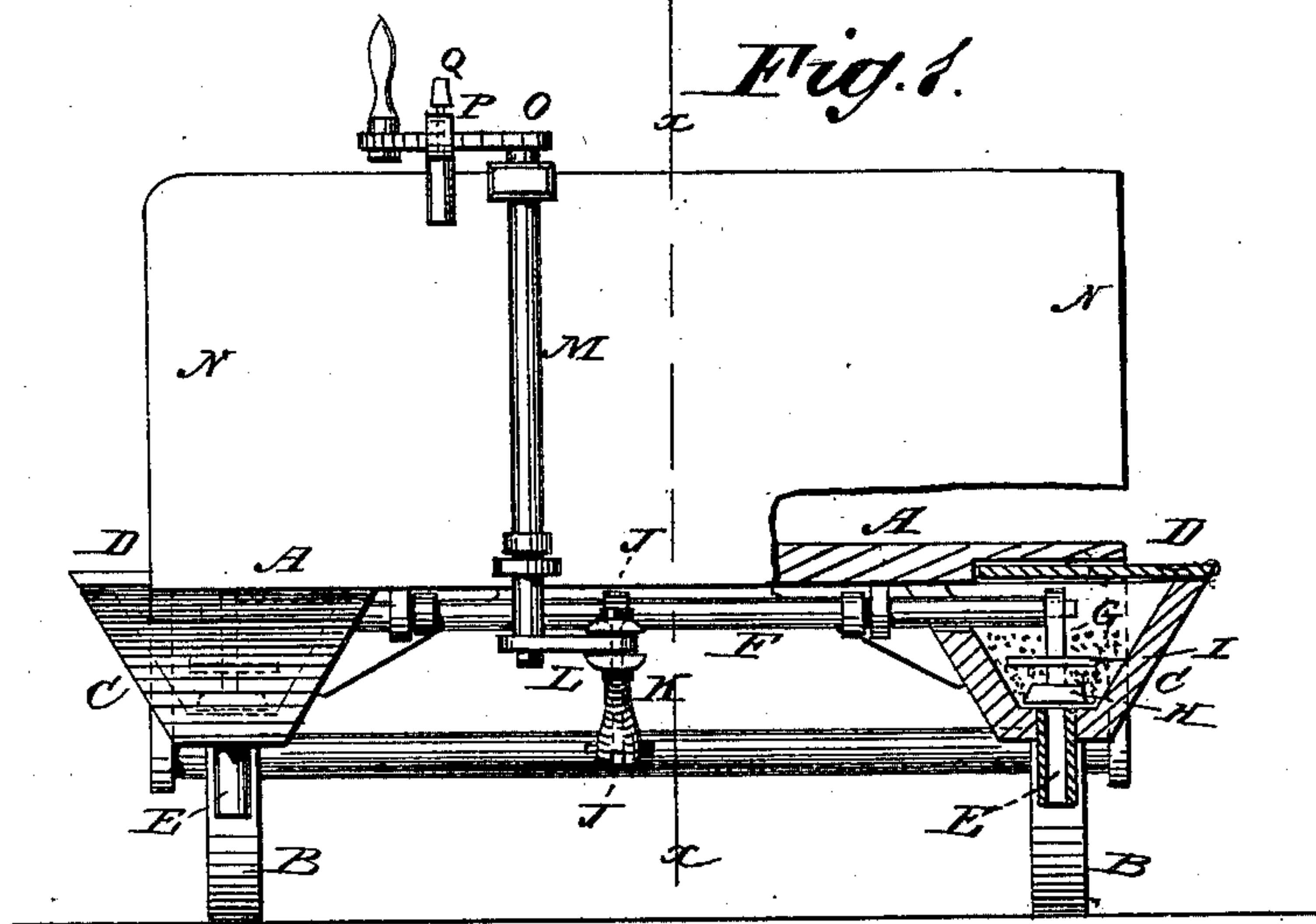


Sand-Distributor for Street-Cars.

Patented Mar. 23, 1880.



WITNESSES:

Frances McArthur.
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INVENTOR:

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UNITED STATES PATENT OFFICE.

STEPHEN S. WOOD, OF NEW YORK, N. Y.

SAND-DISTRIBUTER FOR STREET-CARS.

SPECIFICATION forming part of Letters Patent No. 225,904, dated March 23, 1880.

Application filed February 10, 1880.

To all whom it may concern :

Be it known that I, STEPHEN SLOAT WOOD, of the city, county, and State of New York, have invented a new and useful Improvement in Sand-Distributers for Horse-Cars, of which the following is a specification.

Figure 1 is an end elevation, partly in section, of the improvement. Fig. 2 is a sectional side elevation taken through the line *xx*, Fig. 1. Fig. 3 is a sectional end elevation taken through the line *yy*, Fig. 2. Fig. 4 is a sectional elevation taken through the line *zz*, Fig. 3.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish sand-distributers for horse-cars to apply sand to the rails to prevent the wheels from sliding upon the rails when the brakes are applied.

The invention consists in the combination, with the frame-work of a car and with hoppers attached to said frame-work, of a mechanism whereby sand may be discharged upon the rails.

A represents the frame, and B the wheels, of the car. To the frame A, in front of the wheels B, are attached hoppers C, to receive sand, and which are covered with slides D. The upper parts of the hoppers C project a little beyond the frame A, so that the sand can be readily poured into them. From the bottoms of the hoppers C short tubes E project downward in such positions as to be directly over the rails of the track, so that the sand that escapes from them may fall upon the said rails.

To the car-frame A is pivoted a shaft, F, the ends of which pass through holes in the upper parts of the inner sides of the hoppers C. To the ends of the shaft F are attached arms G, which extend down nearly to the bottom of the hoppers C, and have feet H attached to their lower ends. As the shaft F is rocked in its bearings the feet H press the sand down

through the tubes E, and when the shaft F is locked the feet H cover the upper ends of the tubes E and prevent the sand from escaping.

To the arms G, a little above the feet H, are attached short cross-bars I, to keep the sand in the hoppers C loose, so that it will pass out readily. To the middle part of the rock-shaft F is attached a short arm, J, to the lower end of which is pivoted the inner end of a connecting-rod, K. The outer end of the connecting-rod K is pivoted to an arm, L, attached to or formed upon the lower end of the vertical rod M, which works in bearings attached to the dash-board N of the car, and has a crank, O, attached to its upper end, so that the driver, by operating the crank O, can discharge sand upon the rails to prevent the wheels from sliding upon the rails when they are held from turning by the brake. The crank O passes through a slotted arm or keeper, P, attached to the upper edge of the dash-board N, and by which the movement of the said crank O is limited. In the keeper P is formed a hole to receive a pin, Q, to lock the crank O in place, and thus prevent the sand from escaping when not required for use.

Two hoppers, C, may be used at each end of the car, or one at each end, as may be desired.

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

In a horse-car, the combination, with the frame-work of the car and with the hoppers C, attached thereto, of the sand-discharging mechanism consisting of the horizontal shaft F, having arms G J, foot H, and stirrer I, the connecting-rod K, and the vertical rod M, having arms L O, substantially as herein shown and described, whereby sand is discharged from the hopper C upon the rails, as set forth.

STEPHEN SLOAT WOOD.

Witnesses:

J. B. NONES,

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