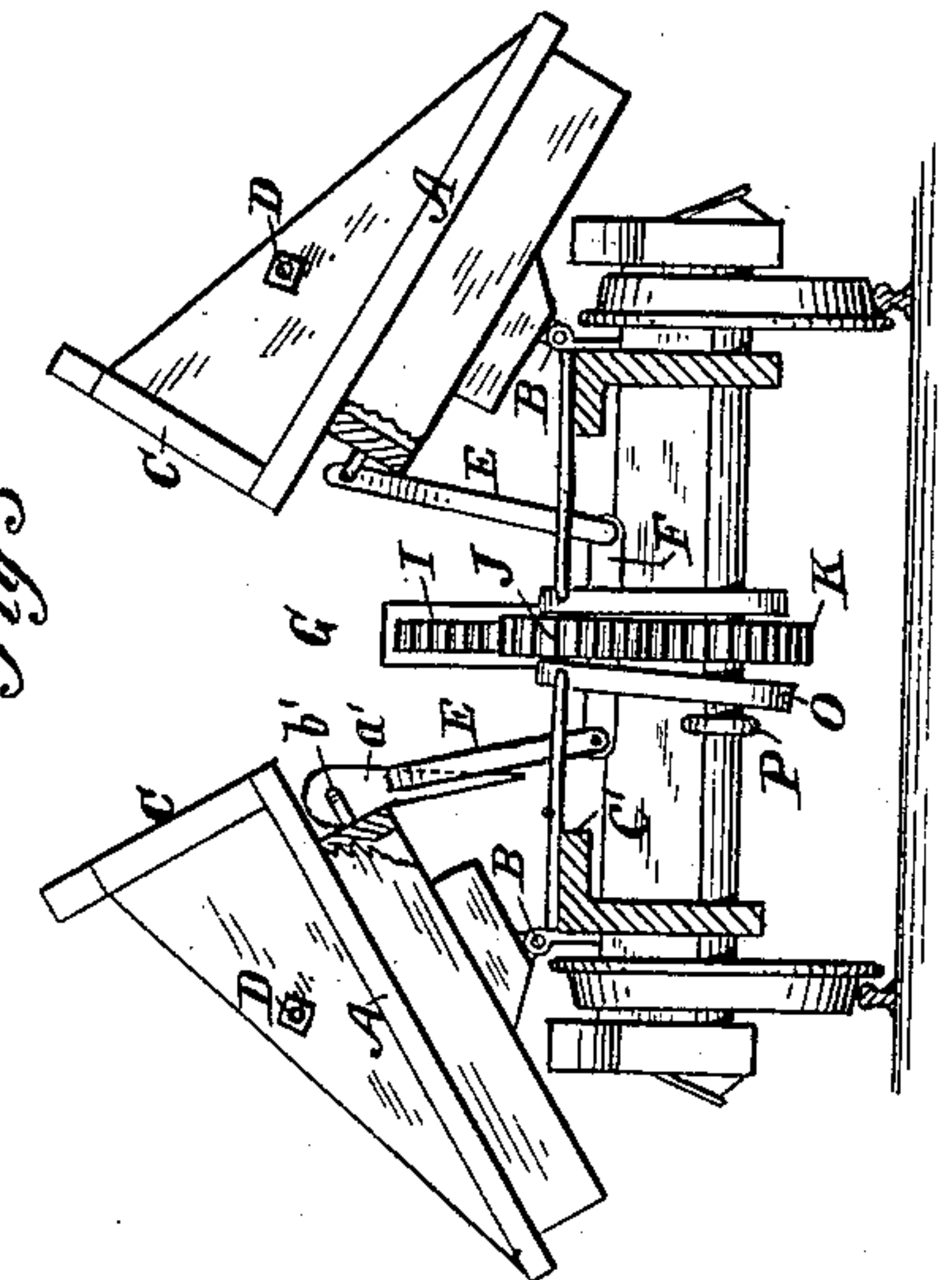
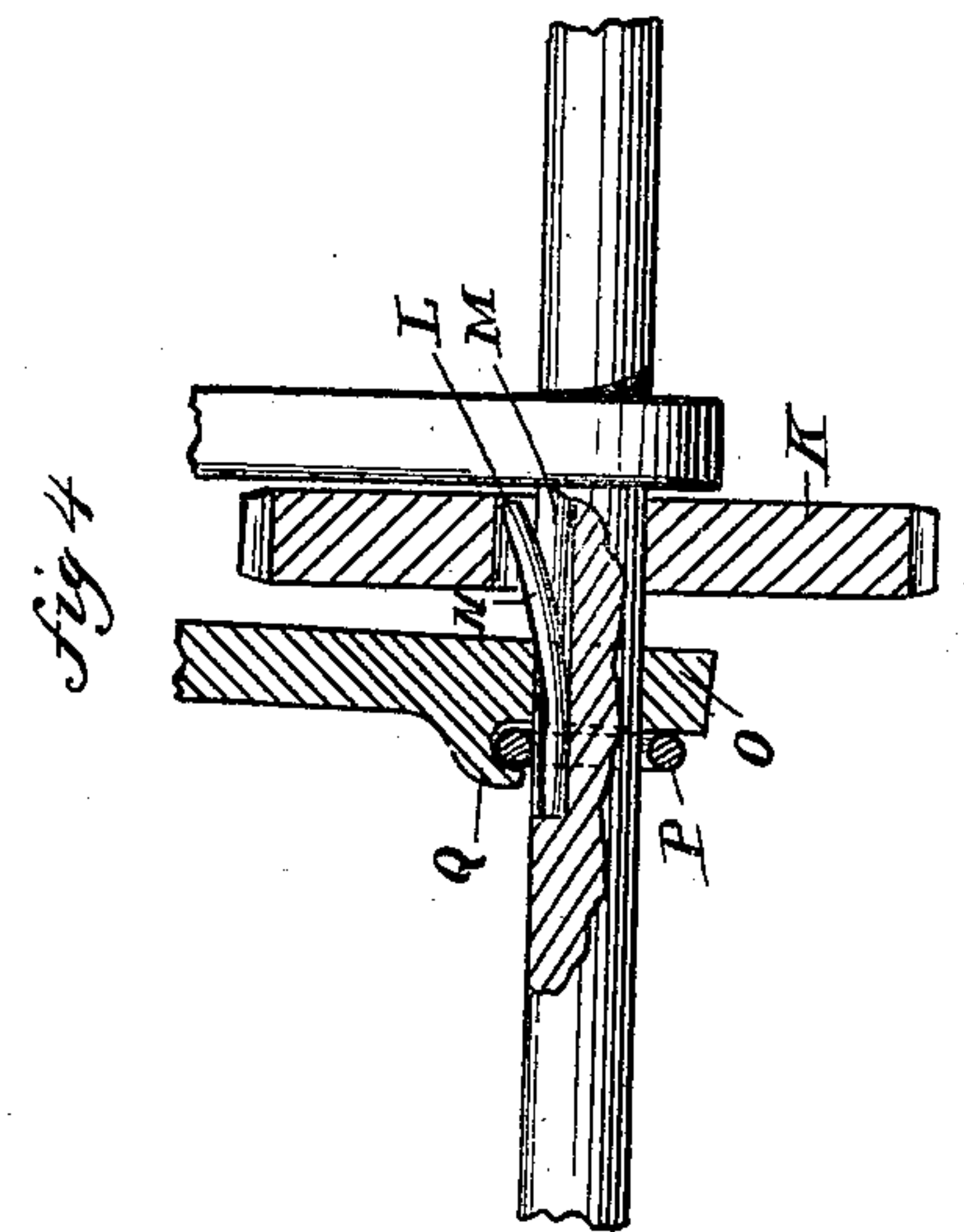
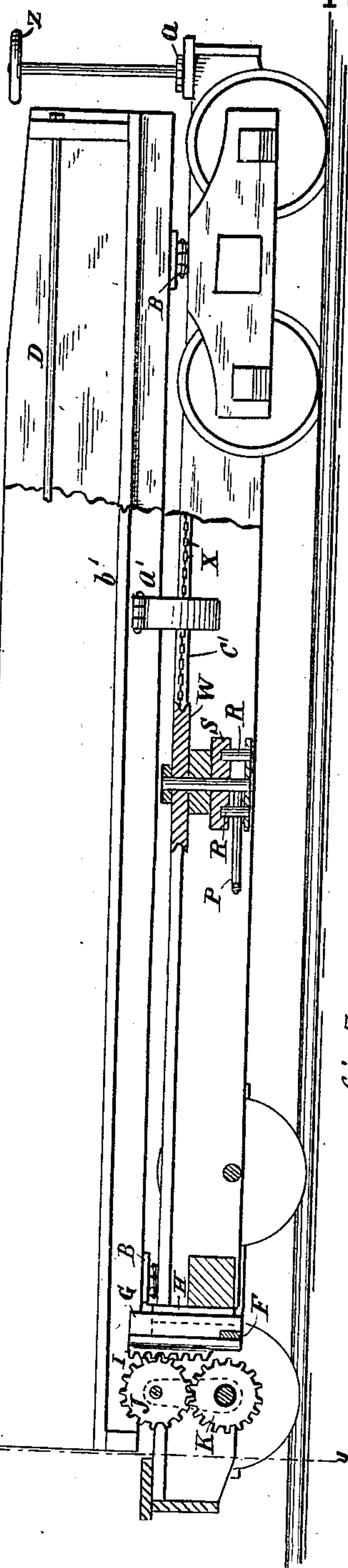
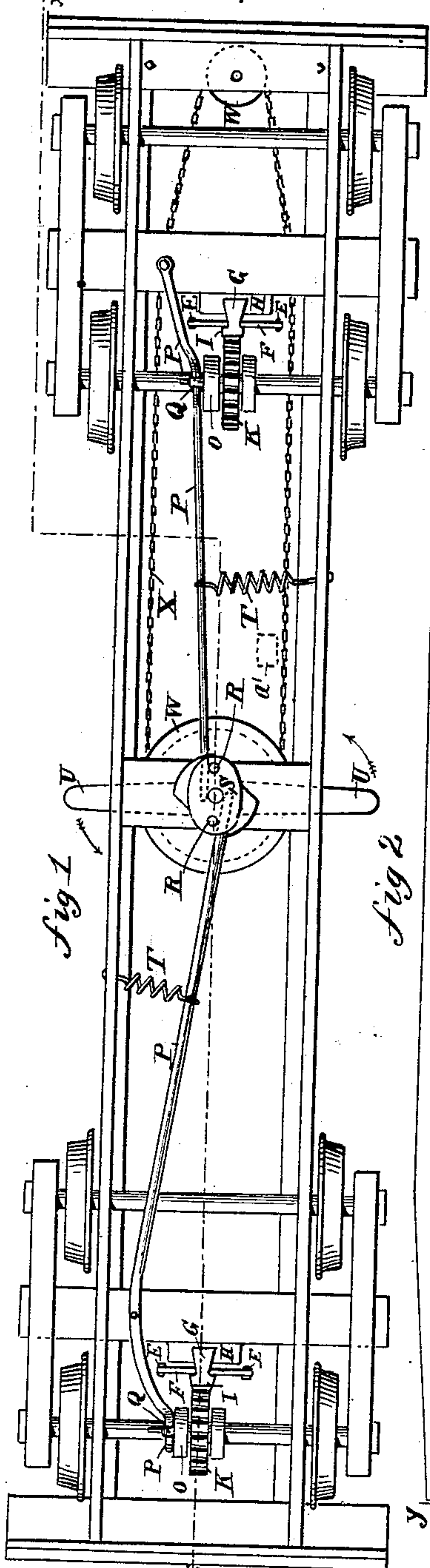


J. E. BEMIS.
DUMPING CAR.

No. 266,749.

Patented Oct. 31, 1882.



WITNESSES:
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INVENTOR:
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UNITED STATES PATENT OFFICE.

JOHN E. BEMIS, OF WAUPUN, WISCONSIN.

DUMPING-CAR.

SPECIFICATION forming part of Letters Patent No. 266,749, dated October 31, 1882.

Application filed May 8, 1882. (Model.)

To all whom it may concern:

Be it known that I, JOHN E. BEMIS, of Waupun, in the county of Fond du Lac and State of Wisconsin, have invented a new and Improved Dumping-Car, of which the following is a full, clear, and exact description.

My invention relates to improvements in dumping-cars; and it consists in the peculiar construction and arrangement of parts, as hereinafter fully described.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan of my improved dumping-car inverted. Fig. 2 is a longitudinal sectional elevation taken on the line xx of Fig. 1. Fig. 3 is an end elevation with parts of the frame sectioned on the line yy of Fig. 2. Fig. 4 is a detail of the dumping-gear.

The platform is made in two parts, A, divided lengthwise along the middle, which parts are hinged near about their middle longitudinally to the car-frame at B, so as to be tilted on said hinges for dumping to the sides of the car, respectively, as shown in Fig. 3. The inner edges of the divided platform have sides C to prevent the load from falling between them when raised up and the joint where they meet together opened; and between said sides and the outer edges over which the earth is dumped they have a rod or bar, D, extending from end to end, so that the earth will be piled up around it when loaded on, and said rod will thereby act as a retarder to the earth when discharging and prevent it from sliding off rapidly and projecting so far away from the track as it otherwise does, thus enabling the earth to be dropped upon the top of the embankment where it is required for building and repairs, instead of projecting over and beyond the top.

To gear the dumping-platform with the axles of the car for utilizing the power of the locomotive to work the platform, the two parts A A are respectively connected by bars E with the cross-heads F of vertically-reciprocating slides G, fitted in suitable guideways, H, of the truck-frame, each slide having a toothed rack, I, gearing with a pinion, J, which gears with another pinion, K, on the axle, and fitted

loosely thereon with a clutch for connecting and disconnecting it, as required. The clutch consists of the spring-key L, fitted in a groove, M, of the axle, so as to spring out into a groove, N, in the pinion when released, and thereby connects the pinion with the axle for being turned by said axle, and a sliding collar, O, on the axle, for depressing or releasing the spring by being shifted forward and backward on it by the bar P, which has one end coiled or otherwise fitted around the axle and connected by a hook or flange, Q, with said collar, for working it, the other end being arranged in connection with the pin R of a tappet-wheel, S, and also provided with a spring, T, whereby the clutch may be connected and disconnected at will by turning the wheel, for which said wheel is provided with arms U, to be reached under the sides of the car, but is by preference provided with a grooved pulley, W, to be worked from the end of the car by a chain, X, hand-wheel Z, and pulley Y in a similar manner as the brakes are worked.

The platform is connected by gear, as above described, near each end, with axles thereat, and there are two clutch-levers extending therefrom to the tappet-wheel. The clutches, when disconnected, are kept so by setting the tappet-wheel in the proper position by the hand-wheel Z, which is secured in position by a ratchet and pawl at a . Then, when it is desired to connect the gears for dumping the load, the hand-wheel is turned so as to swing arms U in the direction indicated by the arrow until arrested by dog a' , hanging down from the platform, to allow the levers to escape from the pins of the tappet-wheel. The springs T then quickly engage the clutches for dumping the platform. The locomotive will then be backed up or started ahead a little, according as the car is hitched to it, which will cause the cross-heads F to rise and dump the platform. Then a corresponding reverse motion will return the platforms to their places. As the platform settles back, the dog a' , which is wedge-shaped, will pass down on the other side of arm U and move the tappet-wheel sufficiently to disconnect the clutches at the moment that the slides G return to the starting-point. The dog a' is jointed at b' to the platform and draws over the edge c' of the frame when the platform

5 rises, so as to be projected to the other side of arm U when the platform goes back. The tappet-wheel may then be set, as before, by the hand-wheel Z and ratchet *a* to hold the clutches out of gear.

The cross-heads F are connected to the lower ends of the slides G, so as to lift more directly under the platforms, by the connecting-rods E, and also so that the slides G are guided better and easier than they would be if connected at the top.

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

5 1. The combination of retarding rods or bars D with the dumping-platform of a car, substantially as described.

2. The combination, with a dumping-platform divided along the middle and hinged to the frame at B, dog *a'*, and tappet-wheel arms U, 20 of the cross-heads F, the toothed slides G, and gears J K, substantially as and for the purpose set forth.

3. In a dumping-car having the platform geared with the axle and a clutch for connecting and disconnecting said gears, the tappet-wheel for working the clutch-levers, geared with a hand-wheel, Z, located on the end of the car, by pulleys W and Y and chains X, 25 substantially as described.

JOHN EMMONS BEMIS.

Witnesses:

MICHAEL J. SULLIVAN,
ELI HOOKER.