

(No Model.)

H. M. GLINES.

CAR BRAKE.

No. 282,714.

Patented Aug. 7, 1883.

Fig. 1.

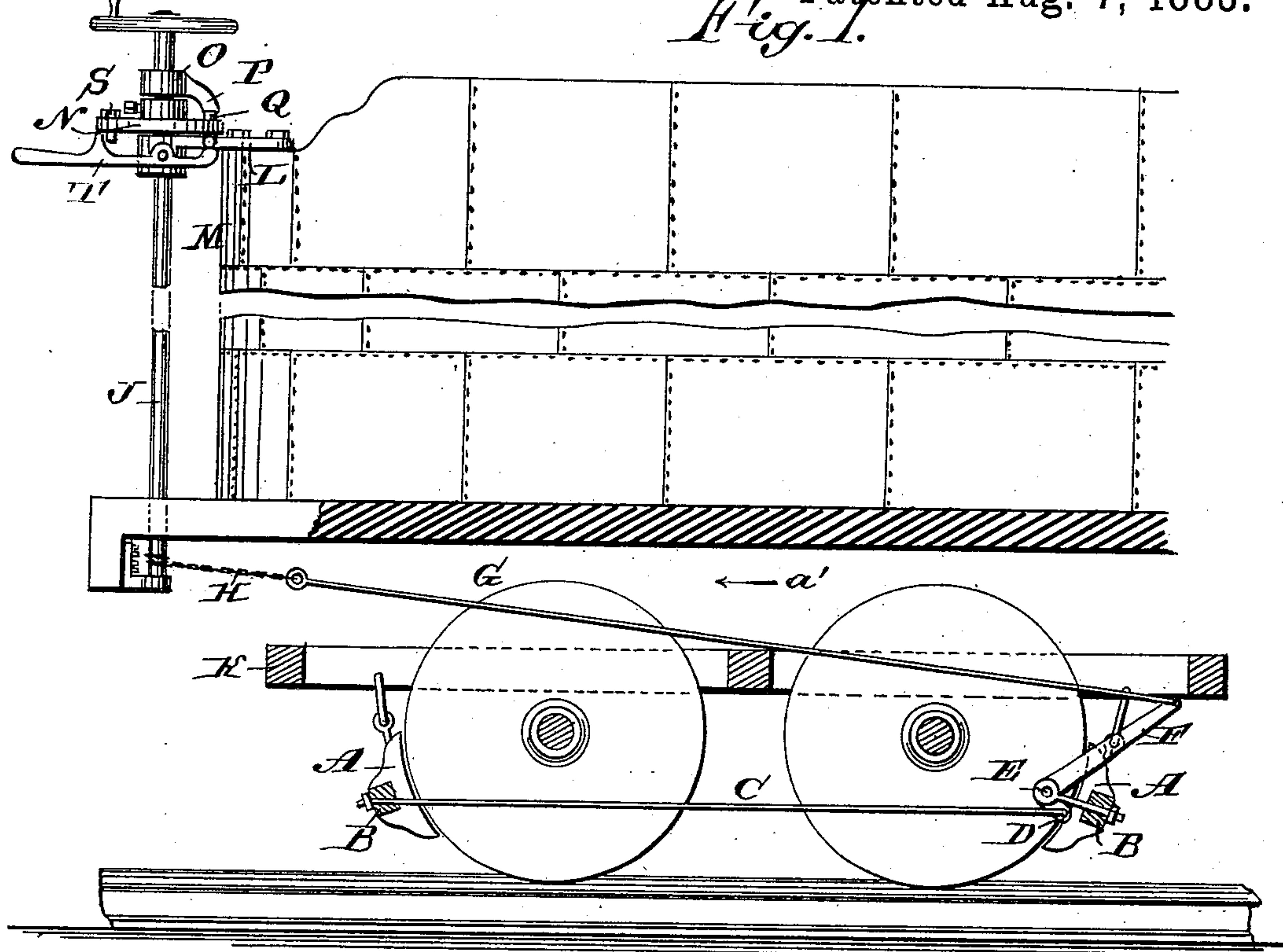


Fig. 2.

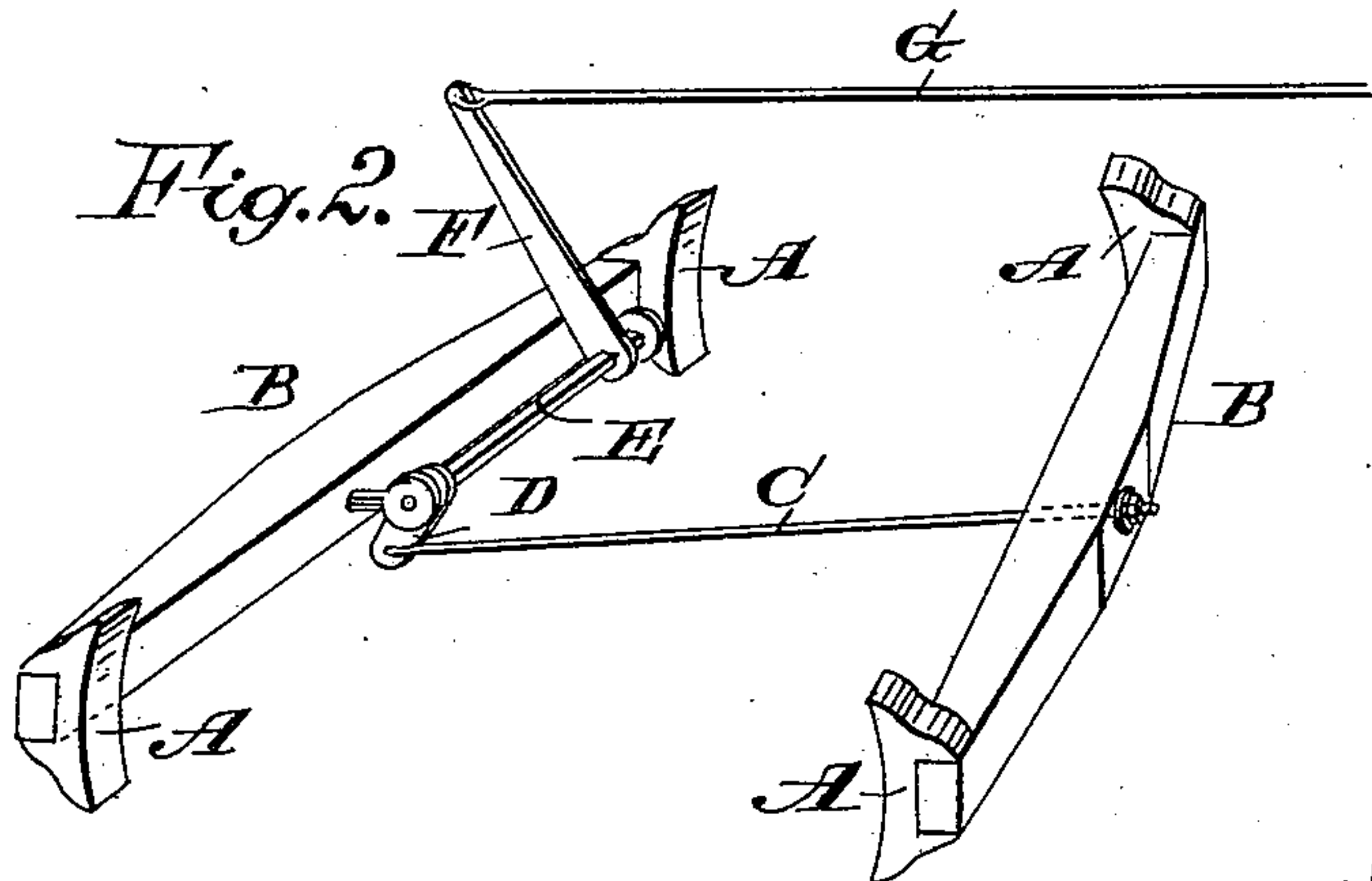


Fig. 3.

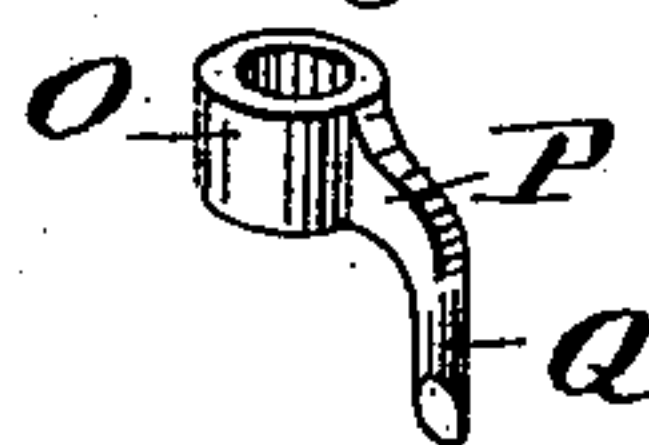
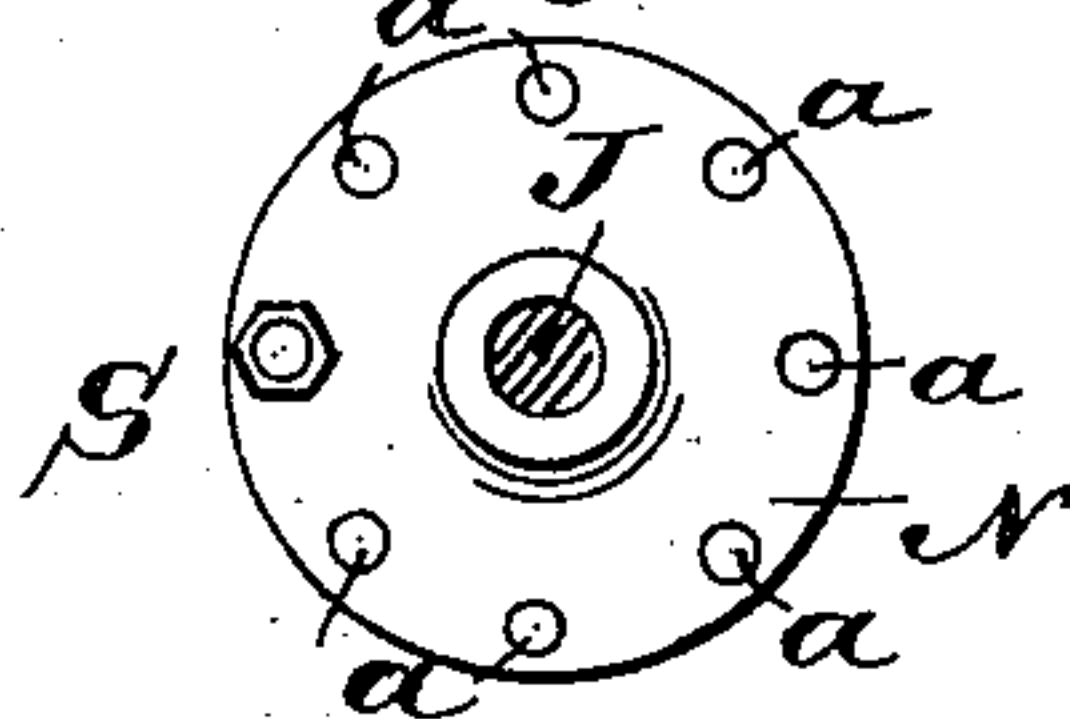


Fig. 4.



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CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 282,714, dated August 7, 1883.

Application filed June 1, 1883. (No model.)

To all whom it may concern:

Be it known that I, HUMPHREY M. GLINES, of East Boston, in the county of Suffolk and State of Massachusetts, have invented a new and Improved Car-Brake, of which the following is a full, clear, and exact description.

The invention consists in a brake in which the brake-bars are connected by a rod secured to one bar and attached to the lower end of an arm of a shaft on the other bar, which shaft has an upwardly-projecting arm connected to the brake-shaft. The brake-shaft is provided with an apertured disk and with a sliding collar having a pin adapted to pass through the apertures in the disk, whereby by passing the pin through the apertures in the said disk the brake-shaft may be locked in the desired position, as will be fully described and set forth hereinafter.

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 longitudinal sectional elevation of a tender provided with my improved brake. Fig. 2 is a perspective view of the brake-shoes, the bars connecting the same, and the levers for operating them. Fig. 3 is a detail perspective view of the sliding collar on the brake-shaft. Fig. 4 is a plan view of the wheel mounted on the brake-shaft.

Two brake-shoes, A A, of the usual construction, are attached to the ends of the bars B B. To the middle of that bar B toward the end of the car or the outer end of the brake a rod, C, is fastened, the other end of which is pivoted to the end of a downwardly-projecting arm, D, of a horizontal shaft, E, journaled to turn or rock on the inner surface of the inner brake-bar, B, which shaft E is provided with a longer upwardly-projecting arm, F, to the free end of which a rod, G, is fastened, the other end of which is fastened to a chain, H, attached to the lower end of a vertical brake-shaft, J, suitably journaled in the bottom of the tender or car.

The brake-bars B are suspended from a frame, K, in the usual manner. The arms F and D, which project in opposite directions from the shaft E, do not form one continuous line, but are so inclined that they form an angle, as shown in Fig. 1.

The brake-shaft J is journaled at its upper

end in a bar, L, projecting from the end of the tank-leg M. A disk, N, provided with a ring of apertures, *a*, is rigidly mounted on the brake-shaft J. A collar, O, is loosely mounted on the brake-shaft above the disk N, which collar is provided with an arm, P, terminating in a downwardly-projecting pin, Q, the free end of which is beveled, which pin is adapted to be passed through the apertures *a* in the disk N. A lever, T, is pivoted to the outer end of the arm L in such a manner that the said lever can press the pin Q upward and out of the aperture in the disk N. A pin or bolt, S, is passed through an aperture, *a*, of the disk N.

If the chain H is wound on the shaft J, by rotating the same the upper end of the arm F will be drawn in the direction of the arrow *a'*, thereby pressing the inner brake-shoes against the rims of the wheels. If the upper end of the arm F moves in the direction of the arrow *a'*, the lower end of the arm D will be moved in the inverse direction and the outer brake-shoes will be pressed against the wheels. A very great leverage is obtained by means of the arms F D and the angle formed by the same, and the brake-shoes can be pressed against the rims of the wheels. If the brake-shaft is turned, the beveled end of the pin Q on the collar O strikes against the side of the bar L, and is raised to pass over the same every time the disk makes a revolution; but if the tension of the chain revolves the shaft in the inverse direction, the end of the pin Q strikes arm L and prevents the turning of the shaft, and thus locks the same in place. If the brake is to be released, the outer end of the lever F is pressed downward, whereby the pin Q and the collar O, to which it is fastened, will be raised sufficiently to clear the bar L and the shaft can make one revolution, when the pin Q will again strike the arm L if the handle end of the lever T is not kept depressed. If it is desired that the shaft L shall not make an entire revolution every time the pin Q is raised, the pin S can be placed in an aperture, *a*, diametrically opposite the pin Q.

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

1. The combination, with the brake-shaft J, of the disk N, provided with apertures *a*, the vertically-movable loose collar O, having a downwardly-projecting pin, Q, which is be-

eled at the end, and of the lever T, pivoted on the outer end of the arm L, in which the upper end of the shaft J is journaled, substantially as herein shown and described, and for the purpose set forth.

2. The combination, with the brake-shoes A and the bars B, of the horizontal shaft E, journaled on one brake-bar, B, the arms F and D, projecting upwardly and rearwardly and downwardly and rearwardly, respectively, from the said shaft E, the rod C, connecting the arm D with the opposite bar, B, and the rod G, connecting the arm F with the brake-shaft,

substantially as herein shown and described, and for the purpose set forth.

3. The combination, with the brake-shaft J, of the disk N, provided with the ring of apertures *a*, and the vertically-movable loose collar O, having an arm, P, provided with a downwardly-projecting pin, Q, substantially as herein shown and described, and for the purpose set forth.

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Witnesses:

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