

(No Model.)

C. BRESNAHAN.
CAR BRAKE.

No. 592,604.

Patented Oct. 26, 1897.

Fig. 2.

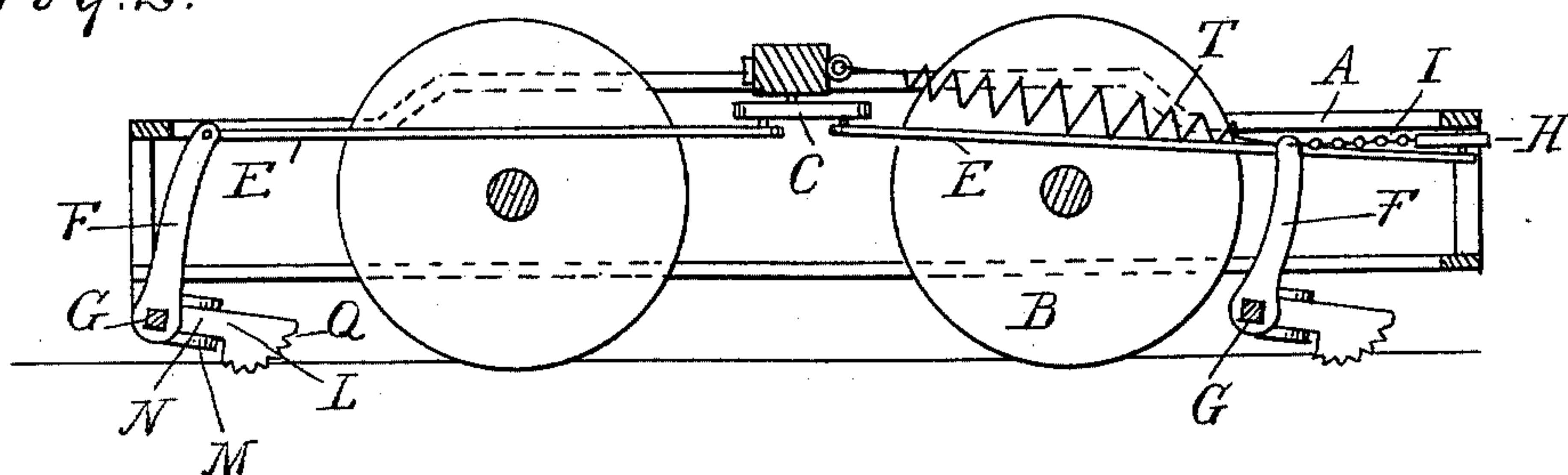


Fig. 1.

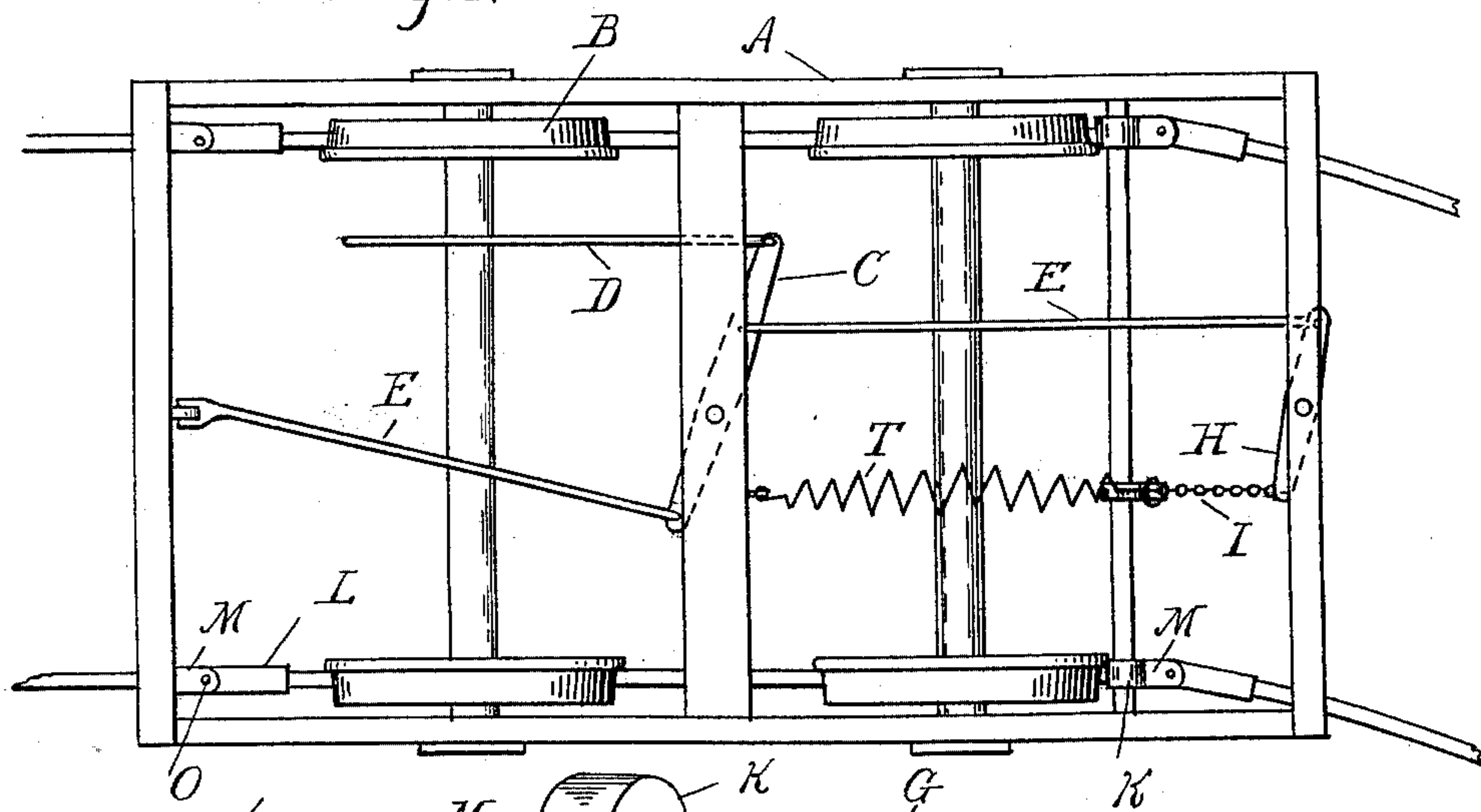


Fig. 3.

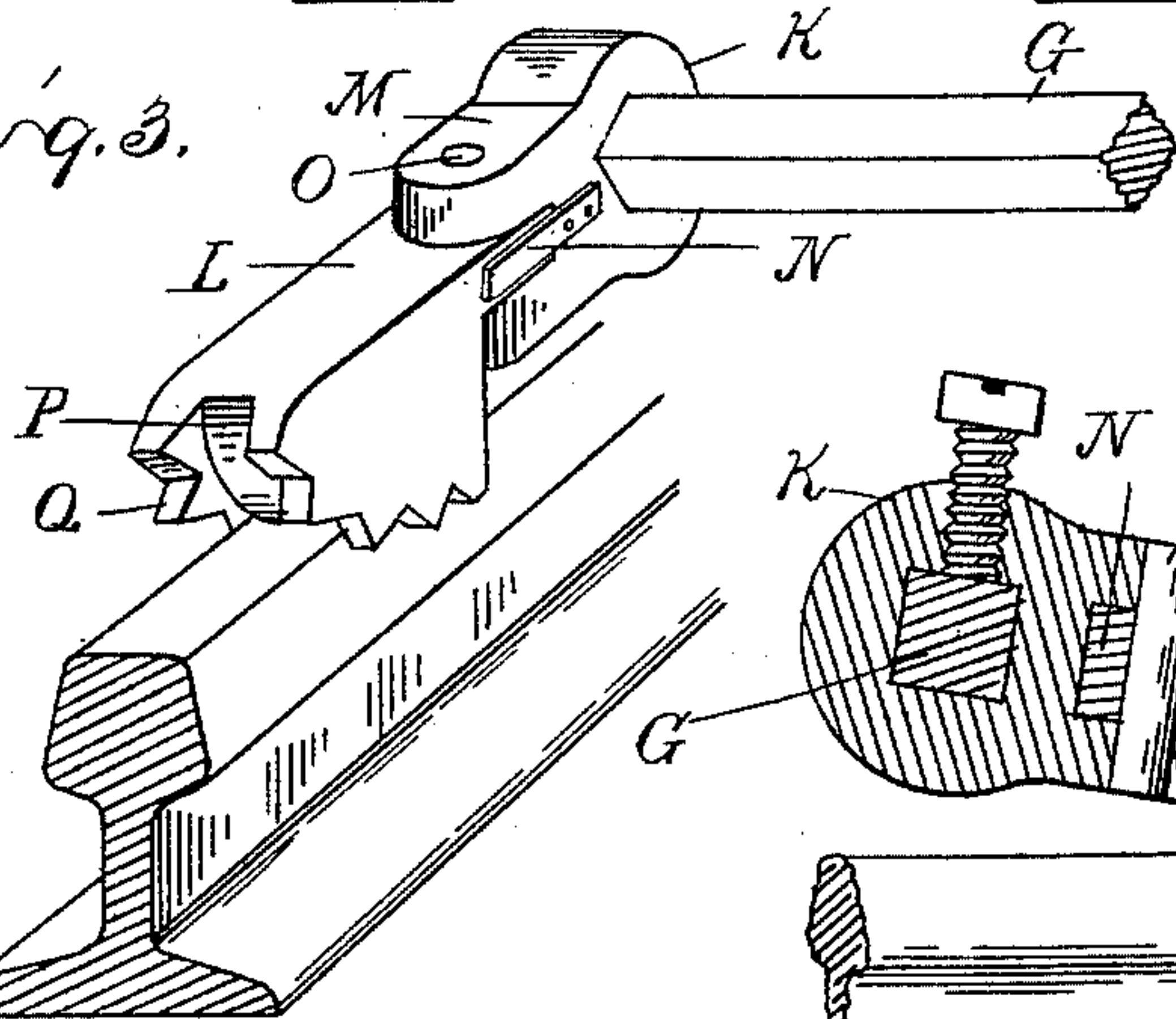
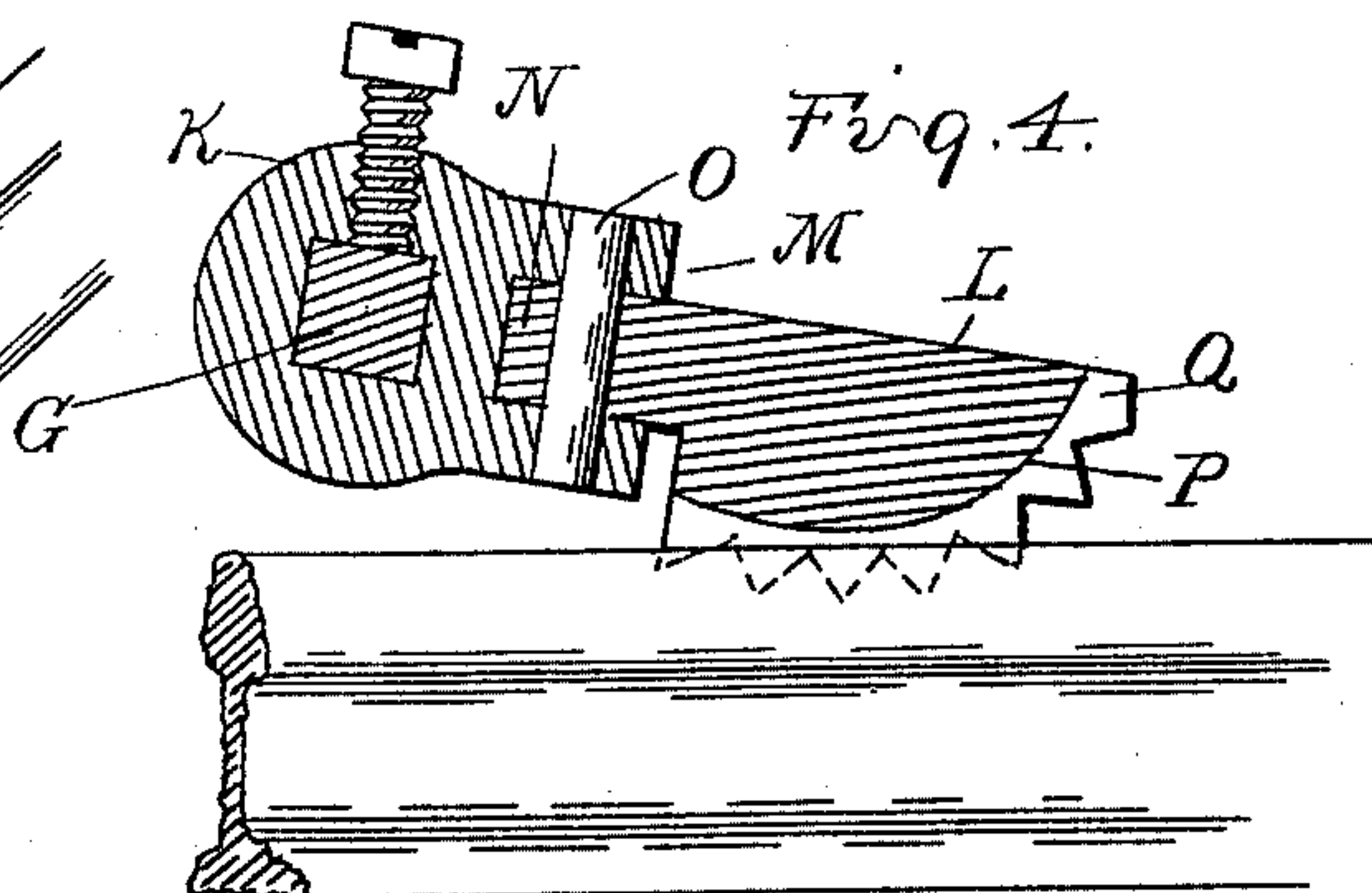


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

CORNELIUS BRESNAHAN, OF DETROIT, MICHIGAN.

CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 592,604, dated October 26, 1897.

Application filed April 28, 1897. Serial No. 634,192. (No model.)

To all whom it may concern:

Be it known that I, CORNELIUS BRESNAHAN, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Car-Brakes, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention consists in the construction of a railway-truck brake, and particularly in the construction of a rocking swiveled shoe or shoes, together with any suitable means for actuating same, and, further, in the construction, arrangement, and combination of the various parts, all as more fully hereinafter described.

In the drawings, Figure 1 is a plan view of a car-truck frame, showing my invention applied thereto. Fig. 2 is a vertical central longitudinal section thereof. Fig. 3 is a detached perspective illustrating a slightly-modified form of shoe, and Fig. 4 is a vertical central section through the shoe shown in Fig. 3.

A represents a truck-frame—as, for instance, a truck-frame of a street-car.

My invention may be applied to any form of car or to any of the usual forms of car-trucks.

B are the wheels of the truck.

C is a brake-lever, in this instance shown as pivoted to the cross-bar of the frame, having connecting-bar D extending to the operating-shaft for the motorman or driver. The brake-lever C is connected, preferably, on opposite sides of this pivotal point, by means of suitable rods E, with the crank-arms F upon the rock-shaft G, which are journaled in bearings at the opposite ends of the truck-frame. One of the connecting-rods E actuates its rock-shaft through an even lever H and the chain connection I, while the other one may connect directly with the rock-arm. Any suitable connection or brake-operating means may be employed, the one shown being only a simple form for effecting the result.

Upon the rock-shafts G are the heads K, in which are swiveled the shoes L, one for each rail on each rock-shaft. The construction which I prefer is shown in the drawings, in which the heads K are shown as provided with rearwardly-extending lugs or ears M, and the shoe is provided with a projection or

arm N, which goes between these lugs, and the vertical pivot-pin O passes through the three parts to form the pivot on which the shoe swivels. The shoe itself has the curved braking-face P and the flange or flanges Q at the edges.

In case this brake is intended to be used in connection with a grooved rail for street-railways the shoes are provided with a single flange, toothed or notched, as shown in the drawings, so that it will enter the groove of the rail and clean out any dirt there may be therein whenever the brake is applied, or by a very light application of the brake the flange may be run into the groove for the purpose of simply cleaning out the groove without applying the brake at all. By making a curved bearing-surface P on the shoe I maintain substantially a uniform surface regardless of the exact height of the rock-arm. It will be seen by this construction, in which I employ a rocking swiveled trailing shoe, that the brake may be applied upon a straight rail as well as upon a curved track. I may, and preferably do, employ some means for maintaining the shoe normally in line with the wheel, and this may be either an inclined hinge-joint, such as is employed on gate-hinges for swinging a gate to a central point, or a preferable construction is the use of a spring, such as shown in Fig. 3, for this purpose. Any suitable means may be employed for maintaining the shoes normally above the level of the track. I have shown a spring T, connected to one of the rock-arms F, for effecting this result and for returning the shoes to their normal position after each operation.

What I claim as my invention is—

1. In a car-brake, the combination with a rock-shaft and actuating means therefor, of a shoe mounted on the shaft so as to be held from vertical movement relative to the shaft and so as to have a lateral swinging movement, the shoe adapted to be moved into contact with the rail by the rocking of the shaft, substantially as described.

2. In a car-brake, the combination of a rock-shaft, a head secured to the rock-shaft and movable therewith and extending rearwardly therefrom, a brake-shoe pivoted to the head to have a laterally-swinging movement, and adapted to be lifted by the head from the

rail, and means for normally holding the shoe in line with the rail, substantially as described.

3. In a car-brake, the combination with a rock-shaft, and means for actuating the same, 5 of a head secured to the shaft and movable therewith, a brake-shoe pivoted in said head to have a laterally-swinging movement and held from vertical movement relative to the head, said shoe having a curved braking-sur-
10 face, and the guide flange or flanges, substantially as described.

4. In a car-brake, the combination of a rock-

shaft, means for operating the same, a head or arm secured rigidly to said shaft and rotatable therewith and a shoe mounted on said 15 head or arm to have a lateral swing and held from vertical movement relative to the shaft, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

CORNELIUS BRESNAHAN.

Witnesses:

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OTTO F. BARTHEL.