

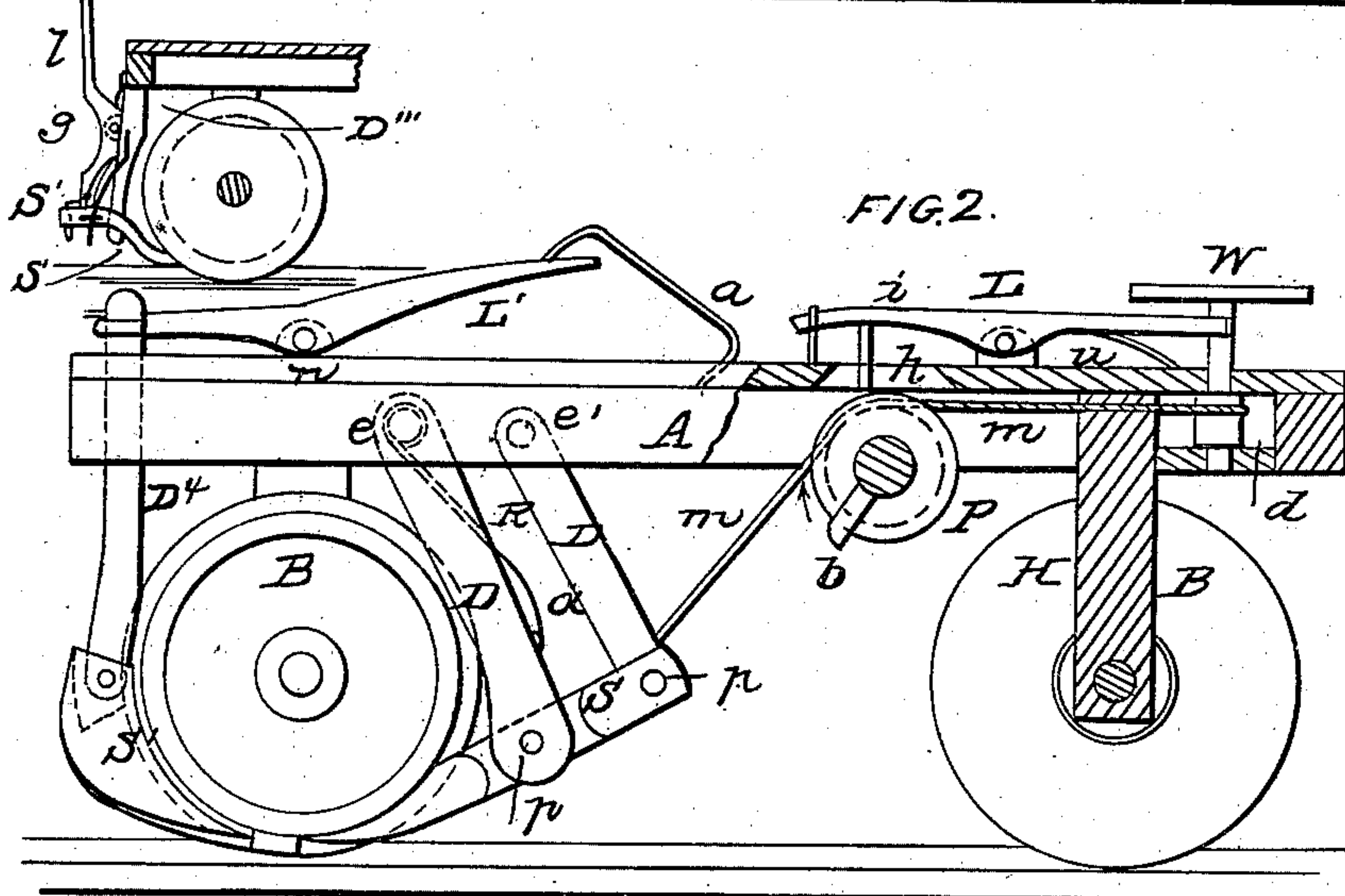
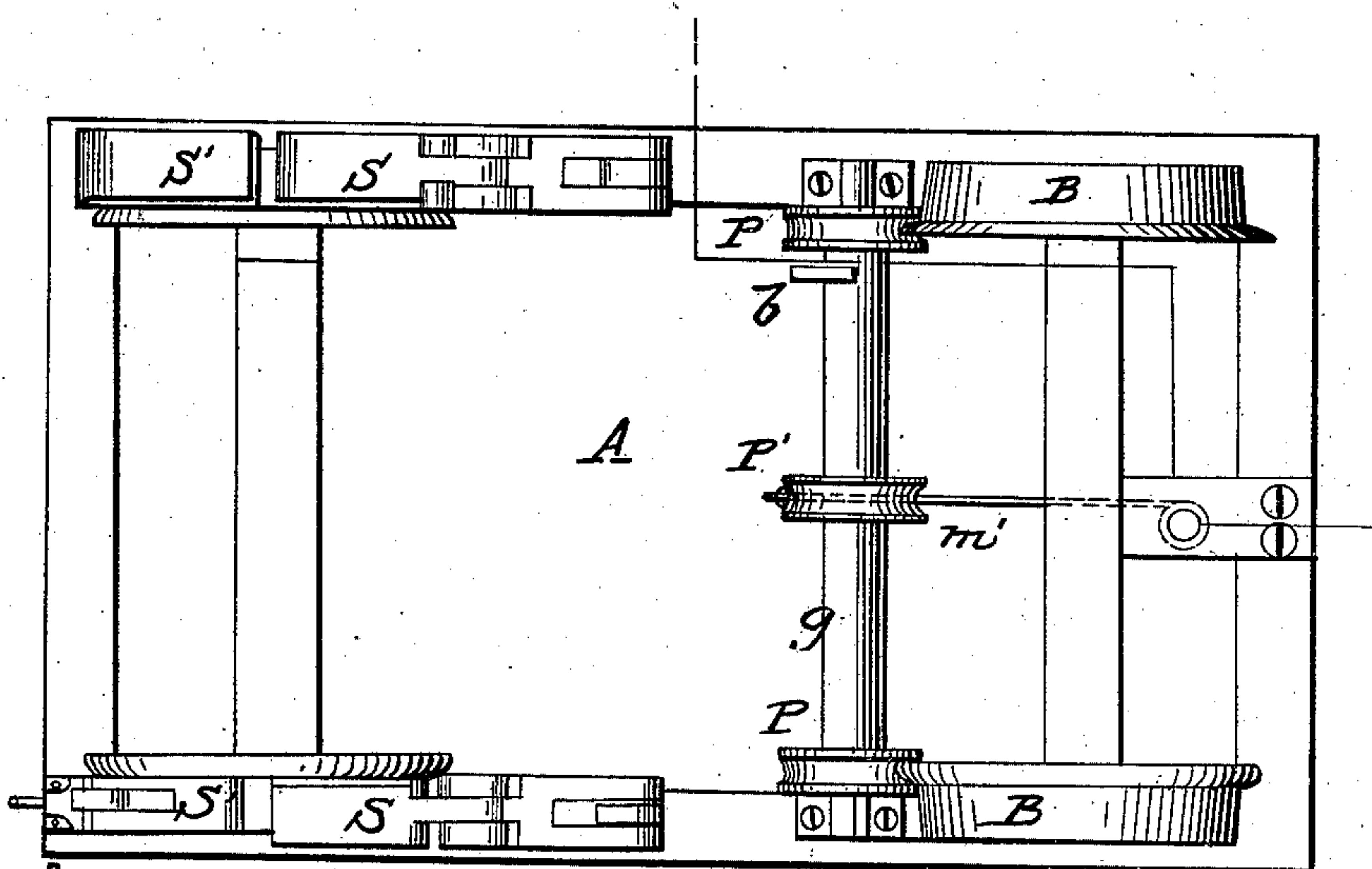
W. T. PARSON.

Car Brake.

No. 78,759.

Patented June 9, 1868.

FIG. 1



WITNESSES

Theo. Dwyer
J. A. Brown

INVENTOR

W. T. Parson
Per M. M. L.
Attorneys

United States Patent Office.

WILLIAM T. PARSONS, OF THOMASVILLE, GEORGIA.

Letters Patent No. 78,759, dated June 9, 1868.

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, WILLIAM T. PARSONS, of Thomasville, in the county of Thomas, and State of Georgia, have invented a new and improved Car-Brake; 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.

Figure 1 is a bottom view of a platform-car with my brakes attached.

Figure 2 is a sectional side elevation of the same, with a part removed, through the line $x x'$.

Figure 3 is an elevation of a modification of my brake.

Similar letters of reference indicate corresponding parts.

This invention relates to an improved rail-car brake, which consists of shoes pendent, with suitable mechanism, whereby they are let down under the wheel, and partially receiving the weight of the latter, act as a chock to stop its revolution.

A is the platform; B, the wheels. Two stout pieces of tough wood form the parallel bars D D', to which are pivoted the shoes S, by the iron pins $p p$. These bars are pivoted, at $e e'$, to the platform, as shown dotted in fig. 2.

In practice, the shoes should be made of elm or other hard, tough wood, and provided with a plate of iron on their under side, which comes in contact with the rails, to act as a guard to protect the shoes. A cord or rope, m , is attached to the brakes, as shown, and passes over the pulleys P, which latter are firmly fixed on a shaft, r . This shaft has bearings, holding it to the platform, as shown in fig. 1.

The pulleys P (see fig. 1) are grooved, to retain the cords m , which are fastened thereto by a staple. In the middle of the shaft is a pulley, P', which has a cord, m' , attached to its periphery, with a staple or otherwise. This cord m' leads to a vertical drum, d , having bearings in the platform, as shown at fig. 2.

This drum is turned by a cross-handle, W, and when so turned, winds up the cord m' , and thus communicates motion to the pulleys P P, which simultaneously wind up their respective cords m , and these latter, being attached to the brakes, as before shown, lift them from contact with the trucks or wheels, all as shown in the drawings.

When the shoes S are sufficiently raised, which they will be with less than one revolution of the pulleys P, a device to catch and retain them in their desired position is shown in fig. 2, and consists of a lever, L, pivoted to the top of the platform, as shown.

A vertical pin or detent, i , projects downward from the lever, and passes through a longitudinal slot, h , on the platform. Attached to and forming a rigid fixture of the shaft, g , is a projecting arm, b , which has its end bevelled, that it may lift and pass by the detent-pin i , which stands in the same plane of revolution as the arm. When this arm passes the pin i , it lifts it by the aforesaid bevelled end, and passes beyond.

The lever L, being actuated by the spring u , then thrusts down the pin again, so that the arm b , having no bevelled face to act in a retrograde manner, is caught and held by the pin. The props are thus kept from contact with the wheels.

When the brakes are to be applied, the lever L is pressed down at the end opposite to the pin i , and the arm b being liberated, the shoes S descend obliquely, and intercept the rolling of the truck, as shown at fig. 2.

Thus the brakes are applied by simply bearing down on the lever L, and thrown off again by turning the cross-handle W, attached to the drum d . The shoes S are made with a sharp flange, which corresponds to that upon the trucks for keeping them on the rails. This flange fits snugly against the flange of the trucks when the shoe is applied, as shown in fig. 2, and thus acts to keep the car on the track while it is sliding on the shoes S. A spring, R, coiled around the pivot e , actuates the bar D downward, though the shoe and bars would descend by their own weight, perhaps nearly as well.

Modifications of this brake are shown at fig. 3, and at D'', S'', and L' on the rear of fig. 2. In fig. 3, the

shoe S is supported by a bar, D''', which is pivoted to the platform; but attached to this bar D''' by a pivot, g, is a lever, l, the handle of which projects above the platform.

The shoe S has a slot, in which the end of the bar D''' works, and is held therein by a pin below, instead of through the said shoe. A spring, v, attached to the bar D''', keeps the shoe, when not applied to the truck, drawn back, so that the end of the bar D''' is against the forward part of the said slot. Another spring, v'', keeps both the bar D''' and its shoe apart from the truck.

To apply this brake, the handle of the lever l is pushed outward, and the lower point of it bearing upon the shoe, the latter is thrust against the wheel, and acts as before described.

The modification shown at fig. 2 has a single bar, D'', with the shoe S'' loosely pivoted thereto. A lever, L', pivoted at n, operates to raise the bar D'' backward, and thus lift the shoe clear of the wheel. For the junction of the bar D'' and the lever L' is not a loose pivot, but a partially-yielding joint. A spring, a, keeps the shoe raised when not applied to the wheel.

In these forms of brake the car-wheels are not brought to rest by the mere friction of surfaces against the peripheries of the wheels, but the shoe slipping underneath the tread of the wheel, takes its weight and a proportion of the weight of the car, which is then slid along on the track for a short distance on the shoes, till the momentum of the car is expended.

The application of the brakes is prompt, and their operation simple. Facets are not formed on the wheels by sliding, as is the case when the wheels are clamped by the common brakes.

I claim as new, and desire to secure by Letters Patent—

1. The combination of the flanged shoes S, pivoted to the lower ends of the bars D D', which are hung from the frame A, by means of pivots e e', with the shaft g, bearing grooved pulleys P P' P, ropes or chains m m', drum d, and spring R, all constructed and arranged to operate in the manner and for the purpose herein set forth.

2. I claim the device for retaining the shoes S in an elevated position, away from the wheels, said device consisting of the bevelled pin b fixed in the shaft g, centrally-pivoted lever L, having projecting pin i and spring u, all constructed and arranged to operate in the manner substantially as herein set forth.

3. I claim the flanged shoe S'', hung to the lower end of the single bar D'', which is connected to the pivoted lever L' by a yielding joint, substantially as described.

4. I claim the combination of the slotted shoe S, pivoted bar D''', lever l, pivoted at g, and springs v v'', all constructed and arranged to operate in the manner and for the purpose substantially as herein specified.

WM. T. PARSONS.

Witnesses:

THOS. S. PAINE,
JAMES H. LINTON.