Quick & Wallis.

Car Brake.

No. 71325 Patented Nov. 26, 1867.

Fig. 1.

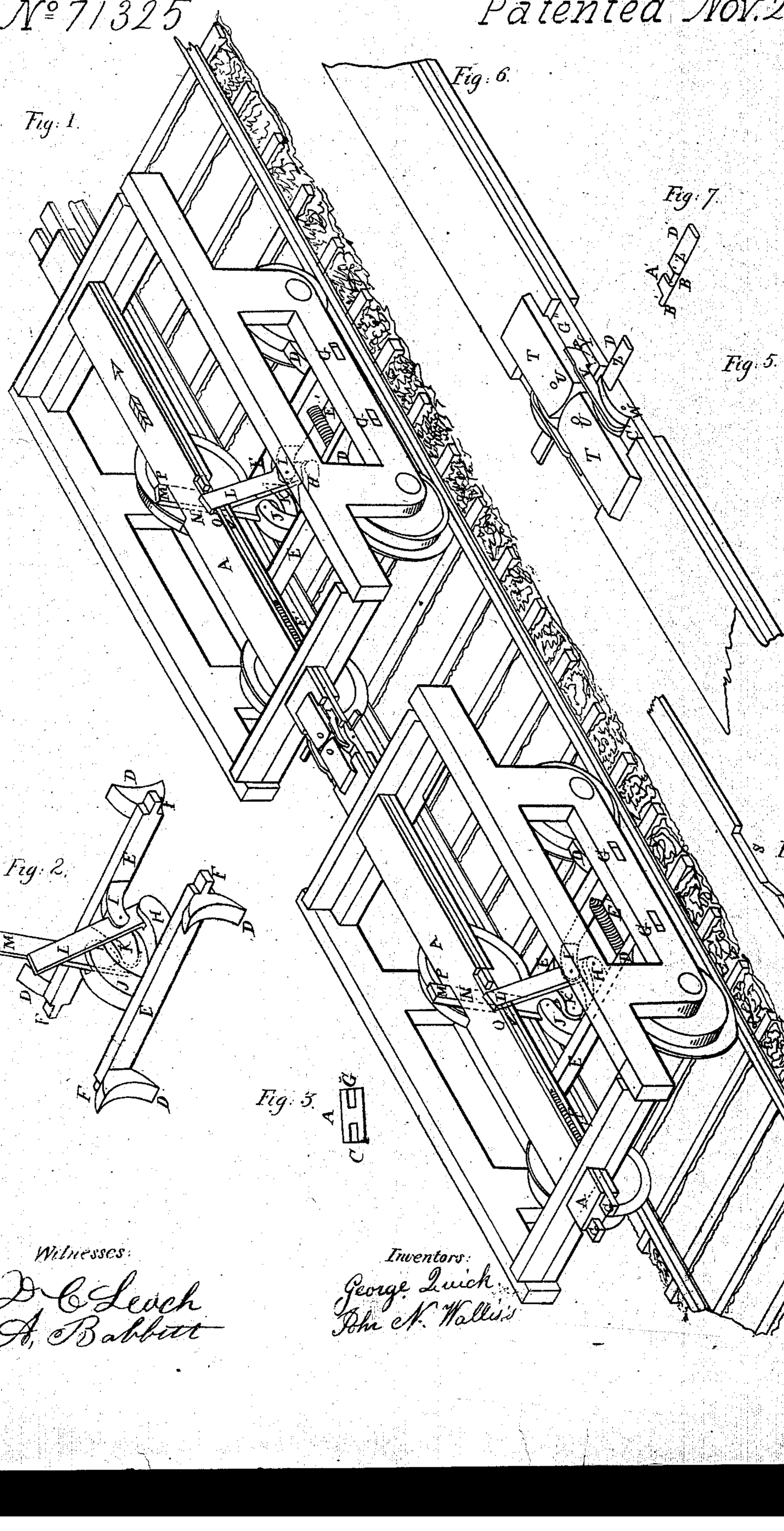

Fig. 6.

Fig. 7.

Fig. 5.

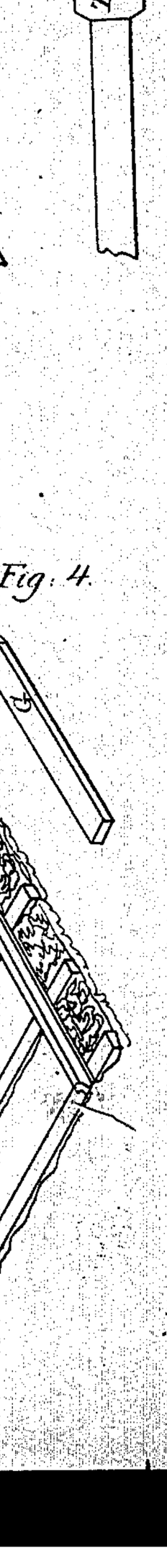

Fig. 2.

Fig. 3.

Fig. 4.

Witnesses:

D. C. Leach

A. Babbitt

Inventors:

George Quick.

John N. Wallis

United States Patent Office.

GEORGE QUICK AND JOHN N. WALLIS, OF FLEMING, NEW YORK.

Letters Patent No. 71,325, *dated November* 26, 1861.

IMPROVED CAR-BRAKE.

The Schedule referred to in these Letters Patent and making part of the same.

TO WHOM IT MAY CONCERN:

Be it known that we, GEORGE QUICK and JOHN N. WALLIS, of the town of Fleming, in Cayuga county, New York, have invented a new and improved Mode of Applying or Operating the Brakes on Railroad-Cars; and we do hereby declare the following so be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, and to the letters of reference marked thereon.

The object of this invention is for the purpose of arranging certain mechanical devices in such form and manner that the force or momentum of the cars when in motion will operate or apply the brake of said cars, so as to overcome the velocity of the same.

And in order that others skilled in the art may know how to make and use our invention, we will proceed to describe its construction and mode of operation.

Figure 1 is a perspective view of two cars, with the several parts of said brake attached thereto.

Figure 2 is a representation of the brake.

In fig. 1, A is the brake-rod, a vertical cross-section of which is shown at Figure 3. Said rod is connected together between the cars with a link, R, Figure 5, in the usual manner. In fig. 2, D D D D are the brake-blocks, which act against the car-wheels. E E are the brake-bars, for supporting and holding the brake-blocks D firmly in their places. On both ends of the said bar are tenons, F. These are mortised through the frame-work of the car, as shown at G, and are allowed, by means of the length of the said mortises, to slide sufficiently to allow the brake to act against the wheels when the force is applied thereto. On the brake-bars E are four stands, H, I, J, K. Through the stands H and I passes the lever L, and through the stand J and K passes the lever M. The lever L is jointed to the stands H and I, and the lever M to the stands J and K. The levers L and M pass up through the edges of the brake-rod A, as shown at N, and are operated by the shoulders O and P, as hereinafter described. The cam-rods C C extend through the entire length of the cars on both sides of the brake-rod A, and are let into the same, as shown at Q, and slide therein.

Figure 3 is a cross-section of the brake-rod A, and C C are sections of the cam-rod. Into each of the said cam-rods C is cut a notch, S, as shown at Figure 4. When placed in the proper relations to the brake-rod A, said notch comes opposite, or nearly so, to the notches in the brake-rod at N.

Figure 6 shows the mode of connecting or coupling the cars together. T T are bunters, U U are the link-bolts. V is a latch or hook, jointed at W to the cam-slide C′, and hooked into the cam-slide C″ on the other car. At Y part of said hook is shown in dotted lines, it being dropped into the place and the point out of sight.

The key Z is shown at Figure 7. The web of the key A′ lies under the latch V, and has its bearings B′ B′ on both sides thereof, on the cam-slide C′. The object or use of the key Z is to lift out the hook V, by turning the web A′ of the key into a vertical position by the handle D′. Now, if the cars are to move in the direction of the dart on the brake-rod A, the cam-slide C on this side must be drawn forward a distance sufficient to lift out the lever L from the notch on this side of the brake-rod A, and the cars can move in the direction above indicated without affecting the brakes. But whenever it becomes requisite to stop the train (the locomotive being reversed) the brake-rod will be slid back, carrying with it the upper end of the levers M M, and by the connection of the said lever with the brakes above described the brakes will be directly applied to the wheels on all the cars so connected together by means of the force or momentum of said cars. The spiral springs E′ E′, connected to the brake-bars E, are for the purpose of releasing the brakes from the car-wheels when not in use. The rubber springs F′ F′ are connected at one end with the cam-slide C, and at the other with the framework of the truck, and their object is to hold the cam-slide C in its normal condition.

Having above described the mode of constructing and operating our invention, what we claim as new, and wish to secure by Letters Patent, is—

1. The brake-rod A, levers L and M, the stands H, I, J, K, when constructed as and for the purpose specified.

2. The cam-slide C, and latch V, and key Z, when constructed in the manner and used for the purpose ove set forth.

GEO. QUICK,
JOHN N. WALLIS.

Witnesses:
D. C. LEACH,
A. BABBETT.