No. 672,632.

Patented Apr. 23, 1901.

# M. VIDIE.

## RAILWAY BRAKE.

(Application filed Nov. 11, 1899.)

(No Model.)

2 Sheets—Sheet 1.

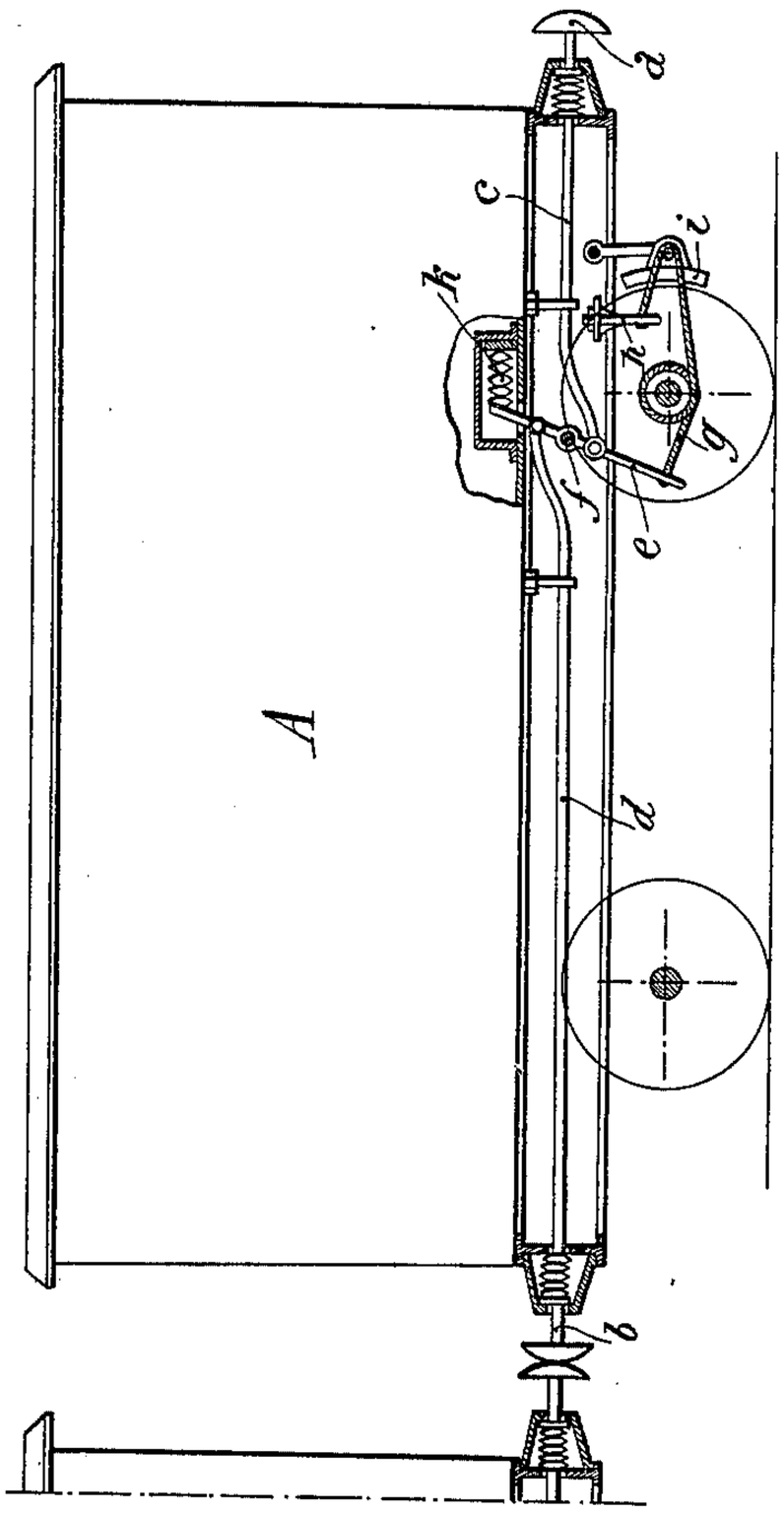


Fig. 1.

Witnesses:
Geo. E. Sullivan.
Z. A. Lanken.

Inventor
Maurice Vidie
By James L. Norris
Atty

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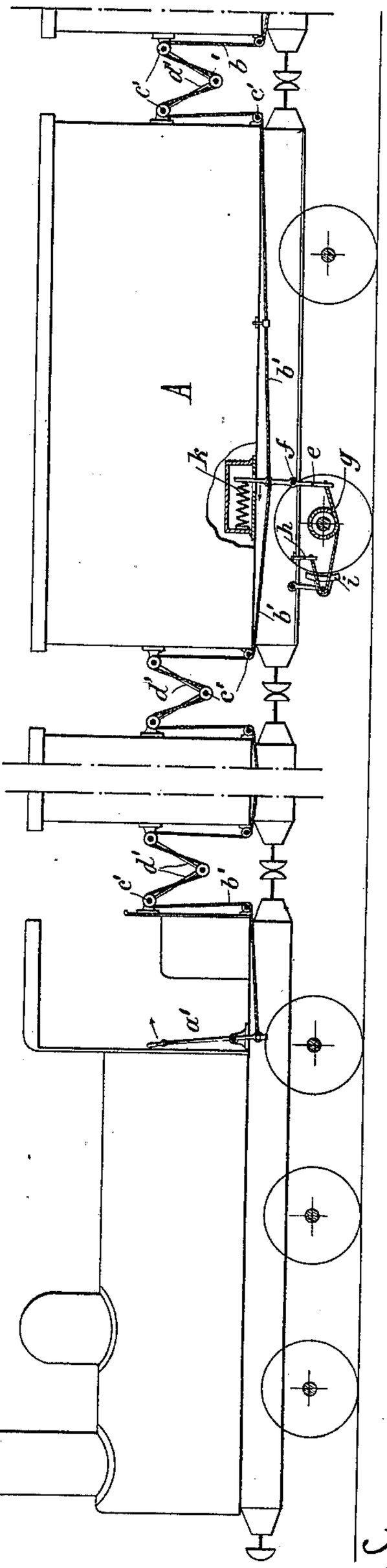


Fig. 2.

Witnesses:
Philip N. Wilson.
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# UNITED STATES PATENT OFFICE.

MAURICE VIDIE, OF PARIS, FRANCE.

## RAILWAY-BRAKE.

SPECIFICATION forming part of Letters Patent No. 672,632, dated April 23, 1901.

Application filed November 11, 1899. Serial No. 736,687. (No model.)

*To all whom it may concern:*

Be it known that I, MAURICE VIDIE, a citizen of France, residing at 74 Boulevard Haussmann, Paris, France, have invented certain new and useful Improvements in Railway-Brakes, of which the following is a specification.

The present invention has for its object an automatic arrangement for operating rope and cord brakes and for shoe-brakes, and is more especially designed for use on railways.

In order that the said invention may be readily understood, I will describe the same fully with reference to the accompanying drawings, in which—

Figure 1 is a side elevation, partly in section, showing my device applied thereto; and Fig. 2 is a like view showing a modified form of my device applied to a train of cars and operated from the engine thereof.

Referring to the drawings by reference-letters, A is a railway van or carriage, of which *a b* are the buffers. Each of these buffers is coupled by a connecting-rod *c* or *d* to a lever *e*, movable about a pivot *f*. To one of the ends of the lever *e* is attached the end *g* of the rope brake, the other end of which is secured at *h* to the frame of the vehicle. This rope controls by any suitable means the operating device of the brake-shoes *i*. At its other end each of the levers *e* bears against a strong spring *k*, which tends always to push back its end of the lever—that is to say, to keep the brake out of action. The brake therefore cannot act so long as the speed of the vehicle A is equal to that of the vehicles between which it is placed; but as soon as the carriage A tends to run quicker than that which precedes it or slower than that which follows it one or other of the buffers *a b* will be thrust inward. This movement will bring about the compression of the spring *k*, the rotation of the lever *e*, and consequently the putting on of the brake.

The braking of the vehicle A will necessarily effect the braking of the following vehicles successively, so that it will be sufficient for the brakeman to brake the tender in order to rapidly stop the whole train.

At the moment of starting the train all the buffers will regain their position under the action of their springs and of the spring *k*, and the brakes will be taken off. A similar result can be obtained by attaching the ends of all the levers corresponding to the springs *k* to a single cable *b'*, extending from the head to the tail of the train and operated by the lever *a'*.

The braking of the train can be effected by the brakeman applying by any suitable means a sufficient traction on the cable to put on all the brakes, while on slackening the cable the springs *k* take off the brakes.

If desired, a suitable compensating device may be placed between any two consecutive vehicles, as at *c' d'*, so as to maintain constant the length of cable between each two consecutive levers *e*.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. In a railway-brake, an operating-lever, a spring acting against one end of said lever, a brake-shoe-operating rope connected at one end to said lever and at its other end to the car, and means carried by each end of the car connected to said lever for operating the same, imparting a movement to said rope, causing thereby the operation of the brake-shoe.

2. In a railway-brake, an operating-lever, a spring acting against one end of said lever, a brake-shoe-operating rope adapted to be connected to said lever, to the car and the brake-shoe, and means connected to each end of the car for operating said lever, imparting movement to said rope, causing thereby the operation of the brake-shoe.

3. In a railway-brake, an operating-lever, a spring operating against one end of said lever, a buffer connected to each end of the car and to said lever for operating the same, and means connected to said lever for operating the brake-shoe.

4. In a railway-brake, an operating-lever, a spring operating against one end of said lever, means connected to said lever for op-

erating the brake-shoe, and a pair of spring-actuated rods connected to the buffers of the car and to said lever for operating the same.

5. In a railway-brake, an operating-lever, a spring acting against one end of said lever, a rope connected to said lever for operating a brake-shoe, and a spring-actuated buffer connected to each end of the car and to said lever for operating the same.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

MAURICE VIDIE.

Witnesses:
EDWARD P. MACLEAN,
ALFRED FREY.