N° 26,407 A.D. 1902

Date of Application, 1st Dec., 1902

Complete Specification Left, 28th Aug., 1903—Accepted, 15th Oct., 1903

PROVISIONAL SPECIFICATION.

Improvements in the Brake Mechanism of Power-propelled Road Vehicles.

I, FREDERICK WILLIAM LANCHESTER, of Armourer Mills, Montgomery Street, Sparkbrook, Birmingham, do hereby declare the nature of this invention to be as follows:—

This invention relates to an improved form of brake mechanism for power-propelled vehicles and refers more particularly to an improved construction of road wheel brake. The object of the present invention is to construct a brake which is applied direct to the road wheels and is unaffected by oil or mud and which has very little elastic yield.

In one mode of constructing a brake mechanism in accordance with my present invention I arrange a sheet metal disc securely rivetted to the wheel hub and I operate on the edge of this disc by a pair of gripping jaws actuated by a direct bell-crank lever. These gripping jaws and bell-crank lever form a piece of mechanism which somewhat resembles a pair of dentist's pliers the jaws being at right angles to the direction of the two handle levers. One of the jaws is mounted on a plate securely rivetted to the axle or axle frame and one of the handle levers is tied by a stay on to the said axle frame while the other is actuated by a tension link from the car body. The stay by which the one handle of the pliers is secured to the axle frame is approximately lineable with the direction of the tension link so that when tension is exerted on the link by suitable operating mechanism there is no tendency to distort the attachment plate or the brake disc in a lateral direction

November 29th 1902.

F. W. LANCHESTER.

COMPLETE SPECIFICATION.

"Improvements in the Brake Mechanism of Power-propelled Road Vehicles."

I, FREDERICK WILLIAM LANCHESTER, Engineer, of Armourer Mills, Montgomery Street, Sparkbrook, Birmingham, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to an improved form of brake mechanism for power propelled vehicles, and it refers more particularly to an improved construction of road-wheel brake.

The object of the invention is to construct a brake which is applied direct to the road wheels, is unaffected by oil or mud, and which has very little elastic yield.

[*Price 8d.*]

N° 26,407.—A.D. 1902.

Improvements in the Brake Mechanism of Power-propelled Road Vehicles.

The invention consists in a form of brake mechanism in which a metal disc or other element carried by the wheel hub is subjected to the action of a pair of gripping jaws, one on each side of the element, actuated by suitable levers.

Referring to the accompanying drawings, which illustrate one mode of constructing a brake mechanism according to this invention.

Figure 1 is a side view of the apparatus.

Figure 2 is a front view, and

Figure 3 a plan of the same.

A sheet metal disc *a* is securely riveted to the wheel hub *b*, a pair of jaws *c*, *d*, being arranged to grip its outer portion when closed together. One of these jaws *d* is formed near one end of a lever *e* which is secured to a plate *f* at one end and to a link *h* at the other end. The plate *f* is riveted to the casing *i* of the shaft *k*, the link *h* being also connected to the said casing *i*. The other jaw *c* is formed on a lever, *m*, which is pivoted to the lever, *e*, at *n*, the lever, *e*, being forked as shown in Figures 1 and 3 so that the lever *m* may be pivoted between the two branches of *e*. The free end of *m* is connected through a link *o* to a tension bar *p* which is preferably in a straight line with the link *h*.

In order to apply the brake a pull is applied to the bar *p*; this causes the jaw *c* to move to the left until the rim of the disc *a* is gripped more or less tightly between the jaws *c* and *d*, thus retarding the rotation of the disc *a* and of the hub *b* of the wheel to which it is attached.

By placing the tension bar *p* in a line with the link *h* the tendency to distort the disc *a* or the plate *f* is eliminated. Tension may be applied to the bar *p* by any suitable means.

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 power propelled road vehicles, the method of braking consisting in applying gripping jaws to an element which rotates along with the driving wheels, thereby retarding its motion, substantially as described.

2. In power propelled road vehicles, a brake device consisting of an element secured to and rotating with the wheels, and jaws adapted to grip a portion of the said element between them in order to retard the motion when desired, substantially as described.

3. In power propelled road vehicles, a brake device as claimed in Claim 2, in which the gripping jaws are carried by levers the length of which is perpendicular to the jaws and which are pivoted together at one end, their other ends being connected by links to a fixed portion of the vehicle and to a controlling tension bar respectively, these links being approximately in a straight line, substantially as described.

4. The improved brake device hereinbefore described with reference to the accompanying drawings.

Dated this 28th day of August, 1903.

MARKS & CLERK.
18, Southampton Buildings. London, W.C.
13, Temple Street, Birmingham, and
30, Cross Street Manchester.
Agents.

Redhill: Printed for His Majesty's Stationery Office, by Love & Malcomson, Ltd.—1903.

A.D. 1902. DEC. 1. N° 26,407.
LANCHESTER'S COMPLETE SPECIFICATION. (1 SHEET)

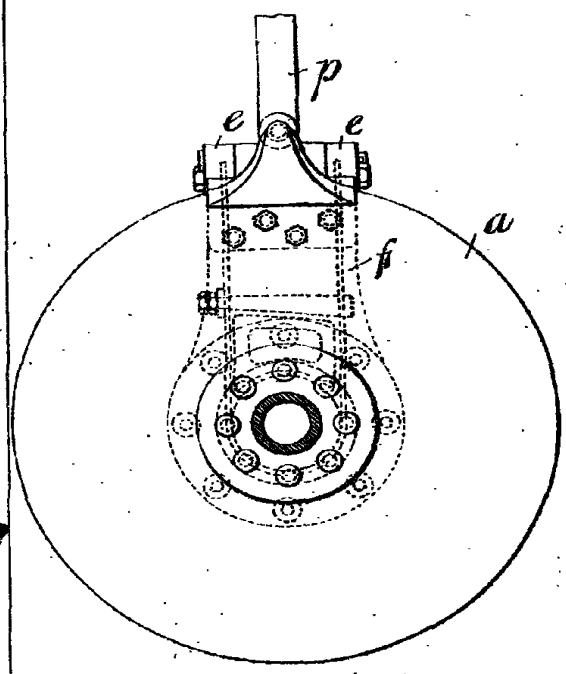

Fig.1.

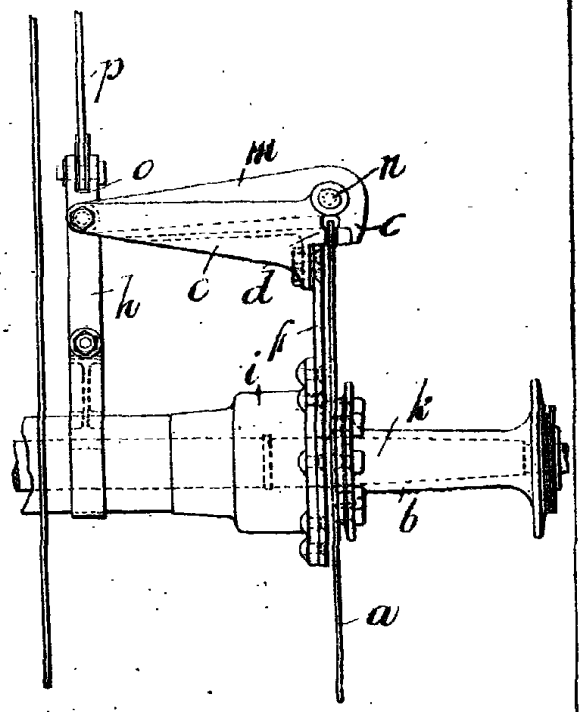

Fig.2.

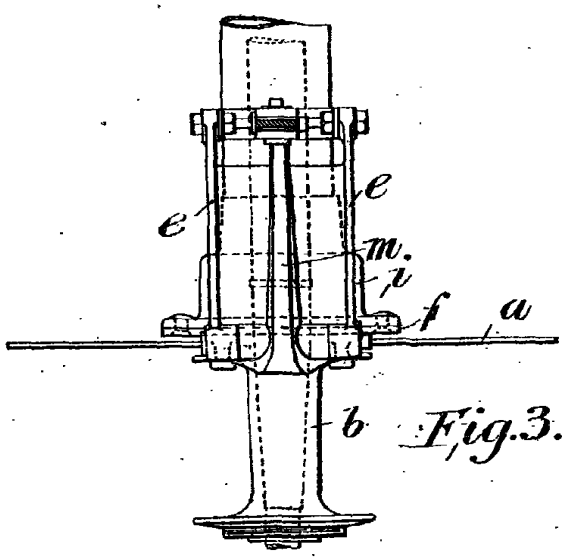

Fig.3.

[This Drawing is a reproduction of the Original on a reduced scale.]

Malby&Sons, Photo-Litho.