(No Model.)

H. H. THOMAS & N. F. & J. A. HOWARD.

BRAKE SHOE FOR VEHICLES.

No. 339,949. Patented Apr. 13, 1886.

Fig. 1.

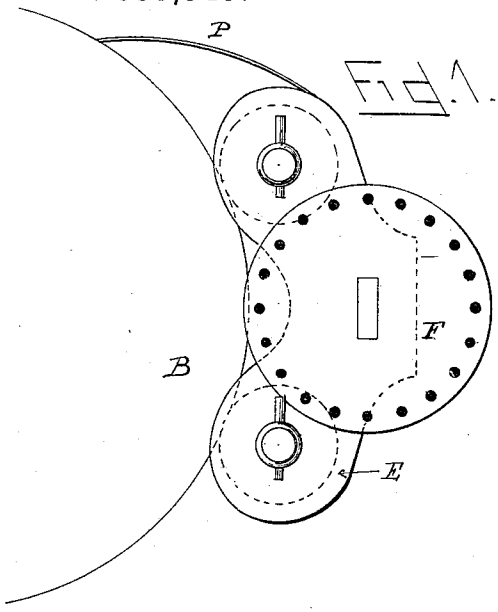


Fig. 2.

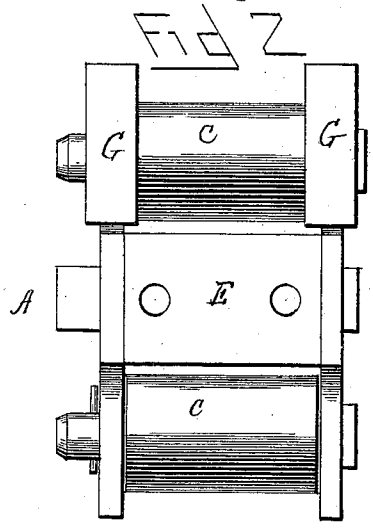


Fig. 3.

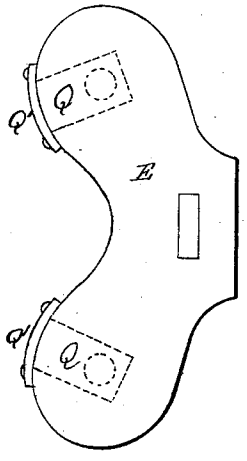


Fig. 4.

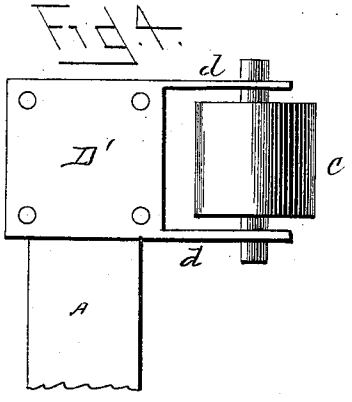
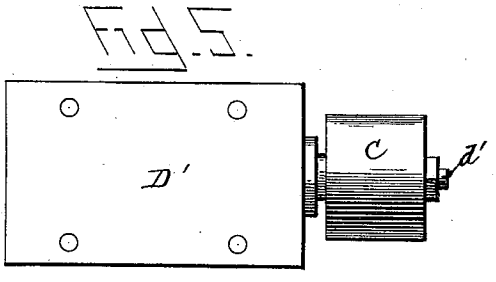


Fig. 5.



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UNITED STATES PATENT OFFICE.

HENRY H. THOMAS, NICHOLAS F. HOWARD, AND JOHN A. HOWARD, OF DAHLONEGA, GEORGIA.

BRAKE-SHOE FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 339,949, dated April 13, 1886.

Application filed February 6, 1886. Serial No. 191,030. (No model.)

To all whom it may concern:

Be it known that we, HENRY H. THOMAS, NICHOLAS F. HOWARD, and JOHN A. HOWARD, citizens of the United States, residing at Dahlonega, in the county of Lumpkin and State of Georgia, have invented certain new and useful Improvements in Brakes for Cars, Vehicles, and Machinery; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

Our invention relates to brakes for vehicles of all sorts and machinery, and has for its object the provision of a simple means of mounting and protecting revolving brake surfaces when operating upon the rim of a wheel.

The following detailed description will explain the nature of our said invention.

The accompanying drawings illustrate what we consider the best means for carrying our invention into practice.

Figure 1 is a side elevation of a brake applied to one side of a wheel, showing the controlling-disk. Fig. 2 is a rear elevation of the brake-shoe with the disk removed. Fig. 3 is a side elevation of the brake-shoe, showing the detachable bearings for the roller-gudgeons. Fig. 4 is a plan view of a form of brake-shoe which combines a cuff for inclosing the end of the brake-rod. Fig. 5 is a plan view of a form having a similar cuff or sleeve and a gudgeon or pintle for the roller integral with the sleeve.

Similar letters of reference indicate corresponding parts in all the figures where they occur.

A is the brake-rod shown in Figs. 2 and 4.

B indicates the wheel against which the brake is to bear.

C C are the revoluble rollers or brake-surfaces which are to impinge upon the wheel.

E is the brake-shoe, as shown in Figs. 1, 2, and 3, which is capable of bearing two or more rollers. This shoe may be made of any desired shape or size. In Figs. 1 and 2 the rollers are secured in it by pintles, which pass through both sides of the frame and the roller.

In Fig. 3 the pintles will be made integral with the roller, and removable boxes or bearings Q are secured upon the shoe to furnish holding means for the roller-gudgeons. These bearings Q extend inside of the sides of the frame or shoe and have a turned-over edge or lip, Q′, which rests upon and is secured to the face or front edge of the side pieces. These bearings or boxes are removable and can be replaced by new ones when they are worn, thus saving the cost of an entire new brake-shoe.

In Figs. 4 and 5 the shoe is made with a sleeve, D′, which covers the end of the brake-bar and forms a very strong and reliable securing means for the brake-roller. In these Figs. 4 and 5 only one roller is used, which may be held between jaws *d d*, as shown in Fig. 4, or upon a gudgeon, *d′*, formed integral with the sleeve, as shown in Fig. 5. The sleeve D′ is especially adapted for use upon wooden brake-rods, and avoids the necessity of reducing or cutting the ends of the rods. The sleeves or cuffs D′ also prevent the splitting or shattering of the brake rod by use, as is often done with the ordinary means for fastening the brake-shoe upon the rod.

The enlarged box or shoe shown in Figs. 1, 2, and 3 may be provided with the sleeve D′, so as to take in entire end of a large wooden rod.

Upon the upper rear side of the shoe E we provide the shields or protectors G, as shown in Fig. 2, which prevent dirt and grit from falling into the gudgeons and bearings of the brake. We also provide a scraper, P, as shown in Fig. 1, which extends up above the brake and rests against the rim of the wheel, as shown, to scrape the mud and grit from it, and thus save the roller.

If desired, the scraper may be made broad enough and long enough to cover the entire upper rear side of the brake-shoe and project as do the protectors G, and thus take the place of said parts G; or the scraper and parts G may be used together, or the scraper attached to the upper ends of the parts G.

To facilitate adjustment, we provide a disk or plate, F, placed alongside of the brake-shoe, as shown in Fig. 1, or at some point on the brake-rod, to which the brake-lever is attached. Holes are formed in a circular line near the periphery of this disk, into any of

which, as may be required, the brake-lever is inserted.

Having thus described our invention, what we desire to claim and secure by Letters Patent is—

1. In a brake, the combination, with the brake-roller and securing means, of the brake-bar and perforated disk or plate placed on the same for engagement with the brake-lever, as set forth.

2. In a brake, the combination, with the brake roller or rollers and shoe, of the protectors or guards, as described, to prevent the entrance of mud and grit to the bearings, as set forth.

3. In a brake, the combination, with the roller or rollers, of a scraper extending above the rollers and clearing the dirt from the rim of the wheel, as set forth.

4. In a brake, the combination, with the brake shoe and rollers, of the removable bearings or journal-boxes Q, having the lips or flanges Q′, for securing the same to the brake-shoe, as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

HENRY H. THOMAS.
NICHOLAS F. HOWARD.
JNO. A. HOWARD.

Witnesses:
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