(No Model.)

S. A. SEAT & M. W. PERKINS.

BRAKE FOR VEHICLES.

No. 421,522. Patented Feb. 18, 1890.

Fig. 1.

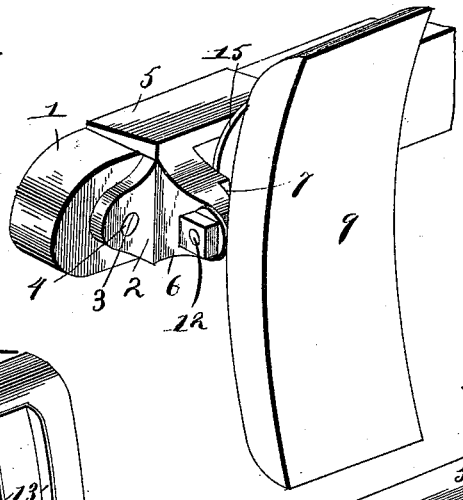


Fig. 2.

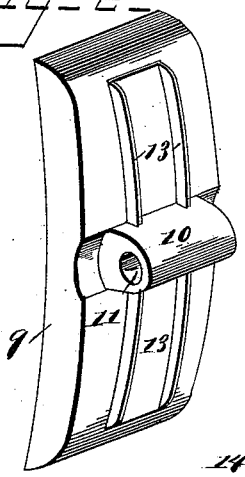


Fig. 3.

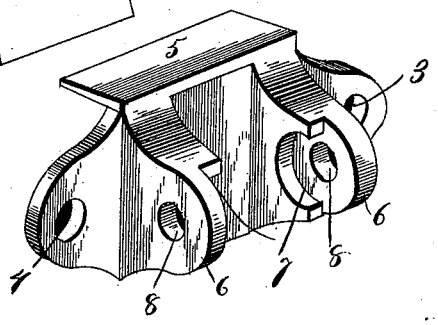


Fig. 4.

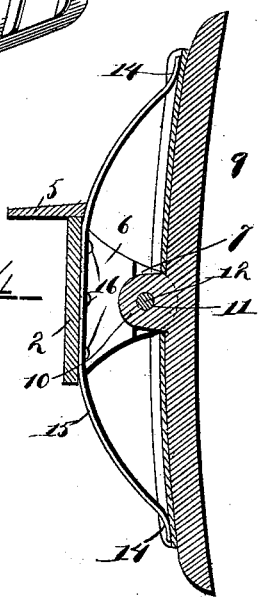
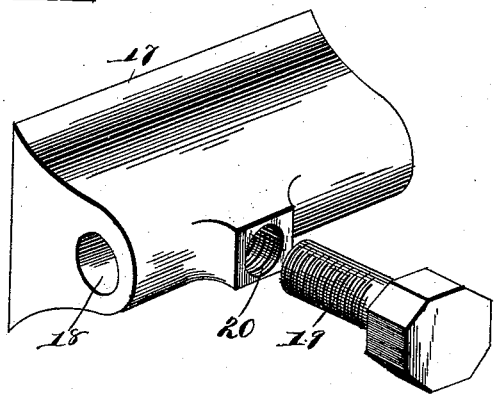


Fig. 5.



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UNITED STATES PATENT OFFICE.

SAMUEL A. SEAT AND MORGAN W. PERKINS, OF HEMATITE, MISSOURI.

BRAKE FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 421,522, dated February 18, 1890.

Application filed December 17, 1889. Serial No. 334,118. (No model.)

To all whom it may concern:

Be it known that we, SAMUEL A. SEAT and MORGAN W. PERKINS, citizens of the United States, residing at Hematite, in the county of Jefferson and State of Missouri, have invented a new and useful Brake for Vehicles, of which the following is a specification.

This invention has relation to brakes for vehicles, and more especially to the brake-shoe and means for connecting the same with the brake-bar; and among the objects in view are to provide a connection between the bar and shoe, whereby the former holds the latter at an even pressure at all points upon the wheel and is undisturbed by the oscillations of the vehicle as the same passes over rough roads or the body thereof becomes depressed by reason of heavy loads contained therein.

With these general objects in view our invention consists in certain features of construction hereinafter described, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective of one end of a brake-bar having a brake-shoe and connections constructed in accordance with our invention. Fig. 2 is a rear perspective of the brake-shoe detached; Fig. 3, a similar view of the securing-plate detached. Fig. 4 is a vertical section; Fig. 5, a detail in perspective of a modified construction of securing-plate, whereby the same is adapted for cylindrical brace-bars.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 represents a brake-bar—in this instance rectangular in cross-section and adapted to be operated by any usual brake-operating mechanism.

2 represents a securing-plate applied to the rear edge of the brake-bar by means of bolts 4, inserted through bolt-openings 3, formed at each end of the securing-plate, said securing-plate also being provided with a right-angular lip 5, adapted to overlap the upper edge of the brake-bar.

The outer face of the securing-plate is provided with a pair of oppositely-located lugs 6, the inner faces of which at their ends are provided with semicircular recesses or cut-away portions 7, extending about one-half the width of the lugs, which lugs are also provided with a bolt-receiving opening 8, concentric with the semicircular recesses.

9 represents the brake-shoe, the back of which is provided with a transverse rib or lug 10, the exterior of which is semi-cylindrical, and provided with a bolt-opening 11, extending through the same. The cylindrical rib or lug is mounted and fits in the semi-cylindrical recesses formed in the lugs 6, said rib terminating short of the edges of the shoe, and thus permitting the ends of the lugs to take at each side of the rib, and thus the openings 8 and 11 register, and through the same is inserted a pivot-bolt 12. The rear face of the shoe, at each side of the rib 10, is provided with a pair of opposite longitudinal flanges 13, and between each pair there bears upon the shoe the bent terminals 14 of a flat semi-bow spring 15, the upper intermediate portion of which is connected by rivets 16 to the plate 2. By this construction it is apparent that both the securing-plate and shoe may be formed of cast metal, and that, regardless of the angle or depression of the body, which thereby likewise disposes the brake-bar when force is applied to the brake mechanism, the shoe will be presented to the wheel, so that all portions of the former will be snugly pressed against the same, thus insuring a firm holding of the wheel and an even wear of the friction-surface of the brake-shoe.

In instances where a cylindrical brake-bar is employed we omit the bolt-holes 3 and lip 5 and provide the plate with a thickened transverse rib 17, perforated, as at 18, for the reception of the bar, upon which it is adjusted by means of a set-bolt 19, inserted through an opening 20 in the plate and bearing on the bar.

Having thus described our invention, what we claim is—

1. The combination, with a brake-bar, of a securing-plate bolted thereto and provided with an opposite pair of lugs having bolt-holes, a brake-shoe having a transverse rib on its back adapted to be received between the lugs and provided with a bolt-opening registering with those of the plate, and a bolt inserted through the openings in the lugs, the shoe being provided at each side of its lug with a pair of parallel flanges longitudinally dis-

posed, and a semi-bow spring having its ends bent and resting between the flanges and its intermediate portion secured to the plate, substantially as specified.

2. The combination, with a brake-bar, of a plate bolted thereto and provided with an opposite pair of lugs having bolt-openings concentrically recessed at their ends upon their inner faces, a shoe having a semi-cylindrical rib or lug having an opening and mounted in the recesses of the lugs, and a bolt inserted through the openings of the rib and lugs, flanges arranged at each side of the rib of the shoe, and a semi-bow spring having its center connected to the plate between the lugs and its bent terminals riding between the flanges, substantially as specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

SAMUEL A. SEAT.
MORGAN W. PERKINS.

Witnesses:
E. F. DONNELL,
J. M. WALTON.