

UNITED STATES PATENT OFFICE.

HENRY SCHWENCK, OF NEW YORK, N. Y.

VEHICLE-BRAKE.

SPECIFICATION forming part of Letters Patent No. 746,391, dated December 8, 1903.

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To all whom it may concern:

Be it known that I, HENRY SCHWENCK, a citizen of the United States, residing at New York city, (Richmond,) county of Richmond, and State of New York, have invented new and useful Improvements in Vehicle-Brakes, of which the following is a specification.

This invention relates to a vehicle-brake which may be locked at various angles to its supporting-arm, so that as the shoe wears off and becomes distanced from the wheel its proper operative position may be reestablished. In this way a proper working of the brake is insured, and its life is greatly prolonged.

In the accompanying drawings, Figure 1 is a side view of the brake, showing it applied to a wagon; Fig. 2, a front view of the right brake; Fig. 3, a similar view of the left brake; Fig. 4, a rear view of the brake-head; Fig. 5, a side view, partly in section, of the brake; Fig. 6, a detail section on line 6 6, Fig. 5; Fig. 7, a cross-section on line 7 7, Figs. 3 and 6; Fig. 8, a section of a modification corresponding to Fig. 6; and Fig. 9 a cross-section on line 9 9, Fig. 8.

The letter A represents the head of the brake, and B is the shoe. The head A is provided with an eye *a* for the reception of the supporting-arm *c*, projecting at right angles from the brake-lever *d*. The head A is secured to the arm *c* in such a manner that it may be locked thereto at different inclinations, and consequently at different inclinations to the wheel *e*. Thus as the top of the shoe gradually wears away the head may be tilted back from time to time to compensate for wear. In order to effect this desirable result, I provide the arm *c* with a multiplicity of spaced projections set at acute angles to each other and adapted to interlock with a corresponding number of spaced recesses of the head. Thus in Figs. 1 to 7 the arm is provided with a shoulder *c*², adapted to bear against the inner side of eye *a*, and with a reduced section or pin *c*¹, adapted to pass through the eye. From the shoulder *c*² pro-

ject a series of spaced lugs *c*³, parallel to the axis of the arm. The eye *a* is at its inner side provided with a series of lugs *a*², separated by a series of spaced mortises *a*¹. These mortises are also set at acute angles to each other and are each of a size to snugly receive one of the lugs *c*³. By slipping the head upon the pin *c*¹ the lugs will interlock with the mortises and hold the head against rotation. The end of the pin *c*¹ is threaded, as at *c*⁴, to receive a nut *f*, which bears against the outer side of eye *a* and, in conjunction with shoulder *c*², holds the head A against axial displacement.

If it is desired to change the inclination of the brake, the nut is loosened, the head is partly drawn off the pin, so that the lugs *c*³ clear the mortises *a*¹, and then the head is slightly turned and pushed back to bring the lugs into reengagement with the mortises, after which the nut is again tightened up. In this way each lug *c*³ will enter a new mortise *a*¹, and the brake will become firmly locked at the new angle to which it has been set.

In Figs. 8 and 9 the lugs *c*³ are replaced by ribs or corrugations *c*⁵, extending from shoulder *c*² to the outer threaded end of pin *c*¹, while the eye *a* is correspondingly grooved from end to end, as at *a*³, for the reception of such ribs.

In order to lock the shoe B to the head A, the back of the latter is provided with a cruciform groove *a*⁴, adapted for the reception of a cruciform rib *b* on the front of shoe B. Bolts *g*, carrying nuts *g*¹, are secured to the shoe and pass through perforations *a*⁵ of the head. When the nuts are tightened up, the ribs *b* will interlock with the grooves *a*⁴ and will prevent the shoe from slipping.

The right and left brakes are reverse counterparts of one another. If, therefore, either brake-shoe has been worn down on top, it may be reversed and applied to the other side of the wagon, where its bottom will be brought to the top. In this way each shoe may be entirely used up, and its life is consequently

greatly prolonged. My improved brake is equally applicable to wagons and to cars.

What I claim is—

5 A vehicle-brake provided with an arm having a multiplicity of projections set at acute angles to one another, and with a correspondingly-recessed head adapted to be engaged by said arm, substantially as specified.

Signed by me at New York city, (Manhattan,) New York, this 16th day of September, 10 1903.

HENRY SCHWENCK.

Witnesses:

WILLIAM SCHULZ,
FRANK V. BRIESEN.