No. 677,846. Patented July 9, 1901.

W. H. ADAMS.

BRAKE FOR VEHICLES.

(Application filed Sept. 13, 1900.)

(No Model.)

Fig. 1.

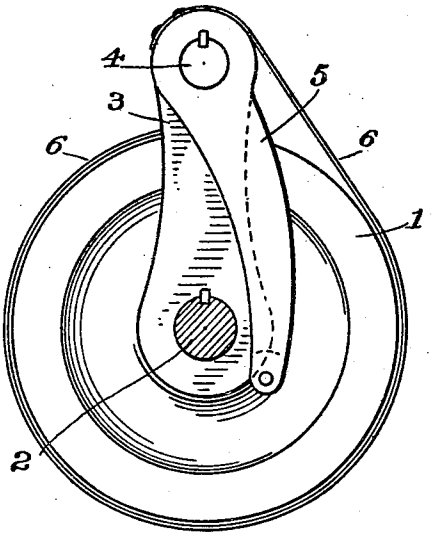


Fig. 2.

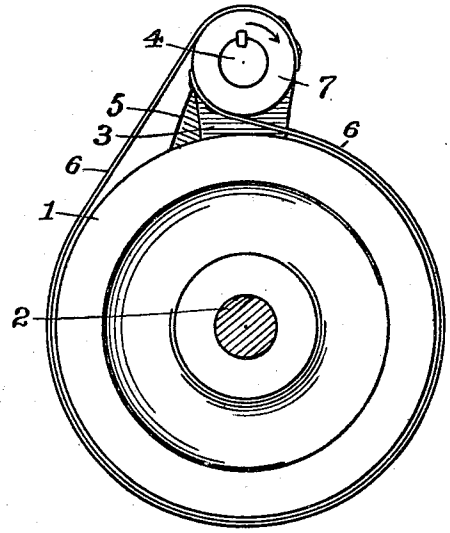


Fig. 3.

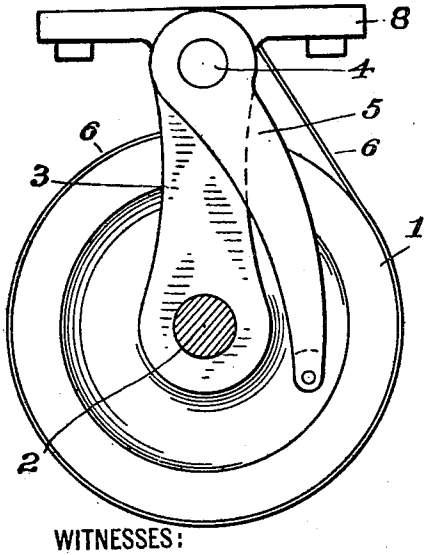
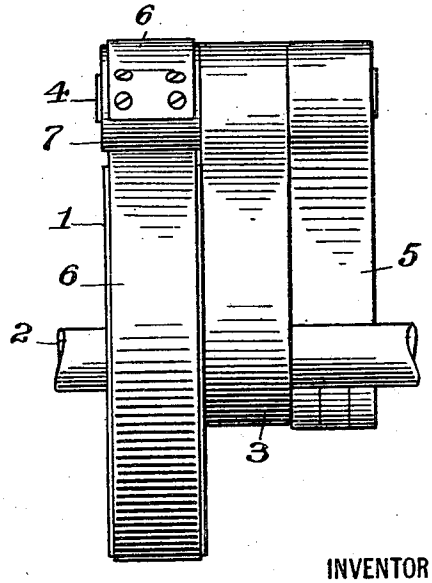


Fig. 4.



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WALTER H. ADAMS, OF SOUND BEACH, CONNECTICUT.

BRAKE FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 677,846, dated July 9, 1901.

Application filed September 13, 1900. Serial No. 29,917. (No model.)

To all whom it may concern:

Be it known that I, WALTER H. ADAMS, a citizen of the United States, residing at Sound Beach, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Brakes for Vehicles; and I do hereby 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.

My invention relates to certain new and useful improvements in vehicle-brakes, but more particularly has reference to that class of such devices called "band-brakes."

The object of my invention is to provide a device of this description which shall actually wind up the slack of the band from both sides of the band-wheel at the same time, so that the slack is not all taken up at one end of the band.

In the accompanying drawings, which form a part of this application, Figures 1 and 2 are views of opposite ends of my improved brake; Fig. 3, a view similar to Fig. 1, but showing a slight modification of my improvement; and Fig. 4 is a front elevation.

Similar numbers of reference denote like parts in the several figures of the drawings.

1 is any suitable circular surface, such as a wheel or hub, which revolves in harmony with the vehicle-wheel proper or with a sprocket-wheel in the event that the vehicle is driven by a chain, as in bicycles and automobiles.

2 is the shaft or axle of the vehicle, around which shaft the wheel 1 revolves freely. 3 is a hanger keyed to this shaft, 4 a rock-shaft journaled within said hanger at the upper end and extending in close proximity to the wheel 1, and 5 is a crank-lever keyed to one end of the rock-shaft.

6 is a sheet-metal band which extends around the circumference of the wheel 1, one end of this band being passed between the head 7 and the wheel 1 and wrapped around the lower portion of said head for a short distance and then secured thereto, the other end of this band being passed over the upper portion of said head and wrapped around the same throughout about half its circumference and in the same direction as the end previously referred to, and then secured to said head diametrically opposite the first-mentioned end, so that it will be clear that when said head is moved in the direction of the arrow the band will be wound around the head. It will readily be understood that when said shaft is rocked in the very slightest degree, so as to turn the head in the direction of the arrow, the slack of the band will be taken up at both ends thereof, and said band will therefore be tightened uniformly around the wheel 1, while the releasing of the rock-shaft will enable said band by its own resiliency to relax its grip on the wheel. It will further be evident that owing to the fact that the ends of the band are wrapped around the head 7 the brake can be operated with the utmost ease and freedom from undue strain.

The crank 5 is connected to any suitable brake chain or rod (not shown) whereby the rocking movements of the shaft may be readily effected.

At Fig. 1 I have shown the hanger 3 keyed rigidly to the shaft 2, so as to afford a proper journal-support for the rock-shaft, and while I prefer this construction it is clear that this hanger may be loose around the shaft 2 and may be constructed with a plate 8, formed at the upper end, as shown at Fig. 3, so as to be bolted to the under side of the vehicle, and I therefore do not wish to be limited in this respect.

My improved vehicle-brake may be applied to railway-cars, bicycles, automobiles, wagons, and, in fact, to almost any kind of vehicle, and I have therefore not shown my improvement in connection with any particular vehicle, since it is merely necessary that the wheel 1 revolve in harmony with the vehicle-wheels proper as an element of the running-gear.

The principal feature of my invention resides in the fact that the sheet-metal band has its ends wrapped around the rock-shaft or head in the same direction, so that the proper movement of the rock-shaft will cause the slack in the band to be taken up at both sides of the wheel.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a vehicle-brake, the combination of the axle, the circular braking-surface which revolves in harmony with the vehicle-wheels, the hanger secured as against displacement, the rock-shaft journaled in close proximity to the braking-surface, the circular head secured to said shaft, the continuous sheet-metal band passed freely around the periphery of the braking-surface and having one of its ends passed between said head and surface while the other end is passed over the top of said head, both said ends being wrapped around said head in the same direction and secured thereto and thereby constituting the sole means of supporting said band, and a crank-lever secured to the rock-shaft, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

WALTER H. ADAMS.

Witnesses:
F. W. SMITH, Jr.,
M. T. LONGDEN.