(No Model.)

A. J. HAAS.

BICYCLE BRAKE.

No. 556,052. Patented Mar. 10, 1896.

FIG. 1.

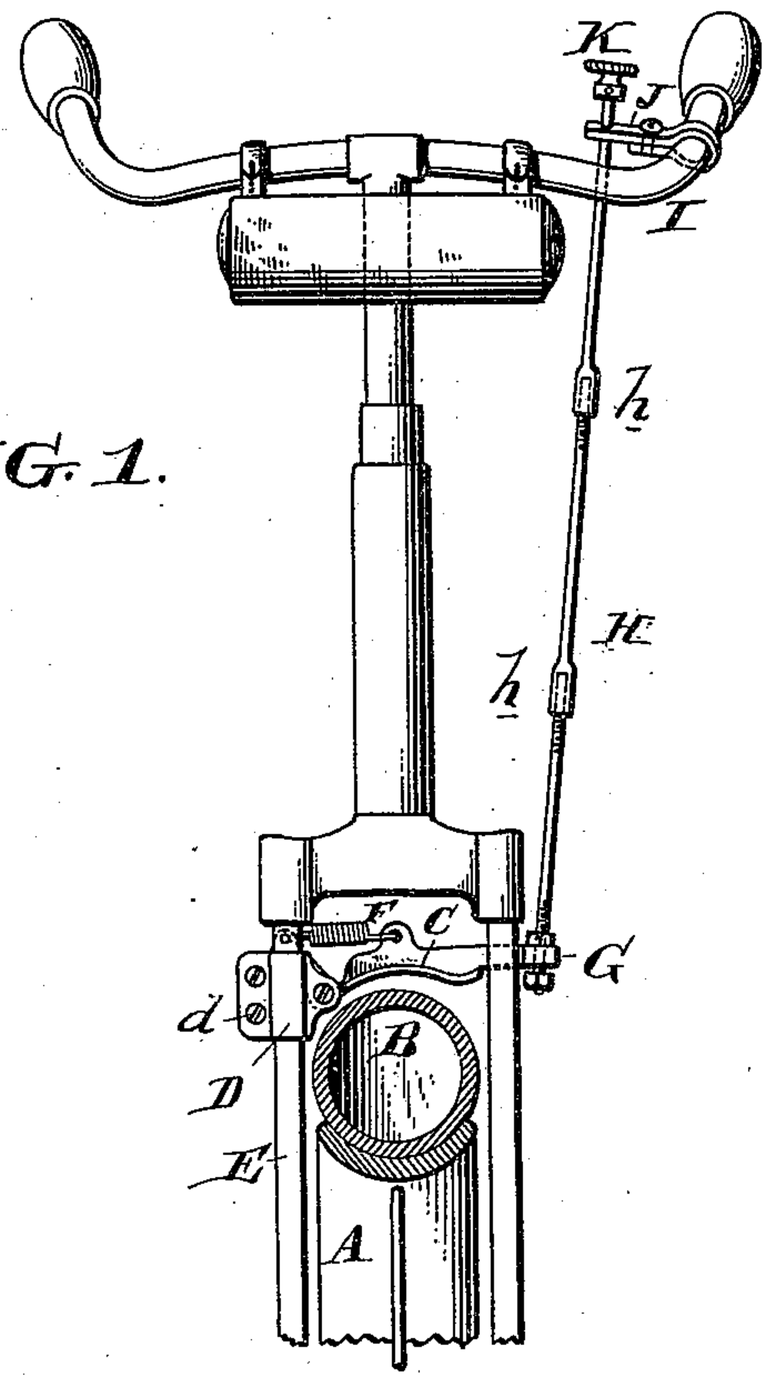


FIG. 2.

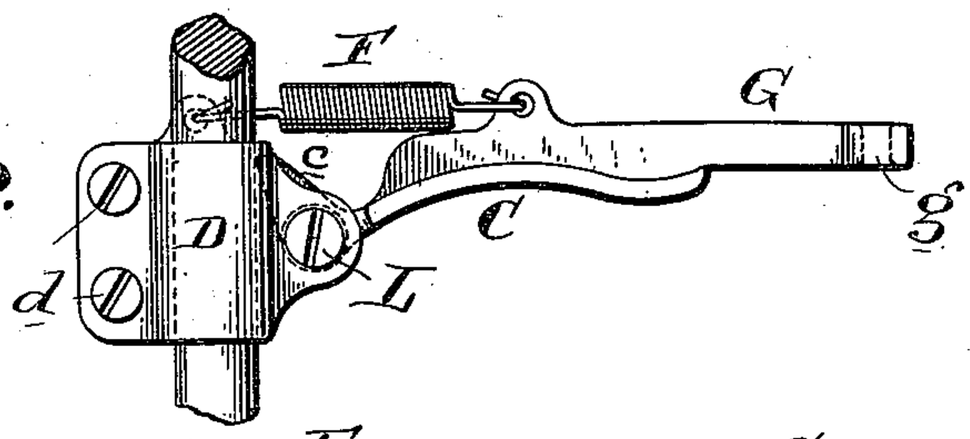
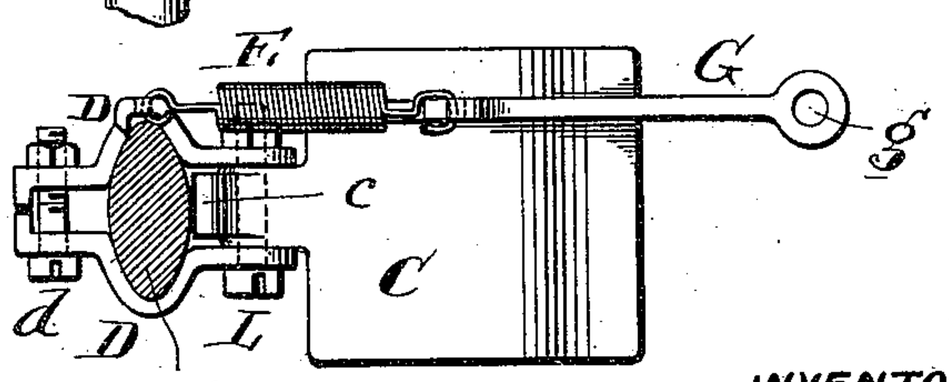


FIG. 3.



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UNITED STATES PATENT OFFICE.

ASTOR J. HAAS, OF PHILADELPHIA, PENNSYLVANIA.

BICYCLE-BRAKE.

SPECIFICATION forming part of Letters Patent No. 556,052, dated March 10, 1896.

Application filed July 27, 1895. Serial No. 557,318. (No model.)

To all whom it may concern:

Be it known that I, ASTOR J. HAAS, of the city and county of Philadelphia and State of Pennsylvania, have invented an Improvement in Brakes for Bicycles, of which the following is a specification.

My invention has reference to brakes for bicycles; and it consists of certain improvements which are fully set forth in the following specification and are shown in the accompanying drawings.

The object of my invention is to provide a suitable form of brake which may be readily applied to bicycles in general, and which may be operated directly by the thumb without the necessity of the usual weighty and complicated levers.

My object is furthermore to provide such a brake so it can be quickly and readily removed when not needed, and, if desired, converted from a hand-brake into a foot-brake.

In carrying out my invention I hinge to one of the legs of the fork a laterally-projecting brake-shoe provided with a spring to remove it from contact with the tire, and combine therewith a direct-acting rod extending to the handle adjacent to the position occupied by the thumb and supported in suitable guides, whereby a downward pressure by the thumb will depress the brake-shoe upon the bicycle-tire and create a braking action. The brake-shoe is connected to the fork by a detachable clamp, whereby it may be removed at will and attached to machines of various makes.

My invention would be better understood by reference to the accompanying drawings, in which—

Figure 1 is a sectional elevation of the front portion of a bicycle, showing my improved brake appled thereto. Fig. 2 is an enlarged view of the brake proper, and Fig. 3 is a plan view of the same.

My improvement is adapted to be applied to any class of bicycles, but is particularly intended for the pneumatic safety. To the yoke E of the front wheel I apply a suitable adjustable clamp D D, secured in position by the clamping-screw *d*.

C is a brake-shoe, which is made slightly curved and arranged to move upon an axis L parallel to the plane of rotation of the wheel. The pivot connection L is made by means of a bolt passing through projections from the clamp-plates D D, and this bolt L also assists the bolt or screw *d* in clamping the plates D to the yoke. The brake-shoe C is also provided with a heel *c*, adapted to come into contact with the yoke and limit the upward movement of the brake-shoe proper under the action of the spring F, which is connected to the brake-shoe at one end and to the clamp at the other end. The brake-shoe C is provided with an extended arm G, which projects laterally to one side of the wheel. The brake-shoe is depressed by the rod H, which is connected to the arm at the bottom through the eye *g* and supported at the top by the clamping-guide J, adapted to the handle-bar I. The rod H is surmounted at the top with a thumb-piece K, which can be depressed by the thumb or finger while the hand still holds the handle of the bicycle.

The guide-clamp J sustains the upper end of the rod H in the vicinity of the handle, and this is rendered possible without a needless projection of the rod, as it is customary to make the handles very narrow.

To enable the rod H to be removed and packed in the usual tool-case I form the said rod in several pieces, which are screwed together, as at *h*.

It frequently happens that in racing or where the country is very level the brake is unnecessary, and it is desirable under those conditions to so arrange the parts that they can be readily removed, not only to improve the appearance of the bicycle, but also to reduce the weight thereof where an advantage is to be secured therefrom. Heretofore the brakes have been cumbersome and weighty contrivances. This brake in the complete form is very light and durable and adds but very little to the actual weight of the bicycle. It is evident that if desired the brake-shoe may be left in position and the rod H, together with the clamping-guide J, removed and the brake in case of necessity be applied by pressure of the foot. However, in all cases where

there are hilly roads to travel over, it is desirable to have the complete brake appliances as illustrated.

While I prefer the construction shown, it is evident that the minor details thereof may be modified without departing from the spirit of my invention.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a brake for a bicycle, the combination of a suitable brake-support adapted for attachment to the fork of a bicycle, a brake-shoe pivoted thereto, a rod for applying the brake extending directly from the brake-shoe upward to one of the handles of the bicycle, a guide attached to the handle-bar of the bicycle for guiding the upper end of the rod, and a head or cap for the upper end of the rod upon which to press the thumb or finger in applying the brake.

2. In a brake for a bicycle, the combination of a brake-shoe movably connected to the frame of the bicycle, a rod extending from the brake-shoe directly to one of the handles and terminating in an exposed end adapted to be operated by the hand, and a guide adjacent to the handle for guiding the upper end of the rod.

In testimony of which invention I hereunto set my hand.

ASTOR J. HAAS.

Witnesses:
ERNEST HOWARD HUNTER,
ROSE M. KELLY.