(No Model.)

D. WILLIAMSON.

BICYCLE FASTENER.

No. 549,086. Patented Oct. 29, 1895.

Fig. 1.

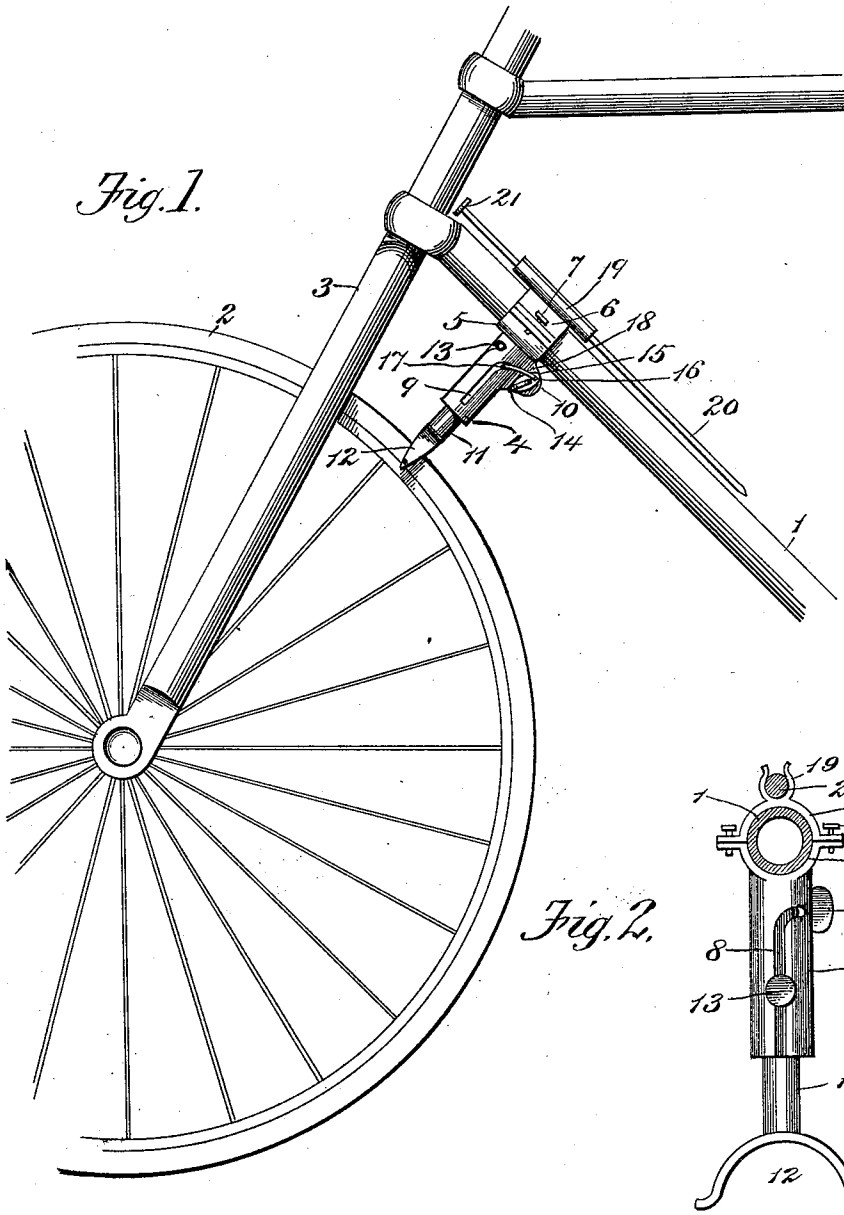


Fig. 2.

Witnesses
W. T. S. Duvall.
J. J. Keating.

Inventor
Daniel Williamson.
By W. T. S. Duvall. his Attorney.

ANDREW B. GRAHAM. PHOTO-LITHO. WASHINGTON. D.C.

UNITED STATES PATENT OFFICE.

DANIEL WILLIAMSON, OF SUNBURY, PENNSYLVANIA.

BICYCLE-FASTENER.

SPECIFICATION forming part of Letters Patent No. 549,086, dated October 29, 1895.

Application filed March 14, 1895. Serial No. 541,839. (No model.)

To all whom it may concern:

Be it known that I, DANIEL WILLIAMSON, a citizen of the United States, residing at Sunbury, in the county of Northumberland and State of Pennsylvania, have invented certain new and useful Improvements in Bicycle-Fasteners; 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 improvements in bicycle-locks, the objects in view being to produce a cheap and simple locking device adapted to be applied to a frame-bar of any of the bicycles or machines of the well-known class of safeties and to be conveniently adjusted so as to secure or lock the wheel against movement in any direction, and when so adjusted to be secured in such position against disturbance of its adjustment; also, to combine therewith a suitable prop or rest adapted to serve as a support for the machine when at rest; also, a convenient means for carrying the prop or rest when the machine is in motion, and withal to obviate any material increase in the weight of the machine as a whole and any rattling of the parts composing my attachment.

Various other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a side elevation of a machine provided with my attachment, the machine being shown as when in motion and the attachment, therefore, in an inoperative position. Fig. 2 is a detail in front elevation of the attachment.

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

I have shown my invention as applied to what might well be termed the "reach frame-bar" of the machine-frame, the same being designated as 1, while 2 represents the front wheel and 3 the steering bar or fork, all of which are employed in the class of bicycles commonly termed "safeties."

The attachment comprises a cylindrical barrel 4, at the upper end of which is formed one member of a clamp or clip 5, the upper or opposing member 6 being of corresponding shape and the two together embracing the reach frame-bar 1. The opposing ends of the two members of the clamp or clip are laterally extended and perforated, and through the same are passed a couple of clamping-screws 7, whereby the device may be securely fastened upon any part of the reach frame-bar of the machine-frame.

Between its ends the barrel or cylinder 4 is provided with a bayonet-shaped slot 8, and at one side of the same with a similar slot 9, and in rear of this with a lug 10.

Arranged within the cylinder or barrel 4 is a bolt 11, the same being somewhat longer than the cylinder or barrel and terminating at its lower end in a wheel-embracing clamping-yoke 12 of crescent or moon shape in cross-section. A binding thumb-screw 13 extends from the bolt 11, in which it is threaded, through the slot 8, and serves to secure the bolt in either the raised or lowered position which it is capable of assuming.

Swiveled in the lug 10 is a thumb-button 14, the same having a square shank, upon which is arranged for movement therewith an eccentric disk 15. Pivoted eccentrically to the disk 15, as at 16, is the upper end of a curved link 18, the lower end of which is pivoted, as at 17, to the bolt 11, the aforesaid pivot passing through the longitudinal slot 9 of the cylinder or barrel 4. It will thus be apparent that the thumb-screw 13 being loosened the bolt will be perfectly free to move vertically either up or down as it may be actuated by the direction of rotation of the swiveled button 14.

Located upon the upper side of the upper member of the clamp or clip 6 is a longitudinally-disposed U-shaped spring-holder 19, and arranged removably therein is a supporting or rest rod 20, one end of the latter being preferably slightly reduced, as shown, and the opposite end provided with a head 21.

In Fig. 1 of the drawings it will be seen that I have illustrated the attachment as it appears when not in use or the machine is in motion. The supporting-rod 20 is securely held by the spring-holder 19 and cannot rattle or become displaced. When, however, the machine stops and it is desirable to support the same in a vertical position, this rod is removed from the holder and is employed as a

prop or rest for the machine, the point at one end of the rod being inserted slightly in the roadway, and the head inserted under any convenient portion of the machine. At such time also the screw 13 is loosened and the swiveled button partially rotated, which will cause the bolt to partially rotate, so that the screw 13 will leave the upper horizontal portion of the bayonet-shaped slot 8, and from thence pass into and down the remainder or vertical portion of said slot, the bolt descending until its yoke 12 impinges to the desired extent upon the tire of the wheel, whereby the wheel will not only be locked against rotation, but also any lateral movement, so that the machine will rest quietly against the supporting-rod. A slight turn of the screw 13 now locks the bolt against rising.

To put the machine in condition for riding, the operator removes the rod from its propping position and returns the same to the spring-holder, releases the screw 13, and rotates the swiveled button in an opposite direction, thereby causing the bolt to ascend, and when it reaches the limit of its ascension to partially rotate, so that the screw 13 is again directed into the upper horizontal portion of the slot 8. To make the parts safe, the screw 13 may be again rotated so as to clamp upon the cylinder or barrel.

From the foregoing description, in connection with the accompanying drawings, it will be seen that I have provided a very easily applied, light, and simple attachment for bicycles, the same being conveniently operated to lock the machine against travel and support it when at rest.

Having described my invention, what I claim is—

1. The herein described bicycle-attachment, the same consisting of a cylinder provided at one end with a clip for attaching to the bicycle-frame and provided between its ends with a slot of bayonet-shape, a bolt arranged for reciprocation in said cylinder and terminating below the same in a yoke for impinging upon the tire of the bicycle-wheel, and a set-screw projecting from the bolt through the slot and adapted to clamp upon the cylinder, substantially as specified.

2. The herein described bicycle-attachment, the same consisting of a cylinder carrying a wheel locking-device, a holder located at the upper end of the cylinder, and a rod located therein and adapted to be removed and serve as a support for the bicycle, substantially as specified.

3. The herein described bicycle-attachment, the same consisting of a cylinder provided between its ends with a pair of longitudinal slots and adapted at its upper end to be secured to the frame of a bicycle, a swivel-button at one side of the slots, a bolt located for reciprocation in the cylinder and terminating therebelow in a yoke adapted to impinge upon the wheel, a set-screw extending from the bolt through one of the slots, an eccentric carried by the button, and a link pivoted at one end to the eccentric and at its opposite end to the bolt, the latter pivot extending through the remaining slot, substantially as specified.

4. The herein described bicycle-attachment, the same consisting of the cylinder provided with a slot and adapted at its upper end to be secured to the frame-bar of the machine, a bolt arranged for longitudinal movement in the cylinder and terminating below the same in a yoke adapted to impinge upon the wheel, a swivel located at one side of the slot, an eccentric carried by the swivel, and a link pivotally and eccentrically connected to the eccentric and to the bolt, the latter pivot moving in the slot of the cylinder, substantially as specified.

5. The herein described bicycle-attachment, the same consisting of the cylinder adapted at its upper end to be connected to the frame-bar of a bicycle and provided between its ends with a pair of bayonet-shaped slots and in rear thereof with a lug, a bolt arranged for reciprocation in the cylinder and below the same terminating in a U-shaped yoke, a swiveled button located in the lug, an eccentric carried by the button, a link eccentrically connected to the eccentric and to the bolt, the latter pivot moving in one of said slots, and a set-screw connected to the bolt and having its head extending through the remaining slot, substantially as specified.

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

DANIEL WILLIAMSON.

Witnesses:

JEFFERSON SHIPMAN,

J. P. CARPENTER.