

(No Model.)

W. H. GARLAND.

ANTIVIBRATORY HANDLE BAR FOR BICYCLES.

No. 580,389.

Patented Apr. 13, 1897.

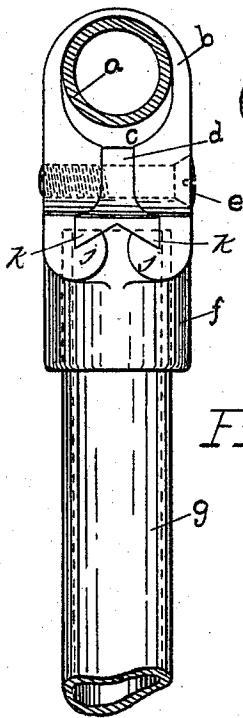


Fig 1

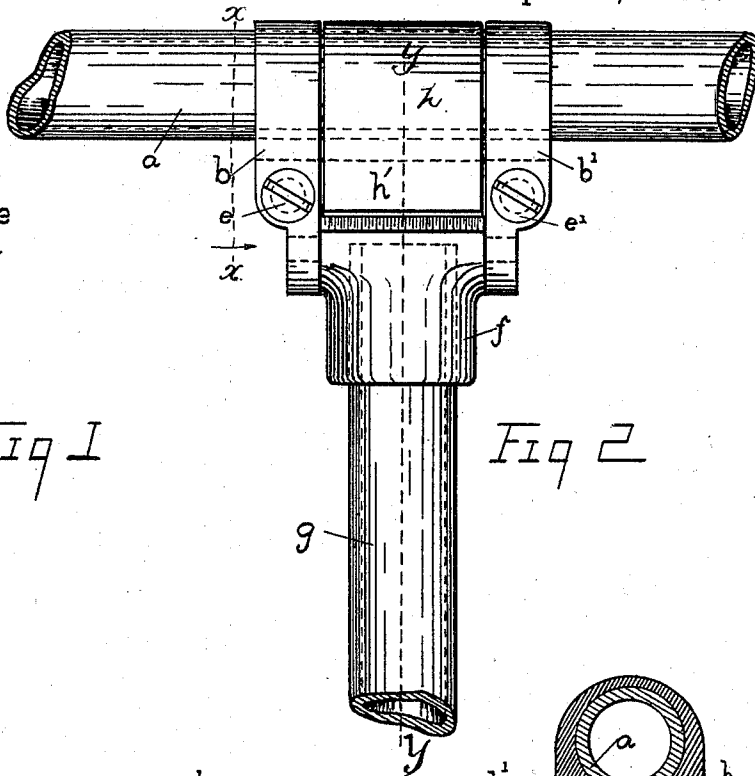


Fig 2

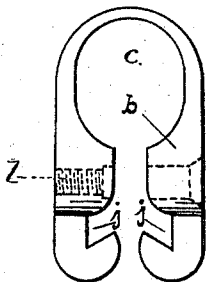


Fig 3

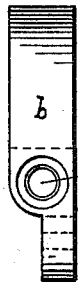


Fig 4

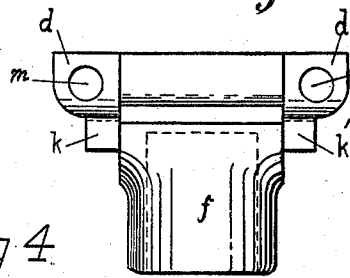


Fig 5

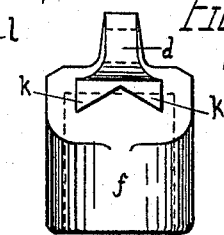


Fig 6

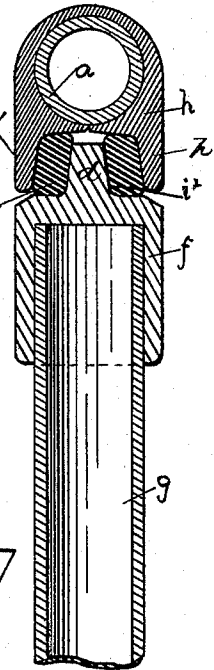


Fig 7

WITNESSES

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UNITED STATES PATENT OFFICE.

WILLIAM H. GARLAND, OF KANSAS CITY, MISSOURI, ASSIGNOR OF ONE-HALF TO G. W. GREENE, OF SAME PLACE.

ANTIVIBRATORY HANDLE-BAR FOR BICYCLES.

SPECIFICATION forming part of Letters Patent No. 580,389, dated April 13, 1897.

Application filed June 8, 1896. Serial No. 594,736. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. GARLAND, of Kansas City, Jackson county, Missouri, have invented certain new and useful Improvements in Antivibratory Handle-Bars for Bicycles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to antivibratory handle-bars for bicycles, tricycles, and the like class of vehicles; and it consists of certain novel and peculiar features of construction and combinations of parts, as will be hereinafter fully described and claimed.

The object of the invention is to produce attachments which may be employed in connection with any of the various styles of bicycles or tricycles now in use and which will relieve the rider's arms and shoulders of all shock or jar incident to the passage of the vehicle over rough or uneven ground, and transmitted to the rider, usually, through the medium of the handle-bars.

A further object of the invention is to produce attachments of this character which are simple, strong and durable, and inexpensive of construction, which may be readily and easily fitted in position, and which do not materially increase the weight of the vehicle.

In order that the invention may be fully understood, I will proceed to describe it with reference to the said accompanying drawings, in which—

Figure 1 is a section taken on the line *x x* of Fig. 2. Fig. 2 is a front view of the upper portion of the steering-head bar and of a portion of the handle-bar joined by attachments embodying my invention. Fig. 3 is a face view of one of the yokes forming a part of said attachment. Fig. 4 is a side view of the same. Fig. 5 is a front view of a cap which surmounts the steering-head bar. Fig. 6 is a side view of the same. Fig. 7 is a vertical section taken on the line *y y* of Fig. 2.

In the said drawings, wherein like letters designate corresponding parts, *g* designates the customary tubular steering-head bar, and mounted rigidly upon its upper end in any suitable manner is the tubular cap *f*, provided with a transversely-extending rib at its

upper end, said rib being preferably rectangular in cross-section and projecting at each end beyond the corresponding sides of said cap, as shown at *d* and *d'*, and said extensions are provided with holes or apertures *m* and *m'*, respectively. Below said extensions the cap is provided with the W-shaped lugs *k* and *k'*.

a designates the handle-bar, of the customary form and arranged transversely of and above the upper end of the steering-head bar. It extends through the upper ends of the vertically-elongated openings *c* of the yokes *b*, and said yokes are provided at their lower ends with the inwardly-disposed hooks *j*, which dovetail or fit snugly upon the W-shaped lugs *k* and *k'*, hereinbefore described, of the cap *f*. Such connection obviously prevents the depending legs or arms of said yokes from springing forward or backward and becoming thereby disconnected from said W-shaped lugs. To prevent their becoming disconnected from the lugs by moving laterally upon the handle-bar, they are provided with the bolt-holes *l*, which register with the holes or apertures *m* and *m'*, and extending through said registering holes and engaging the threaded ends of the openings of said yokes are screw-bolts *e* and *e'*.

i designates a soft-rubber block or cushion, which exceeds in length and breadth and also in height the rectangular lug at the upper end of the cap *f* and is provided with a rectangular passage, into which said lug projects, as shown clearly in Fig. 7.

h designates a clip which embraces tightly the handle-bar between the yokes *b* and *b'* and rests squarely and firmly upon the upper end of the cushion-block *i*. It also embraces tightly the front and rear sides of said block, being provided with the depending arms *h'* for this purpose.

Normally the resiliency of the rubber block holds the handle-bar with a yielding pressure in the upper ends of the elongated openings *c* of the yokes *b* and *b'*, and thereby leaves an open space within said yokes below said handle-bar, so that as the front wheel of the bicycle passes over an obstruction or in any manner is caused to suddenly rise while in motion the cushion-block is compressed and

the clips move upwardly upon the handle-bar, owing to the fact that the weight of the rider is partly supported upon the handle, and consequently the handle-bar, thus cushioned and free to move independently of the steering-head bar is relieved of all shock or jar incident to the sudden rise or fall of said steering-head bar, caused by the wheel passing over any irregularity in the surface of the roadway. Immediately the obstruction is passed the interposed block, due to its resiliency or expansive power, reestablishes the former relation between said handle-bar and said yokes, as will be readily understood.

Thus it will be seen that bicycles provided with these antivibratory handles will greatly enhance the pleasure of those who ride wheels provided with them, owing to the fact that the unpleasant and injurious vibratory movement of bicycles not provided with my attachments or the equivalents thereof is obviated.

It is to be understood, of course, that changes in the form, proportion, or detail construction of the parts may be resorted to without departing from the spirit and scope of my invention.

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

1. In a bicycle, a steering-head bar, a cap surmounting the same, yokes secured to said cap and provided with vertically-elongated openings, a handle-bar extending through said openings, a clip embracing said handle-bar between said yokes, and a cushion interposed between said clip and said cap, substantially as described.

2. In a bicycle, a steering-head bar, a cap surmounting the same, yokes secured to said cap and provided with vertically-elongated openings, a handle-bar extending through said openings, a clip embracing said handle-bar between said yokes, and a cushion in the form of a rubber block embraced by said clip

and interposed between the same and the said cap, substantially as described.

3. In a bicycle, a steering-head bar, a cap surmounting the same, yokes secured to said cap and provided with vertically-elongated openings, a handle-bar extending through said openings, a clip tightly embracing said handle-bar and provided with depending extensions at its front and rear sides, and a cushion interposed between said cap and said clip and embraced at its front and rear sides by the depending extension of the latter, substantially as described.

4. In a bicycle, the combination of a steering-head bar, a cap mounted thereon and provided with a transversely-extending rib, a solid-rubber block fitting upon said rib, yokes secured to said cap at opposite ends of said rib and provided with vertically-elongated openings, a handle-bar extending therethrough, a clip mounted upon the handle-bar between said yokes, and resting upon said cushion-block and provided with depending arms, substantially as described.

5. In combination, a steering-head bar, a cap secured thereon and provided with a transverse apertured rib and with depending lugs, a pair of yokes embracing the apertured portion of said rib and provided with hooks which dovetail upon said lugs, and provided also with vertically-elongated openings, screw-bolts carried by said yokes and extending through the apertures of said rib, a solid cushion upon the rib of the cap, a handle-bar extending through the elongated openings of the yokes, and a clip mounted upon said handle-bar between said yokes and resting upon and embracing the front and rear sides of said cushion, substantially as described.

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

WILLIAM H. GARLAND.

Witnesses:

G. Y. THORPE,
M. R. REMLEY.