

(No Model.)

A. W. BIDDLE.
HAND REST FOR BICYCLE HANDLE BARS.

No. 581,260.

Patented Apr. 27, 1897.

FIG. 1.

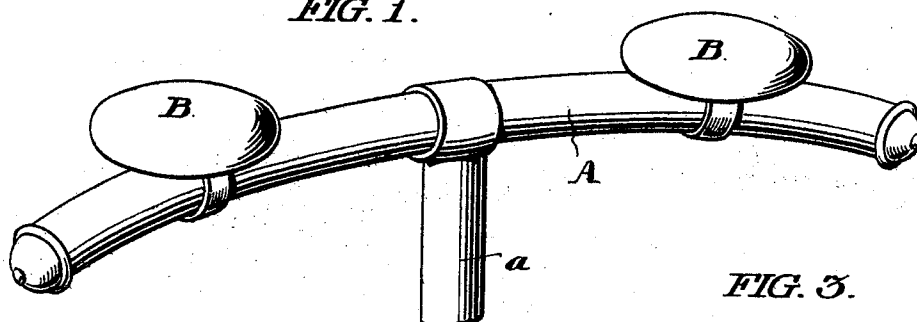


FIG. 2.

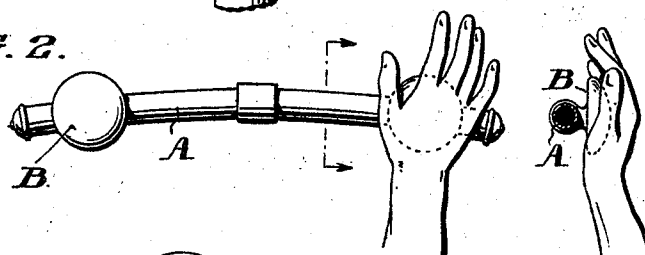


FIG. 3.

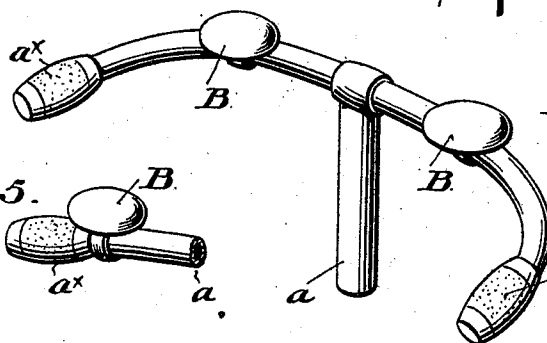


FIG. 4.

FIG. 5.

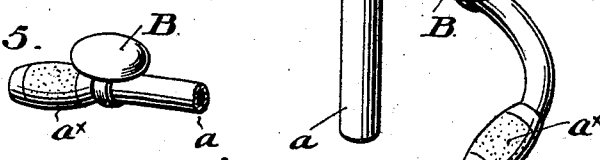


FIG. 6.

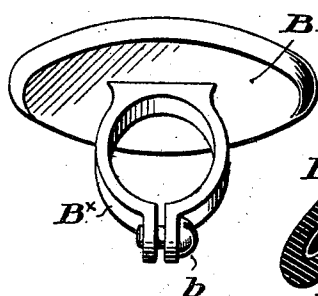


FIG. 8.

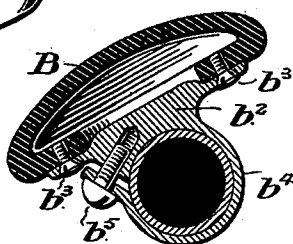
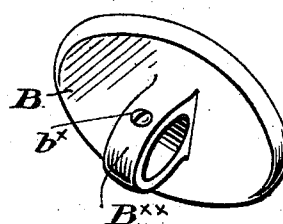


FIG. 7.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ALEXANDER W. BIDDLE, OF PHILADELPHIA, PENNSYLVANIA.

HAND-REST FOR BICYCLE HANDLE-BARS.

SPECIFICATION forming part of Letters Patent No. 581,260, dated April 27, 1897.

Application filed October 16, 1896. Serial No. 609,041. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER WILLIAMS BIDDLE, a citizen of the United States, residing at Philadelphia, (Chestnut Hill,) in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Hand-Rests for Bicycle-Handles, of which the following is a specification.

10 It is well known that in the prolonged use of the bicycle, the constant gripping of the grips of the handle-bar and the vibration of the bar incident to the running of the machine, have a tendency to occasion fatigue, 15 and stiffening and numbness in the hands, wrists, and arms, of the rider,—a matter of serious consideration to instrumental musicians, artists, draftsmen, engravers, and others with whom the perfect command and capacity for normal movement of the fingers 20 and wrist is a first consideration.

This result, in fact, is so well understood that riders constantly rest themselves either by riding "hands-off" or by removing the 25 hands from the grips and grasping the body portion of the handle bar.

Many devices, moreover, designed to afford the desired relief have been resorted to, and spring handles, and wooden, or other springy 30 as opposed to rigid, handle bars, have been more or less generally employed.

My invention aims to overcome the fatigue incident to the use of the ordinary type of handle bar, and, to such end, comprehends 35 the provision upon a handle bar of hand rests, or devices applied to the bar, which are of such preferably hemispherical or generally curved or convex upper-surfaced form, as will serve to measurably fill the cavity of the 40 palm of the open hand, and upon which the rider may with comfort or absence of the fatigue due to the closing and retaining for a long time closed of the hands, simply lay or 45 rest his open or extended hands, and give support to the carpal meta-carpal bones, and, at the same time, effect the steering by forward pressure in an approximately horizontal plane with the heel of either hand against the inner 50 portion of either hand rest.

A handle bar embodying my improvements is represented in the accompanying drawings, and hereinafter described, the particu-

lar subject-matter which I claim as novel being hereinafter definitely specified.

In the drawings,

Figure 1 is a view in perspective of a handle bar embodying my improvements, and un- 55 provided with the usual grips.

Figure 2 is a top plan view of the same, illustrating the contemplated application of 60 one of the open or extended hands of the rider to one of the hand rests.

Figure 3 is a side elevational view,—sectional in the plane of the dotted line applied to the handle bar of Figure 2, and sight being 65 taken in the direction of the arrows applied to said line,—of the right hand end portion of said handle bar of Figure 2, of the right hand-rest, and of the open or extended hand applied thereto. 70

Figure 4 is a view in perspective of the ordinary type of grip-provided handle bar, embodying my improvements. 75

Figure 5 is a fragmentary perspective view of the end portion of an ordinary handle bar, showing one of my hand rests applied thereto 80 close up against the grip.

Figure 6 is a perspective view of one of my hand rests, provided with a split or open tightening-screw-provided collar for attachment to and adjustment upon the handle bar. 85

Figure 7 is a similar view of a hand rest, embodying a closed or continuous collar having a set screw for effecting the attachment 85 of the rest to the handle bar and its adjustment thereupon in any preferred position.

Figure 8 is a transverse sectional elevation of a handle bar and a hand rest embodying my invention, made hollow, and equipped with an attaching strap adapted to effect its 90 application to the bar.

Similar letters of reference indicate corresponding parts.

In the drawings,

A represents the handle bar of a bicycle, 95 erected, as shown in Figures 1 and 4, upon the usual stem or post *a*.

a^x are handle grips of the usual ellipsoidal type, applied to the handle bars shown in 100 Figures 4 and 5.

B are my improved hand rests, adapted, as is preferable, to be removably attached to the handle bar, but, if desired, to be made integral therewith.

The form of the handle rests is not of the essence of invention so long at least as the rests are of a suitable form to comfortably receive, fill, and rest the hollows of the palms of the open or extended hands upon.

I prefer, however, to make the rests hemispherical as shown in the drawings, hemispheroidal, or of a generally curved or rounded form, the edges of which are smooth and curved to avoid the discomfort that would arise from a sharp edged or angular contour.

The material of which the rests are formed is, moreover, inconsequential, and they may be made of metal, hard rubber, wood, composition, celluloid, or other preferred material; and either in the natural finish, or plated, enameled, or covered with cloth or leather, as the character of the material selected may permit.

The means by which the rests are secured to the handle bar, is likewise immaterial, but I find it convenient, as shown in Figures 6 and 7, to provide the under surface, or base plate so to speak, of the rest, with either a split collar B^x, as in the construction shown in Figure 6, or with a continuous collar B^{xx}, as in the construction shown in Figure 7,—the collars being formed each with a central circular aperture through which the handle bar passes, and being respectively secured thereon by the tightening screw *b* as in Figure 6, or by a set screw *b*^x as in Figure 7.

I also find it convenient where, for instance, the rest is made hollow, as in Figure 8, to provide it with a separate base or keeper *b*², conveniently secured to it by attaching screws *b*³, and provided with a flexible attaching strap *b*⁴, the free end of which is adapted to be secured to the keeper by a clamping screw *b*⁵.

All of these devices for attaching the hand rest are, however, typical merely of means for effecting attachment, and I do not limit myself to them. They answer the purpose but they are not essential.

As is indicated in the drawings, the rests may be placed in different positions upon the handle bar,—nearer together or farther apart,—and they may, if desired, be used on a bar that is unprovided with grips or handles of any character.

While, moreover, I prefer to apply the rests so that their upper surfaces are approximately level, as shown in the drawings, yet

it is obvious that a slight inclination from the horizontal, as, for instance, downwardly and to the rear, will be preferable for the rider who affects a particular attitude.

Where the rests are used upon handle bars without grips, the upward pull resorted to in hill climbing, may be made upon the bar itself by grasping it to the side of the grips.

The advantages of the invention have been sufficiently set out in the preamble, and it is sufficient to add that the rests serve to rest the open or extended palms upon, and, by filling, so to speak, the cavities of the palms, permit of the extension of the fingers and consequently relieve the fatigue of the hands which is incident to their closure upon or constant gripping of a handle or other cylindrical form surface upon which they are adapted to be and in fact are closed,—and at the same time to afford means for the steering of the machine by the slight forward pressure upon them exerted in the plane which they occupy.

Having thus described my invention, I claim:

1. In combination with a bicycle handle bar, two broad slightly convex upper-surfaced hand rests conforming substantially in form and extent to the open palms of the hands of the rider, substantially as and for the purpose specified.

2. In combination with a bicycle handle bar, two broad slightly convex upper-surfaced hand rests conforming substantially in form and extent to the open palms of the hands of the rider, and means for attaching said hand rests to said handle bar, substantially as and for the purpose specified.

3. In combination with a bicycle handle bar, two broad slightly convex upper-surfaced hand rests conforming substantially in form and extent to the open palms of the hands of the rider, and means applied to said hand rests for permitting of their independent adjustment with respect to said handle bar, substantially as and for the purpose specified.

In testimony that I claim the foregoing as my invention I have hereunto signed my name this 15th day of October, A. D. 1896.

A. W. BIDDLE.

In presence of—

J. BONSALE TAYLOR,
F. NORMAN DIXON.