No. 613,673. Patented Nov. 8, 1898.

E. H. FREDRICK.

ADJUSTABLE HANDLE BAR FOR BICYCLES.

(Application filed Oct. 21, 1897.)

(No Model.)

FIG. 1.

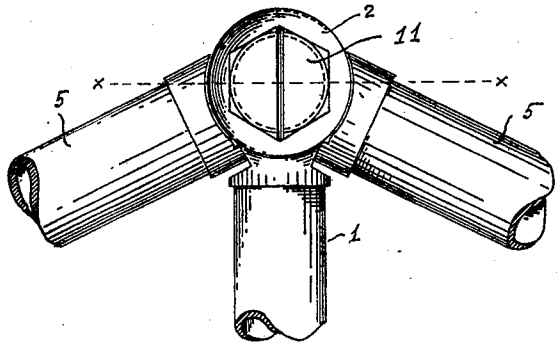


FIG. 2.

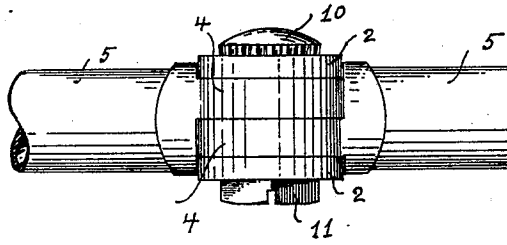


FIG. 3.

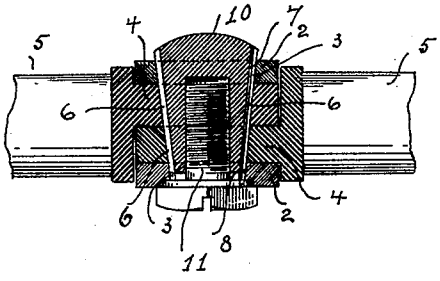


FIG. 4.

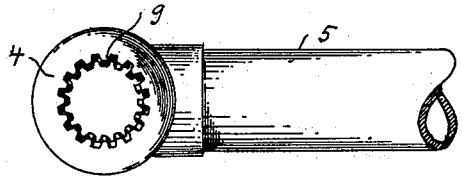
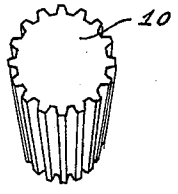


FIG. 5.



WITNESSES.

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ADJUSTABLE HANDLE-BAR FOR BICYCLES.

SPECIFICATION forming part of Letters Patent No. 613,673, dated November 8, 1898.

Application filed October 21, 1897. Serial No. 655,900. (No model.)

To all whom it may concern:

Be it known that I, EDWARD H. FREDRICK, of Toledo, county of Lucas, and State of Ohio, have invented certain new and useful Improvements in Adjustable Handle-Bars for Bicycles; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form part of this specification.

My invention relates to an adjustable handle-bar for bicycles, and has for its object to provide a convenient means for adjusting the sections comprising the handle-bar to any desired height.

A further object is to provide for this adjustment by means that shall be of a character to insure the required rigidity to the handle-bar when adjusted and that shall be inexpensive of construction. As is well known, it is often desirable to adjust the handle-bar to different heights for different conditions of speed or roadway to be traveled. I have provided for this adjustment by convenient means contained within the bicycle-head, whereby by simply turning the screw and tubular locking-nut locks the sections of the handle-bar in any desired adjustment.

In the drawings, Figure 1 is a rear elevation showing the handle-bar post broken away and also the sections of the handle-bar broken away. Fig. 2 is a top plan view showing the handle-bar sections assembled. Fig. 3 is a transverse section on line $x\,x$, Fig. 1, with the upper portion removed to show the locking-nut and set-screw. Fig. 4 is a detail view of one of the sections, showing the internally grooved or toothed surface; and Fig. 5 is an elevation of the externally grooved or toothed locking-nut.

1 designates the handle-bar post, and 2 the head, having a conical recess 3 extending transversely through the same. Head 2 is centrally recessed to receive the reduced disk portions 4 of the handle-bar sections 5, each handle-bar section 5 being conformed with the portions 4 to coincide and form a complete handle-bar when properly connected. The two sections 5 and disk portions 4 4 are assembled between the projections 2 2 of the handle-bar post and are formed with a tapered orifice 6, coincident with an orifice 7 of greater area in one of the projections 2 of the handle-bar and an orifice 8 of less area in the opposite projection of the handle-bar. The orifices 7 and 8 are grooved or toothed preferably upon the entire interior, as are also the orifices in the disks of the handle-bar, as shown at 9, Fig. 4.

10 designates an exteriorly grooved or toothed nut having a taper coincident with the tapering apertures transversely through the handle-bar post and handle-bar sections and is insertible within the same, having an interior screw-thread into which is run a threaded-screw 11, which closely assembles and holds the handle-bar sections in rigid relative arrangement.

With this description the operation will be apparent. The handle-bar being in adjustment and it being desired to change that adjustment, screw 11 runs out of its threaded orifice and then acts as a push-rod to eject the threaded nut 10 to a degree to withdraw its teeth from the internal teeth of the handle-bar post and handle-bar sections to permit of adjusting the sections in any preferred relation to the handle-bar post, when upon turning the screw to draw the nut 10 into its seat the adjustment is locked rigidly.

It will be apparent that I may vary this construction greatly without departing from the spirit of my invention. For instance, I may dispense with the toothed interior surface and the toothed exterior surface of the locking-nut and frictionally engage the sections to a degree to hold them rigid or I may dispense with the conical formation of the orifice to receive the nut 10 and make the orifice of the same diameter throughout its length and otherwise modify the invention as may be demanded.

What I claim is—

1. In a handle-bar for bicycles, two sections having disk ends, a handle-bar post, having a recess to receive the disk ends, a conical recess extending through the handle-bar post, and disks, and a conical nut inserted in the recess having an internal screw-thread of an

external screw run therein for drawing the parts in close assemblage.

2. In a handle-bar for bicycles, a handle-bar comprising two sections having disk ends, a handle-bar post having a recess to receive the disk ends, a conical internally-toothed orifice extending through the handle-bar post and disks, and an externally-toothed locking-nut of conical formation inserted in the orifice and having a central internally-screw-threaded orifice with an externally-threaded screw run therein to hold the parts in close assemblage.

In testimony that I claim the foregoing as my own I hereby affix my signature in presence of two witnesses.

EDWARD H. FREDRICK.

Witnesses:

WILLIAM WEBSTER,

HERMAN H. MARTIN.