

(No Model.)

A. O. VERY.  
ADJUSTABLE HANDLE BAR.

No. 526,333.

Patented Sept. 18, 1894.

Fig. 1.

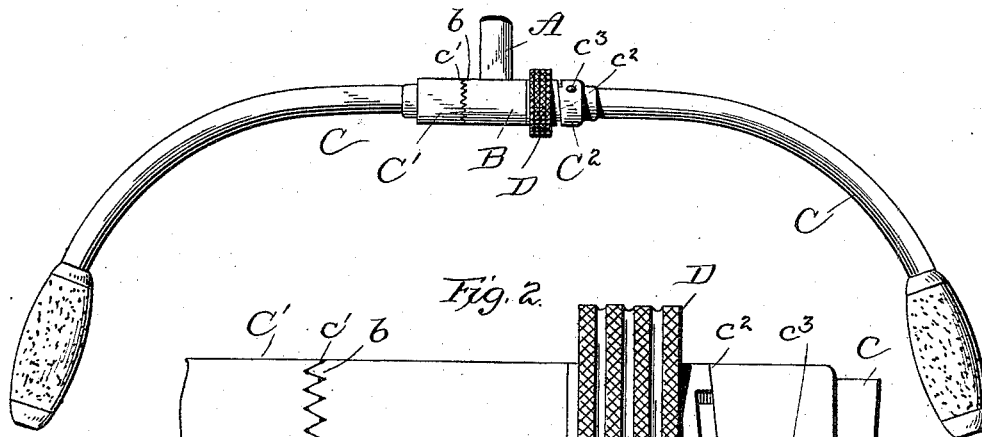


Fig. 2.

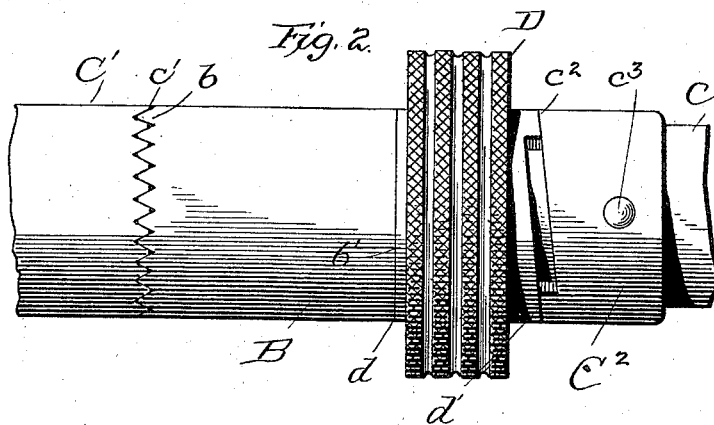
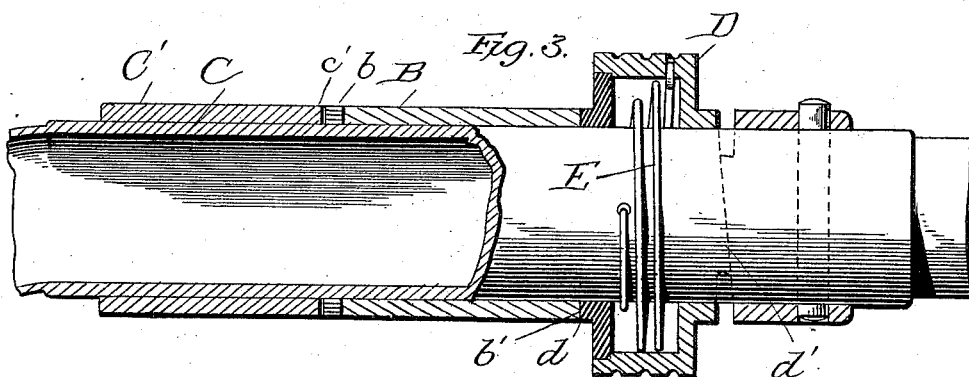


Fig. 3.



Attest  
Walter M. Madsen  
J. L. Madsen

Inventor  
Alpha O. Very  
by Ellis Spear  
ATT

# UNITED STATES PATENT OFFICE.

ALPHA O. VERY, OF SPRINGFIELD, MASSACHUSETTS, ASSIGNOR TO THE  
WARWICK CYCLE MANUFACTURING COMPANY, OF SAME PLACE.

## ADJUSTABLE HANDLE-BAR.

SPECIFICATION forming part of Letters Patent No. 526,333, dated September 18, 1894.

Application filed November 6, 1893. Serial No. 490,089. (No model.)

*To all whom it may concern:*

Be it known that I, ALPHA O. VERY, a citizen of the United States of America, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Adjustable Handle-Bars, of which the following is a specification.

My invention relates to improvements in handle bars for bicycles, and the object of the invention is to provide a handle bar which may be quickly adjusted to any angle desired, and when so adjusted will be firmly held against displacement and all play or looseness of the parts will be absolutely prevented. I have aimed to simplify the construction in the extreme, reducing the number of parts to a minimum, thereby increasing the durability of the bar, and reducing the cost.

The invention is illustrated in the accompanying drawings, in which—

Figure 1, is a plan view of a handle bar constructed in accordance with my invention. Fig. 2, is an enlarged detail view of the gripping parts, and Fig. 3, is a central longitudinal section.

In the drawings A represents the head post which connects with the steering head of the bicycle in the ordinary or any desired manner. This head post carries a short tubular portion B at its upper end arranged at right angles to the said post and through which passes the handle bar C, which is free to rotate in said tubular position. The bar fits with sufficient accuracy within the tubular portion to prevent any loose or undue movement.

In order to lock the handle bar C firmly in any position to which it may be adjusted in relation to the head post a fixed collar C' is provided which is serrated upon its edge adjacent to the portion B, as shown at c'. These serrations engage with the correspondingly serrated edge b of the tubular portion, and thus while the two serrated edges are firmly clamped against each other it will be readily seen that the bar C will be firmly held against rotation.

I have shown in the present drawings a se-

ries of V shaped notches in one part which is engaged by corresponding projections from the other part but it will be understood that I do not desire to limit myself in this respect as any form of clutching face may be used to cause the collar and tubular portion to engage each other as desired.

In order to hold the collar firmly clamped against the portion B when the handle bar is to be held against rotation I provide a collar C<sup>2</sup> upon the opposite side of the portion B which has an inclined or cam face c<sup>2</sup>, this collar being clamped to the handle bar preferably by a set screw c<sup>3</sup>. A revoluble collar D is mounted upon the handle bar between the collar C<sup>2</sup> and the tubular portion B and is provided upon one side with a plane smooth edge d adapted to bear against the smooth edge b' of the tubular portion and upon the opposite side with an inclined or cam face d' corresponding to the inclined face c<sup>3</sup> of the collar C<sup>2</sup>. It will thus be seen that if the collar be rotated in one direction the cam faces will be caused to separate, permitting the bar C to be moved longitudinally through the tubular portion B a sufficient distance to disengage the locking faces or projections c' and b when the bar C may be rotated to adjust the handles to any desired inclination, and when so adjusted the reverse movement of the revoluble collar will cause the cam faces to contact and thus draw the bar c through the tubular portion, causing the gripping faces to engage and lock the bar in its adjusted position.

In order to keep the bar C normally locked against rotation a spring E is provided within the revoluble collar, one end of the spring being secured to the bar C, and the other to the revoluble collar. This spring exerts a constant pressure upon the collar and tends to keep the cam faces constantly in contact, and any jar upon the handles or bar will only tend to bind the parts tighter together as the spring will exert its pressure to rotate the collar further.

The outer surface of the revoluble collar is roughened so that it may be rotated by the hand against the pressure of the spring to release the parts, and allow the handle bar to

be shifted and when the collar is released it will immediately fly back to normal position locking the parts firmly together.

Having thus described my invention, what I claim is—

1. In combination with the post A having a tubular portion, the bar C revolubly mounted therein carrying a gripping collar for engaging said portion, a fixed cam on said bar, and a revoluble collar under spring tension mounted on the bar and normally in contact with said fixed cam to cause said gripping face to engage the tubular portion, substantially as described.
2. In combination with the post A having the tubular portion, the bar C revolubly

mounted in said portion, a rigid collar on said bar having a gripping face adapted to engage one end of the tubular portion, a revoluble collar under spring tension mounted on the bar and bearing against the opposite end of the tubular portion, said revoluble collar having an inclined rear face, and a fixed cam on the bar co-acting with said inclined face substantially as described.

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

ALPHA O. VERY.

Witnesses:

WALTER S. ROBINSON,  
GEO. D. ROBINSON.