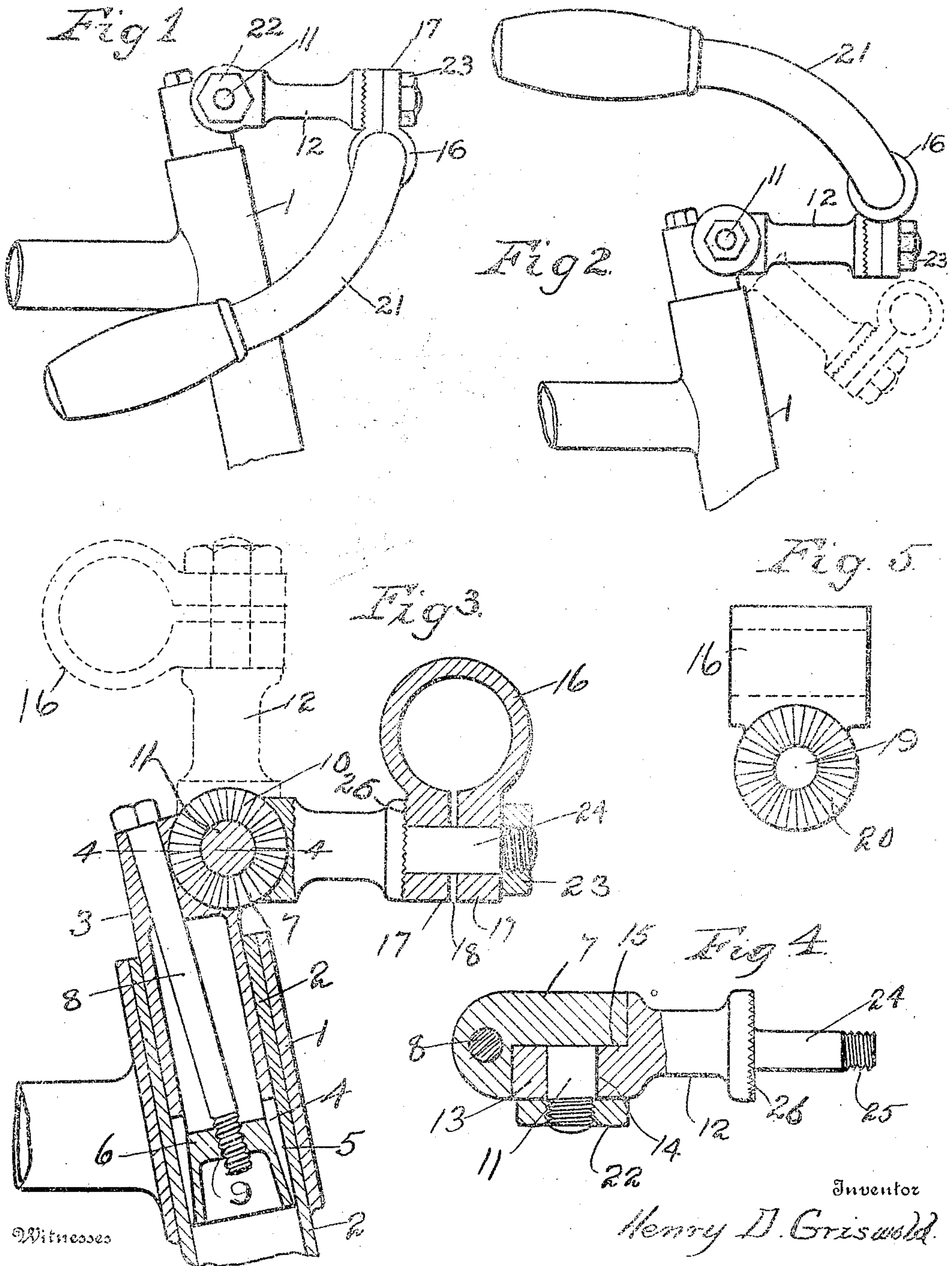


H. D. GRISWOLD.  
BICYCLE HANDLE BAR.  
APPLICATION FILED JULY 22, 1907.

903,468.

Patented Nov. 10, 1908.



Witnesses

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# UNITED STATES PATENT OFFICE.

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## BICYCLE HANDLE-BAR.

No. 903,468.

Specification of Letters Patent.

Patented Nov. 10, 1908.

Application filed July 22, 1907. Serial No. 384,855.

To all whom it may concern:

Be it known that I, HENRY D. GRISWOLD, a citizen of the United States, residing at the city of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Bicycle Handle-Bars, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to certain new and useful improvements in adjustable extension handle bars for bicycles and has for its object to provide an extension member whereby the handle bar may be permitted to project forward of the head, and also raised to any desired height, and be substantially universally adjusted in said member.

A further object is to make the device so that it may be readily adjusted, quickly set and firmly fastened in any desired position. The device is very simple of construction and inexpensive to manufacture, the same being light in weight and at the same time very strong, stiff and durable.

An essential feature of this invention is to so construct the device that it may be supported in the fork tube by an expanding head.

Still another feature of the invention is the construction of the binding sleeve whereby said sleeve is retained in position on the extension member, and also caused to bind and hold the handle bars in any desired position all by the setting up of but one binding nut which is located on the end of said extension member.

The invention is fully set forth in this specification and more particularly pointed out in the appended claims.

In the accompanying drawings: Figure 1—is a side elevation showing a portion of the fork head and the extension member supported on said head, in its forwardly extending position and the binding sleeve turned downward on the end thereof retaining the handles in their downwardly extending position. Fig. 2—is the same as Fig. 1 with the exception that the binding sleeve is turned up and the handle bars are in their reverse or upwardly turned position. Fig. 3—is an enlarged sectional view illustrating the construction and operation of the parts. Fig. 4—is a plan view on line 4—4 of Fig. 3, showing the binding bolt for the extension member. Fig. 5—is a side elevation of the binding sleeve showing the corrugated

face which engages a corresponding face on the binding member for firmly retaining said sleeve in the desired position.

Referring to the drawings at 1 is the head 60 of the bicycle frame in which the fork tube 2 is held to turn. Into this fork tube fits the binding post member 3 the lower end of the tubular portion being slotted at 4 to admit of expansion. This lower end is also beveled slightly to receive a correspondingly shaped plug 6. The upper end of this binding head is provided with an ear 7 offset or placed on one side thereof so as to allow for the binding bolt 8 to pass through the upper solid portion of the head. This binding bolt extends down and is threaded at 9 into the beveled expansion plug 6. The face of this ear 7 is provided with radial teeth 10 which project across its face around the outwardly extending retaining bolt 11 (see Fig. 4).

At 12 is an extension arm provided with an offset ear 13 pierced at 14 to fit over the binding bolt 11. The face of this ear at 15 is provided with radial corrugations to register with those on the face 10 of the ear 7 on the binding post member. At the outer end of this extension arm is an outwardly extending bolt 24 threaded at 25 at its outer end. The face from which this bolt extends is also provided with radial teeth 26. The binding sleeve 16 is adapted to fit over the handle bars 21 and is provided with two outwardly extending ears 17—17 which ears are split at 18 so as to admit of the sleeve being set together to bind and hold the bars in the desired position therein. Both of these ears are pierced at 19 to fit over the outwardly extending bolt 24 and the face of one of these ears is provided with radial teeth 20 which register with those on the face 26 of the extension arm.

The operation of my invention may be more fully described as follows: In assembling the parts of the steering head, the binding post member 3 is placed in the fork 2 by setting up on the binding bolt 8, the lower end of this tubular post is expanded and rigidly secured in the fork member. By the construction of my extension arm 12 the same may be set in any desired position from straight-up, as shown in the dotted lines in Fig. 3, to pointing on an angle downward, as shown in the dotted lines in Fig. 2, and by setting up the nut 22 to cause the radial teeth on both of the contacting faces to engage each other said arm is held firmly in the desired



position. The handle bars may be of the usual type of one piece bar, the tubular portion being passed through the binding sleeve 16 in which the bar fits closely. The ears of this sleeve are passed over the bolt 24 and by simply turning this sleeve around on this bolt the handle bars may receive a downward curve, as shown in Fig. 1, or by simply turning the sleeve upward the handle bars receive the reverse curve extending upward, as shown in Fig. 2.

By my improved construction the adjustment of these bars into any desired position is an extremely simple operation there being but two nuts to operate to secure the widest adjustment of said bars.

An essential, practical feature of the construction is the arrangement of the binding sleeve whereby the two ears of this sleeve extend over the bolt 24, one face of one ear being corrugated to engage a corresponding face on the extension arm whereby said bars may be very readily adjusted and the whole may be firmly locked in any desired position by the simple operation of but one binding nut.

Another particularly good feature from a practical standpoint is the arrangement whereby an extension arm may be used in combination with an expanding binding head which is only accomplished by the offsetting of the ears in which said extension arm is pivoted so that the expansion bolt 8 may be operated through the top of the post.

The device is very practical in construction and extremely simple in its operation and when the retaining nuts are set up the whole is very rigid and there is no possibility of the handle bars moving or becoming loose, which is a most essential feature where fast riding is desired.

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

1. An improved handle bar, comprising an expandible binding post provided with an integral offset ear, an extension member provided at one end with an integral offset ear, means for pivotally connecting said ears, whereby said extension piece is rendered radially adjustable, means for securing said extension member in any position within its range of adjustment, and a binding sleeve carried by the free end of said extension and adapted to receive a handle bar.

2. An improved handle bar comprising an expandible binding post provided with an integral offset ear, an extension member provided at one end with an integral offset ear and at its other end with a bolt-like extension, means for pivotally connecting said ears, whereby said extension piece is rendered radially adjustable, means for securing said extension member in any position within its range of adjustment, a binding sleeve on said bolt like extension, and means for holding said sleeve against rotation.

3. An improved handle bar comprising an expandible binding post provided with an offset ear having an integral pivot bolt, an extension member provided with an offset ear pivotally mounted on said bolt, means for holding said extension member from movement, and a binding sleeve carried by the free end of said extension member and adapted to receive a handle bar.

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

HENRY D. GRISWOLD.

Witnesses:

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E. I. OGDEN.