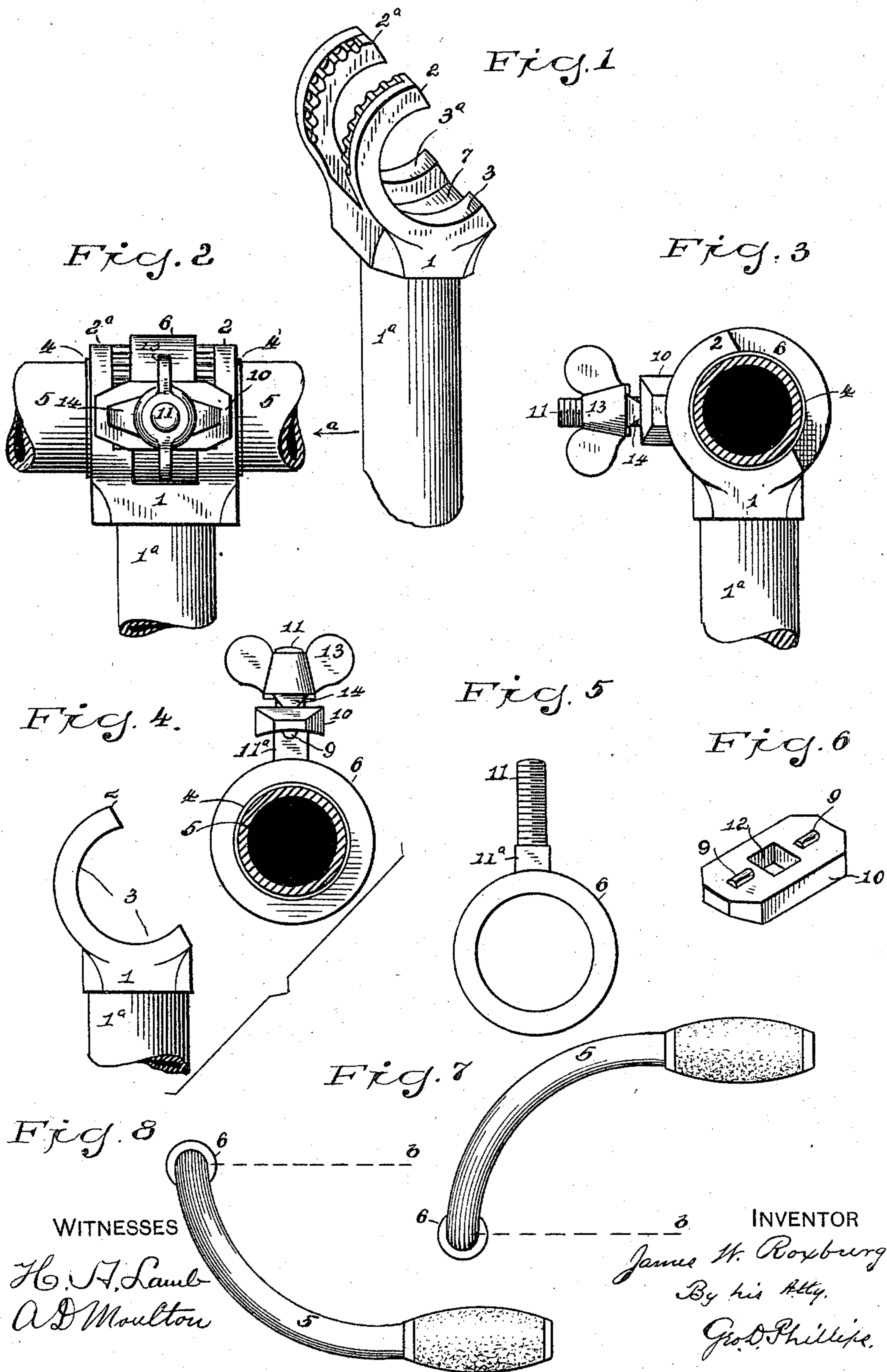


(No Model.)

J. W. ROXBURGH.
REVERSIBLE HANDLE BAR FOR BICYCLES.

No. 579,608.

Patented Mar. 30, 1897.



UNITED STATES PATENT OFFICE.

JAMES W. ROXBURGH, OF BRIDGEPORT, CONNECTICUT.

REVERSIBLE HANDLE-BAR FOR BICYCLES.

SPECIFICATION forming part of Letters Patent No. 579,608, dated March 30, 1897.

Application filed October 5, 1896. Serial No. 607,859. (No model.)

To all whom it may concern:

Be it known that I, JAMES W. ROXBURGH, a citizen of the United States, and a resident of Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Reversible Handle-Bars for Bicycles, of which the following is a specification.

My invention relates to bicycle handle-bars; and it consists in certain improved features for adjustably rotating the handle-bar in the head and readily reversing the same therein so as to change the position of the handles with respect to the different curves required.

To enable others to readily understand my invention, reference is had to the accompanying drawings, in which—

Figure 1 represents a detail perspective view of my improved head for supporting the handle-bar. Fig. 2 is a broken rear elevation of the bicycle-head and handle-bars projecting therefrom. Fig. 3 is a side broken elevation of the head and handle-bar looking in the direction of arrow *a* of Fig. 1. Fig. 4 is a detail side broken elevation of the head and handle-bar, showing the latter removed from the head. Fig. 5 is a detail side elevation of the handle-bar collar and screw-threaded stud projecting therefrom. Fig. 6 is a detail perspective view of the under side of the clamping-plate. Fig. 7 is a side elevation of the handle-bar removed from the head and in readiness to be inserted therein to form the up-curve. Fig. 8 is a similar view to that shown at Fig. 7, except that the handle-bar is to be inserted in the bicycle-head to form the down-curve.

As the object of my invention is to so construct the head and handle-bar that the handles may be vertically adjusted to any position each side of the horizontal line *b*, Figs. 7 and 8, and while the rider is on the wheel, and also to readily and quickly remove said bar and reverse its position in said head to form either an up or down curve, the construction and operation to accomplish this object are as follows:

1 represents the head provided with the usual shank 1^a. The head 1 is enlarged and is provided with the curved forked supports 2 2^a. The inner face of the supports is provided with the semicircular bearings 3 3^a,

which bearings are adapted to partially embrace the enlarged portion 4 of the handle-bar 5 and when not fastened to rotate freely therein. 6 is a collar rigidly attached to the central part of the handle-bar, which collar will pass between the forks 2 2^a of the head, and the periphery of this collar coincides with that of the said forks. 7 is a central groove formed in said head to admit the collar 6, which arrangement will prevent lateral displacement of the handle-bar.

8 represents a series of teeth or corrugations formed on the periphery of the curved forks 2 2^a, with which the single tooth 9 of the clamping-plate 10 engages. The inner face of this plate is also curved to conform with the circle of the said forks.

11 is a threaded stud projecting from the collar 6, whose squared base 11^a engages with the square hole 12 of the clamping-plate 10. This arrangement always secures the alignment of the teeth on the said plate with the teeth of the curved head.

13 is a clamping-nut, and 14 is a spring interposed between this nut and the clamping-plate, so as to maintain a frictional contact between the engaging teeth of the head and the clamping-plate.

One of the advantages of the construction above described is the facility for adjusting the position of the handle-bar by the rider while in motion. This is done by simply loosening the nut just sufficient to place the clamping-plate under the influence of the spring 14, when the bar can be rotated, while at the same time the tooth of the clamping-plate is always engaged with the teeth of the curved head, which engagement will suffice to sustain the weight of the handle-bar until the clamping-plate is forced down by its nut. This arrangement is of great advantage, as it prevents the rider losing control of the bar, and can only be secured by having a single tooth on the plate, whereas if there were more than one tooth such plate would have to be moved back sufficient to effect a complete disengagement of all of the teeth, and then the handle-bar would have no temporary support. This adjustable feature of the handle-bar relates to its vertical movements each side of the horizontal line *b*, Figs. 7 and 8. When, therefore, it is desired

to change the position of such bar from the extreme down-curve to the extreme up-curve, or vice versa, all that is necessary is simply to turn back the nut 13 and partially rotate the bar in the head and remove it therefrom, as shown at Fig. 4, then reverse such bar and replace it in the head, as before. This arrangement is of great importance, as it is quickly done and the parts, when brought together, are firmly and securely held in position.

If desired, a cover could be hinged to the forked head, so as to form a circular construction of such head, which cover could be thrown open when the handle-bar was being removed. The construction of such a cover is so apparent that it is not deemed necessary to illustrate it.

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

1. The combination, in a reversible handle-bar for bicycles, of the open curved forked head, teeth on the periphery of said forks, semicircular bearings for the handle-bar to rest in, a collar on said bar a grooved recess to admit the collar, such collar being sufficiently large to bear against the inner faces of the forked head, combined with a

threaded stud in such collar, and a clamping-plate carrying a single tooth to engage with the teeth of the forked head, and a tightening-nut, substantially as described.

2. The combination, in a reversible handle-bar for bicycles, of the open curved forked head, having teeth formed on the periphery of such forks, semicircular bearings to support the handle-bar, said bar having a central collar rigidly attached thereto and adapted to be placed in a groove of the head, a threaded stud projecting from such collar, a tightening-nut and clamping-plate mounted thereon, said plate carrying a single tooth to engage the teeth of the head and a spring interposed between the nut and said plate to preserve frictional engagement between the teeth; the open curved forked head so formed that, by a partial rotation of the handle-bar such bar can be removed from the head and reversed so as to form an up or down curve, substantially as shown and described.

Signed at Bridgeport, in the county of Fairfield and State of Connecticut, this 31st day of August, A. D. 1896.

JAMES W. ROXBURGH.

Witnesses:

FRED N. ARBUCKLE,
LEWIS F. PELTON.