

No. 637,400.

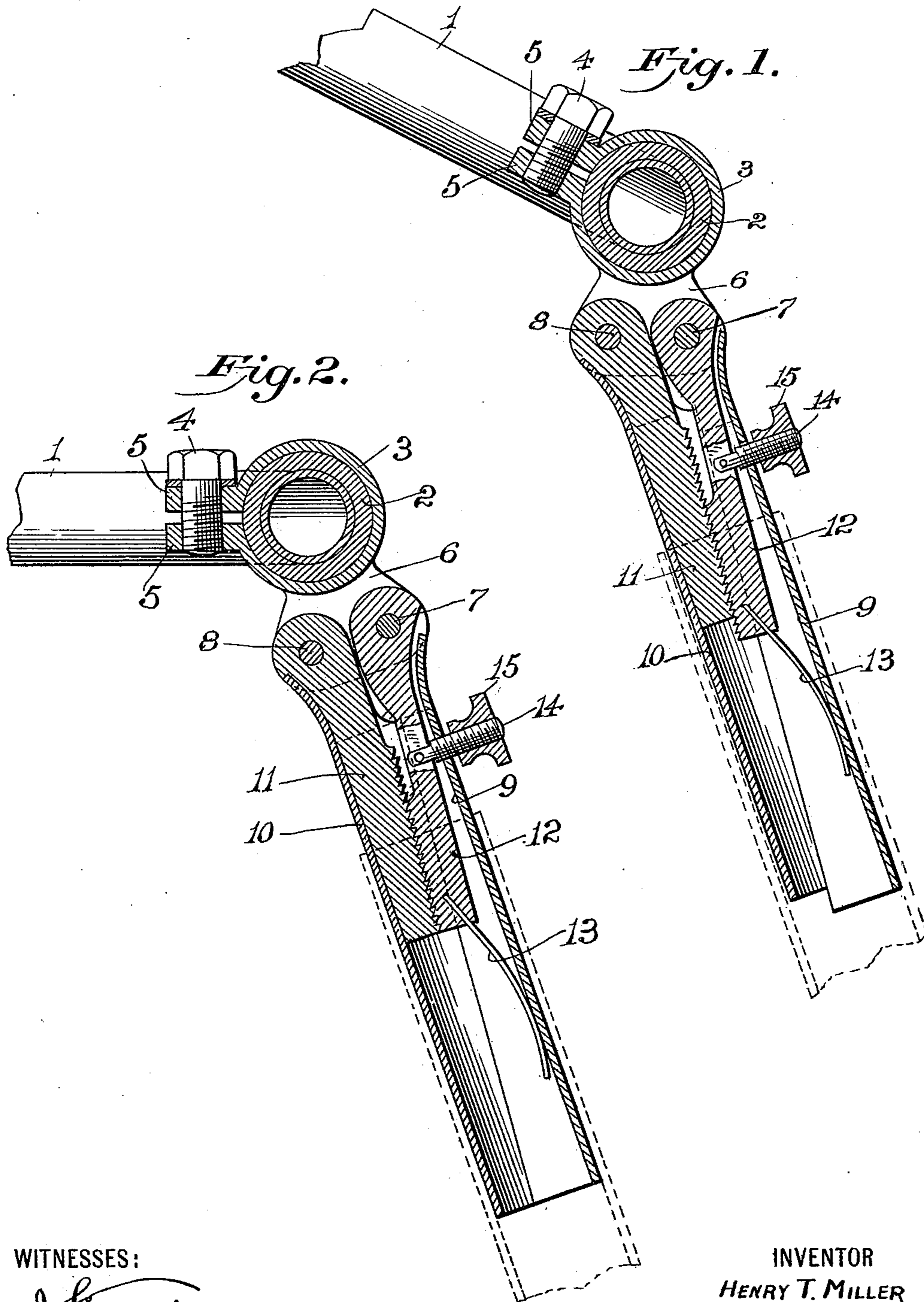
Patented Nov. 21, 1899.

H. T. MILLER.

HANDLE BAR ATTACHMENT FOR BICYCLES.

(Application filed Mar. 2, 1899.)

(No Model.)



WITNESSES:

*J. S. Kinch.*  
*M. J. Longden.*

INVENTOR  
HENRY T. MILLER

BY *H. T. Miller*  
ATTORNEY

# UNITED STATES PATENT OFFICE.

HENRY T. MILLER, OF NEW YORK, N. Y.

## HANDLE-BAR ATTACHMENT FOR BICYCLES.

SPECIFICATION forming part of Letters Patent No. 637,400, dated November 21, 1899.

Application filed March 2, 1899. Serial No. 707,470. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY T. MILLER, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Handle-Bar Attachments for Bicycles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain new and useful improvements in bicycle handle-bars, but more particularly has reference to a handle-bar construction which may be inserted and secured within the socket-post of a bicycle without the manual operation of any fastening devices, such as nuts and bolts.

In the accompanying drawings, which form a part of this application, Figure 1 is a sectional elevation illustrating my improvement inserted within the socket-post of a bicycle-frame and immediately prior to being finally secured, while Fig. 2 is a similar view showing the relative position of the parts when my improvement is finally secured within such post, the latter being shown in dotted lines in each instance.

Similar numbers of reference denote like parts in both figures of the drawings.

I have adopted for the purposes of my improvement complementary wedge-shaped members which constitute the shank of my handle-bar, and which are the same both as to general construction and operation as are the wedge-shaped members which constitute the seat-post shank shown and described in Letters Patent No. 607,181, issued July 12, 1898, to George W. Lord, and I therefore do not wish to be understood as laying any broad claims to such construction, my present invention residing solely in the provision of means for automatically locking these members when once they are tightly wedged into position within the socket-post, so that they cannot be accidentally withdrawn.

1 is the usual handle-bar, which is preferably enlarged, as shown at 2, at its middle portion, and 3 is a strap or clip, which surrounds this enlargement and is rigidly secured thereto by means of a screw-bolt 4, driven through lugs 5, extended from said clip. De-

pending from this clip are two parallel ears, (only one being shown,) between which are pivoted at 7 and 8, respectively, the complementary wedge-shaped sections 9 10, which constitute the shank of the handle-bar. It will be readily understood that if these sections were brought together and inserted within the handle-bar socket and pressure brought to bear upon the handle-bar, so as to cause the section 10 to wedge downwardly against the section 9, these sections would thereby be secured sufficiently without the aid of any other device were it not for the fact that any upward strain or pulling on the handle-bars would cause said sections to become loose within the socket-post. In the seat-post construction shown in said patent no auxiliary fastening device is necessary for the reason that the weight is supported on the saddle and the pressure is therefore always downwardly; but in the present improvement provision must be made to prevent any loosening of these sections when they are strained upwardly, and I therefore have provided a ratchet-bar 11 in one of the sections, in this instance the section 10, and a resilient pawl-lever 12 within the other section, which bar and lever engage and lock automatically when the sections are driven within the socket-post, all in the manner which I will now explain.

The bar 11 is rigid with the section 10, while the pawl-lever 12 swings freely from any suitable pivotal point, such as the pivot 7 within the section 9. I provide a spring 13, whose extremities are secured, respectively, to the section 9 and pawl-lever 12, the function of this spring being to keep said lever normally in a distended condition. A threaded pin 14 is connected with this pawl-lever and projects outwardly through the section 9, and around this pin is a thumb-nut 15.

The operation of my improvement is as follows: The parts being in the position as shown at Fig. 1, downward pressure is applied to the handle-bar to drive the wedge-shaped sections firmly together and to expand them tightly against the inner wall of the socket-post, and the ratchet-teeth on the bar 11 will slide freely across the teeth on the pawl-lever, since the latter will yield to permit this, but as soon as

the sections 9 10 have been firmly wedged the ratchet-bar and pawl-lever will be in engagement, thereby firmly locking these sections as against any displacement occasioned by an upward strain on the handle-bar. To remove the handle-bar, it is simply necessary to drive the nut 15 against the outer wall of the section 9, thereby retracting the pawl-lever 12 and permitting the sections to be withdrawn.

10 I have shown in the drawings the form of construction which I prefer, the same comprising a ratchet-bar rigid with one of the sections and having its teeth extended in a plane parallel with the wedge-shaped inner edge of  
15 said section and a pivoted resilient pawl-lever whose teeth meet the teeth on the ratchet-bar in a plane parallel with the meeting edges of the sections; but it will be obvious that it is immaterial whether the ratchet-teeth extend  
20 in an inclined plane or not, since said teeth may extend in any desired plane and the shape and pivotal point of the pawl-lever may be changed in many ways, all of which are well known and involve the most ordinary mechanical skill, and I therefore do not wish to be limited to any particular conformation and arrangement of the ratchet-bar and pawl-lever, the gist of my invention residing in the broad idea of providing one of the wedge-shaped sections with a rigid ratchet-bar, while  
30 the other section carries a movable resilient pawl-lever capable of automatically engaging the teeth on the ratchet-bar when the sections are driven into wedged position.

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

1. In a bicycle handle-bar attachment, the combination of the reversely-inclined and  
40 complementary members of the handle-bar

shank adapted to be contained within the handle-bar socket of a bicycle-frame, the handle-bar, the clip secured to said bar and pivoted to the heads of said members, the ratchet-bar rigidly secured within one of said members, 45 the movable resilient pawl carried by the other member, and means for withdrawing said pawl from engagement with said ratchet-bar, substantially as set forth.

2. In a bicycle handle-bar attachment, the combination of the reversely-inclined and complementary members of the handle-bar shank adapted to be contained within the handle-bar socket of a bicycle-frame, the handle-bar, the clip secured to said bar and pivoted 55 to the heads of said members, the ratchet-bar having its successive teeth extending in an inclined plane, the pivoted pawl-lever, the spring whereby said lever is normally distended, the threaded pin connected with said lever and extending through the outer wall of the section containing said lever, and the thumb-nut around said pin, substantially as shown and described. 60

3. In a bicycle handle-bar attachment, the combination of the reversely-inclined and complementary members of the handle-bar shank adapted to be contained within the handle-bar socket of a bicycle-frame, the handle-bar, the clip secured to said bar and pivoted 70 to the heads of said members, and means carried respectively by said members for automatically locking them in wedged position within said socket, substantially as set forth.

In testimony whereof I affix my signature 75 in presence of two witnesses.

HENRY T. MILLER.

Witnesses:

LYMAN E. CRANDALL,  
ISAAC L. SWEGLE.