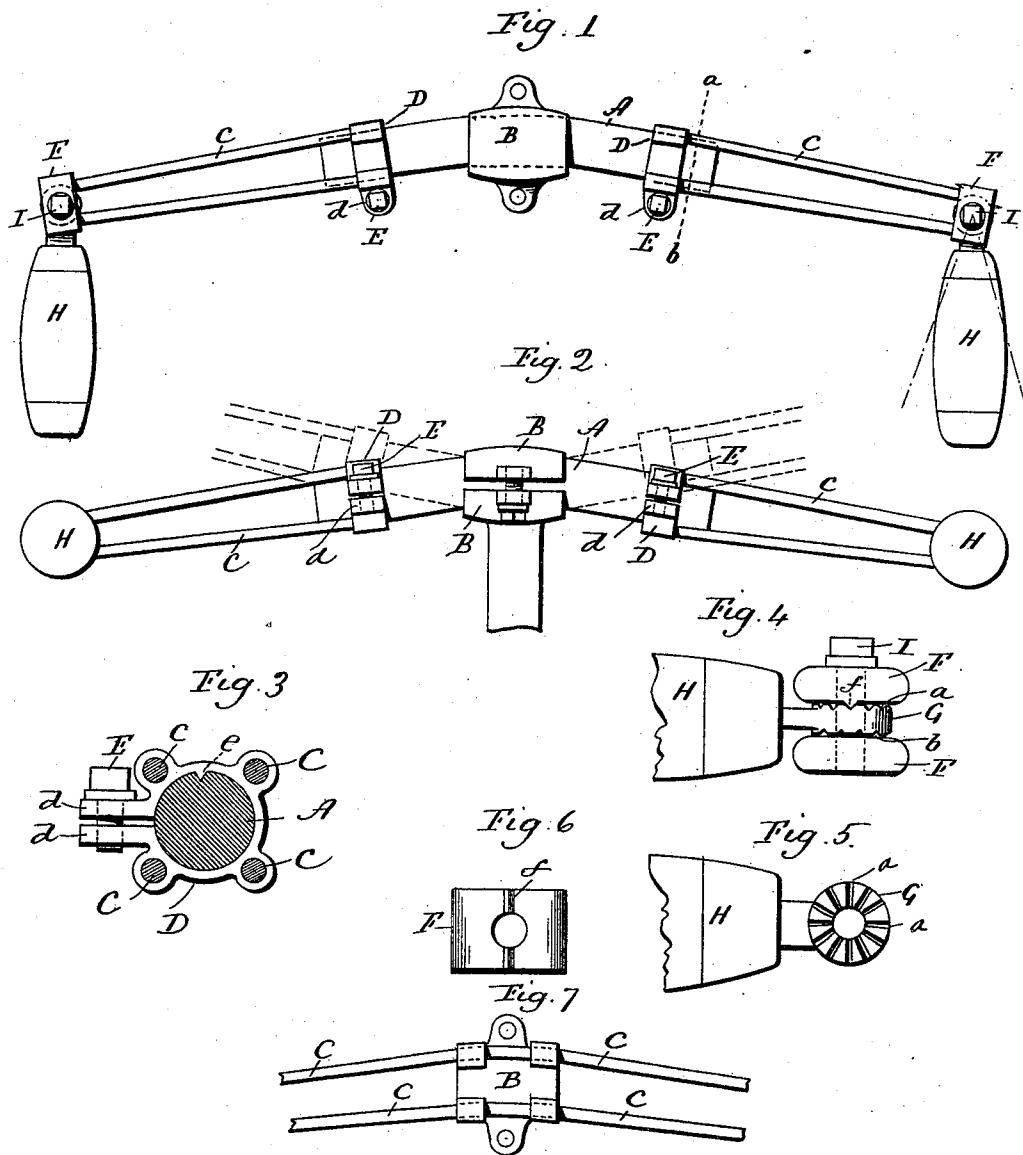


(No Model.)

H. A. WOOD.  
HANDLE BAR FOR CYCLES.

No. 578,180.

Patented Mar. 2, 1897.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

HENRY A. WOOD, OF MERIDEN, CONNECTICUT.

## HANDLE-BAR FOR CYCLES.

SPECIFICATION forming part of Letters Patent No. 578,180, dated March 2, 1897.

Application filed October 27, 1896. Serial No. 610,242. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY A. WOOD, of Meriden, in the county of New Haven and State of Connecticut, have invented a new Improvement in Handle-Bars for Cycles; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a top view of a handle-bar embodying my invention; Fig. 2, a side view illustrating two positions of adjustment; Fig. 3, a sectional view on the line *a b* of Fig. 1; Fig. 4, a view of one end of the handle-bar and a portion of the grip enlarged; Fig. 5, a plan view of the inner end of one of the grips and its stem; Fig. 6, an inside view of one of the plates to which the outer ends of the handle-wires are secured; Fig. 7, a modification.

This invention relates to an improvement in handle-bars for cycles, the object being to produce a bar which is capable of adjustment to a variety of positions and of increased strength without materially increasing the weight of the bar; and it consists in forming a portion of the bars proper from a multiplicity of wire rods connected at their ends so as to permit them to spring torsionally and at the same time be rigid against lateral strain, and in certain details of construction, as will be hereinafter described, and particularly recited in the claims.

Preferably the handle-bar will consist of a circular portion A, of wood or of tubular metal and preferably curved, as shown in Fig. 1. The central portion of the bar is adapted to be clamped to the head B of the bicycle by any of the means well known in bicycle manufacture. The ends of the handle are formed from wires C, preferably, and as herein shown, four in number, arranged in the form of a rectangle, the inner ends being secured to an open clip D, formed with arms *d*, through which a clamping-screw E extends, whereby the clip may be clamped to the ends of the central portion A and be adjusted with relation thereto. The outer ends of the two pairs of wires C are united by plates F, one of which is formed with a transverse rib *f*, and between which plates the stem G of the

grips H is secured by a bolt I, extending through the plates and the stems. The opposite faces of the stems of the grips are formed with radial grooves *a b* to receive the rib *f* on the plate F, the grooves on one side alternating with the grooves on the other, so that by removing the handles from between the plates and reversing them a close adjustment may be obtained. If low handles are desired, the central portion A is turned so that its ends project downward, as shown in Fig. 2, and the end portions turned and clamped so as to present the grips in proper position. On the other hand, if a high handle is desired the central portion is turned as shown in broken lines in Fig. 2, in which the ends of the bar project upward, and the ends of the handle adjusted thereon so as to present the grips to the proper position.

Instead of employing the central portion A the ends of the handle may extend to and unite with a part of the clamping device B at the upper end of the steering-rod of the bicycle, and as shown in Fig. 7. With either of the constructions shown the rods C will turn under torsional strain to be sufficiently yielding to avoid jarring the rider, and at the same time be rigid against lateral strain, so that bending laterally is impossible.

As an adjustable handle the construction shown and described permits a ready adjustment of the handle when desired. To change the position of the grips, it is only necessary to loosen the screw I, when the plates F will separate, allowing the grip to be turned in either direction, and if the rib *f* does not register with a groove in one side of the grip-stem it will register with one of the grooves in the opposite side. The wires C may be of any form in cross-section, and more than four may be employed if desired, or, in some cases, three will be found to be sufficient. In case the central portion A is of wood it may be desirable to provide the clamps D with an internal rib *e* to bite into the bar to prevent the accidental rotation of the clip thereon. Furthermore, the end portions of the handle being adjustably secured to the central portion permit said ends to be moved toward and from the center, thereby increasing or diminishing the distance between the grips.

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

1. A handle-bar for cycles, formed from a  
5 multiplicity of wires secured together at their ends, substantially as described.

2. The herein-described handle-bar for cycles, consisting of a central portion and ends adapted to be clamped thereto, said end portions consisting of a multiplicity of wires secured together at their ends, substantially as described.

3. The herein-described handle-bar for cycles, consisting of a curved central portion  
15 and ends adapted to be clamped thereto, said end portions consisting of a multiplicity of wires secured together at their ends, substantially as described.

4. The herein-described handle-bar for cycles, consisting of a central portion and ends  
20 formed from a multiplicity of wires, and connected together at their inner ends by a clamp

for connection with the said central portion, and at their outer ends by plates between which the grips are secured, substantially as  
25 described.

5. The herein-described handle-bar for cycles, consisting of a central portion and ends formed from a multiplicity of wires, and connected together at their inner ends by a clamp  
30 for connection with the said central portion, and at their outer ends by plates between which the grips are secured, one of said plates formed with a rib, and the stem of the grips formed with radial grooves to receive said  
35 rib, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

HENRY A. WOOD.

Witnesses:

FRED. C. EARLE,  
LILLIAN D. KELSEY.