H. T. ROBERTS.

HANDLE BAR.

APPLICATION FILED APR. 28, 1919.

1,331,875. Patented Feb. 24, 1920.

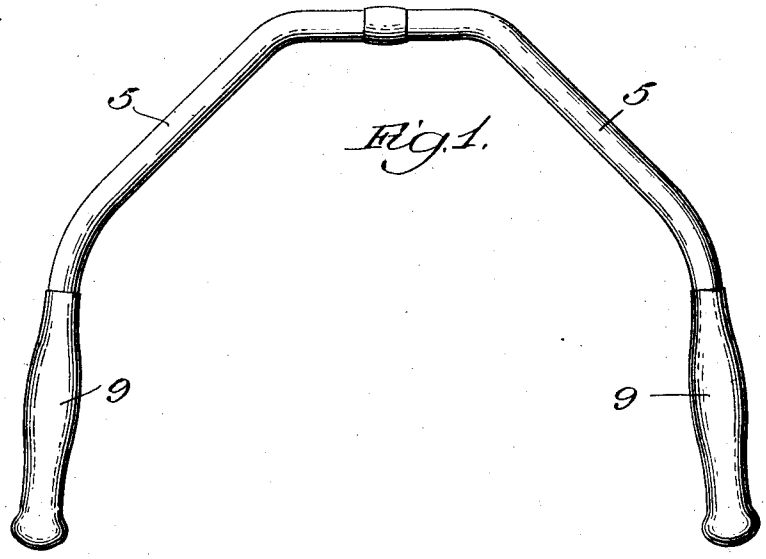


Fig. 1.

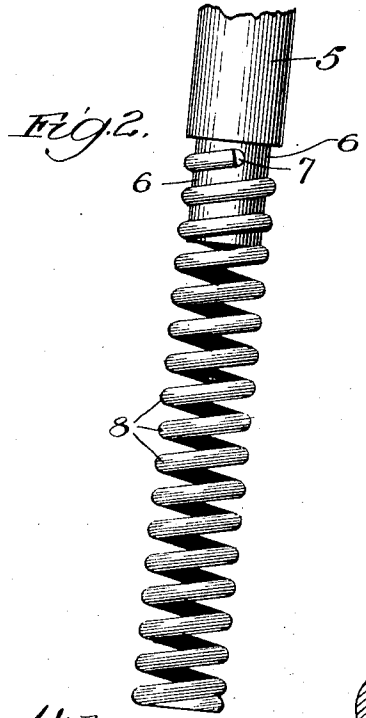


Fig. 2.

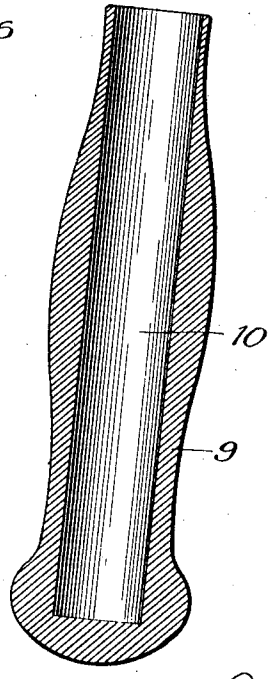


Fig. 3.

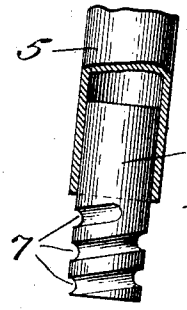


Fig. 4.

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UNITED STATES PATENT OFFICE.

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HANDLE-BAR.

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To all whom it may concern:

Be it known that I, HENRY T. ROBERTS, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented a new and useful Improvement in Handle-Bars, of which the following is a specification.

My invention relates, more particularly, to improvements in handle-bars for motorcycles, and the like, wherein it is desired that the handle-bar be so constructed that the amount of vibration transmitted to the arms of the rider through the handle-bar, be reduced to the minimum.

My primary object is to provide an inexpensive and simple construction of handle-bar accomplishing this result, and one with which may be used the hand-grips as commonly used in handle-bars of the ordinary form.

Referring to the accompanying drawing:—

Figure 1 is a plan view of a handle-bar constructed in accordance with my invention. Fig. 2 is an enlarged plan view of one of the similar ends of the handle-bar, with the grip removed. Fig. 3 is a plan sectional view of a hand-grip as commonly provided; and Fig. 4 is a view like Fig. 2, of an end of the handle-bar with the grip and spring-section removed, showing a portion of the tubular member of the handle-bar in section.

The handle-bar in the particular illustrated embodiment of my invention, involves a bar portion 5, as is common in handle-bar structures, and which, by preference, is formed of hollow steel tubing with plugs 6 secured in any suitable way in the open ends of the portion 5 with the ends of the plugs protruding therefrom, these protruding ends being provided about their peripheries with spiral grooves 7, as illustrated by the plug in Figs. 2 and 4. Each end of the handle-bar is formed of a spiral spring 8, these springs surrounding the projections 6 and lying conformingly in the groove 7 which they closely and tightly fit to provide a rigid connection between these springs and the bar-portion 5 which will not loosen and will not permit the springs to become disconnected from the bar-portion 5 in the use of the handle-bar.

The spring-sections 8 are in effect the handle-portions of the handle-bar as the rider grips the handle-bar at these springs with the grips, hereinafter referred to, interposed, the springs 8 being preferably of substantially uniform diameter throughout their length and of substantially the same diameter as the adjacent ends of the portion 5 of the bar.

The handle-grips, which are preferably of yielding material, such as rubber, and are represented at 9, the form shown being that in common use, contain socket-portions 10, as shown of the grip in Fig. 3. The grips fit over the springs 8, as indicated in Fig. 1, the internal diameter of the socket-portions 10 being slightly less than the diameter of the spring-sections 8, whereby the grips 9 closely embrace the springs 8, and in coöperation therewith form a highly effective means for absorbing vibration, it being understood that the springs 8 should be sufficiently heavy to present a degree of resistance sufficient to permit of the steering of the vehicle equipped with the handle-bar.

What I claim as new and desire to secure by Letters Patent, is:—

1. In a handle-bar for cycles, the combination of a bar-section containing spiral grooves in the exterior surfaces of its end portions and coiled-spring shock-absorbing sections rigidly connected therewith, said coiled-spring sections encircling at their ends, the ends of said bar-section and extending into said spiral grooves.

2. In a handle bar for the purpose set forth, the combination of a hollow bar-section provided at its ends with plugs located in said bar and extending outwardly therefrom beyond its ends, the outer ends of said plugs forming projections the outer surfaces of which contain spiral grooves, and coiled-spring sections rigidly connected with said projections, said coiled-spring sections encircling at their ends said projections and extending into said grooves.

3. In a handle-bar for cycles, the combination of a bar-section containing spiral grooves in the exterior surfaces of its end portions and coiled-spring shock-absorbing sections rigidly connected therewith and of substantially uniform diameter throughout their length and of substantially the same diameter as said bar-section, said coiled-spring sections encircling at their ends, the ends of said bar-sections and extending into said spiral grooves.

4. In a handle-bar for the purpose set forth, the combination of a hollow bar-sec-

tion provided at its ends with plugs located in said bar and extending outwardly therefrom beyond its ends, the outer ends of said plugs forming projections the outer surfaces of which contain spiral grooves, and coiled spring sections rigidly connected with said projections and of substantially uniform diameter throughout their length and of substantially the same diameter as said bar-section, said coiled-spring sections encircling at their ends said projections and extending into said grooves.

HENRY T. ROBERTS.