

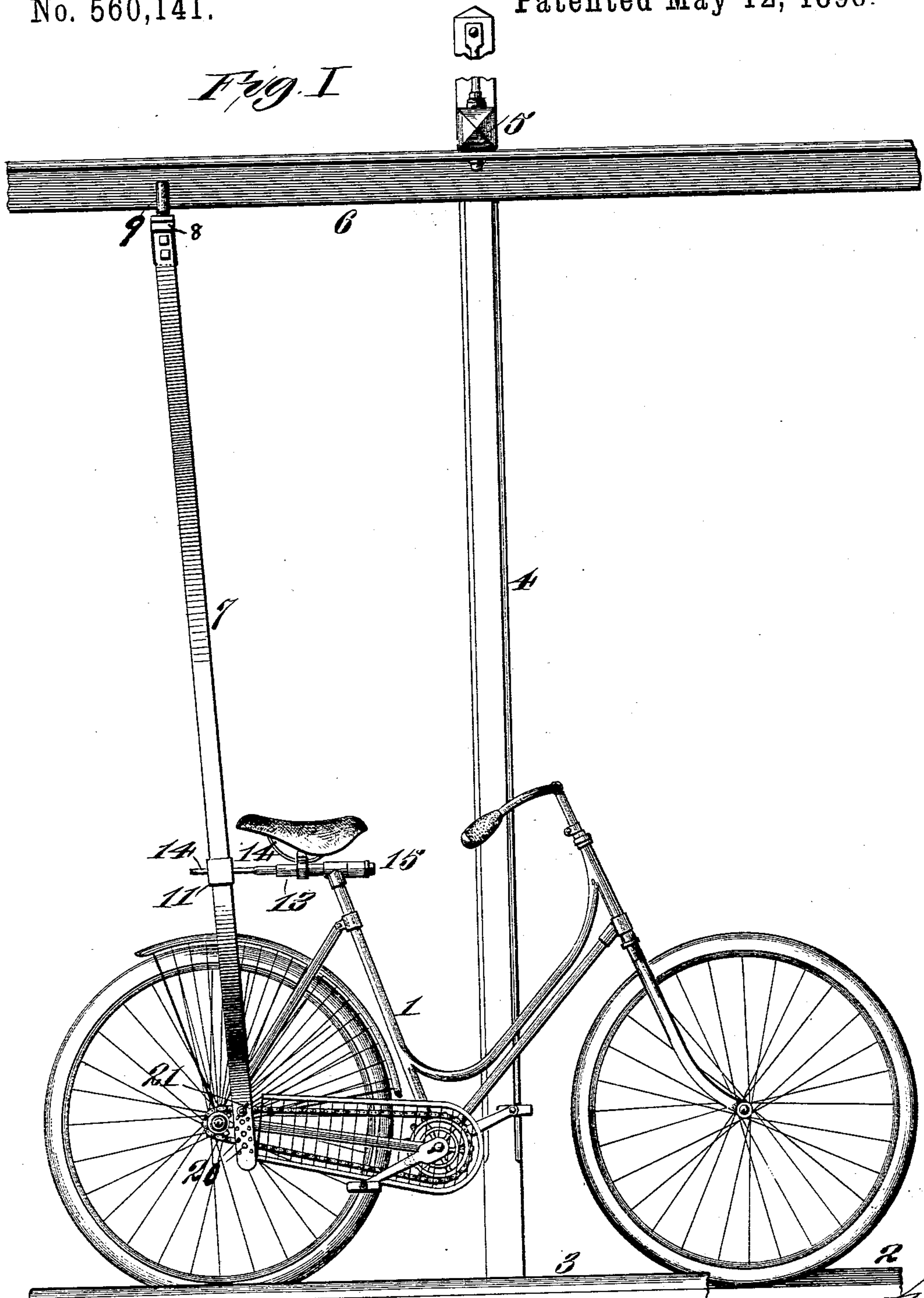
(No Model.)

2 Sheets—Sheet 1.

L. MALONE.
BICYCLE SUPPORTING APPARATUS.

No. 560,141.

Patented May 12, 1896.



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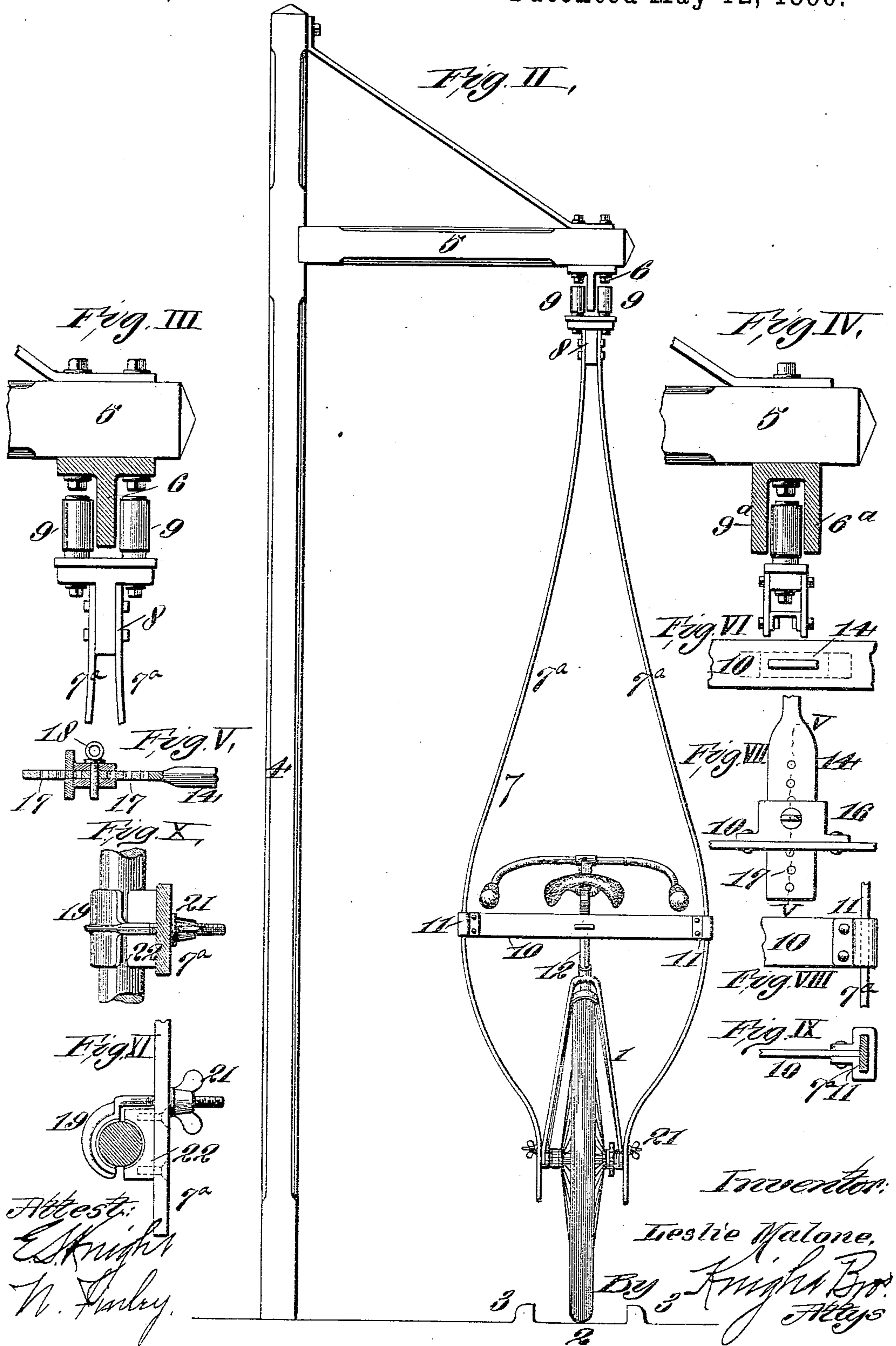
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2 Sheets—Sheet 2.

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No. 560,141.

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UNITED STATES PATENT OFFICE.

LESLIE MALONE, OF ST. LOUIS, MISSOURI.

BICYCLE-SUPPORTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 560,141, dated May 12, 1896.

Application filed August 19, 1895. Serial No. 559,717. (No model.)

To all whom it may concern:

Be it known that I, LESLIE MALONE, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in a Bicycle-Supporting Appliance, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to a bicycle-support more especially for use in teaching persons to ride a bicycle; and my invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I illustrates a side elevation of my appliance in connection with a bicycle. Fig. II is a rear view. Fig. III shows a cross-section of the guide-rail and an elevation of the traveler-rollers. Fig. IV is a like view to Fig. III, showing the employment of two guide-rails and one traveler. Fig. V is a longitudinal vertical section taken on line V V, Fig. VII. Fig. VI is a rear view of the central portion of the vertical bar connecting cross-bar and its retaining-bar. Fig. VII is a top view of the central portion of the cross-bar and retaining-bar. Fig. VIII is a side view of one end of the cross-bar and the adjacent portion of one of the vertical bars. Fig. IX is a top view of the parts shown in Fig. VIII. Fig. X is a top view of the fastenings employed to attach the lower ends of the vertical bars to the bicycle-frame. Fig. XI is a side view of the parts shown in Fig. X.

Referring to the drawings, 1 designates a bicycle of any ordinary construction.

2 designates a track upon which the wheels of the bicycle are designed to travel, at the sides of which track are ridges 3, that confine the travel of the bicycle-wheels upon the track.

4 designates one of a series of vertical posts which stand opposite the track 2, and which are provided at their upper ends with cross-arms 5, and supported by the cross-arms are the suspended guide-rails 6, arranged in continuous line. These rails may be in pattern single bar, as shown in Figs. I to III, inclusive, or they may be of double-bar pattern, as shown at 6^a, Fig. IV.

7 designates a frame preferably consisting of vertical bars 7^a, supported by the bicycle

and connected at their upper ends to a block 8, carrying either a pair of rollers 9, as illustrated in Figs. I to III, inclusive, where the rollers are located at each side of the single rail, or where the double-bar rail 6^a (shown in Fig. IV) is employed a single roller 9^a travels between the two bars 6^a.

At the rear of the bicycle saddle-post the vertical bars 7^a are connected by a cross-bar 10, joined to the vertical bars by means of yokes 11.

The saddle-post 12 which I employ is provided with a horizontal tube 13, upon which the saddle is seated, and through this tube I pass the round end of a bar 14 and apply a nut 15 to hold the bar in place. The opposite end of this bar is flattened, and is arranged to pass through a box 16 and through the central portion of the cross-bar 10, and it is connected to these parts by means of a pin 18, arranged to fit in any one of a number of perforations 17 in the bar 14. By this means the upper ends of the vertical bars 7 may be adjusted with relation to the guide-rail. The lower ends of the vertical bars are connected to the rear bar of the frame of the bicycle by means of hook-clamps 19, that partially encircle the bars of the frame, and the opposite ends of the clamps are provided with screw-threads that are arranged to pass through any one of a number of openings 20 in the vertical bars and to receive a thumb-nut 21, by which the vertical bars are securely clamped to the bicycle-frame.

22 designates a cushion placed between the vertical bars and the frame for the purpose of obtaining a tight fit between the clamp and the frame.

The series of openings 20 permit of the adjustment of the device with relation to the height of the saddle-post and also with relation to the size of the bicycle in use.

I claim as my invention—

1. In a bicycle-supporting apparatus, the combination of an overhead track, a frame consisting of vertical bars, one or more rollers on said frame arranged for engagement with said overhead track, a cross-bar connecting said vertical bars, a connection from said cross-bar to the saddle-post of a bicycle, and a connection between the lower ends of said vertical bars and the frame of said bicycle.

2. In a bicycle-supporting appliance, the combination of an overhead track, a frame consisting of vertical bars, one or more rollers on said frame arranged for engagement with said overhead track, a cross-bar connecting said vertical bars, an adjustable connection from said cross-bar to the saddle-post of a bicycle, and a clamp arranged to adjustably secure the lower ends of said vertical bars to the frame of said bicycle, substantially as herein set forth.
3. In a bicycle-supporting appliance, the combination with an overhead track of a frame, provided with means for engagement with said track, an adjustment-bar connecting said frame to the saddle-post of a bicycle, and a clamp arranged to connect the lower end of said frame to the frame of said bicycle, substantially as described.

LESLIE MALONE.

In presence of—
E. S. KNIGHT,
W. FINLEY.