

No. 711,717.

Patented Oct. 21, 1902.

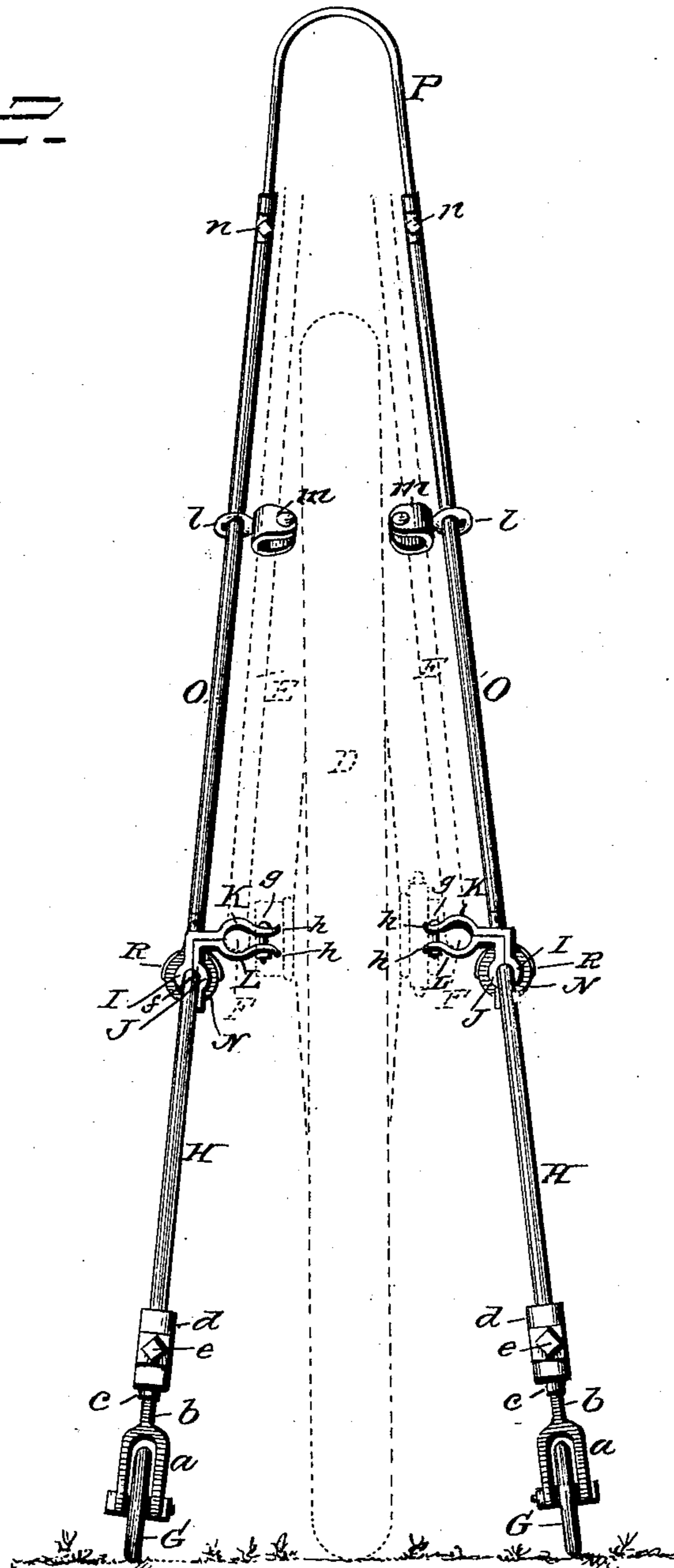
R. F. CORNEIL.
CYCLE SUPPORT.

(Application filed Aug. 8, 1902.)

(No Model.)

3 Sheets—Sheet 2.

Fig. 2.



Witnesses
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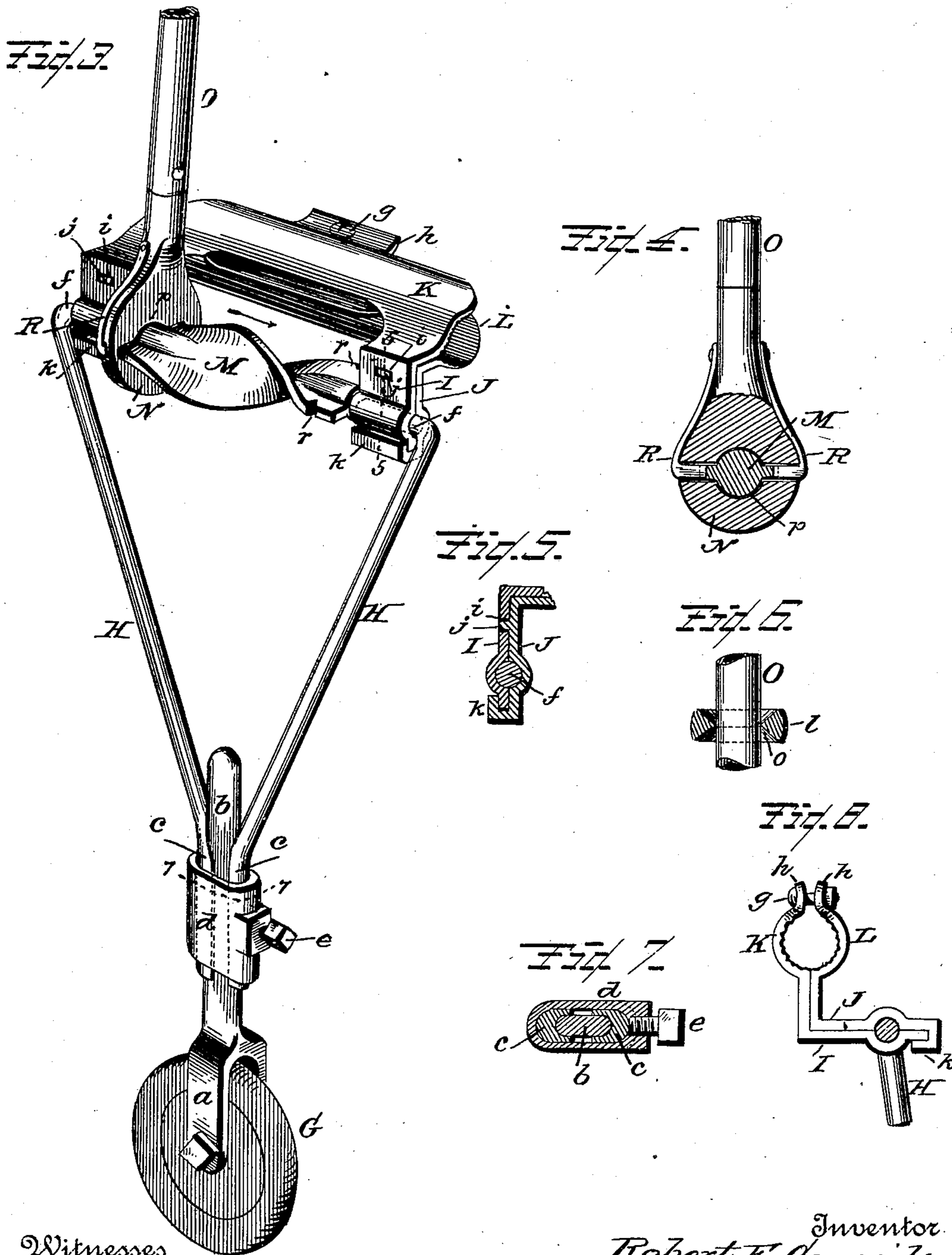
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UNITED STATES PATENT OFFICE.

ROBERT F. CORNEIL, OF PHILLIPSBURG, MONTANA, ASSIGNOR OF ONE-
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CYCLE-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 711,717, dated October 21, 1902.

Application filed August 8, 1902. Serial No. 118,921. (No model.)

To all whom it may concern:

Be it known that I, ROBERT F. CORNEIL, a citizen of the United States, residing at Phillipsburg, in the county of Granite and State of Montana, have invented certain new and useful Improvements in Cycle-Supports; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The present invention has for its object to provide an attachment to cycles, whereby the same may be supported when not in use and also employed as an assistance to the beginner when learning to ride a wheel, the attachment when turned down to bring it in position for use preventing the wheel from tipping over and in a short time aiding the cyclist to maintain his balance, the attachment being capable of use on motor-cycles and other like vehicles where the wheels are used tandem.

The invention consists in a support for cycles constructed substantially as shown in the drawings and hereinafter described and claimed.

Figure 1 of the drawings is a side elevation of a bicycle of the usual construction, showing my improved support connected thereto and swung down in position for use; Fig. 2, an end view thereof, on an enlarged scale, showing the rear bicycle-wheel and a portion of the frame in dotted lines; Fig. 3, a detail perspective view, on a further enlarged scale, of one of the supports and its connections; Fig. 4, a detail view, partly in section, of the lever-head which engages the spiral cam to raise or lower the support; Fig. 5, a sectional detail view on line 5 5 of Fig. 3; Fig. 6, a sectional view taken on line 6 6 of Fig. 1; Fig. 7, a horizontal section taken on line 7 7 of Fig. 3, showing the means employed for adjustably holding the supporting-wheel to the arms of the support; Fig. 8, an end view of the clamping-sections.

In the accompanying drawings, A represents the frame of a bicycle, and B the seat thereof, said frame having connected in the usual manner the front and rear wheels C D, respectively, the rear wheel being connected

to the bifurcated bar E and horizontal bars F, which form part of the frame of the bicycle, these bars being shown in full lines and dotted lines, respectively, in Figs. 1 and 2 of the drawings.

The supports are in pairs, one upon each side of the rear wheel D, and comprise the supporting-wheel G, which may be of any suitable form and construction and, if preferred, provided with cushion, solid, or pneumatic rubber tire, as found desirable. The wheel is supported in a forked hanger *a*, which terminates in an upwardly-extending shank *b*, which shank is adjustably held between the grooved jaws *c*, which jaws are upon the lower ends of the arms H, as shown more clearly in Figs. 3 and 7 of the drawings. The grooved jaws *c*, which embrace the shank *b*, are held tightly against the same by a sleeve *d* and set-screw *e*, the arms and jaws being of spring metal, so that the jaws will yield to pressure in holding or releasing the shank located between them when it is desired to adjust the height of the supporting-wheel. When the set-screw is released or loosened, the grooved clamping-jaws will also release themselves from frictional contact with the shank of the forked hanger, which will admit of the shank being raised or lowered to adjust the height of the supporting-wheel, after which the set-screw is tightened to force the grooved clamping-jaws against the shank to hold it in its adjusted position. The arms H have inwardly-extending journals *f*, which engage bearing-sections I J, extending from the clamping-sections K L, respectively, as shown more clearly in Fig. 3 of the drawings. The clamping-sections K L are preferably serrated upon their innersides, so as to more securely grasp the horizontal bar F, and are held thereon by means of a clamping-screw *g*, extending through lugs *h* on said sections. The bearing-section I has a perforation *i*, with which engages a projection *j* upon the bearing-section J, said section having a flange *k* to overlap its fellow section when the two are together, thereby forming a secure bearing for the journals *f* of the arms H, as shown in Figs. 3 and 5 of the drawings.

The clamping-sections K L may be secured to the bar F in any suitable manner, as I do

not wish to confine my invention to any special form of clamp or to any particular manner of attaching it to the frame of the cycle—as, for instance, the clamping-sections may be connected to the horizontal bar at a right angle to that shown in Fig. 3 of the drawings, so that the clamping-screw *g* will be on top of the horizontal bar instead of on the inside and the bearing-sections I J, extending in an outward direction instead of in a downward direction, as shown in Fig. 8 of the drawings. Any form and construction of clamp may be used and connected to the frame in any suitable manner that will support the spiral cam M, which is connected to the journals *f* of the arms H. A lever-head N engages with the spiral cam M and is connected with a suitable lever O, which lever is preferably tubular and extends up through a bracket *l*, projecting from a suitable clip *m*, secured on the bifurcated bar E, as shown in Figs. 1 and 2 of the drawings. A suitable U-shaped handle P has its ends engaging the tubular levers O, which may be adjusted to regulate its heights with relation to the levers and is held in its adjusted position by set-screws *n*, as shown in Fig. 2 of the drawings.

The interior of the bracket *l* is beveled or V shape, as shown at *o* in Fig. 6 of the drawings, to allow the lever to be moved laterally from a perpendicular either forward or backward to raise or lower the support, as desired.

The lever-head N has an opening through it in form to correspond with the form of the spiral cam M in cross-section, as shown at *p* in Figs. 3 and 4 of the drawings. The lever-head is provided with spring-actuated latches R, which engage V-shaped notches *r* in the spiral cam, the notches being diametrically opposite each other at each end of the cam. When the lever is moved by the handle P in the direction of the arrow in Fig. 3 of the drawings, the cam M will turn through the medium of the spiral thereon engaging the lever-head N, and the spiral cam being connected with the arms H will elevate them and also the supporting-wheels G to bring the support out of use and is held up by the spring-actuated latches R, engaging the notches on the end of the cam, an opposite motion of the handle and arms being required to lower the support, the spring-actuated latches engaging the V-shaped notches, holding the support either in a raised or lowered position.

The support is susceptible of many changes or modifications in the details of construction without in any manner departing from the principle of the invention.

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

1. A support for cycles, comprising pivoted arms, a supporting-wheel connected therewith, a spiral cam connected with the arms, and a lever with a lever-head engaging the cam to turn said cam to elevate or lower the arms, substantially as and for the purpose set forth.

2. In a support for cycles, pivoted arms having grooved clamping-jaws at their lower ends, a supporting-wheel with shank held between the jaws, a sleeve embracing the jaws and shank, a set-screw for releasing and contracting the jaws, a spiral cam connected with the arms, and means for operating the cam, substantially as and for the purpose described.

3. In a support for cycles, pivoted arms, a supporting-wheel connecting therewith, a spiral cam connecting with the arms and having notches thereon, a lever for operating the cam, a lever-head upon the lever having an opening through which the cam extends, spring-actuated latches upon the lever-heads adapted to engage the notches in the cam, to hold the support in a raised or lowered position, substantially as and for the purpose specified.

4. In a support for cycles, suitable arms, a supporting-wheel adjustably connected thereto, said arms having inwardly-extending journals, clamp-sections for connecting to the frame of the cycle and provided with bearing-sections for the journals of the arms, a spiral cam connecting with the journals, and an operating-lever and lever-head connected thereto, said head engaging the spiral cam for operating it, substantially as and for the purpose set forth.

5. A support for cycles, comprising suitably-pivoted arms, a supporting-wheel adjustably connecting with their lower ends, a spiral cam connecting with the upper ends of the arms and having V-shaped notches thereon, a suitable operating-lever, a lever-head thereon having an opening through which the cam extends, spring-actuated latches upon the lever-head adapted to engage the notches in the cam, clamping-sections having bearing-sections for the inwardly-extending ends of the arms, one of said bearing-sections having perforation, and the opposite section having a projection engaging therewith, and an overlapping flange to engage the flange of the perforated section, substantially as and for the purpose described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ROBERT F. CORNEIL.

Witnesses:

R. W. GETTY,
E. H. CAMPBELL.