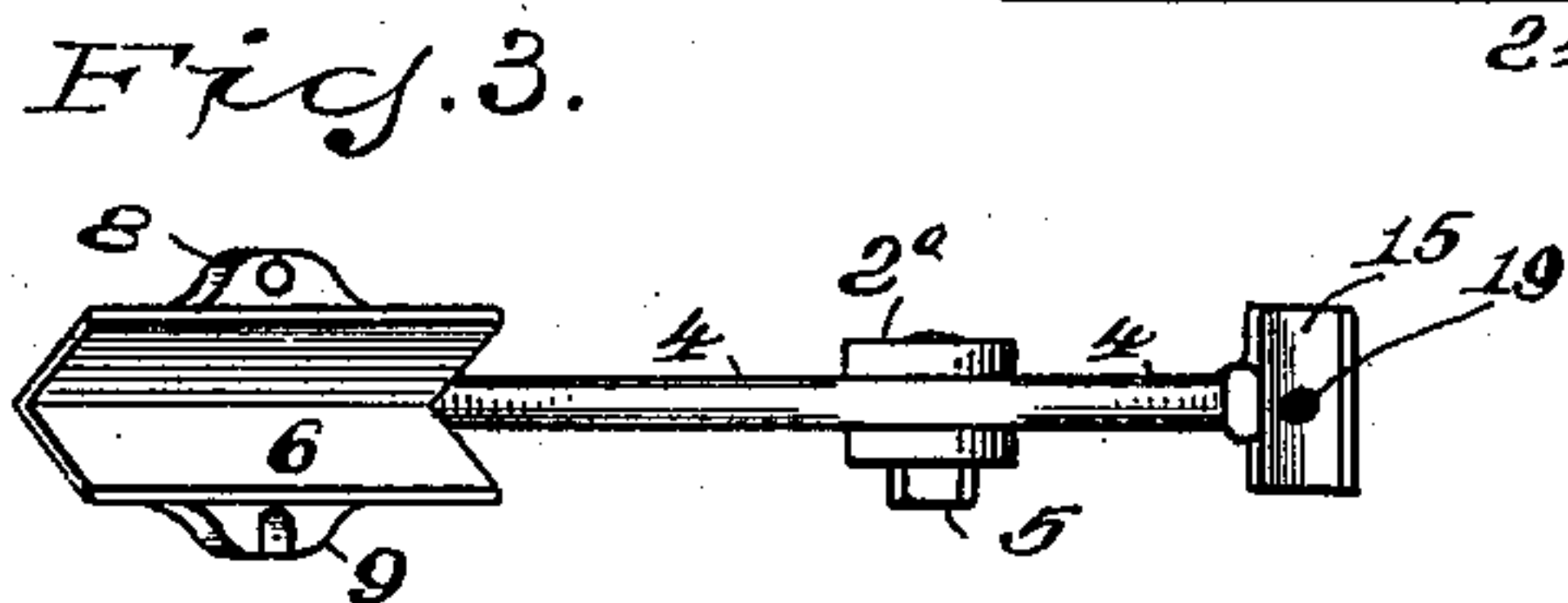
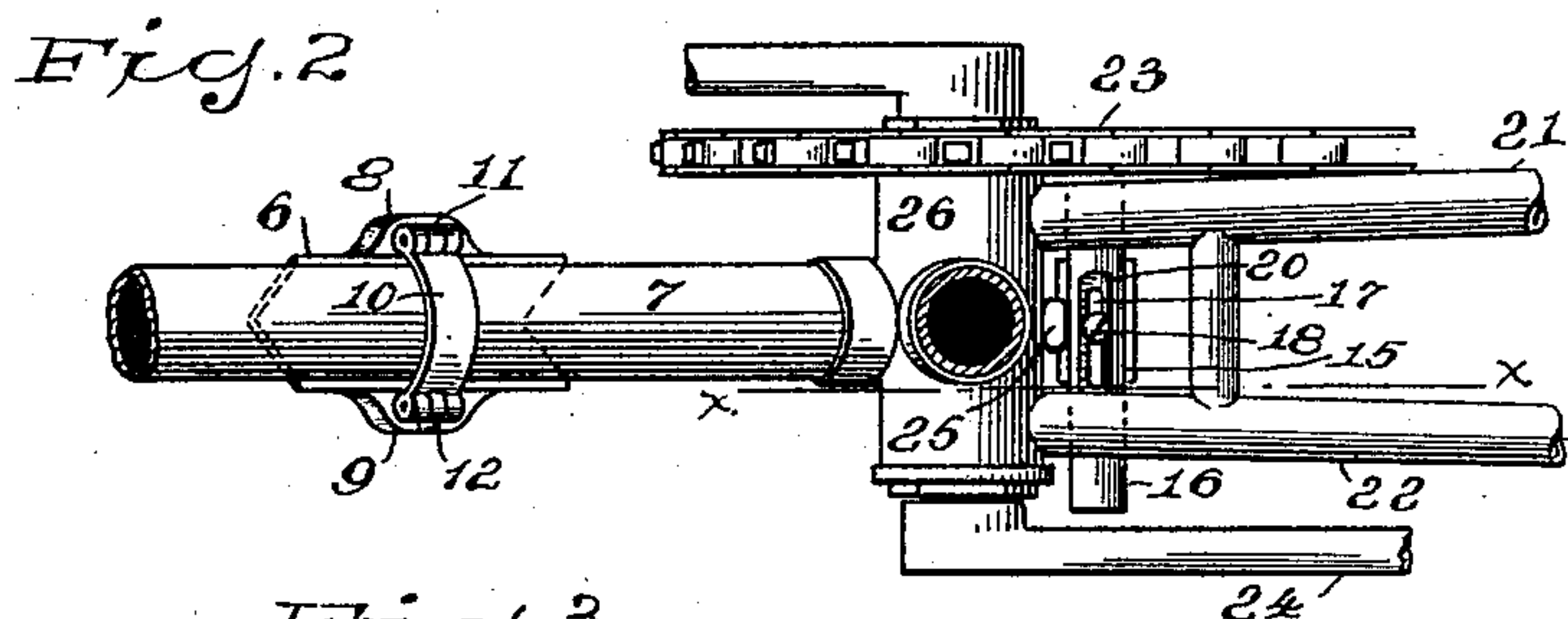
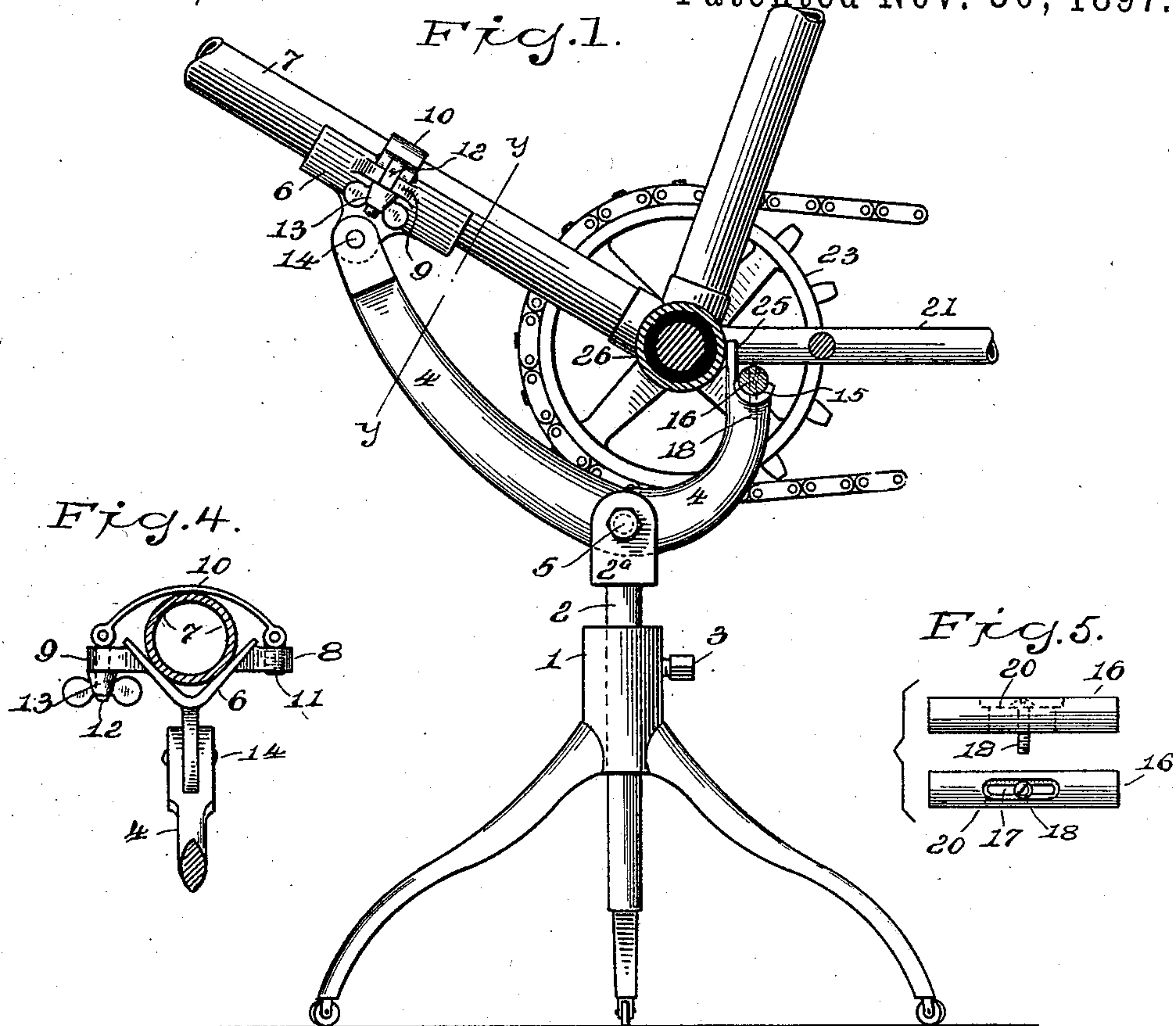


(No Model.)

W. N. BEARDSLEY & F. B. FELTON.
BICYCLE SUPPORT.

No. 594,373.

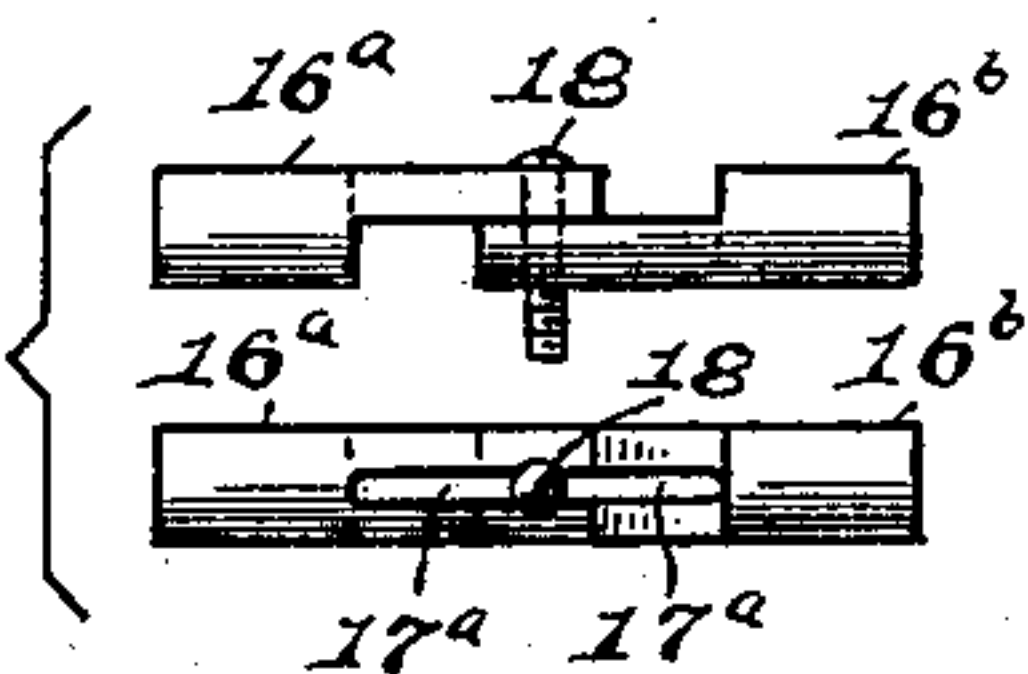
Patented Nov. 30, 1897.



WITNESSES.

H. A. Lamb.
A. D. Moulton.

Fig. 6.



INVENTORS.

William Nichols Beardsley.
Frank B. Felton.
By their Atty.
Geo. S. Phillips

UNITED STATES PATENT OFFICE.

WILLIAM NICHOLS BEARDSLEY AND FRANK B. FELTON, OF BRIDGEPORT, CONNECTICUT, ASSIGNORS TO MARCELLUS HARTLEY AND MALCOLM GRAHAM, OF NEW YORK, N. Y.

BICYCLE-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 594,373, dated November 30, 1897.

Application filed November 2, 1896. Serial No. 610,799. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM NICHOLS BEARDSLEY and FRANK B. FELTON, citizens of the United States, and residents of Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Bicycle-Supports, of which the following is a specification.

Our invention relates to an improved support for bicycles; and it consists in certain details of construction, to be more fully set forth in the following specification.

To enable others to understand our invention, reference is had to the accompanying drawings, in which—

Figure 1 represents a side elevation of the support with a broken section of a bicycle-frame mounted thereon, also section through line *x x* of Fig. 2 of the hub, rear brace, and supporting-piece therefor. Fig. 2 is broken upper plan view of the frame mounted in the support. Fig. 3 is a detail upper plan view of the supporting-frame and vertical supporting-spindle with the stand omitted. Fig. 4 is a detail broken front elevation of the lower rail of the bicycle-frame and frame of the support, showing the method of securing such rail to said support through line *y y* of Fig. 1. Fig. 5 is a detail side elevation and upper plan view of an adjustable support for the horizontal side braces of the bicycle-frame. Fig. 6 is a detail side elevation and upper plan view of a modified form of the support shown at Fig. 5.

Its construction and operation are as follows:

1 represents the supporting-stand; 2, a vertically-adjustable spindle secured to the stand 1 by means of the set-screw 3.

4 is a U-shaped support fulcrumed on the bolt 5 and between the forked head 2^a of the spindle 2.

6 is a V-shaped seat adapted to receive the tubular brace 7 of the bicycle-frame.

8 and 9 are laterally-projecting ears or lugs of the seat 6, which ears serve to anchor the binding-strap 10. 11, Fig. 4, is a threaded bolt attached to the ear 8, to which such strap is pivoted, while 12 is a short bolt pivotally supported to the opposite end of the strap

10 and carrying the thumb-nut 13 for securing the free end of said strap to the ear 9 of the seat 6. This seat 6 is pivotally supported on the pin 14, extending through the forked end of the long leg of the U-shaped support 4, so as to accommodate itself to the angular position of brace 7.

In the upper end of the short leg of the U-shaped support 4 (see also Fig. 3) is the grooved seat 15, extending laterally each way from such support and integral therewith. This seat supports the laterally-adjustable supporting-piece 16. (See also Fig. 5.) 17 is an elongated hole extending through the center of this piece to admit the body of the clamping-screw 18, the projecting threaded end of which screw engages with the threaded hole 19, Fig. 3, located at the bottom of the groove 15.

20, Fig. 5, is an elongated recess below the outer surface of the piece 16 to serve as a seat for the head of the screw 18. This adjustable piece is adapted to support the two rear horizontal braces 21 and 22, (see also Fig. 2,) which braces rest on the projecting ends of the said adjusting-piece. The object of the adjustable feature of the piece 16 is to enable all frames of whatever length of hubs to be mounted in the support. As there is considerable variation in the length of hubs, and also the distance between the braces 21 and 22, it would be impossible to make the piece 16 of an exact length without the end nearest the sprocket-wheel 23 interfering with such wheel, and thus prevent the bicycle being mounted on the support. When this occurs, the screw 17 is loosened and the said piece is moved laterally a distance sufficient to clear the sprocket-wheel and at the same time leave sufficient surface to support the brace 21, there being always sufficient room between the opposite end of the piece 16 and the crank 24 to admit of any necessary adjustment.

The modified form of the adjusting piece or block 16, as shown at Fig. 6, consists in separating it into two parts—viz., 16^a 16^b—and cutting half of each of the two sections away, so that when the flat meeting places of such sections are brought together they virtually form one supporting-piece. Each of the inner

ends of these sections has the slot 17^a to admit the clamping-screw. These sections, as well as the single piece shown at Fig. 5, are made of wood, being cheaper and less liable to mar the braces, although any other material can be used.

25 is a projection integral with the U-shaped support 4, or, in other words, it is a prolongation of such support, and extends far enough above the piece 16 to engage with the outer surface of the hub 26, the object of which will presently be more fully explained.

The device, as above described, is intended to accommodate all kinds and make of bicycles. In supports of this character heretofore used it was customary to support the frame at the sprocket-hub, but as hubs vary in diameter a supporting-stand must be made for every kind of frame. In our device the space between the bearing-points located at the extreme ends of the U-shaped support is amply sufficient to accommodate any size of hub. In fact, the hub is held in suspension between such bearing-points and does not rest on the support.

In mounting the bicycle in the support the hub is dropped within the U-shaped support and such hub brought against the projection 25, so as to locate the braces 21 and 22 with respect to their position on the supporting-piece 16. In the meantime the forward brace 7 is placed in the tilting V-shaped seat 6, while the clamp 10 secures the bicycle-frame in an upright position.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination, in a bicycle-support, with a stand carrying a vertically-adjustable spindle of an angularly-constructed supporting-arm adjustably mounted in said spindle, a laterally-adjustable rear brace-supporting seat mounted on one end of said arm, and a projection or finger adapted to engage the rear surface of a bicycle-hub to locate such hub with respect to such seat, the opposite end of said arm carrying a pivotal seat adapted to support the lower forward brace of a bicycle, all combined so that a bicycle is supported from the front and rear braces leaving the sprocket-hub to swing clear, substantially as set forth.

2. The combination with a supporting-stand and a vertically-adjustable spindle of a U-shaped support having a long and a short arm mounted in the end of said spindle, the short arm carrying a laterally-adjustable seat for the rear braces, of a bicycle, and a projection or finger projecting above such seat to limit the backward movement of the sprocket-hub, the long arm carrying a pivotal seat for the lower forward brace of a bicycle, the shape of the U-shaped support being such that the sprocket-hub swings clear within the arms of such support, substantially as described and set forth.

Signed at Bridgeport, in the county of Fairfield and State of Connecticut, this 12th day of September, A. D. 1896.

WILLIAM NICHOLS BEARDSLEY.

FRANK B. FELTON.

Witnesses:

L. M. SLADE,

H. C. EVANS.