

No. 640,165.

Patented Dec. 26, 1899.

D. W. O'CONNOR.  
SADDLE SUPPORT FOR BICYCLES.

(Application filed May 10, 1899.)

(No Model.)

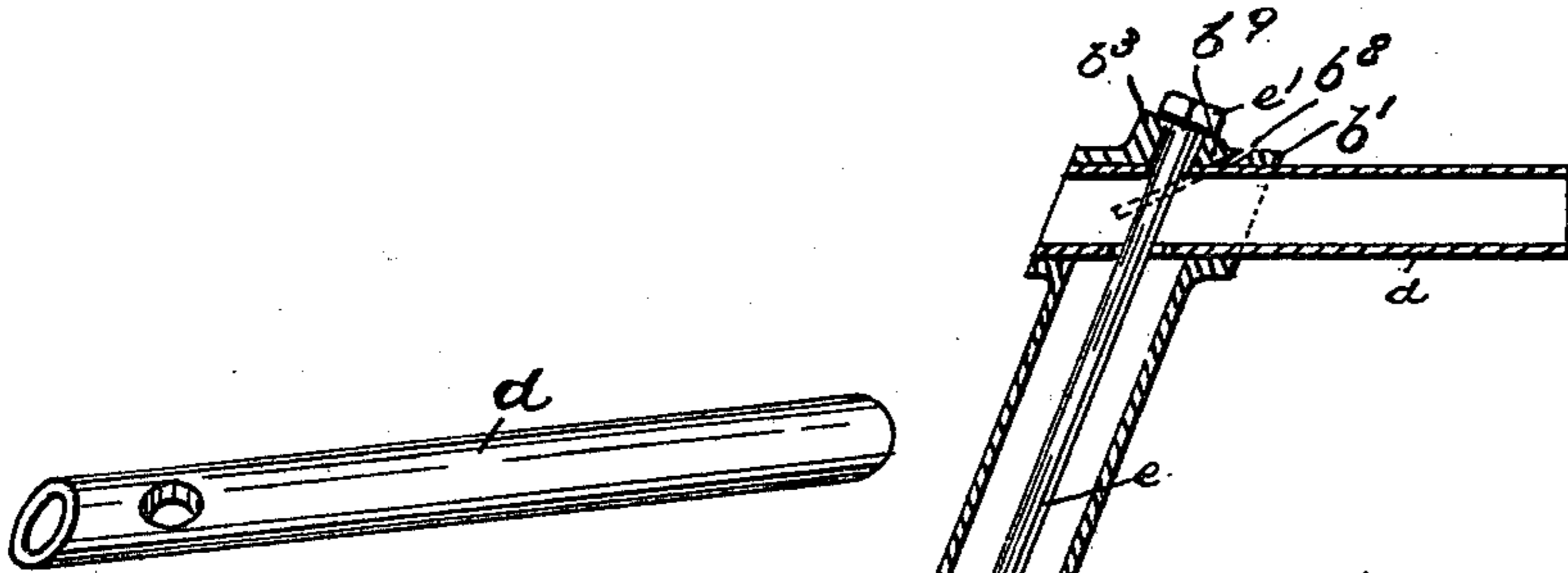


Fig. 1.

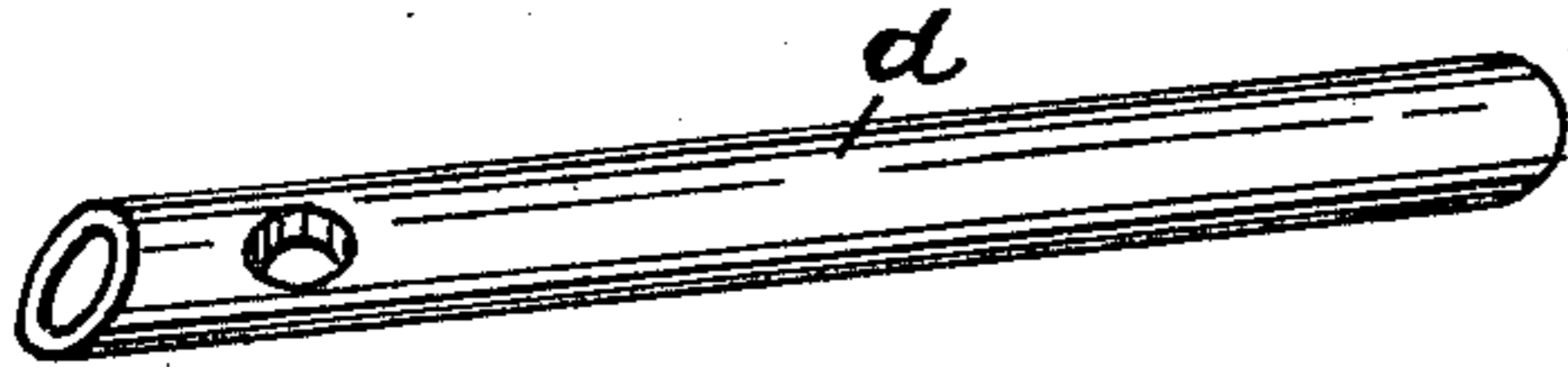


Fig. 2.

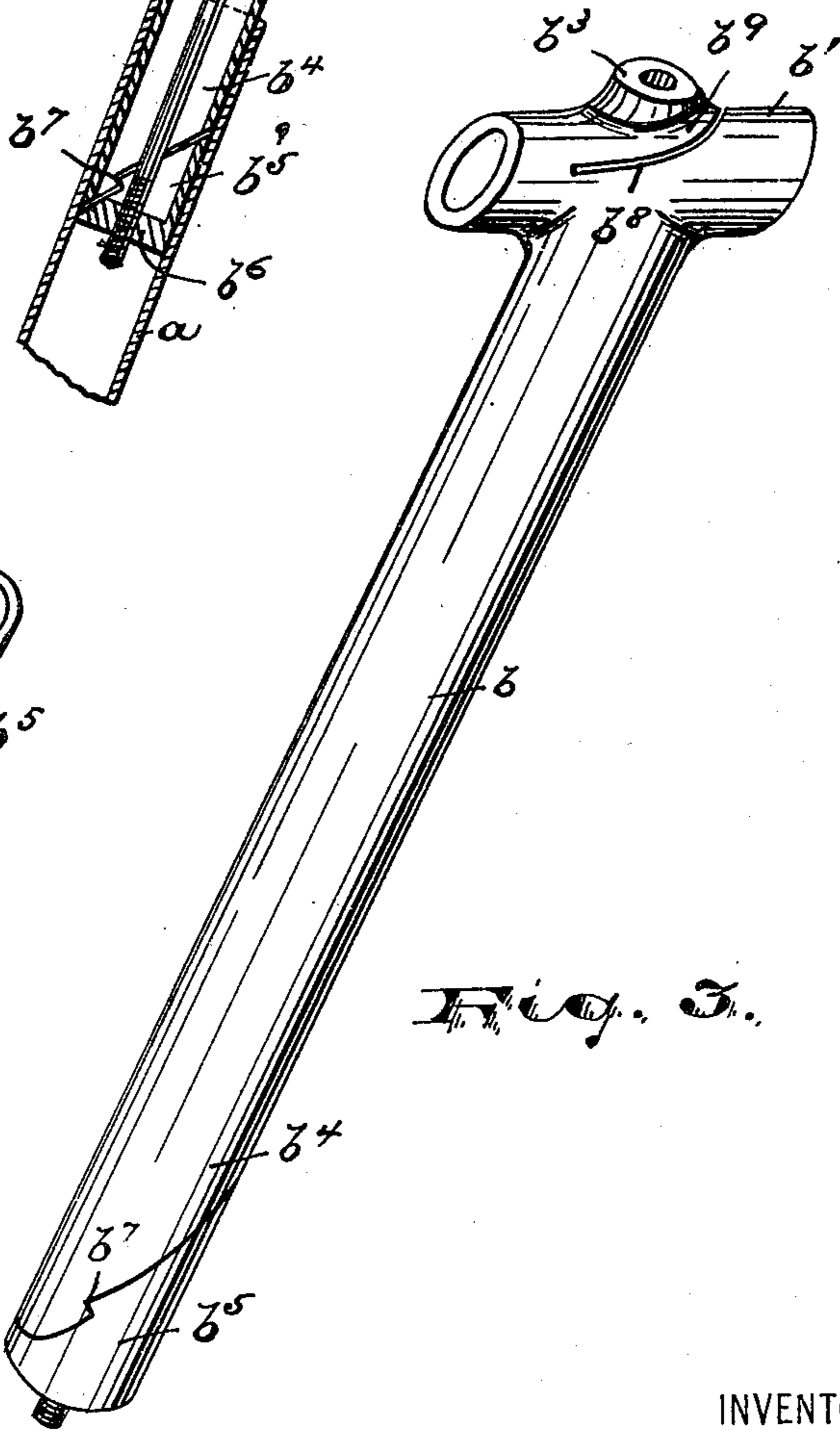


Fig. 3.

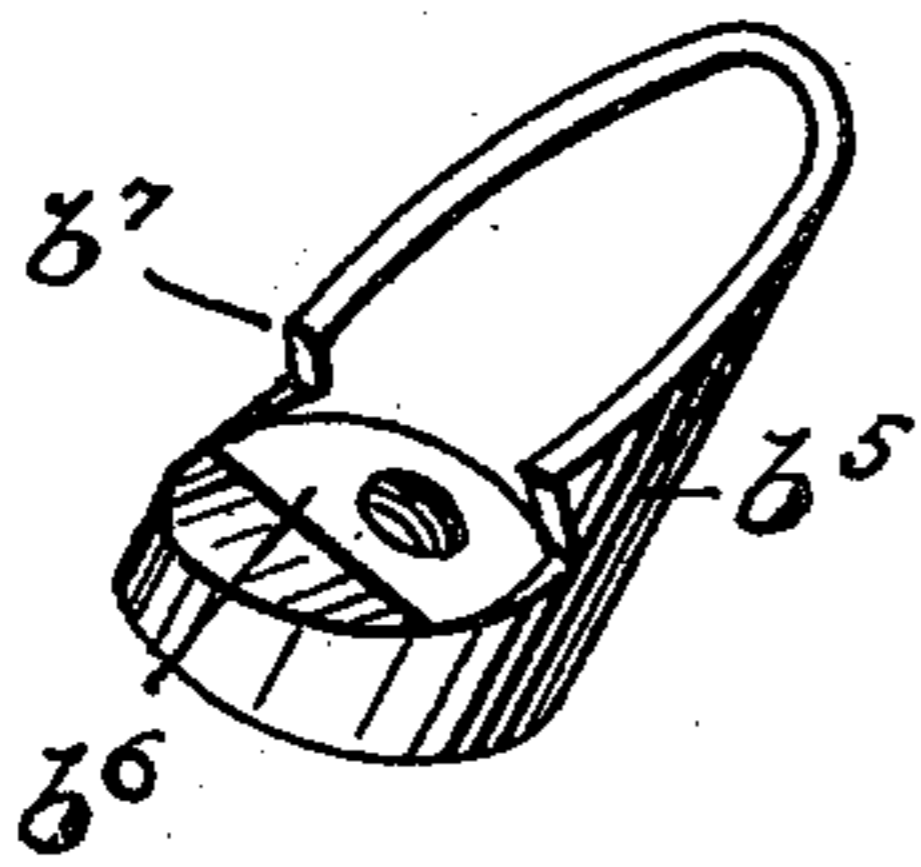


Fig. 4.

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# UNITED STATES PATENT OFFICE.

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## SADDLE-SUPPORT FOR BICYCLES.

SPECIFICATION forming part of Letters Patent No. 640,165, dated December 26, 1899.

Application filed May 10, 1899. Serial No. 716,206. (No model.)

*To all whom it may concern:*

Be it known that I, DENNIS W. O'CONNOR, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Saddle-Supports for Bicycles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to separably fasten a reversible horizontal saddle-supporting bar of a bicycle or velocipede into connection with the king-post thereof at a reduced cost of construction, to enable the said horizontal bar to be held in position with greater firmness and security and to be reversed with greater ease and facility, and to secure other advantages and results, some of which may be referred to hereinafter in connection with the description of the working parts.

The invention consists in the improved saddle-support for bicycles or velocipedes and in the arrangements and combinations of parts of the same, all substantially as will be hereinafter set forth and finally embraced in the clauses of the claim.

Referring to the accompanying drawings, in which like letters of reference indicate corresponding parts in each of the several views, Figure 1 is a central vertical section of a portion of a bicycle-frame and saddle-support of my improved construction. Fig. 2 is a detail view of the reversible horizontal bar thereof. Fig. 3 is a detail perspective view of an adjustable post adapted to be arranged telescopically in connection with the king-post, and Fig. 4 is a perspective view of a bottom section of said post.

In said drawings, *a* indicates the king-post or perch-tube of the bicycle-frame. *b* indicates an adjustable sectional tube arranged telescopically therein and adapted to be raised or lowered and to be clamped in fixed relation thereto by any suitable means, but particularly by the means hereinafter described.

At the upper end of the part or section *b*

the same is provided with a tubular cross-head *b'*, arranged diagonally with respect thereto, so that when the said sectional tube *b* is disposed at an incline in correspondence with the king-post of the bicycle-frame the said cross-head will lie in a horizontal position and hold the saddle-supporting bar *d* in the proper horizontal position also, as indicated in Fig. 1. At the top of the said cross-head *b'* the same is perforated to receive the bolt *e*, the perforations being provided therearound with a bearing *b<sup>3</sup>* for the head of the bolt, inclined in its relation to the upper line of the cross-head and at right angles to bolt *e*, passing through said perforation.

At the lower end of the tube or part *b* the same is in sections, the joint being formed transversely, so that the sections *b<sup>4</sup>* *b<sup>5</sup>* are in resemblance to wedges, the small ends of which extend in opposite directions. The closed end *b<sup>6</sup>* of the lower section is provided with a small threaded perforation adapted to receive the lower end of the bolt *e*, so that when the said bolt is turned at the head *e'* the said lower section will be adapted to move longitudinally upward against the upper section, each section then being forced oppositely sidewise, whereby a clamping effect is produced with respect to the king-post or perch *a* of the frame.

To prevent the lower section from becoming detached from the upper section in the event of the bolt *e* being unduly unscrewed or broken off, the said lower section in the event of detachment being free to drop down into the tube *a*, where it will be difficult of recovery, I have staggered the joints, as shown in Figs. 1 and 3 at *b<sup>7</sup>*, thus forming a recess or recesses on one part and a corresponding projection on the other part adapted to enter the said recess or recesses, whereby the lower part is prevented from dropping away from the upper part, as will be understood. The said recesses and projections are so formed as not to interfere with the wedge action and clamping of the parts.

The cross-head *b'* is provided with a saw-cut *b<sup>8</sup>*, which is inclined inward from the rear of the bearing *b<sup>3</sup>* and extends beneath the said bearing, forming a tongue *b<sup>9</sup>*, upon which the said bearing is stationed. Said tongue possesses more or less elasticity, and thus when

the bolt *e* is turned in its bearings to clamp the sectional tube *b* within the frame *a* the head of the said bolt will bear hard upon the top of the elastic bearing-tongue *b*<sup>9</sup>, and the latter will in turn press against the horizontal bar *d* to hold the same firmly and rigidly in place. Thus by simply turning the bolt *e* from the outside, where the turning operation is easy and convenient, the sectional tube is clamped in the king-post and the horizontal saddle-supporting bar is securely and firmly clamped. By unscrewing the bolt and removing the same the horizontal bar can be removed from the cross-head and changed to project in the opposite direction, so that the saddle may be seated nearer to or farther from the handle-bar.

The horizontal bar *d* is perforated transversely at an incline to the axis of said bar to receive the bolt *e*, and in the reversing operations it is evident that the said horizontal bar will be turned bottom side up to enable the said bolt to pass through the inclined perforation.

Having thus described the invention, what I claim as new is—

1. The combination with the tubular post *a*, of a velocipede-frame and the tube *b*, arranged vertically therein, said tube having cross-head with a bearing for a bolt-head thereon, and a cut underlying said bearing and at the bottom a bolt-bearing, of a reversible saddle-supporting bar and a bolt arranged in said tube *b*, and adapted to clamp the tongue, formed by said underlying cut, against the horizontal bar, substantially as set forth.

2. The combination with the tubular post *a*, of a bicycle or velocipede frame, of a horizontal bar, and a sectional tube, the sections of which have wedge-like meeting ends, the small ends of the wedge-like parts extending in opposite directions, the upper section at the top having a tubular cross-head to receive a horizontal bar, and a bolt extending through said sections, horizontal bar and cross-head and having a threaded bearing in the lower section and a head at the top of said cross-head bearing on said cross-head, substantially as set forth.

3. The combination with the tubular post of a bicycle or velocipede frame, of a horizontal bar and a sectional tube *b*, the sections of

which have staggered wedge-like meeting ends, the upper end of the upper section having a cross-head for a reversible horizontal bar, and a bolt for clamping said sections of the tube to the frame-post, substantially as set forth.

4. The improved saddle-support comprising the sectional tube having a staggered joint and bolt-bearing at the bottom of the lower section thereof, the upper section being provided with a cross-head, having a clamping-tongue with a bolt-bearing at the top, a horizontal reversible bar arranged in said cross-head, and a bolt to clamp said parts together when in connection with the bicycle-frame, said parts being combined substantially as set forth.

5. The improved saddle-support comprising a sectional tube, the sections of which are oppositely wedge-shaped at their meeting ends, the lower section having a threaded perforation for a bolt and the upper section having a cross-head, a clamping-tongue, bolt-perforations and, at the top, a bearing for the bolt-head, a reversible bar arranged in said cross-head and a clamping-bolt extending through said perforations and cooperating with said clamping-tongue in holding said parts in operative relation, substantially as set forth.

6. In a saddle-support, the cross-head having a perforation and bearing for a bolt, the said bearing being undercut, forming a clamping-tongue and a reversible saddle-supporting bar, substantially as set forth.

7. The combination with the tubular post, of a sectional tube, the sections of which are oppositely wedge-shaped at their meeting ends and provided with bearings at their opposite ends for a bolt, the joint formed by said wedge-shaped meeting ends being staggered or provided with a recess and projection whereby the lower section is prevented from falling away from the upper section, and said bolt arranged in said bearings of said sections, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 8th day of April, 1899.

DENNIS W. O'CONNOR.

Witnesses:

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C. B. PITNEY.