

No. 639,945.

Patented Dec. 26, 1899.

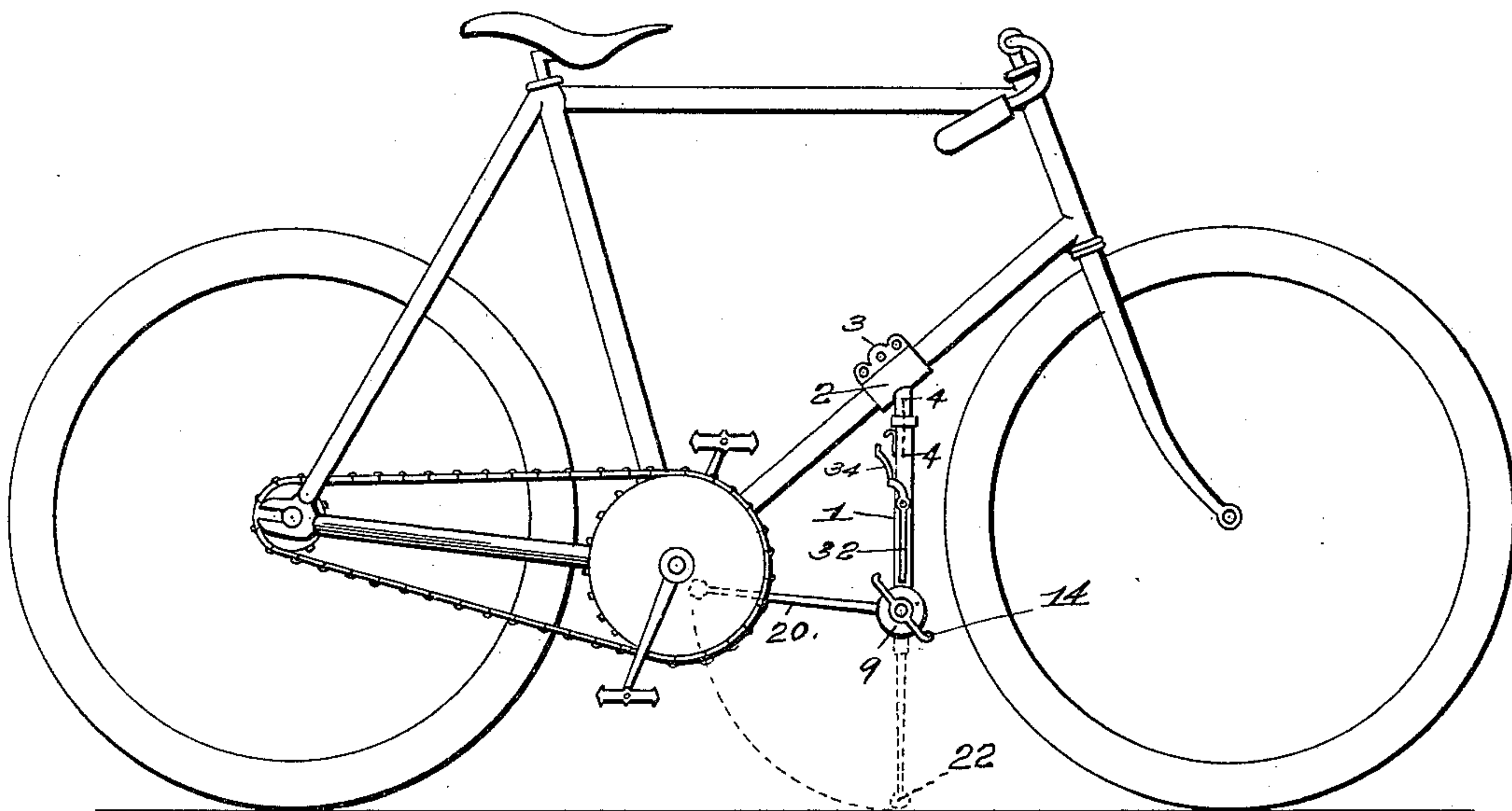
P. A. SHANKLIN.  
BICYCLE SUPPORT.

(Application filed July 19, 1899.)

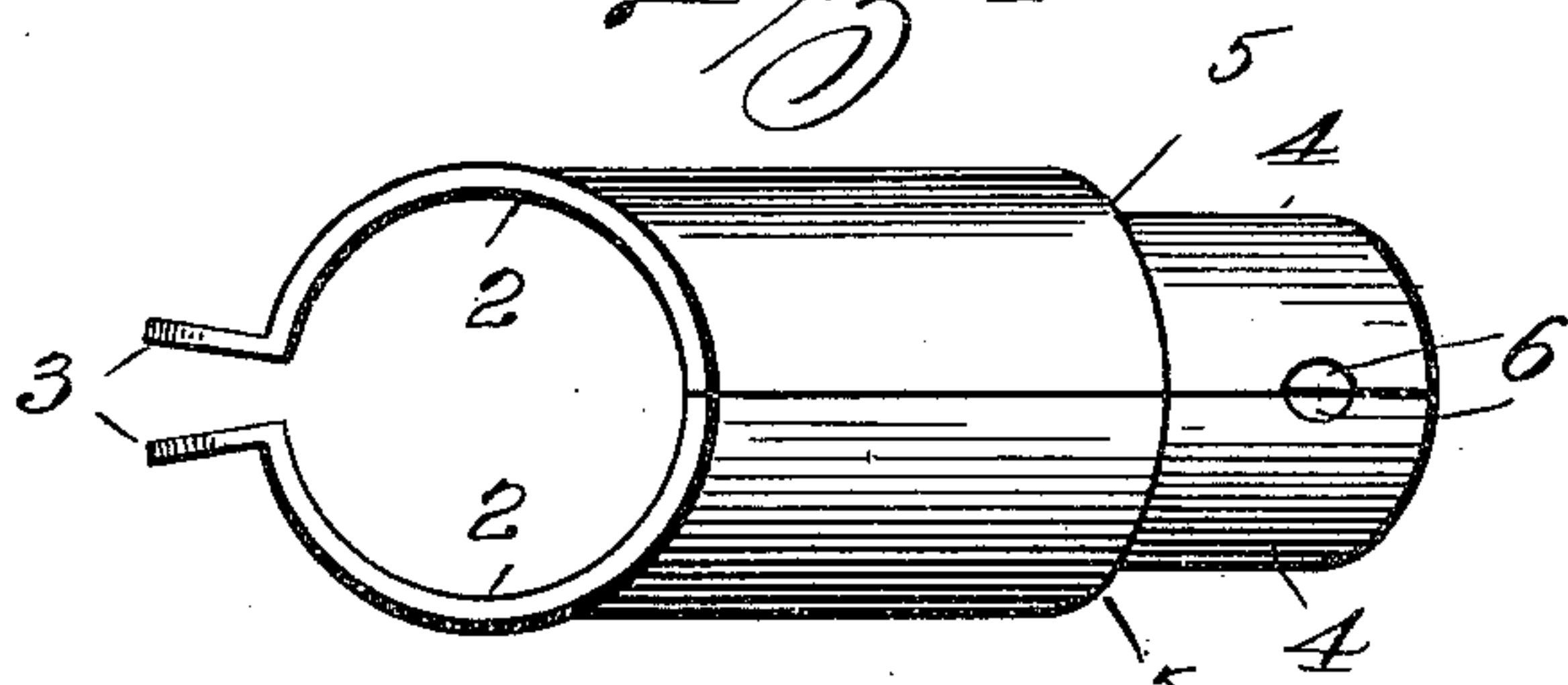
(No Model.)

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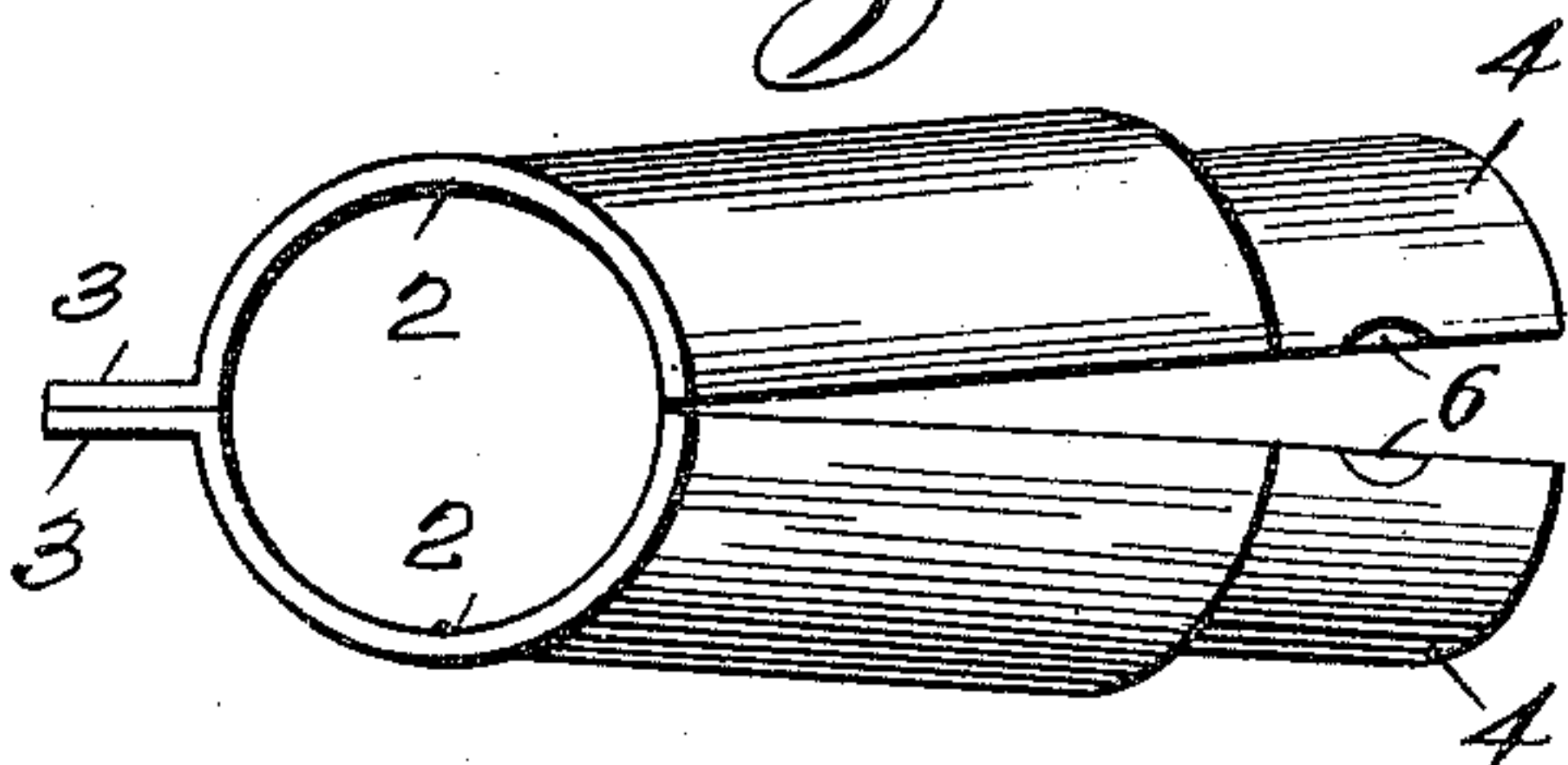
*Fig. 1.*



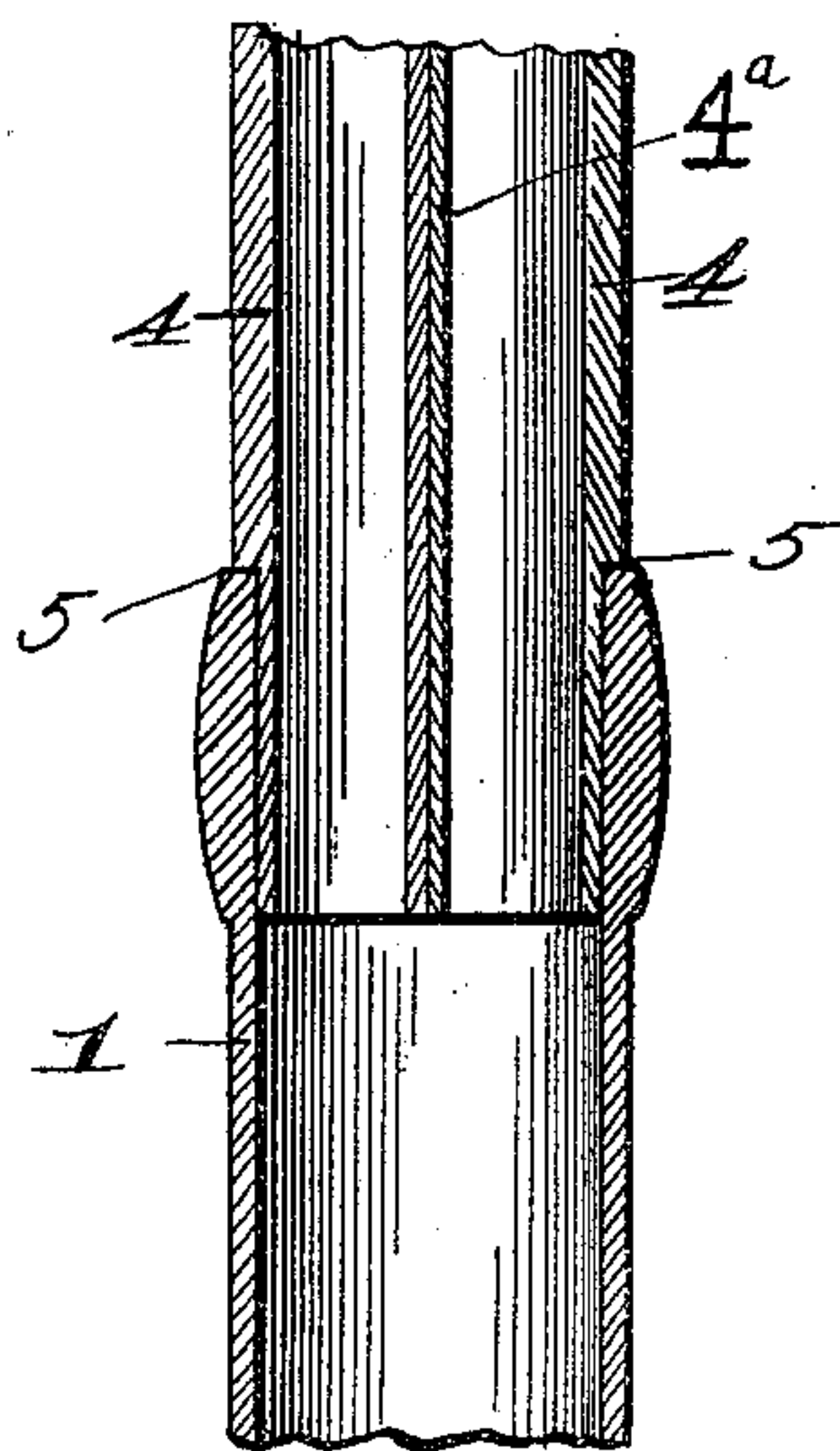
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



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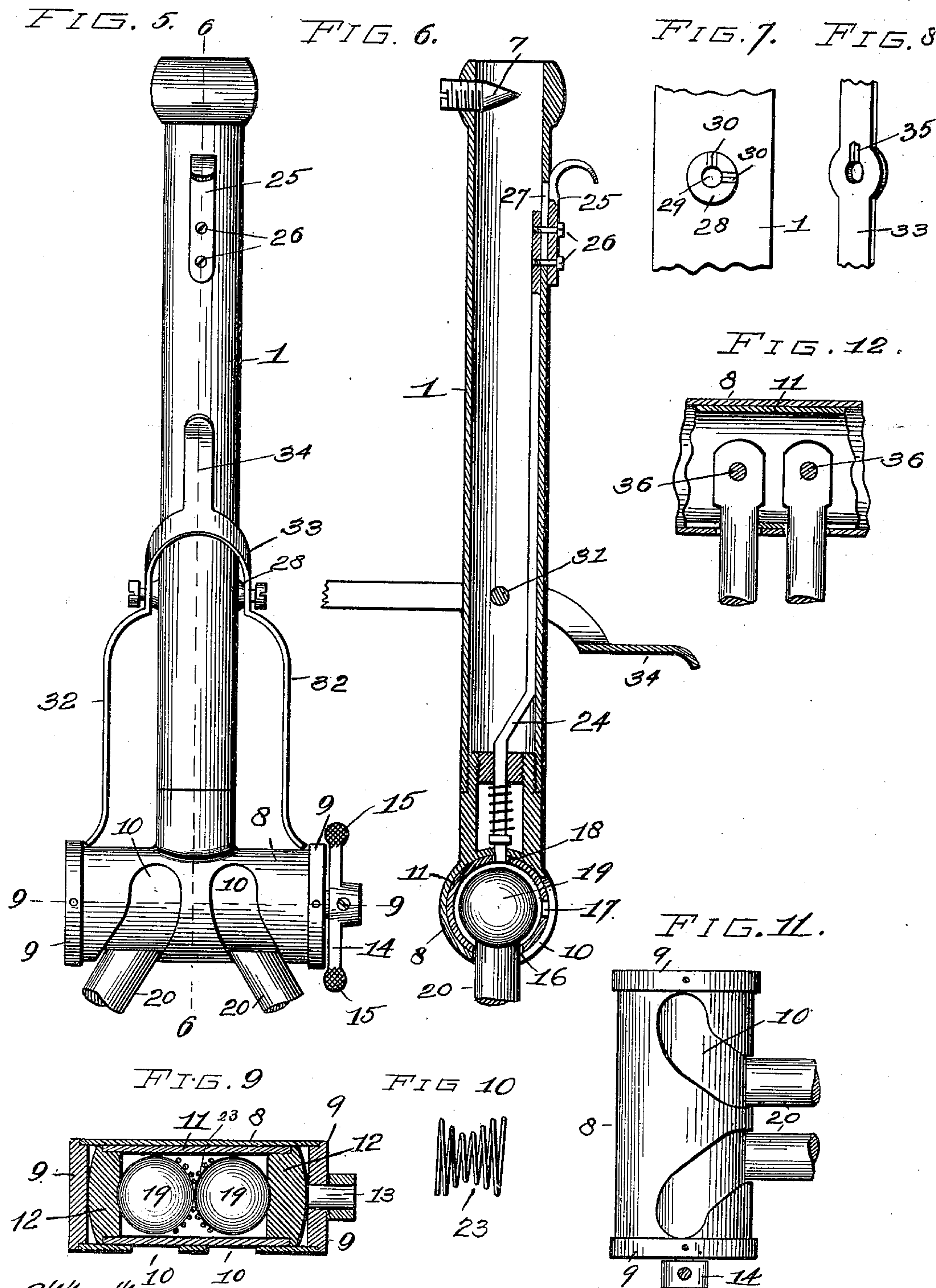
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2 Sheets—Sheet 2.



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# UNITED STATES PATENT OFFICE.

PHILIP A. SHANKLIN, OF SANDOVAL, ILLINOIS, ASSIGNOR OF ONE-HALF TO  
GEORGE H. RICE, OF SAME PLACE.

## BICYCLE-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 639,945, dated December 26, 1899.

Application filed July 19, 1899. Serial No. 724,378. (No model.)

*To all whom it may concern:*

Be it known that I, PHILIP A. SHANKLIN, of the city of Sandoval, Marion county, State of Illinois, have invented certain new and useful  
5 Improvements in Bicycle-Supports, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to bicycle-supports;  
10 and it consists of the novel construction, combination, and arrangement of parts herein-after shown, described, and claimed.

Figure 1 is a side elevation of a bicycle provided with my improved support. Fig. 2 is  
15 a plan view of the bracket or clamp to which the bicycle-support is secured, looking directly into the upper end of said clamp. Fig. 3 is a similar view of this clamp, the same being shown approximately in the position it assumes when clamped upon the bicycle-frame.  
20 Fig. 4 is an enlarged detail sectional view taken approximately on the line 4 4 of Fig. 1. Fig. 5 is a rear elevation of the support. Fig. 6 is a sectional view taken approximately on the line 6 6 of Fig. 5. Fig. 7 is a side elevation of a portion of the frame of the support and showing a bearing thereon. Fig. 8 is a  
25 view in perspective of the portion of the clip that engages against the bearing seen in Fig. 7. Fig. 9 is a horizontal sectional view taken approximately on the line 9 9 of Fig. 5. Fig. 10 is a side elevation of an expansive coil-spring made use of in my improved support. Fig. 11 is a view of the under side of the casing carried by the lower end of the frame of the support. Fig. 12 is a longitudinal sectional view of the center of this casing and showing a modified form of the legs of the support.  
35

Referring to the accompanying drawings by numerals, 1 indicates a tubular body which occupies a vertical position immediately in the rear of the front wheel of the bicycle and a short distance in front of the crank-bearing  
45 of the bicycle-frame, this body being held in position by a bracket or clamp which is positioned upon the lower portion of the frame of the bicycle between the crank-bearing and the front fork. This clamp or bearing comprises a pair of mating semicircular members  
50 2, the same being intended to surround the

tubular frame of the bicycle, and integral with the upper edges of these semicircular portions, on one side thereof, are the projecting flanges 3, through which are passed screws  
55 or bolts when the clamp is positioned upon the frame. Depending from each of the semicircular portions 2 are the hollow semicircular body portions 4, which are D-shaped in cross-section and the lower ends of which when  
60 properly placed together are inserted in the upper end of the body 1, with their parallel inner webs 4<sup>a</sup> in contact with each other, the upper end of said body 1 engaging against shoulders 5, formed in the sides of the mem-  
65 bers 4. (See Fig. 4.)

Formed in the inner meeting faces of the lower ends of the members 4 are the semicircular grooves or recesses 6, which when combined form a recess to receive the point of  
70 a cone-screw 7, which passes through the top of the tubular body 1.

The free edges of members 4 of the clamp are arranged at slight angles relative to the opposite edges which carry the flanges 3, in  
75 order that when said flanges 3 are drawn together by manipulating the screws or bolts that pass through said flanges said members 4 will tend to spread apart, in order to tightly wedge in the upper end of the tubular body 1.  
80 This action is illustrated in Fig. 3. To lock the tubular body 1 upon the clamp, the cone-screw 7 is passed through the screw-threaded aperture in the upper end of said body and into the recess formed by the mating recesses 6.  
85

Detachably secured to the lower end of the tubular body 1 is a horizontally-arranged cylinder 8, the same being provided with removable ends 9, and formed in the rear under side of said cylinder 8 is a pair of curved slots  
90 10, the same extending from points adjacent one another on the upper rear side of the cylinder 8 downwardly and outwardly from each other to the bottom of said cylinder, and rotatably arranged within the latter is a second  
95 cylinder 11, the same being provided with removable ends 12, which ends are provided with convex outer faces which bear against the ends 9, and integral with one of said ends 12 is a trunnion 13, the same projecting out-  
100 wardly from one of the caps or end pieces 9 and being provided on its outer end with a



transversely-positioned bar 14, the upwardly-curved ends 15 thereof being milled or roughened, so as to prevent the slipping of the foot when the same is engaged on said ends.

5 Formed in the bottom of the cylinder 11 is a longitudinally-extending slot 16, and formed at right angles to said slot 16 in the side of said cylinder is an aperture 17, and a second aperture 18 is formed directly opposite the  
10 slot 16. Rotatably arranged within the cylinder 11 and bearing against the ends 12 thereof is a pair of balls 19, integral with which are the legs or arms 20, the same extending outwardly through the slot 16 and  
15 through one of the slots 10. Formed on or fixed to the outer ends of the legs 20 are suitable knobs or pointed projections 22. If desired, the knobs on the ends of these arms or legs can be covered with rubber or analogous  
20 material to prevent the slipping of said knobs when on a smooth surface and also prevent the noise of contact of said knobs with the pavement. An expansive coil-spring 23 is positioned within the cylinder 11 between  
25 the balls 19.

Passing through the tubular body 1 is a spring-actuated rod 24, the lower end of which normally passes through one of the apertures 17 or 18, and secured to the upper end of this  
30 rod 24 is a finger-hold 25, the same operating on the outside of the upper end of the tubular body 1 and being connected to said rod 24 by screws 26, which pass through the slot 27, formed in said body 1.

35 Formed on opposite sides of the body 1 a short distance above the cylinder 8 are the oppositely-arranged circular lugs 28, through which are formed horizontally-alined apertures 29, and in the outer faces of said lugs  
40 28 are formed the V-shaped notches 30, the same being arranged at right angles to one another. Passing through the alined apertures 29 is a bolt 31, and upon the projecting ends of said bolt 31 are journaled the bifurcated members 32 of a fork 33, the same being provided with an operating-handle 34,  
45 and integral with the inner faces of the portions 32 of this fork that bear directly against the lugs 28 are formed integral the V-shaped lugs 35, the same being intended to engage in the V-shaped notches 30. This fork is formed of suitable yielding sheet metal, and consequently the lug 35 will ride out of and into the notches 30 whenever slight pressure  
50 is applied to the handle 34.

In the modification shown in Fig. 12 the balls 19 are dispensed with and the upper ends of the arms or legs 20 are hinged on pins 36, that pass through the cylinder 11.

60 When my improved support is positioned on a bicycle, the parts assume the positions as shown in Fig. 1—that is, with the cylinder 11 rotated to such a position within the cylinder 8 as that the legs 20 occupy the upper  
65 ends of the slots 10, and as said upper ends are close together the legs 20 will occupy parallel positions close together and at right an-

gles to the tubular body 1, the balls or points 22 on the ends of said arms occupying positions beneath the crank-bearing of the bicycle-frame. The various parts are locked  
70 in this position, for the reason that the point of the spring-actuated rod 24 occupies the aperture 17, that is at right angles to the slot 16, through which the legs 20 pass. When  
75 it is desired to swing the legs 20 downwardly and outwardly into the position to support the bicycle, the operator engages the finger-hold 25, elevates the same slightly, and in so doing withdraws the point of the rod 24 from  
80 the aperture 17, after which the foot is engaged upon the upper one of the ends 15 of the bar 14, and the same is pressed downwardly or in such a manner as to rotate the cylinder 11 within the cylinder 8, and in so  
85 doing the legs 20 will travel downwardly through the slots 10 in said cylinder 8, and owing to the curvature or deflection of said slots the legs 20 will be swung downwardly and outwardly away from one another at the  
90 same time, and when said legs have reached a position in a vertical plane with the tubular body 1 or in the position shown by dotted lines in Fig. 1 their lower ends will engage upon the ground at points a short distance  
95 on each side of the line occupied by the wheels of the bicycle. Therefore said bicycle will be supported in the desired manner, and the legs will be locked in this position, owing to the fact that the point of the rod 24 engages  
100 in the aperture 18, which is directly opposite the slot 16, this position being shown in Fig. 6.

When the bicycle is being supported by my improved device and it is desired to retain the front wheel in direct alinement with the  
105 rear wheel, the operator engages the handle 34 of the fork 33 and swings the same downwardly into a horizontal position, and this movement unseats the lugs 35 from the notches 30 directly above the aperture 29, and  
110 when the parts 32 of said fork are swung into a horizontal position to engage on each side of the tire of the front wheel of the bicycle the lugs 35 will engage in the horizontally-arranged notches 30, and thus said fork will  
115 be retained in a horizontal position. The coil-spring 23 acts to force the balls 19 apart and tends to take up any lost motion between said balls and the ends 12 of the cylinder 11.

A bicycle-support of my improved construction is simple, strong, and durable, adds little weight to a bicycle, can be applied to any of the present makes of bicycles, and is a very effective, substantial support, and one where-  
120 in the front wheel of the bicycle can be retained in alinement with the rear wheel thereof when said bicycle is being displayed in a salesroom.

In my improved support the sustaining legs or arms are normally positioned beneath the  
130 pedals in the least objectionable position on the bicycle while the same is being driven, and said support is attached to that portion of the frame of the bicycle where the greatest



strength is obtained and the best results secured. Said support is neat in appearance and when properly constructed and positioned adds materially to the general appearance of the bicycle.

I claim—

1. In a device of the class described, a tubular body, a pair of arms swung from the lower end of said body, means whereby said arms are moved downwardly and outwardly at the same time, and a clamp comprising a pair of mating members arranged to clamp on the lower portion of the frame of the bicycle and to simultaneously clamp itself upon the interior of the upper end of the tubular body, substantially as specified.

2. In a bicycle-support, a pair of cylinders,

one rotatably arranged within the other, said outer cylinder having curved slots, a pair of balls located within the inner cylinder, which balls bear against each other and against the ends of the inner cylinder, an expansive coil-spring located between said balls, means for rotating said inner cylinder and a leg carried by each ball, which leg extends outwardly through one of said curved slots in the outer cylinder, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

PHILIP A. SHANKLIN.

Witnesses:

EDWARD E. LONGAN,  
M. P. SMITH.