

(No Model.)

C. R. HARRIS.
BICYCLE.

No. 588,274.

Patented Aug. 17, 1897.

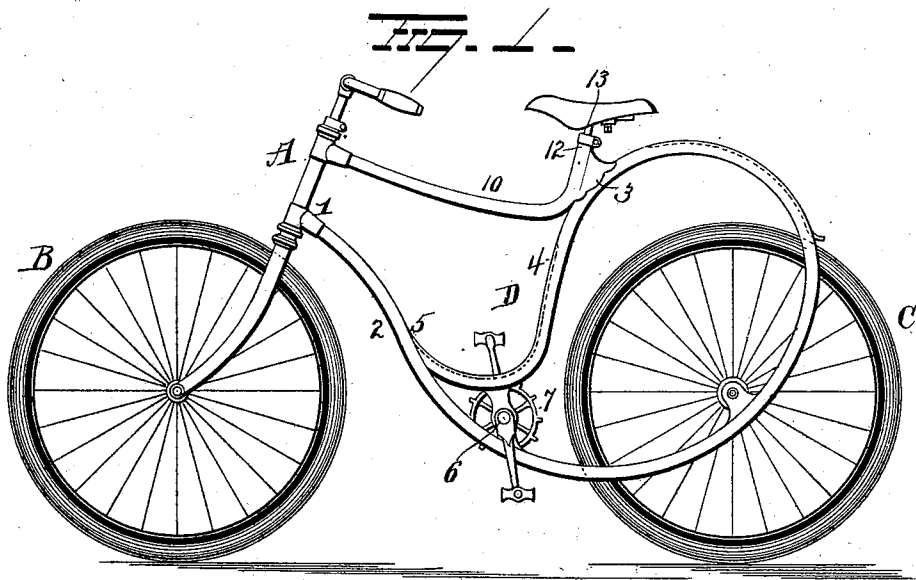


Fig. 1 -

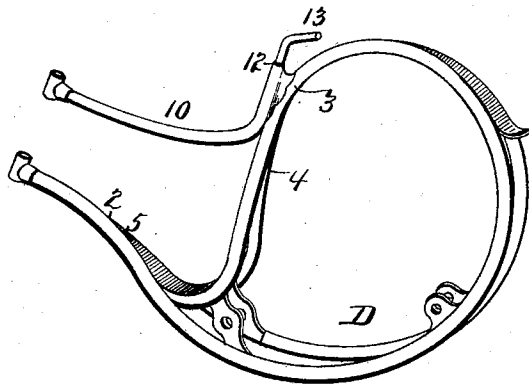


Fig. 2 -



Witnesses
E. I. Nottingham.
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BICYCLE.

SPECIFICATION forming part of Letters Patent No. 588,274, dated August 17, 1897.

Application filed January 16, 1897. Serial No. 619,450. (No model.)

To all whom it may concern:

Be it known that I, CHARLES R. HARRIS, a resident of Williamsport, in the county of Lycoming and State of Pennsylvania, have invented certain new and useful Improvements in 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.

My invention relates to an improvement in bicycles, the object being to provide a vertically-resilient and laterally-braced bicycle-frame for gentlemen riders; and it consists in certain novel features of construction and combinations of parts, which will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in side elevation of my improved machine. Fig. 2 is a plan view, and Fig. 3 is a transverse sectional view.

A represents the steering-head of a bicycle, B the front and C the rear wheels, and D is the frame. This frame is composed of tubular metal approximately semicircular or D-shaped in cross-section. Two of these tubes are used, and they are so placed or disposed that their flat faces are turned toward each other. The tubes constituting the frame start from the steering-head at 1 with their flat faces brazed or otherwise secured together. From this point the frame first curves gradually downward and rearward to a point 2, where the two tubes composing it spread apart laterally. From this point the frame extends in a general horizontal and rearward direction on each side of the rear wheel, thence upward and again forward as far as the point 3, where the seat is located. At this point 3 the two tubes join each other again and extend downward as a single tube to a point 4, where they spread apart again. From this point 4 the ends of the tube extend together and upward and merge into the single tube at a point 5 a short distance in rear of the point where the tubes start from the steering-head.

In the space formed at point 4, where the tubes spread apart, and between the two converging portions of the frame, the drive sprocket-wheel 7 is located, it being secured on the axle 6. In this manner the sprocket-

wheel is housed and the tubes of the frame form a guard which keeps the rider's trousers from catching in the sprocket-wheel, the frame itself projecting far enough laterally to insure it.

In addition to the parts described a bar 10 extends across longitudinally from the steering-head to the point 3, where it is joined to the frame. At this rear end bar 10 is bent upward, forming a socket 12 for the seat-post 13 to enter and be adjusted vertically in. By this construction a strong, light, durable, and neat-appearing frame is formed having great vertical resiliency and with rigid lateral bracing.

It is evident that slight changes might be made in the form and arrangement of the several parts described without departing from the spirit and scope of my invention, and hence I do not wish to limit myself to the exact construction herein set forth; but,

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

1. In a bicycle, a frame composed of two semicylindrical tubes having their flat faces secured together at one end and spread apart laterally at other points, these tubes bent around in a continuous curve or sweep and finally down again where they terminate and are joined together at or near the point where the tubes first spread laterally.

2. In a bicycle, a frame composed of two semicylindrical tubes having their flat faces secured together at one end and from this point spread apart laterally, these tubes bent around in a continuous curve or sweep and finally down again where they terminate by merging into the tubes at or near the point where the tubes first spread apart, a bar extending forward from the upper portion of the curve and a steering-post connected with the forward ends of the tubes and the bar.

3. The combination with a steering-head, and wheels, of a frame extending rearward and downward from the steering-head, thence upwardly in a continuous and gradual curve or sweep, then downward and forward and terminating in a juncture or union with the frame, a bar extending rearward from the steering-head and joined to the frame and ter-

minating in an upwardly-bent end which is hollow and forms a socket for a seat-post.

4. The combination with a frame bent in a gradual and continuous curve and one end
5 joined to the frame some distance rearward from the other end, of a bracket secured in the space formed between and immediately rearward of these joined portions, a crank-shaft revolubly supported in this bracket, and

a mud-guard secured in the frame above this 10 crank-shaft.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CHARLES R. HARRIS.

Witnesses:

CLARENCE E. SPROUT,
W. D. CRANE.