

No. 690,602.

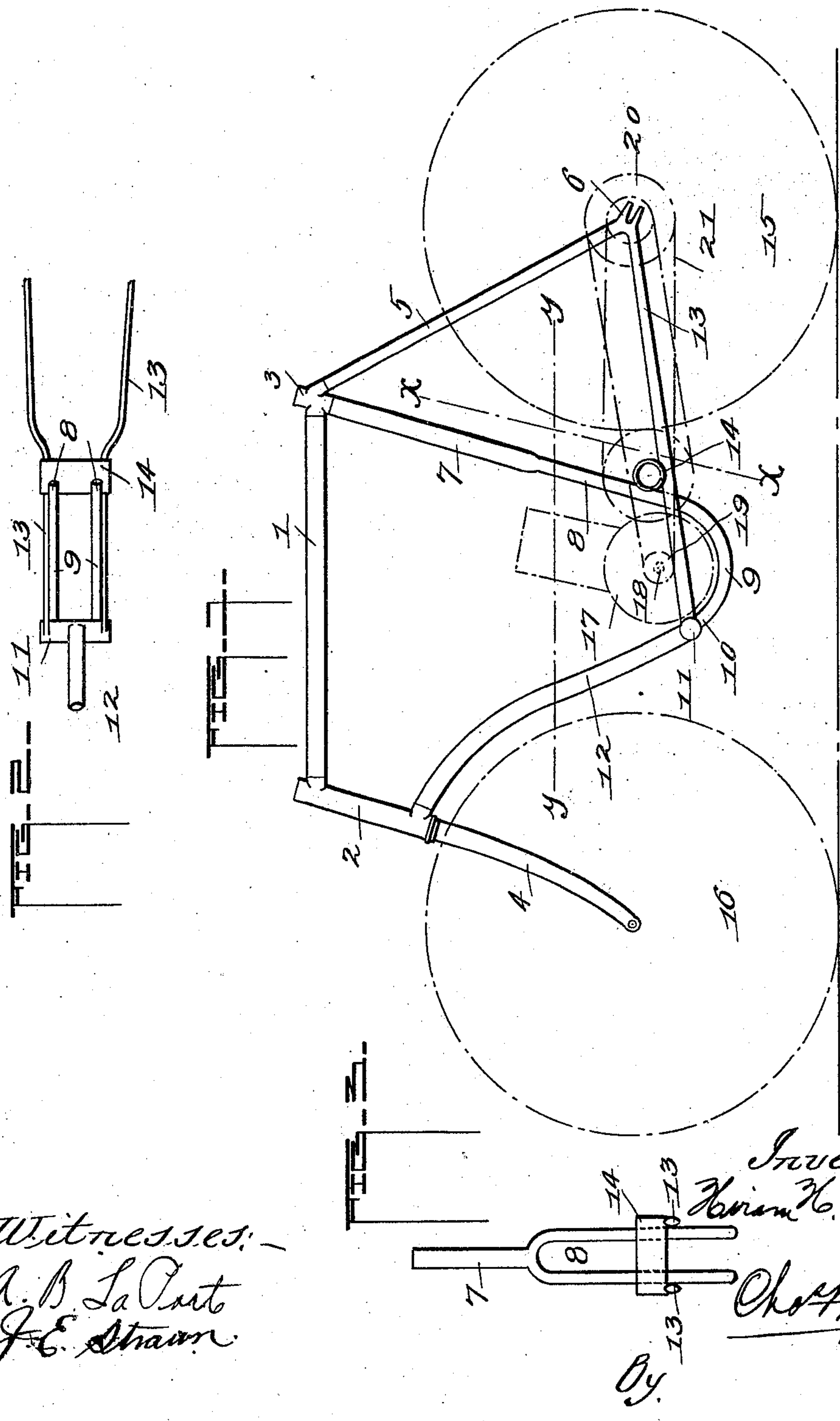
Patented Jan. 7, 1902.

H. H. PEIRCE.

MOTOR CYCLE.

(Application filed May 18, 1901.)

(No Model.)





# UNITED STATES PATENT OFFICE.

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## MOTOR-CYCLE.

SPECIFICATION forming part of Letters Patent No. 690,602, dated January 7, 1902.

Application filed May 18, 1901. Serial No. 60,840. (No model.)

*To all whom it may concern:*

Be it known that I, HIRAM H. PEIRCE, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Motor-Cycles; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to  
10 which it appertains to make and use the same.

This invention has reference to motor-vehicles, and especially to that class of vehicles known as "motor-cycles."

The object which I have in view is to provide for the carrying of a driving engine or motor between the head and seat-post of a bicycle-frame and to arrange for the support of such engine or motor in a support provided by the peculiar construction and arrangement of the lower portion of the seat-post and forward extensions of the rear forks, and the arrangement is such that the engine or motor will be carried in close proximity to the hanger-bracket of said frame and forward  
25 thereof.

The invention consists, essentially, of the frame parts of a machine of this character, comprising the head, top reach, rear stays, front forks, and other component parts necessary to a complete frame, but constructed and arranged as follows: The seat-post, extending downwardly and emerging from a single tube or frame part into bifurcated extensions, which extend forwardly and upwardly  
35 and are joined in a reinforcement or cluster to which the lower reach is secured which connects the same, extending downwardly in a sinuous line from the head to the reinforcement or cluster, and the rear forks, which extend forward of the straight portions of the seat-post, are secured at their ends in the reinforcement or cluster above mentioned. By this arrangement of parts the hanger-bracket is placed to the rear of the bifurcated portion  
40 of the seat-post and above the rear forks, and the same are arranged to cut through a portion of the hanger-bracket and be brazed thereto.

The arrangement as above described is best seen from the accompanying illustrations herewith, in which—

Figure 1 is an elevation of a motor-cycle embodying my improvements. Fig. 2 is a cross-section of the frame looking down on the line Y Y, and Fig. 3 is a cross-section looking forward on the line X X.

In the drawings, 1 refers to the top reach, 2 the head, and 3 the seat-post cluster. 4 refers to the front forks, the stem thereof inclosed in the head 2.

5 refers to the rear stays, connected with the seat-post cluster 3 and to the rear-fork ends 6, as shown.

7 refers to the seat-post, joined to the cluster 3 at its upper end, extending downwardly and emerging from a single support into the bifurcated lower extensions 8, which have the bowed portions at 9 and extend upwardly and forwardly, terminating at 10 in the reinforcement or cluster 11.

12 is the lower reach, extending downwardly from the head in a sinuous line is joined to the reinforcement or cluster 11, and 13 refers to the rear forks, whose rear ends are secured in the rear-fork ends 6, as shown, and extending forwardly in a line projecting downwardly cross the bifurcated extensions 8 of the seat-post and have their forward ends secured in the reinforcement or cluster 11, to which the extensions 8 and reach 12 are secured. These forks taper from the rear-fork ends to much larger portions at their forward ends.

14 is the hanger-bracket, which is placed in close proximity to the face of the driving-wheel (referred to as 15) and in such a manner as to have the bifurcated ends 8 and the body portions of the rear forks to cut through a portion of the same and to insure rigidity and firmness are brazed thereto, and, if desired, the matching faces of the bifurcated sections 8 and the rear forks where the pass may be brazed, which will insure additional firmness to these parts and retain them in proper relation to each other.

16 is the front wheel, whose axle is journaled in the lower portion of the front forks, as shown.

17 refers to a suitable engine or motor arranged to be located in advance of the seat-post and is supported by its lower portion resting in and being secured to the bowed



portions 9 of the bifurcated sections 8 of the seat-post and the arrangement of the extended ends of the rear forks. Side braces are provided for the body of the engine or motor, and the upper end thereof may be braced by being secured to the upper portion of the seat-post or in any other suitable manner. The location of the engine or motor as shown will bring the operating-shaft 18 thereof below the front and rear axles, and the connections between the same and rear wheels may be through the pinion 19 of the motor, sprocket 20 on the rear-wheel axle, and the chain connection 21, connecting the two gears.

From the above description it will be understood that I do not wish to be confined to the exact construction and arrangement as shown, as it is obvious that various changes may be made in the construction and arrangement of parts and details thereof resorted to without departing from the principle and scope of invention herein.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. In a motor-cycle, the combination with the top reach and the head and the rear stays, the seat-post comprises a one-piece upper portion having bifurcated lower extensions bowed vertically and extending upwardly and forwardly and their ends connected in a reinforcement, the lower reach extending from the head and connected with said reinforcement and the rear forks crossing the bifurcated lower portion of the post and connected in said reinforcement, substantially as shown and described.

2. In a motor-cycle, the combination with front and rear axles, a frame having the top reach, head and rear stays, the lower reach and rear forks connected with a reinforcement, the forks secured beneath the hanger-bracket

and extending forwardly thereof, the seat-post having bifurcated extensions extending downwardly between the rear forks and curved upwardly and forwardly and having their forward ends connected with the aforesaid reinforcement, substantially as described.

3. The combination with the head, reach and rear stays of a motor-cycle frame, of a seat-post bifurcated lower extensions bowed vertically and having upwardly-extending ends connected with a reinforcement, a lower reach connecting the head and said reinforcement and forming a sinuous line, rear forks connected with the stays and extending forwardly crossing the bifurcated extensions adjacent to their outer faces and having their ends connected with the said reinforcement and a hanger-bracket arranged at the rear of the bifurcated extensions and above the rear forks and adjacent to each of said faces, substantially as described.

4. A motor-cycle frame having a seat-post with duplicate lower extensions curved upwardly and forwardly and connected with a suitable reinforcement and having its lower reach extending downwardly in a sinuous line from the head and connected with the reinforcement, rear forks extending forwardly of the duplicate portions of the post and tapering from their rear ends to enlarged forward ends which are connected with the reinforcement, of a driving-motor supported on the duplicate curved extensions of the post and between the forward extensions of the rear forks, substantially as shown and described.

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

HIRAM H. PEIRCE.

Witnesses:

CHAS. W. LA PORTE,  
J. E. STRAWN.