(No Model.)

F. P. HURST.

BICYCLE ATTACHMENT.

No. 597,287. Patented Jan. 11, 1898.

FIG. 1.

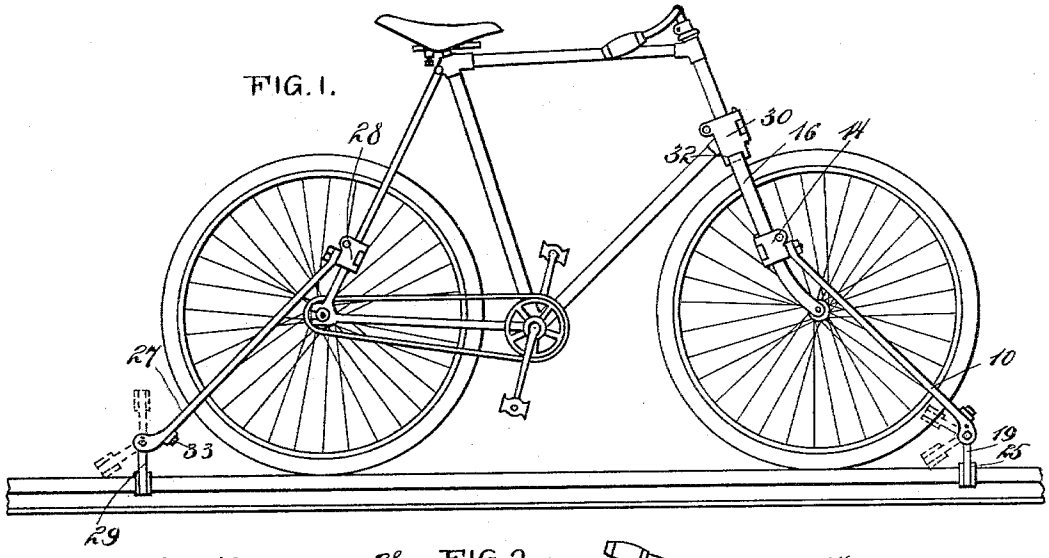


FIG. 2.

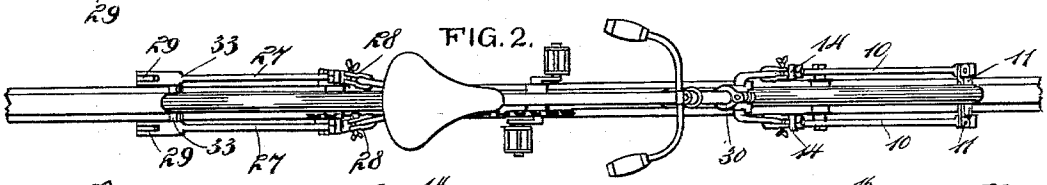


FIG. 3.

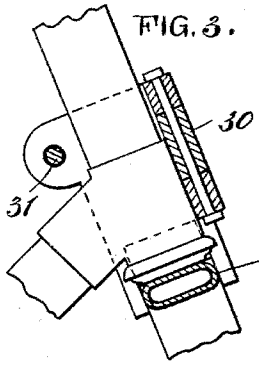


FIG. 4.

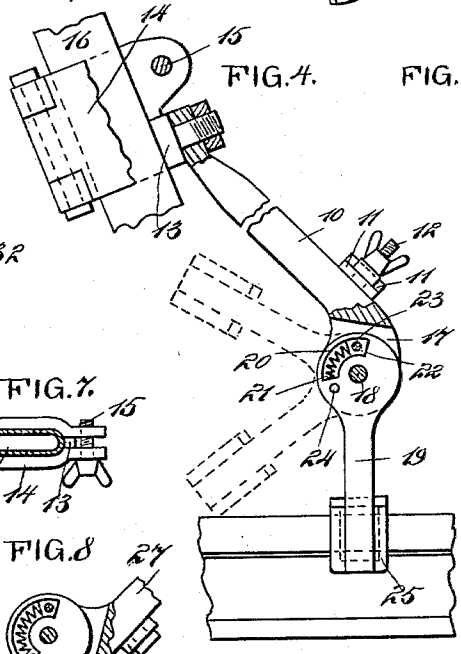


FIG. 5.

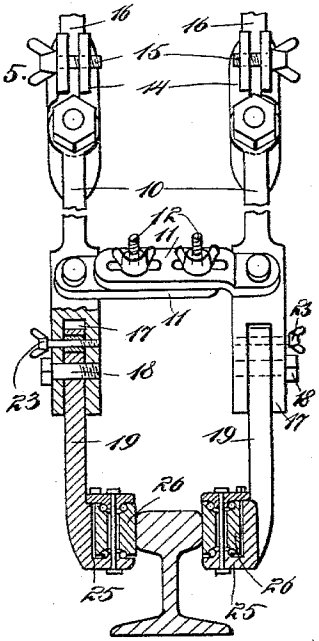


FIG. 6.

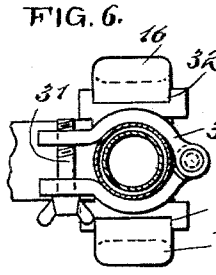


FIG. 7.

FIG. 8.

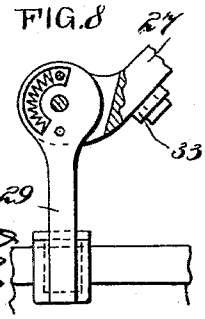
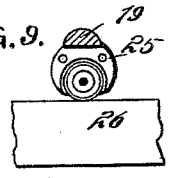


FIG. 9.



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BICYCLE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 597,287, dated January 11, 1898.

Application filed April 3, 1897. Serial No. 630,512. (No model.)

To all whom it may concern:

Be it known that I, FRED PETER HURST, of Aurora, in the county of Marion and State of Oregon, have invented a new and Improved Bicycle Attachment, of which the following is a full, clear, and exact description.

This invention is an attachment for bicycles by which the bicycles may be made to run on the rails of a railway-track, and the apparatus is particularly characterized by such construction as enables the machine to run on a single rail without outrunning supporting devices.

This specification is the disclosure of one form of my invention, while the claims define the actual scope of the conception.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the invention. Fig. 2 is a plan view thereof. Fig. 3 is a sectional view showing means for preventing the steering-fork from turning. Fig. 4 is a fragmentary side elevation of one of the guides. Fig. 5 is a front elevation of a pair of guides with parts in section. Fig. 6 is a sectional plan view of the construction shown in Fig. 3. Fig. 7 is a sectional plan view of one of the clips for attaching the guides to the frame. Fig. 8 is a sectional view of one of the arms which carry the guide-rollers, and Fig. 9 is a sectional view of one of the guide-rollers.

The machine is provided with two pairs of guides, respectively located at the front and rear of the machine. The guide device at the front of the machine consists of two rods 10, run parallel with each other and rigidly joined by slotted plates 11, with fastening-bolts 12 in their slots. The upper end of each rod 10 is attached rigidly to a lip 13, rigid on one of the two sections of the respective clips 14. Each clip 14 consists of two pivoted sections and of a thumb-screw 15, by which the sections are drawn together. The clips 14 are respectively bound against the arms 16 of the steering-fork. By these means the arms 10 are rigidly attached to the steering-fork of the bicycle. The arms 10 project forwardly and downwardly from the steering-fork to a point slightly above the line in which the lower portions of the wheels of the bicycle are located.

Each arm 10 is turned down at its lower end and provided with a cavity 17. Pivoted within the cavities 17, by means of bolts 18, are the respective arms 19. The arms 19 have disk-shaped upper ends, each formed with an arc-shaped slot 20. The slots 20 respectively contain spiral springs 21, bearing against blocks 22, held rigidly with the arms 10 by removable pins 23. The springs 21, bearing against the blocks 22, serve to hold the arms normally in the positions shown in full lines in the drawings. The pins 23 are removable, and, if desired, they may be withdrawn from the blocks 22 and respectively passed through openings 24 in the upper ends of the arms 19. This will hold the arms raised and permit the bicycle to be run on the ground. The lower end of each arm 19 has an enlargement 25. Each enlargement 25 has a cavity in which the antifriction-rollers 26 are respectively mounted. The plates 11, permitting the adjustment of the arms 10 toward and from each other, allow the rollers 26 to be adjusted in engagement with the opposite sides of the head of the rail, as shown in the drawings.

The guide devices at the rear of the bicycle consist in two rods 27, respectively joined to the backstays of the bicycle by clips 28, similar to the clips 14. The lower ends of the rods 27 are adjustably and rigidly connected with each other by plates 33, similar in construction to the plates 11, but arranged on the under sides of the rods. The rods 27 project downwardly and rearwardly and have their lower extremities turned horizontally and rearwardly to respectively carry arms 29, similar to the arms 19, and having rollers bearing against the rail. By these means the bicycle is braced both at the front and rear and is held to run evenly on the rail.

It is necessary to prevent the front wheel from turning in the steering-head while the invention is being used. This I accomplish by a casing 30, consisting of two hinged members clamped against the steering-head by a bolt 31. The lower edge of each member of the casing 30 is provided with a notch 32. The notches 32 respectively engage the upper portions of the arms of the steering-fork 16, whereby to lock the steering-fork rigidly

with the steering-head. This insures the effective operation of the invention.

In using the invention the parts are assembled, as shown in the drawings, so that the guide-wheels will run against opposite sides of the rail, and as the machine is propelled forward it will run truly along the base of the rail. The springs 21 hold the arms 19 in operative positions and permit the arms to swing rearward should an obstruction be engaged.

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

1. A bicycle attachment consisting of two clips, two rods respectively attached to the clips, means for rigidly connecting the rods with each other, an arm carried on each rod, and a roller carried by each arm.

2. A bicycle attachment having two clips, a rod fixed to each clip, means rigidly connecting the rods with each other, and an arm carried on each rod.

3. A bicycle attachment consisting of two clips, a rod fixed to each clip, means rigidly connecting the rods with each other, an arm pivoted to each rod, and a spring for each arm, the springs holding the arm in normal positions.

4. The combination of a rod provided with a cavity, an arm pivoted in the cavity in the rod, said arm also having a cavity, a spring within the cavity in the arm, and a block held rigidly by the rod and fitting within the cavity of the arm.

5. The combination of two rods, a clip for each rod, a plate fixed to each rod, means for adjustably drawing the plates toward each other, and rail-engaging devices carried by the rods.

6. The combination of a clip having two sections pivotally connected to each other, one section having a lip run transverse to the plane of said section, and a rod fixedly carried by said lip.

7. The combination of a rod having a cavity, an arm having a disk-like end pivoted within the cavity, the disk-like end of the arm having a curved slot, a spring within the slot, and a member carried rigidly by the rod.

8. A bicycle attachment having a clip formed of two pivoted sections with means for holding them rigidly against the steering-head of the bicycle, each section having a recess respectively receiving the arms of the steering-fork whereby to hold the steering-fork rigid.

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