

(No Model.)

M. W. SMITH.
FOOT REST FOR BICYCLES.

No. 516,902.

Patented Mar. 20, 1894.

Fig. 1.

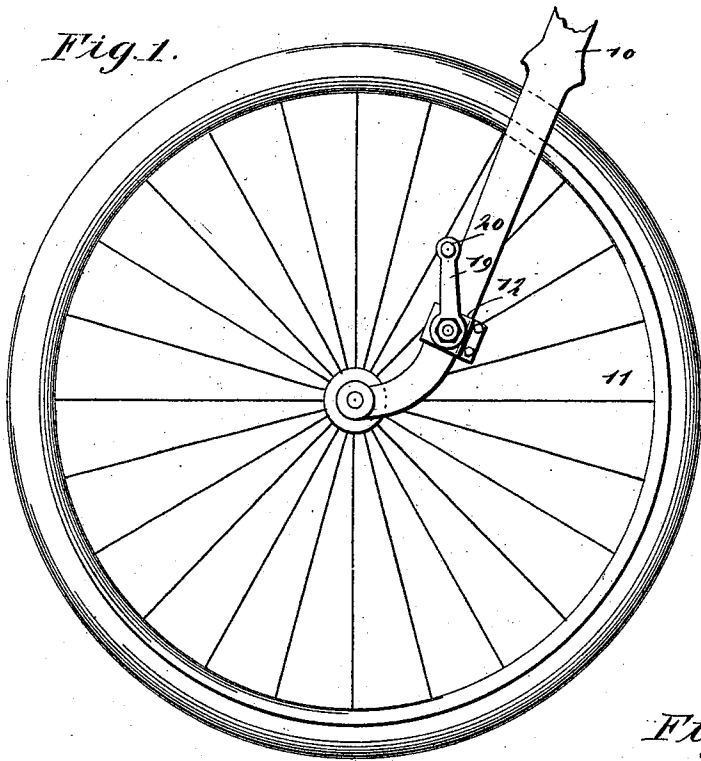


Fig. 2.

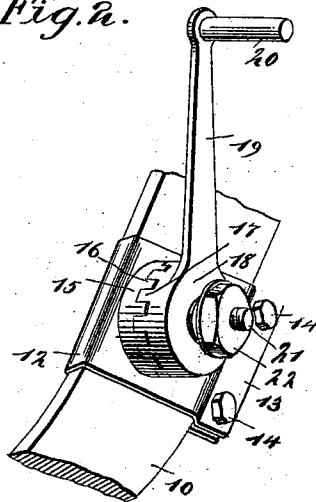


Fig. 5.

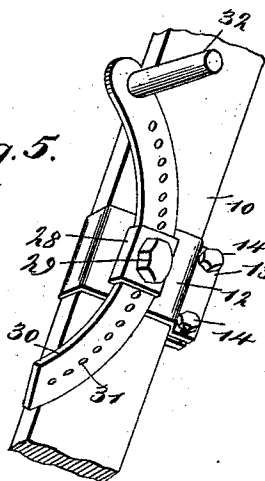


Fig. 3.

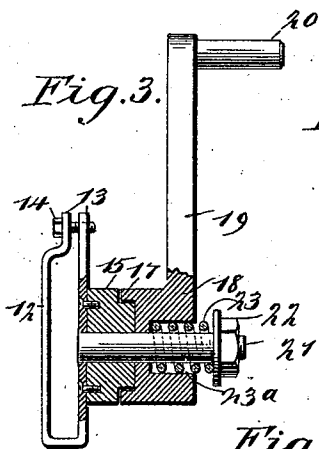


Fig. 4.

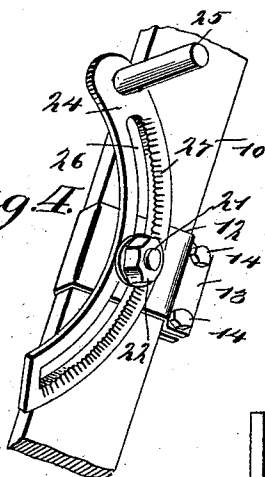


Fig. 6.

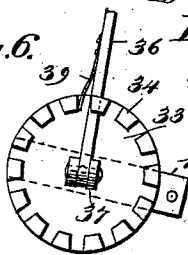
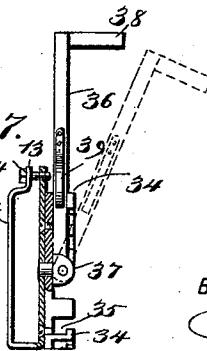


Fig. 7.



WITNESSES:

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FOOT-REST FOR BICYCLES.

SPECIFICATION forming part of Letters Patent No. 516,902, dated March 20, 1894.

Application filed June 12, 1893. Serial No. 477,294. (No model.)

To all whom it may concern:

Be it known that I, MILTON W. SMITH, of Long Island City, in the county of Queens and State of New York, have invented a new and Improved Foot-*Rest for Bicycles*, of which the following is a full, clear, and exact description.

My invention relates to improvements in foot rests for bicycles. Such rests are usually placed upon the steering fork of safety bicycles and on opposite sides of the front wheel, so that the rider, when coasting, may place the feet upon them. Usually foot rests are adjustable vertically, but this adjustment does not fully compensate for the difference in the length of limb of different riders, and consequently the foot rests cannot frequently be brought into the correct position to easily support the feet.

The object of my invention is to produce a foot rest which may be adjusted vertically in the usual way, and which may also be adjusted to and from the rider so as to bring it into the desired position for an easy rest for the foot.

To these ends my invention consists of certain features of construction and combinations of parts, as will be hereinafter described and claimed.

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

Figure 1 is a side elevation of my improved foot rest. Fig. 2 is an enlarged detail perspective view of the foot rest as applied to the steering fork. Fig. 3 is a detail cross section of the foot rest and its clamp. Fig. 4 is a perspective view of a modified form of the foot rest. Fig. 5 is a perspective view of another modification of the foot rest. Fig. 6 is a detail side elevation of still another modification of the foot rest; and Fig. 7 is a detail sectional view of the form of foot rest shown in Fig. 6.

The several modifications of the foot rest illustrate different ways of adjusting the rest to and from the rider, but I do not limit myself to any particular means of adjusting the rest in this direction and I have shown several ways, but others may be used without departing from the principle of the inven-

tion. The preferred form is shown in Figs. 1 to 3. The steering fork 10 connects with the wheel 11 in the usual way, and on each member of the steering fork is fastened a clamp 12, but one clamp being shown in the drawings, as the clamps and foot rests on the two members of the fork are exactly alike.

The clamp 12 is of substantially the usual kind, comprising a strap which is adapted to embrace the fork member and it has parallel flanges 13 which project from one side of the fork and are held together by bolts 14, but it may be fastened to the fork in any convenient way. On the outer face of the clamp is a toothed plate 15, having projecting teeth 16 on its face which are adapted to interlock with the teeth 17 on a hub 18 from which hub projects an arm 19 which is arranged in a substantially vertical plane and which has at its free end a laterally-extending rest 20, upon which the foot may be placed.

The hub 18 rotates on a bolt 21 which projects from the face of the clamp 12 and through the toothed plate, 15, and on the outer end of the bolt is a nut 22 and a suitable washer by which the hub 18 is held in engagement with the toothed plate 15. Behind the nut 22 is a spring 23 which encircles the bolt 21 and lies in a recess 23^a in the hub 18, and the tension of the spring is sufficient to press the teeth 17 into engagement with the teeth 16 of the plate 15. It will be observed that when these teeth are interlocked, the rest 20 will be held in a rigid position and to adjust it forward or backward the hub 18 is pressed outward against the tension of the spring 23, and the arm 19 is swung so as to bring the foot rest into the position required, after which the spring 23 is permitted to push the hub 18 up into engagement with the toothed plate so as to again lock the foot rest. It will be understood that the spring 23 may be dispensed with and the necessary movement of the hub, in adjusting the foot rest, provided for by loosening the nut 22 and the hub be locked by tightening the same.

Instead of the form of adjustment illustrated in Figs. 2 and 3 and just described, the means shown in Fig. 4 may be employed, where a foot rest 25 is fixed to the upper end of a curved plate 24 which is slotted longitudinally, as shown at 26, and has its face ad-

jacent to the slot roughened, as shown at 27, so that it may the better engage the nut 22 on the clamping bolt or the washer on the bolt, and by sliding the plate 24 on the bolt and
 5 swinging it backward or forward, it may be brought into the position desired, after which it may be fastened in this position by tightening the nut.

As illustrated in Fig. 5, the clamp 12 is provided with a keeper 28 on its front face, through which slides a curved plate 30, similar in shape to the plate 24, and in this is a longitudinal series of holes 31 which are adapted to receive the fastening bolt 29 which
 15 projects through the keeper and into the clamp and, by adjusting the bolt in the holes, the plate may be brought to the necessary height and the foot rest 32, at its upper end, may be brought into the proper relation to
 20 the rider's feet.

As shown in Figs. 6 and 7, a circular plate 33 is secured to a clamp 12^a, substantially like the clamp 12 already described. The plate 33 is provided on its outer side and at
 25 its periphery with projecting teeth 34 which are recessed, as shown at 35 in Fig. 7, so as to receive the arm 36 which is secured to a stud 37, and this is pivoted centrally in the plate and clamp 12^a. The arm 36 has a foot
 30 rest 38 at its free end, and it has on one side a spring 39 which is adapted to press against one of the teeth 34 and hold the arm 36 in the notch 35 of the next adjacent tooth, as shown clearly in Fig. 6. The arm 36 may be ad-
 35 justed by swinging it outward at right angles to the plane of the plate 33, disengaging it from the teeth 34, then swinging it so as to bring the rest 38 into the desired position, and finally swinging it back again into en-
 40 gagement with the teeth so as to bring the rest rigidly in place.

The above description and the modifications shown in the drawings, illustrate the fact that the foot rest embodying my inven-

tion may be adjusted and fastened toward 45 and from the rider in many ways without affecting the principle of the invention.

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

1. As a new article of manufacture, a foot rest for bicycles, comprising a clamp adapted to embrace and to be adjustably secured to the fork member, and a foot rest adjustably secured to said clamp, as set forth.

2. The combination, with a bicycle, of a vertically adjustable foot rest on the fork of the bicycle, and means for adjusting the foot rest forward and backward on the machine, substantially as described.

3. The combination, with a bicycle, of a clamp secured to the bicycle fork, a swinging arm on the clamp having a rest at its free end, and a fastening device to fix the position of the arm and rest, substantially as described.

4. The combination, with the bicycle fork, of the vertically adjustable clamp on the fork, the toothed plate hinged to the clamp, the swinging arm pivoted opposite the toothed plate and provided with teeth to engage the latter, means for fastening the arm in position, and a foot rest on the outer end of the arm, substantially as described.

5. The combination, with the bicycle fork, of a vertically-adjustable clamp thereon, a toothed plate fastened to the clamp, a swinging arm having a hub journaled on the face of the toothed plate and provided with teeth to engage the teeth of the toothed plate, means for fastening the hub to the toothed plate, and a foot rest on the outer end of the arm, substantially as described.

MILTON W. SMITH.

Witnesses:

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