No. 801,741. PATENTED OCT. 10, 1905.

M. McINTYRE.

FORK FOR BICYCLES.

APPLICATION FILED SEPT. 29, 1904.

Fig. 3.

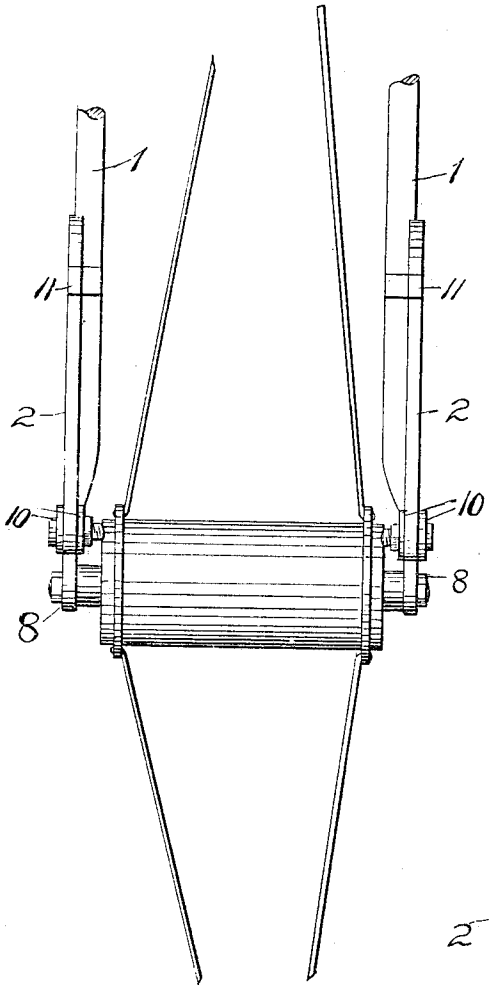


Fig. 1.

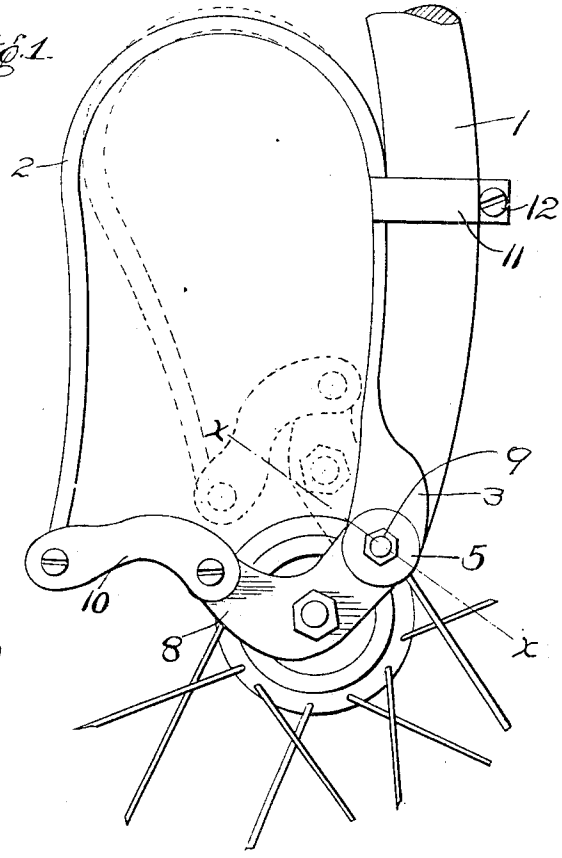


Fig. 2.

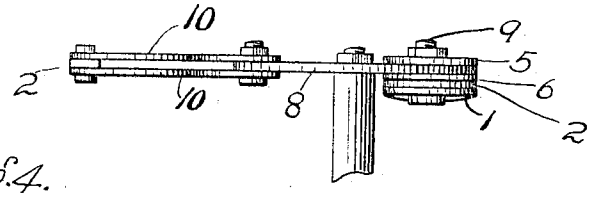
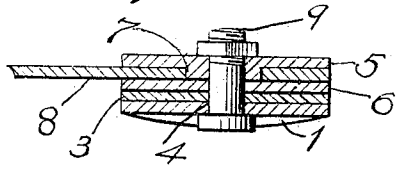


Fig. 4.



Witnesses
F. J. Veihmeyer
H. W. Souber.

Inventor
MILES McINTYRE
by Edson Bros
Attorneys.

UNITED STATES PATENT OFFICE.

MILES McINTYRE, OF CANYONVILLE, OREGON.

FORK FOR BICYCLES.

No. 801,741. Specification of Letters Patent. Patented Oct. 10, 1905.

Application filed September 29, 1904. Serial No. 226,559.

To all whom it may concern:

Be it known that I, MILES MCINTYRE, a citizen of the United States, residing at Canyonville, in the county of Douglas and State of Oregon, have invented certain new and useful Improvements in Forks for 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 improvements in spring-forks for velocipedes or other vehicles.

It has for its object to provide a spring attachment to counteract jolting, which can be attached to the ordinary fork without any material alteration in said fork.

The invention consists of the details of construction and the combinations of parts hereinafter described, and more particularly pointed out in the claims.

In the accompanying drawings, illustrating the preferred embodiment of my invention, Figure 1 is a side elevation of my device attached to the front fork of a bicycle, only the lower portion of the fork being shown and the wheel broken away and the compressed position shown in dotted lines. Fig. 2 is a view looking toward the end of the fork. Fig. 3 is a front view of a fork with the wheel in place between a pair of my devices, one attached to each prong; and Fig. 4 is a sectional view on line x x of Fig. 1.

While the preferred embodiment of my invention is fully illustrated in the accompanying drawings and the construction and operation thereof are described in this specification, I reserve the right to make such changes from the construction shown and described herein as the scope of the claims hereto appended will permit.

Referring more particularly to the drawings, 1 is a prong of a fork, to the forward end of which is secured one end of a wire or plate spring 2. The end of said spring is flattened out at 3 and extends around to the side of the prong of the fork, where it is provided with an aperture 4 opposite the hole in the tip of the prong. Two washers 5 6, the former having a tubular offset portion 7 around its opening adapted to pass through the perforation in one end of an arm 8 and forming a bearing or pivot for said arm and the other washer adapted to fit against said tubular portion 7 and confine said arm thereon, are arranged against the face of said flattened portion of the spring, and a bolt 9 passes through all, including the tip of the prong. To the other end of the arm 8 and at opposite sides thereof are pivotally connected link-plates 10, themselves connected at their other extremities to the other end of the spring. Said spring, as shown, curves around much in the form of a horseshoe and is secured to the fork near the bend in any suitable manner, such as a yoke 11, passing around the prong of the fork and adjusted by means of a bolt 12.

A wheel axle or shaft is connected to the arm 8 about midway thereof, and as it passes over rough ground moves up and down in the fork against the tension of the springs in an arc with the pivoted connection with the prongs of the fork as the center. Said arm 8 is preferably generally crescent-shaped, with its ends curved upward and the link-plates with their ends curved downward, to permit of the greatest possible upward movement of the wheel, as is shown in dotted lines in Fig. 1. One of my devices is of course attached to each prong of the fork. As the wheel is set somewhat forward from the fork, there is no danger of it striking in the crotch of said fork when it moves upward.

It is obvious that my invention may be attached to any style of vehicle to which it is applicable; but it is more particularly adapted for use on bicycles, to which it can be easily attached without altering the ordinary forks.

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

1. In a device of the character described, the combination with a fork, of an arm pivoted to said fork and having a bearing intermediate thereof for the shaft of a wheel, a link pivoted to the other end of said arm, and a looped spring pivoted to the outer end of said link and to the fork.

2. In a device of the character described, the combination with a fork, of an arm pivoted to said fork and having a bearing intermediate thereof for the shaft of a wheel, a link normally extending in the direction of said arm and pivoted to the other end of said arm, and a looped spring pivoted to the outer end of said link and to the fork.

3. In a device of the character described, the combination with a fork, of an arm pivoted to said fork and having a bearing intermediate thereof for the shaft of a wheel, a link pivoted to the other end of said arm, and

a looped spring pivoted to the outer end of said link and connected at two points to the fork.

4. In a device of the character described, the combination with a fork, of an arm pivoted to the end of said fork and having an intermediate bearing for the shaft of a wheel, a looped spring, and a bolt forming the pivot for said arm and securing one end of said spring to the end of said fork, said spring extending up along the fork and secured thereto at a point above the end thereof, the other end of said spring having pivotal connection with the other end of said arm.

5. The combination with a vehicle-fork, of an arm pivotally connected thereto, said arm having a perforation to receive the shaft of a wheel, a link connected to the other end of said arm, and a looped spring having one end flattened and secured to the end of the fork and at the other to said links, and means to secure said spring to said fork near the loop.

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

MILES McINTYRE.

Witnesses:
W. F. HARRIS,
T. W. SWANK.