

(No Model.)

J. KNOUS.
VELOCIPÈDE.

No. 307,120.

Patented Oct. 28, 1884.

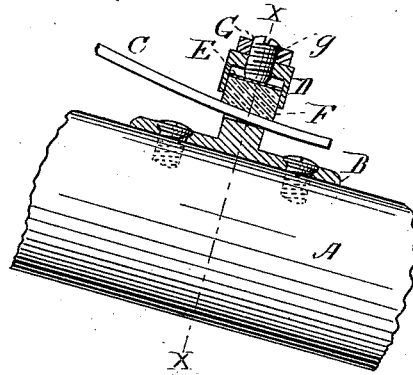


Fig- 1-

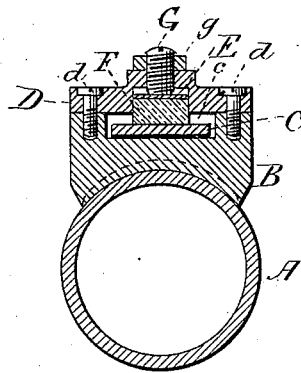


Fig- 2-

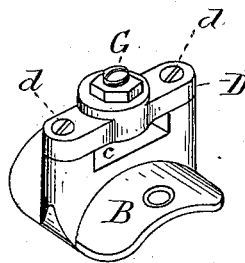


Fig- 3-

WITNESSES

Arthur L. Atkin
Henry A. Leuhard

INVENTOR

John Knous
By Charles E. Pratt,
att'y

UNITED STATES PATENT OFFICE.

JOHN KNOUS, OF HARTFORD, CONNECTICUT, ASSIGNOR TO THE POPE
MANUFACTURING COMPANY, OF BOSTON, MASSACHUSETTS.

VELOCIPEDÉ.

SPECIFICATION forming part of Letters Patent No. 307,120, dated October 28, 1884.

Application filed April 12, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN KNOUS, of the city and county of Hartford, in the State of Connecticut, have invented certain new and useful Improvements in Velocipedes, of which the following is a specification.

My improvements relate to the means for connecting and supporting a seat-spring upon the frame of the velocipede, and the nature of them will more fully appear from the drawings annexed hereto, in which—

Figure 1 represents a portion of the perch of a bicycle, showing my improvements in one form in section thereon, Fig. 2 showing a cross-section on the line *x x* in Fig. 1, and Fig. 3 showing a part of the same in perspective, and from the following description of my invention as applied to the rear or free end of a bicycle-spring.

A is the perch. B is a lug or "clip." C is a spring, or rather the rear free end of a spring, which may be bolted at the forward end in the usual form.

Heretofore it has been customary to form the rear support for the spring or clip in one piece, with a slot, as at *c*, in the same, in which the end of the spring should rise and play back and forth with the yield of the spring in use, the upper part of the clip being in one piece with the bottom part. This construction is good when the end of the spring is fitted well to the slot in the clip, so as not to be too loose; but in the use of the velocipede there is constant vibration and backward and forward play of the spring, which cause wear in the slot both above and below, but especially below, and on the spring itself, so that the end of the spring becomes loose in the slot, and rattling ensues whenever the velocipede is driven over obstructions, or whenever it is trundled or moved without the weight of the rider on the spring. It is the object of my improvements to obviate this difficulty of looseness of the spring in the clip, and the consequent annoyance to the rider. This I effect by making the top part, D, of the clip by preference removable from the bottom

part, so as to allow of manipulation, as will appear further on, and which may be held to the bottom part of the clip by screws, as at *d d*, or otherwise.

E is a metal plate, free to move in an aperture or slot in the part D.

F is a buffer of leather, preferably, or which may be of any other material.

G is a screw. *g* is a set-nut.

The operation of this form of device is as follows: The plate E and buffer F are placed in the slot or opening in the bar D, and the screw G is inserted in the upper front portion of the bar D until it meets the plate. The set-nut is then screwed on and the whole put in place upon the clip B and secured by means of the screws *d d*. The spring N C is then inserted in the slot, and the screw G is driven downward until the buffer F bears lightly on the spring N C, and the set-nut *g* is then turned to its seat. When, by reason of wear of the spring, either upon the bottom of the slot *c* or upon the buffer D, there is more freedom than is required, the set-nut *g* is loosened and the buffer pressed downward by turning the screw G until it rests lightly upon the spring C again, and is fixed there by turning up the set-nut *g*. If the buffer F becomes worn out or insufficient in thickness by several operations, it is easily removed and replaced by another. It is obvious that by this means a complete prevention of rattle of the spring in the clip is obtained, noiselessness retained during any amount of use, and that the spring and the forward attachment are preserved to better advantage by the prevention of unnecessary movement. It is obvious, also, that these improvements of mine may be applied to tricycles as well as bicycles, or any other place where a free end of a spring is allowed to play in a clip, and I do not mean to limit myself to the particular form of contrivance in details, as herein shown and described.

I claim as new and of my invention—

1. In a velocipede-spring clip, an adjustable follower or buffer, essentially as set forth.

2. An adjustable spring attachment having a slot in which the spring may play, a constant surface against which the spring rests on one side, and an adjustable surface resting on the spring on the other side, with means for moving the adjustable surface toward the spring, essentially as set forth.
3. The combination of clip B, bar D, plate E, buffer F, and screw G, all constructed and adapted to operate essentially as set forth.

JNO. KNOUS.

Witnesses:

EDWIN S. HOUSE,
D. J. POST.