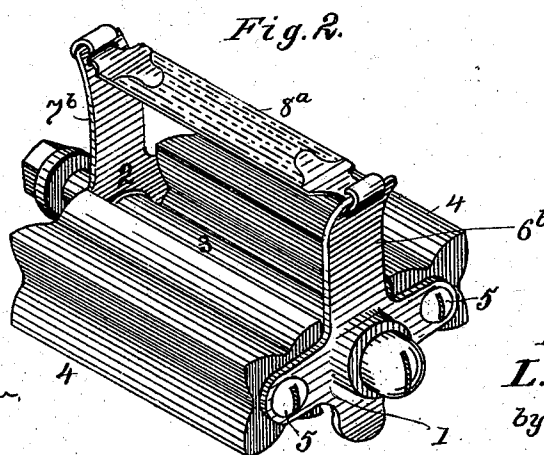
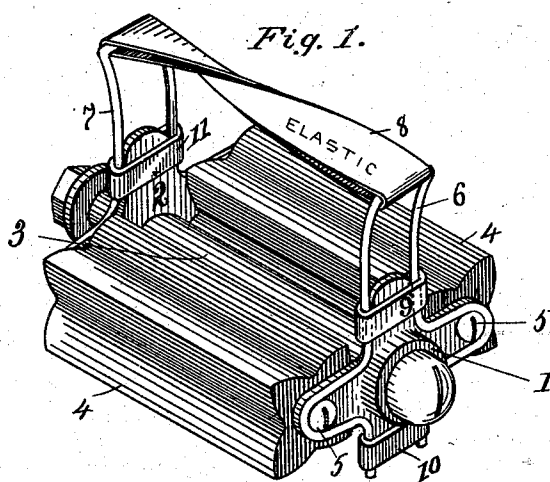


(No Model.)

L. L. HAWORTH.
FOOT HOLDER FOR BICYCLE PEDALS.

No. 558,068.

Patented Apr. 14, 1896.



Attest.
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Inventor
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UNITED STATES PATENT OFFICE.

LYSANDER L. HAWORTH, OF CHICAGO LAWN, ILLINOIS.

FOOT-HOLDER FOR BICYCLE-PEDALS.

SPECIFICATION forming part of Letters Patent No. 558,068, dated April 14, 1896.

Application filed August 12, 1895. Serial No. 559,001. (No model.)

To all whom it may concern:

Be it known that I, LYSANDER L. HAWORTH, of Chicago Lawn, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Foot-Holders for Bicycle-Pedals, of which the following is a specification.

This invention is designed to provide means for holding the feet of bicycle-riders in contact with the pedals with sufficient firmness to prevent accidental displacement and to permit a limited amount of lift, while at the same time providing for detachment in an emergency and avoiding a tendency to catch trash—a condition that is present under some circumstances in toe-clips as commonly constructed.

The invention is exemplified in the structure hereinafter described, and is defined in the appended claims.

In putting the invention into practical use two conditions are met—namely, pedals already made and pedals to be made hereafter. The first condition requires something in the nature of an attachment, while in the other case the ideas of the invention, all or part, may be included in the general structure of the pedal. In the subjoined description both conditions are considered and modifications of construction are suggested.

In the drawings forming part of this specification, Figure 1 is a perspective representation of a bicycle supplied with a foot-holder that includes the fundamental features of my invention, and Fig. 2 is a modification showing how the general principle of the invention may be embodied in a pedal in process of manufacture.

One end plate of a pedal-frame is shown at 1 and the opposite one at 2.

At 3 is shown the axial sleeve of the pedal. 4 represents the tread-bars of the pedal, and 5 5 designate projecting ends of the axial rods of the tread-bars. In Fig. 1 the end plates of the pedal are supplied with the customary lips that extend beyond the tread-bars and form guards to prevent lateral displacement of the foot. This provision is general in bicycles already built, and it is related to my improvement as follows: A cruciform loop 6 is made, preferably of wire, with its base portion and its head portion conforming to the

lips of the side plates of the pedal-frame and the arm portions adapted to fit around the outward extensions of the pivot-rods of the tread-bars. Bands 9 and 10, of elastic material, are fitted, one around the head portion of the loop and a lip of the plate and the other around the base portion and another lip. To the opposite side plate is similarly connected a similar loop 7, one only of the elastic connecting-bands being shown at 11. An elastic connection extends across the pedal from one loop to the other, and such connection is preferably a flat continuous band, having a half-turn between its connections, as shown at 8 in Fig. 1, which half-turn facilitates the insertion of the toe of the rider into the space between the band and the tread-bars.

In use the toe of the shoe of the rider is inserted between the band and the tread-bars, which operation stretches the band more or less, and the foot is held in contact with the bars to an extent depending on the elasticity of the band, which may be varied to suit different requirements, and is always sufficient to prevent the foot from slipping from the pedal under ordinary circumstances and to permit a slight lift of the pedal as the foot is rising. Ordinarily the foot is withdrawn from the pedal in the same manner that it is applied, the direction of motion being reversed; but in case of a mishap of any kind the foot may be disengaged by a moderately strong pull in any direction. If the opposite side of the pedal should be used and the holder be pointed downward in consequence of such use, there is no forwardly-projecting hook to catch the trash, as is the case with toe-clips as ordinarily constructed.

In Fig. 2 the lips 6^b and 7^b of the side plates are shown sufficiently elongated to act as substitutes for the loops, and an elastic strap 8^a, which may be of any desired construction, is connected with slots formed in the ends of the elongated lips. This form is adapted to be embodied in pedals yet to be made, and it exemplifies the invention considered in its broadest sense.

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

1. A foot-holder for a bicycle-pedal, comprising loops on the side plates of the pedal-

frame, and an elastic connection between the loops, substantially as set forth.

2. A foot-holder for a bicycle-pedal, comprising loops connected with the lips of the side plates of the pedal-frame by means of elastic bands, and an elastic connection between the loops, substantially as set forth.

3. A foot-holder for a bicycle-pedal, comprising cruciform loops adapted to fit around the projecting ends of the pivot-rods of the

tread-bars, elastic bands securing the loops to the lips of the side plates of the pedal-frame, and an elastic connection between the loops, substantially as set forth.

In testimony whereof I sign my name in the presence of two subscribing witnesses.

LYSANDER L. HAWORTH.

Attest:

D. A. STRADER,

W. L. DAVIS.