(No Model.)

A. V. B. CUTLER.

TOE CLIP.

No. 552,353. Patented Dec. 31, 1895.

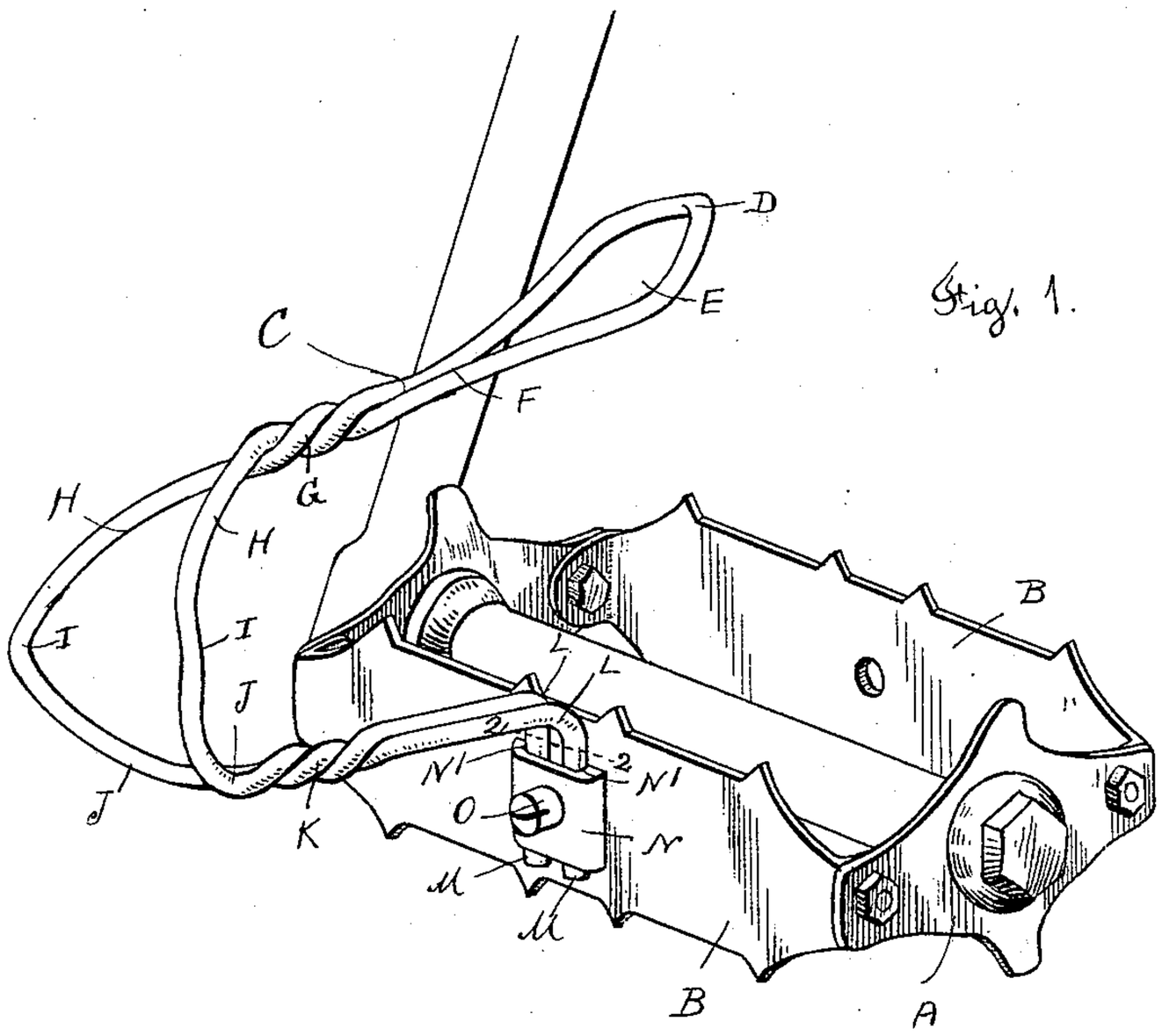

Fig. 1.

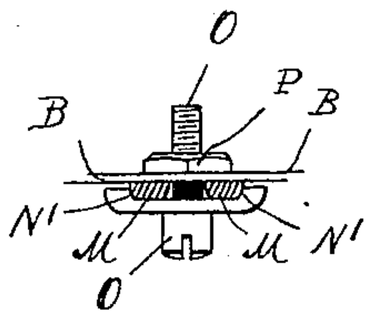

Fig. 2.

Witnesses
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By his Attorney
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UNITED STATES PATENT OFFICE.

ALBERT V. B. CUTLER, OF WORCESTER, MASSACHUSETTS, ASSIGNOR TO ARTHUR H. PARKER, GEORGE H. HOWE, AND ELLIS D. HOWE, OF SAME PLACE.

TOE-CLIP.

SPECIFICATION forming part of Letters Patent No. 552,353, dated December 31, 1895.

Application filed August 3, 1895. Serial No. 558,122. (No model.)

To all whom it may concern:

Be it known that I, ALBERT V. B. CUTLER, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a certain new and useful Improvement in Toe-Clips, of which the following is a specification, reference being had to the accompanying drawings, forming a part of the same, and in which—

Figure 1 represents, in perspective view, a bicycle pedal with one of my improved toe-clips attached thereto, and Fig. 2 is a sectional view on line 2 2, Fig. 1.

Similar letters refer to similar parts in the different figures.

The object of my present invention is to reduce the weight and at the same time increase the stiffness and rigidity of a toe-clip, and I accomplish this result by means of the construction hereinafter described, and specifically set forth in the annexed claims.

Referring to the drawings, A denotes the pedal of a bicycle, B B the foot-plates of the pedal, and C my improved toe-clip attached to one of the foot-plates. The toe-clip C is constructed of a piece of wire bent upon itself in its central section at D and brought together at F with the wires separated to form an oval loop E of sufficient width to furnish a guide beneath which the toe of the boot is conducted forward into the clip. The wires are united together at G, preferably by twisting, and from the twisted section G the wires diverge, as at H H, and the separated wires are then curved downward, as at I I, and bent backward toward the foot-plate B.

The wires between the bent sections I I and the foot-plate B converge, as at J J, until they are brought together and twisted or otherwise united at K. The wires are then slightly separated from the twisted section K to the foot-plate B and are bent downward at right angles at L, the ends of the wires M M being flattened to lie against the side of the foot-plate to which they are attached by means of a clamp N extending across the ends M M of the wires and a bolt O passing through the clamp N and foot-plate, and tightened by a nut P.

The clamp N is provided with shoulders N′ N′, and the flattened ends of the wires M M are separated slightly farther apart than the distance between the shoulders N′ N′, so that when sprung into place they will press against the shoulders N′ N′ by the elasticity of the wire.

By the above method of construction I am able to make the toe-clip of much lighter wire than that ordinarily used, and the bent section of the toe-clip between the twisted sections G and K is rendered extremely stiff and rigid by means of the mutual bracing of the wires which extend in divergent lines from the twisted sections G and K.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The within described toe clip formed of a piece of wire bent upon itself and twisted together, as at G and K and being bent as at I, I, with the wire extending in divergent lines from said twisted sections G and K to said bent section I, I, substantially as described.

2. The within described toe clip, formed of a piece of wire bent to form a loop as at E and having the twisted sections G and K and a bent section as at I, I, with the wire extending in divergent lines from said twisted sections as at H, H, and J, J, and having a flattened end as at M, M and a clamp N provided with shoulders N′, N′ and means for attaching said clamp to the pedal, substantially as described.

Dated this 30th day of July, 1895.

ALBERT V. B. CUTLER.

Witnesses:

RUFUS B. FOWLER,

EMMA KESTER.