

(No Model.)

F. K. HESSE.
TOE CLIP FOR BICYCLE PEDALS.

No. 536,723.

Patented Apr. 2, 1895.

Fig:1.

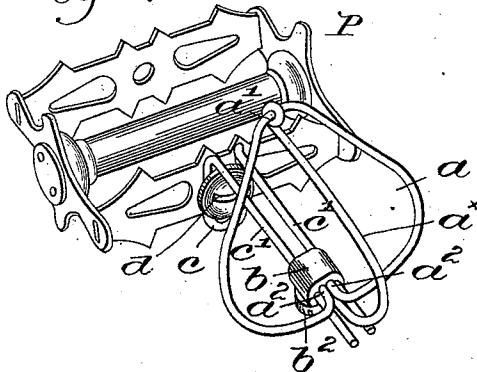


Fig:2.

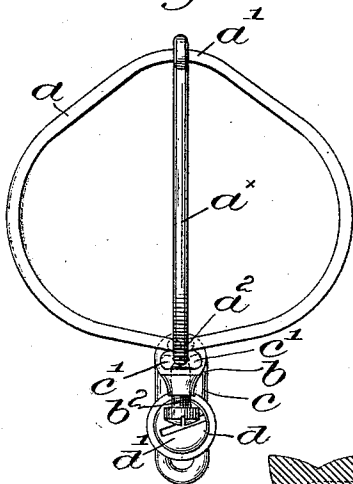


Fig:4.

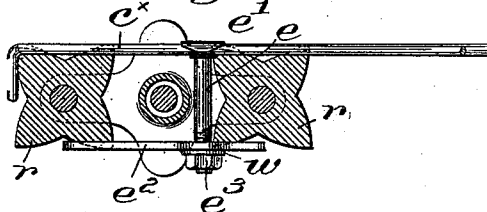


Fig:5.

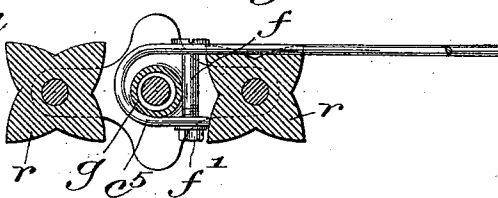
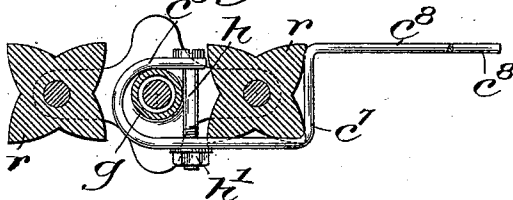


Fig:3.



Fig:6.



Witnesses.

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UNITED STATES PATENT OFFICE.

FRANK K. HESSE, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO CODMAN & SHURTLEFF, OF SAME PLACE.

TOE-CLIP FOR BICYCLE-PEDALS.

SPECIFICATION forming part of Letters Patent No. 536,723, dated April 2, 1895.

Application filed August 10, 1893. Serial No. 482,830. (No model.)

To all whom it may concern:

Be it known that I, FRANK K. HESSE, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Toe-Clips for Bicycle-Pedals, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object the production of an adjustable toe clip for bicycles, whereby one standard size of clip can be adapted to feet of different sizes, the clip being readily and quickly applied to or removed from the pedal.

In accordance therewith my invention consists in a toe clip for bicycle pedals, composed of parallel arms secured to and projecting beyond the pedal in front, a clamp longitudinally movable on and embracing said arms, means to hold the clamp in adjusted position, and a loop-like toe receiving portion carried by the clamp, substantially as will be described.

Other features of my invention will be hereinafter described and particularly pointed out in the claim.

Figure 1, is a perspective view of a bicycle pedal with my invention applied thereto. Fig. 2 is a front end view of the toe clip detached, and enlarged. Fig. 3 is a detail of the adjusting clamp; and Figs. 4, 5 and 6 are modifications partly in section, to be described.

Shoes vary in length and width, particularly at the toe portion, and hence a clip that is suited to one size and shape of shoe will be utterly unsuited to another. Hence a change of shoes often results in inconvenience and annoyance to the rider. To overcome this difficulty I have made the toe clip adjustable toward and from the pedal, within quite wide limits, so that one standard size is practically adapted to substantially all shapes and sizes of shoe.

In the drawings I have shown the toe clip as attached to what are known as "rat trap" pedals, and also to the ordinary rubber pedals, the former style being illustrated in Fig. 1, wherein I have shown the clip as composed of an adjustable toe-receiving portion, and a support therefor. The toe-receiving portion

proper consists of a wire loop a bent laterally, and also upward and rearwardly to the point a' , to extend back over the toe of the shoe, the free ends a^2 of the loop being secured to a clamping device, herein shown as a collar b , at its upper portion. See Figs. 1 to 3. To rigidly brace the loop and also complete the toe portion I have connected the top a' of the loop with the clamp by an outwardly bent wire a^x , which forms a center brace, making the toe portion very stiff and keeping the shoe of the rider in proper position therein.

As best shown in Fig. 3, the collar b is recessed at b' , b' , and the end of the brace a^x secured under the ends a^2 of the loop, separates the recesses centrally, which receive the substantially parallel arms c' of the support, see Figs. 1 and 2, formed by a loop of wire c , the free ends c' thereof being bent at right angles and substantially parallel to each other, to enter the clamp b .

The support is rigidly secured to the pedal P by a headed bolt d , extended through the forward part of the pedal and rigidly held by a nut d' , see dotted lines Fig. 2, on the inner end of the bolt, whereby the support can be readily and quickly applied to or removed from the pedal. The arms c' of the support project in front of the pedal, and the toe portion is adjusted to the length of shoe by moving the clamp on the arms toward or away from the pedal, it being held in adjusted position by a clamp screw b^2 which enters the lower side of the collar and presses the arms of the support apart and against the outer side of the recesses b' .

In Fig. 4, the support c^x is similar to the support described, but the fastening device is different, to adapt it to a different form of pedal, and consists of a threaded bolt e having a head e' to embrace the clamp-sustaining arms of the support, which latter rest on the tops of the rubbers r , a flat bar e^2 bearing against the bottoms of the rubbers and receiving through it the threaded end of the bolt. A washer w and nut e^3 serve to draw the support and the flat bar e^2 together, rigidly securing the support to the pedal.

In Fig. 5 the rear end of the support is bent, as at c^5 to surround the cross bar g of the pedal, a headed bolt f being extended down between

the parallel arms and through the bent end, a nut *f'* screwed on to the threaded end of the bolt securing the support to the pedal, the clamp sustaining arms resting on and projecting in front of the forward rubber *r*.

In the modification shown in Fig. 6 the rear end of the support is hooked, as at *c⁶*, to surround the cross-bar *g*, and the adjacent part of the support is bent upward at *c⁷* to rest against the bottom and front of the forward rubber *r*, the clamp sustaining arms *c³* extending forward at right angles to the bent portion.

As shown in Figs. 4 and 5 the arms of the support are sunk into the upper surface of the pedal rubbers, by the pressure exerted by the retaining devices, but if the rubber is hard it may be necessary to cut a groove therein to receive the arms, in order that the sole of the shoe can rest upon the rubber.

A headed bolt *h* and nut *h'* secure in place the support shown in Fig. 6.

The toe-receiving portion and the clamping device are omitted in Figs. 4, 5 and 6, as the same are fully shown in Figs. 1 to 3.

To more clearly show the clamp sustaining arms of the support in Figs. 4 to 6, I have broken off the nearest one.

I claim—

A toe clip for bicycle pedals, consisting of parallel arms secured to and projecting beyond the pedal in front, a clamp longitudinally movable on and embracing said arms, means to hold the clamp in adjusted position, and a loop-like toe receiving portion carried by the clamp, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANK K. HESSE.

Witnesses:

JOHN C. EDWARDS,
FREDERICK L. EMERY.