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Patented Aug. 1, 1899.

H. C. YERBY & R. A. LUDWICK.

TOE AND HEEL CLIP.

(Application filed Mar. 16, 1899.)

(No Model.)

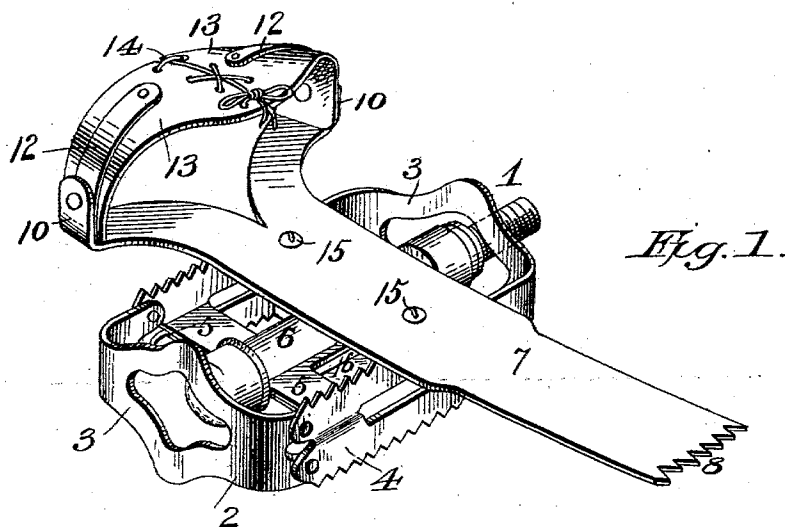


Fig. 1.

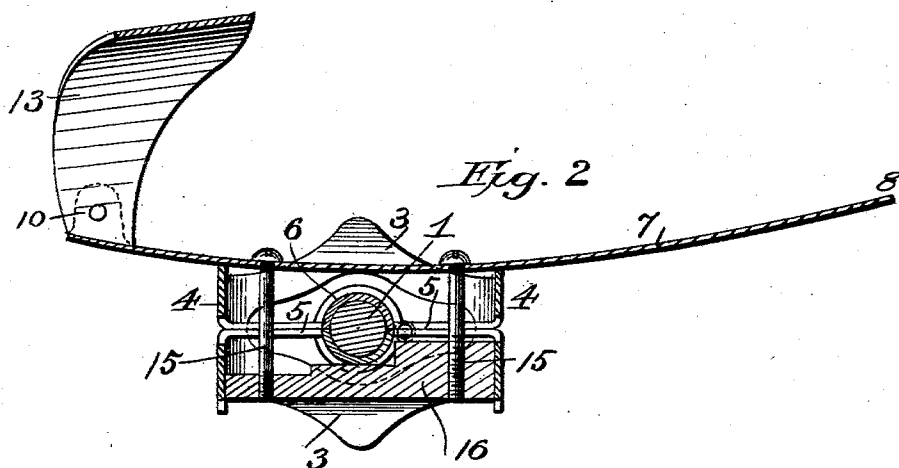


Fig. 2.

WITNESSES:

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HENRY C. YERBY AND RAY A. LUDWICK, OF LESLIE, MICHIGAN.

TOE AND HEEL CLIP.

SPECIFICATION forming part of Letters Patent No. 629,945, dated August 1, 1899.

Application filed March 16, 1899. Serial No. 709,329. (No model.)

To all whom it may concern:

Be it known that we, HENRY C. YERBY and RAY A. LUDWICK, citizens of the United States, residing at Leslie, in the county of Ingham and State of Michigan, have invented new and useful Improvements in Toe and Heel Clips, of which the following is a specification.

Our invention relates to toe and heel clips for the pedals of bicycles, and its object is to provide an improved construction of the same by which a support will be afforded to both the toe and heel and the clip be counter-balanced in such manner that it will always be in proper position for a person in mounting the bicycle.

The invention consists in the novel construction and combination of parts herein-after fully described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a toe and heel support for a bicycle-pedal constructed in accordance with my invention. Fig. 2 is a longitudinal section of the same.

In the said drawings the reference-numeral 1 designates the crank-pin of the crank of a bicycle or other similar vehicle, and 2 the pedal journaled thereon. This pedal, which may be of any ordinary or suitable construction, comprises the end pieces 3 and the longitudinal portions 4, formed with arms 5, provided with integral semicylindrical portions 6, which when connected together form a sleeve which serves as a bearing for the crank-pin. As before stated, these features may be of any ordinary or suitable construction, and as they form no part of the present invention a detailed description is not necessary.

The numeral 7 designates the toe and heel support, consisting of a metal plate provided at the rear end with teeth 8, which are adapted to engage with the heel of the shoe or boot of the rider, and thus be securely held thereto. The front end of this plate is bifurcated and formed with two curved arms, the ends of which are turned upwardly, forming lugs 10, to which are secured upwardly-extending curved spring-arms 12. Secured to these spring-

arms are leather strips 13, formed with a series of holes near their upper edges to receive lacing cords or strings 14. These spring-arms and leather strips form toe-clamps which can be adjusted by means of the lacing-cords. The said support is located on the upper side of the pedal, and connected therewith by screws 15 is a counterweight 16, located on the under side of the pedal. The object of this counterweight is to balance the toe and heel support so that it will always be in the proper or most convenient position for a person on mounting the bicycle.

In practice when a person is about to mount the bicycle the toe and heel support by reason of the counterweight will be held in such position that the toe can be readily inserted in the toe-clamp, and as this clamp is adjustable it can be easily regulated to suit different sizes of feet. When the toe has been inserted in the toe-clamps, the teeth of the rear ends of the support will engage with the heel of the shoe or boot, and thus hold the same securely thereto.

Having thus fully described our invention, what we claim is—

In a bicycle, the combination with the crank-pin, the pedals comprising the end pieces and longitudinal portions formed with arms having integral semicylindrical portions which serve as bearings for said pin, of the metal foot-plate formed with teeth at the rear end and with toe pieces or clamps at the front end, the metal plate provided with a counter-balanced weight and the screws passing through said plate, arms and foot-plate for connecting the same together and clamping said semicircular bearings to the crank-pin, substantially as described.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

HENRY C. YERBY.
RAY A. LUDWICK.

Witnesses:

J. S. COON,
JOS. DATSON.