

(No Model.)

J. W. SHONE & R. J. HANNA.
TOE CLIP FOR BICYCLE PEDALS.

No. 559,225.

Patented Apr. 28, 1896.

Fig. 1.

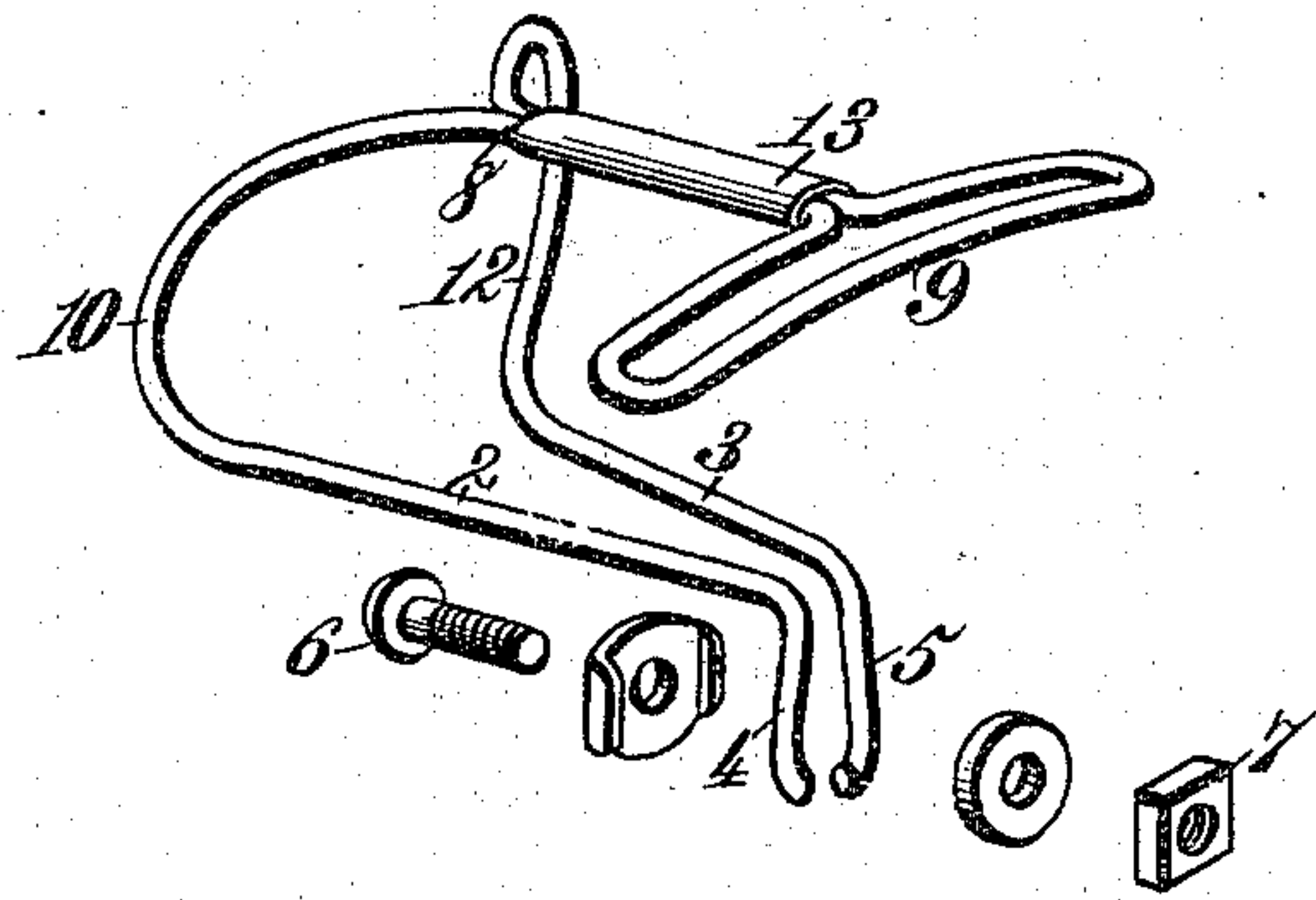
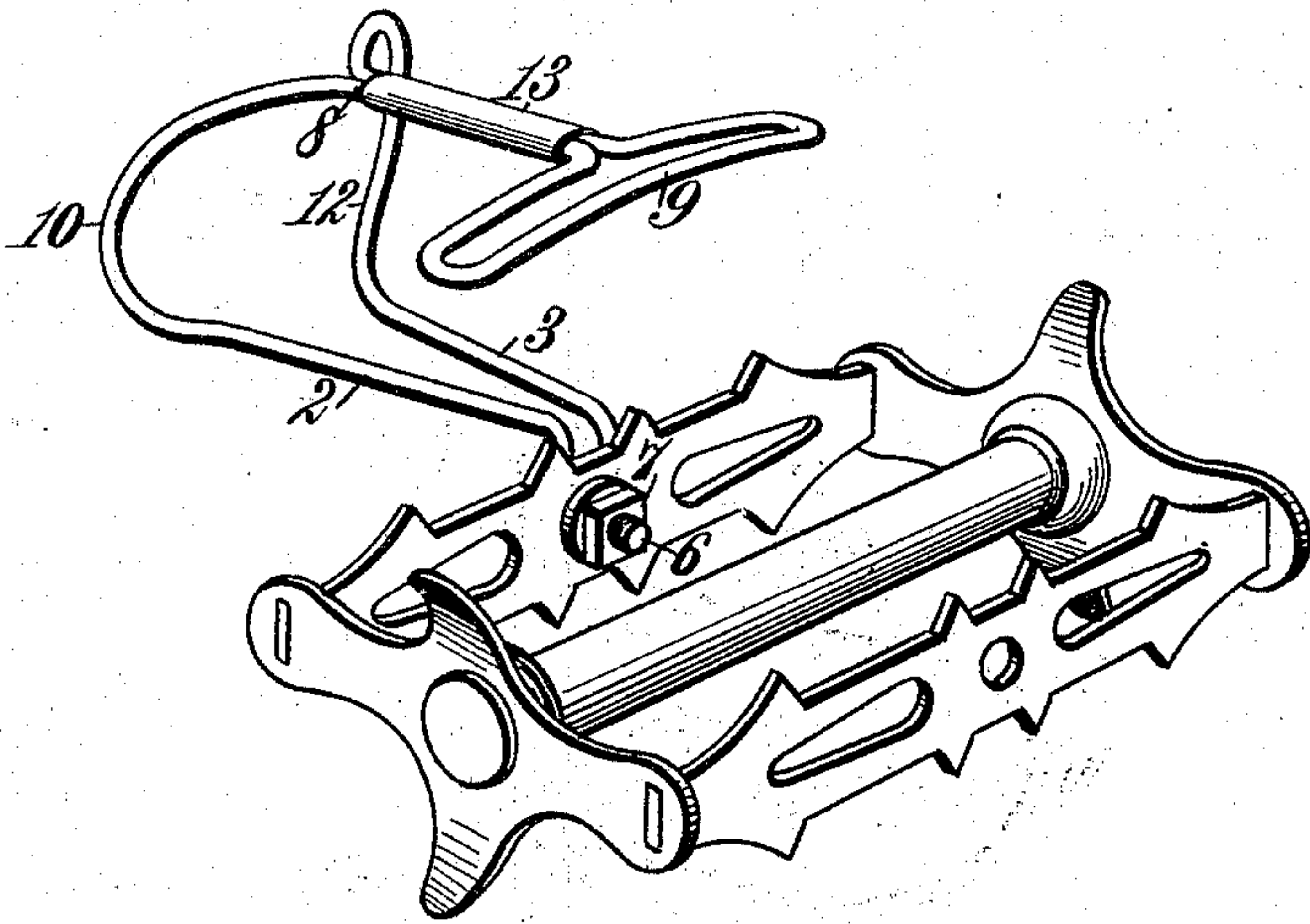


Fig. 2.



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UNITED STATES PATENT OFFICE.

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TOE-CLIP FOR BICYCLE-PEDALS.

SPECIFICATION forming part of Letters Patent No. 559,225, dated April 28, 1896.

Application filed September 9, 1895. Serial No. 561,970. (No model.)

To all whom it may concern:

Be it known that we, JAMES W. SHONE and ROSWELL J. HANNA, citizens of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented new and useful Improvements in Toe-Clips for Bicycle-Pedals, of which the following is a specification.

This invention relates to that class of toe-clips which are attached to the pedals of velocipedes, particularly bicycle-pedals, for retaining the feet of the rider in operative connection with the pedals, while rendering it possible to quickly remove the feet therefrom whenever desired.

The object of the present invention is to improve this type of devices and to provide a novel toe-clip which will effectually prevent the foot of the rider from slipping laterally or sidewise, and will conform to and press upon the instep to retain the rider's foot in its proper place should it be desired at any time to exert upward pressure upon the pedals, as frequently occurs in the use of bicycles.

The invention also has for its object to provide a novel, simple, efficient, and economical toe-clip, which is so constructed that it will press upon and conform to the instep without danger of acting on corns that may be upon the toes of the rider, and is constructed and shaped to receive the toe of the boot or shoe without liability of pinching the same or of catching the point of the boot or shoe toe when the foot of the rider is placed on the pedal and the toe inserted into the toe-clip.

The invention is illustrated by the accompanying drawings, in which—

Figure 1 is a detail perspective view of our improved toe-clip; and Fig. 2 is a similar view, showing the same applied to a pedal, such as the pedal of a bicycle.

In the accompanying drawings we have illustrated our invention as attached to the ordinary "rat-trap" pedal, but we do not wish to be understood as confining ourselves to the use of the device on any particular construction of pedal.

The toe-clip is made from a single piece of wire suitably bent to provide a base member comprising the arms 2 and 3, which are bent downward at their extremities, as at 4 and 5, and which can be clamped to a part of the

pedal through the medium of a screw-bolt 6 and nut 7.

The piece of wire is also shaped to form an overhanging horizontally-arranged member or shank 8, formed at its rear end portion with a loop or yoke-shaped portion, which constitutes an arched transverse pressure-yoke or bar 9 and is so shaped that it will extend across, conform to, and press upon the instep of the foot placed upon the pedal and inserted into the toe-clip.

The base member of the toe-clip is connected with the overhanging horizontal member or shank 8 through the medium of a curved portion comprising two curved members 10 and 12, which are integral parts of the piece of wire from which the toe-clip is made. The curved portions or members 10 and 12 are constructed and relatively arranged so as to provide an opening to receive the toe of the boot or shoe, and these curved portions or members are also shaped in such manner that the toe-receiving opening converges toward the ends, thereby permitting the insertion of the toe of the boot or shoe without liability of pinching the toes of the rider and also without liability of catching the points of the boot or shoe toe when the foot of the rider is placed on the pedal and the toe is inserted into the toe-receiving opening of the toe-clip.

The length of the horizontal member or shank 8 is such as to place the arched transverse pressure-yoke 9 over the instep of the foot of the rider when properly placed upon the pedal with the toe of the boot or shoe in the toe-receiving opening of the clip. The pressure-yoke 9 is of such length transversely to the member or shank 8 as to extend entirely across the instep of the foot of the rider without, however, projecting down the sides so far as to come in contact with corns that may be upon the toes of the rider.

The construction of the toe-receiving opening enables the toe of the boot or shoe to extend therein, and the sides of this opening are so shaped that they conform to the taper of the shoe and prevent any undue wear on the leather thereof. The arched transverse pressure yoke or bar effectually prevents the foot of the rider from shifting or slipping laterally or sidewise, and it so conforms to the shape of the instep that it will not be found

uncomfortable in any manner. The arched transverse pressure yoke or bar also serves to retain the foot of the rider down upon the pedal whenever it is desired to exert upward pressure on the pedal, as sometimes occurs in the use of a bicycle.

The improved toe-clip can be made of any suitable wire, and when nickel-plated it presents a handsome and neat appearance.

10 The overhanging member of the toe-clip is reinforced by means of a reinforcing-clip 13, surrounding the two portions of the wire between the arched transverse pressure yoke or bar and the curved portions or members
15 which connect the same with the base member of the clip.

It has been proposed to construct the toe-clip for a crank-pedal of a piece of wire bent to form a base member to connect with the
20 pedal and upwardly-projecting members, between which the toe of the rider extends. Our invention differs therefrom in that the overhanging member is constructed with the arched transverse pressure yoke or bar 9,
25 which is designed to extend across, conform to, and press upon the instep of the rider. The arched transverse yoke or bar 9 is of a length sufficient to extend entirely across the instep without, however, projecting down the

sides sufficiently far to cause discomfort to the rider. The transverse yoke or bar is important in that the rider can at any time exert upward pressure on the pedals without liability of displacing the toe from proper position on the pedal.

Having thus described our invention, what we claim is—

The herein-described toe-clip for attachment to pedals of velocipedes, bicycles, &c., consisting of a single piece of wire bent to provide a base member comprising two wires the rear ends of which are turned downward for attachment to the pedal, said members diverging from rear to front where they are bent upwardly and then inwardly in contact with each other, then extended rearwardly and laterally to form an overhanging arched transverse pressure yoke or bar, substantially as described.

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

JAMES W. SHONE.
ROSWELL J. HANNA.

Witnesses:

EUGENE J. DWYER,
CHESTER F. KIEHEL.