

No. 620,291.

Patented Feb. 28, 1899.

P. E. ERICKSON.
TOE CLIP.

(Application filed Feb. 2, 1898.)

(No Model.)

FIG. 1.

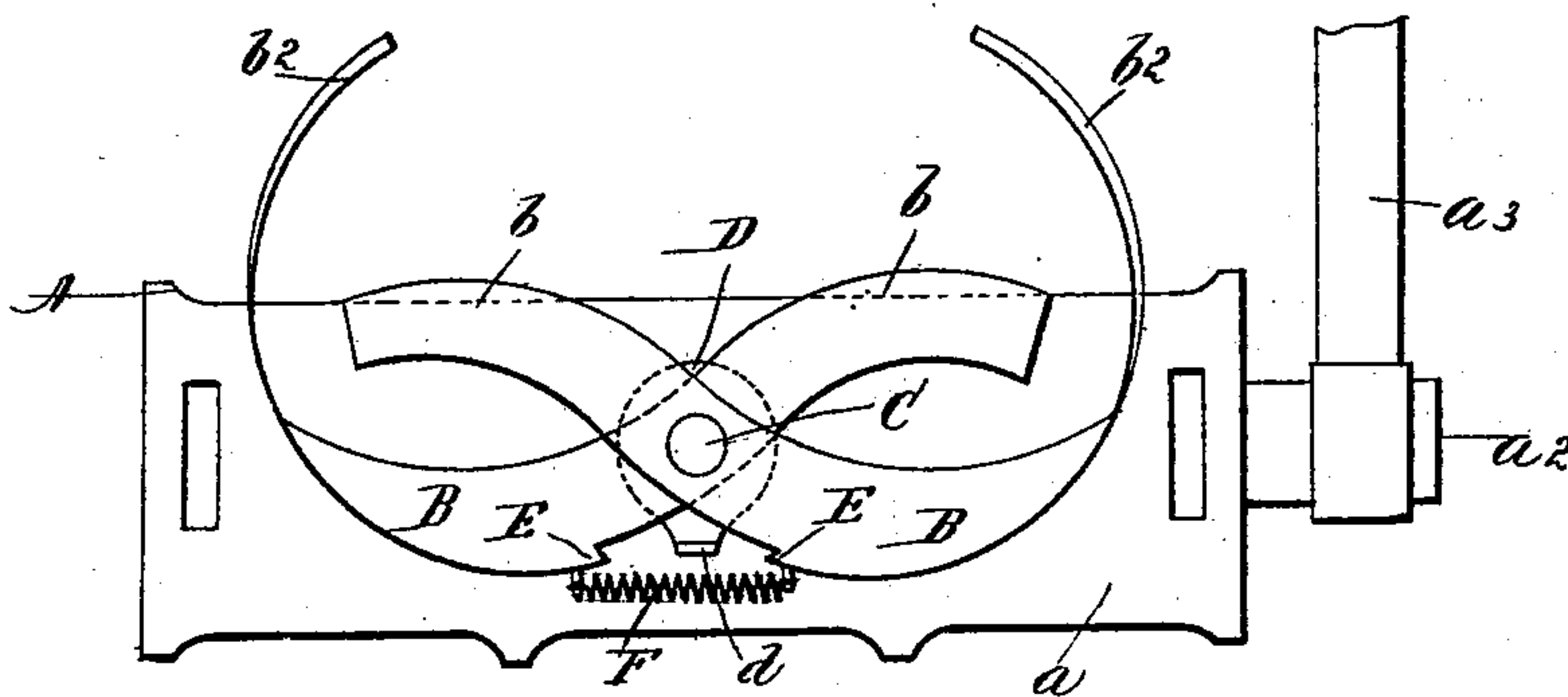
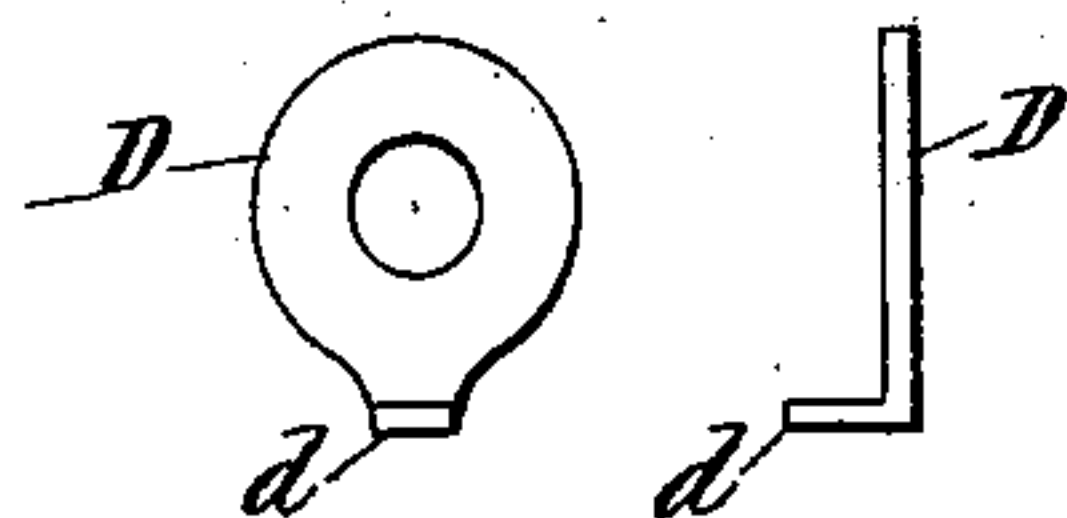


FIG. 2.



WITNESSES

John Buckler,

Carrie Olsen

INVENTOR

Peter E. Erickson,

BY

Edgar Tuleto

ATTORNEYS

UNITED STATES PATENT OFFICE.

PETER ERICK ERICKSON, OF PORT CHESTER, NEW YORK, ASSIGNOR OF
ONE-HALF TO JOHN WILLIAM CZERMAK, OF SAME PLACE.

TOE-CLIP.

SPECIFICATION forming part of Letters Patent No. 620,291, dated February 28, 1899.

Application filed February 2, 1898. Serial No. 668,876. (No model.)

To all whom it may concern:

Be it known that I, PETER ERICK ERICKSON, a citizen of the United States, residing at Port Chester, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Toe-Clips, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to toe-clips such as are used in connection with the foot-pedals of bicycles; and the object is to provide a toe-clip which will automatically clasp the toe of the shoe when the foot bears upon the tread-surface and automatically release the foot when pressure is removed.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a side view of a pedal provided with my improvement, and Fig. 2 a front and side view of a detail thereof.

In the drawings forming part of this specification the separate parts of my improvement are designated by the same letters of reference in each of the views, and in said drawings I have shown at A an ordinary bicycle-pedal provided with sides a , one of which is shown in the drawings, and with the usual shaft a^2 , with which the pedal-crank a^3 is connected, and in the practice of my invention I provide a toe-clip comprising two similar members B, which are pivotally connected and also pivotally connected with the sides a of the pedal by a single pivot-pin C.

Each member of the toe-clip is provided at its pivoted end with a shank b , which is curved upwardly and outwardly and on which the foot is adapted to press, and the other ends of said members are provided with outwardly, upwardly, and inwardly curved arms b^2 , which are adapted in the operation of the device to be thrown over the foot in the direction of each other and to serve as the toe-clip proper.

The upper surfaces of the shanks b are normally held slightly above the side of the pedal and constitute the tread portion of the toe-clip, and the arms b^2 are operated, as above

described, by pressure applied to said tread portions. I also preferably employ a disk or plate D, through which the pivot-pin C passes and which is mounted between the separate members of the toe-clip and the side of the pedal, and said disk or plate is provided at its lower end with an outwardly-directed lug or projection d , and the separate members of the toe-clip are provided adjacent to the pivot-pin at C and on their lower sides with shoulders or projections E, which operate in connection with the lug or projection d to limit the downward movement of the separate members B of the toe-clip, and I also preferably connect with each of said members or the lower sides thereof a contractile spring F, which is intended to separate the arms b^2 of the toe-clip when the pressure is removed from the tread-surfaces of the shanks b thereof.

The spring F is not absolutely essential, as the arms b^2 may be made heavy enough to cause the proper operation by gravity, in which event said springs would not be necessary; but I prefer to employ the spring, as the arms b^2 may be made lighter when said spring is used. If the spring F is not employed, the weight of the curved portions or the arms b^2 of the clip should be such as to force the same downward when the foot is removed from the shanks b until the shoulders or projections E would strike the lug or projection d on the disk or plate D, and the object of the spring F is to perform the same function if the arms b^2 are not made heavy enough to accomplish this result, and when the foot is placed on the shanks b of the separate members of the clip the curved arms b^2 will be thrown inwardly over the foot, as hereinbefore described, and constitute a simple and efficient toe-clip. By means of this construction I provide a toe-clip which is always in position for use and which is simple in construction and operation, and also comparatively inexpensive, and it will be apparent that changes in and modifications of the construction herein described may be made without departing from the spirit of my invention or sacrificing its advantages.

Having fully described my invention, I

claim as new and desire to secure by Letters Patent—

1. The combination with a pedal, of a toe-clip consisting of two separate members pivotally connected with one side of the pedal by the same pivot-pin, each of said members being provided with an upwardly and outwardly curved shank forming tread portions, which when the pedal is not in use project above the side thereof, and with an outwardly, upwardly and inwardly curved arm, substantially as shown and described.

2. The combination with the side of a pedal, of a toe-clip consisting of two separate members, pivotally connected with the side of the pedal by the same pivot-pin, each of said members being provided with an upwardly and outwardly curved shank forming tread portions which when the pedal is not in use, project above the side thereof, and with an outwardly, upwardly and inwardly curved arm, said members being adapted to swing on the pivotal support, and means for limiting the downward movement thereof, substantially as shown and described.

3. The combination with the side of a pedal, of a toe-clip consisting of two separate members, pivotally connected with the side of the pedal by the same pivot-pin, each of said members being provided with an upwardly and outwardly curved shank forming tread portions which when the pedal is not in use, project above the side thereof, and with an outwardly, upwardly and inwardly curved arm, said members being adapted to swing on the pivotal support, and means for limiting the downward movement thereof, consisting of a plate or disk through which the pivot-pin passes, and which is provided at its lower side with an outwardly-directed lug or projection, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 17th day of January, 1898.

PETER ERICK ERICKSON.

Witnesses:

JOHN WILLIAM CZERMAK,
FRANK RYAN.