

UNITED STATES PATENT OFFICE.

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TRICYCLE.

SPECIFICATION forming part of Letters Patent No. 343,165, dated June 8, 1886.

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To all whom it may concern:

Be it known that I, W. LAMARTINE FAY, a citizen of the United States, residing at Elyria, in the county of Lorain and State of Ohio, have invented a new and useful Improvement in Tricycles, of which the following is a specification.

My invention relates to improvements in tricycles which are propelled by the feet acting on a double crank on the axle through the means of levers connected therewith.

The object of my invention is to provide a tricycle for girls and ladies, that will be simple and durable in construction, be adjustable, and permit of graceful and healthful movements on the part of the operator. I attain these objects by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my machine; and Fig. 2 is a plan view of Fig. 1, with the seat and ends of frame or support to same removed, but their positions indicated by dotted lines.

Similar letters refer to similar parts throughout the several views.

A A represent two wheels, attached to an axle, one of which is rigidly attached thereto and acts as the driving-wheel, and the other one turns freely. It is immaterial which is made fast or which loose.

B represents an axle, provided near its center with a double crank.

C is a steering-wheel for the machine, and also acts as a support to the front end of same.

D represents a suitable seat, supported nearly over said axle by two standards or supports, *d d*, the lower ends of which are secured by suitable bearings on said axle, and the upper ends extend under said seat, as represented by dotted lines in Fig. 2, and are securely bolted or fastened to said seat.

F represents another support to said seat, connected with the wheel C, and forming also support for a bar supporting the levers hereinafter specified.

e is a fork which straddles the wheel C, a bearing being formed for said wheel by means of a short journal passing through the ends thereof and the center of said wheel. The upper end of said fork is provided with a vertical bearing extending up through the head *e'*, attached to the end of the support F. The upper

end of the fork *e* is suitably constructed for attaching a steering-rod, *a*, which is provided with a handle, *a'*.

Across the front end of the support F, and near the head *e'*, is rigidly secured a cross-bar, *b*, of suitable length, to the outer ends of which are pivoted two levers, *ll*. These levers, at or near their lower ends, are provided with the pedals *p p*. The lower ends of the levers *ll* are connected each with one of the cranks of said axle by means of strap, bar, connecting-rod, or other suitable means, *c c*, so constructed as to be capable of being let out or taken up, and thereby raising or lowering the pedals *p p*, to suit the length of leg of the rider.

In the drawings, a bar is shown as representing *c c* provided with bolts and a series of holes for shortening or lengthening same. The lower or front ends of these bars *c c* are pivoted to the lower or rear ends of the levers *ll*, and the back ends are provided with journals so constructed as to turn freely on the cranks of said axle.

The operation of my invention is such that the operation of pressing down and slightly forward on the pedals *p p*, alternately the machine will be propelled forward or backward, as desired, while the feet of the operator, will be moved through the arc of a circle, being also an easy and graceful downward and forward motion, which permits the weight as well as the strength of the operator to be used as a propelling force.

The length of the stroke or motion of the feet in operating the machine can be varied, if desired, by changing the position of the pedals *p p* on the levers *ll*. The machine is guided by turning the steering-wheel as desired by means of the rod *a*.

I am aware that tricycles or velocipedes have been heretofore constructed with pendent levers attached to near the front ends of the machine, and provided with stationary pedals attached between their ends, and make no claim thereto.

I am aware that in such machines the lower ends of said pendent levers have been connected with the crank of the axle to said machines by means of non-adjustable connecting-rods, and I make no claim thereto; but I have no knowledge that either the pedals or con-

necting-rods have been made adjustable under such circumstances.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

5 1. In a tricycle, the combination of the pendent levers *l l*, provided with the adjustable pedals *p p*, attached at a point between ends, and the adjustable rods *c c*, connecting the lower ends of the levers *l l* with the cranks of
10 the axle, all as above set forth, and substantially as described.

2. In a tricycle, the combination of the pendent levers *l l*, provided with the pedals *p p*, and the adjustable connecting-rods *c c*, connecting the lower ends of the levers *l l* with
15 the cranks of the axle, all as above set forth, and substantially as described.

W. LAMARTINE FAY.

Witnesses:

E. C. MANter,
W. P. DAWLEY.