

(No Model.)

E. M. GRAHAM.
CYCLE PEDAL.

No. 543,806.

Patented July 30, 1895.

Fig. 1.

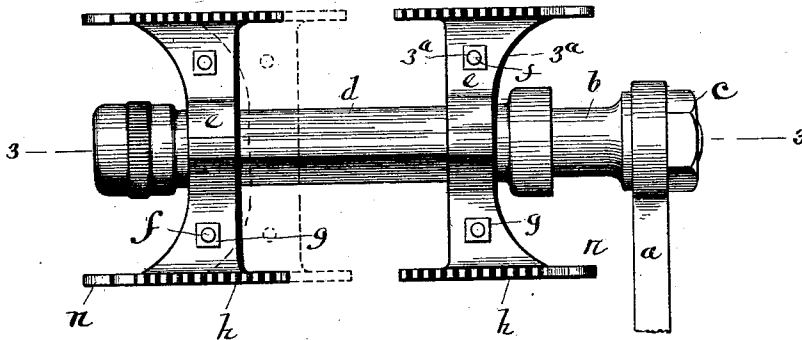


Fig. 2.

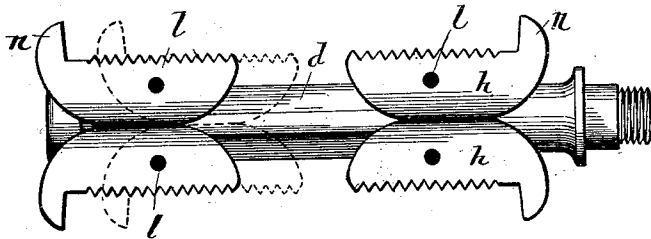


Fig. 3.

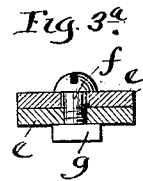
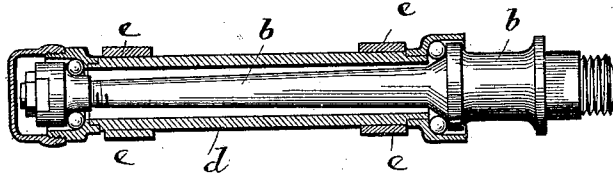


Fig. 5.

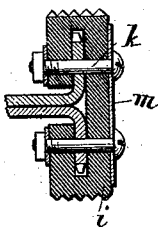


Fig. 4.

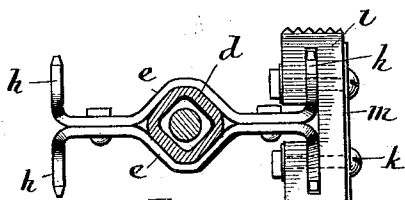


Fig. 7.

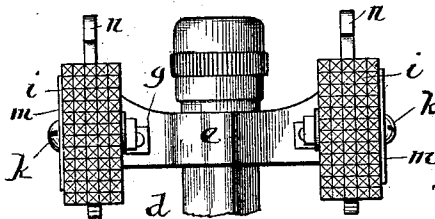
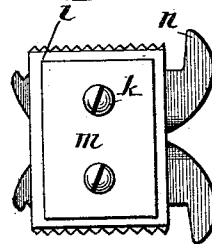


Fig. 6.



Witnesses:
Fred J. G. Lach
Alberta A. G. Lach

Inventor:
Edward M. Graham
By *James Fisher*
Attorneys.

UNITED STATES PATENT OFFICE.

EDWARD M. GRAHAM, OF CHICAGO, ILLINOIS.

CYCLE-PEDAL.

SPECIFICATION forming part of Letters Patent No. 543,806, dated July 30, 1895.

Application filed December 5, 1894. Serial No. 530,885. (No model.)

To all whom it may concern:

Be it known that I, EDWARD M. GRAHAM, a resident of Chicago, Cook county, Illinois, have invented certain new and useful Improvements in Cycle-Pedals, of which the following is hereby declared to be a full, clear, and exact description.

The invention designs to provide a cycle-pedal with double or companion foot-bars, one for each side of the foot, the two bars being separately mounted at even plane and yet laterally adjustable upon the mount to vary the distance between said bars, by which expedient the pedal is adapted to feet of various width, while the "tread" of the machine—i. e., the cross distance between the feet of the operator—can likewise be modified. A further purpose is to furnish the separate foot-bars with a pad or cover of elastic material, (e. g., rubber), carried thereby and removable at will, so that the pedal can be quickly converted from a "rat-trap" style of foot-bar to a rubber foot-bar, or vice versa.

The exact nature of the improvements will appear from the description following, and be thereafter pointed out by claims at the conclusion thereof.

In the drawings like parts have like designation throughout.

Figure 1 is a plan view, and Fig. 2 a view in front elevation, of a cycle-pedal constructed in keeping with the invention; Fig. 3, a longitudinal section view on line 3 3 of Fig. 1, showing the spindle and sleeve mount for the separate companion foot-bars; Fig. 3^a, a detail section at line 3^a of Fig. 1. Fig. 4 is a cross-section view, the foot-bar at one end having a cover-pad thereon; Fig. 5, a detail section view with the rubber pad or cover in place on the foot-bar; Fig. 6, a front elevation view of the same; Fig. 7, a top plan showing the pads in position at opposite ends of the same sectional foot-bar.

The crank *a* carries the projecting spindle *b*, which is secured thereto by nut *c*, as usual. The sleeve *d* is sustained near its ends upon the spindle by the familiar ball and cone bearings, and in the form here shown the sleeve at its outer face is of polygonal shape, to snugly seat and retain without play the dual clips *e* of reverse contour. In the simple construction exhibited said dual clips *e* together

embrace the sleeve and are stoutly held in place by the bolts *f*, threaded to one of the clips and furnished with a nut *g*, which serves as a lock to keep the parts in place. The dual clips have upturned ends *h* with serrated edges, and together constitute a rat-trap foot-bar for the pedal. Two foot-bar sections are employed, one for each side of the foot, and these are separately mounted as appears upon the sleeve *d* common thereto and which by reason of its shape enables the companion bars to be properly set, so that their faces are level for the reception of the foot.

On loosening the set-screw *f* at the sides of the dual clips *e* either foot-bar can be adjusted laterally along the sleeve *d* in keeping with the width of the operator's shoe. Such adjustment manifestly varies the tread of the machine, or, in other words, changes the distance measured crosswise from the central line of the path of the machine to the point for the application of the power at the pedal.

The outturned ends *h* of the dual clips *e* at the front and back of the separate foot-bars are adapted to snugly receive a rubber pad or cover *i*, which embraces the faces and extends over the serrated edges thereof. Cross-bolts *k* pass through the pad *i* and holes *l* in the clip ends *h*, and carry a face-plate *m*, which bears against the rubber pad. By tightening the bolts the pad is clamped firmly in place and in conjunction with clip *e* constitutes a rubber foot-bar carried by the sleeve-mount of the cycle-pedal. Since the companion foot-bar sections, for opposite sides of the foot are divided or separate, the rubber pads or covers can be easily set between the companion sections, at the inner level faces thereof, and be slid laterally to position in near proximity to the guard *n*, which, as here shown, is a raised part of the upturned end of each of the dual clips at its outer edge or face.

Obviously the details of structure can be varied according to the skill of the mechanic without essential departure from the invention.

Having thus described the invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In cycle pedals, the combination with the spindle and its rotating sleeve, of the companion foot-bar sections mounted separately

thereon and laterally adjustable to and from each other along the sleeve, substantially as described.

2. In cycle pedals, the combination with the
5 spindle and its rotating sleeve, of the companion foot-bar sections mounted separately thereon and laterally adjustable to and from each other along the sleeve, said bars comprising dual clips to clamp the sleeve in re-
10 verse angular contour and having an outer upturned end to receive the foot, substantially as described.

3. In cycle pedals, the combination with the rotating sleeve and with the dual clips
15 clamped thereon to constitute a sectional foot-bar, the same having upturned ends with inner level face and raised outer edge forming a side guard of the overlapping elastic pad mounted upon and mutually embracing the
20 upturned ends of the clips along the level faces thereof, substantially as described.

4. In cycle pedals, the combination with the rotating sleeve and with the companion foot-bar sections mounted separately thereon,

each comprising dual clip-plates clamped to
25 said sleeve and having out-turned ends, of the rubber pad overlapping said ends and secured thereto, substantially as described.

5. In cycle pedals, the combination with the rotating sleeve and with the companion foot-
30 bar sections mounted separately thereon, each comprising dual clip-plates clamped to said sleeve and having out-turned ends, of the rubber pad overlapping said ends, the face plate therefor, and the tie-bolts to secure said
35 pad in place, substantially as described.

6. In cycle pedals, the combination with the spindle and its rotating sleeve of the companion foot-bar sections mounted separately
40 upon and adjustable laterally to and from each other along said sleeve and means substantially as described, to hold such sections level or aligned with each other upon the sleeve, substantially as set forth.

EDWARD M. GRAHAM.

Witnesses:

FRED GERLACH,
OSCAR M. BRADY.