

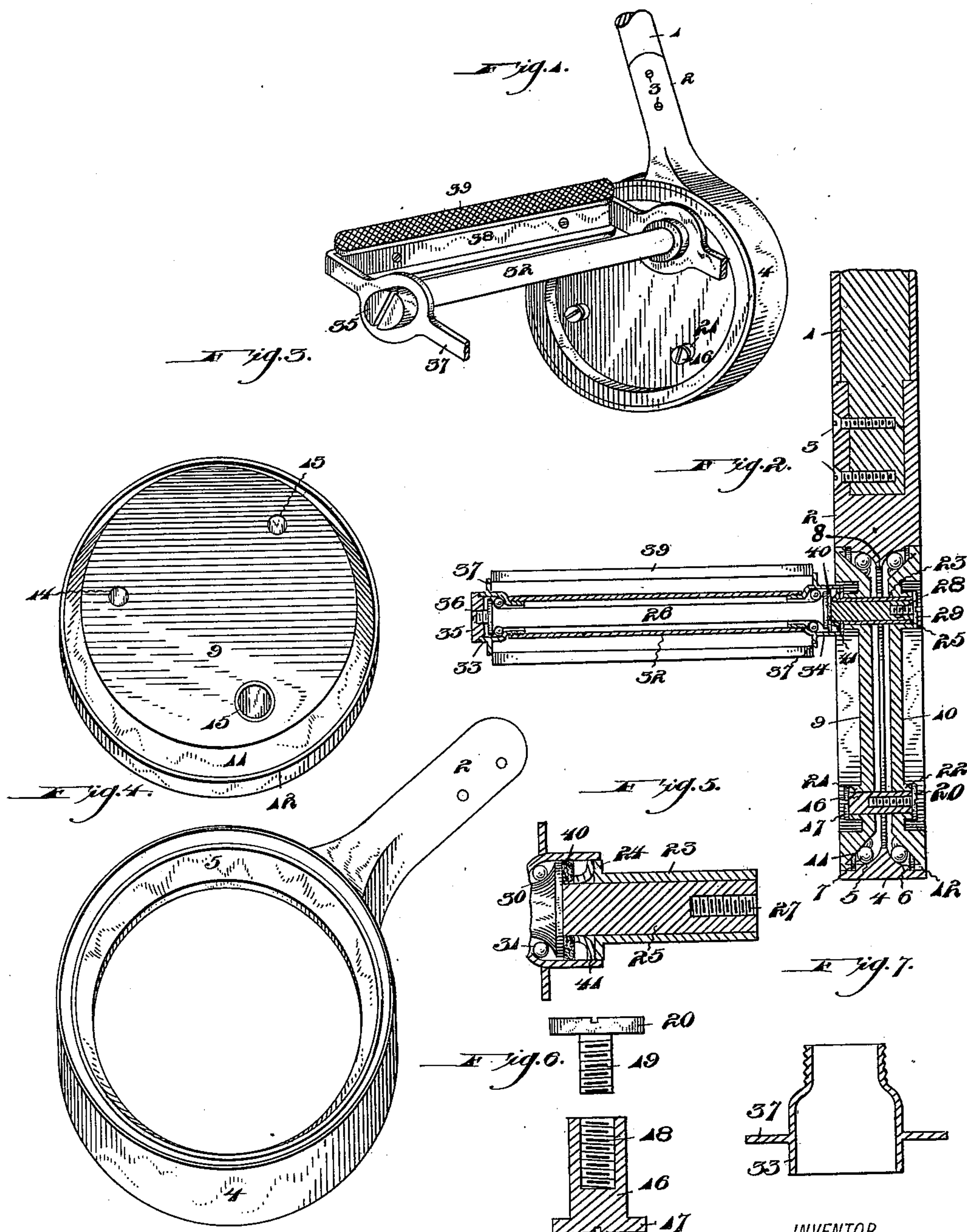
No. 626,045.

Patented May 30, 1899.

T. BEHAN.
BICYCLE PEDAL.

(Application filed Nov. 29, 1898.)

(No Model.)



WITNESSES:

J. P. Appleman.
L. B. Boyer

INVENTOR

Thomas Behan.

BY

H. C. Over & Co.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

THOMAS BEHAN, OF WOODLAWN, PENNSYLVANIA.

BICYCLE-PEDAL.

SPECIFICATION forming part of Letters Patent No. 626,045, dated May 30, 1899.

Application filed November 29, 1898. Serial No. 697,733. (No model.)

To all whom it may concern:

Be it known that I, THOMAS BEHAN, a citizen of the United States of America, residing at Woodlawn, in the county of Beaver and State of Pennsylvania, have invented certain new and useful Improvements in Bicycle-Pedals, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to certain new and useful improvements in pedals for bicycles.

My invention aims to construct a pedal by the aid of which an increased leverage and a decreased length of stroke are obtained than are had with the ordinary bicycle-cranks. I attain these objects by providing the ends of the ordinary pedal-crank with a collar, in which is mounted a pair of revoluble disks, to which the pedal is secured.

My invention finally consists in the novel combination and arrangement of parts hereinafter more fully described, and particularly pointed out in the appended claim.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, wherein like numerals of reference indicate corresponding parts throughout the several views thereof, and in which—

Figure 1 is a perspective view of my improved pedal in position with the crank broken away. Fig. 2 is a vertical sectional view thereof. Fig. 3 is an inverted perspective view of one of the revoluble disks. Fig. 4 is a perspective view of the collar within which the disks are secured. Fig. 5 is a longitudinal sectional view of the securing-rod for the pedal. Fig. 6 is a vertical sectional view of one of the securing-pins for securing the revoluble disks together and the fastening-screw therefor. Fig. 7 is a sectional view of the collar, which has formed integral therewith the supports for the pedal-tread.

Referring to the drawings by reference-numerals, 1 indicates a pedal-crank, to which the extension 2 is secured by means of the screw 3. The end of the extension has a recess formed therein to receive the end of the pedal-crank, as shown in Fig. 2. Formed integral with the extension 2 is the collar 4, which has formed on its inner face the bevels 5 6, forming the bearings for the balls 7.

It has also formed on its inner face the ridge 8. The collar 4 is adapted to receive and have revolve therein the disks 9 10, which have their inner edges beveled to form a cone, as at 11, and a flange 12, also formed thereon. The disks 9 10 are provided with apertures 13, 14, and 15. The apertures 13 14 receive the securing-pin 16, which has the enlarged head 17 and the screw-threaded recess 18. A screw 19 engages in this screw-threaded recess 18 and is provided with an enlarged head 20. When the pin and screw are in position, the revoluble disks 9 10 are fastened together. The outer ends of the apertures are surrounded by the collars 21 22, which the heads 17 20 abut against.

The aperture 15 is provided with the hollow sleeve 23, which fits neatly therein and has the inner end thereof flanged, forming the shoulder 24, and mounted in the sleeve 23 is the supporting-bar 25 for the pedal-shaft 26, which is cast integral at one end with the bar and is of greater diameter. The outer end of the bar 25 has the screw-threaded recess 27 formed therein, which is adapted to receive the screw 28, having the enlarged head 29. The enlarged head of the screw 28 prevents the displacement of the bar 25, as well as assisting in securing together the disks 9 10.

The ends of the pedal-shaft 26 have formed integral therewith the cones 30, forming bearings for the balls 31. The pedal-shaft 26 is surrounded by the sleeve 32, the ends thereof being screw-threaded and adapted to receive the screw-threaded ends of the collars 33 34. The one end of the collar 34 is adapted to rest upon the flange 24, while the collar 33 is secured in position by means of the nut 35, engaging the screw-threaded extension 36 of the pedal-shaft.

Formed integral upon each side of the collars 33 34 are the supports 37 for the cross-bar 38, to which the pedal-treads 39 are secured. 40 indicates a washer formed of any suitable elastic material and arranged to abut against the outer end of the cones 30 of the pedal-shaft, and 41 indicates a washer of suitable metallic material, the one end thereof abutting against the washer 40 and the opposite end against the inner face of the collar 34 and flange 24.

It is thought that the many advantages ob-

tained by my improved pedal as set forth in the description can be readily understood from the foregoing description, taken in connection with the accompanying drawings.

5 It will be noted that various changes may be made in the details of construction without departing from the general spirit of my invention.

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

15 The combination of a pedal-crank, a collar suitably connected thereto, cones arranged on the inner face thereof, a pair of revoluble disks mounted in said collar, said disks having apertures formed therein, one being of greater diameter than the others, a securing-

pin having the enlarged head on one end and the recess portion in the other mounted in a smaller aperture, a screw adapted to engage 20 in said recess portion of the securing-pin, the supporting-bar adapted to be secured in the said larger apertures, a pedal-shaft formed integral with one end of said supporting-bar, cones formed on said pedal-shaft, and a hol- 25 low sleeve supporting the tread of the pedal and adapted to surround the said pedal-shaft, substantially as shown and described.

In testimony whereof I affix my signature in the presence of two witnesses.

THOMAS BEHAN.

Witnesses:

JOHN NOLAND,

JOHN GROETZINGER.