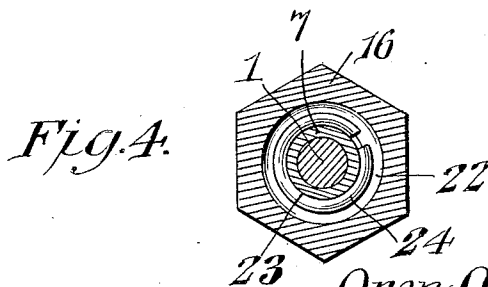
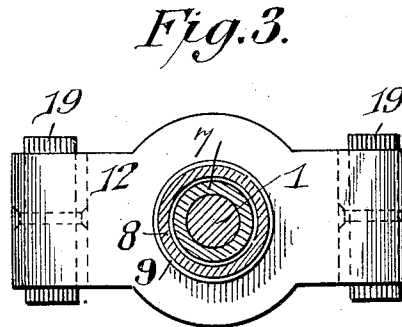
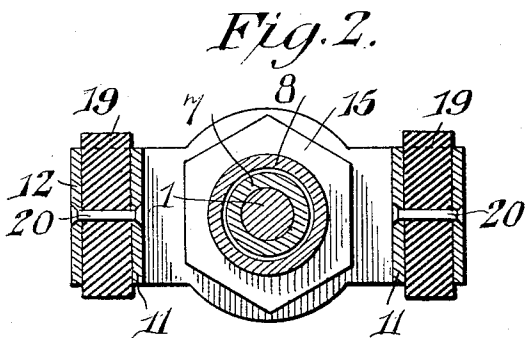
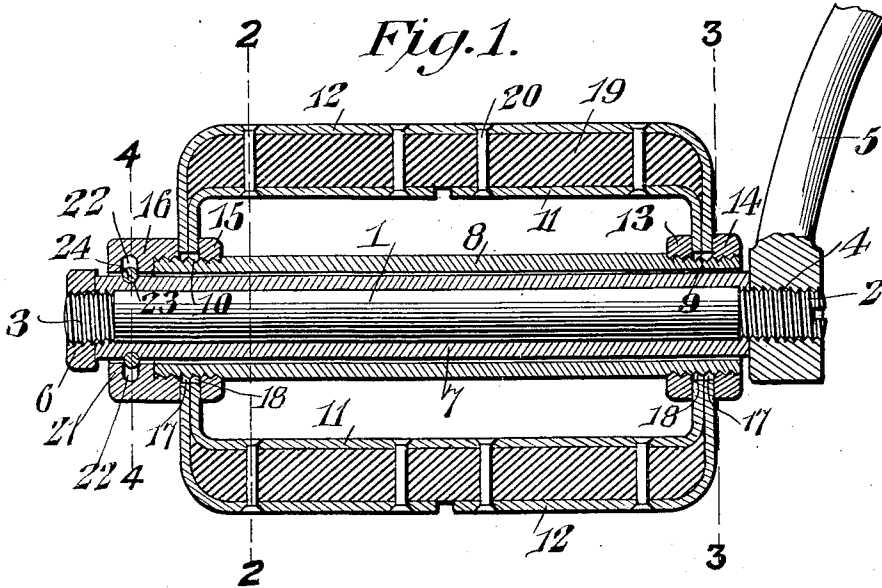


O. OVERTON.  
 PEDAL FOR MOTOR CYCLES, &c.  
 APPLICATION FILED JULY 16, 1912.

1,050,384.

Patented Jan. 14, 1913.



WITNESSES

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# UNITED STATES PATENT OFFICE.

ORON OVERTON, OF MOBILE, ALABAMA.

PEDAL FOR MOTOR-CYCLES, &c.

1,050,384.

Specification of Letters Patent.

Patented Jan. 14, 1913.

Application filed July 16, 1912. Serial No. 709,754.

*To all whom it may concern:*

Be it known that I, ORON OVERTON, a citizen of the United States, residing at Mobile, in the county of Mobile and State of Alabama, have invented a new and useful Pedal for Motor-Cycles, &c., of which the following is a specification.

The invention relates to improvements in pedals for motor cycles, bicycles, etc.

10 The object of the present invention is to improve the construction of pedals, and to provide a simple, strong and durable pedal of inexpensive construction not liable to get out of order, and in which the pedal pin may  
15 be readily replaced in case of breakage of the same.

A further object of the invention is to provide a pedal of this character, adapted to dispense with anti-friction balls and similar  
20 anti-friction devices, and equipped with a bearing including inner and outer sleeves and means for preventing a separation of the same should the pedal pin become broken, so that the bearing faces of the inner and  
25 outer sleeves will not become filled with dirt and grit through an accident of that character.

With these and other objects in view, the invention consists in the construction and  
30 novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claims here-to appended; it being understood that various changes in the form, proportion, size  
35 and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing:—Figure 1 is a longitudinal sectional view of a pedal, constructed  
40 in accordance with this invention. Fig. 2 is a transverse sectional view on the line 2—2 of Fig. 1. Fig. 3 is a similar view on the line 3—3 of Fig. 1. Fig. 4 is a detail sectional view on the line 4—4 of Fig. 1.

Like numerals of reference designate corresponding parts in all the figures of the drawing.

In the accompanying drawing in which is  
50 illustrated the preferred embodiment of the invention, 1 designates a pedal pin consisting of a plain pin having threaded inner and outer ends 2 and 3. The inner threaded end 2 engages a threaded opening 4 of a crank 5,  
55 and the outer threaded end 3 receives a nut

6, which retains an inner sleeve 7 on the pedal pin. The inner sleeve 7 has a smooth interior, and its inner end fits against the crank 5 and its outer end is engaged by the nut 6. While a pedal pin having threaded  
60 terminals is illustrated in the accompanying drawing, any other form of pedal pin or a common bolt or similar fastening device of the proper size may be substituted for the pedal pin to repair damage in case of break-  
65 age.

The inner sleeve 7, which is relatively fixed, receives an outer sleeve 8, mounted for rotation on the inner sleeve and maintained in spaced relation with the crank 5  
70 by the means hereinafter described. The outer sleeve 8, which is provided with exteriorly threaded inner and outer ends 9 and 10, carries inner and outer pedal frames 11 and 12, which are rigidly secured to the  
75 outer sleeve at the inner end thereof by means of nuts 13 and 14, and to the outer end of the sleeve 8 by nuts 15 and 16.

The inner and outer pedal frames are each constructed of a single piece of plate steel,  
80 or other suitable material. Each of the frames is formed by two operations, the material being first cut to form a blank and the latter being then stamped or otherwise bent into rectangular form. The inner and outer  
85 rectangular pedal frames are fitted together at their ends, and are provided with registering openings 17 and 18 through which the threaded terminals of the outer sleeve 8 extend. The inner and outer frames are  
90 preferably provided at the openings with enlargements, which are located at spaced points intermediate of the ends of the strip of material forming each frame, the inter-  
95 mediate and end portions of the strip being narrower than the enlargements, which are preferably circular. The sides of the inner and outer frames are spaced apart throughout the length of the pedal to provide spaces  
100 in which pedal rubbers 19 are secured by tubular rivets 20, or other suitable fastening devices, piercing the spaced sides of the inner and outer frames and the pedal rubbers at a plurality of points and securely fastening the  
105 said parts together. The inner and outer pedal frames are reversely arranged, the terminals of the inner frame being arranged at one side of the pedal while the terminals of the outer frame are located at the opposite  
110 side of the pedal, so that the joint or space

of each frame is spanned by the intermediate solid portion of the other frame.

No claim is made in this application to the particular construction of the pedal frame, which is claimed in a companion applica-

tion, filed Apr. 10, 1912, Serial No. 689,842.  
The nuts 13, 14, 15 and 16 are preferably of hexagonal form, and the outer nut 16 is provided with an extension 21, arranged in spaced relation with the nut 6 of the pedal pin and provided with an interior annular groove 22, adapted to register with an exterior annular groove 23, formed in the outer portion of the inner sleeve at a point beyond the outer sleeve. The extension 21 is arranged to rotate clear of the outer end of the inner sleeve, and a circular split contractile and expansion retaining spring 24 is arranged in the interior annular groove of the extension of the nut 16. The spring 24 is of less diameter than the outer walls of the interior groove of the nut, and in assembling the parts, it is adapted to be expanded in placing the outer sleeve 8 and the nut 16 on the inner sleeve, and when the grooves 22 and 23 are brought into register, the spring 24 contracts within the groove 23 of the inner sleeve and frictionally engages the same. The groove 23 of the inner sleeve is designed in practice to be of a depth somewhere between a third and a half of the diameter of the material of the spring, which projects outwardly into the interior annular groove 22 sufficiently to retain the outer sleeve 8 on the inner sleeve. This will prevent the two parts from becoming separated should the pedal pin break, and there will be no liability of the bearing faces of the two sleeves becoming filled with sand, dirt or other grit should the pedal be broken off. The retaining spring maintains the outer sleeve and the nut 16 in proper spaced relation with the crank and the nut 6, so that the relative rotary movement of the parts will not operate to unscrew the nuts. The extension of the outer nut rotates freely over the circular spring, which through its resiliency, maintains itself freely seated in the groove of the inner sleeve. The nut 6 at the outer end of the pedal pin is of greater diameter than the inner sleeve and projects beyond the outer face of the same, and it forms a fastening means for positively confining the outer sleeve on the inner sleeve.

What is claimed is:—

1. In a device of the class described, the combination with a crank, and a pedal pin mounted on the crank, of an inner sleeve arranged on the pedal pin in a relatively fixed position, a relatively rotary outer sleeve, a pedal frame carried by the outer sleeve, a nut mounted on the outer sleeve and provided with an extension, and means concealed within the extension and engaging with the same and with the inner sleeve

for retaining the inner and outer sleeves against relative longitudinal movement.

2. In a device of the class described, the combination with a crank, and a pedal pin mounted on the crank, of an inner sleeve arranged on the pedal pin in a relatively fixed position, a relatively rotary outer sleeve arranged on the inner sleeve and having a threaded outer end, a pedal frame carried by the outer sleeve, a nut mounted on the threaded end of the outer sleeve and engaging the pedal frame and provided with an extension, and retaining means arranged interiorly of the extension of the nut and co-acting with the inner sleeve for holding the inner and outer sleeves against relative longitudinal movement.

3. In a device of the class described, the combination with an inner sleeve adapted to be connected with a crank by a pedal pin or bolt and provided with an exterior groove, an outer sleeve having a threaded portion, a pedal frame carried by the outer sleeve, a nut arranged on the threaded portion of the outer sleeve and provided with an extension having an interior groove, and retaining means concealed within the said grooves for holding the inner and outer sleeves against relative longitudinal movement.

4. In a device of the class described, the combination with an inner sleeve adapted to be connected with a crank by a pedal pin or bolt and provided with an exterior annular groove, an outer sleeve mounted on the inner sleeve and having a threaded portion, a pedal frame carried by the outer sleeve, a nut engaging the threaded portion of the outer sleeve and provided with an extension having an interior annular groove to register with the groove of the inner sleeve, and an expansible and contractile circular spring adapted to be expanded into the groove of the nut in assembling the parts and capable of frictionally engaging and seating itself in the groove of the inner sleeve, whereby the inner and outer sleeves are held against relative longitudinal movement.

5. In a device of the class described, the combination with a crank and a crank pin mounted on the crank and provided at its outer end with engaging means, an inner sleeve clamped between the engaging means and the crank and provided with an exterior groove, an outer sleeve having threaded ends, a pedal frame carried by the outer sleeve, nuts mounted on the threaded ends of the outer sleeve for retaining the pedal frame thereon, one of the nuts being provided with an extension having an interior groove, and a retaining spring concealed within the extension and engaging the said grooves for holding the sleeves against relative longitudinal movement and for main-

taining the nuts of the outer sleeve in spaced relation with the crank and said engaging means.

6. In a device of the class described, the  
5 combination with a crank having a threaded opening, and a pedal pin having threaded inner and outer ends, the inner end being arranged in the threaded opening of the crank, and a nut mounted on the outer  
10 threaded end of the pedal pin, an inner sleeve clamped between the said nut and the crank and provided with an annular groove, an outer sleeve spaced from the crank and the said nut and having threaded ends, a  
15 pedal frame carried by the outer sleeve, nuts

mounted on the threaded ends of the outer sleeve for retaining the pedal frame thereon, one of the nuts being provided with an extension having an interior annular groove to register with the said first-mentioned 20 groove, and a retaining spring engaging with the said grooves for holding the sleeves against relative longitudinal movement.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signa- 25 ture in the presence of two witnesses.

ORON OVERTON.

Witnesses:

JOHN H. SIGGERS,  
DAVID R. WAGNER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."