

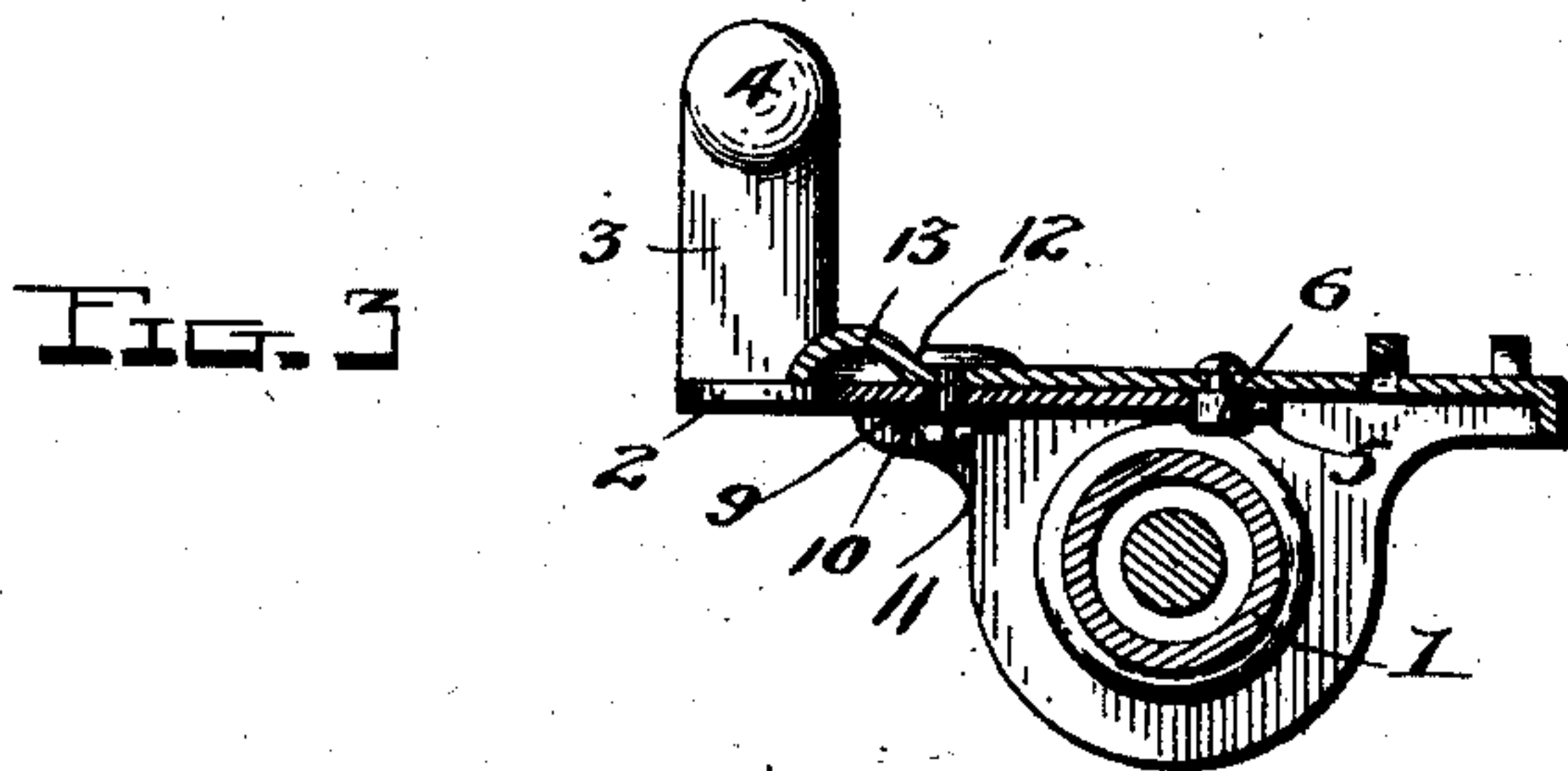
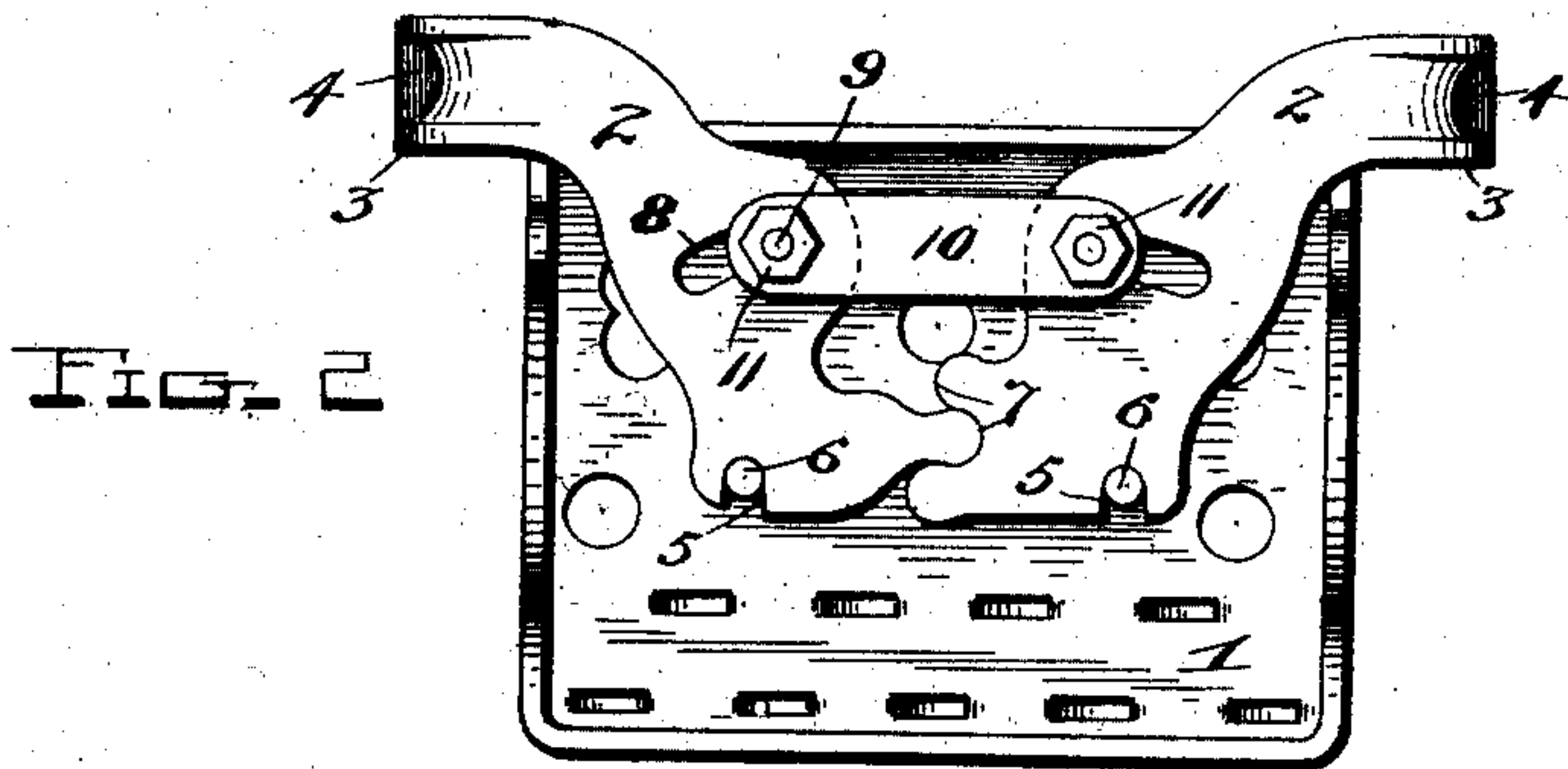
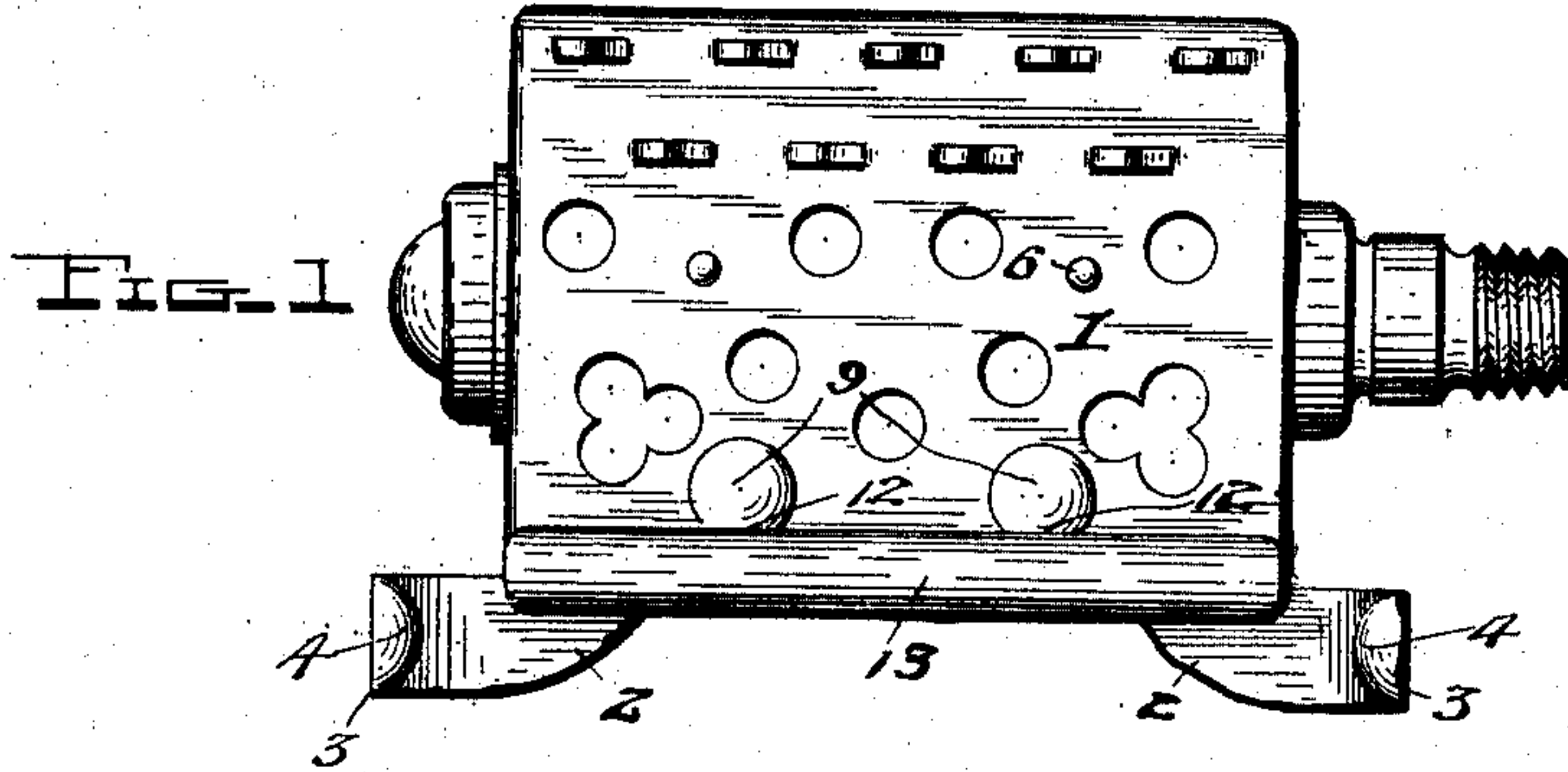
No. 706,594.

Patented Aug. 12, 1902.

A. PHERSON.  
BICYCLE PEDAL.

(Application filed Sept. 10, 1901.)

(No Model.)



Inventor

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Witnesses

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# UNITED STATES PATENT OFFICE.

ANTHONY PHERSON, OF ROCHESTER, NEW YORK.

## BICYCLE-PEDAL.

SPECIFICATION forming part of Letters Patent No. 706,594, dated August 12, 1902.

Application filed September 10, 1901. Serial No. 74,939. (No model.)

*To all whom it may concern:*

Be it known that I, ANTHONY PHERSON, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Bicycle-Pedals; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in toe-clips for bicycle-pedals.

The object of the invention is to provide toe-clips which may be conveniently adjusted to suit the size of the foot and to bear at any desired point along the sole of the shoe within reasonable limits toward and from the toe and which are so constructed as to bear firmly without injury to the shoe.

With the accomplishment of this end in view the invention consists in certain novel features of construction, combination, and arrangement of parts, as will be hereinafter more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a top plan view of a bicycle-pedal embodying my invention. Fig. 2 is a bottom plan view thereof. Fig. 3 is a vertical front to rear section on a line passing through one of the clamping-bolts and related pivot-pin.

Referring now more particularly to the drawings, the numeral 1 represents the pedal, which may be of any suitable form and construction. Arranged upon the under side of the pedal-plate are the gripping-arms 2, formed at their forward ends with the laterally and upwardly projecting toe clips or clamps 3, which are adapted to bear against the opposite side edges of the sole of the shoe, resting on the pedal-plate. These clips have embossed bearing projections 4, which are rounded to firmly grip the sole without penetrating or otherwise marring or injuring the same. The inner ends of the arms 2 are formed in their edges with notches 5 to receive pins 6 on the pedal-plate, whereby the arms are pivoted to swing to cause the clips 3 to move toward and from each other in advance of the pedal-plate, and on said arms are gear-teeth 7, which intermesh to cause

the arms to swing in unison when either one is moved to always preserve their proper relative positions and hold the foot of the rider centered on the pedal-plate. In advance of the gear-teeth the arms are provided with transverse slots 8 to receive the shanks of the bolts 9, passed downward through the pedal-plate. These bolts also pass through apertures in a bridge-plate 10, which connects them, and have applied thereto nuts 11, which bear against the plate 10 and cause the latter to exert a clamping action on the arms 2 to secure said arms firmly in adjusted position. By loosening these nuts the arms 2 may be adjusted toward or from each other to decrease or increase the distance between the clips, the gearing between the arms causing them to have the same degree of adjustment and to bear with like pressure against the sole of the shoe, which will thereby be held accurately centered on the pedal-plate. By reason of the described mode of mounting the arms the clips swing in an arcuate path, and hence grip the sole of the shoe closer to or farther from the pedal-plate, according to the length and width of the shoe, thereby insuring the firm connection of the shoe with the pedal in a position most comfortable and convenient for action.

The heads of the bolts 9 are formed with flattened surfaces 12 to bear against the inner edge of a rib 13, formed upon the front edge of the pedal-plate, to prevent casual turning of the bolts and loosening of the nuts.

From the foregoing description, taken in connection with the accompanying drawings, the construction, mode of operation, and advantages of the invention will be readily understood without a further extended description.

Changes in the form, proportion, and minor details of construction of the invention may be made within the scope thereof without departing from the spirit or sacrificing any of its advantages.

Having thus particularly described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination with a pedal; of a toe-clip comprising arms pivoted to the under side of the pedal to swing laterally thereof,



means connecting the arms to move in unison, and means for clamping the arms in adjusted position, substantially as described.

2. The combination with a pedal; of pivot-  
5 pins upon the pedal, a toe-clip comprising  
arms formed with slots and open bearings,  
said bearings receiving the pivot-pins, clamp-  
ing-bolts passing through the pedal and slots,  
and nuts upon said bolts, substantially as  
10 specified.

3. The combination with a pedal having a  
transverse rib; of a toe-clip comprising arms  
pivoted to the under side of the pedal to swing  
laterally thereof, means connecting the arms  
15 to move in unison, clamping-bolts passing  
through the pedal and arms and having their  
heads formed with flattened faces to engage

said rib, and nuts upon said bolts, substan-  
tially as described.

4. The combination with a pedal, of a toe- 20  
clip comprising arms pivoted to the pedal and  
formed with slots and provided with grippers,  
interengaging members on the arms to adapt  
them to move in unison, bolts upon the pedal  
passing through said slots, nuts upon the 25  
bolts, and a bridge-plate connecting the nuts,  
substantially as specified.

In testimony whereof I have hereunto set  
my hand in presence of two subscribing wit-  
nesses.

ANTHONY PHERSON.

Witnesses:

WILLIAM H. BEACH,  
GERTRUDE E. MCCHESNEY.