H. C. McCULLOUGH.

STEADY REST.

APPLICATION FILED JUNE 10, 1909.

944,630.

Patented Dec. 28, 1909.

Fig. 1.

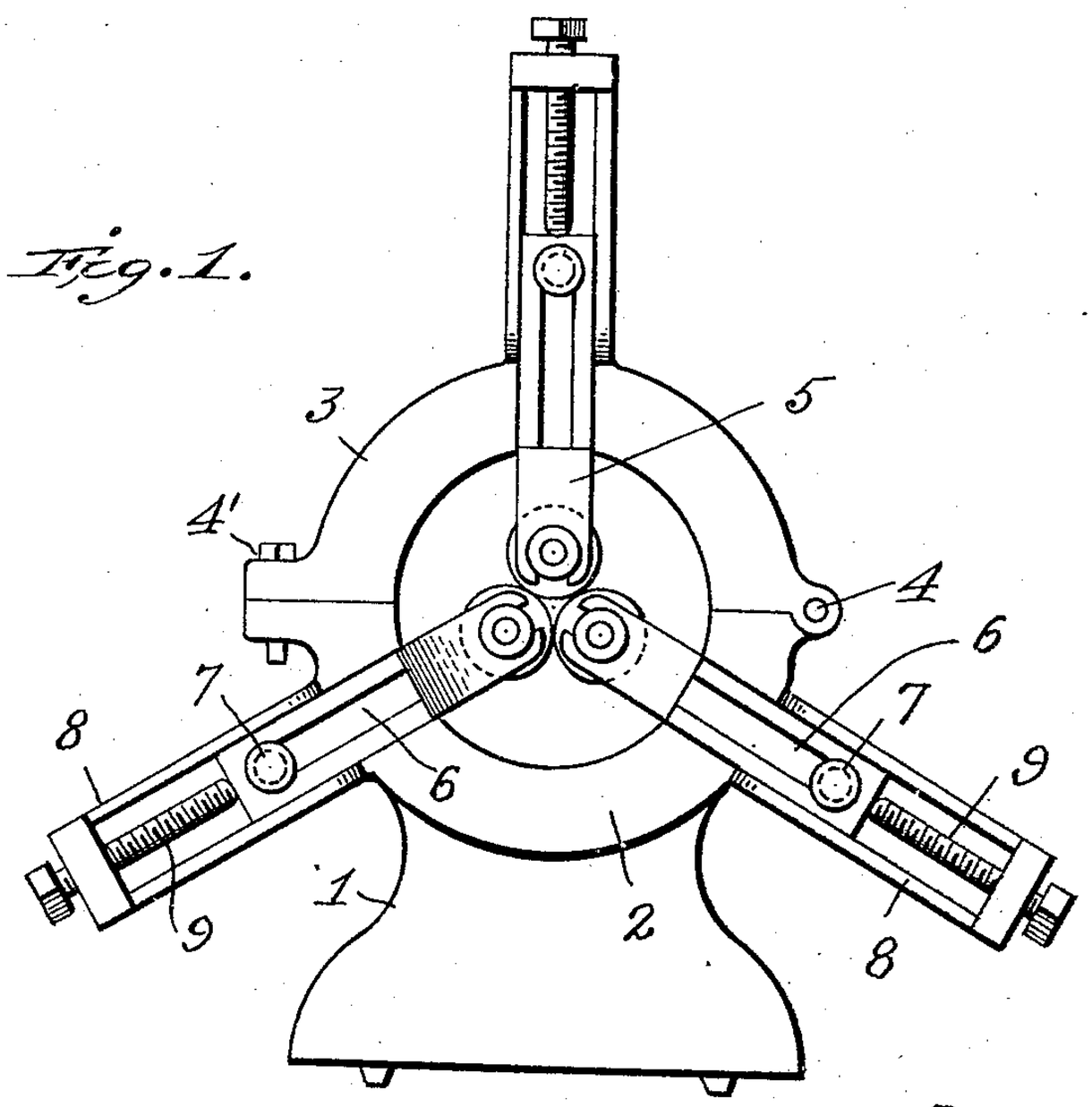


Fig. 2.

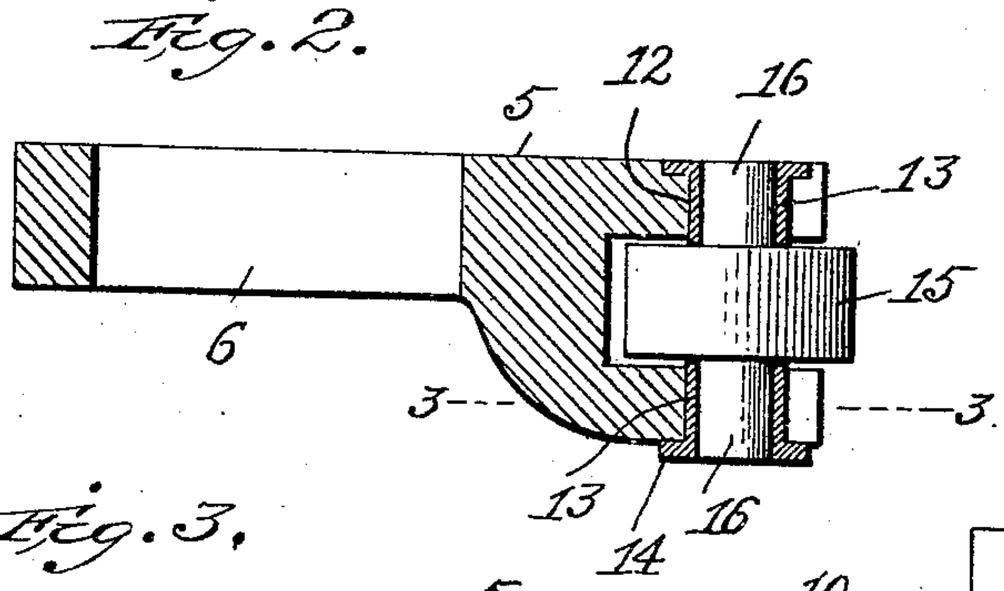


Fig. 3.

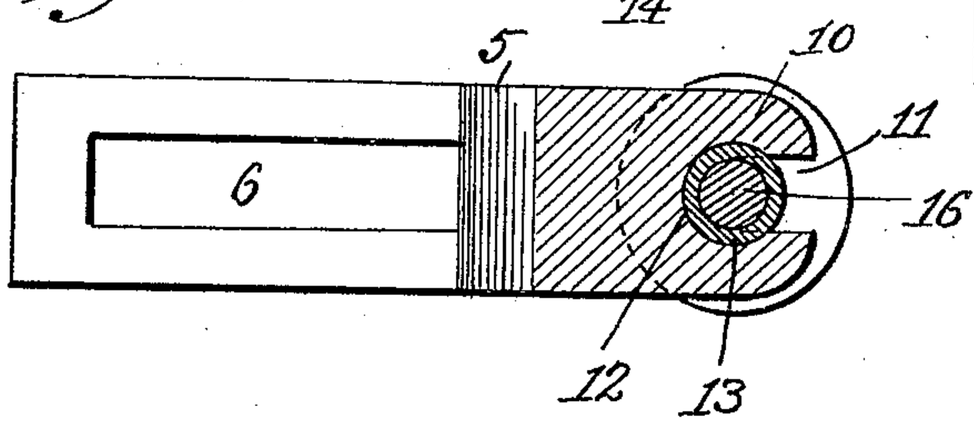


Fig. 4.

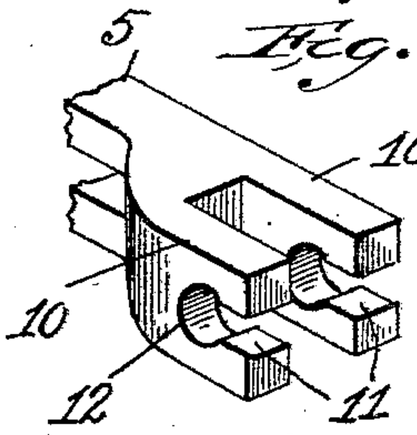
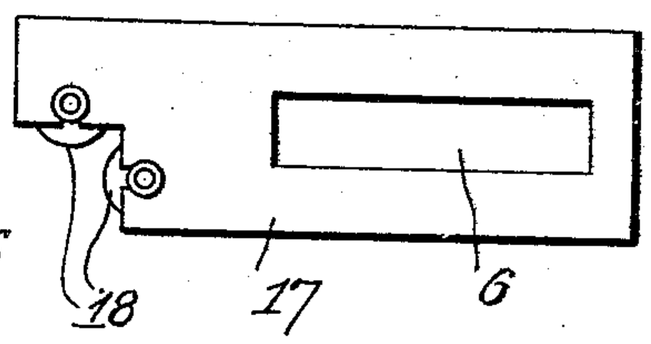


Fig. 5.



Witnesses

Edwin Frey

P. B. Hill

Inventor

Harry C. McCullough

By Edwin L. Jewett

his Attorney

UNITED STATES PATENT OFFICE.

HARRY C. McCULLOUGH, OF NEW CASTLE, PENNSYLVANIA.

STEADY-REST.

944,630. Specification of Letters Patent. Patented Dec. 28, 1909.

Application filed June 10, 1909. Serial No. 501,351.

To all whom it may concern:

Be it known that I, HARRY C. McCULLOUGH, a citizen of the United States, residing at New Castle, in the county of Lawrence and State of Pennsylvania, have invented certain new and useful Improvements in Steady-Rests, of which the following is a specification.

My invention relates to steady rests and followers for lathes, and has for its object to provide certain improvements in the construction of the supporting ends of the same, as will be hereinafter more particularly described and claimed, reference being had to the accompanying drawing, in which—

Figure 1 is a side elevation of a steady rest embodying my improved construction. Fig. 2 is an enlarged detail longitudinal sectional view of one of the arms of said steady rest. Fig. 3 is a sectional view taken on the line 3—3, Fig. 2. Fig. 4 is a detail perspective view of the inner end of one of said arms with the anti-friction roller and its bearings removed. Fig. 5 is a side elevation of a follower embodying my improved construction.

Similar numerals of reference denote corresponding parts in the several views.

In the said drawing the reference numeral 1 denotes the frame of a steady rest adapted to be mounted to be moved longitudinally upon a lathe, the same embodying at its top two semi-circular sections 2 and 3, hinked at 4 and having a fastening means at 4′, said sections 2 and 3 adapted when in position to encircle the work in the lathe. Mounted in said sections 2 and 3, are a plurality of arms 5, the same being slotted longitudinally at 6 to receive guide bolts 7, and being adapted to move radially in suitable brackets 8 projecting from the sections 2 and 3, a series of screw bolts 9 affording means for adjusting said arms 5 toward a common center. The inner end of each of said arms 5 is bifurcated at 10, and each bifurcated portion 10 is slotted at 11, said slots being slightly enlarged at their inner ends at 12 and formed circular, as best seen in Fig. 4. The circular portions 12 of said recesses 11 are adapted to receive bushings 13, preferably flanged at their outer ends at 14. By reference to Fig. 2 it will be seen that that side of the arms 5 which lie against the brackets 8 are flat, and that the flanges 14 of the bushings 13 on that side lie in counter-sinks formed in that face of said arms 5, so that said arms may be moved outward in the brackets 8 for their entire length. Each of said arms 5 carries an antifriction roller 15, whose projecting journals 16 fit into the bushings 13, it being observed that the diameter of said journals 16 is a little less than the width of the slots 11.

To assemble a roller 15 in position it is first inserted into the circular portion 12 of its arm 5, its journals 16 passing freely thereinto through the slots 11. The bushings 13 are then driven into position in said circular portions 12, at the same time embracing said journals 16, and when so located not only provide means for the free rotation of said journals 16 and roller 15, but also by reason of their diameter, preventing the withdrawal of said roller through the smaller slots 11. To remove the roller 15 the bushings 13 are first removed, when the journals 16 of said roller will pass freely through the slots 11.

In Fig. 5 I have shown my improved construction embodied in a follower 17, adapted to engage the work in the lathe opposite to the tool operating on the work, said follower carrying two anti-friction rollers 18 held in position as are the rollers 15.

A construction similar to Fig. 5 may also be used as a steady rest, wherein but two arms 17, each containing the two rollers 18 would be employed, said arms being oppositely disposed and movable toward and from each other, one of said arms 17 being reversed to bring one of the rollers 18 on the underside.

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

1. A steady rest or follower, embodying an adjustable arm bifurcated at its outer end and provided in said bifurcation with open ended bearings at a right angle to said bifurcation, a roller mounted in said bifurcation and having projecting journals mounted in said bearings, said bearings being enlarged at their inner ends to receive said journals, and means for retaining said journals in said bearings.

2. A steady rest or follower, embodying

an adjustable arm bifurcated at its outer end and provided in said bifurcation with open ended bearings at a right angle to said bifurcation, said bearings being enlarged at their inner ends, a roller having projecting journals removably mounted in said enlargements said roller being mounted in said bifurcation, and endwise movable bushings fitting the enlargements in said bearings to retain said journals in position.

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

HARRY C. McCULLOUGH.

Witnesses:

H. A. WILKISON,

ORA McCULLOUGH.