

C. E. KENNEDY.
 TOOL CENTERING DEVICE.
 APPLICATION FILED NOV. 10, 1908.

932,476.

Patented Aug. 31, 1909.

Fig. 1.

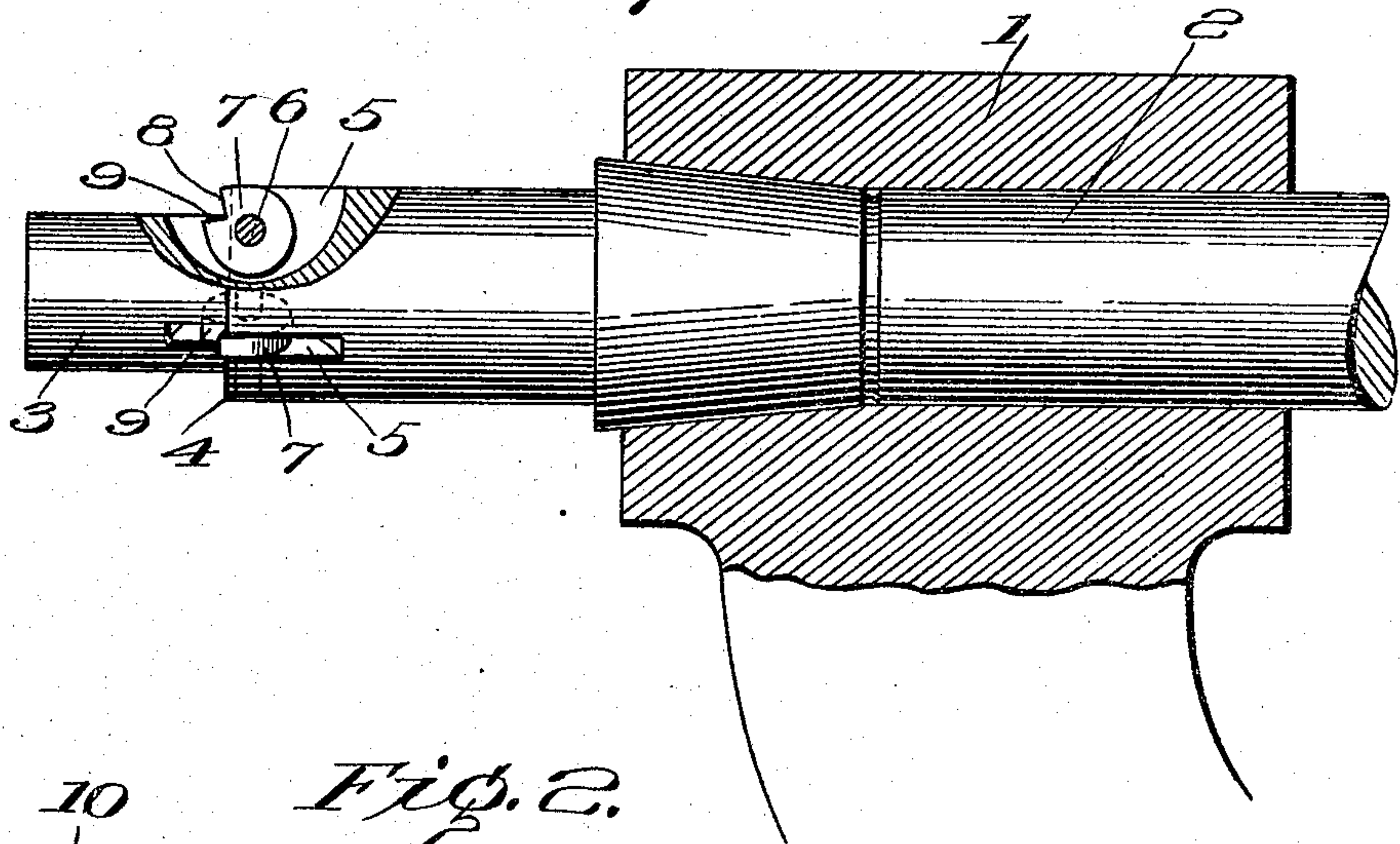


Fig. 2.

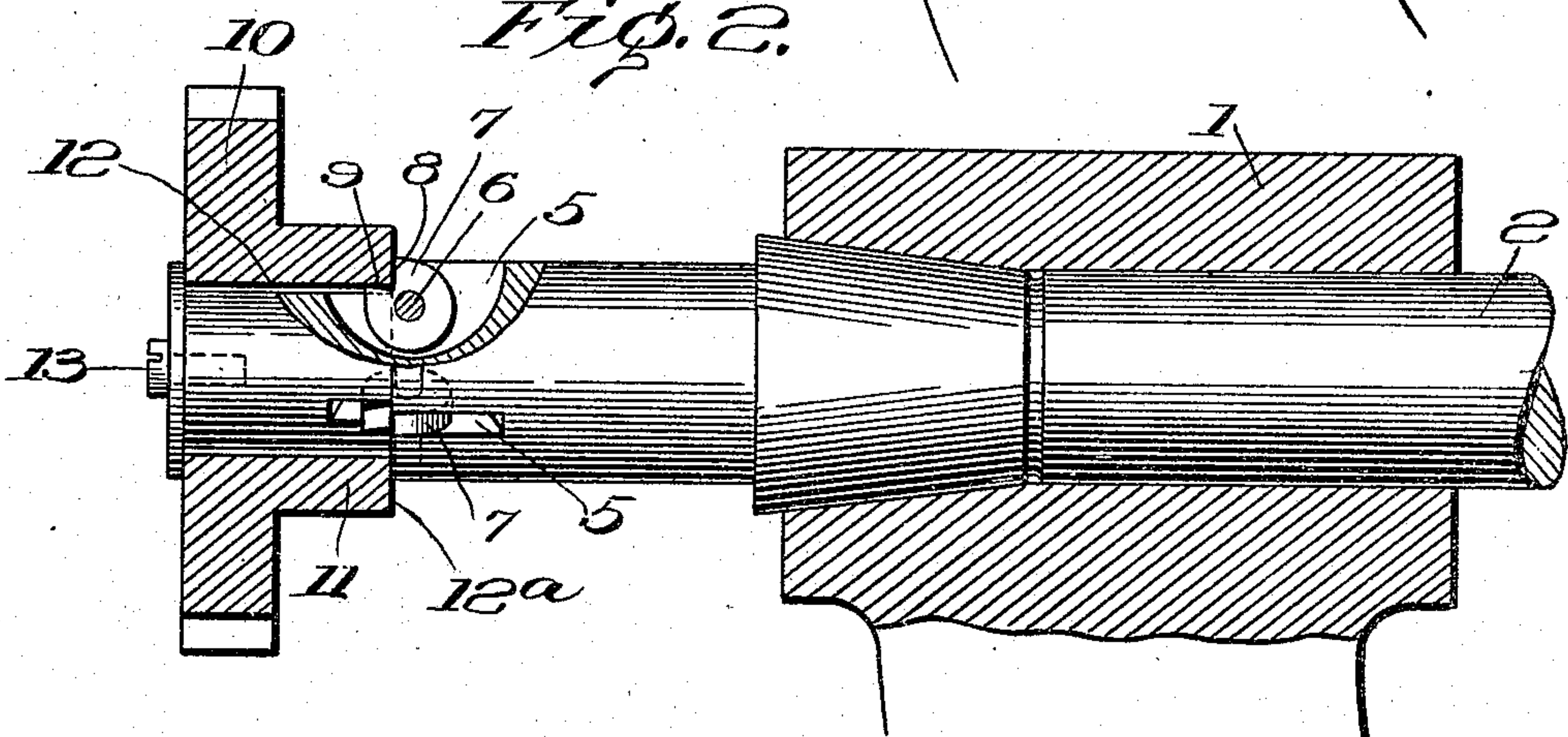
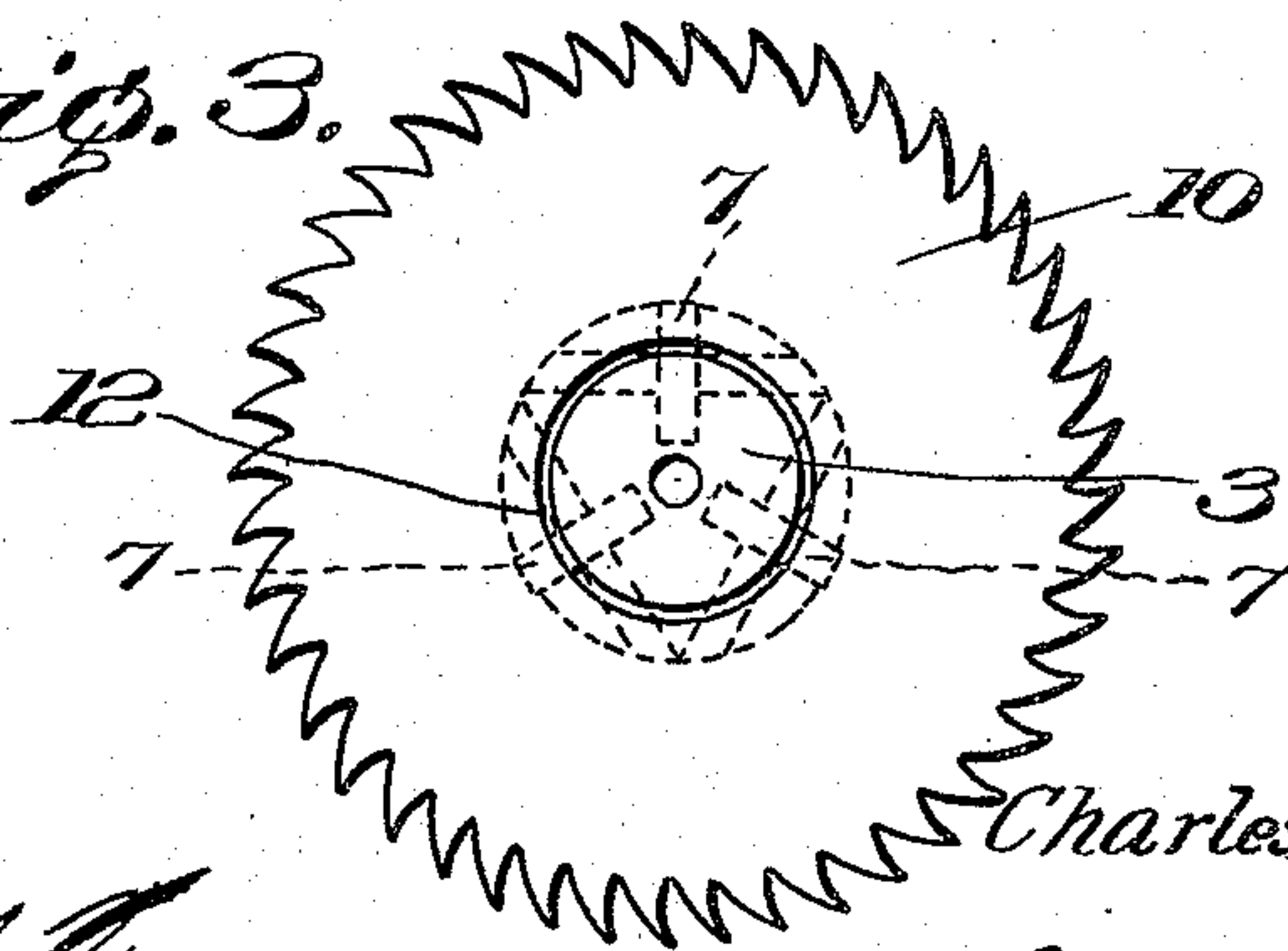


Fig. 3.



Witnesses

Allen H. Cross.
 W. B. Bumpkin

Inventor

Charles E. Kennedy

Victor J. Evans

Attorney

UNITED STATES PATENT OFFICE.

CHARLES E. KENNEDY, OF BROCKTON, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO JOHN C. FREDERICK, OF BOSTON, MASSACHUSETTS.

TOOL-CENTERING DEVICE.

932,476.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES E. KENNEDY, a citizen of the United States of America, residing at Brockton, in the county of Plymouth and State of Massachusetts, have invented new and useful Improvements in Tool-Centering Devices, of which the following is a specification.

This invention relates to tool centering devices designed more particularly for centering cutter heads upon shafts, and one of the principal objects of the same is to provide means of simple construction for automatically centering cutter heads on their shafts.

In trimming the edges of soles of boots and shoes it is oftentimes found necessary to change the cutter head for trimming soles of different thicknesses. The bore of the cutter heads vary to some extent, and unless the cutter head is accurately centered upon the shaft the cutter head will not run true, and as a result of the wobbling action the operator cannot hold the work up to the cutter.

The principal object of my invention is to overcome the defect referred to by providing means for automatically centering the cutters upon the shaft when the bore of the cutter is somewhat larger than the reduced end of the shaft.

The object referred to may be attained by means of the construction illustrated in the accompanying drawing, in which,—

Figure 1 is a side elevation and partial section of the end of the shaft, the cutter being removed. Fig. 2 is a similar view in which the cutter is shown in section and in place thereof. Fig. 3 is a front elevation of the cutter, showing the ends of the shaft in dotted lines.

Referring to the drawing, the numeral 1 designates the supporting standard, and 2 is the shaft mounted to rotate therein. The shaft 2 is reduced at its outer end, as at 3, and provided with a shoulder 4 against which the hub of the tool is adapted to bear. Recesses or grooved slots 5 are formed in the shaft at three or more points around the periphery thereof, said slots extending at

both sides of the shoulder 4. Pivotally mounted upon trunnions 6 are the centering elements 7, each provided with a peripherally cut-away portion forming a shoulder 8 and a right-angularly disposed shoulder 9. The cutter 10 or other tool to be centered upon the shaft is provided with a hub 11, the inner end 12^a of which is square and adapted to fit against the shoulders 8 on the centering elements as the tool is pushed upon the end of the shaft, thus raising the shoulder 9 in the bore 12 to hold it properly centered upon the end of the shaft. When the tool has been pushed firmly against the centering elements they will turn upon the trunnions 6 to hold the tool accurately in the center of the shaft, after which the binding screw 13 is tightened up to hold the tool firmly in place.

From the foregoing it will be obvious that any suitable number of the centering elements may be employed, but three such elements disposed at equal distances apart around the shaft will serve the purpose, as shown in the drawing.

My invention is of simple construction, can be applied to any shaft, serves to automatically center the tool and does not require a skilled operator to set the tool upon the shaft.

I claim:—

1. A tool centering device comprising a shaft provided with a plurality of recesses therein, a series of tool-centering elements pivotally mounted in said recesses and each having an angular shoulder.

2. A tool centering device comprising a shaft provided with recesses, trunnions spanning said recesses, tool centering elements connected to said trunnions, said tool centering elements having angular shoulders for engaging the end of the tool and the bore thereof.

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

CHARLES E. KENNEDY.

Witnesses:

GEO. S. RUBEE,
G. ERNEST SPEAR.