D. L. CALAHAN.

CENTERING TOOL FOR LATHES.

APPLICATION FILED JAN. 9, 1912.

1,038,721. Patented Sept. 17, 1912.

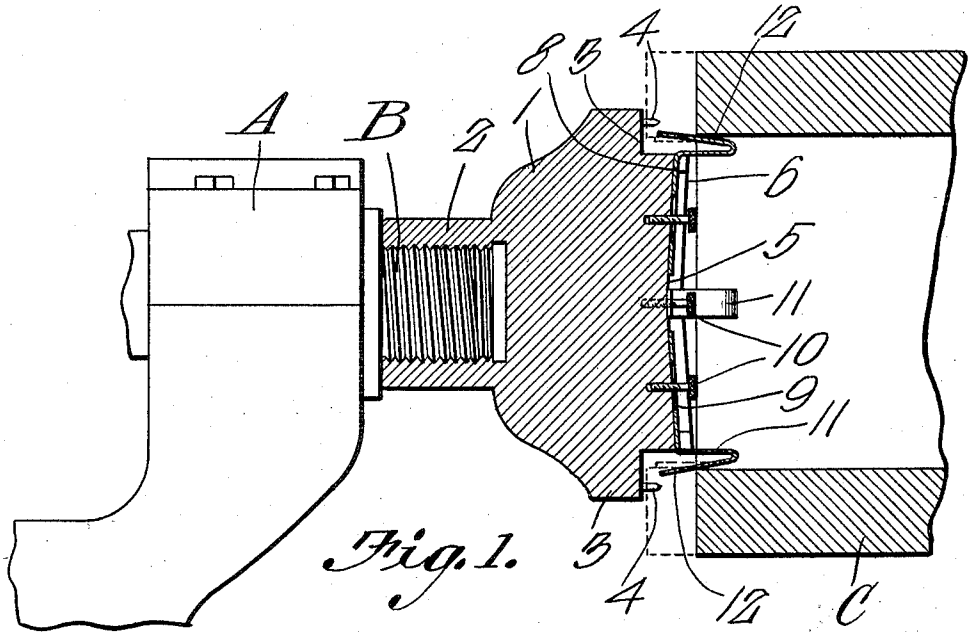

Fig. 1.

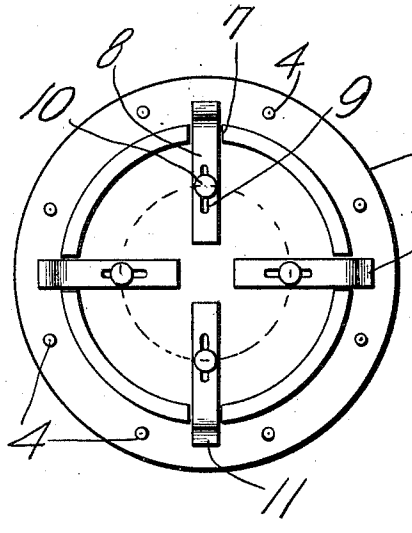

Fig. 2.

Witnesses

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UNITED STATES PATENT OFFICE.

DELONA L. CALAHAN, OF CENTRALIA, WASHINGTON.

CENTERING-TOOL FOR LATHES.

1,038,721. Specification of Letters Patent. Patented Sept. 17, 1912.

Application filed January 9, 1912. Serial No. 670,221.

To all whom it may concern:

Be it known that I, DELONA L. CALAHAN, a citizen of the United States, residing at Centralia, in the county of Lewis and State of Washington, have invented a new and useful Centering-Tool for Lathes, of which the following is a specification.

This invention relates to centering tools for wood turning lathes and more particularly to tools of this character for holding built up or stave columns while being turned.

One of the objects of the invention is to provide improved means for yieldably engaging columns and centering them while the tool is being applied thereto, additional means being employed for positively engaging the ends of the columns so as to prevent independent rotation of the tool and columns.

A further object is to provide yieldable centering means adjustable for use in connection with columns of different sizes.

With the foregoing and other objects in view which will appear as the description proceeds the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is an elevation of a portion of a lathe and showing the centering tool and a portion of a column in section, said column being illustrated in one of the positions assumed by it during the centering operation. Fig. 2 is a front elevation of the centering tool.

Referring to the figures by characters of reference A designates a portion of a lathe from which extends a threaded spindle B adapted to be rotated in any desired manner.

The tool constituting the present invention includes a head 1, preferably circular and having an internally screw threaded tubular extension 2 adapted to be screwed onto the spindle B. The working face of the head 1 is reduced annularly to form an annular shoulder 3 from which extend sharpened pins 4, these pins being arranged in a circle concentric with the head and being extended along lines parallel with the longitudinal axis of the head. That portion of the head surrounded by the shoulder 3 has its working face slightly concaved, as indicated at 5 and a flange 6 is formed upon the marginal portion of this face and is cut away at intervals, as indicated at 7, so as to form recesses for the reception of centering strips 8. These strips are arranged radially on the face 5 of the head and bear firmly thereagainst, each strip being provided with a longitudinal slot 9 for the reception of a binding screw 10 engaging the head. The outer end portion of each strip 8 is extended forwardly beyond the face 5 of said head and along a line substantially parallel with the axis of rotation of the head. These outwardly extended arms 11 merge into spring fingers 12 which extend backwardly in the direction of the pins 4, the fingers all diverging rearwardly.

When it is desired to use the tool in connection with a column, the strips 8 are adjusted radially until the distances between opposed arms 11 are slightly less than the internal diameter of the column to be held. Screws 10 are then tightened after which the column, indicated at C, is placed upon the fingers 12. As these fingers are formed of spring metal, it will be apparent that they will yield and shift the column until it is properly centered after which continued movement of the column onto the tool will result in the engagement of pins 4 therewith. With the pins in engagement with the column it will be apparent that rotation of the head 1 will result in corresponding movement of the column and said column can therefore be readily turned down in the usual manner.

What is claimed is:—

1. A centering tool including a head having a reduced peripheral portion, and a concaved working face surrounded by said portion, radially adjustable elements mounted upon said face, and resilient work engaging fingers carried by said elements and diverging rearwardly therefrom.

2. A centering tool including a head, radially disposed elements adjustably mounted upon the working face of the head, forwardly extending arms carried by said elements, and rearwardly diverging fingers extending from the arms.

3. A centering tool including a head, radially adjustable elements upon the working face thereof, forwardly extending spring arms carried by said elements, and rearwardly diverging spring fingers upon the arms.

4. A centering tool including a head, radially adjustable elements upon the working face thereof, forwardly extending spring arms carried by said elements, rearwardly diverging spring fingers upon the arms, and means upon the head and adjacent the free ends of the fingers for engaging the work centered by the fingers.

5. A centering tool including a head having an annular shoulder, work engaging elements extending from said shoulder, and resilient centering fingers projecting beyond and movable with the working face of the head and diverging rearwardly toward the work engaging elements.

6. A centering tool including a head having an annular shoulder, work engaging pins extending from the shoulder, radially adjustable resilient work centering elements connected to the head and projecting beyond the shoulder and the working face of the head, said elements including rearwardly diverging fingers normally extended close to the pins.

7. A centering tool including a head, radially adjustable centering elements upon the working face of the head, said elements including forwardly extending arms and rearwardly diverging resilient fingers, means upon the working face of the head for holding said elements against lateral displacement relative to the head, and means upon the head for engaging the work centered by the fingers.

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

DELONA L. CALAHAN.

Witnesses:
W. C. YOUNG,
F. J. HAND.