

Nov. 18, 1924.

1,516,420

P. COMEAU

CENTERING DEVICE

Filed Jan. 30, 1923

Fig. 1.

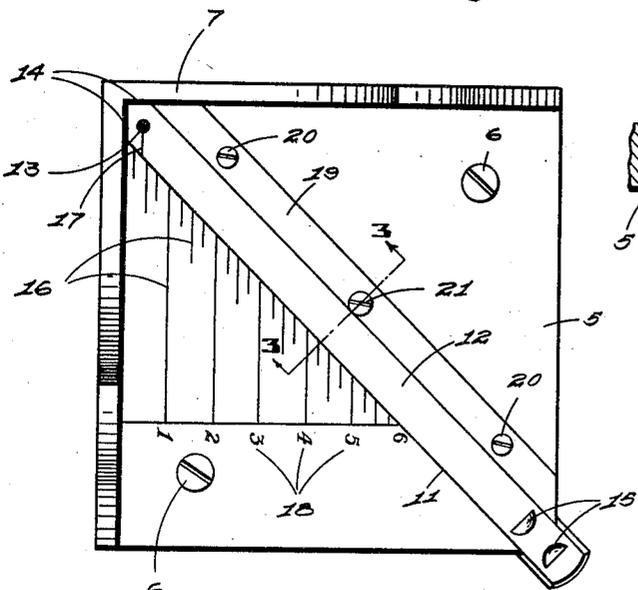
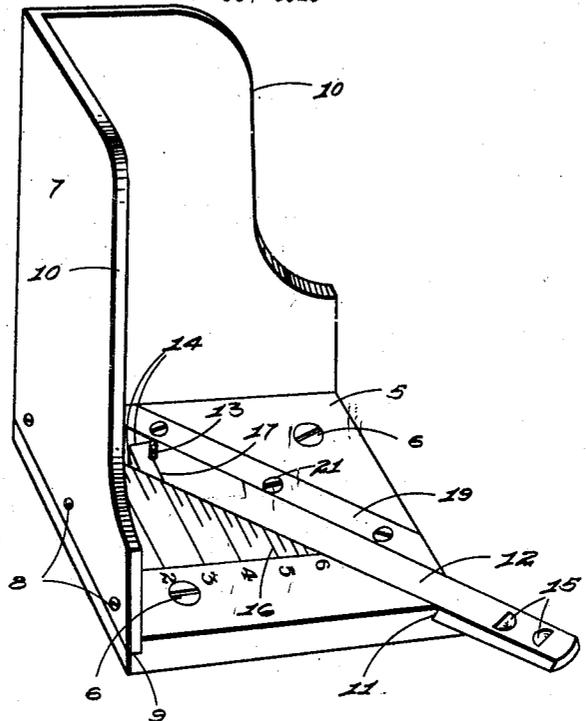


Fig. 2.

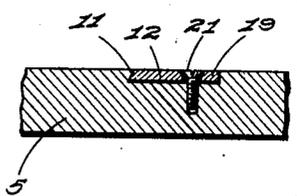


Fig. 3.

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UNITED STATES PATENT OFFICE.

PIUS COMEAU, OF WEYMOUTH, NOVA SCOTIA, CANADA.

CENTERING DEVICE.

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To all whom it may concern:

Be it known that I, PIUS COMEAU, a citizen of the Dominion of Canada, and resident of Weymouth, in the county of Digby and Province of Nova Scotia, Dominion of Canada, have invented certain new and useful Improvements in Centering Devices, of which the following is a specification.

This invention has relation to certain new and useful improvements in a centering device designed for forming a socket in the center of an end of a rod or other member to be placed on a lathe or the like.

Another object of the invention resides in the provision of a centering device of the character stated which will be of extremely simple construction and operation as well as highly efficient and accurate in use and which may be attached to a wall or other permanent support so as to be handy to a turning lathe or the like on which the centered member is to be placed.

A further object of the invention resides in the provision of a centering device of the character stated which will be composed of the minimum number of parts, inexpensive to manufacture and which will be of extremely simple design and operation.

The invention has for a still further object the provision of a centering device of the character stated which will include an adjustable slide member with a recess or socket forming projection mounted thereon for centering or forming a socket in the center of the end of a member positioned in the centering device, after proper adjustment of the slide, according to the diameter of the member to be centered.

A still further object resides in the provision of a centering device of the character stated in which the adjustable slide may be readily secured in adjusted position, so that a number of members of the same diameter may be centered without separate adjustment of the centering device.

With the foregoing and other objects in view as will appear as the description proceeds, the invention consists in the novel construction, combination and arrangement of co-operating elements as hereinafter more specifically set forth, claimed and shown in the accompanying drawings forming a part of the present application, in which:

Fig. 1 is a perspective view of the centering device with the adjustable slide set in one position.

Fig. 2 is an elevation of the centering device.

Fig. 3 is a detail sectional view substantially on the plane of line 3—3 of Fig. 2, looking in the direction indicated by the arrows.

Referring more in detail to the drawings, in which similar reference characters designate corresponding parts throughout the several views, 5 designates the supporting base plate which may be fastened to a wall or other permanent support by the screws 6 or similar securing members passed through the supporting base plate 5 and into the permanent support. This may be understood by referring to Figs. 1 and 2.

The right angled wall 7 is provided for two sides of the supporting base plate 5 and secured thereon by suitable securing members 8 which pass into the side of the supporting base plate 5, as shown in Fig. 1. It will also be seen from this view that the supporting base plate 5 has a recess or pocket 9 provided along two edges thereof to accommodate the inner end of the right angled wall 7 so that the outer face thereof may be flush with the corresponding edges of the supporting base plate 5. This manner of mounting the right angled wall 7 on the supporting base plate 5 also assures a proper and firm connection of these parts. The right angled wall 7 may be of any size and construction desired and has portions of its outer longitudinal edges cut away and rounded, as shown at 10.

The supporting base plate 5 has a dovetailed slot 11 provided in its outer face and extending from the outer free corner of the supporting base plate 5 to the opposite corner enclosed by the right angled wall 7, the dovetailed slot 11 extending diagonally across the supporting base plate 5.

An adjustable slide bar 12 is slidably mounted in the dovetailed slot 11, the opposite longitudinal edges of the slide bar 12 being bevelled to correspond with the sides of the dovetailed slot 11. The slide bar 12 has a centering pin 13 projecting upwardly therefrom and at a point near the inner end of the slide bar 12. This inner end of the slide bar 12 has oppositely bevelled faces 14 to permit the slide bar 12 to be moved inwardly until the oppositely bevelled faces 14 of the inner end thereof engage the right angled wall 7 at the corner thereof. It is also to be understood that the centering pin

13 may be tapered and of conical form, the purpose of which will presently appear. Notches 15 are provided in the outer end portion of the slide bar 12 so that the latter

5 may be readily moved outwardly or inwardly by engaging a finger in one of the notches 15.
A scale 16 is provided on the outer face of the supporting base plate 5 along one side of the dovetailed slot 11 and marked in inches and fraction of inches, the graduation lines of the scales extending to the edge of the dovetailed slot 11, as clearly shown in Fig. 2. This view also discloses clearly the indicator line 17 extending from the centering pin 13 to the corresponding edge of the slide bar 12 so as to indicate the position of the centering pin as the slide bar 12 is adjusted longitudinally in the dovetailed slot 11 and along the scale 16. Numerals or other characters 18 appear along the edge of the scale 16 parallel with one of the outer sides or edges of the supporting base plate 5, so that the adjustment of the slide bar 12 may be readily determined.

The dovetailed slot 11 is wider than the slide bar 12 and the latter works in the dovetailed slot 11 adjacent the side of which the scale 16 is located. A removable strip 19 is positioned in the other side of the dovetailed slot 11 and has a bevelled head overlapping the adjacent bevelled edge of the slide bar 12. This removable strip 19 is secured in position by securing members 20 such as screws or the like so that the removable strip 19 may be readily tightened in the dovetailed slot 11 to prevent the slide bar 12 from moving too freely in the dovetailed slot 11.

As means for securely retaining the slide bar 12 in adjusted position, a set screw 21 is employed. This set screw 21 is passed through the removable strip 19 intermediate the ends thereof and into the supporting plate base 5, at a point adjacent one longitudinal edge of the removable strip 19 so that the head of the set screw 21 may bear upon the adjacent bevelled edge of the slide bar 12 when the set screw 21 is tightened, thereby preventing movement of the slide bar 12 in either direction.

It is believed the complete construction and operation of the centering device may now be readily understood from the foregoing paragraphs taken in connection with the accompanying drawings without further detailed description. It may be briefly stated, however, that whenever the device is to be employed for centering rods, either round or square or any other articles, the set screw 21 should be loosened sufficiently to permit adjustment of the slide bar 12. This slide bar 12 is moved longitudinally in the dovetailed slot 11 until the centering pin 13 is brought to proper position along the scale 16. For instance, if the member to be cen-

tered is four inches square or four inches in diameter, the slide bar 12 is moved in the dovetailed slot 11 until the centering pin 13 and the indicating line 17 are brought into registration with the line extended from the numeral 2 on the scale 16. The centering pin 13 will then be exactly two inches from either portion of the right angled wall 7.

By placing the article in the centering device and forcing the same along the inner corner of the right angled wall 7 with the article engaging both portions of the right angled wall 7 and driving the end of the article onto the centering pin 13, the latter will be caused to enter the center of the end and form a pocket therein. The article is then ready to be placed on a wood turning lathe or similar machine for turning or for any other work which is to be performed on the article.

It is evident that after adjustment of the slide bar 12 the latter may be locked in adjusted position by tightening the set screw 21, thereby placing the complete device in condition for centering any number of articles of the same width or the same diameter, without any further adjustment of the slide bar 12 and without danger of the latter moving out of adjustment. Much time and labor is saved by proper use of this device and separate and independent operations of measuring the different articles are eliminated and the work performed with accuracy and speed.

While the preferred embodiment of the invention has been disclosed, it is to be understood that minor changes in the detail of construction, combination and arrangement of co-operating elements may be resorted to within the scope of what is claimed without departing from the spirit of the invention.

What I claim as new is:

1. A centering device comprising a supporting base plate having a slot extending over one face thereof; a right angled wall extending from adjacent edges of said supporting base plate; said supporting base plate having a scale on the face thereof along one side of the slot; a slide bar adjustably mounted in said slot and having a bevelled end adapted for engagement with the right angled wall when the slide bar is in one of its extreme positions; a centering member carried by said slide bar; said slide bar having an indicating marking adjacent the centering member for determining the adjustment of the slide bar along the scale; and means for retaining said slide bar in adjusted position within said slot; said slide bar having notches formed therein whereby the slide bar may be moved in either direction within said slot.

2. A centering device comprising a supporting base plate adapted to be mounted

on a permanent support; a right angled wall projecting from said base plate; said base plate having a dovetailed slot with one end extending to the corner of the right angled wall, a slide bar adjustable longitudinally in said dovetailed slot and having a bevelled end for engagement with the corner of the right angled wall when said slide bar is in its innermost position; a centering member carried by said slide bar; said supporting base plate having a scale extending along one side of the dovetailed slot; said slide bar having notches whereby the slide bar may be adjusted along the scale to properly position the centering member with respect to the right angled wall; said supporting base plate having a recess along certain edges thereof to accommodate the inner end of the right angled wall; and means to retain the slide bar in adjusted position within said dovetailed slot.

In testimony whereof, I affix my signature.

PIUS COMEAU.