

No. 824,975.

PATENTED JULY 3, 1906.

E. L. COOK.
CENTERING DEVICE.
APPLICATION FILED SEPT. 9, 1905.

Fig. 1.

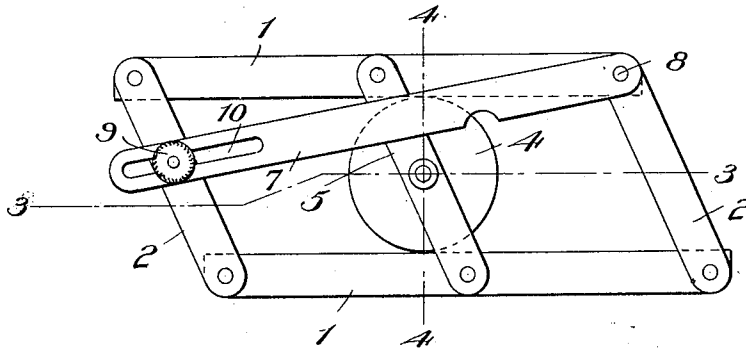


Fig. 2.

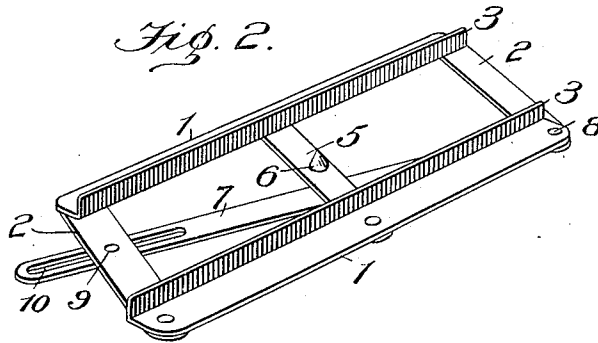


Fig. 3.

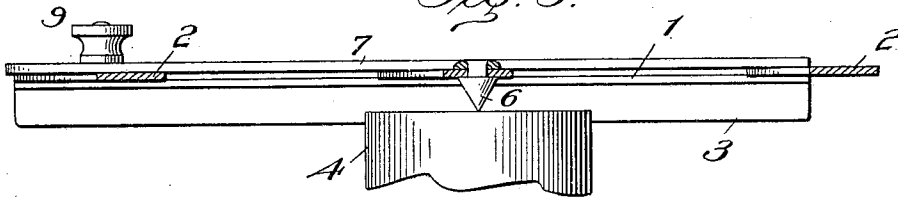
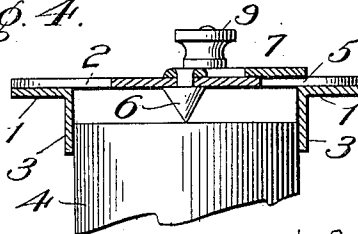


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

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CENTERING DEVICE.

No. 824,975.

Specification of Letters Patent.

Patented July 3, 1906.

Application filed September 9, 1905. Serial No. 277,691.

To all whom it may concern:

Be it known that I, EDWARD L. COOK, a citizen of the United States, residing at Brattleboro, in the county of Windham and State of Vermont, have invented certain new and useful Improvements in Centering Devices; and I do hereby 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.

I have produced an improved device for finding the center and for centering the ends of shafts; and in the claims appended hereto I will set out the construction wherein my improvement resides in connection with the accompanying drawings, in which—

Figure 1 shows the device in top view as it is applied to the end of a shaft to cause to be marked thereon its center and to punch a recess at said center. Fig. 2 shows in perspective the device inverted. Fig. 3 is a longitudinal section of the device as applied to the end of the shaft. Fig. 4 is a cross-section of the device as applied to the end of the shaft.

A pair of bars 1 1 of equal length are connected at their ends by links 2 2 and each bar has a depending lip or flange 3 on its inner edge the length of the bar and forms, with the links, a quadrilateral gage-frame of pivotally-connected members in which the side bars form a parallelogram and their depending lips or flanges form guide-walls in applying the device to the end of a shaft 4, the walls serving as bearings to keep the device in proper position against the walls when applied to the end of a shaft. The forming of the guide lips or flanges integral with the side bars and of L shape in cross-section gives the bars the required rigidity, and the angle-flanges the length of wall causes them to have the function of bearings and guides in moving the frame over and against the end of the shaft. A link 5 pivotally connects the side bars mediately of their length and has a central marking-point 6, which forms the punch to cause by a blow an indentation in the center of the end of the shaft, because, as shown, the device having been placed on the end of the shaft the flanges of the side bars are closed against the sides of the shaft with the center-punch resting on the end of the shaft. Then moving the frame back and forth and turning it will score or scratch the end of the shaft in two or more directions, so that the intersection of the scores will be the center of

the shaft. The punch being then placed on this center is struck to impress the center indentation in the end of the shaft. The device is therefore a center-finder and a punch, its function as a punch being independent of its function as a center-finder.

The center-punch is a steel point preferably riveted in the link. An important feature of the device is its adaptation to be moved in any direction over the end of the shaft with the point of the punch always making a center score on the end of the shaft, and thereby find and render the center plainly marked. For locking the device when set to center-shafts of the same diameter, so that the same adjustment will do for a number, an arm 7 is pivoted to the pivot 8 of one of the end cross-bars, the other end of said arm extending diagonally to and is fastened by a thumb nut and screw 9 to the other end cross-bar about mediately of its length, said arm having a slot 10 for the screw, so that in adjusting the punch upon the shaft the arm will slide over the screw and by it clamped to the cross-bar, rendering the device rigid and set for that size of shaft.

I claim—

1. A center finder and punch comprising a gage-frame of side bars having depending flanges forming parallel longitudinal bearing and guide walls, and links pivotally connected to the ends of said side bars, and a straight link pivotally connecting the side bars mediately of their length in substantially the same plane of the side bars and bearing a punch.

2. A center finder and punch comprising a gage-frame of side bars and links pivotally connected to the ends of said side bars, a link pivotally connecting the side bars mediately of their length and bearing a center-punch, and an arm having one end pivoted to one of said links and its other end adjustably connected to another link and out of parallelism with each of the links, whereby the side bars are locked together and to the end links at a set for a certain gage.

3. A center finder and punch comprising a gage-frame of side bars and links pivotally connected to the ends of said side bars, a link pivotally connecting the side bars mediately of their length bearing a center-punch, an arm having a slot, pivoted to one corner of said frame and extending diagonally to the cross-bar at the other end of said frame, a screw passing through the slot of said arm

and into said cross-bar to clamp them and thereby lock the frame parts rigidly together.

4. A center finder and punch comprising a gage-frame of side bars and links pivotally
5 connected to the ends of said side bars, a link pivotally connecting the side bars medially of their length and bearing a center-punch, and an arm pivoted at one end to one of the members of the frame and having an adjust-
10 able engagement with another member of the

frame out of parallelism with the first whereby to form a triangular lock to said frame.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWARD L. COOK.

Witnesses:

HARRY C. FREEMAN,
JULIUS E. LEACH.