

J. E. F. LELAND.

CENTERING DEVICE FOR GAGE-LATHES.

No. 173,027.

Patented Feb. 1, 1876.

Fig: 1.

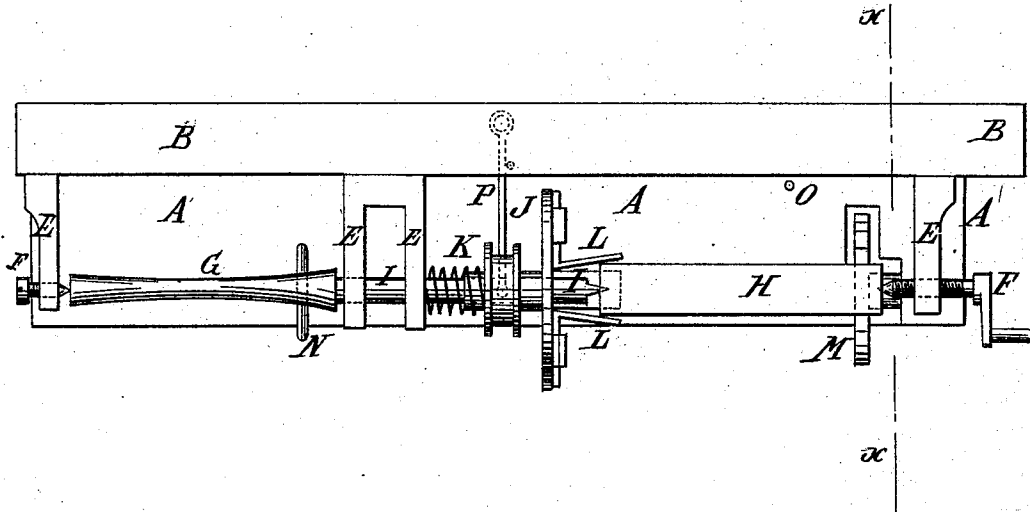
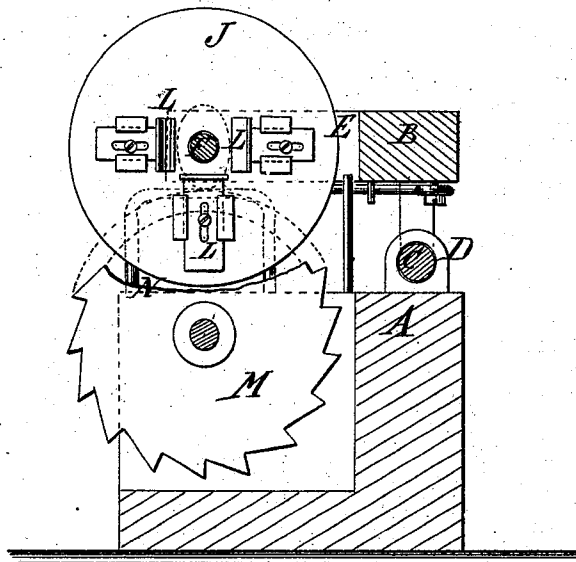


Fig: 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES E. F. LELAND, OF BOWLING GREEN, KENTUCKY.

IMPROVEMENT IN CENTERING DEVICES FOR GAGE-LATHES.

Specification forming part of Letters Patent No. **173,027**, dated February 1, 1876; application filed January 3, 1876.

To all whom it may concern:

Be it known that I, JAMES E. F. LELAND, of Bowling Green, in the county of Warren, and State of Kentucky, have invented a new and useful Improvement in Gage-Lathes, of which the following is a specification:

Figure 1 is a top view of my improved device, shown as applied to a lathe. Fig. 2 is a cross-section, taken through the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved centering device for lathes, to enable blank handles and other pieces of wood to be quickly and accurately centered, so as to prevent imperfect work and loss of stock from inaccurate centering, and to increase the working capacity of the lathe.

The invention consists in the combination of the disk, the adjustable guides, and the spring with the mandrel of a lathe, as hereinafter fully described.

A represents the bed of the lathe, to which is hinged the bar B by a rod, C, attached to said bar B, and sliding in eyes D, attached to said bed A. To the bar B are attached three studs, E, to the outer ones of which are attached screw centering-pins F, to receive the outer ends of the pattern G and the work H.

In the center stud revolves the mandrel I, to which motion is given by a belt, which passes around its middle part, the stud E being slotted to receive it.

One end of the mandrel I receives the end of the pattern G, and its other end receives the end of the blank H. J is a disk or wheel, the hub of which fits upon the mandrel, and is connected to it by a tongue and groove, or other convenient means that will give it a free longitudinal movement upon the mandrel I, while compelling it to be carried around by and with said mandrel in its revolution. The disk J is held forward by a spiral spring, K, coiled around the mandrel I. L are three or more guides, which are bent into angular form.

The inner arms of the guides L are placed radially upon the face of the disk J, around the end of the mandrel I, with their side edges in grooves in lugs formed upon the said disk J, where they may be secured in place adjustably by clamping-screws or other convenient means.

The guides L may be bent at right angles, or they may be bent at an acute angle, so that their outer arms may be inclined from the mandrel I, as shown in Fig. 1. M represents the cutter, which is pivoted to the bed A, and is driven by a band in the usual way.

In using the device, one end of the work H is placed upon the screw center-pin F. Its other end is placed within the guides L, against the mandrel I, and a turn or two of the center screw-pin F secures it upon said mandrel I. As the work is turned forward the pattern G rests upon the guide N and the blank H upon the cutter M. As the work is moved outward a pin or other stop, O, attached to the bed A, strikes against an arm, P, and pushes back the disk J, withdrawing the guides L from the end of the work H, so that the cutter may work clear out to the end of the blank H. As the bar B is moved back, the disk J is forced into its former position by the spring K. One end of the arm P is secured to the bar B, and its other end rides in a groove in the hub of the disk J. When the work has no longitudinal movement, and the cutting-tool is moved along it, the said cutting-tool should be provided with a pin or projection to push back the disk J, and withdraw the guides L from the end of the work.

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

The combination of the disk J, the adjustable angular guides L, and the spring K with the mandrel I of a lathe, substantially as herein shown and described.

JAMES E. F. LELAND.

Witnesses:

THOS. H. MILES,
V. M. POTTER.