



# UNITED STATES PATENT OFFICE.

CHARLES F. HADLEY, OF CHICOPEE, MASSACHUSETTS.

## IMPROVEMENT IN TOOL-RESTS FOR LATHES.

Specification forming part of Letters Patent No. 132,573, dated October 29, 1872.

*To all whom it may concern:*

Be it known that I, CHARLES F. HADLEY, of Chicopee, in the county of Hampden and State of Massachusetts, have invented a new and Improved Elevating Tool-Rest for Lathes, of which the following is a specification:

Figure 1 represents a vertical longitudinal section of my improved elevating tool-rest. Fig. 2 is a vertical transverse section of the same on the line *cc*, Fig. 1. Fig. 3 is a horizontal section of the same on the line *kk*, Fig. 1.

Similar letters of reference indicate corresponding parts.

This invention relates to a new tool-rest for lathes, which can be adjusted up and down with great ease and exactness without disturbing the tool in its holder. The invention consists in the combination of a horizontal screw and nut with an inclined lever, which supports the tool-rest, and which determines the height of the same by its greater or less inclination. By this means the rest can be adjusted with great ease, and will set the tool to suitable height without disturbing it otherwise. Heretofore the tools had usually to be loosened in their holders before they could be vertically adjusted, and were thereby often disturbed after their positions otherwise had been ascertained with care, thus causing much loss of time and labor.

In the accompanying drawing, the letter A represents the tool to be used on a suitable lathe. It is fastened in a swivel-pin, B, which projects

from a block or holder, C. The latter fits with its lower part in a socket of the supporting tube or bed D. E is a screw fitted horizontally through the block C. The lower part of this block is preferably made hollow or tubular, as shown. Within this hollow of the block C is a nut, F, which embraces the screw E. This nut F is, by a lever, G, connected with a stationary support, D, as shown in Fig. 1, the lever G being pivoted at both ends, as at *a* and *b*. When the screw E is turned it moves the nut F more or less forward or back, thereby varying the inclination of the lever G and the consequent height of the block C, pin B; and tool A; for the nearer the lever G approaches the vertical position the higher will be the tool, while the same will be lowered by the nearer approach of the lever to a horizontal position. By means of the screw the position of the tool can thus be regulated with the greatest nicety. The connection of pin B and holder C may be varied from the manner shown in the drawing.

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

The screw E, nut F, and lever G, combined as described with bed D and tool-holder C, as and for the purpose described.

CHARLES F. HADLEY.

Witnesses:

GEO. ARMS,  
A. S. ALDEN.