J. SERVICE.

Tool Rest for Lathes.

No. 60,266. Patented Dec. 4, 1866.

FIG. 5.

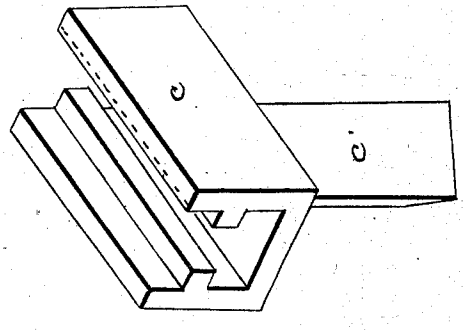


FIG. 2.

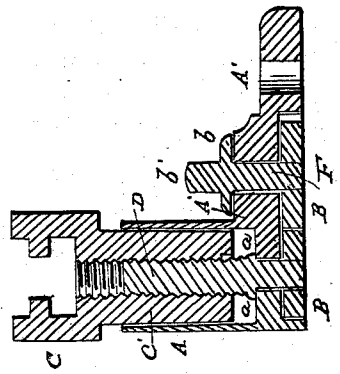


FIG. 4.

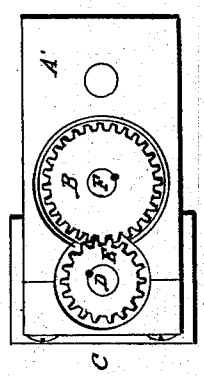


FIG. 1.

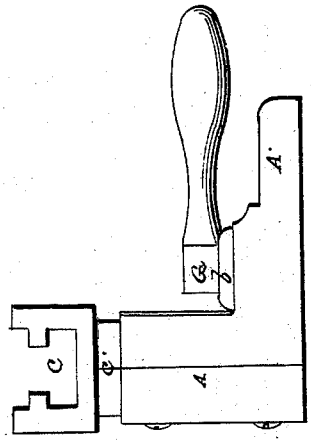
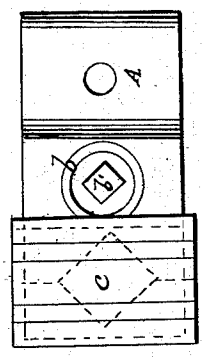


FIG. 3.



WITNESSES:
Edw. Schaefe
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INVENTOR.
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by
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United States Patent Office.

IMPROVEMENT IN TOOL-RESTS FOR LATHES.

JAMES SERVICE, OF GREENVILLE, CONNECTICUT.

Letters Patent No. 60,266, *dated December* 4, 1866.

SPECIFICATION.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JAMES SERVICE, of Greenville, in the county of New London, and State of Connecticut, have invented a new and improved Tool-Rest for Lathes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side elevation of the tool-rest.

Figure 2 is a longitudinal section taken in a vertical plane through the centre of the rest.

Figure 3 is a top view.

Figure 4 is a bottom view.

Figure 5 is a perspective view of the movable portion which carries the tool-slide.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to that portion of a turning-lathe which is designed for supporting the tool. The invention consists in providing for elevating or depressing the tool-rest in a perpendicular line, without loosening the tool in the holder, by means of an adjusting-screw and horizontal spur-wheels, arranged so that the operator can raise or lower the tool, by means of a lever which is located on one side of the rest-standard, as will be hereinafter described. To enable others skilled in the art to understand my invention, I will describe its construction and operation.

The vertical standard, A, of the tool-rest, is constructed with a wide base, A′, for seating it firmly on the lathe-frame, and also for receiving a spur-wheel, B. The tool-rest consists of a horizontally-slotted head, C, having a rectangular stem or shank, C′, formed on it, which shank is fitted to work up and down, in a chamber which is formed in the vertical portion of the standard, as shown in the drawings. The head, C, of the tool-rest, may be slotted in the usual manner for receiving, guiding, and holding down the tool-holder. A hole is made vertically through the centre of the tool-rest and tapped with a screw-thread for receiving the screw-shaft, D. This screw is reduced in diameter at its lower end so as to form the shoulder, *a*, and the reduced portion is passed through the bottom of the standard, A, and provided with a pinion spur-wheel, E, which is keyed on the screw and fitted into a recess formed in the bottom of the standard base, as shown in figs. 2 and 4. The spur-wheel E engages with the teeth of the spur-wheel B, which latter is also recessed into the base of the standard so as to allow this standard to rest firmly upon the latter frame. Wheel B is keyed on the lower end of a short shaft, F, which passes up through the base-plate, A′, and receives upon it a collar, *b*, and square head, *b′*. By applying the movable wrench, G, to the head, *b′*, the spur-wheel, B, can be rotated either to the right or left, which will raise or lower the tool-rest in a perpendicular line. It will be seen that the tool-rest is fitted to work snugly in the standard, A, and that it can be raised or lowered at pleasure without causing it to wabble and loosening either the tool, tool-holder, or other parts constituting the tool support.

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

The combination of the screw D, and pinion and spur-wheels B E, with the lathe tool-rest, arranged and operating substantially in the manner and for the purpose herein described.

JAMES SERVICE.

Witnesses:

WM. H. PAGE,

JAMES D. HIGGINS.