

(No Model.)

C. W. WEDDELL.
TOOL SUPPORT BLOCK FOR LATHES.

No. 590,051.

Patented Sept. 14, 1897.

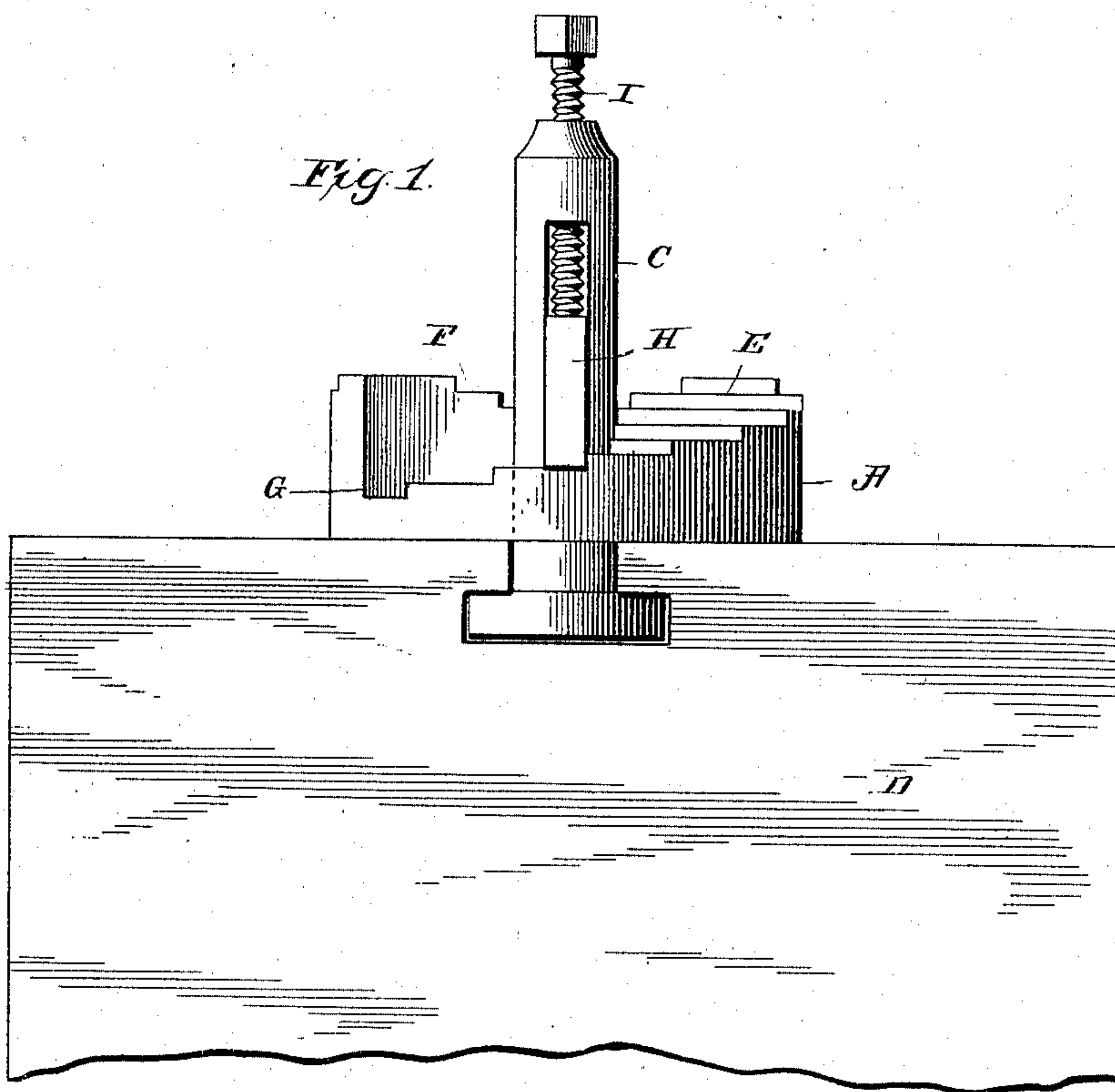


Fig. 2.

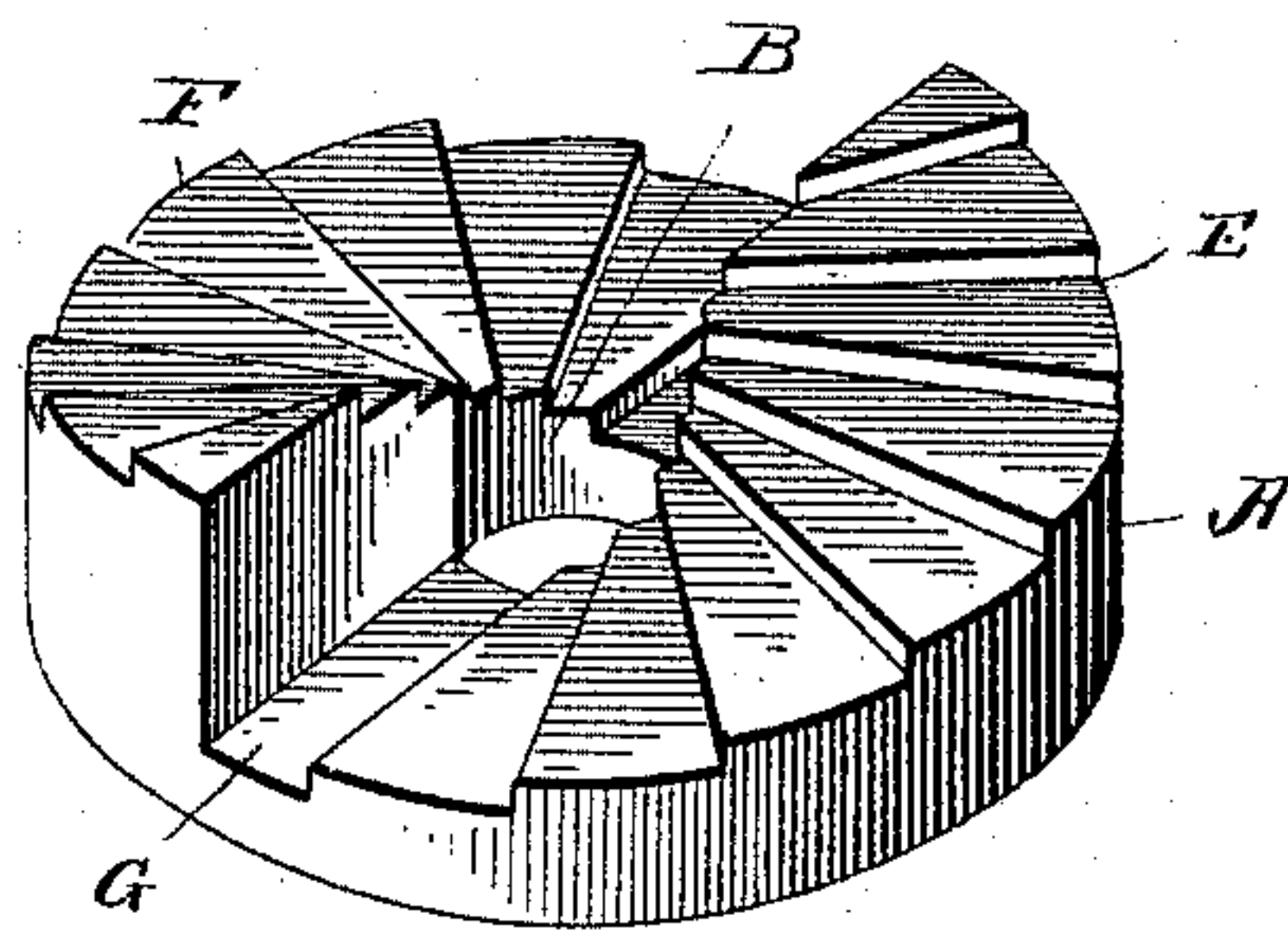
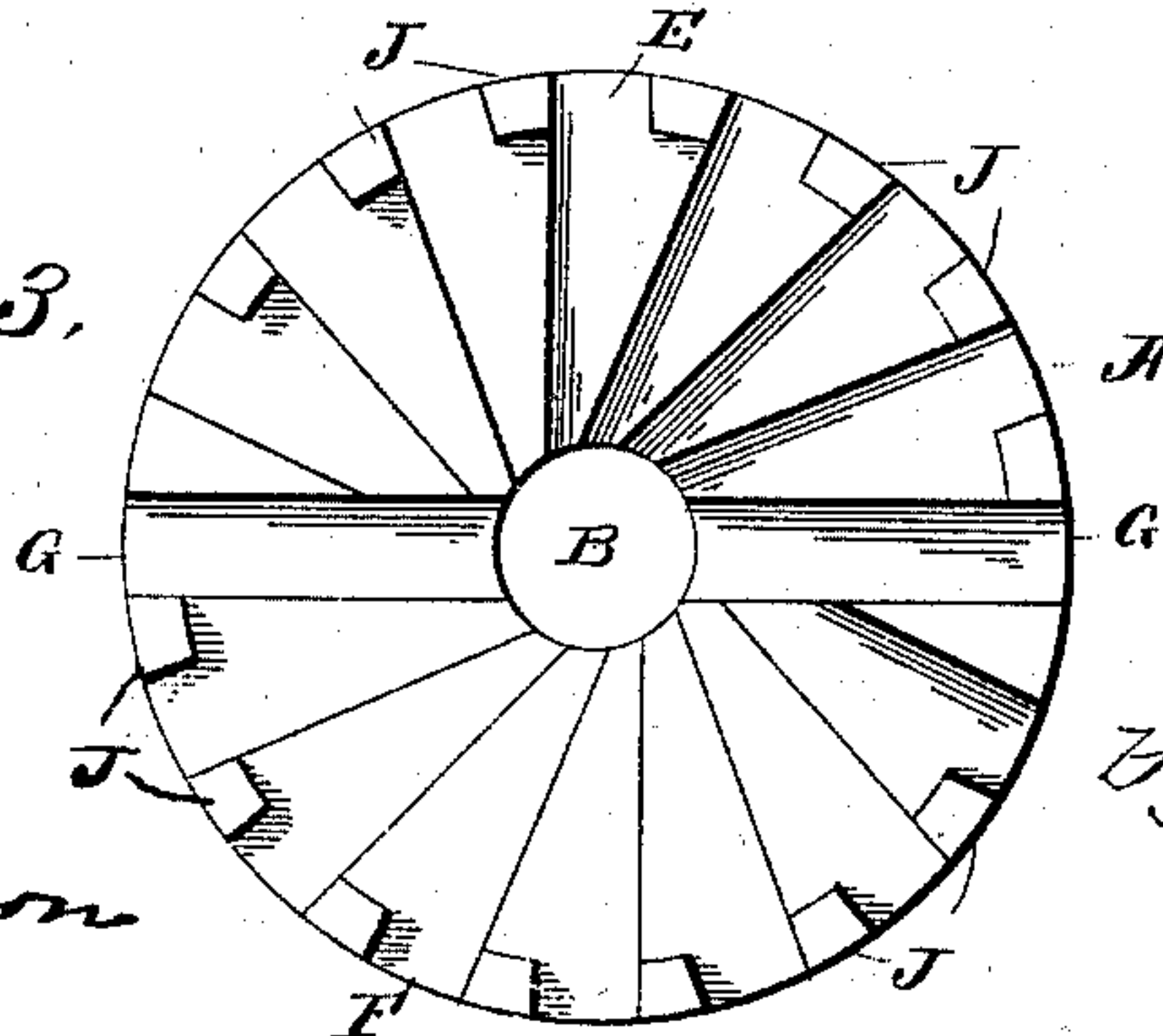


Fig. 3.



Witnesses

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TOOL-SUPPORT BLOCK FOR LATHES.

SPECIFICATION forming part of Letters Patent No. 590,051, dated September 14, 1897.

Application filed November 5, 1896. Serial No. 611,155. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. WEDDELL, a citizen of the United States, residing at Catoctin Furnace, in the county of Frederick and State of Maryland, have invented a certain new and useful Improvement in Tool-Support Blocks for Lathes and the Like, of which the following is a specification.

My invention relates to a new and useful improvement in tool-support blocks for lathes and the like, and has for its object to provide such a device that when placed around the tool-post the tool may be adjusted to various heights by simply turning the support-block upon its axis and a level surface will at all times be presented to the lower edge of the tool, against which said edge may rest and be clamped by the clamp-screw in the usual manner, thereby avoiding any liability of the tool becoming unadjusted or loosened by the chatter of the work and also enabling a more accurate adjustment of the tool than has heretofore been possible by any positive means and permitting a slight blocking of the tool when occasion requires without liability of decreasing its stability.

With these ends in view this invention consists in the details of construction and combination of elements hereinafter set forth, and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, its construction and operation will now be described in detail, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is an elevation of a portion of the carriage of a lathe, illustrating the application of my improvement to the tool-post thereof; Fig. 2, a perspective of a tool-support block, illustrating one embodiment of my improvement; and Fig. 3, a plan view of a block, embodying a slight modification of my improvement.

In carrying out my invention, as shown in Figs. 1 and 2, I provide a circular block A, which may be either cast or forged, having a hole B through the center thereof adapted to fit around the tool-post C of an ordinary lathe, and the lower surface of this block is

flat and stands at right angles to the length of the hole in order that it may have a firm and level bearing upon the upper surface of the carriage D. The upper surface of the block has formed thereon two series of steps E and F, starting from the groove G and proceeding upward in a spiral, each step being a like distance from the step next below, as clearly shown in Fig. 2. The object of this arrangement is that the tool H may be supported by any two steps of the same height by simply turning the block upon its axis beneath the tool and there clamping the latter by the ordinary clamp-screw I, from which it will be obvious that the tool may be varied in height step by step from the level of the groove G to the level of the two top steps in the series, which in a block of ordinary thickness will take in as great a range as is required for the accomplishment of most work handled in a lathe of usual construction.

One of the principal advantages of this improvement is that but a single block is utilized for the support of the tool in its various adjustments, thereby avoiding any complication or liability of the tool when once adjusted shaking loose by the vibrations incident to the chatter produced between the work and tool, and it is also to be noted that a support-block made in accordance with my improvement has all the advantages of the ordinary flat-top block in that the tool may be swung upon the axis of the post in the usual manner, the block following the movements of the tool, since its axis coincides with the axis of the post. It is also obvious that when it is necessary to adjust the point of the tool through a distance less than that accomplished by one of the steps the point of the tool may be blocked up or down by utilizing a thin strip of metal, but as the steps vary in height to only a small degree this blocking need never exceed a single thickness of sheet metal, and therefore does not decrease the stability of the tool.

By the use of the ordinary flat-top support-block much annoyance is often occasioned in the proper adjustment of the tool, and where a hinged carriage is not used this difficulty sometimes prevents the proper performance of the work; but it is obvious that my im-

provement will permit the proper adjustment of the tool without diminishing its stability upon all classes of lathes, both turret and those otherwise adapted for screw-work as
5 well as the ordinary screw-machine, and when used will increase the quality of work under most circumstances, since a tool held thereon cannot draw in or chatter.

10 If found desirable, the steps may be provided with lugs J, as shown in Fig. 3, which will further insure the tool being held in place when clamped.

Having thus fully described my invention, what I claim as new and useful is—

15 1. In combination, a block having a flat lower surface and a central aperture, steps arranged in a spiral from each side of a groove in the upper surface and lugs formed at the

outer corner of each step, as and for the purpose described. 20

2. In combination with a tool-post, a circular block having a hole in the center thereof for the passage of the tool-post, a groove for the accommodation of the tool, and two series of steps starting from said groove and
25 proceeding upward, said steps having lugs formed thereon, substantially as and for the purpose set forth.

In testimony whereof I have hereunto affixed my signature in the presence of two
30 scribing witnesses.

CHARLES W. WEDDELL.

Witnesses:

S. S. WILLIAMSON,
WILLIAM H. BERRY.