No. 709,693. Patented Sept. 23, 1902.

J. R. BACK.

TOOL POST.

(Application filed Oct. 13, 1897.)

(No Model.)

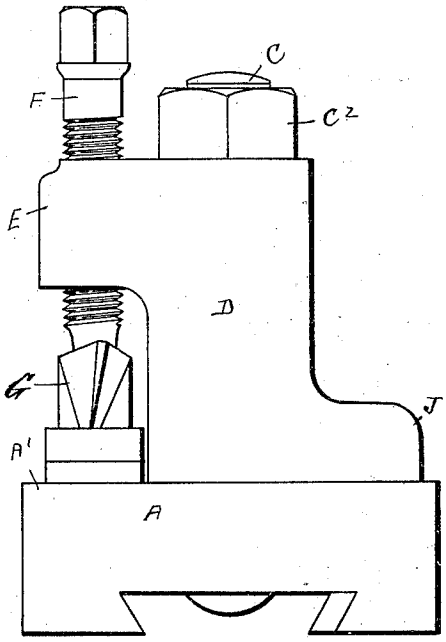


Fig. 1.

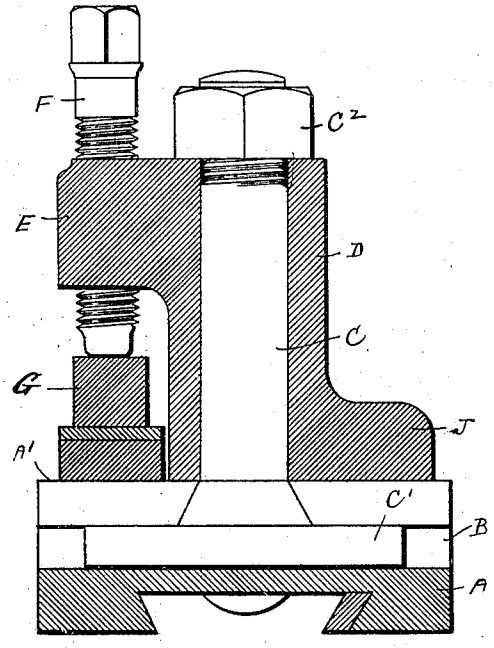


Fig. 2.

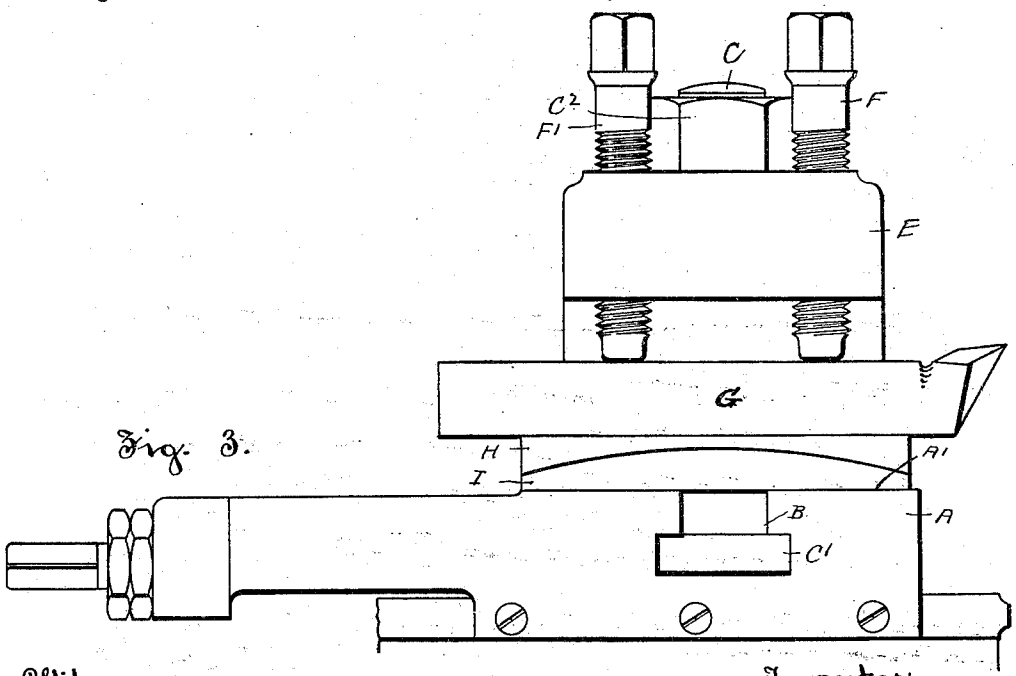


Fig. 3.

Witnesses
S. A. Kinsley
W. C. Price

Inventor
John R. Back.

By his Attorney
Rufus B. Fowler

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN R. BACK, OF WORCESTER, MASSACHUSETTS, ASSIGNOR TO THE F. E. REED COMPANY, OF WORCESTER, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

TOOL-POST.

SPECIFICATION forming part of Letters Patent No. 709,693, dated September 23, 1902.

Application filed October 13, 1897. Serial No. 655,011. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. BACK, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Tool-Posts, of which the following is a specification, reference being made to the accompanying drawings, forming a part of the same, in which—

Figure 1 represents a front elevation of a tool-post embodying my invention. Fig. 2 is a side elevation of the same, and Fig. 3 is a vertical sectional view on line 3 3, Fig. 1.

Similar letters refer to similar parts in the different figures.

Referring to the drawings, A denotes a tool-rest provided with a plane upper surface A′ and a T-shaped slot B to receive the head C′ of a bolt C. Resting upon the upper plane surface A′ of the tool-rest is a post D, having a hole through which the bolt C extends.

The post D is clamped upon the surface A′ by means of the bolt C and a nut C^2 and is capable of adjustment along the tool-rest by loosening the nut C^2 and sliding the bolt in the T-shaped slot B and of further adjustment by rotating the tool-post around the bolt.

At the upper end of the post is an overhanging lug E, which carries a pair of binding-screws F F′, adapted to be screwed down upon a cutting-tool G. The cutting-tool G rests upon a block H, having its lower surface concave and curved in the arc of a circle and fitting the convex surface of the block I, which rests upon the surface A′ of the tool-rest. The tool-rest shown in the drawings consists of the ordinary sliding tool-rest commonly used in lathes, and the T-shaped slot B is arranged, preferably, transversely thereto or parallel with the body of the lathe and allows the tool-post to be shifted on the upper surface of the tool-rest in the line of the slot B.

The blocks H and I are movable and are adjusted on the tool-rest to suit the position of the cutting-tool A. When the block H is placed directly over the block I, the upper surface of the block H and the lower surface of the block I are parallel and support the tool in a position parallel with the upper face A′ of the tool-rest, but by moving the block H endwise upon the block I its upper surface can be inclined, permitting the cutting-tool to be tilted and its cutting edge raised or lowered.

I am aware that tool-holding devices have been employed in which the post was provided with an overhanging lug carrying a binding-screw by which the tool was clamped in position, and I do not claim such broadly.

The post D is provided at its base and on the side opposite the overhanging lug E with a projecting flange J, which rests upon the upper surface A′ of the tool-rest, so as to increase the bearing-surface of the tool-post upon the tool-rest upon the side opposite the overhanging lug E in order to resist the strain upon the tool-post caused by clamping the tool G by the screws F F′. The head C′ of the bolt C is elongated in the direction of the T-shaped slot, so that the strain exerted by the clamping-screws F F′ and tending to tip the post laterally will be received by the walls of the T-shaped slot.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of a tool-rest having a plane upper surface and provided with a T-shaped slot, a post resting upon said tool-rest and having on one side a projecting flange resting upon the tool-rest and on its opposite side a lug overhanging said tool-rest, said flange and lug being disposed in the same direction as said tool, a clamping-screw held in said lug, whereby a tool resting upon the tool-rest is held in position, a bolt extending vertically through said post and having an elongated head also in the direction of the T-slot and inclosed in said slot, substantially as described.

2. The combination of a tool-rest having a plane upper surface and provided with a T-shaped slot, a post resting upon said tool-rest

and having on one side a projecting flange resting upon the tool-rest and upon the opposite side a lug overhanging the tool-rest, a clamping-screw held in said lug, blocks having oppositely-curved surfaces in contact and resting upon the upper surface of the tool-rest and beneath the clamping-screw in order to support the tool and permit the same to be tilted, substantially as described.

Dated this 6th day of October, 1897.

JOHN R. BACK.

Witnesses:

RUFUS B. FOWLER,

M. C. PRICE.