(No Model.)

L. PRILLWITZ.

BORING TOOL HOLDER.

No. 430,148. Patented June 17, 1890.

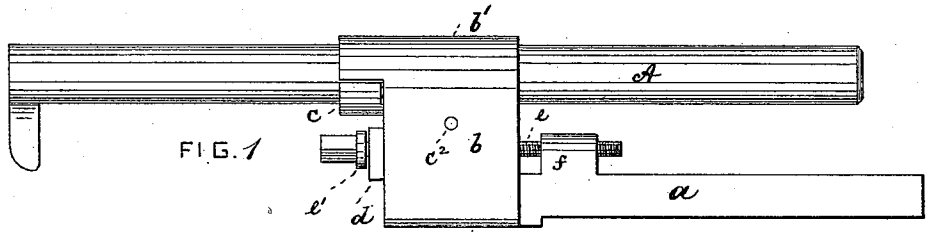


FIG. 1

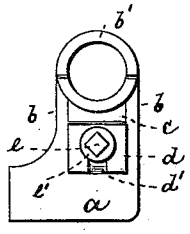


FIG. 3

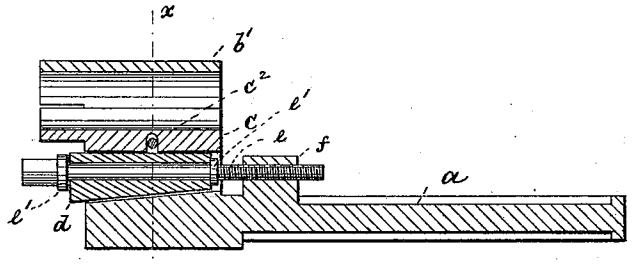


FIG. 2

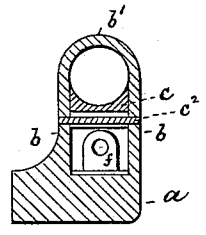


FIG. 4

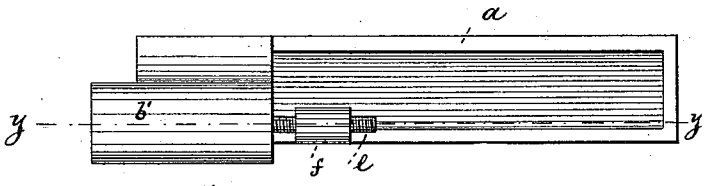


FIG. 5

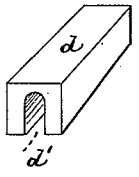


FIG. 6

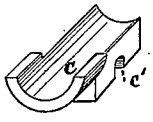


FIG. 7

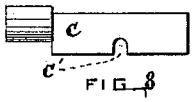


FIG. 8



FIG. 10

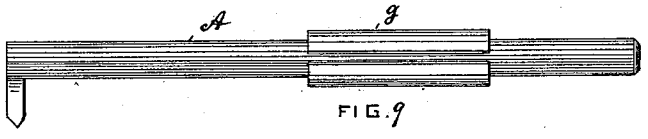


FIG. 9

WITNESSES

Wm. F. Lowe

Louis Wagner

INVENTOR

L. Prillwitz

by his attorneys

Roeder & Briesen

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

UNITED STATES PATENT OFFICE.

LUDWIG PRILLWITZ, OF NEW YORK, N. Y.

BORING-TOOL HOLDER.

SPECIFICATION forming part of Letters Patent No. 430,148, dated June 17, 1890.

Application filed October 28, 1889. Serial No. 328,393. (No model.)

To all whom it may concern:

Be it known that I, LUDWIG PRILLWITZ, of New York city, New York, have invented an Improved Universal Boring-Tool Holder for Lathes, of which the following is a specification.

This invention relates to a boring-tool holder for lathes which is made adjustable for the purpose of grasping tool-shanks of different diameters.

The invention consists in the various features of improvement more fully pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of my improved tool-holder. Fig. 2 is a vertical longitudinal section thereof on line *y y*, Fig. 5. Fig. 3 is an end view thereof; Fig. 4, a cross-section on line *x x*, Fig. 2, with the wedge removed; Fig. 5, a top view of the tool-holder; Fig. 6, a perspective view of the wedge; Fig. 7, a perspective of the lower or movable jaw; Fig. 8, a side view thereof; Fig. 9, a side view of the tool-shank provided with the bushing, and Fig. 10 an end view of the bushing.

The letter *a* represents the block or body of the tool-holder of a lathe, in which is held the boring-tool that acts against the work secured to the head-stock, as usual. From the block *a* there projects upwardly a U-shaped yoke *b*, the upper rounded section *b'* of which constitutes the fixed jaw. Within this yoke there is slipped the movable jaw *c*, free to be raised or lowered. Beneath the jaw *c* there is placed into the yoke a wedge *d*, having a groove *d'* in its lower face. This groove is entered into by a screw-rod *e*, which has a collar *e'* at each end of the wedge, so as to draw the wedge with it. The forward end of the rod *e* is squared, so that it may be grasped by a key while its rear end engages a threaded lug *f*, projecting upwardly from the block *a*.

It will be seen that when the rod *e* is turned in one direction it will push the wedge into the yoke, and that if turned in the other direction it will draw the wedge out. In the former case the movable jaw is raised, while in the latter case it is free to be lowered.

In order to prevent the movable jaw from being taken along by the wedge it is provided with a transverse groove *c'*, that is engaged by a pin c^2, spanning the yoke.

It is clear that the tool-holder may be readily adjusted to accommodate tool-shanks A of different diameters.

If a tool-shank is to be clasped which is of a smaller diameter than the minimum distance between the jaws *b' c*, I surround it with a split metal bushing *g*, that fills up the space between the tool-shank and the jaws. To increase the elasticity of this bushing, I provide it with a groove *g'* opposite to its split end.

What I claim is—

1. The combination of block *a* with a yoke and with a movable adjustable jaw within said yoke, substantially as specified.

2. The combination of block *a*, having yoke *b*, with a movable jaw *c* within said yoke, and with a wedge *d* beneath said jaw, substantially as specified.

3. The combination of block *a*, having yoke *b*, with a movable jaw *c*, a wedge *d*, having groove *d'*, a lug *f* on the block, and with a screw-rod *e* engaging the lug and passing through the groove *d'*, substantially as specified.

4. The combination of block *a*, having yoke *b*, with a movable jaw *c*, a wedge *d*, having groove *d'*, a lug *f* on the block, and a screw-rod *e*, having a collar *e'* at each end of the wedge, one end of the rod being squared and the other end engaging the lug *f*, substantially as specified.

5. The combination of block *a*, having a yoke, with a movable jaw *c*, having groove *c'*, and with a pin c^2 engaging said groove, and with an adjustable wedge beneath the jaw, substantially as specified.

6. The combination of block *a*, having a yoke with a movable jaw within said yoke and with a split bushing *g*, adapted to be introduced between the yoke and the movable jaw, substantially as specified.

LUDWIG PRILLWITZ.

Witnesses:
F. V. BRIESEN,
A. JONGHMANS.