(No Model.)

E. RIVETT.

TOOL REST FOR HAND LATHES.

No. 389,012. Patented Sept. 4, 1888.

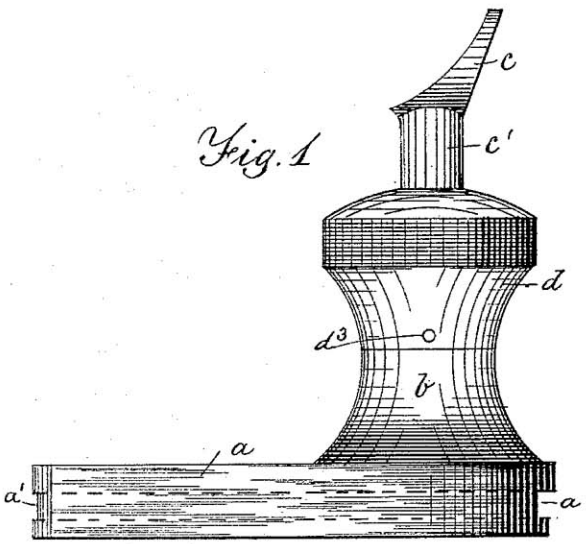

Fig. 1.

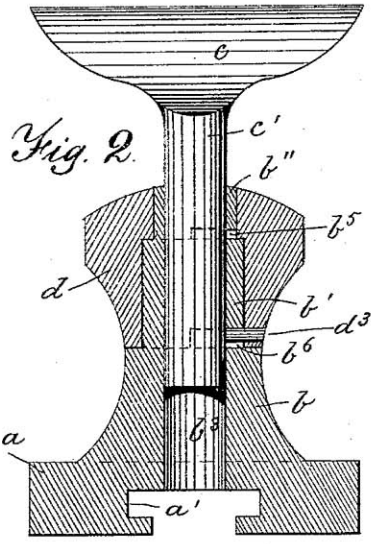

Fig. 2.

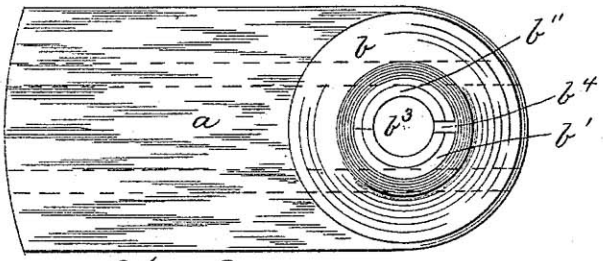

Fig. 3.

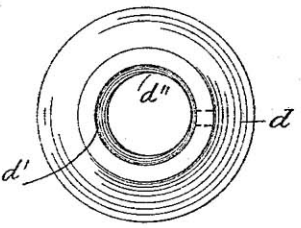

Fig. 4.

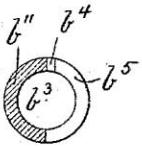

Fig. 6.

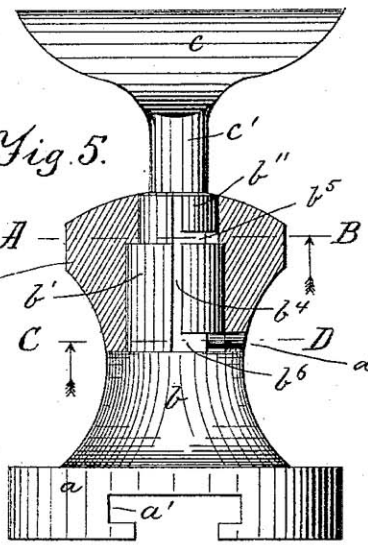

Fig. 5.

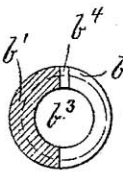

Fig. 7.

Witnesses.
Charles L. Figg,
H. L. Chapin.

Inventor
Edward Rivett
by Alban, Gudrén
his attys.

UNITED STATES PATENT OFFICE.

EDWARD RIVETT, OF BOSTON, MASSACHUSETTS.

TOOL-REST FOR HAND-LATHES.

SPECIFICATION forming part of Letters Patent No. 389,012, dated September 4, 1888.

Application filed December 12, 1887. Serial No. 257,683. (No model.)

To all whom it may concern:

Be it known that I, EDWARD RIVETT, a citizen of the United States, and a resident of Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Tool-Rests for Lathes, &c., of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to improvements in tool-rests for lathes, it being particularly designed for use on watch-makers' or smaller lathes, although it may be equally useful for lathes or machines of other constructions.

The invention is carried out as follows, reference being had to the accompanying drawings, wherein—

Figure 1 represents a side elevation of the improved tool-rest. Fig. 2 represents a sectional elevation of the same. Fig. 3 represents a plan view of the sliding base-plate. Fig. 4 represents a bottom view of the eccentric clamping ring or head. Fig. 5 represents an end view of the invention, showing the eccentric clamping-ring in section. Fig. 6 represents a cross-section of the clamping-sleeve on the line A B, shown in Fig. 5; and Fig. 7 represents a cross-section of the lower part of such sleeve on the line C D, also shown in Fig. 5.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

a is the base-plate, having on its under side a T-headed groove, *a'*, for the reception of the head of the usual fastening-bolt, as is common in lathes and other machines.

b is the hollow post, extending upward from the plate *a*, such post being preferably made in one piece with the base-plate *a*, as shown in Fig. 2; but, if so desired, it may be made separate and secured in a suitable manner to the said base-plate. The post *b* extends upward as a clamping-sleeve, *b'*, having a reduced upper portion, *b''*, the periphery of which is turned eccentric relative to the periphery of the sleeve *b'*, as shown in Figs. 2, 3, and 5.

c is the rest, as usual, having the downwardly-projecting spindle *c'*, that is of cylindrical form, and adapted to be inserted in a cylindrical vertical perforation, b^3, in the clamping-sleeve and its post, as shown in Fig. 2. The clamping-sleeve *b'* and its upper reduced and eccentric portion *b''* is slitted vertically at b^4, as shown in Figs. 3 and 5, to permit said clamping-sleeve to yield slightly, so as to clamp the spindle *c'* firmly within it in any desired position.

b^5 is a horizontal slit through about one-half of the sleeve *b''*, as shown in Figs. 2, 5, and 6, which slit communicates with the vertical slit b^4, and serves to permit the reduced eccentric sleeve portion *b''* to yield independently of the larger portion, *b'*, in clamping said parts around the spindle *c'*. The sleeve portion *b'* also has a horizontal slit, b^6, at its base, which slit extends about half around the periphery of said sleeve *b'* and communicates likewise with the vertical slit b^4, as shown in Figs. 2, 5, and 7, by which said sleeve portion *b'* is rendered yielding.

d is the clamping ring or head, having in its lower portion a bore, *d'*, of the same size as the outside of the sleeve portion *b'*, and having in its upper end a reduced bore, *d''*, of the same size as the reduced sleeve portion *b''*. The bore *d''* is made eccentric relative to the bore *d'* in the same relative proportion as the sleeve portion *b''* is made eccentric to the portion *b'*.

d^3 is a stop-pin driven through a horizontal perforation in the side of the lower portion of the head or ring *d*, its inner end projecting into the horizontal slit b^6 on the sleeve portion *b'*, which pin serves the object of preventing the ring or head *d* from getting detached from the post *b*, and also serves to limit the turning of the said head around its axis relative to said post *b* when the spindle *c'* is to be clamped within the sleeve *b' b''* or released therefrom.

When the parts are in the positions shown in the drawings, the spindle *c'* may be adjusted up or down or turned freely around its axis within the sleeve *b' b''* to suit requirements of the operator. To secure said spindle firmly to the post *b* and its sleeve *b' b''*, it is only necessary to take hold of the ring or head *d* and to turn it slightly around its axis in either direction, when the eccentricity of the sleeve *b''* and bore *d''* causes the split sleeve *b' b''* to bind around the spindle *c'*, and thus keep it firmly in the desired position. By turning the ring or head *d* back again to the position shown in

the drawings the spindle c' is released from the grip of the sleeve b' b'', and may then be again adjusted to any desired position to suit the wishes of the operator, and so on.

What I wish to secure by Letters Patent and claim is—

1. The hollow post b, having the upwardly-projecting sleeves b' b'' arranged eccentrically one relative to the other, and provided with slits b^4, b^5, and b^6, combined with the head or ring d and its bores d' d'', arranged eccentrically one relative to the other, as and for the purpose set forth.

2. The post b and its slitted sleeves b' b'', arranged eccentrically, as described, the spindle c', and the ring or head d, with its eccentrically-arranged bores d' d'', and the locking-pin d^3, secured to the ring d, all combined and arranged substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 27th day of October, A. D. 1887.

EDWARD RIVETT.

Witnesses:

ALBAN ANDRÉN,

GASPAR MARTELL.