A. D. GOODELL.

BENCH STOP.

APPLICATION FILED JULY 26, 1910.

974,482. **Patented Nov. 1, 1910.**

Fig. 1.

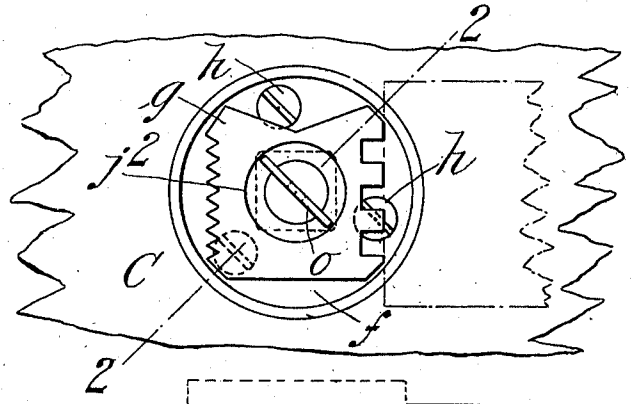


Fig. 2.

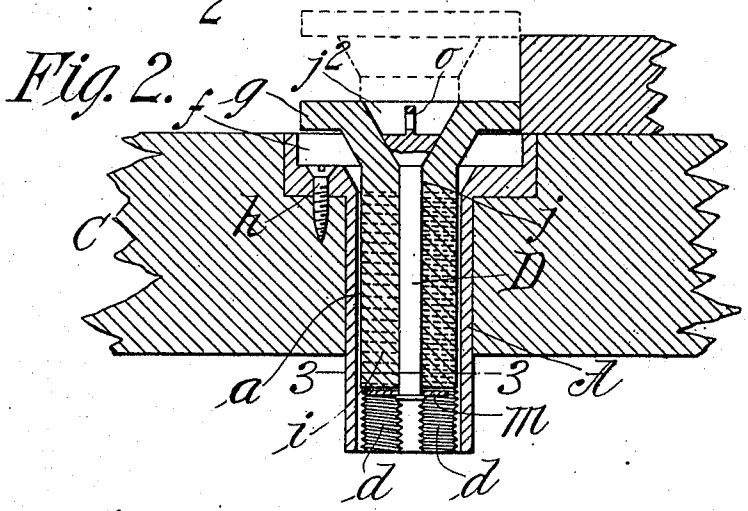


Fig. 3.

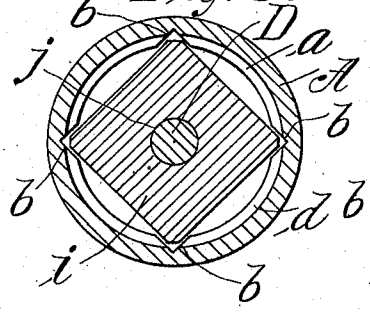


Fig. 4.

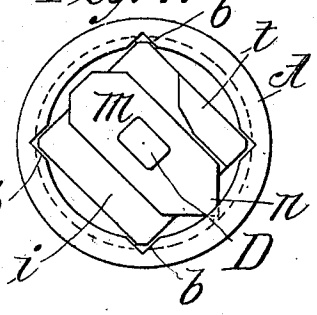
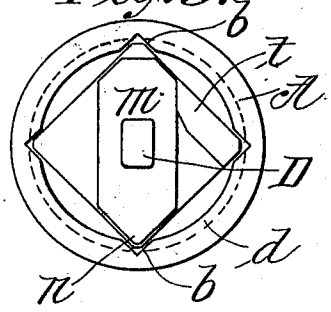


Fig. 5.



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BENCH-STOP.

974,482. Specification of Letters Patent. Patented Nov. 1, 1910.

Application filed July 26, 1910. Serial No. 573,926.

To all whom it may concern:

Be it known that I, ALBERT D. GOODELL, a citizen of the United States of America, and resident of Shelburne Falls, in the county of Franklin and State of Massachusetts, have invented certain new and useful Improvements in Bench-Stops, of which the following is a full, clear, and exact description.

This invention relates to a bench stop or device to be set into the top of a carpenter's bench, to serve as an abutment against which a board, bar or strip of wood may endwise engage while being planed.

The invention more particularly pertains to a description of bench stop which comprises a metallic bushing piece to be permanently fitted into the bench, and a stop piece, the top or stop member of which will normally lie flush with, or below the top surface of the bench and which may be elevated and held at varying heights to suit the purposes of the workman who may have occasion to plane stock of varying thicknesses.

The improvements especially pertain to constructions in the bench stop which enable the user to obtain an engagement between the shank of the stop piece and an internal portion of the bushing piece for supporting the stop very little, or considerably above the top surface of the bench, and to also insure, when the stop is not required for use that it will have a lowered position to leave the top of the bench flush and clear.

The improved stop is described in conjunction with the accompanying drawings and is defined in the claims.

In the drawings,—Figure 1 is a plan view of a bench stop; Fig. 2 is a vertical sectional view on line 2—2; Fig. 3 is a horizontal cross section, enlarged, on line 3—3. Figs. 4 and 5 are enlarged lower end views showing the engaging bar or button at the lower end of the shank stem of the device in different relative positions.

In the drawings:—A represents the metallic bushing piece having a vertical upwardly opening circular socket *a* therein and constructed with regularly spaced vertical grooves *b* and also with internal circumferential ribs *d* alternated by relatively intermediate circumferential grooves, which latter grooves and the ribs are intersected by the aforenamed vertical grooves *b* which constitute channels for vertically guiding the shank of the stop piece, which shank is polygonal cross-sectionally and has its corners in sliding engagement in said vertical grooves. The walls of the latter also prevent rotative movement of the stop piece relatively to the bushing. The stop piece is moreover provided with a cup-shaped upper portion *f* of considerably enlarged diameter for the accommodation therein when in its lowermost position of the stop plate or block *g*, which, as represented in Fig. 1, has different edges thereof of different character, that is, made respectively with serrations, squared notches, straight edge and an obtuse angled edge.

The bushing piece may be sunk into a suitable counterbored hole therefor in the bench C and secured by the screw *h*.

The polygonal shank *i* of the stop is bored from end to end to provide a passage *j*, the upper orifice of which is made with a countersunk enlargement j^2; and through this passage is fitted a stem D, the lower protruding end of which carries a bar or button *m* which is rigidly affixed on the stem by the riveting or upsetting of the lower end of the latter. This bar or button *m* has one end *n* pointed or of V-shape, and of a dimension and arrangement such that when the bar is diagonally of the shank, as shown in Fig. 5, there will be no projection thereof beyond the side walls of the shank; but when the bar is swung across the shank, as shown in Fig. 4, the V-shaped point *n* will have a projection beyond a side wall of the shank so that it may have an engagement above any one of the internal circumferential ribs *d*, to cause the shank and stop as a whole to be supported at any desired height above the top of the bushing and upper surface of the bench.

The stem at its upper end has a finger enlargement *o* which is located in the aforementioned countersunk enlargement j^2, by means of which the stem may be conveniently rotatively moved for changing the position of the button from that shown in Fig. 5 to that of Fig. 4, or vice versa.

Assuming that the stop piece is normally in its lowest position with the engagement bar or button *m* in its diagonal disposition relatively to the stop shank, and it is desired to raise the stop and hold it elevated, one has simply to grasp the finger piece *o* between the thumb and finger, lift the stop

as guided by its corners in the vertical grooves *b b* as high as wanted, and then rotate for about an eighth of a turn the finger piece and stem, and with them the button so that the V point *n* of the latter will take into the adjacent internal circumferential groove and have a supporting engagement on the circumferential rib next below such groove; and, of course, if desired to vary the height of the already elevated stop, the stem through the finger piece will be turned for the parts to again have position indicated in Fig. 5, whereupon the height of the stop may be varied and the adjusted part again retained in its engagement internally with the bushing as before.

The stop piece with its button and button operating stem may be bodily drawn out from the bushing so as to be turned at quarters in such manner that any one of the four abutment edges may have the proper position on the bench to best suit the workman.

In order that the engagement bar or button *m* may have the diagonal position thereof,—Fig. 5, determined, the lug *t* is provided on the lower end of the shank of the stop, the form and efficiency of which will be manifest by an inspection of Figs. 4 and 5.

I claim:—

1. In a bench stop, a metallic bushing piece having a vertical upwardly opening circular socket with vertical grooves therein, and having internal circumferential alternated ribs and grooves, one above another which are intersected by said vertical grooves, a stop piece comprising an enlarged upper portion and a polygonal shank of reduced diameter, the corners thereof engaging, for vertical guidance, in the aforesaid vertical grooves, and said stop piece having a stem axially therethrough adapted for a rotative movement and provided at its lower end with a bar or button adapted to have, accordingly as the stem is turned, its extremity in one of the aforesaid vertical grooves, or in engagement with one or another of the internal circumferential ribs of the bushing piece.

2. In a bench stop a metallic bushing piece having a vertical upwardly opening circular socket with vertical grooves therein, and having internal circumferential alternated ribs and grooves, intersected by said vertical grooves, and provided with a cup shaped upper portion, a stop piece comprising an enlarged upper portion to be normally accommodated in said cup shaped portion of the bushing, and a polygonal shank of reduced diameter, the corners of which engage in the aforesaid vertical grooves, and said stop piece having, a passage axially therethrough enlarged at its upper end, and having a stem therein adapted for a rotative movement, provided at its lower end with a bar or button adapted to have, accordingly as the stem is turned, its extremity in one of the aforesaid vertical grooves or in engagement with one or another of the internal circumferential ribs of the bushing piece, and said stem having an enlarged finger piece at its upper end located in the enlarged portion of said passage.

Signed by me at Shelburne Falls, Mass., in presence of two subscribing witnesses.

ALBERT D. GOODELL.

Witnesses:

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