J. A. TRAUT.

CARPENTERS' BEVELS.

No. 194,851. Patented Sept. 4, 1877.

Fig. 1.

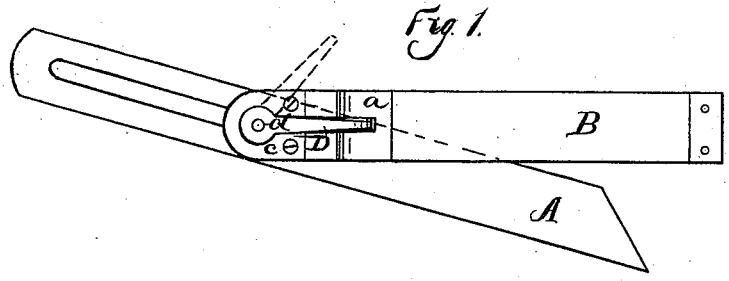


Fig. 2.

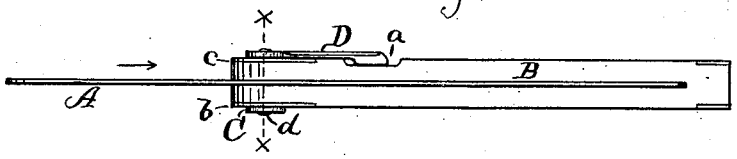


Fig. 3.

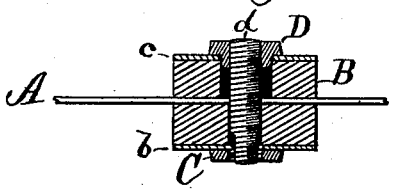


Fig. 4

Fig. 5.

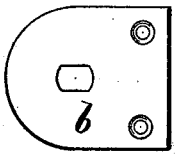
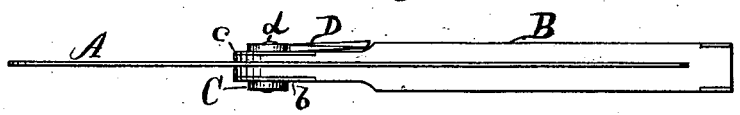


Fig. 6.



Witnesses.
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IMPROVEMENT IN CARPENTERS' BEVELS.

Specification forming part of Letters Patent No. **194,851**, dated September 4, 1877; application filed February 5, 1877.

To all whom it may concern:

Be it known that I, JUSTUS A. TRAUT, of New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Carpenters' Bevels, of which the following is a specification:

My invention has for its object the production of a carpenter's bevel at a very low price, which shall also be much more convenient for use than is the ordinary cheap bevel.

It consists in the employment of a lever-nut and screw, which lever-nut sustains a definite relation to the bevel-handle, as hereinafter described; also, in the novel construction of parts for preventing the bolt from accidental displacement, all as hereinafter described.

In the accompanying drawing, Figure 1 is a side elevation of a carpenter's bevel which embodies my invention. Figs. 2 and 6 are edge views of the same, the latter being provided with a slightly different shaped handle and lever-nut. Fig. 3 is a transverse section of the same, taken on line *x x* of Fig. 2; and Figs. 4 and 5 are detached views.

The blade A is the same as in the ordinary bevel. So, also, is the handle B, with the exception of the recess *a* and the plates *b c* upon the split end. Like the ordinary bevel, a screw or bolt passes through the split end of the handle and slot in the blade, by means of which the blade may be pinched between the split end, and held in various positions, as required.

I make the screw *d* straight and threaded from end to end. I prefer to thread it by a double thread, to get a sharper pitch. I prefer to make the threads of wire in continuous rods, and afterward cut them into the proper lengths. Two sides are flatted a little, as shown in Figs. 3 and 4, and the plate *b*, which is secured to one side of the handle B at the split end, is provided with a correspondingly-shaped hole, (see Fig. 5,) so that when the flattened end of the screw *d* rests in the hole of the plate *b* it cannot rotate therein.

The screw *d* is placed in the handle with its shoulders upon the inside of the plate *b*, as shown in Fig. 3. The nut C, which should fit the screw *d* very snugly, and should be such shape as to be turned by a wrench, is then screwed upon the outer end of the screw and outside of the plate *b*. The opposite end of the screw *d* is also provided with a nut having one lever-handle, by reason of which I call it the "lever-nut" D. The outer end or handle of this lever-nut D is considerably longer than the handle B is wide, as shown in Figs. 1, 2, and 6; and it may be thickened a little upon its under side to form a more convenient handle, in which case I cut a shallow recess, *a*, across the handle B, upon one side, to allow free play to the lever-nut D.

It is of course evident that by turning the lever-nut D down upon the screw the blade A will be clamped in the usual manner of this class of bevels. For convenience, however, and in order to prevent the lever-nut D from becoming accidentally loosened, it is desirable to have it always stop when pinching the blade—that is, have it forced home in such a position that it will not project beyond either edge of the handle.

By applying a wrench to the nut C the screw may easily be so adjusted that when the lever-nut D is forced home it will have its handle resting somewhere between the two edges of the handle B, substantially as shown in Fig. 1.

If, by use, the parts should wear so as to let the lever-nut project beyond the handle when forced home, the screw *d* may be readjusted by means of the nut C, to cause the lever-nut to stop in its former position.

In a double-threaded screw a partial adjustment may be effected by taking off the lever-nut D and entering the screw in the other thread of the nut, when the latter is replaced.

By throwing the lever-nut to one side, as indicated by broken lines in Fig. 1, the blade may be placed at any desired bevel, the return of the lever-nut holding it in the position thus set.

Although I prefer to employ the adjusting-nut, the lever-nut may be adjusted to come home between the edges of the handle by means of a common square-necked bolt fitted in a square hole in the plate *b*.

By withdrawing the square neck of the bolt from the square hole, giving it a quarter, half, or three-quarter turn, as may be necessary, and then replacing it, the position of the

thread on the screw will be so changed as to bring the lever-nut home between the two edges of the handle. The double thread might also be used on such a bolt to assist in the adjustment.

When a one-armed lever-nut which projects much beyond the edges of the handle, like the lever-nut D, is employed, it is essential that some means shall be provided to make it come home in the described position; otherwise it would not only project so as to be inconvenient, but would be liable to become accidentally loosened by contact with various objects when in use.

The lever-nut D I make quite thin, so as to project beyond the sides of the handle B but little, by forming a shoulder or annular flange on said lever-nut, and a hub which extends through the plate *c* and into the handle B, to give the nut the requisite thickness, as shown in Fig. 3.

If desired, the split end of the handle B may be reduced somewhat in thickness, as shown in Fig. 6.

This bevel can be made at a very low price. The parts do not project far beyond the handle, so as to be in the way when in use, and the long arm of the lever-nut D enables the split end of the handle to be forced upon the blade with much more power than in the ordinary thumb-nut bevel, and so firm as to prevent any accidental displacement of the blade.

In case the lever-nut shall be turned so far as to detach it from the screw *d*, the peculiar construction of the opposite end of the screw will prevent it from falling out of place.

I claim as my invention—

1. In a bevel having a split handle and a slotted blade, the screw *d* and the lever-nut D, when provided with means for bringing the lever-nut home between the two edges of the handle, substantially as described, and for the purpose set forth.

2. In a bevel, the combination of the handle B, screw *d*, nut C, and lever-nut D, operating together substantially as described, and for the purpose set forth.

3. In a bevel, the screw *d*, threaded from end to end, and flatted so as to form shoulders at one end, in combination with the plate *b*, correspondingly slotted, and the nut C, substantially as described, and for the purpose set forth.

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