L. D. Howard,

Bevel.

No. 111,746. Patented Feb. 14. 1871.

Fig. 1.

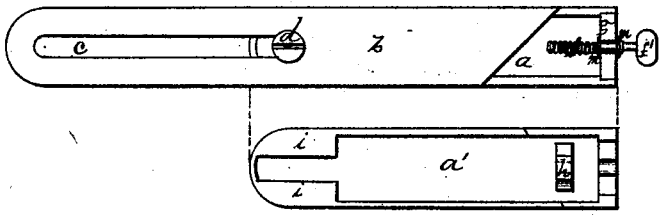


Fig. 2

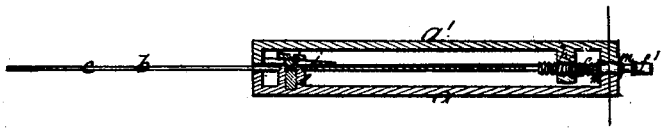
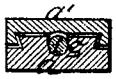


Fig. 3.



Witnesses.
J. E. Moore
J. M. Thacher

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United States Patent Office.

LEONARD D. HOWARD, OF ST. JOHNSBURY, VERMONT.

Letters Patent No. 111,746, dated February 14, 1871.

IMPROVEMENT IN ADJUSTABLE BEVELS.

The Schedule referred to in these Letters Patent and making part of the same.

I, LEONARD D. HOWARD, of St. Johnsbury, Caledonia county, Vermont, have invented certain Improvements in Bevels, of which the following is a specification.

Figure 1 is a plan view;

Figure 2 is a longitudinal vertical section; and

Figure 3 is a transverse vertical section.

This invention relates to the means whereby the two arms of a bevel are connected in such manner that they may be readily tightened or loosened, as may be necessary, in order to the adjustment of the arms at any desired angle with each other.

Referring to the drawing—

The main arm of a bevel is shown as constructed in two separate longitudinal sections, *a a'*, the same being hollow, and one of them being recessed at its sides and at one end so as, when the two sections are put together, to form a slot in the main arm for the reception of the blade *b* through the slot *c* of which passes a set-screw, *d*, that enters a socket, *e*, which is cast within the section *a* near its rounded end, by means of which set-screw and socket the blade *b* is connected with the section *a*.

The head of the section *a'* is cast solid, with the exception of a central recess just wide enough to admit the head of the screw *d*.

From the lower corners of the two solid parts of the head flanges *i*, inward toward each other, so far as to leave an interval of only sufficient width for the reception of the shank of the screw *d*.

Hence, when the head of the section *a'* is drawn over the screw *d* so that the head of latter is in the central recess of the former and the flanges *i* are under the head of the screw, the two sections *a a'* are fastened together at one end, the blade being between them.

In order to tighten the sections upon the blade the flanges *i* are made slanting on their upper sides upward from their corners toward the end of the section, and the head of the screw *d* is set at a corresponding slant and, as the inclined flanges pass under the head of the screw, they draw the heads of the two sections together until they clamp the blade between them as tightly as desired.

The means for drawing the flanges *i* under the head of the screw *d* are:

First, a set-screw, *f*, placed in a dovetail block, *g*, that extends upward from the butt of the section *a*, transversely of the latter and parallel with the four sides of the main arm, which set-screw is furnished with flanges *m* that inclose the block *g* between them, abutting upon it at each side, said screw extending a suitable distance within the section *a*, and having a head, *f'*, that projects to a suitable outside of said section;

Second, a lug, *h*, cast within and with the section *a'* and provided with a transverse-threaded orifice of proper size to receive the screw *f*, the lug being long enough to admit of the screw entering the orifice. When the screw is therein entered, by turning it backward or forward the section *a'* is drawn in the corresponding direction along the section *a*.

At the butt of the former is a transverse recess of shape and size suited to receive the block *g*, there being a central groove that runs crosswise of said butt for the reception of the collars *m*.

When, therefore, the section *a'* is drawn, by the means described, so far along the section *a* that the block *g* enters the groove above mentioned, the two sections are thereby fastened together at the butt and thus their connection is rendered complete, and this, it will be observed, without the use of any other screws except *d* and *f*, so that there are no perforations in the outside of the main arm of the bevel, and it therefore presents an unbroken exterior.

I claim as my invention—

1. The inclined flanges *i* of the section *a'*, in combination with the inclined screw-head *d* of the section *a*, as described.

2. The section *a*, provided with the dovetail block *g* and screw *f*, in combination with the section *a'*, provided with a groove at its butt corresponding to the dovetail block and with the lug *h*, as set forth.

LEONARD D. HOWARD.

Witnesses:

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