(No Model.)

W. M. HAWORTH.

SAW FILE GUIDE.

No. 455,327. Patented July 7, 1891.

Fig. 1.

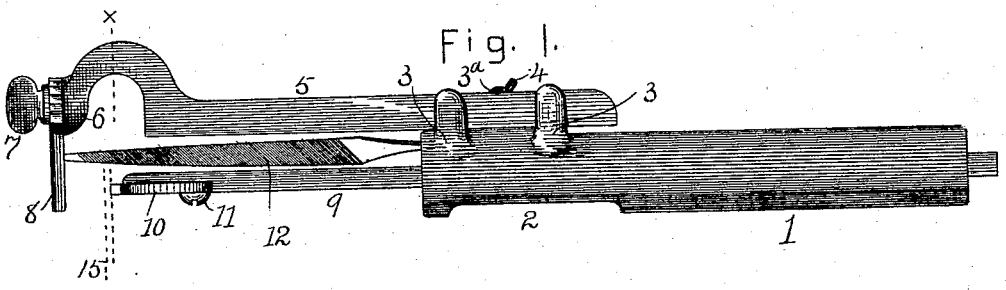


Fig. 2.

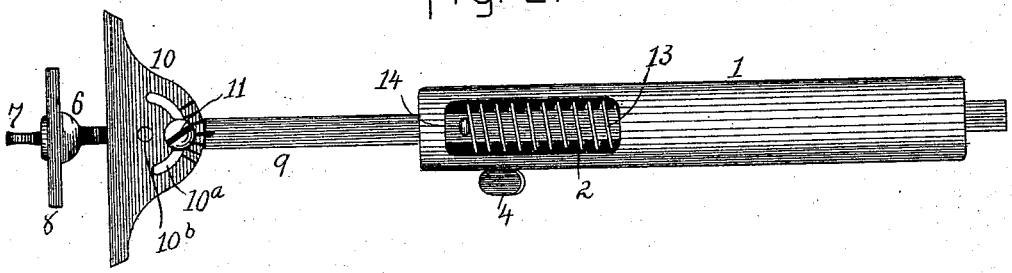
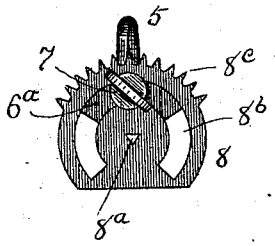


Fig. 3.



ATTEST.

H. Graham.

W. W. Graham,

INVENTOR.

W. M. HAWORTH.

by his attorney

L. P. Graham.

UNITED STATES PATENT OFFICE.

WILLIAM M. HAWORTH, OF DECATUR, ILLINOIS.

SAW-FILE GUIDE.

SPECIFICATION forming part of Letters Patent No. 455,327, dated July 7, 1891.

Application filed October 20, 1890. Serial No. 368,696. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM M. HAWORTH, of Decatur, in the county of Macon and State of Illinois, have invented certain new and useful Improvements in Saw-File Guides, of which the following is a specification.

This invention consists in the details of construction and combinations of parts hereinafter set forth and claimed, the object and advantages being manifest from the description.

In the drawings accompanying and forming a part of this specification, Figure 1 is a side view of my device. Fig. 2 is a view of the same from beneath. Fig. 3 is an end view of so much of the guide as is set off by dotted line X in Fig. 1.

The handle 1 is hollow. It has the opening 2 and the studs 3 3 3^a. Bar 5 is held between studs 3 3 on one side and set-screw 4, extending through stud 3^a on the other side, and it has the head 6, adapted to receive set-screw 7.

The plate 8 (shown in detail in Fig. 3) is adapted to modify the rake adjustment of the file. It has the central triangular hole 8^a to receive the end of the file, the circular slot 8^b, concentric with the triangular hole, and the peripheral teeth or notches 8^c. The head 6 of bar 5 has a guide portion 6^a, adapted to the slot of plate 8. Bar 9 extends through the handle and has the encircling compression-spring 13 bearing against cotter 14 at one end and against the end of the handle at the other end. The bevel-guide 10 is pivoted at 10^b to bar 9. It has the circular slot 10^a concentric with the pivot, and also has a set of gradations, as seen in Fig. 2. The set-screw 11 extends through slot 10^a and screws into bar 9. The hole 2 in handle 1 admits spring 13.

Preparing for operation set-screw 4 is loosened and bar 5 detached from the handle, the rake-modifying plate 8 is set at the required angle, the handle end of file 12 is placed in a hole in handle 1, the bar 5 is replaced between the lugs, the point of the file is placed in the triangular hole in plate 8, screw 4 is retightened on bar 5, and the bevel-guide 10 is secured at the desired angle.

In operation the bevel-guide is placed with its guide-surface in continuous contact with the saw, as seen in Fig. 1, where the saw is represented by dotted lines at 15, and is held parallel with the tooth-edge. The filing is then effected in the customary manner, care being taken throughout the operation to preserve the relations specified. The spring yields when the file is pushed forward and reacts when it is withdrawn. It is under tension at all times, and is so yielding that the pressure of the bevel-guide against the saw is practically uniform.

I claim—

1. In saw-file guides, the combination of a hollow file-handle, a longitudinally-movable bar extending lengthwise through the handle and having a bevel-guide on one end, and a spring in the handle tending to yieldingly protrude the guide-carrying end of the bar, as set forth.

2. In saw-file guides, the combination of a hollow file-handle, a longitudinally-movable bar extending lengthwise through the handle, an adjustable bevel-guide on one end of the bar, and a spring in the handle tending to yieldingly protrude the guide-carrying end of the bar, as set forth.

3. In saw-file guides, the combination of a hollow file handle, a longitudinally-movable bar extending lengthwise through the handle and having a bevel-guide on one end, a spring in the handle tending to yieldingly protrude the guide-carrying end of the movable bar, and a bar secured rigidly and detachably to the handle, extending beyond the end of the same and adapted to carry the point of the file, as set forth.

4. In saw-file guides, the combination of handle 1, having lugs 3 3 3^a and set-screw 4, bar 5, detachably secured to the handle by means of the lugs and set-screw, and the rotatingly-adjustable plate 8 on the end of the bar, having a central triangular hole to receive the point of the file, as set forth.

In testimony whereof I sign my name in the presence of two subscribing witnesses.

WILLIAM M. HAWORTH.

Attest:

JOHN A. MERIWEATHER,
WILLIAM GRAHAM.