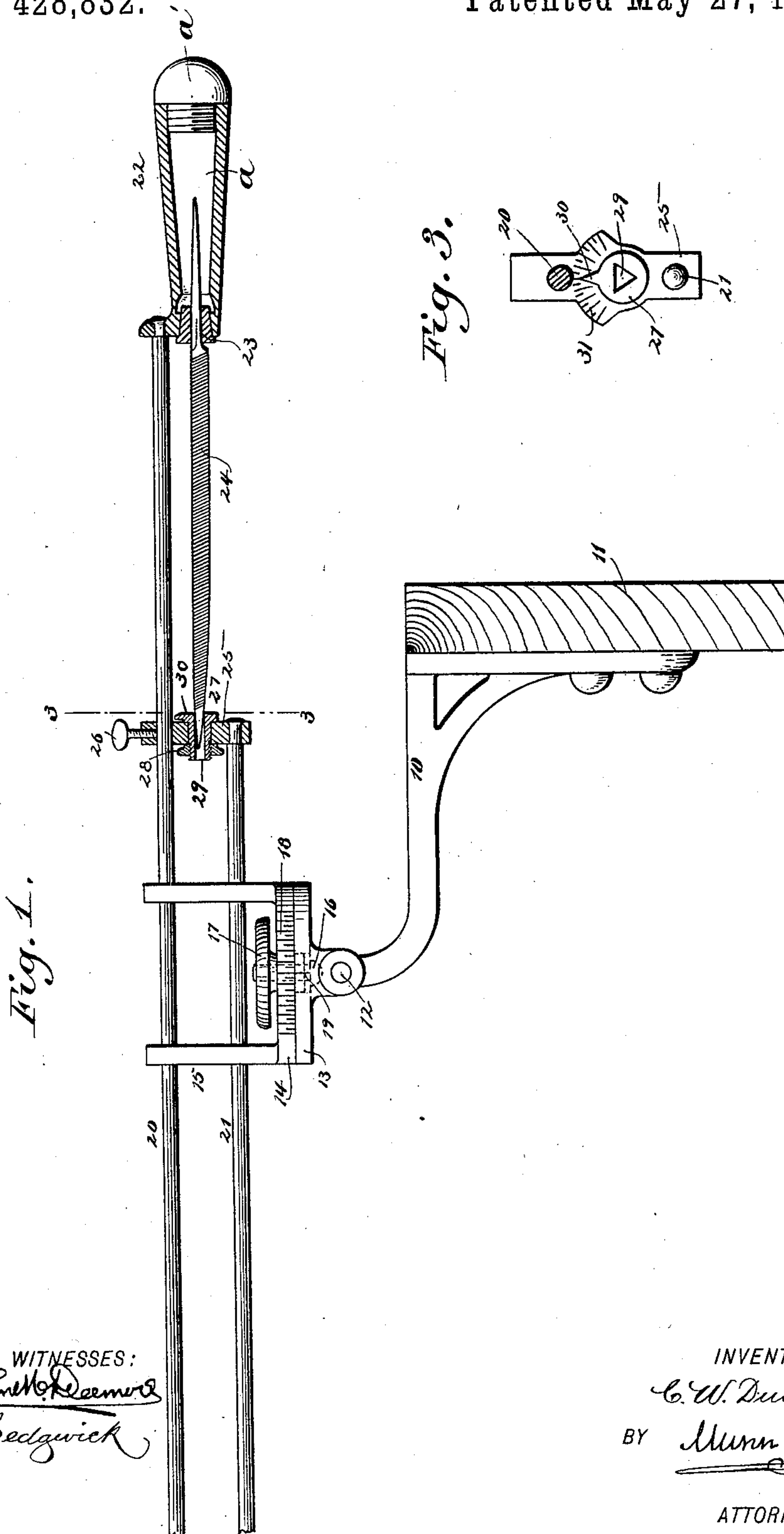


2 Sheets—Sheet 1.

No. 428,832.

Patented May 27, 1890.



WITNESSES:
John H. Deemer
C. Sedgwick

INVENTOR:
C. W. Dudley
BY Munn & Co
ATTORNEYS

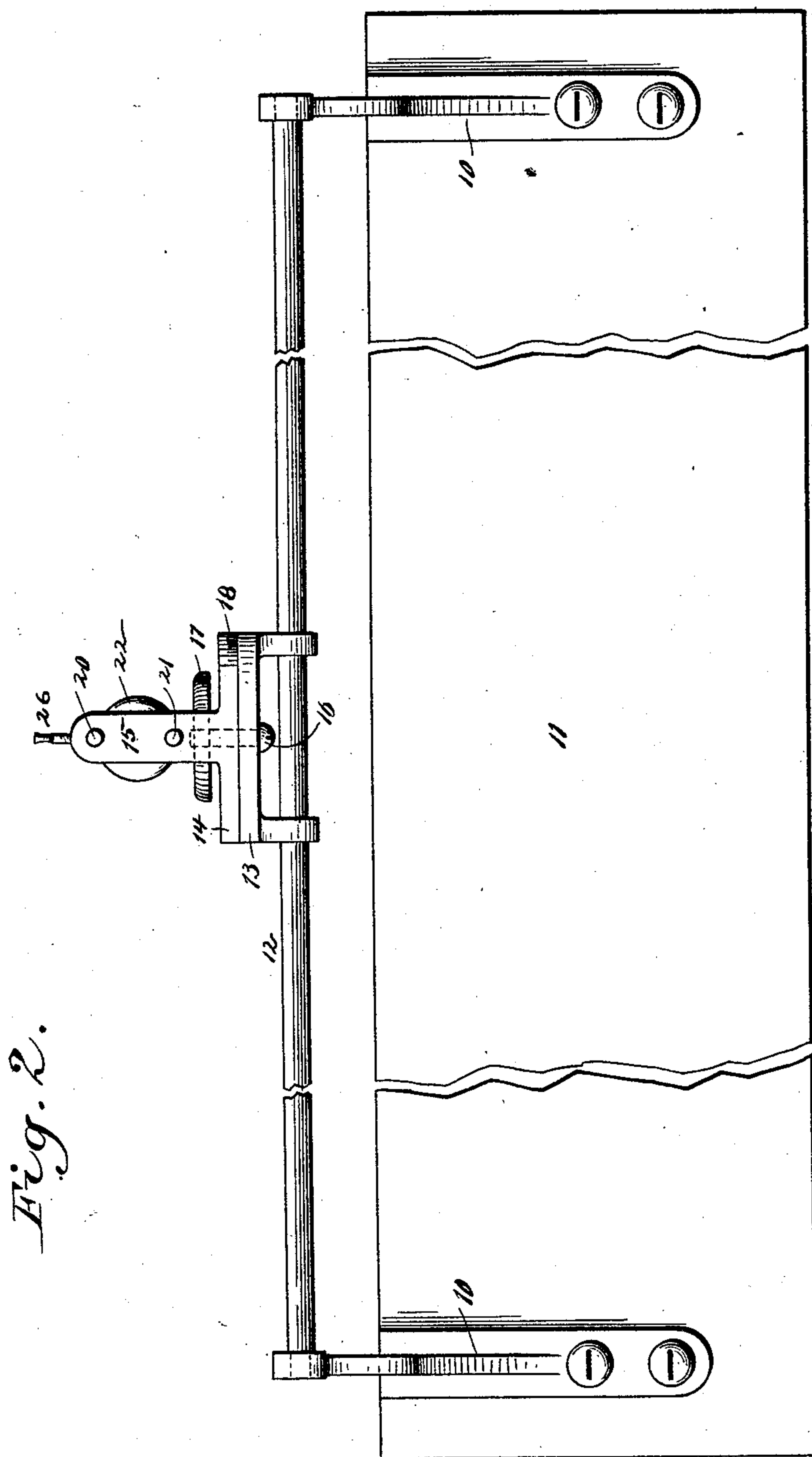
(No Model.)

2 Sheets—Sheet 2.

C. W. DUDLEY.
SAW SHARPENING DEVICE.

No. 428,832.

Patented May 27, 1890.



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UNITED STATES PATENT OFFICE.

CHANDLER W. DUDLEY, OF WHITING, IOWA.

SAW-SHARPENING DEVICE.

SPECIFICATION forming part of Letters Patent No. 428,832, dated May 27, 1890.

Application filed March 5, 1890. Serial No. 342,714. (No model.)

To all whom it may concern:

Be it known that I, CHANDLER W. DUDLEY, of Whiting, in the county of Monona and State of Iowa, have invented a new and useful Improvement in Saw-Files, of which the following is a full, clear, and exact description.

My invention relates to an improvement in saw-files of that class adapted to be operated by hand, and in which a file, preferably of the taper pattern, is employed.

The objects of the invention are to provide a means whereby the file may be guided in any desired direction to form the teeth of the saw, and also to construct a simple and durable device capable of being used in connection with any form of saw-clamp.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the device mounted for use and partially in section. Fig. 2 is a front elevation; and Fig. 3 is a section on line 3 3 of Fig. 1, illustrating a rear view of the spacing-plate.

In carrying out the invention two brackets 10 are secured to one side of a board 11, or other equivalent support, and upon the opposite side of said board a saw-clamp of any approved construction is attached, the brackets being located at equal distances from the center of the saw-clamp and connected by a supporting rod or rail 12, parallel with the saw about to be filed. A bed-plate 13 is held to slide from end to end of the supporting rod or rail, which plate is preferably made in disk form and provided with two or more lugs projected from the under side to receive the said rod or rail. Upon the bed-plate a turn-table 14 is placed, ordinarily corresponding in shape therewith, and at opposite sides from the upper face of the turn-table standards 15 are projected, the said turn-table being adjustably pivoted upon the bed-plate by a bolt 16, fitted with a thumb-nut 17.

Upon the left-hand edge of the turn-table a scale 18 is produced, which is adapted to be

read right and left from the center. This scale, when used in connection with a point 19 upon the bed-plate, serves to indicate to the operator the bevel of the teeth, and by use of the indicator the operator is enabled to reverse the file from right to left, or vice versa, with accuracy, and produce upon each and every tooth exactly the same bevel, and the operator, by reason of this indicator, is also enabled to repeat the filing and obtain exactly the same bevel or exactly the same square across the plate obtained at the preceding filing.

Through the standards 15 of the turn-table two parallel guide-rods 20 and 21 are loosely passed, the lower rod 21 being the shorter. The rear extremity of the upper guide-rod is securely attached to the upper inner end surface of a handle 22 or a lip formed thereon, the said handle being preferably made in two sections—namely, a hollow body-section α , open at both ends, and a butt-section α' , screwed or otherwise fastened into the outer extremity of the body-section.

In the inner end of the handle a sleeve 23 is loosely inserted, adapted to receive the shank of a file 24, which shank extends into the handle out of engagement with its sides.

The rear end of the shorter or lower guide-rod is riveted or otherwise secured in the lower end of the spacing-plate 25, (best shown in Figs. 1 and 3,) which spacing-plate slides upon the upper rod. The spacing-plate may be fixedly held at any point upon the upper rod near to or distant from the handle, as the length of the file employed may require, by a set-screw 26, located in its upper end. The central portion of the spacing-plate is enlarged horizontally and provided with an opening into which a flanged ferrule 27 is inserted, threaded at the rear end to receive a lock-nut 28, and having a triangular bore 29 to receive the point of the file and a pointer 30, formed at the center of its upper edge and adapted to turn upon the rear face of the spacing-plate. Upon the said rear face of the spacing-plate at the enlarged portion a scale 31 is produced above the ferrule, which scale is read right and left from the center, and when the said scale is used in connection with the pointer it serves as an indicator for the position of the file in deciding

the pitch of the teeth, and by this arrangement the operator is enabled to remove a file, replace it by another, and yet preserve the position of the file to the exact pitch of the tooth, and also to repeat his filing with exactly the same pitch of tooth.

By the use of the device herein described the practical saw-filer is enabled to file a saw with greater accuracy, and an inexperienced man is with very little practice able to file a saw equally as well as one of experience.

When the device is once set to the proper pitch or bevel it is impossible to file at any other pitch or bevel, and by its use less labor and files are required. The motion in using the filer is natural and easy, and the left hand is relieved from the tiresome position of supporting the point of the file. The device is readily moved from tooth to tooth and held in position while the tooth is being filed.

By this device the operator is able to maintain a position that will enable him to see more distinctly the points of the teeth being filed than is possible when it is necessary to support the point of the file with the left hand.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a saw-filer, the combination, with a supporting-rod, a bed-plate held to slide thereon, and a turn-table pivoted upon said bed-plate and provided with guide-standards, of guide-rods held to slide in the standards of the turn-table, one rod being of less length than the other, a handle secured to one extremity of the longer rod, a spacing-plate held to slide upon the longer rod and attached to one extremity of the shorter rod, and ad-

justable bearings carried by the said handle and guide-plate adapted to receive and support a file, substantially as shown and described.

2. The combination, with a supporting-rod, a bed-plate held to slide thereon, a turn-table pivoted upon the bed-plate and provided with guide-standards, and a scale used in connection with a point upon the bed-plate, of guide-rods held to slide in the standards of the turn-table, one rod being shorter than the other, a hollow handle secured to one extremity of the longer guide-rod, and provided with a loosely-inserted sleeve, a guide-plate secured to one extremity of the shorter guide-rod and held to slide upon the upper guide-rod, the said guide-plate being provided with a scale upon one face and a thimble adjustably located in the guide-plate opposite the handle-sleeve, the said sleeve and thimble being adapted to receive and hold the file, substantially as shown and described, and for the purpose specified.

3. In a saw-filer, the combination, with a supporting-rod, a turn-table held to slide upon said rod and provided with guide-standards, and guide-rods held to slide in the said standards, of a tubular handle attached to one of the said rods, a guide-plate secured to the other rod and sliding upon the handle-rod, and adjustable bearings fitted in the guide-plate and handle for the reception of the file, substantially as and for the purpose specified.

CHANDLER W. DUDLEY.

Witnesses:

D. T. CUTLER,
C. L. WATKINS.