

No. 750,144.

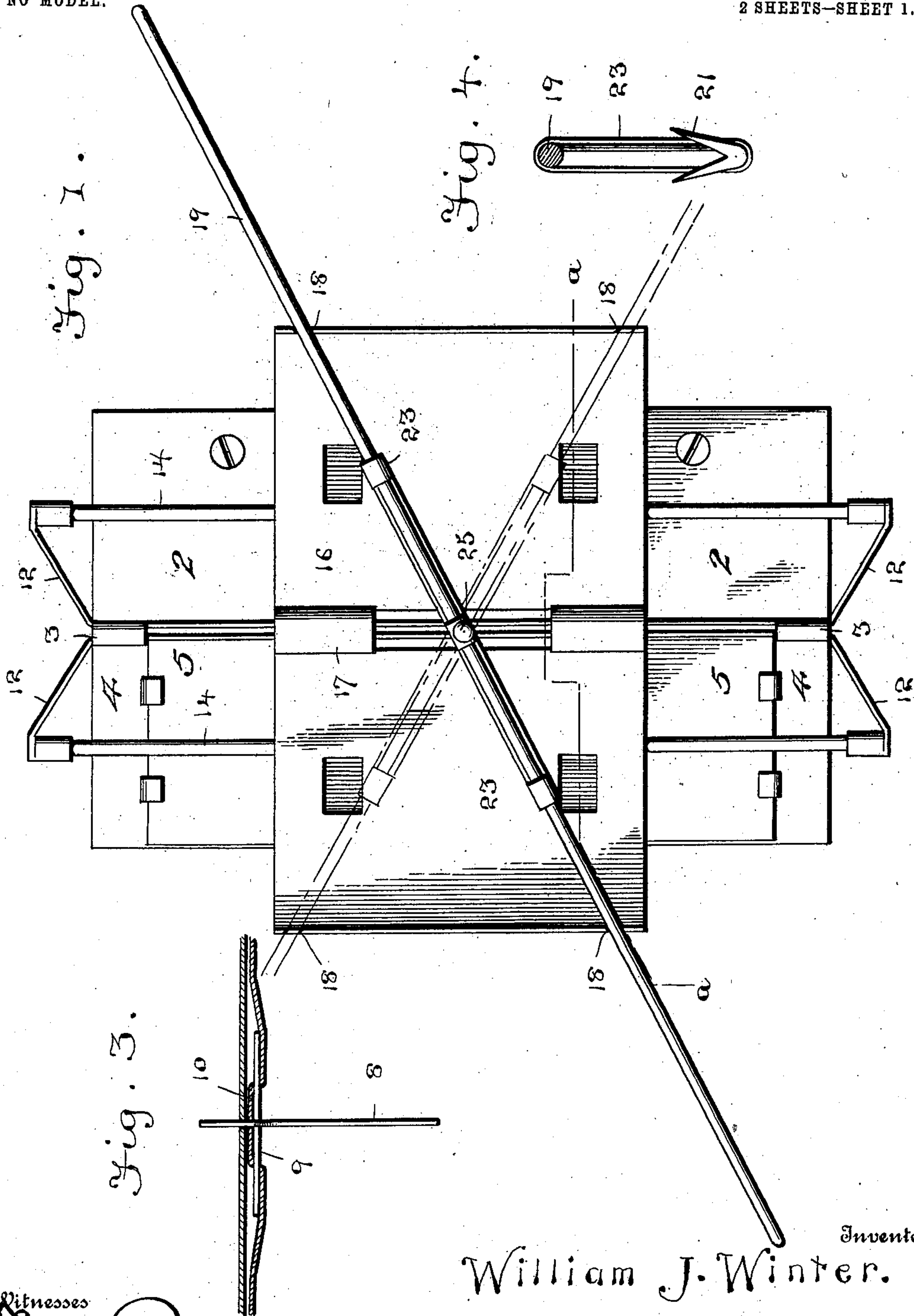
PATENTED JAN. 19, 1904.

W. J. WINTER.
SAW SHARPENER.

APPLICATION FILED MAY 20, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses

W. Riley
Herbert Lawson

Inventor
William J. Winter.

By *Victor J. Evans*
Attorney.

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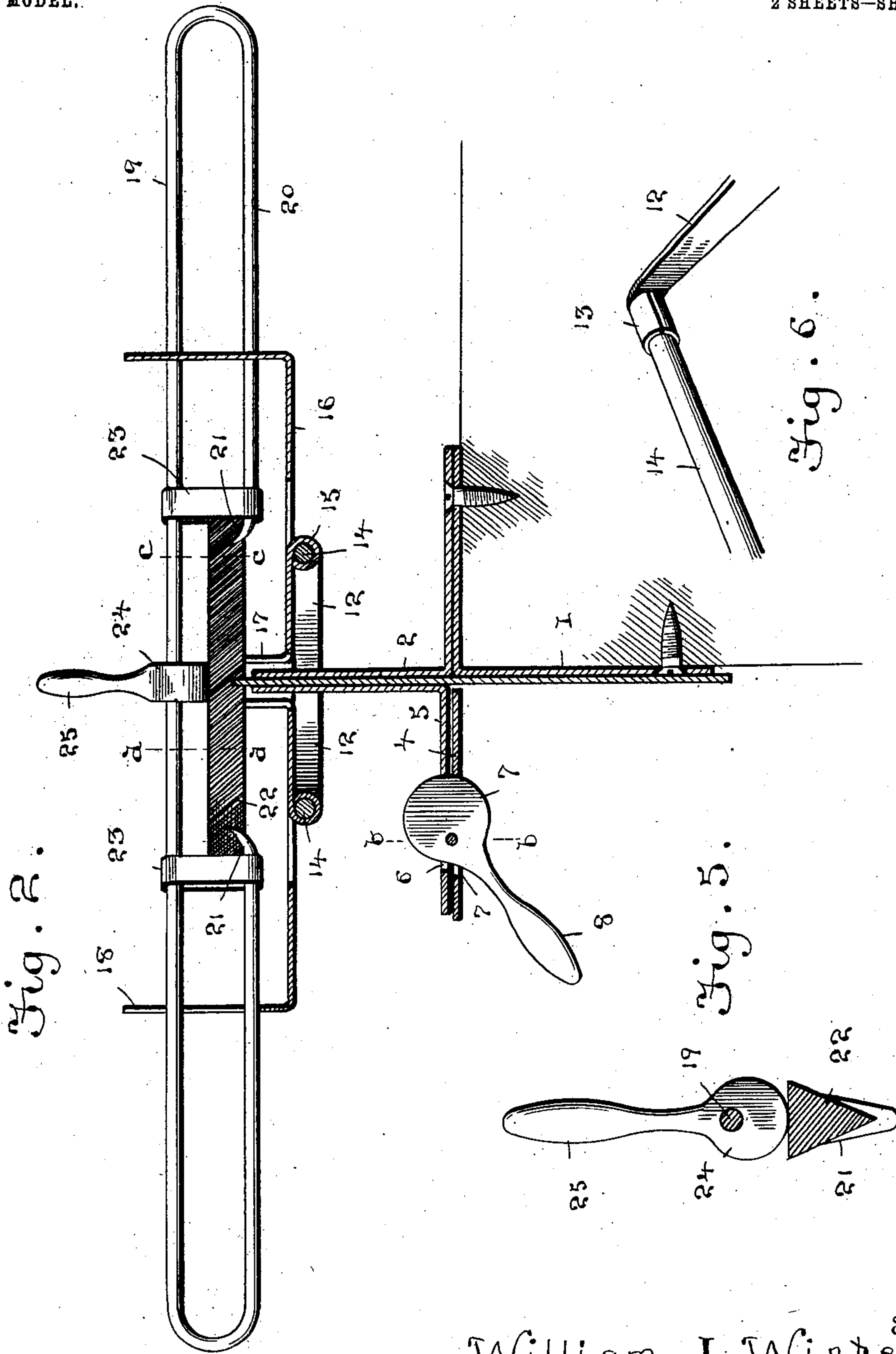
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UNITED STATES PATENT OFFICE.

WILLIAM J. WINTER, OF CHRISTOPHER, WASHINGTON.

SAW-SHARPENER.

SPECIFICATION forming part of Letters Patent No. 750,144, dated January 19, 1904.

Application filed May 20, 1903. Serial No. 158,020. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. WINTER, a citizen of the United States, residing at Christopher, in the county of King and State of Washington, have invented new and useful Improvements in Saw-Sharpener, of which the following is a specification.

My invention relates to new and useful improvements in machines for sharpening saws; and its object is to provide a simple device by means of which the tooth of a saw may be quickly sharpened.

A further object is to provide a detachable file having novel means for holding the same in proper relation to the saw-blade.

Another object is to employ a clamping device for securing the blade in position within the sharpener.

With the above and other objects in view the invention consists in the novel construction and arrangement of parts hereinafter more fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of the device. Fig. 2 is a section on line *a a*, Fig. 1. Fig. 3 is a section on line *b b*, Fig. 2. Fig. 4 is a section on line *c c*, Fig. 2, with the file removed. Fig. 5 is a section on the line *d d*, Fig. 2; and Fig. 6 is a detail view showing the connection of one of the supporting-rods to an arm of the base-plate.

Referring to the figures by numerals of reference, 1 is an angle-iron adapted to be secured to the edge of a bench or table, and secured thereon in any suitable manner is a base-plate 2, L-shaped in cross-section and having curved straps 3 at the ends of the upper edge thereof, said straps extending downward to and formed integral with the ends of a plate 4, which is in horizontal alinement with the base of the L-shaped plate 2. A clamping-plate 5, which is L-shaped in cross-section, is slidably mounted upon plate 4 and between the straps 3 and has a slot 6 therein, into which projects a cam 7, arranged at one end of an operating-lever 8. This cam, together with its handle, is preferably struck up from sheet metal and is mounted eccentrically upon a pin 9, which extends under a strap 10,

struck up from the plate 4, before referred to and having a slot 11 therein, through which the cam projects.

Arms 12 extend outward from the straps 3 and the base-plate 2, and the ends of these arms are provided with cylindrical laterally-projecting extensions 13, which hold the ends of the parallel rods 14. These rods are engaged by ears 15, which are struck down from plates 16, which are connected at their adjoining edges by curved straps 17. Each of these plates is L-shaped in cross-section and provided adjacent to its ends with slots 18, adapted to receive a reciprocating file-carrier. This carrier comprises a rod 19, the ends of which are bent inwardly, as at 20, and provided with upwardly-curved forks 21, adapted to embrace the lower edge of an angular file 22. Sleeves 23 are slidably mounted upon the rod 19, and its inward extensions 20 serve to hold the file 22 against downward movement. A cam 24 is mounted upon the rod 19 at a point above the center of file 22 and has a handle 25, by means of which it may be swung downward, so as to clamp said file within the forks 21.

When it is desired to sharpen a saw, the blade thereof is inserted between the base-plate 2 and the clamping-plate 5, and said clamping-plate is forced against the saw-blade by means of cam 7. The rod 19 is then arranged diagonally upon plates 16 and within the slots 18. This rod is then reciprocated backward and forward until the file 22, held thereby, sufficiently sharpens a tooth of the saw. The plates 16 are then moved longitudinally upon rods 14, so as to bring the file into position upon every alternate tooth of the saw, and the file is then reciprocated until these teeth are sharpened. When it is desired to sharpen the remaining teeth at the opposite angle, the rod 19 is removed from its slots and placed diagonally in the position shown in dotted lines in Fig. 1.

It will be seen that the device is extremely simple in construction, and by employing the same a saw can be quickly and thoroughly sharpened.

In the foregoing description I have shown the preferred form of my invention; but I do not limit myself thereto, as I am aware that

modifications may be made therein without departing from the spirit or sacrificing the advantages thereof, and I therefore reserve the right to make such changes and alterations as may fairly fall within the scope of my invention.

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

- 10 1. The combination with a base-plate, and a clamping-plate adapted to secure a saw-blade in position upon the base-plate; of oppositely-extending arms to the base-plate, rods supported thereby, longitudinally-movable plates
15 upon the rods and having slotted angular extensions, a rod slidably mounted within the slots of said extensions, inwardly-projecting forked ends to the rods, sleeves mounted upon

the rod and its ends, and a cam upon the rod adapted to secure a file within the forked ends 20 of the rods.

2. The combination with a base-plate and a clamping-plate adapted to secure a saw-blade in position upon the base-plate; of oppositely-extending arms on the base-plate, rods supported thereby, longitudinally-movable plates 25 upon the rods having angular extensions and a saw-sharpening device slidably mounted within and adapted to be guided by said extensions. 30

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM J. WINTER.

Witnesses:

HENRY MCCONAUGHY,
F. D. HAMMONS.