Mar. 3, 1925. 1,528,177

R. P. ADAMS

FILE

Filed July 25, 1924

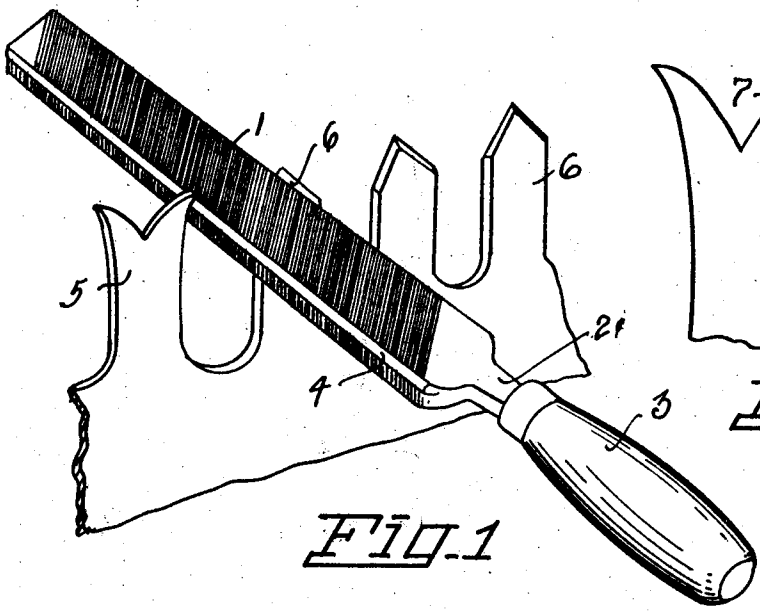


Fig. 1

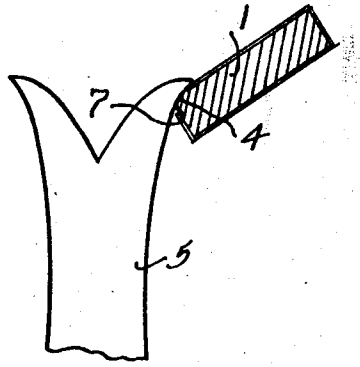
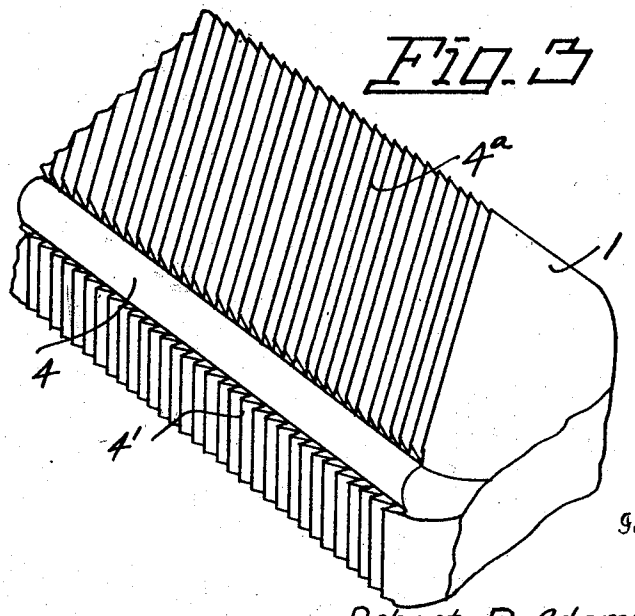


Fig. 2

Fig. 3



Inventor

Robert P. Adams

By Herbert E. Smith

Attorney

Patented Mar. 3, 1925.

1,528,177

UNITED STATES PATENT OFFICE.

ROBERT P. ADAMS, OF FORD, WASHINGTON.

FILE.

Application filed July 25, 1924. Serial No. 728,254.

To all whom it may concern:

Be it known that I, ROBERT P. ADAMS, a citizen of the United States, residing at Ford, in Stevens County and State of Washington, have invented certain new and useful Improvements in Files, of which the following is a specification.

The present invention relates to improvements in files which improvements are herein illustrated and embodied in a rectangular, single-cut file, but it will be apparent that a double-cut file or similar tool of other shape may be utilized for the application of my invention.

The primary object of my invention is the provision of a file especially adapted for use by wood sawyers for sharpening the teeth of saws. In addition to the performance of the usual functions of a tool of this type in sharpening saws and for other purposes, means are provided for removing the rough edges of the raker teeth of cross cut saws. This object is accomplished by applying the file to the concave curved edge of the raker teeth, to sharpen and maintain the teeth in best condition for their work.

Under ordinary conditions when an angular file is used for the above mentioned purpose, the angular file cuts into the saw teeth and weakens them, rendering the tooth liable to breakage. The breaking of a tooth results in the necessity for filing the whole saw for the purpose of forming new raker teeth for cooperation with the cutting teeth of the saw.

I eliminate the possibility of this undesirable condition and consequent loss in time and labor in re-sharpening the saw by providing a rectangular file with a rounded portion which readily adapts itself for this purpose.

The invention consists in certain novel combinations and arrangements of parts in the construction of the file as will hereinafter be more fully pointed out and claimed and as illustrated in the drawings.

The drawings show one complete example of the physical embodiment of my invention wherein the features are combined and arranged according to the best mode I have thus far devised for the practical application of the principles of my invention.

Figure 1 is a perspective view showing a file embodying the invention and in position for use by the sawyer when sharpening a raker tooth of a cross cut saw.

Figure 2 is an enlarged detail view in cross section of the file showing it in operative position for filing the curved edge of a raker tooth of a saw.

Figure 3 is an enlarged perspective view of a portion of the file.

In the preferred form of my invention as illustrated in the drawings the improvements are embodied in a rectangular, single-cut type of flat file indicated as a whole by the numeral 1, the tang 2 and wooden handle 3 being of usual or suitable formation.

Along one of the longitudinal edges as 4′ of the file is fashioned a smooth portion 4 which is rounded with a convex curve in a plane transversely of the rectangular file, the teeth or cutting ribs 4^a on one flat face of the file and the angularly disposed teeth 4′ on the adjacent edge of the file terminating at and merging with the opposite sides of this rounded smooth portion. The terminals of the file teeth at the opposite sides of this smooth portion 4, as shown in Figure 2 are utilized for operation on the raker tooth 5 of a cross cut saw. Between the raker tooth and the adjoining cutting tooth 6 a space is provided, and the forked raker tooth as usually constructed is fashioned with a concave edge 7.

Figure 2 illustrates the use and action of the file of my invention wherein the convex rounded, longitudinal edge of the file may pass harmlessly along the concave edge of the tooth without danger of ruining the tooth, but permitting the flat face of the file to remove the burr from the cutting edge of the tooth.

By preference and to make an efficient tool, I use fine teeth on the upper face of the file and comparatively coarse teeth on the under face. Likewise, the right edge is correspondingly coarser than the left. This to permit finer finish of the cutting edges, the fine file on top coming naturally to finish the under parts of the raker teeth while the coarser teeth of the file I use for the purpose of slimming the teeth and filing the tops of the rakers.

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

1. A rectangular file having a rounded, smooth longitudinal edge.

2. A rectangular file having cutting teeth on its flat face and on its adjoining perpendicular side, and a smooth longitudinally extending edge between said two sets of teeth.

3. A rectangular file having standard cut-teeth on the bottom face and on the right edge, with finer teeth on the top face and left edge, and a smooth, longitudinally extending edge between said two sets of finer teeth.

In testimony whereof I affix my signature.

ROBERT P. ADAMS.