

(No Model.)

A. WEED.
ROUND FILE.

No. 570,579.

Patented Nov. 3, 1896.

Fig. 1.

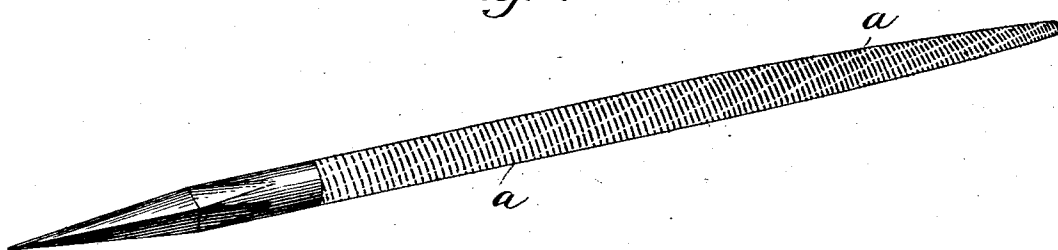


Fig. 2.

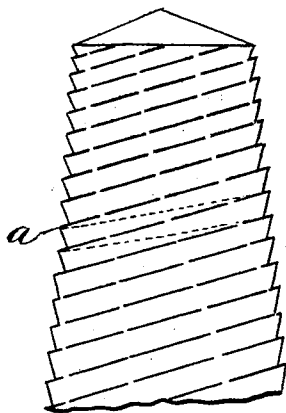
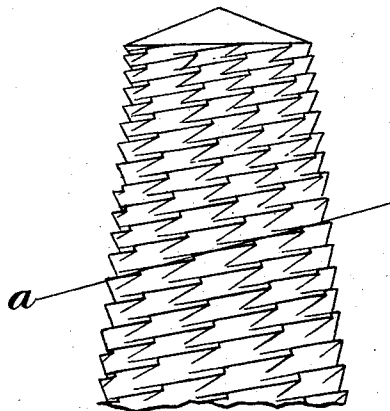


Fig. 3.



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UNITED STATES PATENT OFFICE.

ALFRED WEED, OF ANDERSON, INDIANA.

ROUND FILE.

SPECIFICATION forming part of Letters Patent No. 570,579, dated November 3, 1896.

Application filed February 27, 1895. Serial No. 539,890. (No model.)

To all whom it may concern:

Be it known that I, ALFRED WEED, a citizen of the United States, residing at Anderson, in the county of Madison and State of Indiana, have invented certain new and useful Improvements in Round Files, of which the following is a specification.

Heretofore round files as made by hand have been cut by first operating upon the blanks with a cutter, beginning at the point and cutting from the point to the heel and then turning the blank part way around and again beginning at the point and cutting to the heel, and so on, until the entire surface is cut by a series of parallel cuts made successively. Round files have also been made in such way that the teeth have been uniform in character from the point to the butt, and as a result the teeth at the points of the files have never been perfectly formed and the files produced have been of a very inferior quality and the points comparatively blunt.

In order to produce a round file of a superior character and with a tapering point, I depart from the mode of cutting heretofore pursued, as fully set forth hereinafter.

In the accompanying drawings, Figure 1 is a perspective view of a round file, illustrating my improvements. Fig. 2 is an enlarged view of the point of the file; Fig. 3, an enlarged view of the point, illustrating the teeth set at a different angle.

The file-blank A is provided with a tapering point and otherwise is of the same form and character as the blanks used in cutting round files by hand in the usual manner. I begin operations upon this blank by means of an ordinary tool, which may be operated by hand or in a machine, and with this tool I make a series of cuts upon one or more spiral lines or courses *a*, beginning at the point of the blank and extending continuously, thereby forming a spiral line of cuts from the point to the heel, and then another series is started from the point in like manner, this operation being repeated until the whole surface of the

blank is covered with series of cuts upon spiral lines. Instead, however, of making this line of cuts uniform in character the turns of the spiral near the point are closer together than elsewhere and expand or separate toward the butt, whereby I am enabled to preserve as clear a cut of the teeth at the point as at the middle or butt of the file, so that all parts of the file are equally well adapted to perform the operations required.

Not only is the file above described much superior to those heretofore made by machinery, but it is also superior to the ordinary hand-cut files, as it has been found that in filing soft metal, such as brass, it will take hold of the metal and can be effectively used for a much greater length of time than files cut by hand by a series of cuts in longitudinal rows, as heretofore.

The edge of the cutter may be held or set so that each cut coincides throughout its length with the spiral line of the cuts, as indicated in Fig. 2. If desired, however, the incisions may be made each at an angle to the said spiralline, as indicated in Fig. 3, in which case the teeth will constitute a series of separate incisions upon but not exactly coinciding with said line, the ends of the cuts of one series being intermediate of those of the preceding series.

Without limiting myself to any specific forms or proportions, I claim as my invention—

A round tapering-pointed file having several series of teeth cut upon spiral lines extending from the point to the heel the spaces between the teeth in each of said lines becoming more open toward the heel, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALFRED WEED.

Witnesses:

V. BIGELOW,
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