

(No Model.)

W. WATMORE.
MANUFACTURE OF FILES.

No. 383,547.

Patented May 29, 1888.

Fig 1.

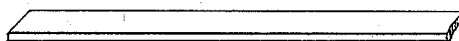


Fig 2.

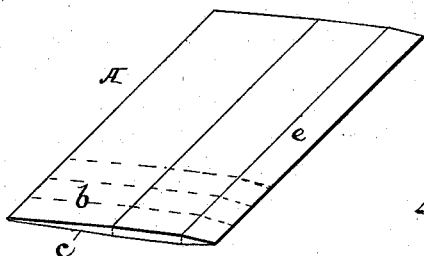


Fig 3.

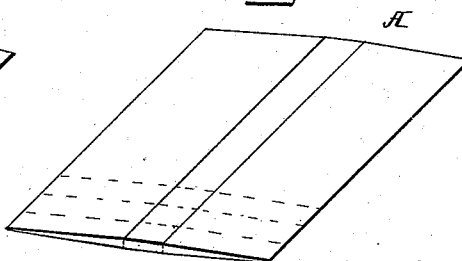


Fig 4.

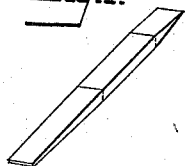


Fig 5.

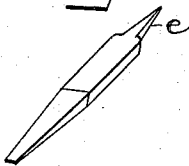
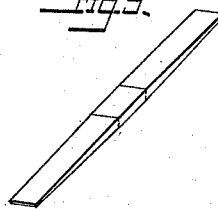


Fig 5.



Attest:

Geo. B. Munkeloff.
A. G. G. Gussmann.

Inventor:

Wm. Watmore,
By Foster & Freeman,
attys.

UNITED STATES PATENT OFFICE.

WILLIAM WATMORE, OF PHILADELPHIA, PENNSYLVANIA.

MANUFACTURE OF FILES.

SPECIFICATION forming part of Letters Patent No. 383,547, dated May 29, 1888.

Application filed December 9, 1887. Serial No. 257,452. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM WATMORE, a citizen of the United States, residing at Philadelphia, Philadelphia county, Pennsylvania, have invented certain new and useful Improvements in the Manufacture of Files, of which the following is a specification.

My invention relates to the manufacture of files of different forms, and has for its object to dispense with the usual expensive and objectionable forging operations employed in such manufacture; and my invention consists in making file-blanks by first rolling plates to a form corresponding in cross section to the longitudinal form of the desired blanks, and in then cutting sections from said plates to produce such blanks, as fully set forth hereinafter, and as illustrated in the figures in the accompanying drawings, in which—

Figure 1 is a plan showing the form of the plate from which it is common to forge file-blanks in the ordinary method of manufacture. Figs. 2 and 3 are perspective views showing the forms of plates used in my improved process in manufacturing blanks of different forms. Fig. 4 is a perspective view of a blank made from the plate, Fig. 2. Fig. 5 is a perspective view of the form of blank made from the plate, Fig. 3. Fig. 6 is a perspective view of a blank as furnished with a tang.

In the manufacture of file-blanks by hand it is common to cut from a plate of metal a rectangular piece of the general form illustrated in Fig. 1, and to then forge this piece by hand to the desired shape, in some instances imparting a bevel from both sides and from both edges to make a tapering blank, or in others to taper only the opposite faces to form a blank of uniform width tapering toward both ends, as is required for rasp-blanks. In order to avoid these expensive forging operations, I first roll down a strip of metal to form a plate corresponding in its transverse section to the longitudinal section of the desired file-blank. For instance, when the file blank is to be of one form, the plate A is rolled to the shape illustrated in Fig. 2—that is, with converging faces *b c*, which constitute the corres-

ponding faces of the file-blanks, and with a contracted edge portion, *e*. This plate is then cut into sections of the proper width of the file-blank transversely, as shown in dotted lines, thereby forming blanks of the required shape, which then can be cut as usual, the tang being formed from the part *e*, as shown in Fig. 6, by stamping or shearing. When the blank is intended to be used in the manufacture of a rasp with the usual double ends, the plate is rolled thickest in the center and tapering toward each edge, as shown in Fig. 3, and sections thereof are then sheared off transversely, as shown in dotted lines in said figure, forming the completed rasp-blanks illustrated in Fig. 5. When it is not desired to manufacture a file having a tang, the plate is rolled without the rib portion *e*.

By the method of manufacture above set forth I am enabled to produce file-blanks of the desired shape complete and ready for cutting without any forging operations whatever, and I not only thereby greatly reduce the cost of manufacture, but I also avoid the deterioration of the metal frequently resulting from overheating or frequent reheatings in the operations of forging.

It will be evident that the form of the plate will depend upon the longitudinal form and dimensions of the file it is desired to manufacture.

I claim—

The within-described improvement in the manufacture of file-blanks, the same consisting in first making a plate having the transverse section corresponding to the longitudinal section of the desired blanks, and in then severing said section transversely to detach sections equal in width to the desired blanks, substantially as set forth.

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

WILLIAM WATMORE.

Witnesses:

WM. S. DARLINGTON.

N. C. LANE.