

T. S. SMITH'S

Improved
METHOD OF MAKING FILES.

104507

PATENTED JUN 21 1870

Fig. 1.

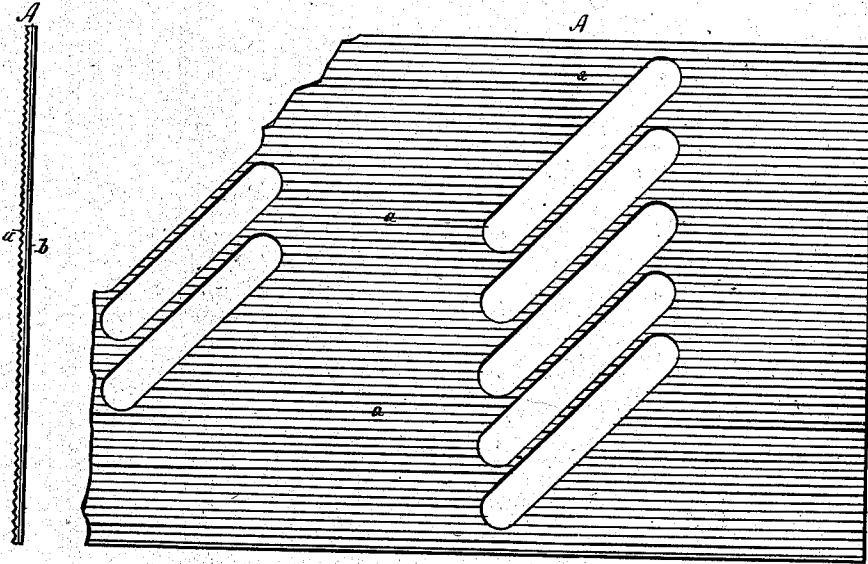
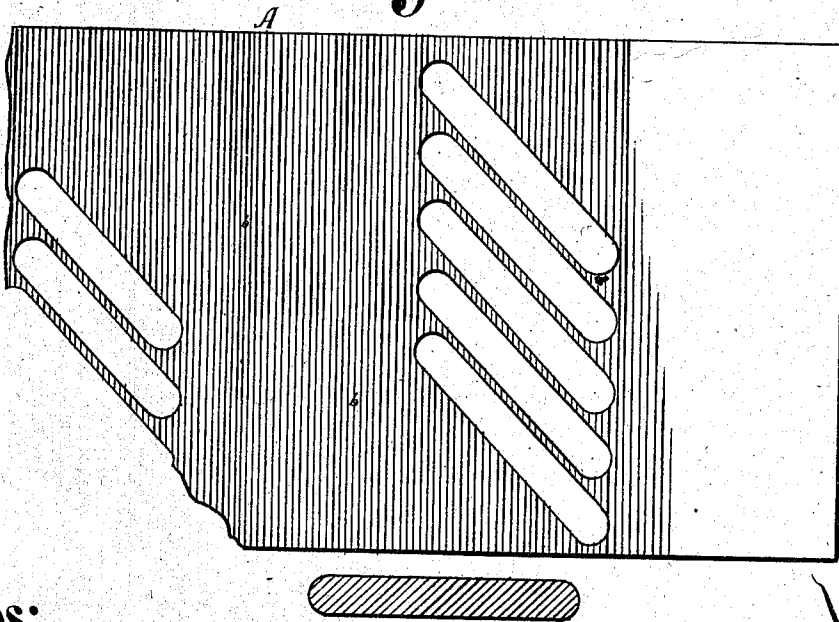


Fig. 2.



Witnesses:

G. L. Fisher
S. S. Smith

Inventor.

Thomas Smith

United States Patent Office.

THOMAS S. SMITH, OF CINCINNATI, OHIO.

Letters Patent No. 104,507, dated June 21, 1870.

IMPROVED METHOD OF MAKING FILES.

The Schedule referred to in these Letters Patent and making part of the same

I, THOMAS S. SMITH, of Cincinnati, in the county of Hamilton and State of Ohio, have invented a certain Improved Method of making Files from Planed Sheet Metal, of which the following is a specification.

To make the files, I take a sheet of iron, steel, or other suitable metal, having a thickness adequate to the use for which it is made, and, by means of a planing-machine, groove one or both surfaces of the sheet metal in such a manner that sharp parallel ridges are formed over the entire sheet of metal, which is then placed in the former and the files struck out.

Figure 1 is a plan of a sheet of metal planed upon its surfaces, and also an end view of the same.

Figure 2 is a plan of the reverse surface of the sheet of planed metal exhibited in fig. 1.

The angular ridges *a*, formed on the planing-machine on the obverse surface of the sheet of metal *A*, may be large to present a coarse surface of the file; the reverse surface *b* is planed in finer ridges.

The metal having been planed is then placed upon a former, and, by means of dies of suitable form, the files are struck from the sheet in the most economical manner.

When the files are to be used in metal-working, the sheet-steel is worked into files from the soft metal, and the requisite temper given them when finished.

This manner of forming files is much the cheapest, as far as the labor involved is concerned; the grooves are cut by means of planer-jacks or circular cutters, and are made at right angles to each other on opposite sides of the same plate, as illustrated in the drawing, which method of grooving permits the use of a lighter metal.

The files may be struck out of the sheet before being planed, in which case they are more readily finished, and present a better appearance.

I claim as my invention—

The manner of making files from planed sheet-metal, substantially in the manner and for the purpose specified.

THOMAS S. SMITH.

Witnesses:

C. L. FISHER,
CHAS. G. E. SMITH.