

L. W. STOCKWELL.
Files.

No. 152,776.

Patented July 7, 1874.

Fig. 1.

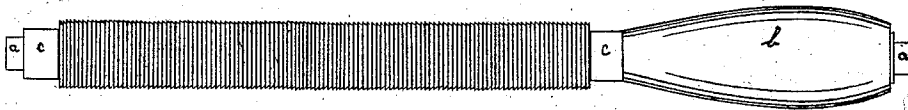


Fig. 2.



Fig. 3.

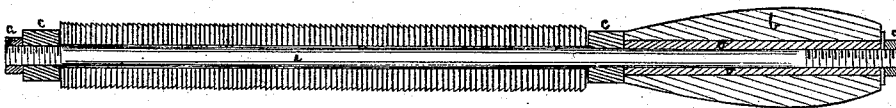


Fig. 4.



Fig. 5.



Witnesses.
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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN FILES.

Specification forming part of Letters Patent No. **152,776**, dated July 7, 1874; application filed December 8, 1873.

To all whom it may concern :

Be it known that I, LEVI W. STOCKWELL, of Ravenna, in the county of Portage and State of Ohio, have invented certain Improvements in Files, of which the following is a specification :

This invention consists of a file constructed of grooved sections or plates held together by compression.

Figure 1 is a side view of the file. Fig. 2 is a side view of the file when in position to be ground or sharpened. Fig. 3 is a longitudinal sectional view of the file. Fig. 4 is a cross-section of the file, showing the back side of one of the sections. Fig. 5 is a cross section, showing the front of one of the sections.

Each section forms a cutting-edge across the file on three sides, and, in connection with an adjoining section, forms a furrow across three sides of the file, the thickness of a section being equal to the width between the cutting-edges of the file. The sections are made of steel. The rod *i* passes through a hole in each section, and is threaded at each end. The steel sections are firmly compressed between the washers *cc* by means of the nuts *aa* on the screw-thread at each end of the rod *i*. At one end of the file, between the nut *a* and the washer *c*, is a follower, *o*, which passes through the handle *b*

of the file. The diameter of the holes through the sections is a little greater than the diameter of the rod *i*, so that when the follower *o* and handle *b* are removed, and the sections relieved from pressure, the sections may be held in an inclined position on the rod *i*, to be ground or sharpened, as shown in Fig. 2.

A bastard file is made by grooving each section on the front side, or side opposite from the handle, as shown in Fig. 5. The back side of the file, as shown in Fig. 1, is a safe edge, it not having been ground or sharpened, and the front side is a float-file. The sections at the top and bottom form bastard files. Fig. 4 shows that side of a section which is toward the handle.

After the file has been ground or sharpened the sections should be firmly compressed by means of the nuts *aa* on the screw-threads at the ends of the rod *i*, so that in the use of the file none of the sections will slip or move from its place.

I claim as my invention—

The combination of the grooved sections with the rod *i*, substantially as and for the purpose herein set forth.

LEVI W. STOCKWELL.

Witnesses:

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