

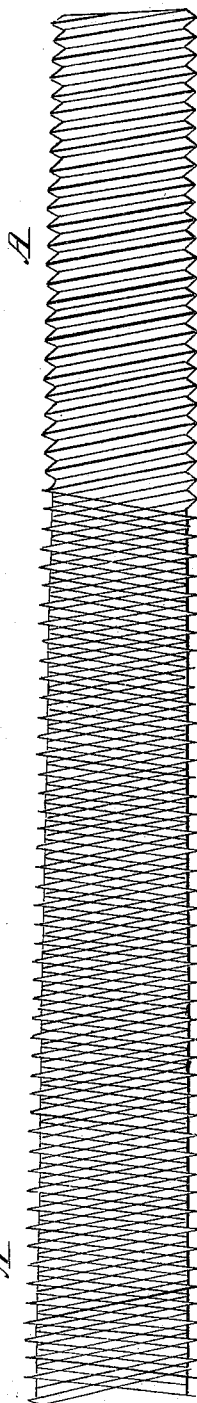
*R. Flint,*

*File,*

*N<sup>o</sup> 4,660.*

*Patented July 24, 1846.*

*Fig. 1*



# UNITED STATES PATENT OFFICE.

RICHARD FLINT, OF MERIDEN, CONNECTICUT.

## RAT-TAIL FILE.

Specification of Letters Patent No. 4,660, dated July 24, 1846.

*To all whom it may concern:*

Be it known that I, RICHARD FLINT, of Meriden, in the county of New Haven and State of Connecticut, have invented a new  
5 and Improved File; and I do hereby declare that the following is a full and exact description.

The nature of my invention consists in the cut of the file.

10 To enable others skilled in the art to make and use my invention, I will proceed to describe its construction, I make my files by cutting a thread with clamp screw dies or by any of the known forms of cutting a  
15 screw tap, where a taper file is wanted I prefer cutting them in an engine as the feed can in that case be easily graduated, producing an equality of the thread through the large and small parts of the file, and for  
20 a "double cut" file I use a right and left hand thread.

Figure 1, A A is a plan of a file cut as above described, the dark part of the figure

represents the double cut part of the file, the light represents the single cut or single  
25 thread, it will be seen on examination that the diagonal lines representing the teeth of the file do not run parallel with the file but diagonally from one end to the other. I make the teeth in this manner that one  
30 tooth shall not follow in the "track" of the other, as this would produce ridges in filling, to make the tooth in the above shape it is only necessary to either alter the feed of the engine and use a finer thread in the die,  
35 for the left hand cut.

What I claim as my invention and desire to secure by Letters Patent is—

A round file or files cut by means of a right and left hand screw, or screws, sub-  
40 stantially as above set forth.

RICHARD FLINT.

Witnesses:

S. SMITH,  
L. GOODWIN.