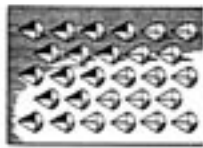


**Files and Rasps** Every violin maker needs an array of files that vary by shape, length, size of teeth, and cut. Files with single cut are primarily used for metal; double cut files, for wood. Flat files must be cut all the length to the end. One of the small edges should be smooth so that it does not mar the wood. Files are expensive and should be stored so they do not contact and blunt each other. Hand cut files are of a much higher quality than machine made files.

Files come in different grades of coarseness. The numbering system is different for Swiss and German cuts.

name of cut	material	German cut#	Swiss cut #
coarse	wood	1	000-0
medium	wood	2	0-1
fine	wood/metal	3	1-2
very fine	metal	4	2-3
ultra fine	metal	5	3-4

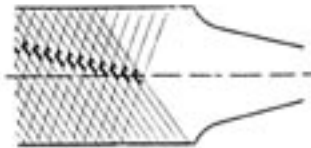
Rasps are files with especially large and pointed teeth used for quick removal of wood. The best rasps are hand-cut.



*Rasp, coarse*



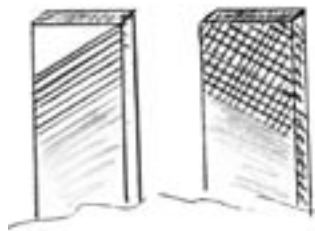
*File, single cut*



*File, double cut*

*Basic models:  
Single cut: for metal  
Double cut: for wood  
Coarsest cut: 1  
Finest cut: 3*

The file must be cut up to the end.



*A,*

*B.*

*A. Not good for violin making.  
B. Good for violin making.*

Flat files should have a cutting edge just on one of the small sides (safety reasons).

Hand cut files are much better than machine cut.

The best way to store or keep files:

