

## Chapter 3

# Filing & Sawing

*The ability to focus attention on important things  
is a defining characteristic of intelligence.*

—Robert J. Shiller

## Section I – Filing

### Introduction

Crude files were used since 1100 years BC in the form of stones with ridges running at right angles across them. Like modern files, they were used to sharpen tool edges. The first attempt to make files by machine began in 1490, but the first successful production began in France about 1750. Hammers, cold chisels, and punches are blacksmiths' tools adopted by machinists, but files are the machinists' first and most basic tool. Before the development of machine tools, files were the *only* way to cut and shape metals precisely. With skill and patience, early machinists made clocks and locks with files, usually out of brass. Because there are faster methods of metal removal today, files are mainly used to sharpen, smooth edges, remove burrs, or make small adjustments, but they remain an important and handy tool. In some third-world countries today, copies of modern firearms are still made using files. Files have the advantages of being inexpensive, portable, able to get into tight spots, and require no electric power.

### File Nomenclature

**What are the parts of a file?**

See Figure 3–1.

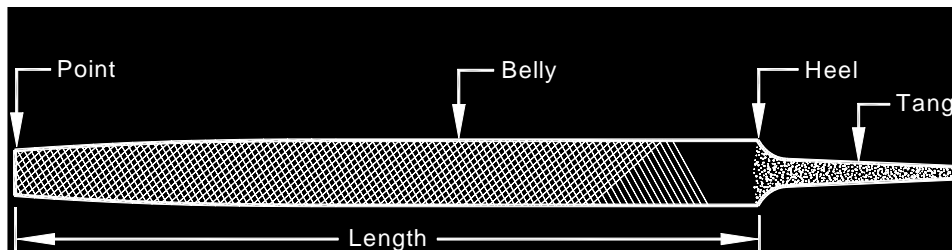


Figure 3–1. Parts of a file.