

## Chapter 3—A Brief History of the Ax

The ax has been part of human history for thousands of years. From its earliest beginnings as a stone tool, people used the ax primarily for breaking rather than chopping. As early humans learned to chip the sides of a stone to create sharp edges, the cutting edge was born. From this early stage, the ax evolved from stone, to soft metals, to hardened steel. The durability and efficiency of the ax increased with each advancement. The shape of the ax head and the functionality of the ax itself changed with advancements in metallurgy. People developed specialty axes for a variety of uses, with many axes having nothing to do with chopping wood. The various uses for and functionality of the ax has made it one of the most versatile and important tools in the history of humankind.

When European explorers arrived in America, they brought European-style axes with them. The evolution of the ax in Europe produced a variety of specialized axes for chopping, hewing, and shaping, and for other commercial and domestic tasks. However, European axes were not stout enough for the timber

types and hard use they faced in America. The most common ax styles used during America's early history were trade axes, the German ax, the Spanish ax, and the Anglo-American ax. These styles had narrow cutting edges and no poll (the extended metal back-side of a single-bit ax head).

Strict regulations and high taxes placed on axes imported to America and on the materials required to manufacture axes made these tools scarce. As America grew, the demand for axes increased. Local mining and the processing of raw materials enabled village blacksmiths to begin producing the tools that helped to build this country.

The first axes manufactured in America were similar to their European counterparts, but they soon evolved into modified European-American patterns that eventually led to the variety of American patterns we use today. A poll on the back of the ax and a more rectangular cutting edge distinguished early American ax patterns (figure 3-1) from European patterns.

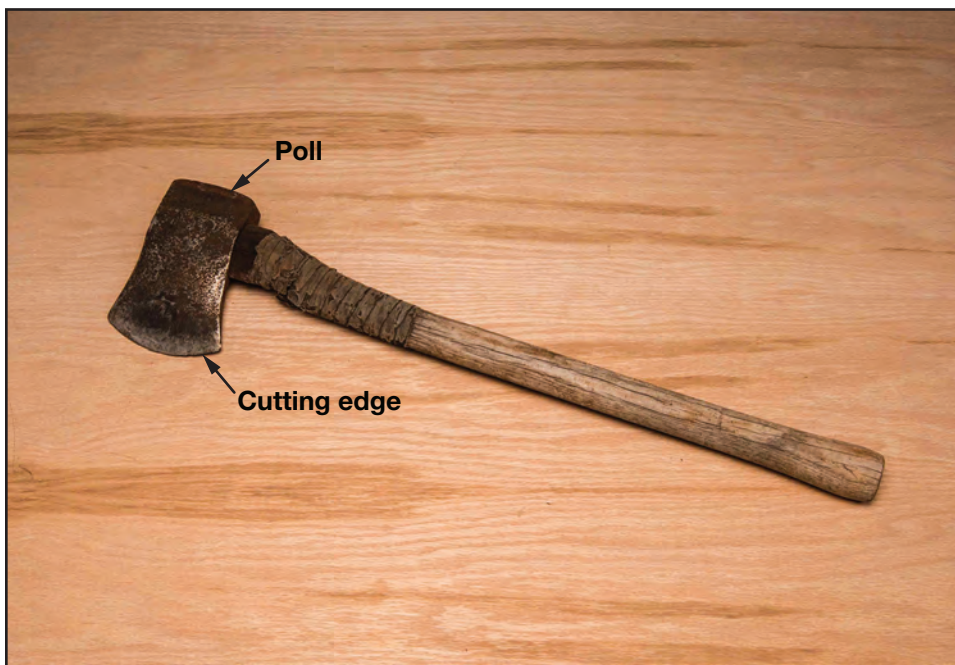


Figure 3-1—An early American, single-bit ax with the poll and cutting edge labeled.



The USS *Philadelphia*, a gunboat built and sunk in 1776, is on display at the Smithsonian National Museum of American History in Washington, DC. The display contains many artifacts, including several ax heads (figure 3–2) that show the transition from the European- to the American-style ax pattern (figure 3–3).



Figure 3–2—Two ax heads from the exhibit at the Smithsonian National Museum of American History in Washington, DC.  
—*Military History, Smithsonian Institute*

As American settlers moved west, the number of American ax patterns expanded. People changed the shapes and grinds of axes to adapt them to different

tree species and sizes. This eventually led to development of the Puget Sound felling ax for the big timber of the west coast. When hung on a 44-inch handle, the narrow, elongated cutting edge of the Puget Sound felling pattern (figure 3–4) enabled lumberjacks to reach deep into and across the large-diameter timber of the Pacific Northwest.

The American ax-manufacturing industry reached its peak in the early to mid-20th century. Local blacksmiths producing individual axes gave way to a new industry of mass-produced axes for domestic use and for export around the world. Beginning in the 1940s, several important events led to the decline of the American ax-manufacturing industry.

During World War II, many American industries retooled to manufacture equipment necessary to support the war effort. At the end of the war, many of these companies chose not to return to manufacturing axes, or manufactured them only for a limited time and often in conjunction with the production of other tools.

The development of the chain saw also led to the decline of the ax-manufacturing industry. Though versions of motorized saws date back to as early as the

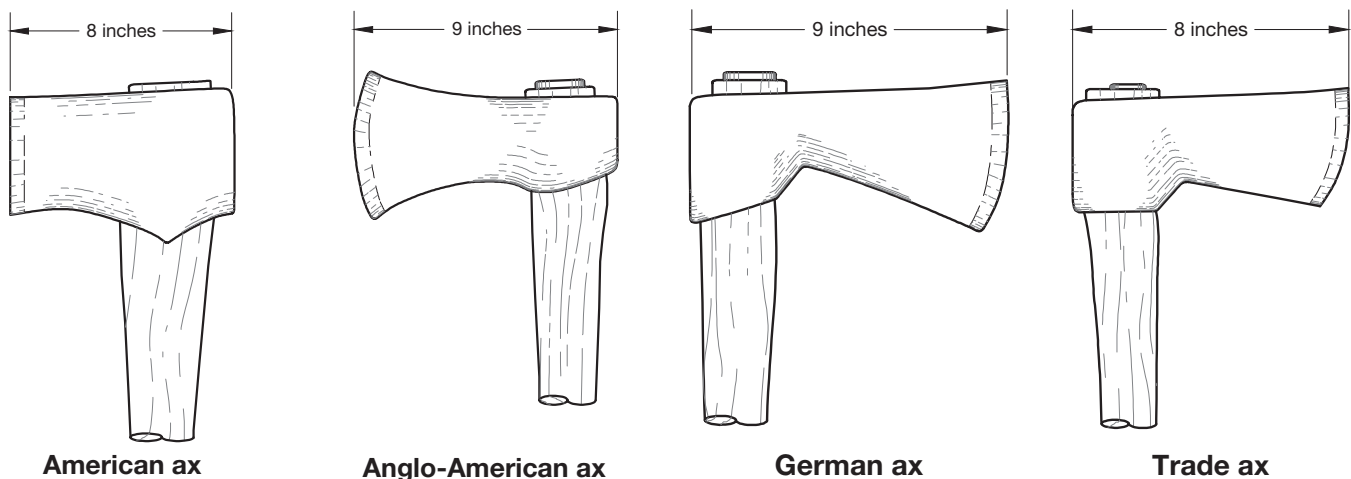


Figure 3–3—Early European- and American-style ax heads.



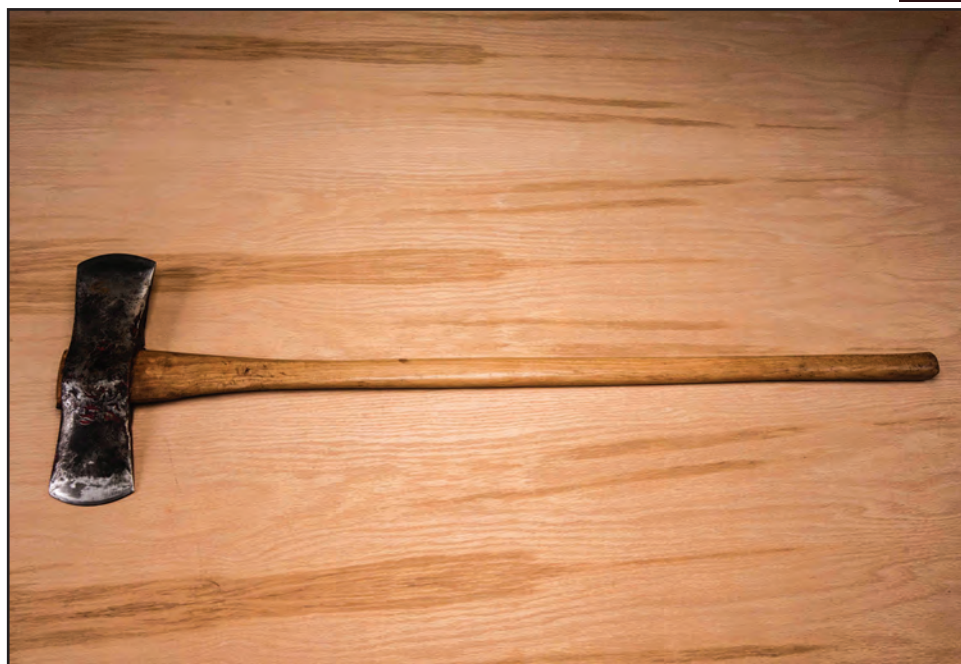


Figure 3-4—A Puget Sound felling ax head on a 44-inch handle.

late 1800s, these saws were large, heavy, and not easy to use in the woods. Loggers used the drag saw (figure 3-5), the most common of these early motorized saws, to buck logs using a vertical cutting motion. However, some models had a blade (also called a “bit”) that loggers could rotate and use to make the horizontal cut in felling operations. Early chain saws became available in the 1920s, though they were

unreliable and had numerous limitations. Initially, early chain saws could only make horizontal cuts. The carburetors of that era prevented sawyers from making diagonal cuts with chain saws, so the sawyers still required axes. During the 1940s and early 1950s, advances in carburetor technology and the development of smaller, lighter, and more efficient motors made chain saws more manageable and reliable.



Figure 3-5—Two young loggers using a Vaughn drag saw, circa 1921. —University of Washington





As people began to use chain saws more widely, the use of crosscut saws declined. Axes are companion tools to crosscut saws. Sawyers using crosscut saws to fell trees typically used an ax to chop out their sloping cut (figure 3-6) and to remove tree limbs. The move from crosscut saws to chain saws led to a decline in ax use.

Ax use further declined with the advent of modern chain saws. Although axes are still companion tools for saw work (figure 3-7), people primarily use them with saws to drive wedges and not to chop wood.

Only a few manufacturers in America today still produce axes, but other countries make quality axes and export them to this country.



Figure 3-6—An axman chopping a sloping cut.



Figure 3-7—Sawyers using a crosscut saw to perform a back cut. Note the ax and wedges at the base of the tree.

