
Saw Handles

My observation is that people do not value or appreciate the importance of the design of the saw handle. The style, quality, and position of the handle on the saw greatly affect the saw's performance.

Types of Handles

Numerous designs have been used for saw handles. Many of these designs developed along regional preferences. Some were based on a particular saw's application. Many simply reflected the sawyer's preference as the most efficient way to transfer power from the sawyer's arms to the wood being cut.

Quality saw handles often are difficult to find. Handles must be strong and must not allow movement between the handle and the blade.

Handles may be fastened permanently to the blade with rivets (figure 12). These are rarely found and are usually removed so the saw can use pin-style handles. Removable handles may be fastened to the blade with a steel loop or with a pinned bolt and wing nut assembly. I prefer handles that are fastened with a pinned bolt and wing nut.

The handle's position on the saw affects the saw's efficiency. Changing either the arm and hand position, or the handle position, changes the delivery of force to the saw.



Figure 12—This vintage, but unused, Peugeot saw has its handles permanently fastened with rivets. The saw still has its original protective coating.

Loop-Style Handles

The loop-style handle is a common design (figure 13). Most of these models have a metal loop running up through a hardwood handle to a nut, which is either inside the handle (plug nut) or part of a cap at the end of the handle. The loop design allows the loop to be slipped over the saw blade. When the wooden handle is turned, the loop tightens around the saw. These models do not use the saw handle holes.

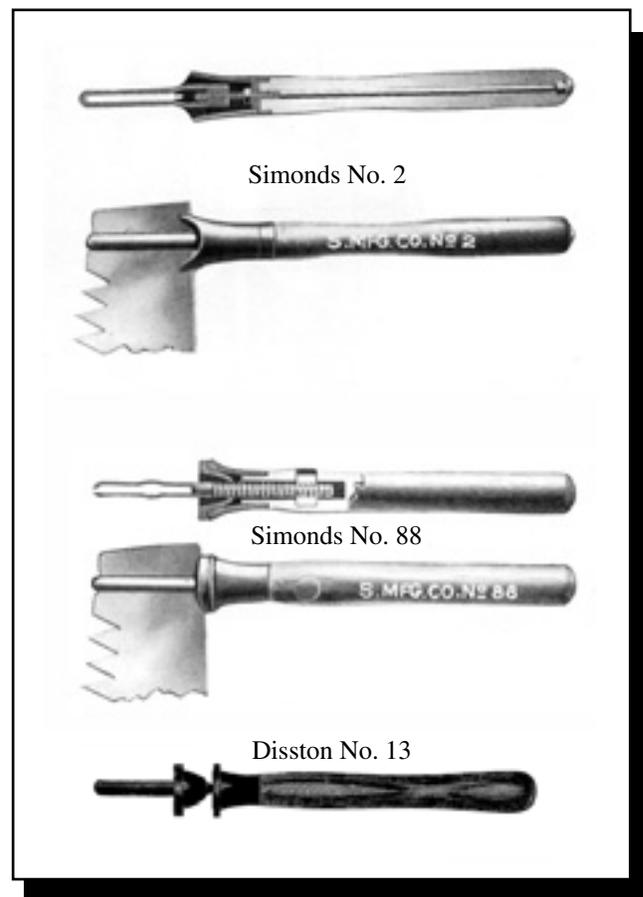


Figure 13—Examples of vintage loop-style handles.—Henry Disston & Sons, Inc., catalog (1902), with permission of Astragal Press, Mendham, NJ; Simonds, Inc., saws and knives catalog (1919), with permission of Roger K. Smith, Athol, MA

Many saws have a notch or a valley where the bottom of the loop rests. Because such saw blades must have a notch for the loop, they do not have teeth all the way to the end of the blade.

I believe this saw and handle style to be a disadvantage when I want to use just the end teeth to finish a cut. On the

other hand, some sawyers like these models because the handle can be loosened and removed quickly with a twist of the wrist, an important safety factor in felling operations.

Another reason I dislike a loop handle is because most standard loop handles only allow the hands to be placed above the saw teeth. Occasionally you can find a vintage loop-style handle with a threaded bolt and wing nut. These handles offer both the quick removal of a loop-style handle and the good handle placement option of the pin-style handle. They have a long handle extending above and below the bracket, allowing the hands to be placed above or below the saw teeth.

Pin-Style Handles

The pin-style handle design—the most common—uses handle holes in the saw blade.

Climax-style handles were an inexpensive pin-style design. Even today, they appear on some modern two-person crosscut saws (figure 14). Logging companies bought climax-style handles because they were inexpensive, but sawyers did not like them. Often I see pins damaged to the point that these handles cannot be removed from the saw blade. The damage results from sawyers tightening down too hard on the wing nut (often with a pair of pliers), as they try to reduce movement between the handle and the blade.

A pin that is too small in diameter, or made of a metal that is too soft also may cause damage. These handles do not allow the hands to be placed above or below the attachment, so I do not use them.

Perhaps the most common vintage saw handle used today is the Pacific Coast model of the pin-style design (figure 15). It has a finger guard with a groove to accept the saw blade and two cast flanges that saddle the wooden handle. The $\frac{1}{2}$ -inch-diameter bolt passes through a hole in the wooden handle. It is secured with a heavy wing nut. This allows the long end of the handle to be placed above or below the pin.

Some sawyers today do not like this style of handle because they prefer to place their hand where the bolt end and wing nuts are located. I find there is no real need to have my hands over the bolt. These pin-style handles are my preference for general trail-clearing and felling operations.

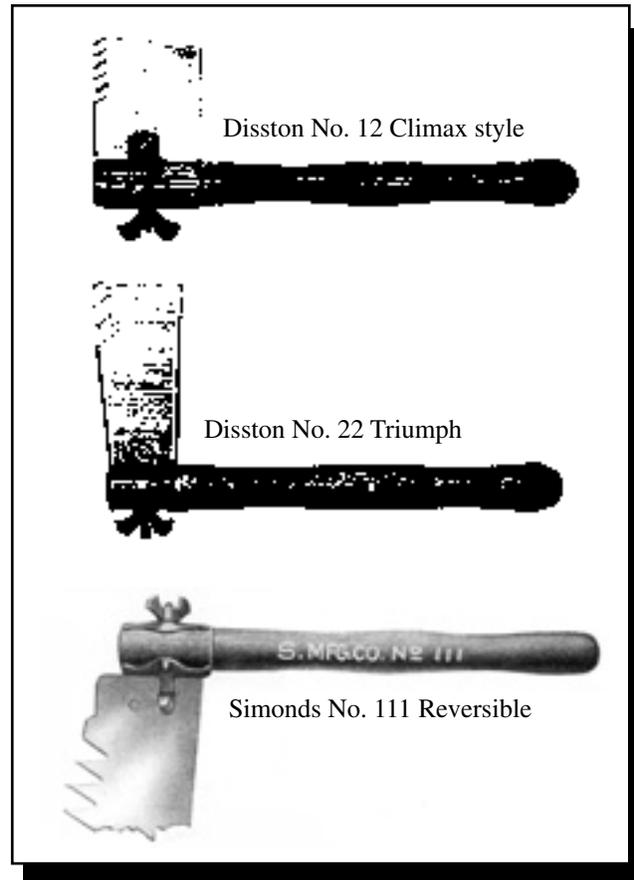


Figure 14—Pin-style handle designs.—Henry Disston & Sons, Inc., catalog (1902), with permission of Astragal Press, Mendham, NJ; Simonds saws and knives catalog (1919), with permission of Roger K. Smith, Athol, MA

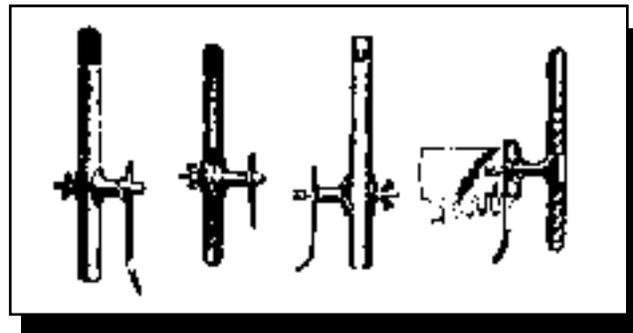


Figure 15—Pacific Coast model of the pin-style handle. This type is my personal favorite for general trail clearing and felling.

Standard 14-inch bucking handles had the bolt hole $5\frac{1}{2}$ inches from the end of the handle. This allowed the sawyer to choose to mount the handle with either the short or long portion up.

Some pin-style saw handles are called *reversible* or *universal* (figure 14). They were designed to allow the sawyer to rotate the handle, to keep the handle vertical whether felling, top cutting, or undercutting.

Supplementary handles (figure 16) are used on one-person crosscut saws. The handle can be placed on the end of the saw for an additional sawyer or directly in front of the D-shaped handle when a single sawyer wants to use both hands. I recommend having one of these available.



Figure 16—One-person saw “D” handle and supplemental handles from a vintage Disston catalog.—Henry Disston & Sons, Inc., catalog (1902), with permission of Astragal Press, Mendham, NJ



Because the handle is so important to a saw’s efficiency, I use only vintage handles, or their reproductions. Until recently, no one was making any of the original saw handle designs. In 1990, a foundry started producing a replica of a popular West Coast design similar to an Atkins No. 140 handle (see the Sources section). Vintage handles are still preferred by crosscut saw users.

Handle Installation and Maintenance

A one-person saw has a fixed D-shaped handle with additional holes on the top of the saw where a supplemental handle can be attached. Many two-person crosscut saws (usually bucking saws) have two holes on each end for handles. Moving the handle from the lower hole has the same effect as moving the hands several inches up the saw handle. With the handle in the upper hole, a push stroke applies more downward force on the saw, causing the teeth to sink deeper into the wood. The deeper cut requires more force on the push stroke, but applies a slight upward force on the pull stroke.

The wooden handles on crosscut saws are usually select-grade hardwoods $1\frac{1}{4}$ inches in diameter and about 14 inches long. Felling saws often had shorter handles with the mounting bolt hole drilled in the center of the handle. When the handle is not on the saw, it needs to be kept away from sharp edges that could nick or cut it.

It’s important to keep the wooden handle sanded smooth and to keep it well oiled with boiled linseed oil. Sand off any lacquered finish before applying the oil.

Keep metal parts of handles free of rust. To recondition old handles, I soak the metal parts in penetrating oil and brush them with a wire brush. If rusted wing nuts cannot be removed, sacrifice the wing nut rather than the machined threaded bolt. I use a torch to heat just the nut, expanding it so I can remove it. If that doesn’t work, cut the nut off with a hacksaw. Use a thread chaser to touch up the threads and purchase a new malleable iron wing nut. Thin, cheap wing nuts are not suitable.

If I need replacement pins, I use a quality steel rivet of similar diameter. These rivets can be obtained from a good industrial supply house. The slotted mounting bolt is designed to hold the rivet when the saw is not attached. One side of the bolt has a smaller diameter hole than the other. I place the new rivet through the entire bolt. Then I slightly peen the end of the rivet to enlarge it. The rivet now should pass through the large end of the slotted bolt but not be able to fall completely out.