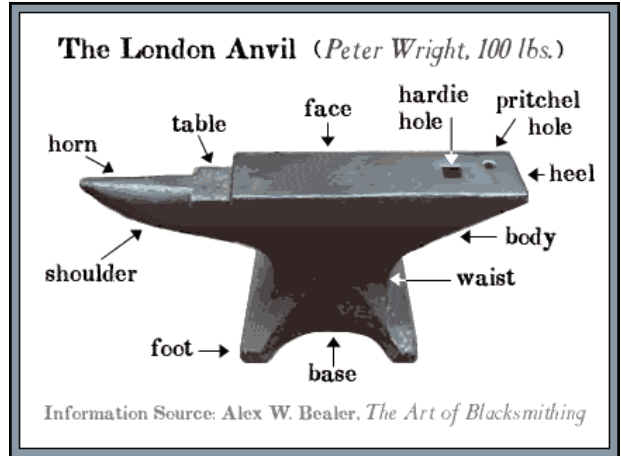


# APPALACHIAN BLACKSMITHS ASSOCIATION

An anvil can be any size, shape, or weight. Early anvils were cube-shaped and weighed 50 lbs. or so. The most common anvil has a flat work surface (the face) and a pointed end (the horn). Often, the face will have two holes near the heel; the square one is the Hardie and the round one is the Pritchell. A variety of anvil tools can be made to fit in the Hardie and thus, act as a 3rd hand for the smith. Most generally, the Pritchell hole is used to allow the blacksmith to punch a hole through metal and not damage the face of the anvil or the point of the punch.

A good anvil will not have any chips or cuts in the face or the edges of the face. Anvils are either 'forged' or 'cast' and are made from iron or steel. Anvils can have two horns, one, or none. Some anvils "ring" and others don't. Just because an anvil doesn't ring doesn't mean it's cracked. In short, there are too many anvil styles to be general. Books have been written about the history of the anvil. An anvil, however, is a very personal belonging to a smith--probably more than anything else he'll ever own.



## ANVILS

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**THE "EAGLE" ANVIL**

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Best Cast Steel Face, of uniform hardness. **Cheaper and better than any others.** Warranted better than any other make. **SUPERIOR** because face is **one piece of Best Cast Steel**, of uniform, hardest temper, perfectly welded, and warranted never to settle or change from a true surface.

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The first and only Anvil made in America for years.

The very first to give a guarantee and to replace an imperfect anvil.

We are really public benefactors, for now all foreign Anvils are imitating us.



(HORSESHOE, 100 Lbs.)  
Face, 14 1/2 inches long and 4 inches wide.  
Solid steel horns, 20 inches long, with steel side clip, 1 1/2-inch projection.  
Cut hole, 5/8 of an inch square.  
Tail, 1/2 of an inch thick.

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Matt Thomas and Jeff Petty  
Leon Thomas photo

## HAMMERS

Blacksmiths of old made all of their hammers and customized them accordingly. Today, some smiths prefer making their own hammers.

For the big jobs, there are motorized power hammers. These hammer weigh between 25# and 150# like the one to the right.



Ross photo

Blacksmiths use a variety of hammers weighing from 1 lb. to 16 lbs. Most often, a 2 to 2.5 lb. hammer is the preferred choice. The heavier hammers (sledges) require 2 hands for good control and are used mainly by strikers (helpers.) The small hammers are used for detail and finish work which is generally done on cold metal.

The flat/rounding hammer (below left) is popular because its rounded face allows for ease of drawing metal and its flat face allows for finishing surfaces neatly. Most blacksmiths do 90% of their work with their favorite hammer.

When selecting a hammer, weight and balance are the keys. Control of the hammer stroke is all important--much more so than impact force.



Ross photo

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Ross photo

For most projects, you will start with hot iron and work until the iron loses its color. This is called a "heat". Blacksmiths try to do their work with as few heats as possible.



Conner photo

Blacksmiths use color to tell how hot the iron is. White-to-Yellow is the hottest, then Orange, then Red, then dull Cherry Red. Above: 2 pieces were brought to Yellow heat and welded to form a single piece.



Ross photo

## HOT & COLD



Conner photo

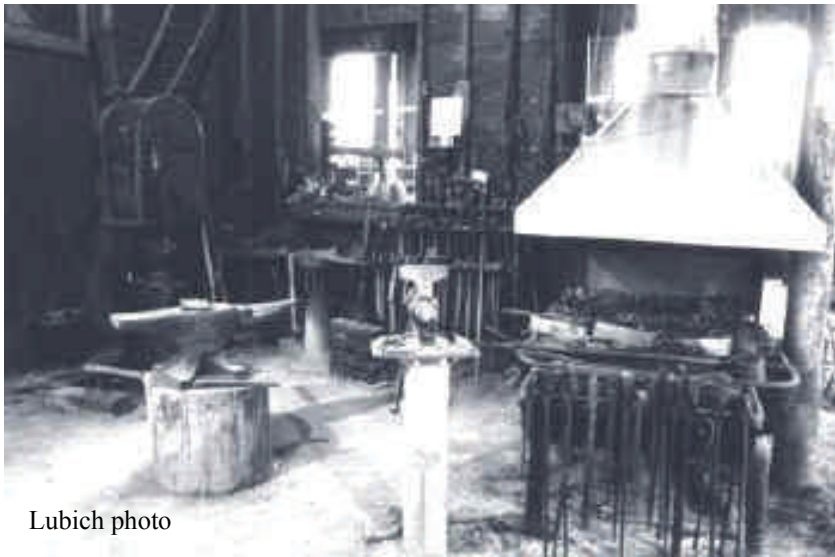
Some fine detail work, like veining the leaf, can be done when the iron is cold.



Conner photo

Iron is easily bent or twisted if the temperature is above 1700° F. The bright red temperature tells the blacksmith when the iron is ready .

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Lubich photo

Left: The traditional coal-fired forge at Young's Machine Shop, built in 1900.

Bottom left: A side-draft flue at the Cedar Lakes, WV shop is the best way to vent coal smoke from the shop.

Below: Two styles of gas forges which are fueled with LP Gas. These are becoming more popular, especially with hobbyists, because the smith can set the fire to reach a desired heat

## FORGES



Conner photo



Ross photo



Conner photo

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## TRY IT

Above: 4-year-old Justin is learning how to hammer hot metal with a teacher—his Dad, Brian Riley.

Top right: Brianna Burris took up blacksmithing a few years ago. More and more women are becoming blacksmiths and excelling in the field.

Right: At age 90, world-renown blacksmith Phillip Simmons of Charleston, SC still finds time to swing his favorite hammer, which he is resting on his anvil. Phillip began blacksmithing when he was 13. Beside him in the white shirt is Bill Fugate who took up blacksmithing a few years before he retired. Bill now teaches blacksmithing classes for Elderhostel programs.

