

Flint and Steel Fire Starting

Welcome to flint and steel fire starting. This document is to help you remember what we've covered. I would like to thank Roy Parker for his help with this.

Topics to be covered will be char making, striker selection, flint selection, proper tinder and then proper flint and steel fire starting.

Char

Char is the material that will catch the sparks from the striker. This could be charred cloth, dried punky wood, or sliced shelf mushrooms. The material is charred to turn it into pure carbon. Use material that chars well and has a lot of surface roughness to hold the spark until it can ignite the char. 100% cotton or linen fabric works great. Make sure that there aren't any synthetics, these will melt and burn and leave a fire-proof coating over what remains of the fabric, it also makes a mess of the char tin. New fabrics need to be washed several times before they're charred to remove any sizing (a fine clay impregnated in the cloth to make it smoother) which can leave a bit more ash in the tin and sometimes keeps a spark from catching. Canvas, flannel and denim work, a very good type of cloth is called Monk's cloth. Another cloth is Osnaburg, it can be found at Ben Franklin for \$3.96 a yard. A yard will provide a lot of char.

A char tin is a small metal can with a tight fitting metal lid. A shoe polish tin, film can or pint paint can will work. Clean out the can before you start, easily done by sticking the tin in a fire for a while. Take a small nail, about a one inch finishing nail, and poke a hole in the lid. Find a twig and sharpen it until it plugs the hole snugly.

Cut the cloth into about 2 inch squares. Fill the tin so that the pile sticks out above the can before putting the lid on. If the tin is stuffed full, the material in the center will not properly char.

Put the tin on a fire, do this outside, charcoal and campfires work best. Smoke will come out of the hole. The smoke will smell. Drop a burning twig across the hole to ignite the smoke if you have a sensitive nose. When the smoke trail is almost gone, flip the can (remember to use tongs) over in the fire, wait 1-2 minutes, and flip it back over. If there isn't any more smoke, stick the twig into the hole on the top of the tin and pull the tin out of the fire. The twig is to prevent air from sucking back into the can as it cools down, this would overcook the char.

If the char is brown or the original color of the fabric can be seen, it was not on the fire long enough. Put it back in the tin and cook it some more. If the char is brittle, it has been overcooked or still has the sizing left in the cloth, throw it away and start over. Good charcloth should be bent double without any cracking or crazing while being uniformly black in color.

Selecting a Flint

Look for two things in a flint, the first is sharpness, and the second is hardness. Learn how to knap a flint for maximum sharpness. It makes a big difference in how strong a string of sparks that are tossed from the steel. Flint, quartz, chert, red jasper will all work, best way to find out if a rock will work is to try it on a striker, look for a crackling spark.

Selecting a Striker

There are two types of strikers, good ones and bad ones. Good strikers are made out of high carbon steel. The best place to get a striker is from a blacksmith. Look at historical re-inactments, rendezvous or catalogs. A lot of the strikers available have only a case hardening, the metal is hard for only 2-3 thousandths of an inch, and after 10 or so minutes of striking, suddenly they quit giving off a spark, the hardness is used up, and the striker is worthless. The sparks are little bits of burning metal cut off by the flint (see why it's important to have a sharp flint?) and ignited by the friction of the flint hitting the striker.

Tinder

Tinder is made out of dead plants, the finer the better. There's a lot of good material out there. Dead grasses rolled through the hands until they become fibers. Tow, the left over flax plant when the linen is removed, used in taxidermy and crafts. Others include, hay, pine needles, cedar bark (ground up finely by hand and allowed to dry or rope. Tinder will take the glowing coal from the char and suddenly burst it into flame for fire building. Get the deadest, driest stuff you can find, dry it some more and then keep it dry!

Making a Fire by Flint and Steel

Now that you have your char, a good flint, a good steel and some tinder, how do you go about turning this into a fire? First of all, prepare the fire lay (the kindling and wood) if you're building a fire. The following directions are for lighting a quick fire, use less char and tinder if you're just practicing.

1. Strike the spark.

If right-handed, hold the steel in the left hand. Hold the flint in the right with 2-3 pieces of char on top of the rock. Use your thumb to keep the char from slipping off and position it so that the char is even with the striking edge of the flint. Use the steel to strike the flint

in a sharp motion. Remember, you're trying to shave off tiny pieces of metal with the flint, not bash down a building. Band-Aids may be called for until you get a feel for the proper technique. Keep striking until a spark catches on the char. There will be a small orange glow in the char when the spark has lodged. This may be hard to see in the daylight, try shading the char. If you still can't see it and burn your thumb, it's lit.

2. Blow it into flame.

Grab a handful of the tinder that's already made into a "mouse" nest about the size of a baseball (loose and concaved). Tuck the glowing char down into the center of the nest and close up the nest around the char. Raise the nest above eye level slightly with your back to the wind, and blow on it until it burts into flame. Keeping the nest above your head will keep smoke out of your eyes.

3. Starting the fire.

When the flames suddenly erupt, put the nest into your fire lay and nurse it into a blaze. Make up a pot of coffee, and invite the Booshway/Scout/Cub Master over. They may not be impressed with you first-ever flint and steel fire, but they usually appreciate a cup of coffee.