

# *Flint & Steel Fire Starting*

How do you take a chunk of steel, hit it with a rock, and get a fire? This is amazing the first time you see it! But, it does take a little knowledge, some proper tools, and some preparation.

The fire steel needs to be high carbon tool steel - like a file, or a spring from a car or garage door. Yes, you can also make it from new tool steel. You forge/file/grind it to the shape you want, then heat it up to a cherry red. This is a "critical" temperature for steel. At this temp, a magnet will no longer stick to the steel. You then quench it by putting it in water until cold. It is now hard like a file, and will create sparks.

A piece of flint works best, but any hard rock with a sharp edge will work. Flint just works better, and holds a sharp edge longer. It's also easier to knap the edge to sharpen it.

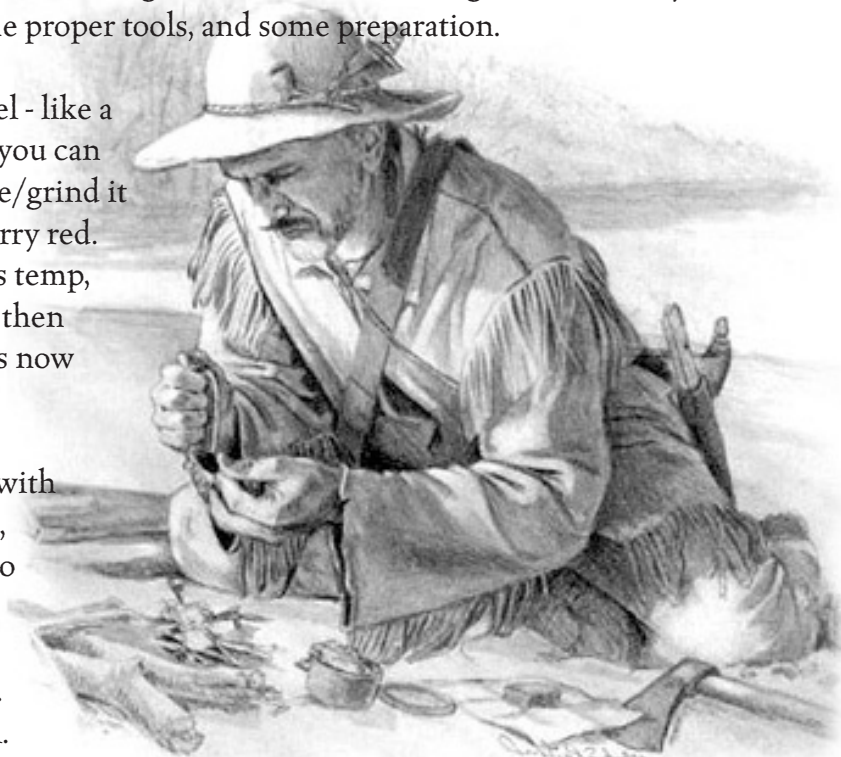
Then you need something to catch the sparks. Charred cotton or linen cloth works very well.

When a spark lands on the char cloth, it catches, and the glow will spread throughout the whole chunk of cloth as you gently blow on it. Once you have that spark in your char cloth, you then need a "bird's nest" of very dry grass, or bark, or old rope. And then all the small twigs and kindling to build your fire.

When you strike a glancing blow, with the face of the fire steel, across the sharp edge of the flint, you get sparks. What you are doing is cutting or scraping little bits of the steel off with the sharp edge of the flint. It's just like when you push a piece of steel onto the bench grinder you get sparks. It takes a little practice, and you have to be careful that you don't hit your knuckles on the sharp flint!

You strike your flint and steel so that the sparks land on the char cloth. When one catches, you place the char cloth in your "birds nest" of dry bark/grass. Gently wrap the birds nest around the char cloth and spark. Now gently blow on it. As the spark spreads out through the char cloth, the heat is transferred to the birds nest. When it gets hot enough, you have FIRE! You then place the burning birds nest into your prepared kindling, and build your fire.

Simple, ain't it! It helps to see someone else do it, and get a little one-on-one coaching. What a great thrill you get when you make your first fire!



## *How to Make Char Cloth*

Char Cloth is cloth that has been made into charcoal. It is heated at high temperature in the absence of oxygen to drive off flammable solids, leaving a black cloth, which catches and holds a spark.

Making char cloth is not difficult. All you need is a can and some cloth. A one quart or one pint new paint can works well. The lid needs to fit tightly. Punch a 1/16 inch hole in the lid. The best char cloth is made of heavy gauge cotton cloth, something like T-shirts, old towels, "terry" cloth or canvas duck.

Cut the cloth into squares of two inches, or so, and put them in the can loosely, not stacked tightly. Fill the can, but not so much as to compress the squares. Put the lid on and set the can in an open fire or on a camp stove. Always do this out doors because of the strong fumes it will give off.

As the can heats, you will see gases or smoke begin to stream from the hole in the lid. When smoke stops coming from the hole, drag the can off and let it cool. If you open it too quickly, the rush of oxygen will cause the cloth to burst into flame, and you'll have to start over. Good char cloth is black, but still has a lot of strength. It should not fall apart from ordinary handling. If it's more like black ash than black cloth, you cooked it too much. If the squares are brown instead of black, or if it is obvious the cloth hasn't been heated evenly, put the top back on and cook it some more.