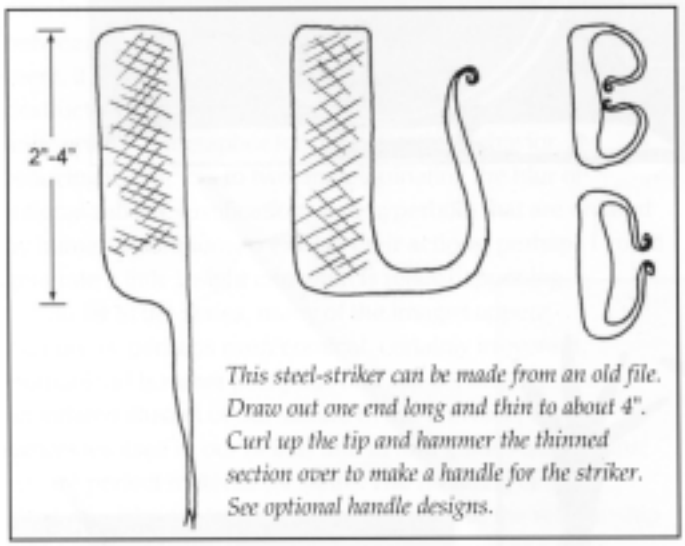
# Williamsburg Paraphernalia

*by Jay Close, The Blacksmith's Guild of the Potomac, Summer 1992*

A tinderbox would usually consist of a small tin box of about 4.5" in diameter that held tinder. Tinder was often charred linen cloth. The tinderbox also contained a steel striker, a piece of flint rock, two covers and a candle holder with candle stub. A small amount of tinder was placed in one cover. The spark caught by the tinder was transferred to the candle. Tinder was quickly extinguished by the two covers to save as much tinder as possible. The lighted candle stub then supplied the wanted flame.



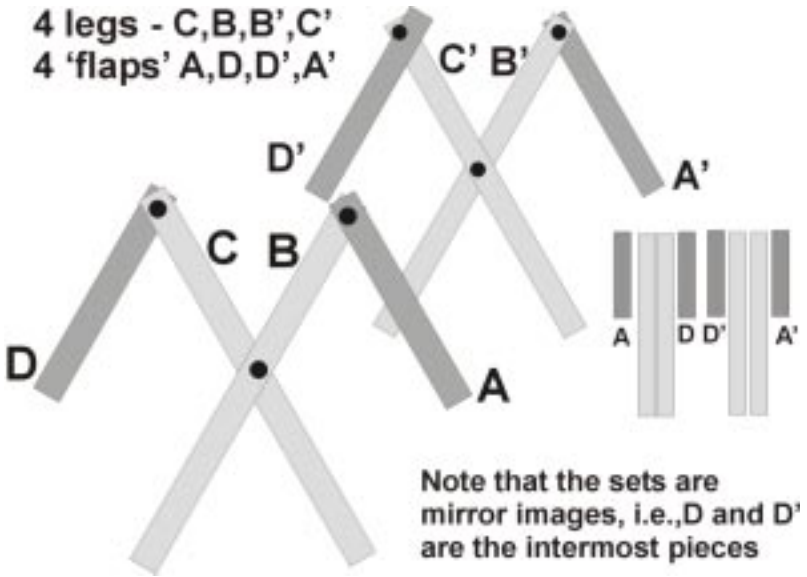

*This steel-striker can be made from an old file. Draw out one end long and thin to about 4". Curl up the tip and hammer the thinned section over to make a handle for the striker. See optional handle designs.*

The teeth of a file will produce a nice spark when struck against a piece of flint. The striker can be made in a range of sizes from 2" to 4" long. Fit it to match the size of your tinderbox or the size of the user's hand.

Harden the striker by heating it in a quiescent fire until a magnet won't stick. Quench the face about ¼" back, and set it aside to cool. Do not draw a temper. The harder it is, the better it sparks. High carbon steel of about 0.95% carbon becomes nonmagnetic around 1350-1475°F when the steel is a dark to medium red. Quenching the striking face in water at this temperature will harden it. Quenching only ¼" of the face and allowing it to cool to ambient on its own allows the residual heat in the rest of the striker to draw a partial temper on the face. It will also keep the handle portion in an annealed state. Quenching the entire piece would require tempering the handle to keep it from breaking. ♣

## Foldable Flap Table

*Steve Bloom*




One of the things the teaching trailer needed to compliment the gas forges is something to put them on, i.e., a table. It needed to be strong, light and compact. It just so happened that I had a model of that in my living room (but in wood and quite small).

The first step is always the same -- what crap do I have lying around that I can somehow coerce into being "optimal". What I had was a cheap thin-wall gazebo frame that a friend donated to the rust pile after he got tired of looking at the poor thing sitting in his yard.

The 'eves' consisted of two pieces of 1" x 1/2" x 5' thin-wall rectangular box frame, so there was 40' of this stuff. The exact measurements that will change with the stuff you use, so take what I cite here as just an example, not a blueprint. The top was an old aluminum street sign (yes - it was acquired legally!) 30" x 24". I cut it into two 24" x 15" pieces.

The height when set up is 36.5" and the leg length (B,C,C' and B') is 46". The top support arms (A,D,A', and D') are

29.75" long. The primary leg pivot point is at 23" (half way) and the tops of the legs and arms are all rounded. To keep from crushing the thin-walled tubes, I sawed a 1" diameter piece of round stock into 8 pieces just thin enough to ram into the tops of the tubes. I then drilled a 3/8" hole though the assembly.

As you can see in the first picture, the leg/arm units are mirror images. A is outermost (closest to you), then B, then C, then D. The order on the other assembly is then (still working back into the paper) D', C',B',and A'. The pivots for C-B, C'-B', A-B and A'-B' (all but the innermost pair) were 3/8" carriage bolts. I over-drilled a bit to allow the square part of the bolt head to slip into the leg and ground the head flat. A fat washer (or two thin ones) were between the various pairs . The bolts were cut so that they just stuck out the far side. A washer was slipped over the stub and welded in place to the bolt. This process basically makes a close-to-flush pivot. A decent big rivet would have done the same.

A 20" piece of material (actually a 3/4" diameter pipe and a couple of 3/8" stubs shoved into and the ends and welded in place) made the pivots for C-D and D'-C'. I haven't bothered to show that in the drawings. The two pieces that form the top are connected to the arms as shown in the figure to the upper right. I pop-riveted them in place. Be REAL careful on which sides of the arms you fasten the top. Note that they are OUTSIDE, i.e., as shown in that figure, the arms are between the top pieces. Because the distance between B and B' is less than that between C and C', it follows that D and D' are much closer together than A and A'. That means that the flap connecting D and D' (=F), can fit under and between the other flap.

When the flaps have been interdigitated (talk about a $5 word!), there are two possible modes. The top pieces can be butted against one another and the legs cross and spread out (picture to the lower right) or they can be allowed to slip past and the whole assembly folds into a thin unit (about 1" thick). This isn't as bad as a Mobius strip but it approaches it. If this makes zip sense, come to my May meeting (and/or the conference) and check it out. I have also omitted showing lower leg braces (basically two pieces, running between pair of legs (B & B', C & C'). The braces are welded on below the level at which the flaps hang when the table is folded. They are the green dashed lines and the little green blocks.

The unit is 36.5" tall x 30" across and 24" deep. It weighs a bit over 20 lbs and easily supports the two gas forges (which mass over 60 lbs). It is light, string, compact and a bit of a mind trick.