

## Burning Questions by Cathi Borthwick

At our July meeting, I introduced my project called *Burning Questions*. With the project, I am trying to collect the nuts and bolts information we need to complete projects such as lighting fixtures, fire screens, railings, gates, etc. It had occurred to me that we get loads of information about blacksmithing techniques but not a lot about the practical sides of building these things. And, without that knowledge, we are often shy about taking on the project or might not do as good of a job as we could.

So, we launched this project on Sunday morning at the July meeting and had a lively discussion about considerations when making mirror frames and about issues involved with making lighting fixtures. Below is a summary of some of the things we shared about building mirrors. I am still gathering information about lighting. Some questions include ways to thread the wire through a fixture, how to wire a multi-light fixture, considerations for outdoor lighting, and anything else you have encountered and think you should share. If you have any lighting knowledge to share or have any burning Blacksmithing questions you would like me to consider, please email me at

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### Mirrors

1. Use quality mirror (from a glass company). 1/8" thickness is adequate.
2. The glass company can cut to whatever size and shape you want (you will pay more than if you buy a standard size they have in stock). Bring a template (paper works fine) if you have a special shape.
3. The glass company can just cut the piece which is fine if the mirror will be totally encased in the frame. Otherwise have them polish the edges.
4. You need to protect the back of the mirror so the reflective backing doesn't get scratched. If the mirror is going into a deep frame, I will use that dense foam insulation to back it. Otherwise, I attach a piece of 1/8" hardboard to the back. I usually attach the hardboard with silicone adhesive which has worked fine. Some people said they have had trouble using a general silicone adhesive as it made the mirror cloudy so they used a silicone specially made for mirrors.
5. You can make the frame so the mirror slides in or is affixed to the frame. Again, I use silicone to

attach the mirror to the frame. You can also use Mirror Mastik.

6. I have made frames out of angle iron so the mirror fits into the frame and there is a nice deep box appearance to it. I have also made frames from flat stock with an inner frame that the mirror can slip into or be attached to.
7. To hang the mirror, you can use mirror wire or make brackets on the back of the frame that could slip over a bar attached to the wall. If you use the mirror wire, be sure to have it strung at least a quarter of the way down the frame to account for the stretch that will occur. The higher up on the frame the attachment, the flatter the mirror will lay on the wall. To compensate for any lean, you can put clear rubber bumpers along the bottom to have it hang flat. Also, the wire is rated by the pounds it can support. Be sure to use the right one and err on the conservative side; you don't want to be causing any of your customers seven years of bad luck!

