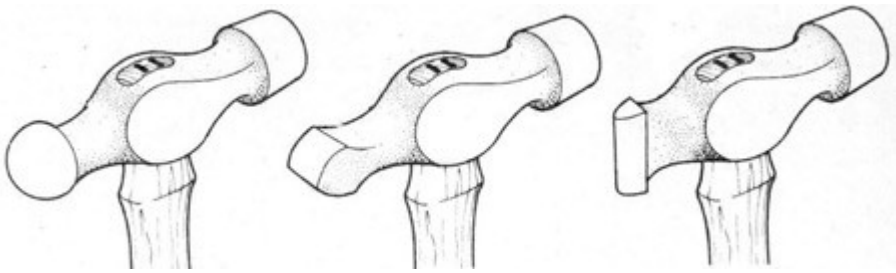
BLACKSMITH FORGES

By Oliver Cameron
with Ole Wik

There was a fellow out on the edge of Fairbanks—I don't recall just where. He had a pretty extensive setup of blacksmith tools, all kinds of shop tools, hand cranked-tools and such, and was selling them off just to get rid of them. I think those things were on the place when he bought it, and he had no use for them. So I bought some blacksmith hammers, a pair of tongs, a medium sized anvil, a drill press, and a few other things.

One of the hammers was a cross peen. The peen is narrow and tapered, and the peen is the full width of the hammer. I have another one with a peen that is in line with the handle, instead of being across. Those peen parts aren't sharp, like chisels, but they're very handy in working a piece of metal into a different shape—thinning it down and so forth. Having both cross peens, you can work a piece of metal and make it longer or wider.



Left to Right: Ball peen, cross peen and straight peen hammers,
courtesy Stanley Tool. http://www.secondchancegarage.com/public/hammers.cfm

I hauled the anvil up the highway in my truck when I first went to Alaska. It was just a conventional anvil with a horn on it, and probably weighed 60 or 70 pounds. It came up to Ambler.

By the time I moved to Fairbanks, Dave Rue had taken over Dan's air taxi business. Quite often he was going to Fairbanks without much of a load, so I sent some of that stuff over with him. Of course I paid him, but it was cheaper than parcel post. I have the anvil out at the lake now.

If you have an anvil like that, and a drill press and a hacksaw and some spring leaves or assorted metal to work with, you can do a lot.

Usually I had a homemade forge—a grease barrel with the top of it kind of beat down and stretched out a little bit, and then some small holes punched into it for the air to come up through the tank. The fan was a commercially made device with a geared-up crank on it, mounted on a block of wood alongside the tank.

If you had a blower directly under the forge, you'd have coke and ashes falling down on it all the time. That fan blew into the side of the barrel and then up and through a grate. It worked pretty

well because there was enough volume of air that it didn't come by bursts, but was more or less evened out.

I had a couple of those outfits and worked with them, so I understand what has to happen there. You rake your coals and burned-out coke or whatever you're using into a pile, and get a fire going. Then you lay your iron on top of that and bury all but a little area where the heat comes out through. Then you can heat the specific part of what you're working on really hot. On the custom made ones, there is a little trap door so you can dump out the ashes that come through the grate.

Forges can also have bellows or centrifugal blowers. In Norway, Per and his friend—I forgot his name--wanted to make an axe head and an adze. That fellow had a huge fish tank over by the shop, with a lot of different kinds of fish in it. It was his hobby. It had some kind of electric air pump that aerated the tank.

There was an old tractor wheel lying back in the brush. I had Per wheel it out. It was made out of very heavy iron, half an inch thick, and still had a tire on it. There was also a spring-toothed harrow, with some of the springs broken on it.

He had a charcoal-burning outfit there that he used for cooking steaks. I rigged that up to use for the forge, using the blower from the fish tank. I used the wheel for an anvil. They were somewhat amazed at what you can do if you have some way to heat a piece of iron.

Our main problem was keeping enough charcoal on hand. Part of the time we had to make our own. There was an outdoor fireplace where they quite often ate in the evening. When we were cooking, I would keep raking the coals off and letting them go out. But we finally ended up buying charcoal. They hadn't realized how much it would take if you were going to do any extensive amount of work with it.

Charcoal is made of wood, but coke is made from coal. If you use straight coal, you have to deal with flames and smoke. Coke is just like hot coals, without all that combustion material.

I don't know the process for making coke, but it's something similar to how they make charcoal. It's heated and partially burned, so what you have left is something that burns like you've got a bunch of coals right there. It's already been reduced down.

When I was living outside of Fairbanks in the early 1950s, I'd buy a 25-pound bag of coke, when I could get it. It was sort of like briquettes, but as I remember it was irregular, as if it came from a big sheet that had been broken up. You have to start it with a little wood fire, and then add the coke to it.

Now I just use regular firewood in my stove, which has a lid on the front end of it. I have another piece of metal made out of a bucket with the edge folded over. I hold that over the opening, leaving a little space under it so that I can stick my wood in there.

I keep a fairly good fire going, and as I need more coals, I just rake the partly burned wood in front of the draft. That gives you an area where you can heat a piece of iron as hot as you need it. You heat the metal until the sparks are flying, indicating that the carbon is being burned out of it.

Your system of control isn't nearly as good as you would have with a proper forge, but you can do quite a lot of work that way. It gets the job done.