FORGE FACTS



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EDITOR'S NOTE

Forge Facts is published quarterly to help RMS accomplish its main objective, educating its members. Forge Facts aims to educate and encourage blacksmiths of all skills and interest levels. It is the member's job to provide much of the material for each issue. Keep in mind that there is no such thing as a stupid submission! All ideas, articles, photographs, and letters to the editor are welcome. Submissions are accepted at anytime!

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May 1, 2015

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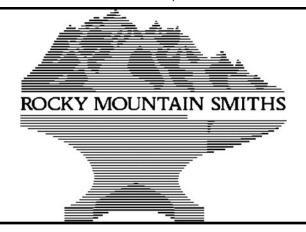
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Joe Burleigh Pipe Forging and Platonic Solids Building September 20, 2014 at Roaring Forge LLC Carbondale, CO Part 2



Joe makes his faux sword blades, (the kind that won't cut anybody but could kill if clubbed over the head with it) by squeezing square tube on the diamond until near flat.

You can see part of the blade in this photo. Joe adds a finial on the end to form the pommel, welds on a guard and wraps the handle with twisted wire and voila! Every kid wants a sword, and you could build one for him or her to hang on their wall without providing too lethal a weapon.



In this sequence Joe demonstrates how he twists wire. In the top photo he's straightens a single wire by fastening one end in the vise and chucking the other end in a drill and twist.





A little tighter



Left: he fastens two pieces of wire in the vise and chucks the other ends, then twists them as tight as he wants.



And tighter yet.



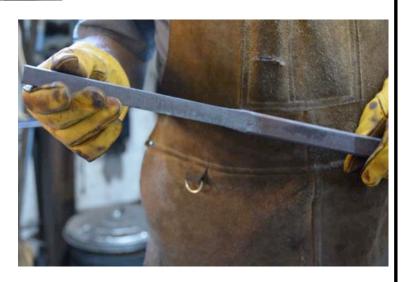
Here Joe is closing -up the end of a piece of square tube.

At right and below he's slowly reducing the size of the square tube by using a stop on his power hammer.





This technique could be used to step down in size a coffee table leg among other applications.



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This series of Joe's photos shows the making of a bird from pipe.

















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Bird making continued





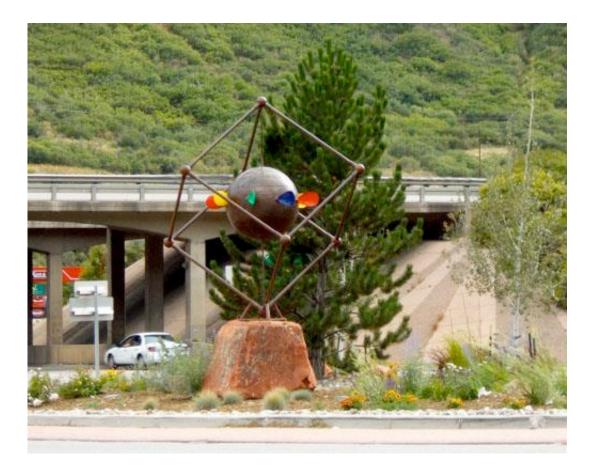








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Joe's Platonic Solids sculpture in the center of the round-about in Glenwood Springs, Colorado. He likes to use large fishing swivels



for hanging work that he wants to rotate in the wind — like the above sculpture.

Another sculpture of nested solids hung with swivels.

At the September 2014 class, Joe demonstrated the making of an octahedron for us as presented in the following photos. To learn more about Platonic solids Joe suggested the book, <u>Sacred Geometry</u>, by Stephen Skinner. The book has a lot of interesting math, some of which is in the smith's realm of use. Editor



Joe uses jigs to put the correct bends in the correct place on the round rod.





He clamps the rod to another jig made of plate in the shape of a 4-sided pyramid and he tie-wires the rod where it joins.





Once all the pieces are clamped the welding starts.





The tie-wire ends are cut off after the welding is done on one half of the octahedron.

When it's done Joe shows us what a great top an octahedron makes when he gives it a spin with his drill motor.

