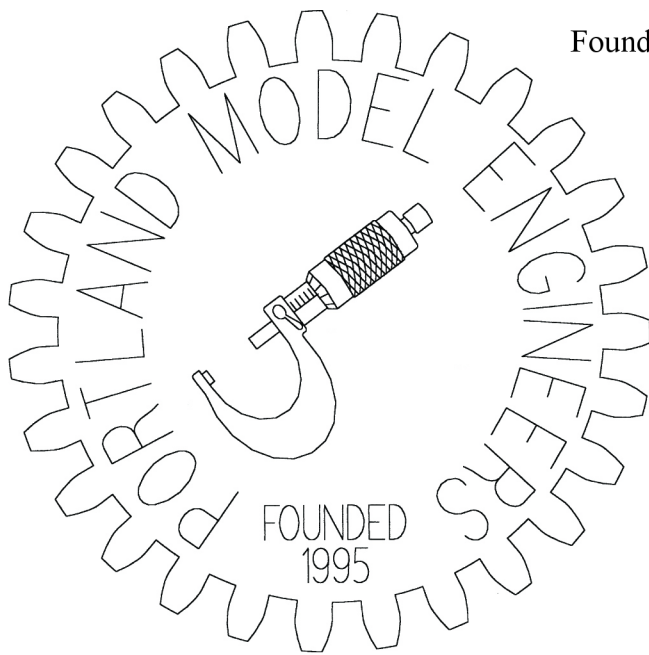


<http://www.portlandmodelengineers.org>



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FOR THE BEGINNER # 26 by Wes Ramsey

A Method for Rust Removal

I don't endorse things very much, but this is one that sounded too good for me to pass up. I was talking with one of my friends about rust and how it is so hard to clean up old steel to use for parts. He saw a process in one of the machinist magazine's that did a great job. I looked up the article by ORRIN ISEMINGER. He has written a long piece with several variations. There are a lot of safety precautions which are good but the method I picked is very safe.

I just used soap (washing soda), and water with a battery charger. What I did was take a plastic 5 gallon pail fill it with water, put in a cup or two of washing soda, you don't have to be close, then hook the red, positive battery cable to a copper wire attached to the large steel part, the more flat area the better, the black or negative lead to a wire attached to the part to clean. Turn the charger on and watch the fun. Don't stick any of your body parts into the water without turning the charger off. It won't hurt you much but you can feel the electricity. I used two different size chargers and didn't see much difference in the results. Some came out very clean; others not so good. Must have been something I said or how I said it.

The positive plate gets covered pretty fast. To clean it I just let it dry and used a hand wire brush to brush it off, the stuff does not seem to stick to it. Don't look for a magic cure for a very deep rusted and pitted part. I was not able to get deep rust off. It will not put steel back on the part. It does work on lightly rusted parts and some that are worse than that. When you get the parts out of the soap, wash it all off. You should dry and put some stop rust on it or it will start rusting again fast. WD 40 is not good for much; this is just my feeling, but the WD 40 means: water dispersant, the 40th try. If you want to know what I don't like about it ask me at the next meeting. This does not cost much to try, do it and have some fun. I will bring the paper to the next meeting if you want to see it.

Details From The February Meeting

February brought us yet another month of rain and cold weather. To brighten things up, Portland Model Engineers met to catch up on members' projects development and learn some new things. Grant Carson hosted the meeting at A & G Products which drew, by one count, 57 members. Several projects were shown in new territory with some old favorites on display as well.

Once again, we thank Grant for providing a most excellent location. He has also graciously agreed to host the next meeting Saturday, March 11th, at 1:00pm. Directions and a map are provided on the next page. As always, bring a project to show -- work-in-progress or complete. Hot coffee and snacks will be provided. Hope to see you there!

Short Tutorials To Run Before Monthly Session

One of the topics up for discussion during the meeting was how to help new members ramp up on new skills and techniques. Greg Dermer proposed the idea of short 30-45 min tutorials on a variety of topics to address this need. In response to broad interest, several members immediately volunteered to conduct a session on a topic in which they have considerable expertise. These tutorials will be listed in this newsletter and scheduled to start at 12:00pm immediately prior to the regular monthly meeting. Details are being finalized but we anticipate will start in April.

Membership Renewal Notice

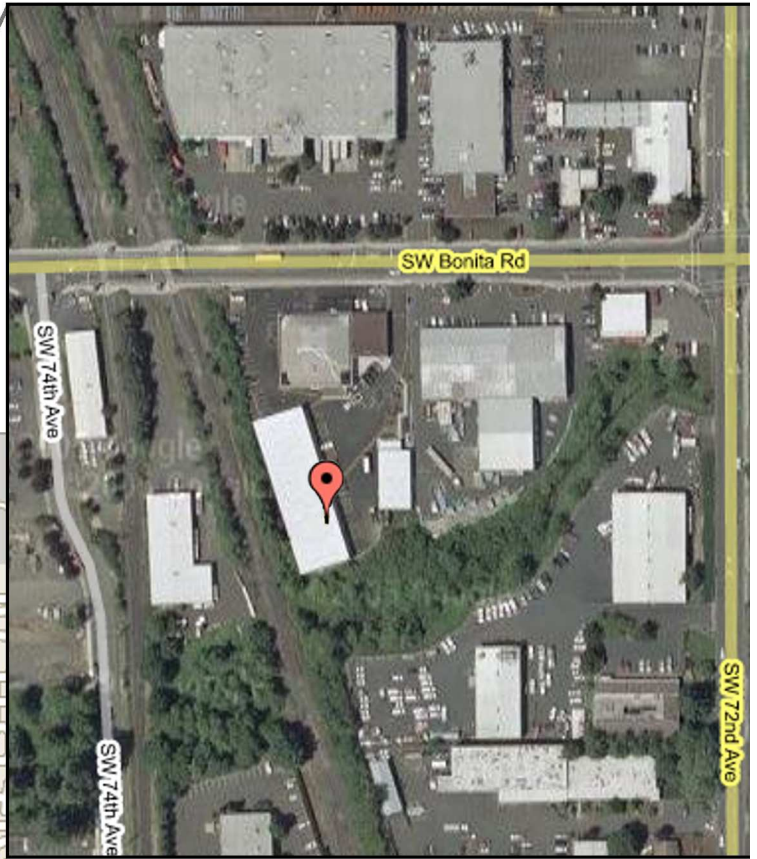
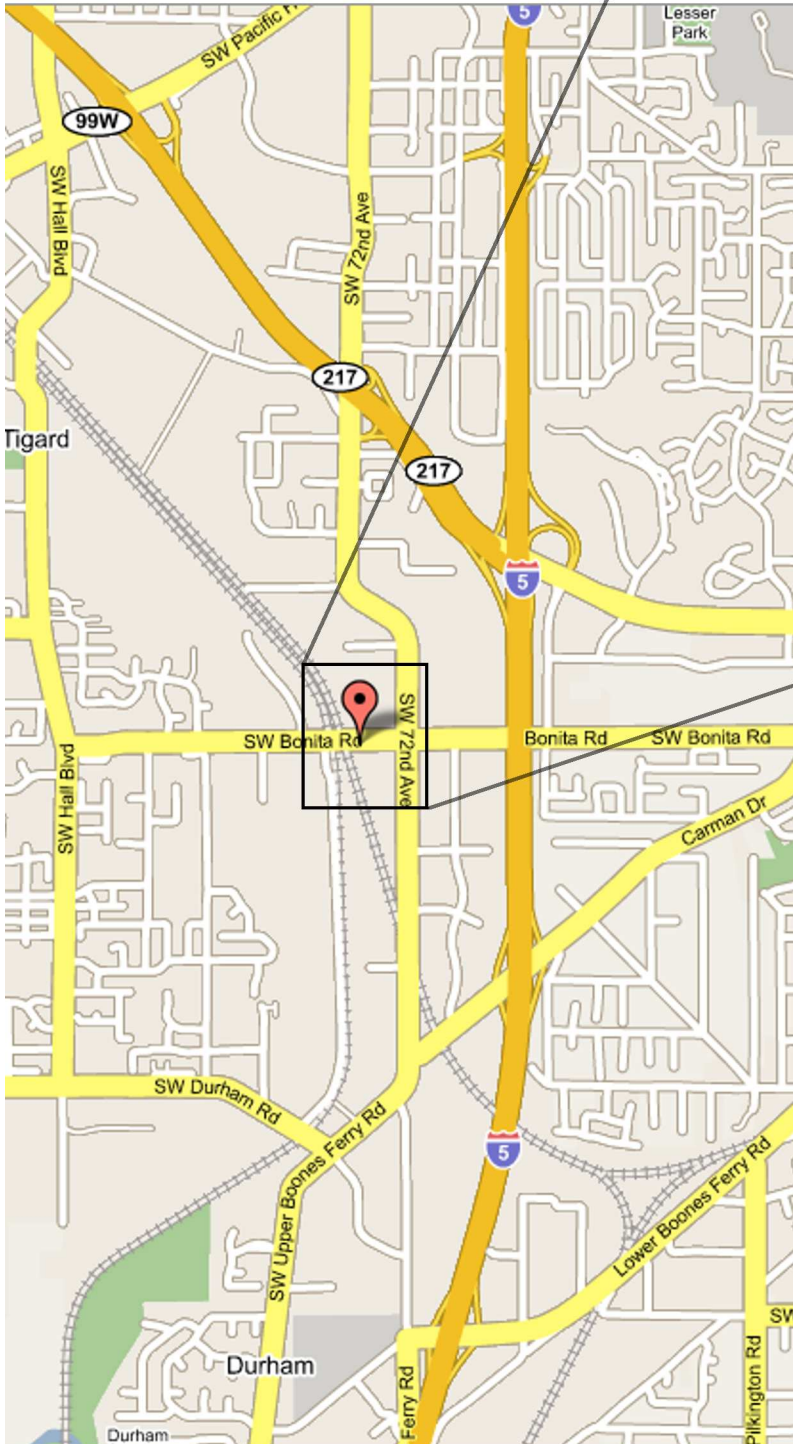
If you still need to renew your membership for 2006, you can find Carl Petterson at the next meeting or by sending a check for \$12 to:

PME Membership Renewal
1631 SW Pendleton St,
Portland, OR 97239

A & G PRODUCTS

Saturday, March 11th, 2006, 1:00 pm.

A & G Products
7360 SW Bonita Road, Unit C
Tigard, OR 97224



Directions to Grant's

From I-5:

Use exit 292 to Hwy 217, go north about 1/4 mile toward Beaverton to SW 72nd exit. Turn left onto SW 72nd Ave, go about 3/4 mile to Bonita Road, turn right. A & G will be on your left.

From Hwy 99 (Pacific Ave):

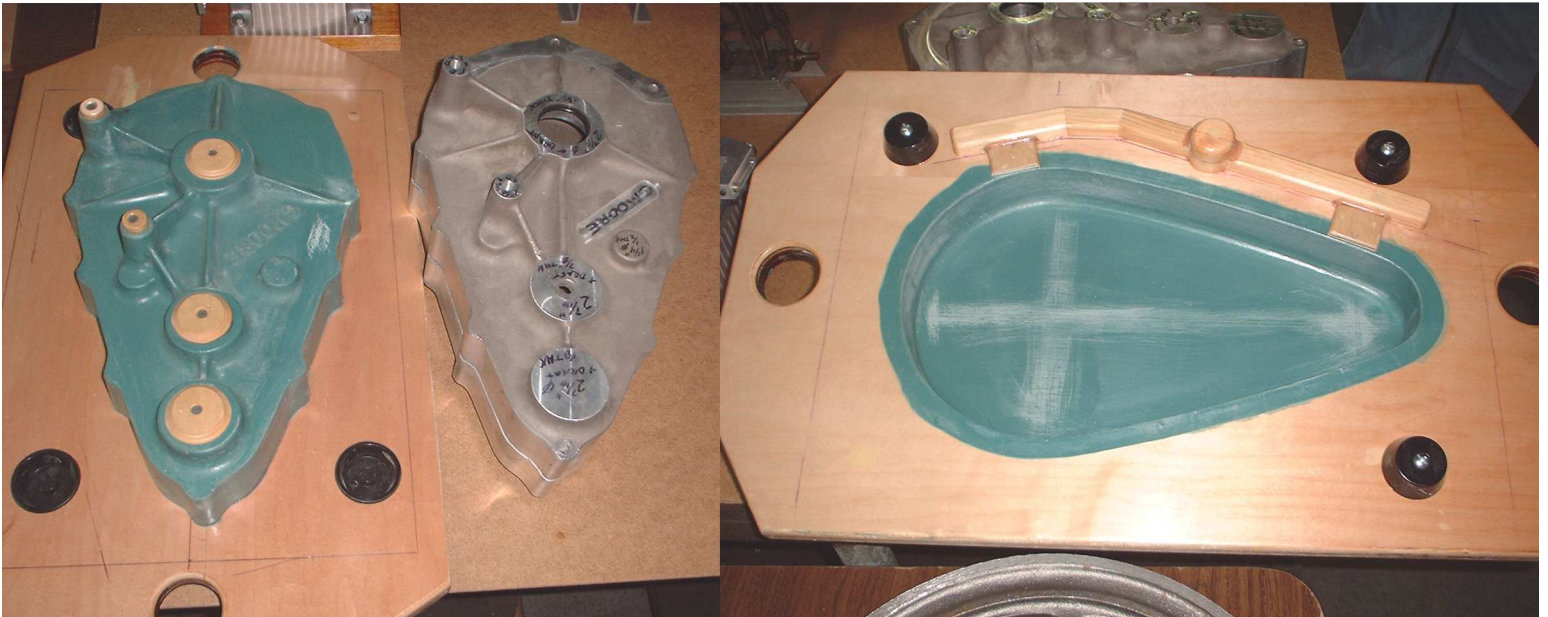
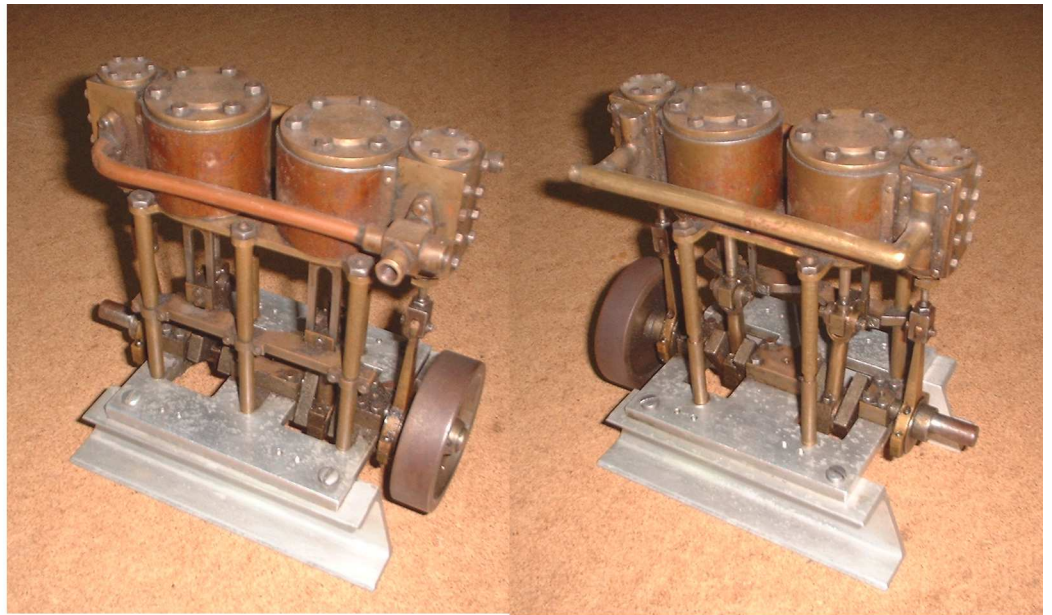
Turn south onto SW 72nd Ave, proceed about 1-1/2 miles to Bonita Road, turn right. A & G will be on your left.

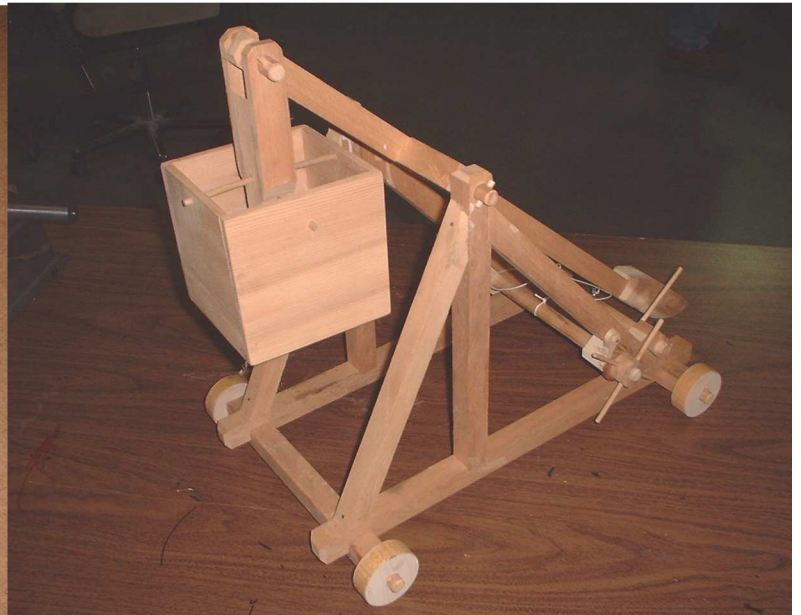
And now for some pictures...

Mel Farrington brought in a nice 2 cylinder steam engine of unknown origin. He's trying to find more info on the design and maker (right).

This matchplate by Gary Martin (below) is for an ATV gear cage. Next to it is a sample of the first casting with some notes on what worked and what needed adjusting.

He also landed a restoration project for some of Camp Sherman's wood stoves. The originals had rusted through and needed to be replaced with a 1930's period design style.



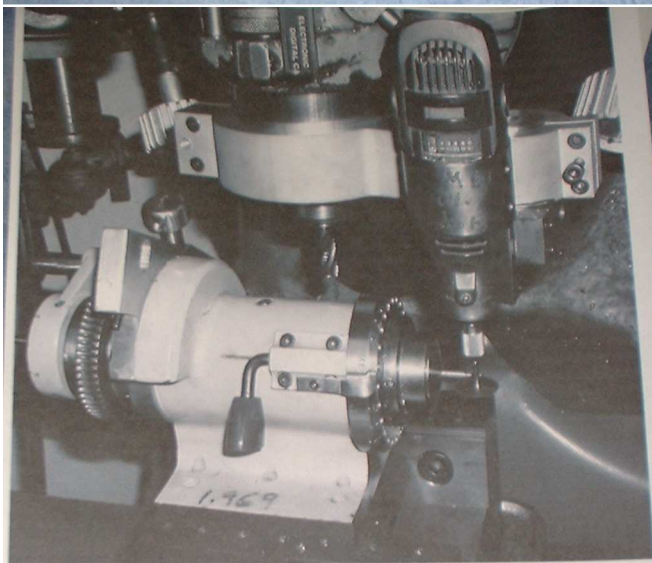


And going counter-clockwise from the top right:

A working trebuchet model out of wood and a cast-iron flywheel by Al Pohlpetter.

A reproduction rifle action made by Ken Moss after finding the original 1897 .45-70 Mauser in a pile of concrete rebar pulled out of a wall.

Finally, below, we see what happens when Gary Hart has need of an odd sized tap... he makes one. The smaller one was needed to fashion turnbuckles for an elevator control on an airplane rudder. He further explained how to go about hardening the pieces.



7/8" diameter by .009" thick separating disk from jewelry supply

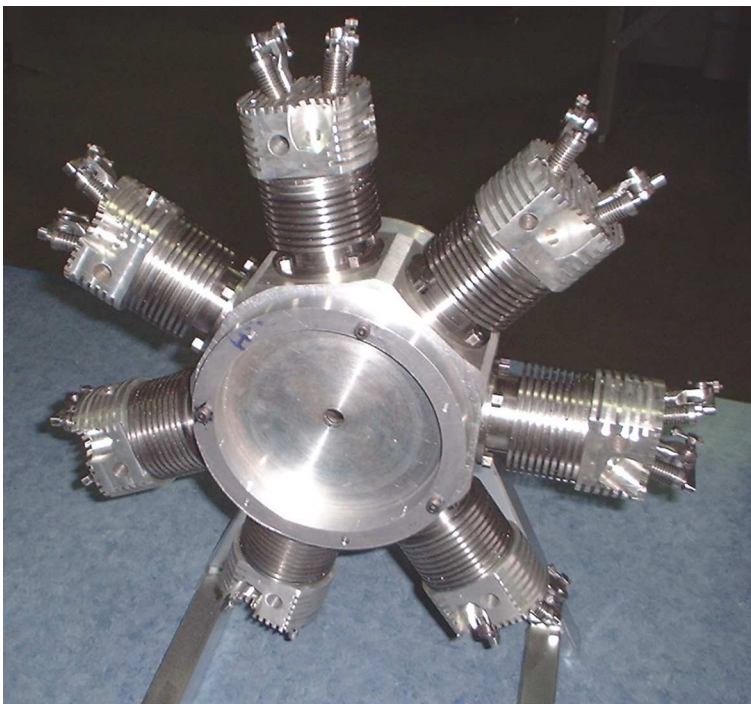


0-82 left had tap made from W-1 drill rod
3 grooves cut in tap using .009" thick separating disk on a Dremel tool clamped on mill.

.890 by 16 tpi tap made from Stress Proof steel

The 0-80 tap has heated with small propane torch with out any protective coating for hardening and tempering. The larger tap was coated with Brownells PBC non-scaling compound. Heated in the forge to critical temperature, magnet wouldn't stick to it and then quenched in water. The tap came out of the water looking like it does now.





Also following counter-clockwise from upper-right:

The trigger guard pattern to produce replacement parts for a WWII flamethrower by Bud Statton.

Al Rose described his work on a 15HP rotary engine featured in I.C. magazine. The pistons use a single ring seals and operate with a fuel-oil mixture.

The lovely brass propeller was made via lost-wax by Bob Eaton and subsequently embedded in rubber to generate several wax duplicates off the master casting. A centrifugal casting machine was used to pour the parts.



Below, several members including Henry Casson and Al Pohlpetter were thanked by OMSI for their help in restoring the old Oregonian clockworks to smooth operation.

