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Last Meeting. The Portland Model Engineers last met June 14 at the Silverton Foundry. Thanks to **Gary Martin** who arranged for the meeting and to **George Field**, who with his brother, has owned the plant since 1976. George says the foundry, with only four employees, casts about 500 tons per year - about 90% cast iron and the rest aluminum.

The **Northwest Machine Tool** show was held in the Oregon Convention Center June 11 and 12. The PME club loaded three booths with an exceptional variety of models and easily became the most popular exhibit as demonstrated by the enclosed pictures. Tool show organizers were impressed enough to offer free booths in next year's show.

Thanks go to **Bill Miller** for completing the legwork needed to show off the club's capabilities. The club handed out about 40 applications for joining the club so some increase in membership is expected. And this note from our president: "The **July 12 meeting** will be at **Bartlett Enterprises**, (and not at Bud Statton's as previously thought). The address is 1900 NE 25th, Suite 11, Hillsboro, at 1pm. **IMPORTANT NOTE:** The board will have a meeting beforehand at 11am.

In other events: The Clark County **Rural Heritage Fair** at Alan Schurmans Iron Ranch will be July 19-20; The **Brooks Steam-Up** will be July 26-27 and Aug 2-3. The club needs to have a strong showing at these events. Come and join the fun."

Contest Contest. Free Prizes. The club needs to rename **Prime 2004** to something else and will be trading big time prizes for your suggestions. So find and fill out the entry form in this newsletter then bring it to either of the next two meetings. Multiple entries are accepted.

Photos of the machine tool show courtesy of **Chuck Clark**. Those of the foundry courtesy of **Carl Petterson**.

Speaking of Prime 2004, here's a brief update. **Gary Martin** and **Bill Miller** have found a promising site: the Army Reserve Armory in Portland (close to 33rd and Columbia Blvd). For \$500 per day, one gets 10000 square feet, compressed air, good parking, 40 tables and the reserve's machine shop in a van for display.

FOR THE BEGINNER

5

There are several ways to saw metal. Some can be done with machines; others must be done by hand. There are several things that need to be done when sawing metal. The first I see most of the time is not enough teeth when cutting thin material. The rule of thumb is to have at least three teeth on the material or more. If the metal gets between the teeth it will break the teeth off. If you have to cut metal with a coarse blade, slant it down flatter to the material so more teeth are on the surface. This works both on hand sawing and machine sawing.

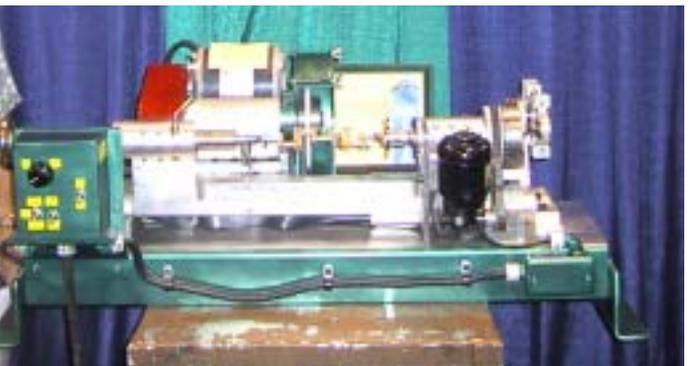
When sawing by hand, remember the teeth should point in the direction you are cutting. In contrast, when you scrub the saw back and forth you are bending or dulling the teeth of the saw. Put pressure only on the cutting stroke. Ease the pressure on the non-cutting stroke. Don't get in a hurry, "speeds and feeds" work here also.

Several people have asked, "which way do the teeth point in a hand saw?" If you cut on the push stroke as with a hack saw, the teeth should be pointing to the front of the saw. If you are using a coping or jewelers saw, you will most likely be cutting on the pull stroke. The teeth then should be pointed to the back or handle of the saw.

Wes Ramsey



Portland Model Engineers excel at the **Northwest Tool Show** held in the Oregon Convention Center. Counterclockwise from above: 1 & 2. Views from the right and from the left of PME's exhibit. Although difficult to see in photo 2, **Murry Luncford** displayed his tractor, trailer and caterpillar, **Liu Chu** showed his modern Japanese tank, **Virgil Jeffries** demonstrated his Harley engine, **Al Pohlpetter** showed his clock and **Gary Martin** displayed several of his patterns and castings. 3. A shot showing the popularity of the displays. 4. A close up of **Cliff Schrock's** Stirling engine. 5. **Gary Hart** and **Bob McCaleb** tending their displays. 6. **Chuck Stark's** impressive crankshaft grinding machine. 7. **Bill Miller** describing his home brew CNC milling machine.





The June Meeting was held at the Silverton Foundry in Silverton Oregon. Pictures shown counterclockwise from above: 1. An exterior view of the foundry. 2. The lower story of the two story cupola - used for melting iron only. 3. The aluminum furnace shown with a fireproof hood. 4. **George Field**, the foundry owner, explaining the procedure for molding. 5. **Gary Martin**, pulling a pattern out of the mold as two of his students (**Grover Behrens** and **Allan Condu**) observe.

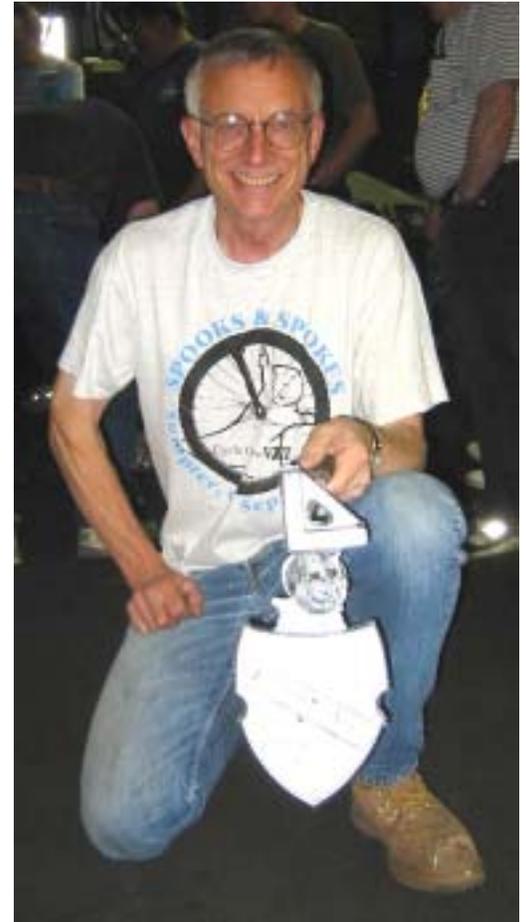
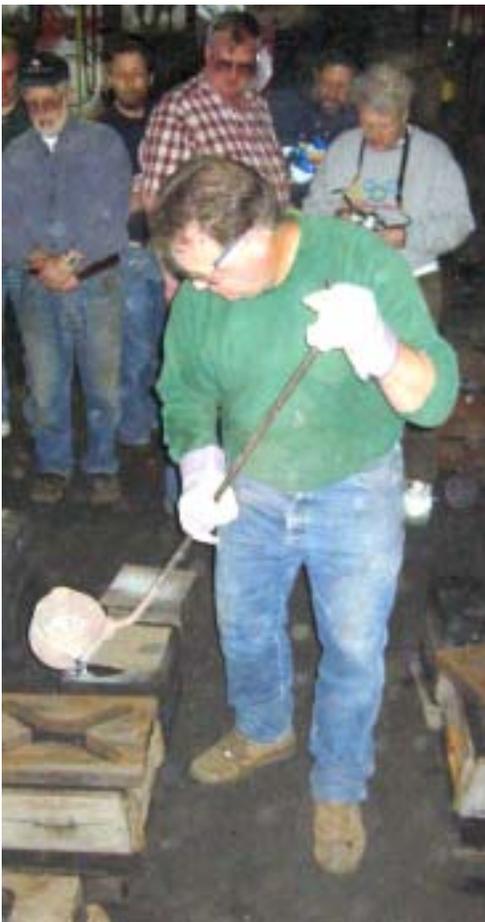


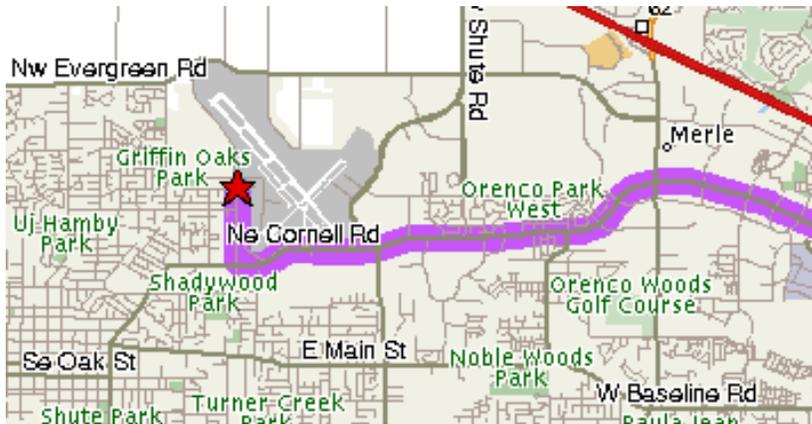
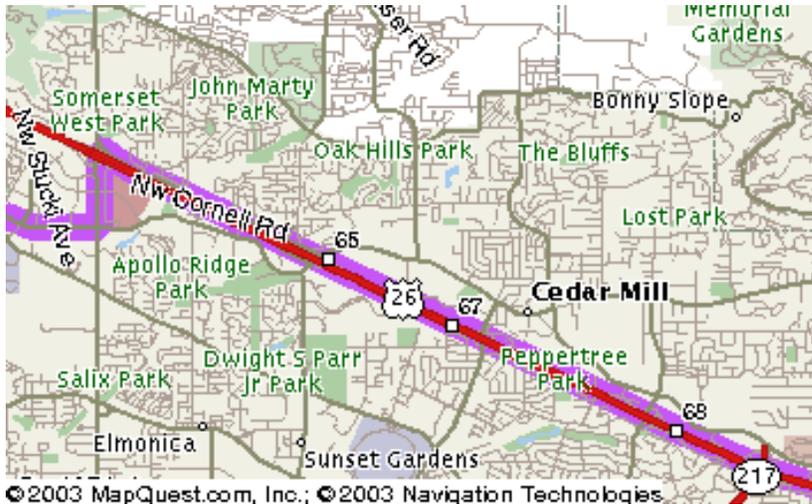


Left - Mike Foti preparing the molds.
Right - Carl Petterson tamping the sand prior to the pour.



Below left - George Field actually pouring molten aluminum.
Below middle - Greg Dermer holding the mold and the iron machinist square it produced in a previous pouring (this casting may be available for sale). **Below right - Carl Petterson** holding his finished product - an aluminum replica of a small shield once owned by his dad.





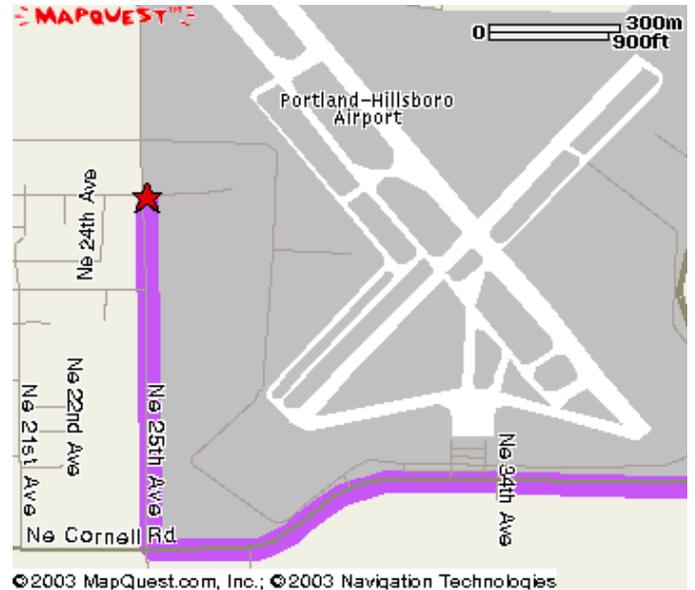
Directions to Bartlett's

From Mapquest

1. From US-26 West bound from Portland I405 toward BEAVERTON travel 9.66 miles.
2. Take the 185TH AVE. exit- exit number 64- toward ROCK CR. Travel 0.29 miles
3. Turn LEFT onto NW 185TH AVE. Travel 0.58 miles
4. Turn RIGHT onto NW CORNELL RD. Travel 4.61 miles
5. Turn RIGHT onto NE 25TH AVE Travel 0.57 miles

Total Distance: 15.71 miles

**GPS 45.538812, 122.956887 or
45 32.329, 122 57.413**



Optional Entry Form to Rename Prime 2004

Your own name _____

Your phone _____

Your suggested rename _____