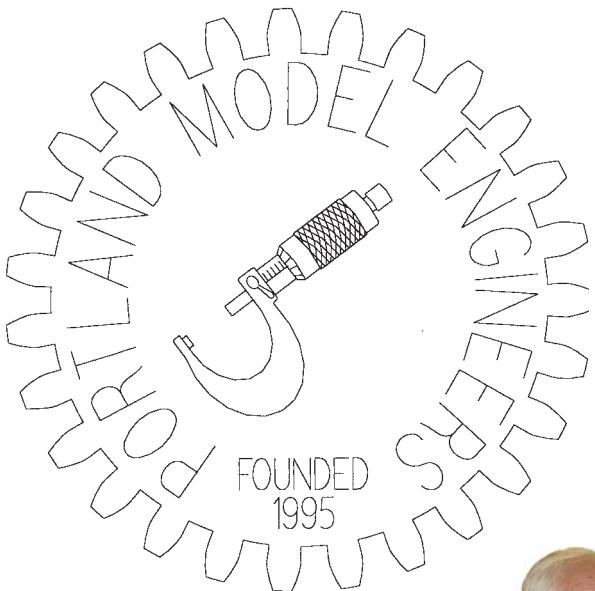


August 2003



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Last Meeting. The Portland Model Engineers last met July 12 at **Bartlett Enterprises**, courtesy of **Bart Pond** (shown in the inset) - thanks Bart. And thanks for the fascinating tour through the largely automated shop. As shown in the following pages, club members brought an impressive array of mostly home built artifacts - clocks, cars, castings, camera adapters - most of the "C" models of interest.

The **Next Meeting (August 9)** is also scheduled at 1pm at **Bartlett Enterprises**. - see enclosed map. The address is 1900 NE 25th, Suite 11, Hillsboro. Gary Martin would like to note that there is a **board meeting** at 11am to work on the Son of PRIME.

The **September meeting** is expected to be at **Bud Statton's** where he has promised to get the lead out - oops I mean the iron out - of his cupola. This meeting will be our annual Bar-B-Q picnic. The **November meeting** is scheduled for the Iron Ranch.

Contest continues. Free Prizes. Help rename **Prime 2004** to something else and increase your chance of winning big time prizes for your suggestions. Fill out the entry form in this newsletter then bring it to the next meeting. Multiple entries are accepted.

Photos in this issue courtesy of **Gary Hart** and **Carl Petersen**. "For the Beginner" series courtesy of **Wes Ramsey**.

For the Beginner

6

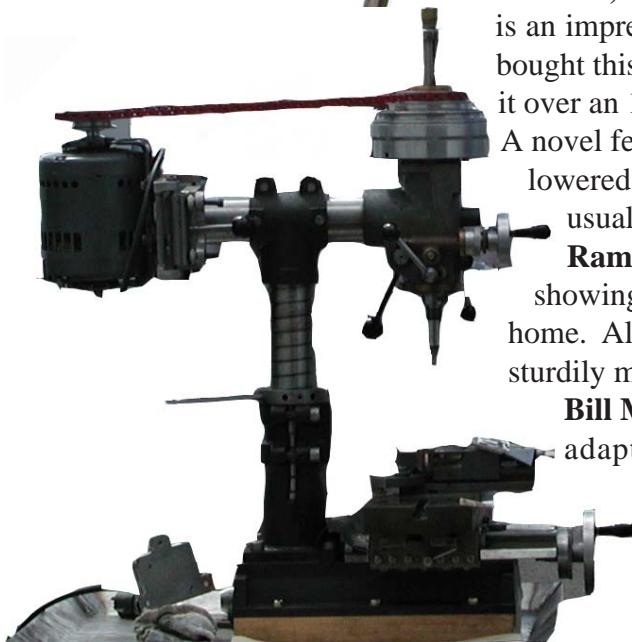
I have not said much about casting and foundry work as it looked like there were several people that knew a lot more about it than I. As I was watching some of the work done at the foundry I could see some of the things we learned in foundry at school could help some of the finished parts. I don't mean to put anyone down but the reason you cast something is to get a copy of a part. If you are going to just get a blob of metal to carve the part out you might as well not do the casting thing. There is a sprue and riser on most castings. The metal goes in one and out the other so you can tell when the mold is full and not build an air bubble in front of the molten metal. Some of the time it does not matter which you use for which. When hot metal is poured down a hole into soft sand it is going to wash away some of that sand. There is more to it than that but you are going to get stuff in the metal you are casting. If you cut a catch hole at the bottom of the sprue, all that stuff goes into that hole and clean metal will flow down the gate leaving most of the stuff behind in the part you are going to cut off. Keep the sprue and riser close to the part and large enough so they will cool last. If you don't you will have shrinkage in the middle of your part.

About using Styrofoam for patterns. When it gets hot and melts it will leave some of the molten foam which will keep your melted metal from filling the cavity. Foam is a great material for patterns, but I would pull it before putting hot metal on it. If your pattern is made correctly there are some tricks where you can even pick up fingerprints on your cast parts.

Wes Ramsey



Al Pohlpeter (left) holds a great looking hot air engine fan he cast and built after reviewing an old patent. (The engine is shown in more detail on the right). Unfortunately, this engine does not run. In addition, **Gary Hart** was unable to get it to run and there is now some uncertainty about whether the patent describes an operating engine. Hmmmm.





Still more offerings.

Clockwise
from upper left: (1)
Gary Martin shows a
pattern he made as a part
of the set of patterns/molds
he has been commis-

sioned to build for a naphtha engine. These were
used in auxiliary launches in the US Navy. (2)

Mark Simmons holds a camera adapter

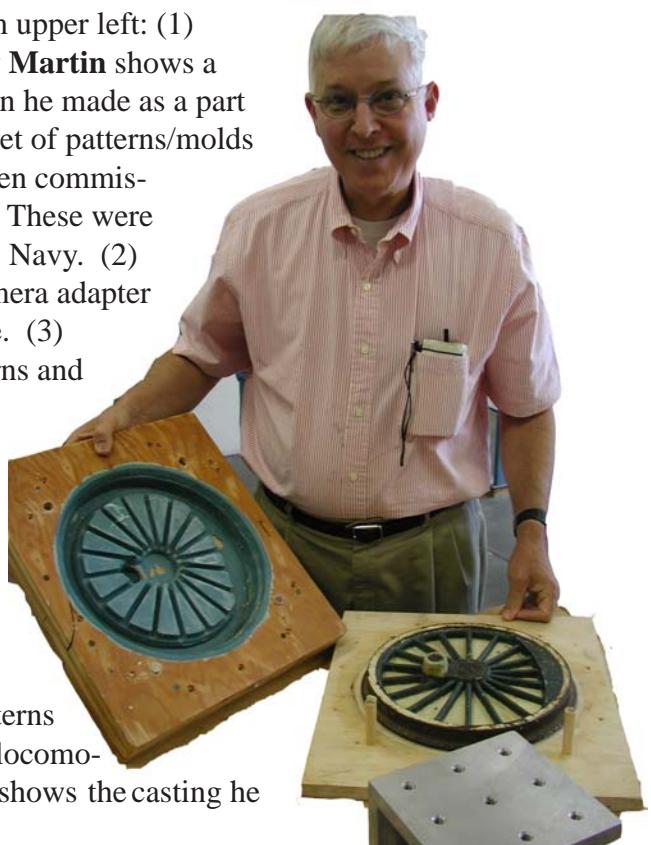
he made for a microscope. (3)

More examples of patterns and
castings. (4) **Murry**

Lunceford brought his
turbine powered gen-
erator so he could
watch viewers plug
their ears while he
started it. Not home made
but impressive nevertheless.

(5) **Bud Statton** holds the patterns
for a 7-1/2 inch gage Atlantic locomo-

tive (4-4-2). (6) **Jim Pfaltzgraff** shows the casting he
made to demonstrate styrofoam
mold casting (without removing
the styrofoam).

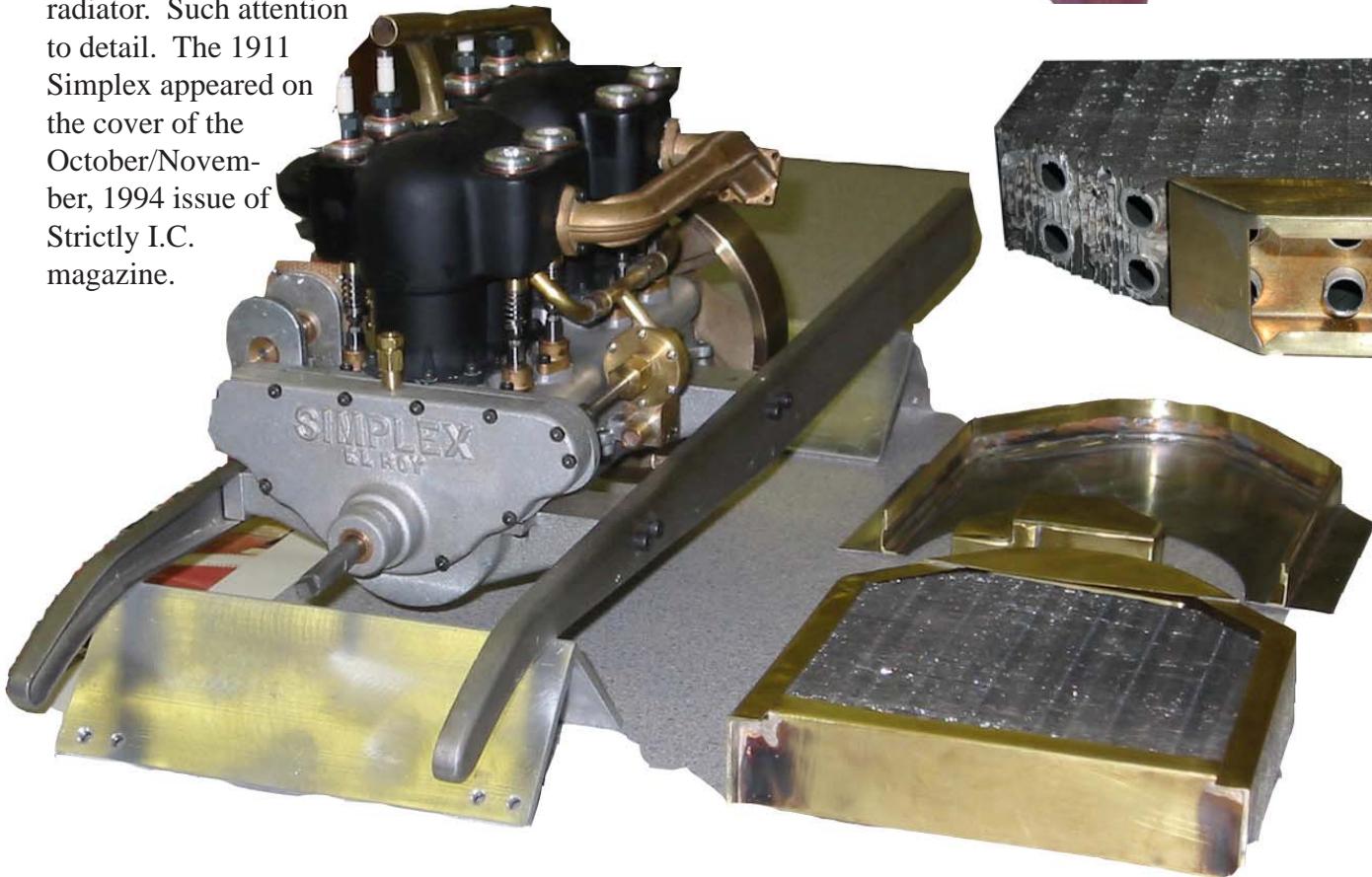


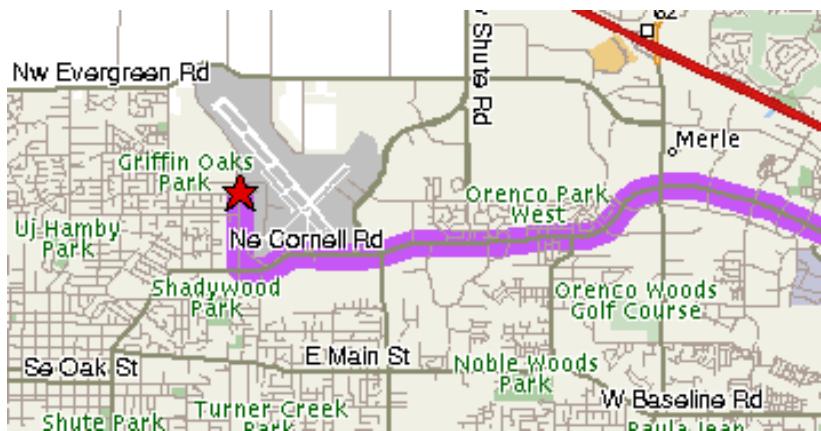
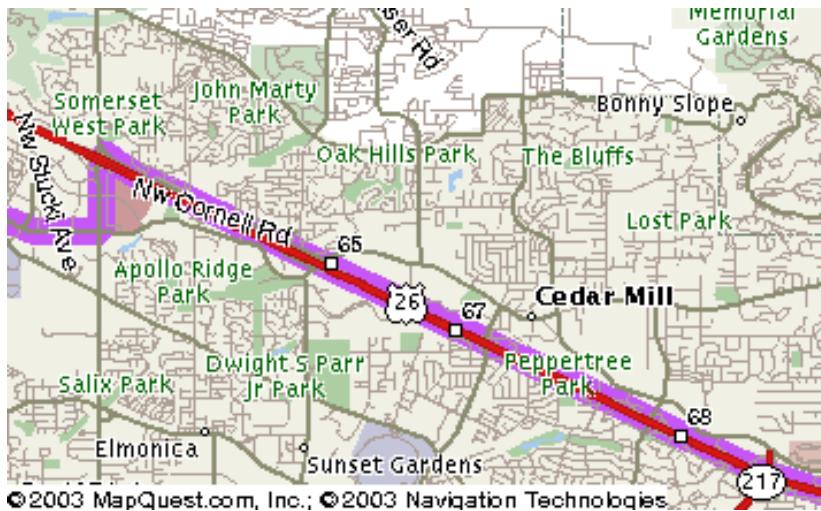
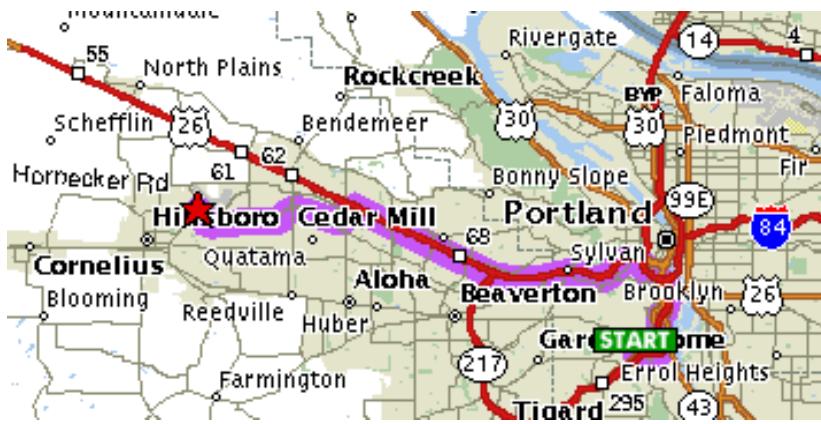


Hal May (left) finished the marvelous wind up clock he built as an anniversary present for his wife. It is a John Wilding design that Hal built in large measure using his CNC mill. Hal also brought in a fully functioning “stress reliever” (below) built of purpleheart and teak by one Paul Strait. All of the machinists spinning this device were found to have lower stress levels.



Chuck Stark continues to show steady progress on his 1911 Simplex as demonstrated below. Also shown (at right) is a close up of the radiator. Such attention to detail. The 1911 Simplex appeared on the cover of the October/November, 1994 issue of Strictly I.C. magazine.



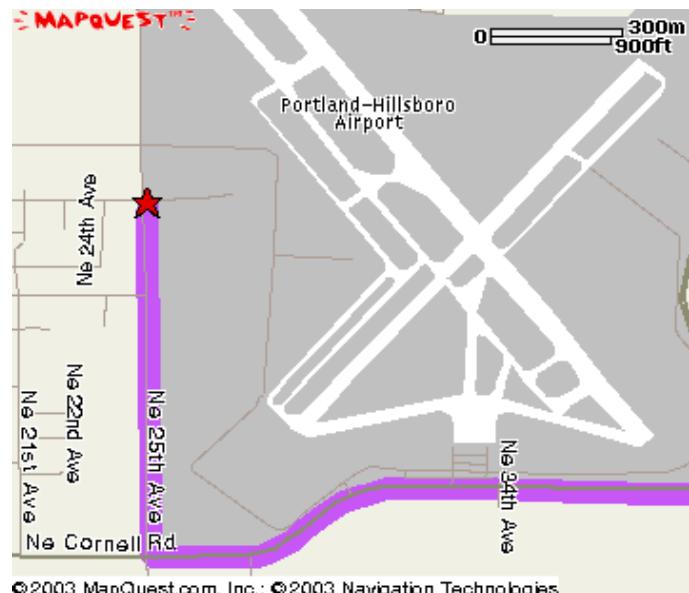


Directions to Bartlett's

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
 6. Turn right into parking area. Travel 2 blocks and park in right hand lot.
- Total Distance: 16 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 _____