

The Crank Calls



June 2015

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MEMBERSHIP \$25.00 US

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NEXT MEETING

May 16, 2015 at
Chabot College, building 1500
25555 Hesperian Blvd, Hayward 94545
Doors open at 9:00 AM
Meeting starts at 10:00 AM

Upcoming Events

BAEM meetings: 3rd Saturday of the month
A SWAP MEET is planned for our June meeting.

MEETING NOTES

May 16, 2015
Bob kradjian

President Don Jones called the meeting to order at 10:00 a.m.

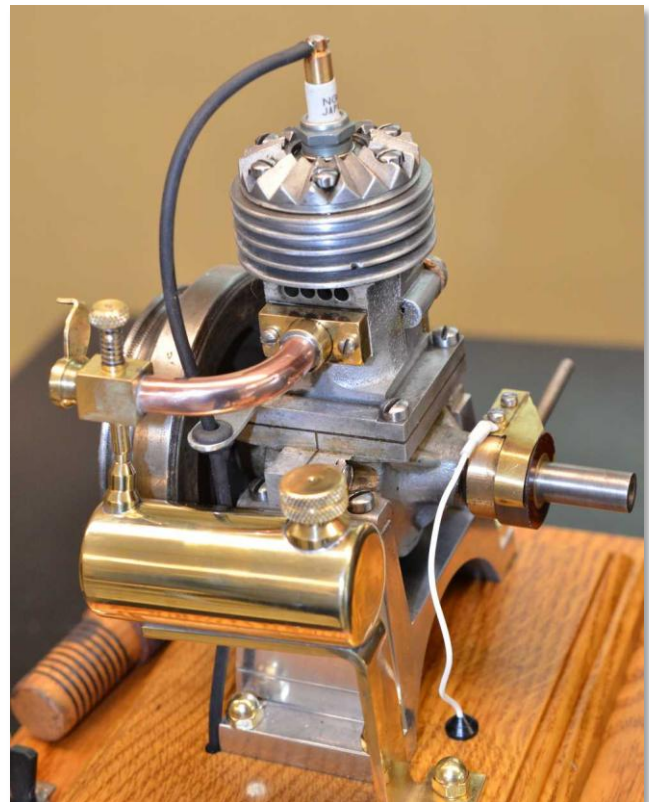
VISITORS: No visitors were in attendance. But, we honored and celebrated John Palmer's 95th birthday. John is the master of nearly every aspect of machining and an inspiration to us all.

MEETINGS: **A SWAP MEET is planned for our June meeting. Bring those items that need a new home, and perhaps pick up something needed.**

WEME is scheduled for August. John Gilmore will be in charge again with Steve Hazelton assisting. Steve has volunteered to serve the following year.

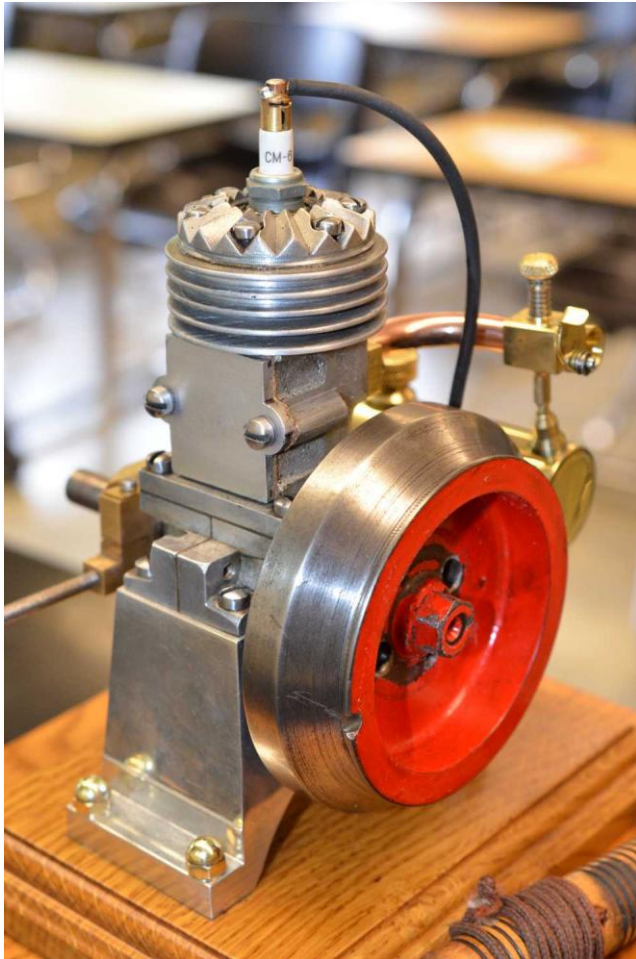
The Facebook issue was discussed. Don was able to project our Facebook club page from the overhead projector. For some reason, it is listed as: "Bay Area Engine Model Club". However, a search from the Facebook site will lead to the correct page. Members who do not wish to enter the Facebook world were advised to use alternate, free e-mail addresses such as g-mail. Ad block and Sandbox were also mentioned.

FIRST POPS:



Dwight Giles and Paul Denham have succeeded in coaxing an old Anton Bohaboy engine into life.

This was a commission from Jim Kipp in Southern California. The exact dating of this engine was not known, but it is thought to be from 1935 to 1939. Paul's ignition module appeared to be working, but he received a message from Dwight: "This thing's smoking!" This is reminiscent of Paul Bennett's saying that: "When the smoke appears, the magic disappears".

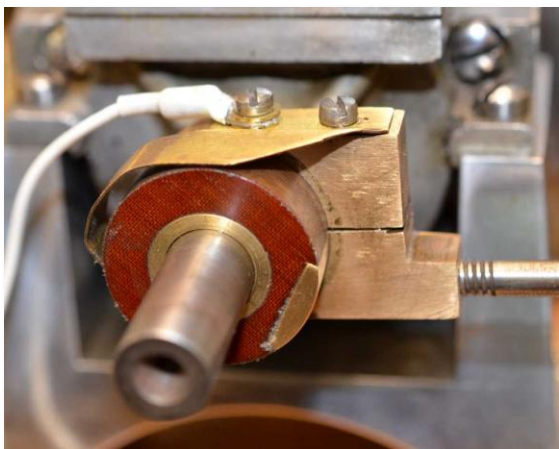


Paul then fitted an ignition module of David Sage's design. This resulted in a good spark and a running engine. Mike Rehmus will publish a description of this module in his next edition of "Model Engine Builder".

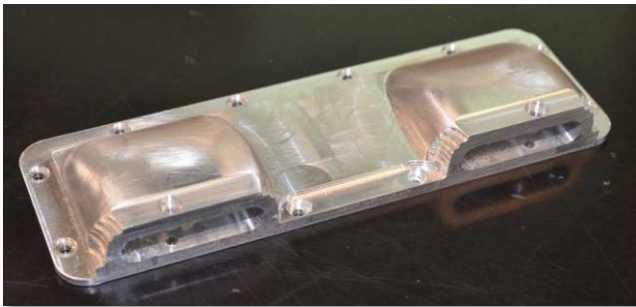
The carburetor problems on this engine seemed insoluble, so Dwight built an entirely new one. He also built a new timer to replace the original ignition points. The spark plug was an older NGK 10 mm. size. The threads used throughout the engine are SAE, but National coarse.

TREASURER'S REPORT: John Gilmore says that we are solvent. About \$1800 is being budgeted for a 5 X 8 foot trailer to haul the material for the August show.

CLUB BADGES: If you need a badge, contact Mike Rehmus (mrehmus@byvideo.com) who has offered to produce them.



BITS AND PIECES:



Jim Piazza showed us a new rear housing for his Offenhauser static replica. He has also finished a crankcase breather. Jim insists that this is not to be a running engine, but if he accumulates enough pieces---who knows?

Don Jones is teaching carburizing and heat-treating to his class. He showed us a shattered grinding wheel, the result of a student's overly aggressive feed while making a 1-2-3 block. The student was told not to take more than four tenths, the magnetic grip on the block couldn't hold, and it became a projectile. No one was injured

A discussion of other shop accidents recalled by our members followed. We all have such memories.

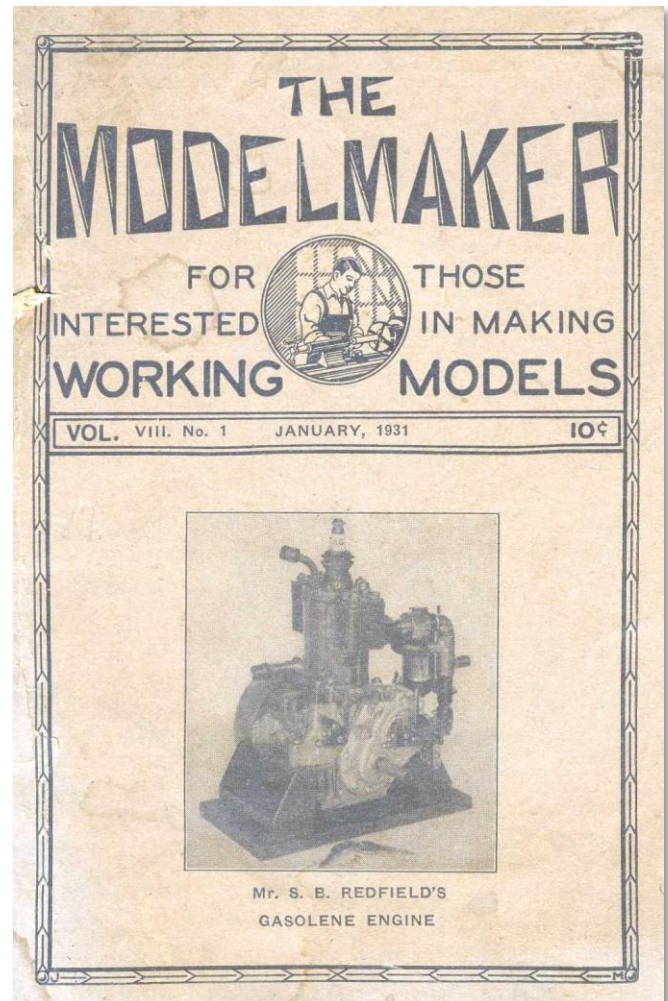
Don is also teaching a six-week summer class for 18-20 students to learn basic machining skills. A hammer will be the class project. Case hardening, knurling, threading and basic turning skills will be involved.

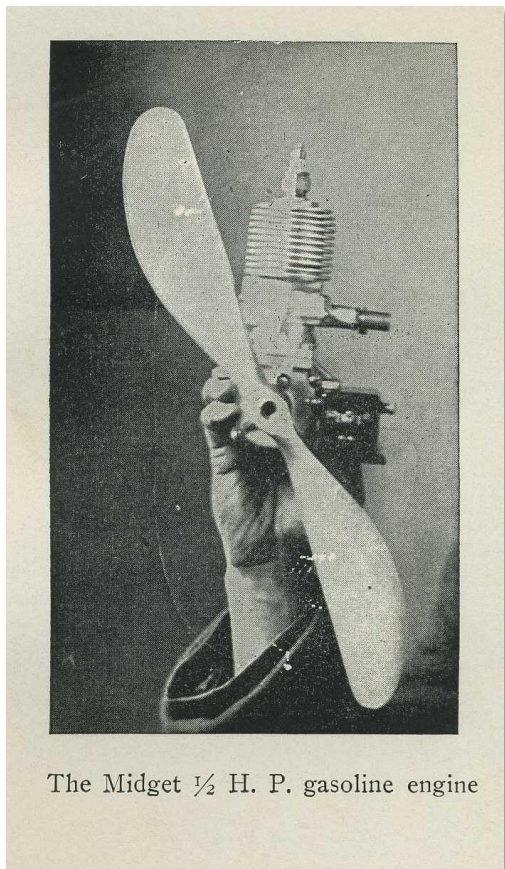
IN REMEMBRANCE

We have received the sad news that long-time member Joe Tochtrop has passed away. Joe will be forever remembered as the craftsman who provided the castings and plans for the lovely "Economy" hit and miss engine. There must be hundreds of these fine-running models in our country and across the world.

A BIT OF HISTORY

Our members at the Bay Area Engine Modelers tend to build miniature internal combustion engines, usually similar to the automotive type, and often multi-cylinder. But, what about the very earliest engine modelers?





The Midget ½ H. P. gasoline engine

They seem to have mostly been attempting to build a gas engine for model airplane usage. They were usually single cylinder uprights, two-cycle, and rather large and heavy. An example would be an engine by P.C. McCutchen of Philadelphia. This engine was large, measuring seven inches in height and claiming one half horsepower. It swung an 18 X 13 inch propeller. It was described in a book titled: "Model Aeroplanes and Their Engines", 1917. Called the "Midget Gasoline Engine" was produced by the Aero Engine Company of Boston, Mass.

The Gil followed in 1922. It was manufactured in Chicago and was 1.18 cu. in. in displacement. This may have been the first commercially available model engine, but made in small numbers.

The Royer model airplane engine was made in Pasadena, California in 1932 by Royer Motors. It was a 0.785 cu. in. single with a sand cast crankcase, a poppet valve type carburetor and a polished aluminum propeller keyed to the shaft. An example is seen in Paul Knapp's museum site as well as 1919 Springfield A1 and a nice Royer. Be sure to visit his

excellent site at: engine-museum.com. Go to "Photostream".



The first widely sold and reliable gas engine for airplanes and model cars was the Brown Junior. In 1931 Bill Brown Jr. at age nineteen, made a single cylinder gas engine. A newspaper article in the Philadelphia Evening Bulletin described this very sophisticated design. The next version was his famous Brown Junior.

Up to the 1930's, there was little attention paid to home workshop builders with casting sets and plans.

Elmer Wall of Chicago is generally recognized as the true father of the American model engine-building hobby. The July 1930 "Modern Mechanics and Inventions" featured an ad for a two-cycle and a four-cycle single cylinder. The ad stated: "We furnish all the castings and detailed drawings. You do the machining and assembling". It concludes: "For the best of them all, build a Wall". Both are upright and weigh two pounds, probably one and a quarter inch bore, but not specified. The circular was available for 5 cents in coin. A similar ad in the same magazine of May 1932 had only the same overhead model, but now the circular was 10 cents. The following year, the same magazine featured a photo of an early version of his four-cylinder, four-cycle flathead. One inch bore and stroke, and "almost two horsepower" were described.

Anton Bohaboy marketed a small number of casting sets for a small two-cycle single in 1932. He was the designer of the engine shown at our meeting by Dwight Giles.

R.M. Church of Dumont, New Jersey also advertised casting sets in "Model Craftsman" of November 1937. He offered castings and drawings for a pair of two-cycle engines. A single of 10 cc. displacement and a twin with two singles with mated crankcases. Bore 1", stroke 3/4". Complete casting and material kit for the single was \$11.00.

There were other builders. The May 1937 "Mechanics and Handicraft" contained a detailed article titled: "Making a Model Gasoline Engine". In the article, Charles G. Cunningham provides very detailed photos, drawings, and instructions for building a very nice looking single cylinder, two-cycle engine that resembles an Elf single. He provided plans for the patterns to cast the crankcase. He also described the engine as a "Parohl design with modifications".

Wayne Miller of Chicago advertised miniature engines as "The world's most fascinating hobby" in Popular Mechanics, of July 1946. No details were given. By the 1940's there were numerous companies marketing casting sets and plans. If any members have other recollections of early modeling history, please share them with us. I was aided by Paul Knapp's mastery of this subject in preparing this short piece.

Absent from this discussion are the English steam engines and the numerous kits of hit and miss engines. They appeared in the 1920's. That could be the subject of another short essay.