

# The Crank Calls



President	Paul Denham	pedenham@comcast.net
Secretary	Your name here!	Please consider volunteering
Treasurer	Deirdre Denham	pedenham@comcast.net
Events Coordinator	Steve Hazelton	steve.hzltn@gmail.com
Webmaster	Mike Byrne	mgbyrne3@comcast.net
Editor/Printer	Wes Wagon	weswag@ix.netcom.com

### **MEMBERSHIP \$25.00 US**

Contact Paul Denham at  
pedenham@comcast.net

### **NEXT MEETING**

**Saturday, October 21, 2023, at the  
Golden Gate Live Steamers clubhouse site in  
Tilden Park, Orinda, CA**

Gate opens at 9:00 am  
Meeting starts at 10:00 am

### **Upcoming Events**

- Oct 21: BAEM meeting at GGLS
- Oct 20-22: Maker Faire at Mare Island, Part 2
- Nov 18: BAEM meeting at GGLS
- Dec 9: BAEM meeting at GGLS

See below for more details regarding events. Watch Crank Calls, BAEM emails and BAEM web page for updates. BAEM meetings are usually 3rd Saturday of the month except December.

### **MEETING NOTES**

Bay Area Engine Modelers met outside at Golden Gate Live Steamers on September 9, 2023. Meeting was held a week earlier than the normal 3rd Saturday to support the Golden Gate Live Steamers fall open house. There were 16 members and 2 visitors in attendance.

President Paul Denham opened the meeting by welcoming attendees. Paul also mentioned that Mike Rehmus is home after his heart valve replacement procedure. The club wishes him well and hopes that his recovery will be speedy and uneventful.



## NEW MEMBERS/VISITORS

BAEM members are reminded that visitors are welcome at our club meetings, and we're always looking for new members.

## TREASURER'S REPORT

President Paul Denham reported regarding club finances. He reported the club has been delinquent in reports and fees associated with the nonprofit status. Diedra, while slightly pissed, has the problem under control. Other than that, club finances are "OK".

2023 dues of \$25 dollars are due, and checks can be mailed to Deirdre Denham at 1937 Merchant St, Crockett, CA 94525. Make checks payable to "BAEM".

## CLUB BADGES

If you are a member in need of a badge, contact Mike Rehms (mrehms@byvideo.com) who has offered to produce them. Given Mike's health status (see above), you might consider waiting a couple of weeks before making your request.

## SHOWS AND EVENTS

### -GGLS Fall Meet/Open House

The BAEM September meeting date was moved up a week to coincide with the GGLS Fall Meeting on Saturday, Sept. 9. This was just for GGLS and BAEM members. GGLS held its Open House on Sunday, Sept 10, which was open to the general public. BAEM members exhibited engines on both days. Steve Hazelton coordinated.



*Lots of GGLS activity*

### -EDGE&TA

Ray Fontaine (email: [Raftus2@outlook.com](mailto:Raftus2@outlook.com) Phone: (925) 784-5411) coordinates our club's participation in EDGE&TA events. The Branch 13 website is here: <https://branch13edgeta.com/>. Check it out for their full calendar.

Branch 13 held its Antique Equipment Show at the Mahon Ranch in Elk Grove, on Oct. 6-7. Ray represented BAEM.

### -Maker Faire

The Bay Area Maker Fair is a large event drawing nearly 10,000 people. It has been held at the San Mateo County fairgrounds in the past but has found a new home at Mare Island in Vallejo. It is taking place over two weekends: last weekend, Oct 13-14-15 and this coming weekend, Oct 21-22. You can learn more about the Maker Faire from its website: <https://makerfaire.com/bay-area/>

This year, it was decided that our club would display engines at the Maker Faire. Steve Hazelton has been coordinating and is the person you should contact for details about our club's involvement. Steve can be reached at 707-501-3535, and his email is [steve.hzlt@gmail.com](mailto:steve.hzlt@gmail.com)

Steve reported after last Saturday's event: "Today so many people learned about BAEM, at the Makers Faire in Vallejo on Mare Island. Paul Denham and George Spain joined me for the event. It was a very different crowd than the Good Guys. Lighting up the Gilmore V8 was a crowd pleaser, but so many people wanted to know how to get involved with machining models. Lots of kids and families really paid attention to our displays."

Paul Denham reported: "The MAKERS FAIR was a huge success IMO. Crowds like my first GoodGuys experience. But non motor-heads, very few requests to ask to see it run, but if it was already running, non-stop attention. I am exhausted now but this is what it is all about, although I still prefer building."

"Let Steve and I know who is willing to attend, My feet are recovering and am definitely leaning there. Wow Wow and Wow. People in front of my engines steam, Stirling, IC all day non-stop. Sat down about 10 min all day each day. With all the other distractions I really didn't expect so much attention. Forged in fire next to us, glass blowing next to us and a burning man sized fire exhibit also next to us shooting flames and a band

only 50 feet away, and guess who had the most crowds IMO, Yep BAEM engines and Stirling powered water wheel and a steam powered Slinky. The V8 also a hit with a few but so long as it is running and doing something they just come in.”

“We were at the very furthest end of a large event area with gas engines obviously located outside with the fire people. I didn't expect people to walk that far. Yep again I was wrong. Engines that run all day with little attention are the key. I have a 1903 Red Devil that did just that. Also the Aermotor 8 cycle. How many times did I explain low tension ignition and hit and miss, 8 cycle -- hundreds of times. And what really makes it worth it is when you get the ‘Thanks for taking the time to explain and thank you.’”

“Yep a good but exhausting 2 days. Once the engines start turning you can't leave and explore. Kids really want to touch. Kids hands on is also the key.”

## FIRST POPS

No first pops reported at the last meeting.

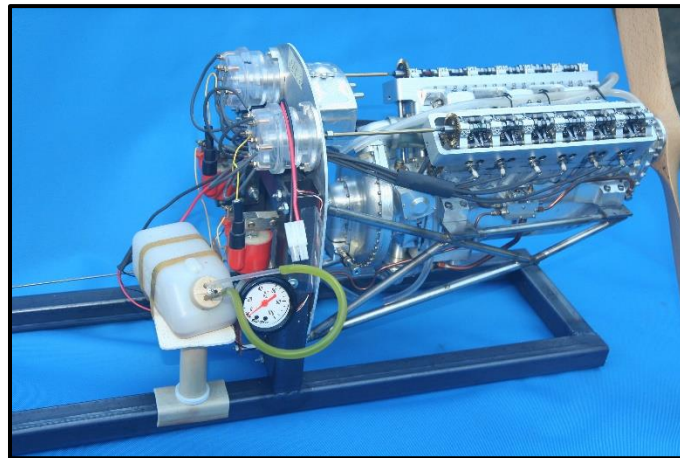
## BITS AND PIECES

One of Paul Denham's early projects was a Denny hot air engine. He added a water wheel driven by the Denny water pump, which demonstrated significant “show appeal.” Paul built a larger water wheel to run with his newly completed Rider-Ericsson Stirling. He described it as a “Tinker Toy” project. After watching the new wheel in action, it could also serve as a water park attraction. Paul showed the Stirling and the Black Widow V8 at the GGLS Open House.

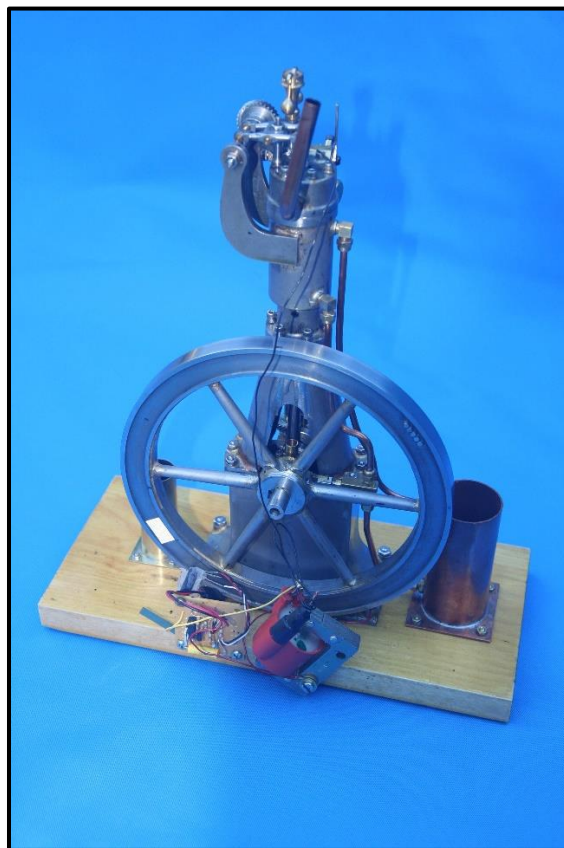


*Paul's "Tinker Toy" ferris wheel  
And Rider-Ericsson Stirling*

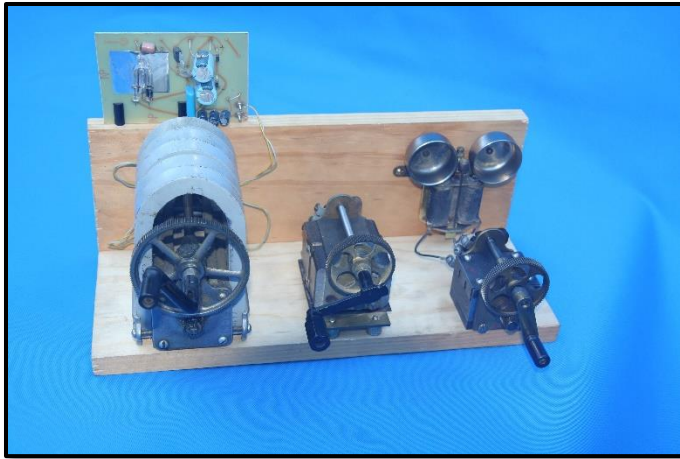
Peter Lawrence brought his Merlin V12 and the Hansen Vertical projects to display and run at the GGLS Open House. He also assembled a set of telephone magnetos to ring bells and flash lights when the cranks are turned. He reports that the younger show attendees enjoy “turning the crank”.



*Peter's Merlin V12*

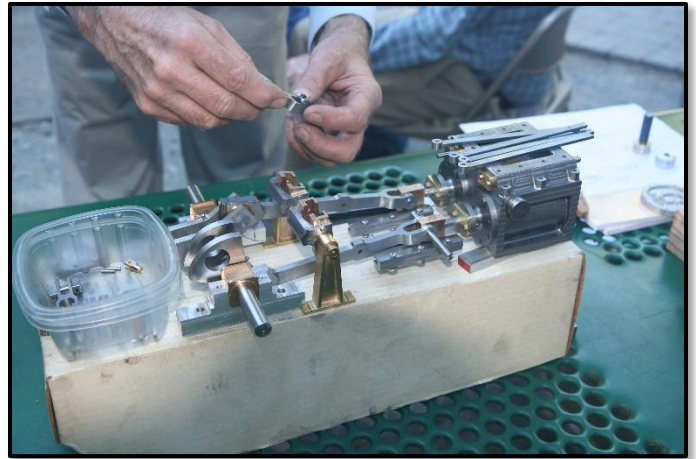


*Peter's Hansen Vertical, gas version*



Peter's "keep those kids busy" set of magneto cranks

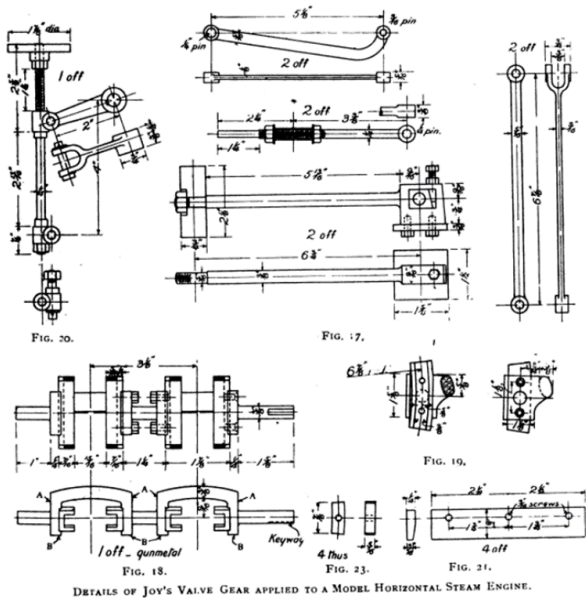
Peter also brought in more machined parts for a model horizontal steam engine with Joy valve gears. Peter is very articulate in describing his design process, machining challenges, issues, successes, and failures. The Joy valve gear trunnion suffered miss-alignment after silver solder and part interference problems. A snip from the 1905 Muncaster plans article shares Muncaster's assessment of valve gear machining complexity.



Peter working on Joy valve gears

Dwight Giles had a number of scale model airplane kits he had acquired over the years (one shipping box was 1993). He offered them to anyone interested for \$10 each (proceeds going to the club treasury).

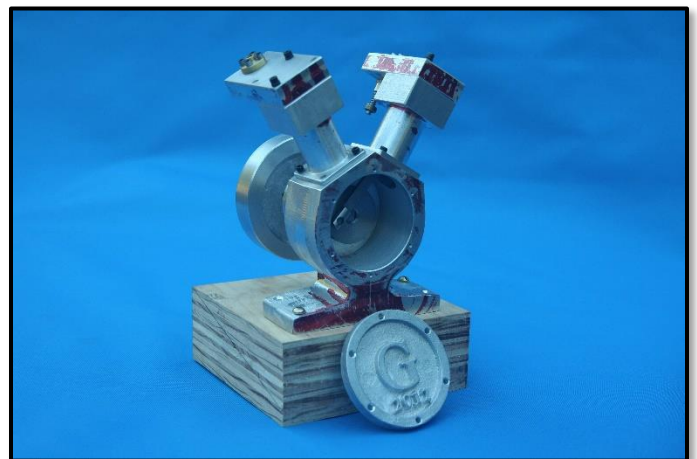
Ray Fontaine showed a twin cylinder air engine made from a GEARS 2012 casting kit. Ray used cam lobes for this engine as a pathfinder project with his new Tormach CNC mill.



DETAILS OF JOY'S VALVE GEAR APPLIED TO A MODEL HORIZONTAL STEAM ENGINE.

"Referring to Figs. 18 and 19 it will be seen that arrangement of guides is a rather complicated piece to make."

I.H. Muncaster, The Model Engineer and Electrician, "A Model Horizontal Engine with Joy's Valve Gear", April 6, 1905, page 321



Ray's Twin Cylinder

Ray attended the recent Amdor County Fair and showed engines. While there he spoke with folks associated with Knight Foundry, in Sutter Creek. (<https://knightfoundry.com/>) Aside from offering foundry classes that may be of interest to BAEM members, Ray learned they would be willing to cast aluminum parts if provided the patterns. He is perusing

details like costs and production time. Talk to Ray if you have an interest in this.

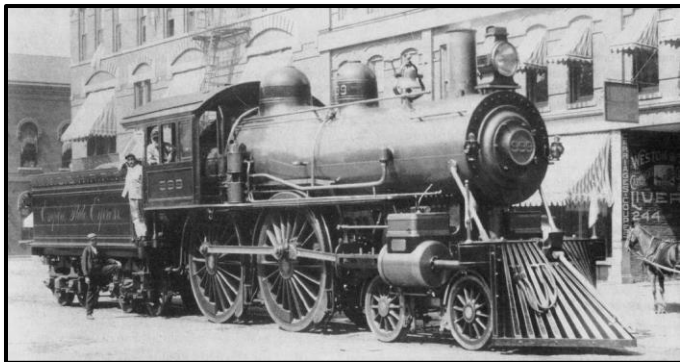
Ray is interested in an Atkins differential engine project and wondered if there was any interest in a group build, especially for casting procurement. He also wondered if arrangements could be made for engine shows using the Pleasanton fairground covered open air pavilion. This could make showing more attractive by allowing IC engines to run.

Several years ago, Dwight Giles designed and constructed a very capable cam grinder that he used for various model engine projects, both his own and the projects of other BAEM members. Dwight would now like to find a good home for this specialized grinder. His vision would be to gift it to the club as a whole, and it would be made available for individual project use as needed. The challenge is to find a storage location for the grinder and its cart, and someone willing to serve as the club custodian (i.e., “tool librarian”), keeping track of the grinder’s location.

#### GGLS Open House Participation

Paul, Peter, and Ray were planning to show engines at the open house.

Charlie Reiter is showing a very impressive 1 ½ inch (1/8 scale) model of a prototype locomotive originally built in 1893. It was called “**New York Central and Hudson River Railroad No. 999**”. The prototype was built to break existing speed records and then exhibited at the Chicago World’s Fair. On May 10, 1893, 999 achieved 112 ½ miles per hour, which was incredibly fast by the standards of that time. [https://en.wikipedia.org/wiki/New\\_York\\_Central\\_and\\_Hudson\\_River\\_Railroad\\_No.\\_999](https://en.wikipedia.org/wiki/New_York_Central_and_Hudson_River_Railroad_No._999)



No. 999

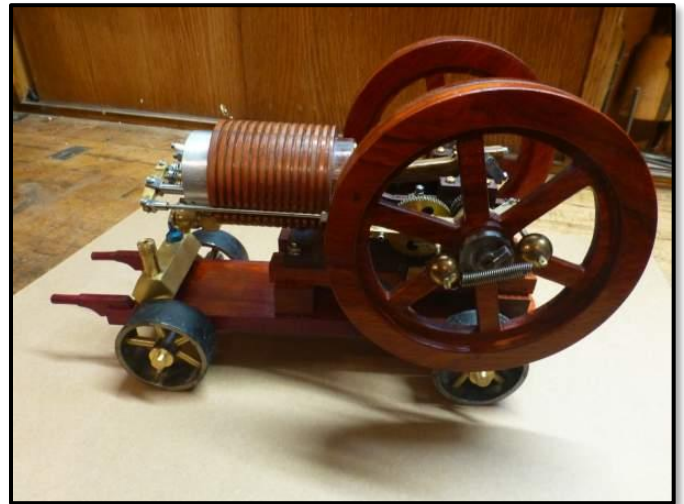
Charlie is the third owner of this model and each had a significant role in the fabrication and tuning of this model locomotive.

## RAMBLINGS

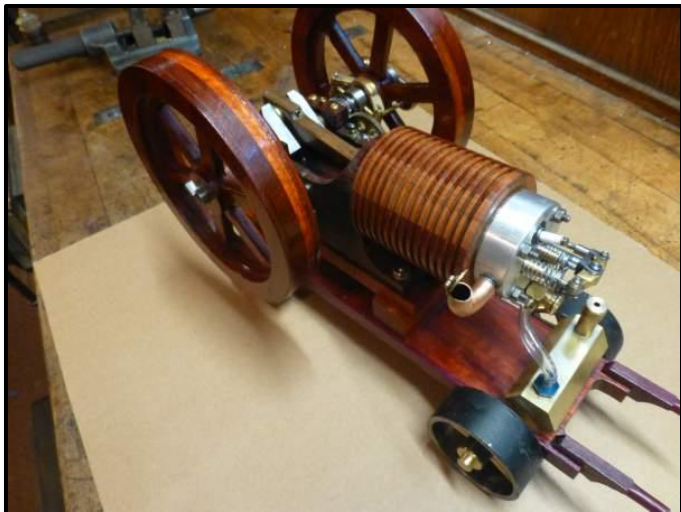
BAEM member Charlie Reiter has been forwarding our monthly Crank Calls newsletter to a Canadian internet pal named Carson Turncliff. Carson lives in Coquitlam, British Columbia, near Vancouver, which is obviously a bit too far for him to attend our meetings.

Carson submitted details regarding an interesting recent project, asking that we share the details with our members. He submitted a description, photos, and a video of the running engine. The pics and description are here. The video was uploaded to our YouTube site and can be viewed here: <https://youtu.be/505PazCqv8o>

Carson writes: “I am a bit of a model engine builder having built several hit and miss as well as several steam engines. Which brings me to why I am sending you this email, as Charlie thought my latest build might be an interesting submission for the newsletter, I have attached a video and some photos of the engine.”



Wooden Farm Boy



“The flywheels are laminated up out of Paduk with 20 brass slugs imbedded in each wheel to give it the necessary mass. The body/frame is Brazilian Rosewood as are the main bearing caps, the faux cooling fins are Central American Cherry and the connecting rod is 12 pieces of 1/28 inch thick veneer cross laminated to give strength. The base is Paduk, trimmed with Purple Heart mounted on shop made 5 spoke brass wheels.”

“The engine runs very well and after a couple minutes of running still does not over heat.”

Thanks Carson! Nice work!

Working on an interesting project? Got a great BAEM story? Share it with us here. Send us pics and project details, and your hard work will be shared with the entire club.

## FOR SALE

Got something you'd like to sell? Your ad is free and will be seen by likely customers.

## NEWSLETTER CONTRIBUTIONS

Your contributions to this newsletter are appreciated: workshop reports, tech articles, reviews, historical pieces, whatever. You contribute, we'll figure out how to post it. Send your contributions to either or both of us. Thanks!

-Mike Byrne at [mgbyrne3@comcast.net](mailto:mgbyrne3@comcast.net)

-Wes Wagon at [weswag@ix.netcom.com](mailto:weswag@ix.netcom.com)

“Inspiration came from the Farm Boy hit and miss which is a water-cooled model that has been built by many model engine enthusiasts. However, my vision was to make the engine air cooled, well sort of, and make as much as possible out of wood.”

