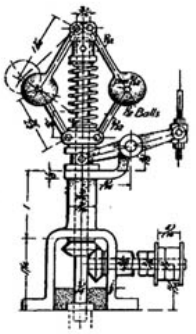

The NEMES Gazette

NEW ENGLAND MODEL ENGINEERING SOCIETY INC.

No. 125 September 2006

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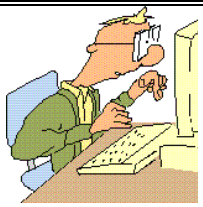


Editor's Desk

Victor Kozakevich

I was doing a little model-related web surfing and found a website in Australia that might be of interest to NEMES members. The site is an online magazine about model engines, mostly aircraft, both single and multi-cylinder. Around for seven years or so, it has a wonderful collection of articles, tips, and histories of people and places.

The influence of M*odel Engineer* magazine is strong, but the Australians have their own way of doing things. Given that the publisher, Ron Chernich, is a software engineer, as are several contributors, you can expect to see some marvelous efforts in the CAD/CNC area. I liked the inclusion of biographies on past and present contributors.

Thinking about how intense model engineering is in Britain, I imagine the shorter distances on that island made it easier for modelers to travel and share ideas and information. Now with the web, we can easily close the vast stretches across the US and even the world. I imagine more international cooperation between modelers, and the wonderful results of that exchange.

See: http://modelenginenews.org

Next Meeting

Thursday, Sept. 7, 2006

7:00 PM. Meetings held at:
Charles River Museum of Industry
154 Moody Street
Waltham, Massachusetts

Membership Info

Annual dues of $25 (via checks made payable to "NEMES" and mailed to our membership secretary) for the calendar year are due by December 31st of the prior year.

Missing a Gazette? Send mail or email to our publisher.

Addresses are in the left column.

Contents

President's Corner

Dick Boucher

The Meeting

Our speaker this month will be Mark Ames. For those who attended Ed Rogers' NSOCC gathering at Topsfield Fair Grounds, he is the builder of the dark blue Cobra 427 in the judging. As an introduction he writes: I was born in North Wales in 1966, the son of a Metalwork/ Math teacher who was a very enthusiastic Model Engineer. My father specialized in making 5-inch gauge steam trains and grandfather clocks. I still have one of the steam trains and a grandfather clock movement. I was brought up in an environment surrounded by lathes, drills and steam trains!

When I was 18, my father had a car which was rusting out and decided that we should build a kitcar out of it. We looked at all our options and decided on a Bugatti known as a Teal type 35, based on the Austin Marina drive components. The Kit was little more than a chassis and a few fiberglass panels. We built the car in a year, enjoyed it for a further year and then sold it for double our investment.

I joined the Police in London in 1985 and served for ten years as a Constable. My interest in cars proved useful and continued; however I lacked the resources to really be involved. It was during my time in London (1992) that I met an American lady from Melrose Mass.

In 1996 I left London and moved to Massachusetts. I started a new career selling BMW and Mercedes cars. The interest in cars grew and in 1999 I had a chance meeting with Dave Smith, the owner of Factory Five Racing in Wareham MA.

His company was growing quickly due to an outstanding Cobra 427 replica they produced. The kit was exceptional and I was immediately hooked, having always loved the look of the AC Cobra.

In 2002 I bought my first kit and completed it alone in one year. I made a decision to build four cars, figuring that by the fourth car I would know what I was doing! I built four cars at a pace of about one car per year. The first three sold at a small profit going a long way to funding build number 4!

The fourth car I now own and enjoy driving when ever I get chance. It has most of the options and was built with safety and reliability in mind. It has independent suspension front and rear, a tuned 302 cubic-inch engine and all panels are powder coated for longevity.

I am now working on build number 5 and 6…

Many Thanks

I want to thank Todd Cahill for stepping forward and taking over the secretary position and again thank Max for hanging in there until a replacement was found.

Miscellaneous Ramblings

I recently overheard a conversation among a group of fellows about machine rigidity. Back when I was employed in industry, finding a Bridgeport-type machine in the shop with the head in tram was a rare occurrence. The fellows I worked with in the shop would put a ½" 4-flute end mill in the collet, bury the end mill almost to the full depth of the cutting face, and turn the power feed on and watch the machine dance and jump its way through the piece of metal, whether steel of aluminum. I must admit, I used to follow this practice until my friend Jerry sold me my first Bridgeport mill many years ago. When he sold it to me he told me he never took cuts more than 0.015" to 0.025" deep with the machine. I figured if he ever sold me a used car it would have only been used to go back and forth to church on Sunday.

One day we were in my shop working on a forming die for a stainless steel handle for a piece of underwater survey gear and we had to take a serious amount of metal off the punch to allow proper springback of the material when it was being formed. Jerry took the piece over to his old Bridgeport, now in my shop, and proceeded to

remove the material at a cut depth of 0.015" per pass. He raised the RPMs and used a little faster feed rate. In no time the punch was reduced the proper size. I was amazed at how fast it went. Since then I have followed his lead and do all my machining using this principle. It is much easier on the machines, they stay in tram until I move them and it produces very good finishes on slots and shouldered pieces. Give your machines a break and it a try it sometime. It also is a lot easier on the end mills. They never break and only require a quick resharpening on the ends when dull, thus keeping them to size for many years.

See you September 7th.

Dick B.

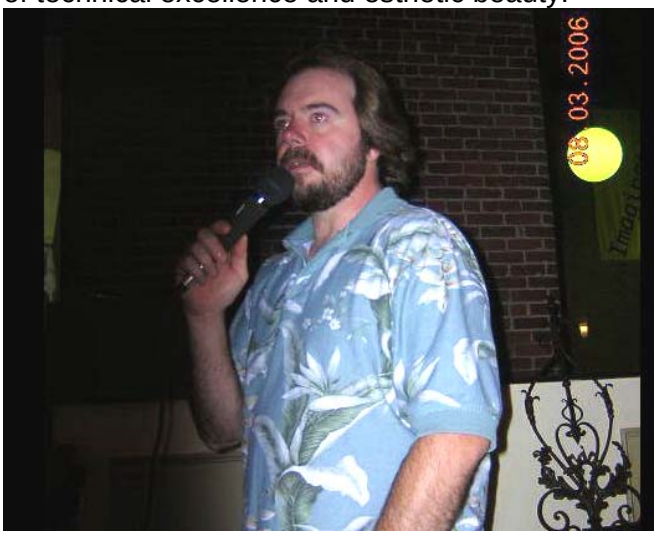
The Meeting

Max ben-Aaron

The August meeting of NEMES was an auspicious occasion – the first meeting opened in the Jackson Room of the Charles River Museum of Science by Dick Boucher, our newly-elected Venerable President. To his astonishment, everything went smoothly.

Our speaker was the Master Blacksmith, Carl Close Jr. The announcement that he would be our speaker tonight, in last month's Gazette, stole a lot of thunder with its extended description, but it meant that we could expect a lot from Carl. And so we did.

Many technicians (and even engineers) are 'rude mechanicks', but for most of us, a great part of the attraction of engineering has an esthetic component aptly described by the word 'elegant'. Carl's description of his work and the examples he brought were an absolute treat because they simultaneously satisfied both my love of technical excellence and esthetic beauty.



Normally one would not think of old oil drums and wrinkly wrought iron as very promising materials for high art, but Carl's work belied that belief. That was a surprise to me, but so was his confession that he uses a cold chisel a lot. The vocabulary of artistic pieces that he could conjure up through the liberal application of skill and aesthetic sensibility applied to the crudest of materials and tools is amply illustrated by the accompanying pictures.

I have a fondness for artistic sketches and I must say that Carl's preliminary sketches were works of art in their own right. I would encourage him to have a panel of sketches to accompany the many panels of iron-work that he brought to illustrate his mastery of the medium.

Much of the art of blacksmithing lies in the ability to gauge the exact correct heat of the piece and to know how and where to strike it to make the metal flow precisely where you want it to go. This can only be learned from long experience. These skills are sufficient for ordinary smiths, but to achieve Carl's level of mastery, a profound artistic sensibility is a *sine qua non.* Carl is still young, and has, I hope, many years ahead of him, so I confidently anticipate that he will become a legend in his own time.

It has been said that a blacksmith goes to hell when he dies only if he commits three sins: burning the iron, working cold iron and charging too little. I don't think that Carl would ever commit either of the first two (except deliberately, for the effect it produced), and I hope that he makes a very good living.

My thanks go to Carl's wife Susan for providing the picture of the superb balustrade that graces this article (as well as the house in which it is installed).

Museum Open Day

The Museum is having an "Open Day and Deconstruction Day" for kids on September 23rd. If you have any old junk that can be taken apart by kids (no TV's or monitors) please bring them to the next meeting.

Max

In Memoriam

David Caliendo

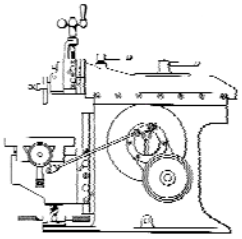
It is with immense regret that I have to announce that David Caliendo, a member of NEMES, died last October in Florida.

David was my friend for more than thirty years and he was a gentle man and a gentleman. I never once heard him say a disparaging word about anybody. To me, what characterized him most was his enormous generosity of spirit and his unquenchable thirst for learning. When help was needed, there was no limit to his willingness to do whatever he possibly could.

There is a (modern) African saying: "When an old man dies, it is like a library burning down". David's death was like two libraries burning down. His knowledge of chemistry (solvents, glues), optics and interferometry was encyclopedic and he could always be counted on to know a clever way to solve a technical problem.

The world is a poorer place for his passing.

---- Max ben-Aaron



Shaper Column

Kay Fisher

Big Cuts

How big a cut can I take with my shaper? In the good old days, shapers were the work horses of the shop. They had the reputation of being the machine that could remove the most metal in the least amount of time. We frequently heard of ½ inch cuts with figure-9 shaped red hot pieces flying off the shaper leaving a smoke trail behind. Today these machines have been eclipsed by the new CNC mills with liquid cooling. Most of us now are using small (almost toy compared to their big brothers) shapers with 7 or 8 inch strokes and fractional horsepower motors. Also we are in this now for a hobby, not making a living, so speed is not as important as enjoyment of the process. But…

Shaping Shackle **Photo by Shane Carr**

Shane Carr from Port Moody, British Columbia, Canada has been using big shapers in his business of building large scale locomotives. His shapers were featured in shaper column 47 in our August 2005 NEMES Gazette. Shane's web site is at http://www.carrslocomotives.com

This month we will look at some of the jobs Shane has been doing with his large shapers.

Finishing Shackle **Photo by Shane Carr**

The first job was a shackle for an overhead crane. It was shaped from a 12 inch long by 8 inch diameter 4140 steel bar. This gave Shane lots of cutting time on the shapers. He started with a 1 inch square high speed steel tool bit that was 7 inches long. This worked fine for about 10 min. then it broke in half when the interrupted cut was going through the 2 inch diameter hold in the shackle. Shane says this failure was because he didn't put a shim under the tool bit. He was forced to finish the job with a shorter 3 inch long tool bit which restricted his cuts to ½ inch deep with a .025 feed. He also tried a lathe tool holder with carbide insert and said it worked well but not as good as the high-speed steel tool bit.

Optical Bomb Ruff Cuts **Photo by Shane Carr**

In a book, Shane saw a 24 inch Cincinnati shaper (same as one he has) taking a 2 inch deep cut with a .030 feed in steel.

Optical Bomb - Squaring **Photo by Shane Carr**

The second job Shane describes is making an optical bomb. This is a device used by the University of British Columbia for testing fuel injectors. It has three widows on the sides for viewing the 3000 PSI spray patterns. The widows are 2¼ inches thick. The main body is made from 1020 steel round bar, 15 inch diameter by 12 inches long.

Locomotive Piece **Photo by Shane Carr**

The 28-inch Rockford was used to shape a piece for a model locomotive he was building. It was machined from 10½ inch diameter by 10 inch long steel bar. It is a transition piece from 0 degrees on the bottom to a 14 degree taper on the top. He did it by rotating the indexing head and the table angle simultaneously. The stepped finish was then sanded smooth.

This was a good time for Shane to try out his big shapers - the 36 inch Gould & Eberhardt and the 28 inch Rockford hydraulic. He says the large vises make it easy to hold the big round bar.

Optical Bomb - Finished **Photo by Shane Carr**

Comparing the two machines – the 36 inch GE made the ½ inch cuts with no effort, smoothly and quietly. Adjusting the stroke requires considerable effort when moving from 1 inch stroke to 36 inch stroke. The 28 inch Rockford hydraulic had no effort with ½ inch cuts either but the noise of the hydraulic pump and clack of stroke dogs was annoying. Shane says setting up the stroke on the Rockford hydraulic takes seconds by moving the dogs and setting the feed and speed by moving a handle.

Thank you Shane for that shaper story.

Keep sending me email with questions and interesting shaper stories.

My email address is:

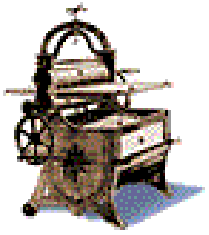
KayPatFisher@Yahoo.com

Kay

Treasurer's Report

Richard Koolish

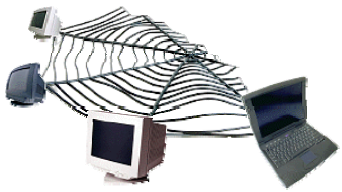
Balance as of July 18, 2006	7096.75
August Gazette printing	-162.54
Speakers fee	-50.00
Memberships	+ 50.00
Balance as of August 19, 2006	6934.21



NEMES Gazette Editorial Schedule 2006

Here are the closing dates for Gazette written contributions in the coming months:

Issue	closing date for contributions
October	September 22, 2006
November	October 20, 2006
December	November 24, 2006



Web Sites of Interest

Sign up for the NEMES mailing list at:
http://groups.yahoo.com/group/nemes

Interesting web pages for modelers:
http://www.craftsmanshipmuseum.com/Jordan.htm
and
http://www.craftsmanshipmuseum.com

Video of a restored WW2 ME-262 jet fighter flying at an airshow
http://video.google.com/videoplay?docid=7620890100890480

For Sale

Shaper Work CD

Put out in 1944 by the New York State education Department this 326 page manual is chock full of valuable tips and information on using the King of Machine tools....The Shaper. Covered is everything you need to know about the care and feeding of the shaper, use of the shaper, even how to sharpen tools for the shaper. Scanned and saved in Adobe Acrobat format. The CD now has a lot more info on it, and the price has increased accordingly. $10.00, shipping included.

Errol Groff
180 Middle Road
Preston, CT 06365 8206
errol.groff@snet.net

Machines for Sale

For sale cheap:
Monarch 14 inch engine lathe. Overhead flat belt drive. I have a frame with the correct counter shaft for the headstock pulley.

Cincinnati No 1 horizontal milling machine also overhead belt driven.

N00 Brown & Sharpe automatic screw machine. Self contained with motor.

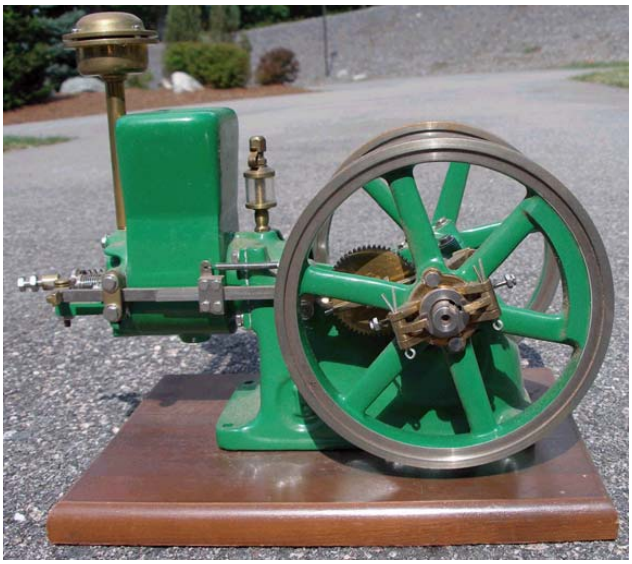
Cobblers buffing machine. With material blower.

All the machines have been in storage in my barn for many years and will need a good cleaning up before use. Any offer will be accepted. Buyer must pickup.

Dick Boucher 978-352-6724 or
rlucienb@juno.com

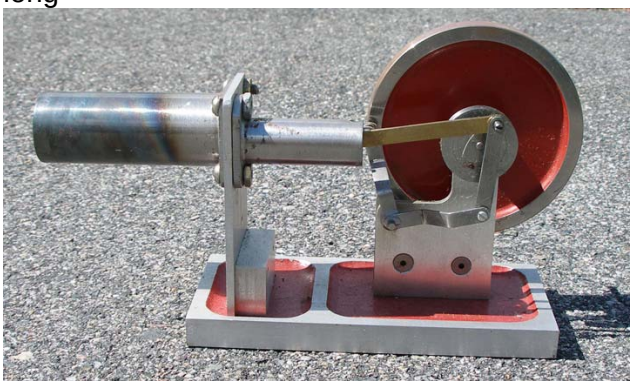
Model engines for sale

My dad left me his collection of model engines, and I am hoping to sell them off to collectors or hobbyists. The several small steam engines are from the book “Elmer’s Engines”. My Dad had many interests and I’ve been working through all the things he had accumulated over a lifetime. Perhaps NEMES members and friends can help me find new homes for my Dad’s engines.



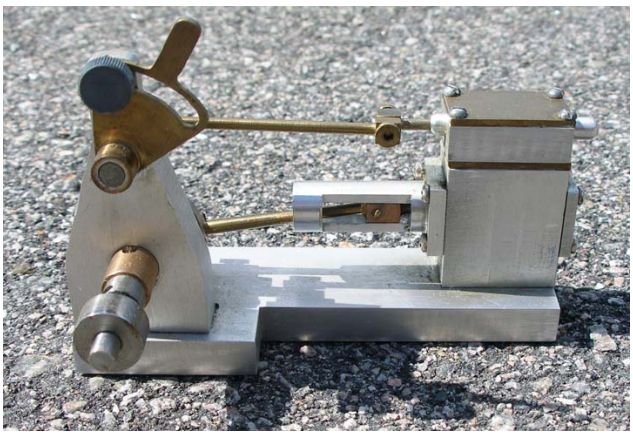
Hit-or-miss, hopper cooled farm engine, the Associated Mfg. Co. “Hired Man”. The castings are from Paul Breisch & Sons Model Works. Flywheels are 6" in diameter.

Rotating valve (?) steam engine, about 3 inches long



Hot air engine, not complete, I have the unattached parts (I also have the plan book by T.E. Haynes)

"Can" engine, oscillating steam. Boiler was made from a metal screw-top can he used for solvents.



Horizontal mill engine, not complete (I have the plans from Live Steam)

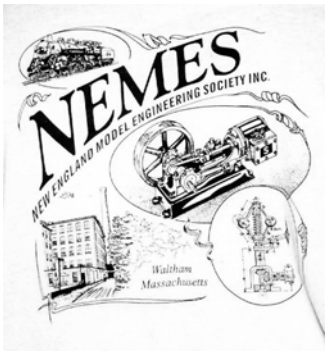
Christine Koch 508-528-1878
knockout.graphics@verizon.net

NEMES clothing

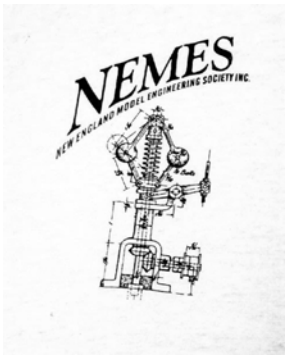
NEMES Tee Shirts

NEMES tee shirts and sweat shirts are available in sizes from S to XXXL. The tee shirts are gray, short sleeve shirt, Hanes 50-50. You won't shrink this shirt! The sweat shirts are the same color, but long sleeve and a crew neck. Also 50-50, but these are by Lee. The sweat shirts are very comfortable!

Artwork by Richard Sabol, printed on front and back:



Rear



Front

Prices:

	Tee Shirts	Sweat Shirts
S - L	$12.00	$22.00
XXL	$14.00	$24.00
XXXL	$15.00	$25.00

Add $5 shipping and handling for the first tee shirt, $1 for each additional shirt shipped to the same address. Sweat shirts are $7 for shipping the first, and $1.50 for each additional sweat shirt.

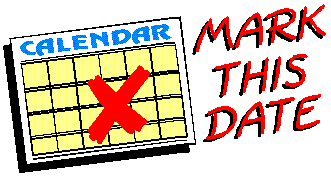
Profits go to the club treasury.

Mike Boucher
10 May's Field Rd
Lunenburg, MA 01462-1263
mdbouch@hotmail.com

NEMES Shop Apron

Look your best in the shop! The NEMES shop apron keeps clothes clean while holding essential measuring tools in the front pockets. The custom strap design keeps weight off your neck and easily ties at the side. The apron is washable blue denim with an embroidered NEMES logo on top pocket.

Contact Rollie Gaucher 508-885-2277



Upcoming Events

Bill Brackett

To add an event, please send a brief description, time, place and a contact person to call for further information to Bill Brackett at thebracketts@verizon.net or (508) 393-6290.

Bill

Sept 8-17: Lee's Mills Steamboat Meet
Lake Winnipesaukee Moultonboro NH
David Thompson 603-476-2224, 603-476-5617
http://www.steamboating.net/page87.html

Sept 3rd
Vintage Motorcycle Meet & Antique Aeroplane Show
Owls Head Transportation Museum Owls ME
http://www.ohtm.org/*motorcycles.html

Sept 7th, Thursday 7PM
NEMES Monthly club meeting
Charles River Museum of Industry
Waltham, MA
781-893-5410
http://www.neme-s.org

Sept 9-10 Dublin Show
RT 101, Dublin, NH 603-863-4696

Sept 18-17, 9:30AM-3:00PM
Pioneer Valley Live Steamers Fall Meet
Southwick MA
http://www.pioneervalleylivesteamers.org

Sept 17th
"Made in the USA" Car Meet & Antique Aeroplane Show
Owls Head Transportation Museum Owls ME
http://www.ohtm.org/*madeUSA.html

Sept 17th, 9:00AM The Flea at MIT
Albany Street Garage at the corner of
Albany and Main Streets in Cambridge
http://web.mit.edu/w1mx/www/swapfest.html

Sept 23-24
Cranberry Flywheeler's Meet
Edaville RXR S Carver MA.
David Moore 508-697-5445

Sept 30th 9:00-4:00
The Original Yankee Steam-Up
The New England Wireless and Steam Museum
1300 Frenchtown Road East Greenwich, RI
http://users.ids.net/~newsm/

Oct 1st, Sunday 12:00- 5:00
Roland's (Rollie G.) shop visit
90 S. Spencer Rd Spencer MA
508-885-2277

Oct 5th, Thursday 7PM
NEMES Monthly club meeting
Charles River Museum of Industry
Waltham, MA
781-893-5410
http://www.neme-s.org

Oct 2-3, 10:00-4:00
Water's Farm Fall Festival
Exit 4 (Sutton) from I-395 4 miles to Douglas Rd. (right) after church then left on Waters Rd.
W. Sutton, MA
Pam Gurney Farnham warefarnham@aol.com
http://www.watersfarm.com/

Oct 8th
Foreign Auto Festival & Antique Aeroplane Show
Owls Head Transportation Museum Owls ME
http://www.ohtm.org/*foreign.html

Oct. 13-14 Rough & Tumble
Kinzers, PA 717-442-4249
http://www.roughandtumble.org/

Oct 15th 9:00AM The Flea at MIT
Albany Street Garage at the corner of
Albany and Main Streets in Cambridge
http://web.mit.edu/w1mx/www/swapfest.html

Oct 29th
The Great Fall Auction & Open House
Owls Head Transportation Museum Owls ME
http://www.ohtm.org/*fallauction.html