

The NEMES Gazette

NEW ENGLAND MODEL ENGINEERING SOCIETY INC.

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June 2011

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Director	Mike Boucher

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Editor's Desk

Frank Hills

Stand Up and Be Counted!

I was going to do a story about television broadcasting, but friends, we have a problem. Our Gazette is suffering from a severe lack of interest. Every month the same people work hard to bring you schedules, items of interest, updates and articles about our hobby. But that's the problem. It's always the same people. These pieces are fascinating and informative...and I fear no one reads them.

This really hit me the other month when Dick asked if anyone had read the Presidents corner and no one raise their hand. Of course I had, it's my job to make sure contributors spell better than I do, but the look on Dicks face was painful. He was hurt, and I hurt for him. Next I hurt for myself and for everyone else who works so hard to put out the monthly issue. Does anyone read it? A News Letter, a Gazette, some form of monthly communication, so they say, is critical to the coagulation of every organization. But if no one reads it we might as well be sending out meeting reminders.

-Continued on page 2

Next Meeting

Thursday, June 2, 2011

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

Membership Info

New members welcome! Annual dues are \$25 (mail applications and/or dues checks, made payable to "NEMES", to our Treasurer Richard Koolish, see right) Annual dues are for the calendar year and are due by December 31st of the prior year (or with application).

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

Addresses are in the left column.

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Editor's Desk

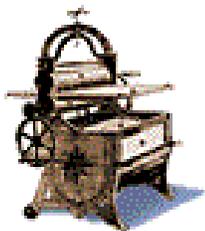
-continued from page 1

This is your Gazette! It is supposed to inspire, support, encourage and connect you...YOU! We have members who teach others to machine, members with collections, members who have been to war and have stories about the equipment they used, the gun they carried, the things they had to fix. We have members who have designed and built tools, learned new techniques, or did something 50 years ago that would take CNC today. And all of that experience, all of that training, all of that history is disappearing. It's disappearing because it's not being shared.

A late friend of mine was a tank mechanic during the Battle of the Bulge. He was trying to get some sleep under the tank where it was still warm from the overheating engine when a German column drove by. He was saved by the fact they thought the tank was an abandoned wreck. If my friend had not told me that story it might have been lost forever. Everyone has a story worth telling. Do it before we forget why we meet every month.

Please! Please! Send your story, pictures of you creation, reasons for your interest and I'll print them. My e-mail address is hills@aerodyne.com.

Your editor,
Frank Hills



NEMES Gazette ***Editorial Schedule***

<u>Issue</u>	<u>closing date for contributions</u>
July 2011	June 20, 2011
August 2011	July 22, 2011
September 2011	August 19, 2011
October 2011	September 23, 2011
November 2011	October 21, 2011



President's Corner

Dick Boucher

The Meeting

We have had a sort of last minute mix-up concerning a speaker this month but since the due date for Frank and Bob to get this gazette to you in a timely manner is upon me I must submit ready or not. Norm and I and the others are working on finding a speaker for the meeting so come expecting a pleasant surprise.

Miscellaneous Ramblings

The big ramble of the past month, wait a minute here I am already writing about the June meeting and I am sitting in my shop with my feet getting chilly and wearing two shirts. This afternoon I got home from work and it was a bit dry so I went out and got the riding mower out and got a start on my lawn. I finished the part that I can do with the riding mower and got out the push mower that I mow the infield of my railroad track with and you guessed it, it started to rain again.

Well back to the big ramble for the last month. Some of our members among them Saul Bobroff, John Bottoms, Jeff DelPapa, Dick Koolish, Les Russell, Norm Jones, Todd Cahill and myself with some with significant others, did manage to make it to the Steampunk City Festivities in Waltham. It was a great day to fire up the small boilers and put some smoke and water vapor into the atmosphere. The morning was nice weather. We did have some threats of severe weather blowing through but fortunately, except for some rain, heavy at times, high winds were not a problem. After the rain let up a bit, Todd and I fired up our boilers again for a little while before heading home, of course Norm's Hero's fountain wasn't bothered by the rain at all and just kept plugging away. Eln Hagney has reported that 10,000 folks visited the city that weekend and many of them stopped by our area to enjoy our animated display. The one drawback to being a part of a show like Steampunk City is that one doesn't get a chance to visit other displays but we did have a great front row seat to the different costumes that folks were wearing which greatly added to our enjoyment.

Speaking of Hero's Fountain, my young friend who now lives in Costa Rico where his parents are missionaries visited last week. Levi had e-mailed me asking if he could come over while he was stateside and build something in my shop. Of course my reply was yes. So one afternoon he came through the shop door and announced he wanted to build a steam engine. Well, we had about four hours together before he had to move on so I panicked. But I didn't need to panic, because he was interested in building Hero's steam engine. Now the total panic subsided a bit but, wow, where was I going to find the material to do the project in such a short time. I set him on the cad program designing the engine and went out to the barn to scrounge. I came up with a 3/4 inch copper pipe coupling as the body. I had Levi make the two end plates out of copper rod in the lathe and we used 3/32 K&S copper tubing for the nozzles. After we had silver soldered this all together, Levi machined a bracket out of a piece of aluminum angle and we used 1/8 diameter pointed steel pins as pivots for it to rotate on.

Our first firing was with a propane torch. Levi is now twelve and letting him handle the propane torch by himself was a joy for him. But this first try wasn't very successful, Hero just sat there and sputtered. Then I realized the nozzles needed to be pinched to create pressure, so a quick adjustment with a pair of pliers and away it went. After we had supper and a stop at the ice cream stand, we brought Levi over to his grandparents house and he very proudly fired it up for his grandparents to enjoy.

Dick B.



Vote! **Next meeting!**

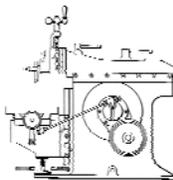
Following NEMES by-laws, nominations for club officers were called for at the May meeting. A slate of candidates emerged:

President:	Dick Boucher
Vice-President:	Jeff del Papa
Secretary:	Todd Cahill
Treasurer:	Dick Koolish
Director:	Dave Piper

Come to the June meeting to vote.

Thank you,

Mb-A



Metal Shapers

By Kay Fisher

R. G. Sparber's Gingery Shaper - Part 15

Machining a 4-Step Pulley

This article deals with the process of using a lathe and mill to machine the pulley casting.



Casting & Pattern

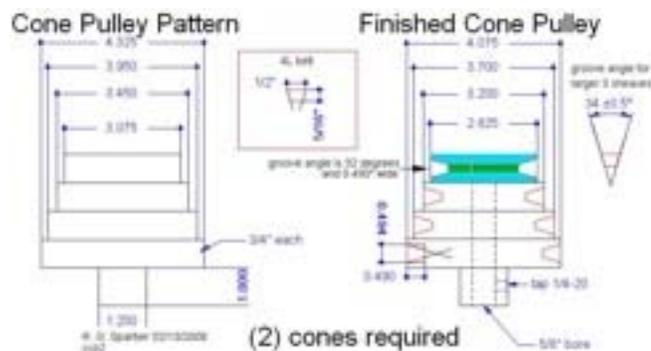
Photo by R. G. Sparber

Next to the casting is the pattern I used. It is made of stacked disks of 3/4" MDF. No paint or lacquer was used.



Finished Pulley Photo by R. G. Sparber

I mostly followed the pattern plan but decided that the stub was not necessary.



Cone Pulleys Drawing by R. G. Sparber

You may notice that I have not specified the over all length of the pulley. The plan was to remove as little metal from the two faces of the pulley as possible and then evenly distribute the four grooves. Later I will make a matching pulley and will use the same spacing so that the grooves will match.



Before Markup Photo by R. G. Sparber

An essential first step in machining a casting, especially the sad looking ones that I make, is to figure out its initial shape. This means taking measurements so it becomes clear how best to cut your reference surfaces. In the case of a pulley, the reference is the centerline.

There is a lump on the narrow end of the casting but around it is fairly flat.



First Measurements Photo by R. G. Sparber

I don't want that lump in my way so have put the casting on small parallels which rest on my surface plate. I then used my surface gage to see how true the wide end is with respect to the narrow end. The more I must remove from the ends, the less thickness I'll have for the individual steps of the pulley.



Marking High & Low Photo by R. G. Sparber

For this casting, the wide face was high at one side by only 0.014" and low on the opposite side by 0.016". This can easily be removed without seriously affecting the width of each step.

Now it is time to clean up the casting a bit.

solid. Fortunately, only the sprue shrunk and not any of the casting.

My Petrobond casting sand was very dry and its green strength was poor, which also contributed to bad surface finish. Fortunately, Petrobond can be rejuvenated.



Mounting on Hacksaw Photo by R. G. Sparber

The sprue has served me well but it is now time to remove it. The cutoff goes back into my pile of metal to be turned back into new castings.

The casting has been securely clamped into my horizontal/vertical bandsaw. Note the blue packing under the sprue. Without this packing the casting would soon pivot, pinch the blade, and the blade would either pop off of the drive wheel or snap.



Casting with Sprue Photo by R. G. Sparber

The wide end of the casting has the sprue attached. It does not look like a normal sprue because I almost ran out of aluminum during the pour. The lack of a longer sprue means that the molten metal's pressure is less so the surface is not as smooth. This does not matter, because I am going to cut all of the surface away. The sprue is concave because of shrinkage as the metal changed from liquid to



Cutting with Wax Photo by R. G. Sparber

The saw is now starting to cut through the sprue. Note the white block of paraffin wax to the left of the sprue. It is just resting there and is being cut by the blade at the same time. This is a clean and easy way to lubricate the blade. The bits of cut metal coated with wax fall out the other side. The blade does not pick up any wax.



After Sprue Cut Photo by R. G. Sparber

The above photo shows the nice and uneventful cutting off of the sprue.

Stay Tuned for part 16 from R. G. Sparber next month.

Keep sending me email with questions and interesting shaper stories.

My email address is: KayPatFisher@gmail.com



For Sale – Machine Tools

For Sale - Clausing 8520 mill and Logan 9" (Wards) lathe. These were in perfect operating and restored condition in my shop when our house burned to the ground in February of last year. They look really in bad shape, but in were mostly just conformally coated with a black and

rust-colored covering that comes off with a good amount of wire brushing. (I've not found a solvent for this stuff.) Belts and wiring were melted. They have been kept under a tarp since the fire. With sufficient elbow grease, both can be restored to good appearance and operating condition for minimal cost.

The lathe has standard Logan cast iron legs and pan. Its bed was scraped, and this shows when the carriage is moved - the guck didn't make it under the carriage. It comes with the leadscrew change gears, dogs, faceplate, collet draw tube. Price: \$250, about what just the legs and pan go for on eBay.

The 8520, being taller, was more heavily coated than the lathe, but the spindle and table still look okay. It is on its original stand and comes with the last (brand new and only used about 6 months) 8520 draw tube that Clausing had and new spindle bearings. Price \$400.

Also for sale, 24" x 24" by 3 or 4" surface plate. It has been outside since the fire, but was in good condition. \$25. Bring two men and a boy - it is heavy.

Here's hoping someone with a little time and love can restore these machines rather than scrap or part them out. But whatever, please call Jim, 603-487-2115 (New Boston, NH) anytime if you're interested.

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

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!

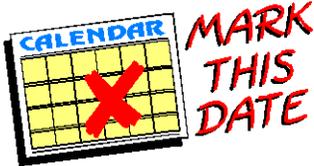
Artwork by Richard Sabol, printed on front and back:

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



**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

June 2nd Thursday 7PM
 NEMES Monthly club meeting
 Charles River Museum of Industry
 Waltham, MA 781-893-5410
<http://www.neme-s.org>

June 17-18th Vermont Gas & Seam Engine
 Association show
 Brownington Stonehouse Museum
 Old Stone Road off 191 exit 26
 Brownington VT
 Contact Gail Norman 802-485-8224
gailnorman@trans-video.net

June 18-19th Wings and Wheels Open House
 The Collings Foundation
 137 Barton Road in Stow, MA
 Cost at gate: \$10 Adults
www.collingsfoundation.org/cf_OpenHouseEvents11.htm

June 17-19th Father's Day Meet
 Pioneer Valley Live Steamers
 Southwick MA.
<http://www.pioneervalleylivesteamers.org>

June 26th 10th Annual Van Brocklin Meet
 Waushakum Live Steamers
 Holliston MA
<http://www.waushakumlivesteamers.org/>

June 19th 9:00am The Flea at MIT
 Albany Street Garage at the corner of Albany and
 Main Streets in Cambridge
<http://www.mitflea.com/>

June 25-26th Orange Show
 Orange Airport Orange MA
 Grover Ballou at 413-253-9574

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

July 2nd Antique Engine Meet & Tractor Pull
 Boothbay Railway Village
 Rt 27 Boothbay ME
www.railwayvillage.org

July 10th Pepperell Show
 RT 111 Pepperell, MA Ken Spalding 978-433-5540

July 17th 9AM The Flea at MIT
 Albany Street Garage at the corner of Albany and
 Main Streets in Cambridge
<http://www.mitflea.com/>

July 29-31st Eliot Antique Tractor & Engine Show
 Raitt Homestead Farm, Rt 103
 Eliot ME
 Contact Lisa Raitt 207-748-3303
<http://www.eliotantiquetractorandengine.org/>