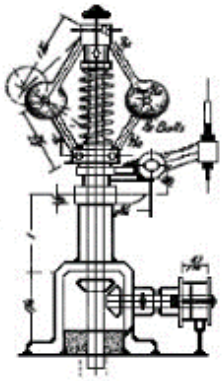

The NEMES Gazette

NEW ENGLAND MODEL ENGINEERING SOCIETY INC.

No 341 November 2024

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November Meeting

We will have a Zoom meeting in November at 7 PM on November 7, 2024.

An invite will be sent attached to this Gazette.

Contents

Club Business

We are now collecting dues for next year.

NEMES Dues are now due for the year. Dues are $25.00. Make checks payable to NEMES, and send them to our treasurer,
Rob Goeller
34 Middlebury Lane
Beverly, MA 01915

[Note from the President] NEMES is now billing members, you can pay with a credit card, as I did.

From the Treasurer:

To members who have tried to e-mail me using our published treasurer's e-mail address: Our e-mail address has been the target of an exorbitant number of spam e-mails from all sorts of people and organizations marketing their products and services. The number of these e-mails is so large (hundreds in the course of only a week) that it is almost impossible for me to find e-mails from members. I apologize to those who have tried to contact me without response, I did not see your e-mail. [President's note: mine too!]

Unfortunately, our current e-mail server does not provide a function to block these unwanted e-mails. We are working to alleviate this problem. However, in the mean time, it is unlikely I will be able to respond to member's e-mails. You can write to me as needed, if I see your e-mail I will respond but the current reality is that it is unlikely that I will see said e-mail. If you need to contact me, best to use the US Postal Service at the address in the introductory column.

On another subject, many members have mailed their dues checks to the Charles River Museum, rather than directly to me. Unfortunately, these checks, many from early 2023, were only recently forwarded to me and many are too old to be deposited. Any checks that I cannot deposit, I will return to the member. If you have recently sent a check to the Museum, please let me know via standard US Postal Service (not e-mail) and we will watch the Museum's mail for these checks.

When we have alleviated the e-mail problem, I will let you know in a future Gazette.

APPAREL: Please check out the NEMES Aprons, T-Shirts, Denim Shirts and Sweat Shirts. We are happy to ship any of this clothing directly to your home.

Orders should go to our Treasurer, Rob Goeller. His address is in the opposite column.

President's Corner

Bob Timmerman

We are in the process of switching to Club Express. There may be some startup problems for a while.

Your President has had some health adventures in October. While my major diagnosis is responding well to treatment, I have run into some other problems. Some other medical issues had me confined to a chair during September and the first half of October, which caused me to lose a lot of physical strength and endurance. Somehow, I developed a urinary tract infection. It is common knowledge in the medical profession that a UTI in an elderly person can cause them to act strangely. In my case, I put on my bathrobe, bedroom slippers, and glasses, and wandered the house in the dark. I wound up on my back on the cellar floor, where my wife found me about 8 hours later. I did not remember any of it. Since I could not get up, and she was not strong enough to help me up, she called 911. The Fire Department helped me to my feet, and offered to take me to the hospital, but since I did not get any sleep lying the cellar floor, I had them help me up to bed. I called my doctor's office after I had 4 hours sleep, and they suggested I go to the emergency room for X-Rays. My wife took me over Beth Israel, the hospital we use, where they X-Rayed me, CAT scanned me, even thought I am allergic to cats, and generally poked and prodded me. I wound up in the hospital for about 6 days,

where they treated the UTI, and gave me a good deal of rest. The food was good, the bed was not all that comfortable, and the doctors and nurses took good care of me. The hospital sent me to a rehab center for about 7 days for short term rehab. I am home now, and recovering rapidly, as I live in a townhouse and have a lot of stairs to climb.

We have had some good suggestions for in-person meetings. One meeting topic we are considering is an in-person meeting for lunch in the early Spring., perhaps at the Chateau restaurant in Waltham. Another possibility is our traditional Saturday meeting at Woodman's, for fried clams.

Members are invited to make suggestions for in-person meetings. Help with the meetings would always be appreciated.

From the Editor's Desk Bob Timmerman

We sometime get complaints from members that a NEMES event conflicts with some other event. Usually, we do not even know about the other event. Please let me know of other events, and I will publish such details as I have in the Gazette.

Date of 2025 NEMES Model Engineering Show

The 2025 NEMES Model Engineering Show will be on March 15, 2025. This is later than we wanted, but the first two weekends in March were taken.

Date of 2026 NEMES Model Engineering Show

We have reserved the first weekend in March, 2026 for the NEMES Model Engineering Show. This puts the show out of the way of big snowstorms, which usually come in February.

Upcoming Events

I have been receiving notices from the Owls Head Museum up in Maine. Keep an eye on their website as well.

Equipment Free/for Sale

I am downsizing my shop, and have two items on this list this month, with more to follow:

Legacy (latest patent date 1903) Brown and Sharpe universal milling machine. Free to NEMES members—it will be listed on Craigs List for $100

This is a horizontal milling machine where the table can turn so the X axis can move at other than 90 degrees to the spindle. This was originally developed for cutting spirals (such as the flutes in a twist drill). It comes complete with the vertical attachment, the dividing head, all the gearing to connect the dividing head to the table feed. This came out of the Buff and Buff surveying equipment factory in Jamacia Plain. Since it was used in production, there is a good deal of wear on the x axis lead screw, and on the vertical attachment, but it still works. It comes with a lot of arbors, end mill holders, and collets.

The picture on the next page shows the machine. It is about the same size as a Bridgeport, but there is only one T slot groove in the table.

The machine has power feeds on both the longitudinal (x axis), and the cross (y axis).

It also comes with the original Brown and Sharpe swivel milling machine vise.


The milling machine


Front view of the milling machine


Here is the drive I have rigged up for the upper cone pulley. This plus the shaft hangers come with the machine

Moving the Machine

About 40 years ago, Howard Gorin and I moved it from Buff and Buff to my shop in one day, with minimal equipment, other than a truck with a power tailgate. You have to disassemble it, and take the table off to get it through the door, but the base goes through the cellar door. We moved it down a ramp, with some bracing in the middle of the ramp to reduce the span. I still have the ramp; you can have it to move the machine. You will have to supply 4 concrete blocks to support the ramp in the middle, as well as a sturdy pry bar and some pipe rollers. Home Depot sells (by mail order) a sturdy, all metal pry bar for about $60, rated at 6600 pounds. That would be worth looking into.

You will have to move it around the concrete floor of my cellar to reach the path to the back door. The picture below shows the path out. It is about 3 steps up, less than three feet. My backyard is 24 feet deep, and backs up to a drivable alley.

Once you have the machine out of my cellar, it is your problem how to load it. The frame weighs about 2000 to 2500 pounds, about the same as a Bridgeport. One way might be to use a ramp truck, like the towing companies use. The winch could haul the frame up the ramp, and right onto the truck.


The back door

National Cylinder Gas “Sureweld” arc welder.

This looks like a rebadged Miller “Thunderbolt”. This is about 50 years old, still works, but is AC only; it will not run a 6010 rod, but will run a 6011 rod very well. I am selling this to NEMES members for $45 (it will be 55 on Craig’s List. If you want a power cable, I can sell you a length of 4 conductor # 6 for $15 ($20 on Craig’s List). This is about what I would get at the scrapyard. I used this for my theater lighting work, so it is 4 conductor (2 hot wires, neutral, and ground), while the welder only needs 3 conductors, 2 hot + ground. You will have to change some plugs to match the plug on the welder.

Next month I will be giving away some old maple bowling alley wood that Howard Gorin salvaged. This is made up of strips of maple, roughly 3” wide x 1” thick, set on edge, so the overall thickness is about 3” The width of the slabs is about 3 feet, x 8 feet to 10 feet long. I have about 6 of them, but will need some help getting access to them.

Reports from the Sandy Hill Locomotive Works

This is Dick Boucher’s original introduction, and I am reprinting it here, as I think it is still relevant.

June 7, 2020

Hello fellow live steam model hobbyist and principals of the New England Model Engineering Society,

James (grandson), Norm, Jay and John. This is my usual Sunday afternoon progress report on work here in the Sandy Hill Locomotive works. Dan, Rich, Bob and James Scheffler I am sending this along to you thinking it might be a way to get some interest back in the club if the fellows who have given up traveling to Waltham had a place to post pictures of their work and view other builder’s projects. To the new fellows on the list I am working on Cole's Models 2"scale Case steam tractor. For some time now I have been sending out pictures and a short description of the progress on the project to the first three listed having added John lately. Back in the early days of the Live Steam railroad hobby there were only a couple "meets" a year some as far away as Montreal Canada and Carl Purington started the "Traveling Locomotive Books" in which a hobbyist would attach a couple pictures of his work and forward the book to the next person on the list. Fortunately these books still exist and are repositoried at John K's museum in Beverly. At any rate my thought is we set up a formal place in our web site or someplace to create the "Traveling Hobby Machining Books" Your thoughts.

Richard L. Boucher
Chief Engineer/Master Mechanic/ Lead Machinist
Sandy Hill Locomotive Works

Current Work

Hi All.

Hi you metal termites.

Hi Bob, hope you are doing well. Here is my musing for the November Gazette.

Back when I was working in the test set construction shop at Western Electric a good friend one of the design engineers used to come into the shop and greet us as the "Metal Termites" thus , Greetings fellow metal termites. Last month a photo was missed so here it is this month it is the finished parts on display at the 470 restoration site now shown in Photo 1.

Photo 1

Bea and I did a little traveling last month and we hopped a train ride to the top of Mount Washington We didn't ride the steam engine up but it was running Photo 2.

Photo 2

By the time we got to the base station the only train left was the 4:00 train so we cooled our heels most of the day just watching the activity around us. Photo 3 is the great day we had weather wise being able to see the top of the mountain from the base station


Photo 3.

As we ascended the mountain it became very apparent the grade the train was ascending as evidenced by Photo 4.


Photo 4

Photo 5 is of one of the trains taken from the observation deck on top


Photo 5
and Photo 6 is Bea with the rock cairn at the very top of the mountain behind her head.


Photo 6

Photos 7


Photo 7

and 8


Photo 8

show the mechanism to move the switches from track to track including the racks and the rail. In the museum at the base station they show a video of the complex system they used to use to switch the tracks which involved a lot of manpower flipping pieces this way and that to align the pieces of track and rack to the new location. This had been my sixth time at the top of Mount Washington, four times hiking (when I was a very young man) once in a small private airplane and now on the train only once was the weather closed in. This was Bea's first time up there and she totally enjoyed it. Our next adventure was going to a fireman's hand tub muster. Lots of fun watching how fires were fought before the steam pumper engine. Oh yea, I brought my model LaFrance pumper along at the request of members of one of the teams and received a lot of favorable comments on it. Photo 9 is of it assembled to the point it is now at the muster.


Photo 9

[Editor's Note: In the late 1960's I had an office in the Batterymarch Building at 60 Batterymarch Street, in downtown. The National Fire Protection Association had their headquarters there, and on the ground floor was the insurance firm of Boit, Dalton, and Church, who proudly displayed a hand pump fire engine in their front window. Some years later, I visited the NFPA in their new headquarters in Batterymarch Park in Quincy. There in the lobby was a hand tub fire engine, perhaps the same one as was in 60 Batterymarch Street.

Now back to metal termiteing I actually did get in some shop work during the month and finally swallowed hard and starting putting holes in the water pump block for the fire engine. The two large bores are for the pistons and the next size down the valve chambers and the one at the very top of the photo is the outlet port from the pump to the fire hose connections. Next issue I will probably do a lot more explanation of the pump but I am going long this month. Last Photo 11

proves I am a true model engineer utilizing every bit of scrap to be found in the shop. These casting cutoffs are destined to be parts of the fire engine, tune in next month to see what I have made from these scrap bits.

So as usual head to the shop and do something---- even if it is wrong. Thought is born of failure--(I do a lot of thinking around here).
So Long,
Dick B.

Making Small Screws
Steve Earle

Hi all! Here's an annoying little job, that turned out to be not very annoying at all.

Part being made is a pretty small set screw, for an optical application. Needed to make about a hundred of them. The first problem was figuriHi all! Here's an annoying little job, that turned out to be not very annoying at all.
Part being made is a pretty small set screw, for an optical application. Needed to make about a hundred of them. The first problem was figuring out exactly what they were – I was provided a couple of originals to examine. OK it's about .060" diameter, so it must be an 0-80. Nope.
Measurements of OD, pitch diameter, and pitch didn't jive. Open eyes, re-think, get brain out of the standard-size box...
First of all, it's not metric, since the original application very much pre-dates any metrification in this country, and it was a USA-made part. After telling myself it couldn't be true, in fact it really is a 64-pitch thread. So, an 0-64? Nope, couldn't quite make either the real OD or the PD work. It's slightly bigger than .060", and that's a telling point. Actually .061"-.062". And guess what – that OD and a careful PD measurement shows it to be a 1/16"-64. What the heck is that?
Since I need to make both the bitty set screw and the part that it gozinta, I needed to get taps. My normal sources didn't list that size, and I was reluctant to spring for getting them made special. But a more general Google search started to get hits regarding old optical equipment.
OK, now we're on to something. Yes, the taps do exist, not terribly expensive, hand taps only but that's not going to hinder me.
Now the small Haas lathe will make that screw no problem, but somebody (me) needs to handle it and slot it, without buggering up the threads on a 1/16" long screw. If it gets parted off completely in the lathe, it's gone forever in the chip tray. But it can be almost parted off, and left on the stick – something I've done with other little or non-drop-able parts. Parting was done with a narrow carbide blade, re-ground to a 10° angle so it cuts a small sharp neck.

I took a short piece of 1/4" brass rod and drilled/tapped one end for the 1/16"-64, and the other end for a 2-56. A 2-56 threaded rod was turned down to go up into the tap drill hole of the 1/16"-64, to serve as a positive (and adjustable) stop. The stop depth was set to allow just

enough screw protrusion for it to be slotted afterwards. This fixture thing can be screwed onto the not-yet-parted-off screw, up tight, then keep turning and it breaks the little screw right off, holding it securely in the brass rod.

Next a quick light buff of that broken-off face, then over to the mill to be slotted. The slot is only .010" wide and .020" deep. Once it is slotted, it can be easily unscrewed. The time I spend doing the quick buff and slot, is occupied by the lathe making the next one for me.
Actual time per screw, once a rhythm is established, is about a minute and ten seconds. So it's an expensive screw by weight, but it can be done!ng out exactly what they were – I was provided a couple of originals to examine. OK it's about .060" diameter, so it must be an 0-80. Nope. Measurements of OD, pitch diameter, and pitch didn't jive. Open eyes, re-think, get brain out of the standard-size box...

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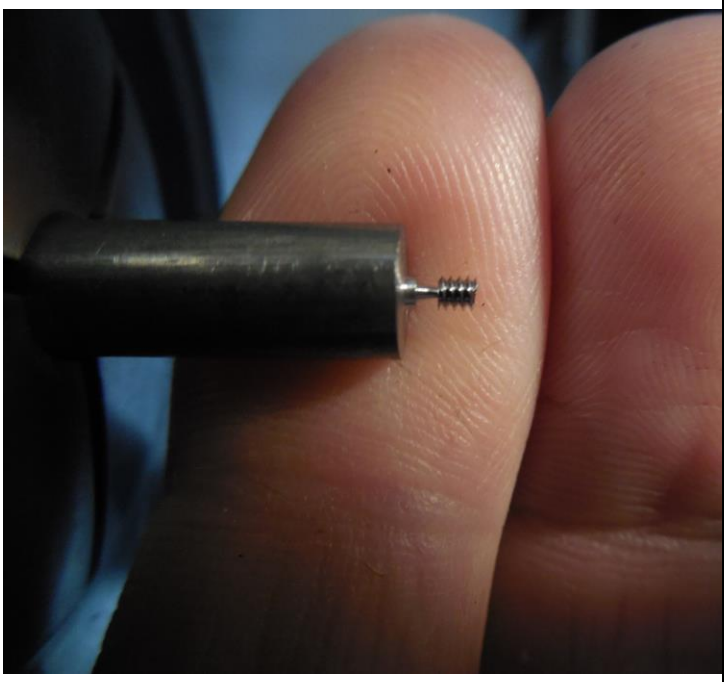

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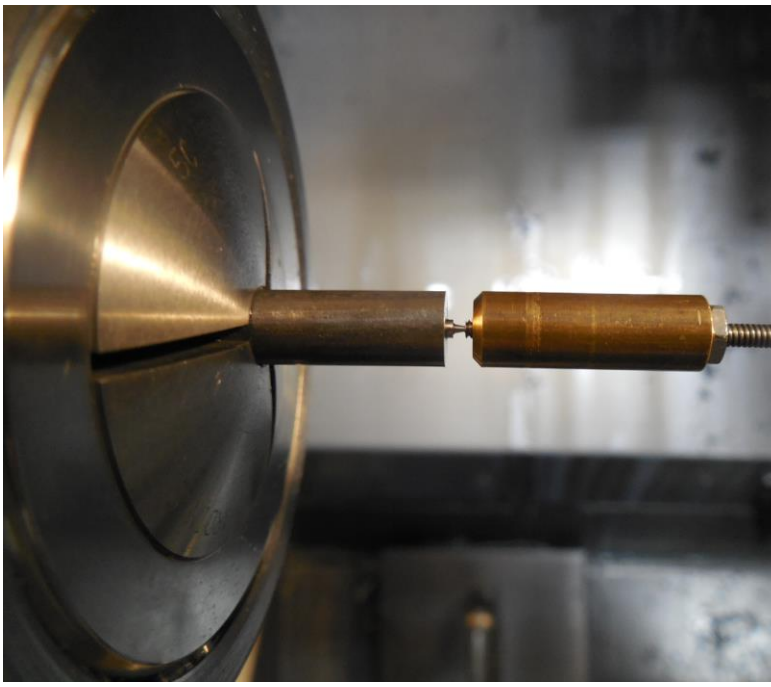

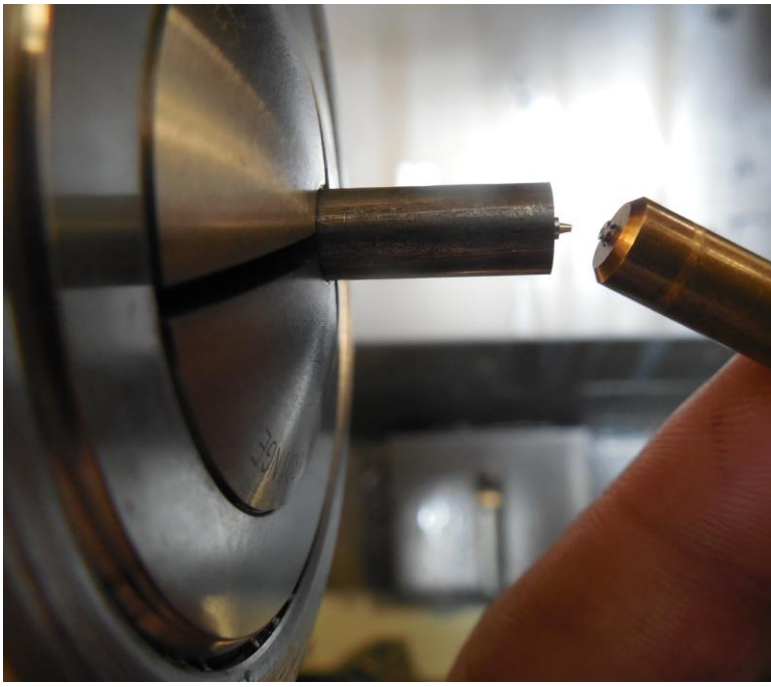

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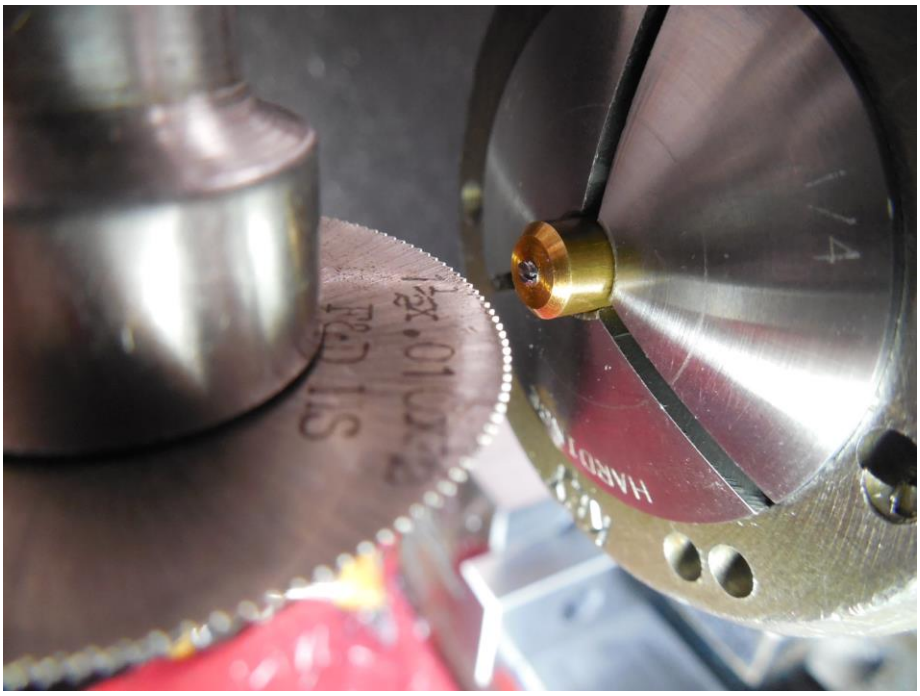


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