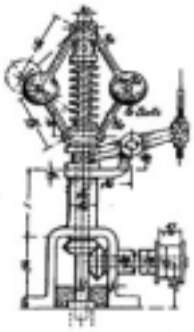

The NEMES Gazette

NEW ENGLAND MODEL ENGINEERING SOCIETY INC.

Vol. 08 No. 084 April 2003 © 2003 NEMES

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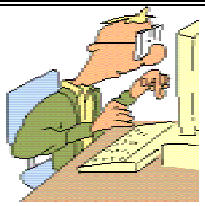


Editor's Desk

Mike Boucher

Hi folks,

If you look above and to the left the graphic of me at the computer, you will see that the volume number has increased yet again.

It seems like is hasn't been that long, but NEMES is now over 7 years old (The first issue was volume 1, and NEMES was 1 month old…)

It seemed to me like a good time to make a few minor changes to the Gazette. Most of those changes are here on this first page.

It is my hope that while the Gazette continues to improve its format, the content will remain at its high standard, if not setting even higher standards.

If you have any comments, either positive or negative, about the changes I've made, or the Gazette in general, please let me know. My mailing and email addresses are in the left hand column of this page, I can also be found at most of the meeting in Waltham.

Continued on Page 2

Next Meeting

Thursday, April 3, 2003

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

Membership Info

Annual dues of $25 for the calendar year.

Please make checks payable to NEMES and send to our treasurer.

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

Addresses are in the left column.

Contents

I hope you enjoy the changes in the Gazette!

On a more serious note, as I sit down to write this, the war between the US and Iraq is a reality, not just rhetoric. Several American and British soldiers have been killed and injured. Whether your personal feelings are in favor of or against this war, I am sure everyone hopes that the war is short, and as few lives as possible are lost, on both sides of the battlefield.

C'y*a*
Mike

President's Corner

Norm Jones

The Meeting

Our speaker for April will be Professor Sara Schechner of Harvard University. Sara is associated with the Collection of Historical Scientific Instruments at Harvard University. Professor Schechner's talk will be entitled "Savvy Travelers and Their Sundials".

Before pocket watches and carriage clocks, there were portable sundials. How did these time-finding tools serve those on the move in the 16th, 17th, and 18th centuries? In this talk, we will look at pocket sundials and astronomical compendia. We will discover how they were made, who used them, and why they contained gazetteers, multiple hour scales, projections of the sky, maps, mirrors, wind vanes, quadrants, calendars of church festivals, and travel guides.

The Winter That Won't Go Away

It is hard to believe that we have had to cancel yet a second meeting this winter due to inclement weather. After stopping at Wendy's for a bite to eat, Verne Eshbaugh and I made our way to the museum on that snowy evening of March 6th to make sure that everything was properly secured. We met Museum Director Dan Yeager who was about to leave for the evening. Dan showed us the area in the Museum where he is planning to locate a "rotating exhibit" in the near future. Display cases are being fabricated. He expects them to be ready for use around the beginning of June. Dan would very much like to explore the possibility of using some of the group's models in this exhibit. This is a great opportunity to further the relationship between NEMES and the Museum and would provide the Museum with a great new exhibit to promote.

New Security Measures

Beginning with the April meeting, there will be new security measures instituted. The Museum will be accessible through the front entrance from approximately 6:00PM until the meeting begins at 7:00PM. At 7:00PM the front door will be locked and a notice will be posted indicating that one will have to walk around the building and enter at the rear door where we brought in our displays for the February show. The door between the meeting room and the Museum will be closed. Access to the museum will be denied until after the formal meeting is over (approximately 8:45PM to 9:00PM)). Those people who need to leave before the meeting is over will be required to exit through the rear door and walk around the building. Access will be reestablished after the meeting has ended and you will be able to exit through the front entrance. This change will ensure that the Museum will be secure for the duration of our meeting. Thanks in advance for your cooperation.

See you on April 3rd

Norm

The Meeting

Max ben-Aaron

Once again, the weather gods conspired against the noble NEMES warriors, and the meeting was cancelled due to snow. Stay tuned next month for another riveting episode!

Max

Door Prizes

Steve Cushman

I think we had a GREAT show this year. We had great weather, lots of exhibitors, lots of attendees and everyone seemed to have a terrific time.

We had a good selection of door prizes for the attendees, too.

2003 Door Prize List

Brothers Machinery

- $300 Gift Certificate: Herb Cotterly

Tool Shed (Waltham)

- $25 Gift Certificate: Patty Lopoulos

Tool Shed (Worcester)

- $25 Gift Certificate: Rollie Gaucher

New England Brass & Tool

- Dial Caliper: Norm Jones
- Dial-A-Drill Set: Leon Schiff
- Magnetic Base: Dick Jones
- Digital Micrometer: Leslie Russell
- Digital Thickness Gauge: Larry Twaits
- Bench Grinder: Larry Keegan
- Vernier Caliper: Harvey Noel

Wholesale Tool

- “T” Handle Pocket Screwdriver: Mike Boucher
- “T” Handle Pocket Screwdriver: Chris Barrett
- “T” Handle Pocket Screwdriver: Jeff DelPapa
- “T” Handle Pocket Screwdriver: Dave Shepard
- “T” Handle Pocket Screwdriver: Rob McDougall
- “T” Handle Pocket Screwdriver: Dave Robie
- “T” Handle Pocket Screwdriver: Frank Stauffer
- “T” Handle Pocket Screwdriver: Dick Koolish

There were also several prizes donated by generous NEMES members:

Harvey Noel

- Watch Repair Video: Ron Ginger

Richard Sabol

- Sweatshirt: Sam Sweeney
- Sweatshirt: Dave Stickler

Jeff DelPapa

- Compressor/Vacuum Pump: Ed Wlodyka

Leon Schiff

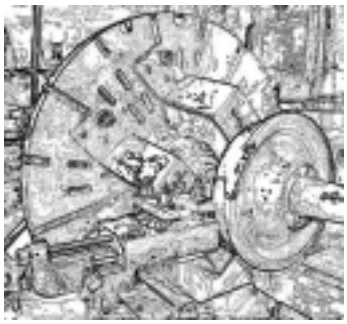
- Optical Center Punch: Gail Martha

Todd Cahill

- Shrink Rules: Bill Lopoulos

Many thanks are in order to each of the donors. Without the generosity of these donors, the show would not be as successful as it is.

Steve



Museum Shop Update

Fred Widmer and Max ben-Aaron

Thursday morning is Volunteer's Day at the Museum. Currently, two groups of volunteers meet at the Museum: a group from the New England Chapter ("Chapter 8") of the National Association of Watch and Clock Collectors (NAWCC) and our own "Waltham Chapter" of NEMES.

The Chapter 8 volunteers have been coming for a long time to restore and catalog the Museum's rather extensive collection of Waltham Watch Company material, and organize exhibits for display. They have recently put some doors on a cabinet intended for a top-display. The interior of the cabinet now provides some locked storage space at the disposal of NEMES. The locked space is about 4' x 2½' x 2" and should do nicely for keeping our public address system safe.

The idea is to clear storage items out of the library so it can be used as a library. The library is an area that is ripe for a couple of NEMES members to explore and organize. There are a variety of fascinating books in the library that relate to steam and practically all facets of mechanics, as well as many magazines which might be of interest to NEMES members.

Shop Log - March 6

Bill Brackett, Max ben-Aaron and I were working at the Museum of Industry Thursday, putting up overhead belting for a 7" shaper (made by Rhodes, in Providence). Max announced in the morning that the speakers had cancelled due to the predicted storm; they were coming from

Freeport, Maine. Kim Kalen, the assistant director at the museum, called the main number at Northeastern University for us at about 4:30. When she told us that evening classes were cancelled we decided finish the task we were working on, cutting and lacing the last belt for the shaper, as all the pulleys were up. After that, we went out to eat locally, which is what we would have done if there had been a meeting.

We left the Museum at 6:15PM and didn't see anyone on the path over the footbridge, in the Embassy Parking lot or at Jake and Earl's. In hindsight I might have left a note on the Museum door saying where we were eating.

For the interested, we got the belt up and the shaper ram going with fast cut and slow return. We got this backwards, despite thinking about this twice during design. We set up a workpiece - a 3" OD cast iron bushing about 2½" long which needs to be parted length-wise - and set the stroke of the ram to it. Time for dinner, and Bill and I had some fun trying to shift the belts with a wood batten, with the machine running of course, like blindfolded kids trying for a piñata. Max took pictures for the NEMES Gazette, and Dan Yeager, the Museum director, came over to join in and encourage the van. But parting the bushing has to wait until next Thursday: we still have to bolt the machine down and put a belt shifter up on the ceiling for the fast and loose pulleys, before we get serious. And reverse the damn direction. We'll cross the belt, I guess, but the one we put up will be too short.

Shop Log - March 13

Chief Artisan Fred Widmer, Bill Brackett and Max ben-Aaron, have almost completed the belt drive for the little Rhodes shaper. The belt installed last week worked fine but the shaper ram ran “backwards”, so to speak, so the direction of rotation of the driven pulley was reversed by crossing one of the belts. It now remains to install a belt-shifter and to lag the base down. When this is done, shaper will be in commission.

Its first job will be to part the previously mentioned bushing. This is a bushing for a split pulley for the drill press. The drill press previously had a pulley, but it was “borrowed” for the shaper installation.

Speaking of pulleys, the shop needs 8" diameter, 2" face, split and solid pulleys and shaft hangers of any kind, but especially with belt shifting fingers or forks and their shipper bars. We could also use a 6" diameter, 6" wide pulley. If we don't get one we will make one out of wood, but the traditional cast iron type would look more authentic. There is also a need for 3- and 4-step cone pulleys. If you have any of these items cluttering up your shop, we can give them a good home and get them to doing productive work.

Max ben-Aaron has undertaken to restore the Crossman & Son (Walpole) surface grinder. All the parts have been found (keep your fingers crossed). It appears to be in fine mechanical shape except for the crossfeed screw, and the front bearing bush it runs in, that are both badly worn. The front journal on the screw needs building up. Otherwise it is quite usable. We have a new bushing and Fred has devised a cunning, relatively painless method of rebuilding the worn screw journal.

Thanks to Hal Robinson, who let us use his shop, the surface grinder spindle has been repaired and the refurbished part is scheduled to be installed next Thursday.

Progress has been hampered because of the lack of a working lathe. The 9" Stark (Waltham) lathe that Bill restored to working condition does not seem to have a chuck, and does not have a collet big enough to take the screw. The 9" South Bend is out of action because of one open leg in the 3-phase line that runs along the wall. The Museum is negotiating with an electrician to repair the 3-phase line and bring it up to code, and to install some quad single-phase outlets on the shop columns. That's another thing that was done today -- the locations of the outlets were marked for the electrician.

It will be a very pleasant place to work, once some of these upgrades are made and the older belt-driven machines are on line (get it!?)

Some progress has been made in moving the hoard of magazines off the benches until some shelves can be built. We are in pressing need of volunteers to build shelves and to sort and shelve the magazines.

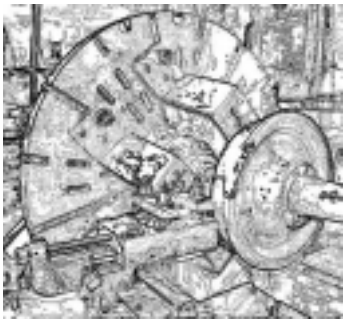
Along with the mass of “Popular Mechanics”, “Popular Science”, “Mechanix Illustrated” and “Science and Mechanics” there is a pile of about 40+ “Trains” from 1945 to 1949, many copies of “The NAWCC Bulletin”, “American Machinist” and others, together with a collection of relatively ancient workshop catalogs. When the collection

has been shelved, the magazines will be made available to members as an annex to the Club Library.

Max has been sampling the collection and can attest that the person who undertakes the task will become very knowledgeable and informed in a variety of subjects. It will be slow work, continually interrupted because of desperate urges: "I just have to read this fascinating article…"

See the Shaper running!

If you're interested in seeing the belt-driven shaper running, via the newly installed shafting, come to the April meeting early! Max is arranging a demo, although there is nothing definite as of press time. Remember to come early, as the museum will be locked during the meeting!



Shop Hints

Compiled by
Mike Boucher

Large Holes

By Steve Cushman

My machining activities are mostly repairing *things* and making tools. Sometimes the tools are made because I need them (or perhaps a friend needs them), other times just because I want them. The *things* I repair tend to be large and seriously broken.

Very often, repairing these *things* involves making fairly large holes in steel plates (or structural shapes) and frequently these holes do not need to be terribly precise.

Sometimes, I set up large drilling operations in my big lathe, a sixteen-inch LeBlond with a three horsepower motor and a low speed around forty RPM. It's got plenty of power, but this kind of drilling operation in a lathe is a pain, and often it's impossible to make the setup.

My other options are a Bridgeport ½ horsepower "M" head and a Walker-Turner radial arm drill press, also ½ horsepower. Drilling large holes with these machines are usually an exercise in step drilling (very frequent steps as the drills get larger) and frustration, not to mention drill sharpening.

A few months ago, I happened to be working on a structural steel erection project with a friend. All of the materials had been ordered pre-fabricated, but naturally there were a few problems. Most of the problems have no bearing on this article, but one of the problems was missing holes.

Well, my friend reached into his equipment trailer and dragged out his trusty magnetic drill.

This particular unit is manufactured by Jancey Engineering and consists of a relatively small drill motor mounted on the magnetic press stand. It does not use twist drills, but rather uses cutters (sometimes called annular cutters) which look very much like hollow end mills, but with really strange teeth.

He's always spoken very highly of this device, described it as being "like wishing there were a hole and having your wish come true". Well, that's pretty much the case. With no fuss or bother, it makes holes.

There are a number of these devices on the market in this size range, made by Jancey, Universal and others. They all use small drill motors that usually have a fixed speed somewhere between 250 and 500 RPM.

The annular cutters have ¾" shanks 1" long, with two Weldon flats at 90 degrees to each other (other shank configurations are used with different sized units) and 1" maximum depth of cut. The cutters are available in 1/16" increments beginning at 7/16" diameter.

These cutters are available from a number of sources at different. Wholesale Tool, for example, has an imported line at relatively reasonable prices that seem to work as well as the more expensive models. I must admit that I have not the slightest idea how one sharpens these things.

One day, while I was swearing at a large hole drilling operation with the "M" head, it occurred to me that the speed ranges of both this machine and the Walker-Turner were well within the range of this class of magnetic drill.

Why not make an adapter? The cost of the cutters wouldn't be that big an issue as I'd really only need a couple of sizes and the imported cutters are priced comparably with twist drills. All that was

necessary was to make the adapter, and I could make that out of scrap lying around the shop.

The adapter worked out well. This is how I made it, which perhaps has more to do with the material and tools at hand than anything else, but I decided to offer a detailed write-up, since it is probably useful in many shops.

First, I took a length of 1.44" diameter steel shafting (odd size, no idea where it came from, but I had about three feet of it) and centered it in the 4 jaw on the big LeBlond with about three inches of stock protruding from the jaws.

I faced off the end, then drilled a 29/64" hole a little over 2.25" into the stock. This was followed with a ½" hole going in another 1½", and lastly an 11/16" hole going in one inch further.

I have a piloted tap wrench that can be held by a drill chuck. While the stock was still centered, I set up the tap wrench with a ½-20 taper tap, mounted it in the tail-stock chuck and tapped the 29/64" hole to the bottom, following it with plug and bottoming taps.

Next, I parted off just over 2¼" of stock. This was the rough holder.

I moved over to the small lathe, centered it in the 4 jaw and faced the parted-off end, then put a chamfer on the now revealed end of the 29/64" hole. After removing the blank from the chuck, I ran a tap through the hole from the starting side to clean up the threads.

The collet chuck got mounted in the small lathe and a length of ¾" drill rod was put in a collet, the end faced and center drilled and then set with about 4 inches protruding. A center was put in the tail stock to help keep things secure.

The end ¾" of stock was turned down to ½" diameter, the next ¼" of stock was left at full diameter and the next 2.8" of stock was turned to a very careful ½" diameter.

After putting a chamfer on the end, ½-20 threads were single-pointed onto the last ¾" of stock (to be sure they were true) and cleaned up with a ½-20 die. The stock was parted off at the head stock end of the 2.8" section (2.8" was chosen because it was the measured length of the first ½" straight shank adapter I grabbed and measured), reversed, put in a ½" collet, faced and chamfered.

Next, at the milling machine, the adapter was mounted in the spin index and I milled 5/8" wrench flats on the ¼" wide, ¾" diameter section.

The adapter was screwed tightly into the rough holder blank and mounted in the collet chuck.

The outside of the holder was trued, the front was faced and both ends were chamfers. The 11/16" hole was then carefully bored (with a bar) to allow a slip fit with the ¾" diameter cutter shank. A slight chamfer was turned on the edge of the ¾" hole.

At the milling machine, the whole adapter went back in the spin index (with a jack supporting the large end. Two #7 holes were drilled at 90° to each other approximately 0.45" from the end of the adapter. These were chamfered and tapped ¼-20. Two 3/8" ¼-20 set screws finished the project.

It works fine. One caution: be sure the stock you drill is securely clamped and square to the cutter.

The reason I left the extra ¾" (drilled to ½") was that I am planning on making a spring-loaded slug ejector to fit in above the cutter (the commercial units have ejectors). I have not had time to make it as yet.

Steve

Additions to a South Bend Tailstock

Fred Jaggi

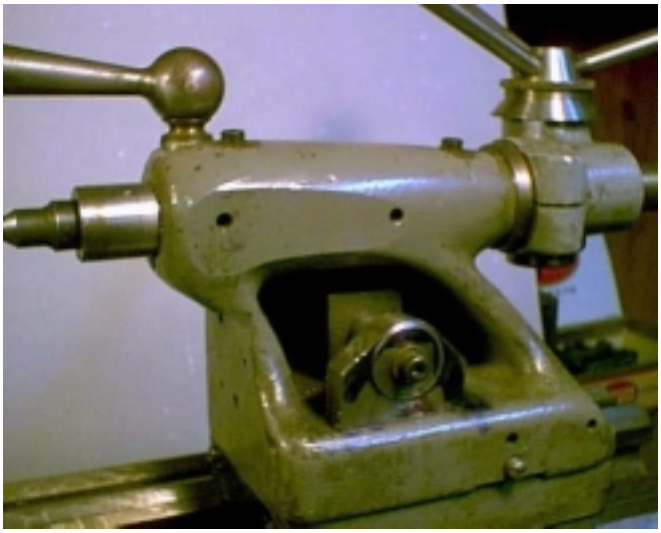
Here are two handy modifications I have made to the tailstock of my 10K South Bend Lathe.

Tailstock Clamp

I always found the clamping arrangement South Bend used for the tailstock was a nuisance. The wrench was always getting in the way of the compound slide; and when the wrench was taken off the nut, it had to be found again every time the tailstock needed to be moved.

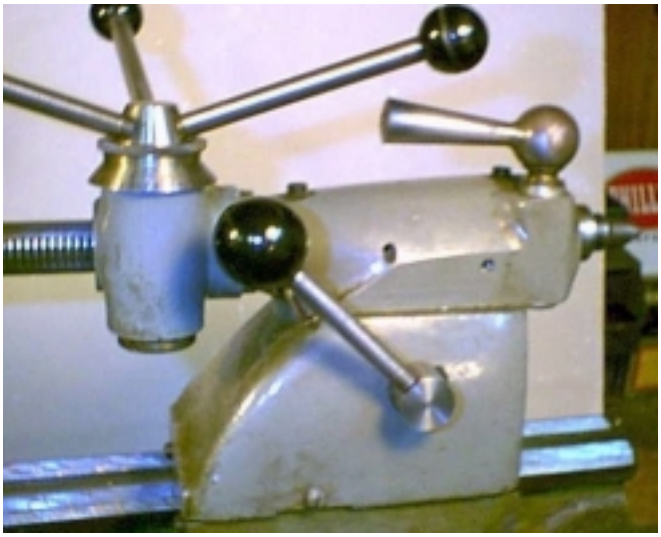
The cam action clamp that I have added is based on the design of D. H. Downie in Model Engineer of January 1969. Basically, the South Bend clamping nut is replaced by a cam-actuated block.

To mount the near-side support pillar for the camshaft, machine a flat surface on the top of the base of the tailstock. The pillar is then mounted by two holes threaded into the casting.



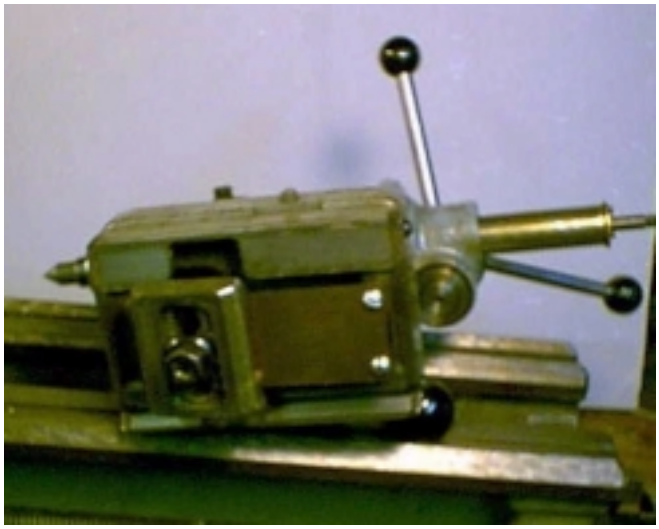
Block and the camshaft support. **Fred Jaggi Photo**

The far side support for the camshaft is a hole drilled in the side web of the tailstock. Then a handle is attached to the camshaft on the far side, out of the way of any lathe operation



Actuating Lever **Fred Jaggi Photo**

When I first made the change, the clamping plate underneath the ways tended to cock and jamb so I added a flexible beryllium-copper sheet to stabilize the clamp



Underside of tailstock **Fred Jaggi Photo**

Capstan Feed for the Tailstock

Just think how many times you wind the tailstock handwheel forward and back, especially when drilling and tapping. The late Bill vanBroklin introduced me to the Cowell capstan feed attachment, which replaces the tailstock spindle and handwheel. The new spindle extends through the back of the tailstock and has a rack cut in to the far side.

The modification is easily visible in all three photos. You can just see the rack cut into the new spindle in the second photo. The casting at the rear of the tailstock screws in to existing threads in the tailstock casting. There is a friction collar just below the capstan graduated in 1/16".

E. W. Cowell was a British company that made small tools, not the Cowells that makes instrument lathes. I think the attachment was made for Boxford Lathes but fits a South Bend. I don't believe Cowell is still in business, but hopefully this will give you an idea of how you could make the attachment for yourself.

South Bend had a fairly elaborate lever and handwheel tailstock in their catalog, but I have never seen one.

Fred

[Editor's Note: I purchased my 10" South Bend from Billy vanBrocklin a year or so before he died. My lathe came with both these modifications. They are well worth the effort, I'm glad Billy did the work for me!]

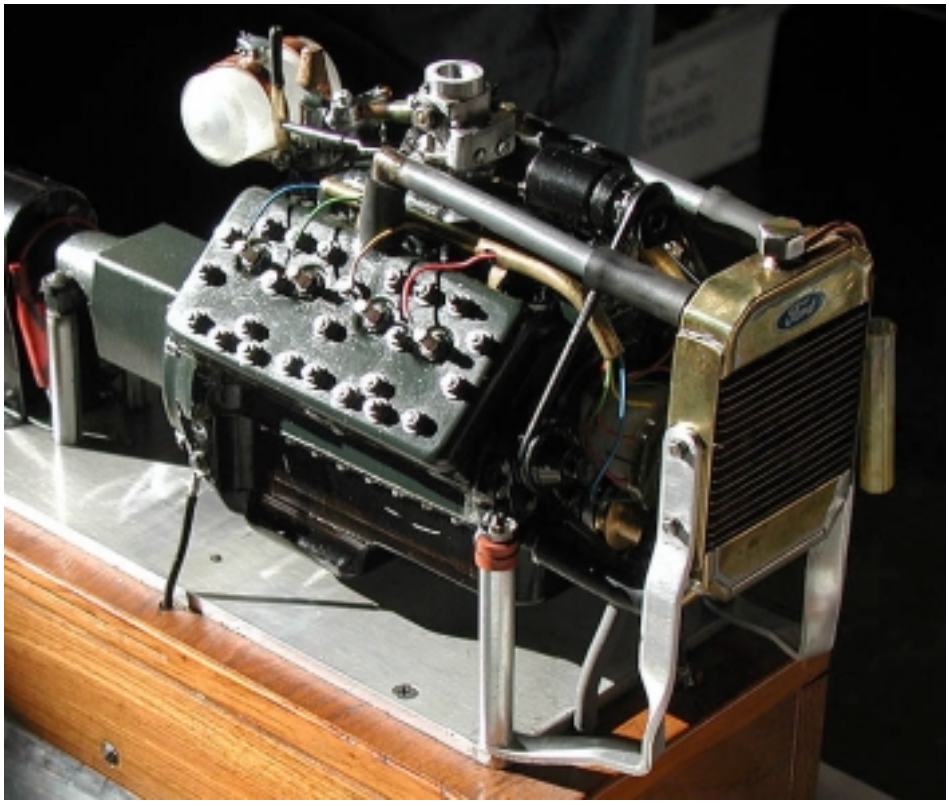
February NEMES show photos

Photos by Bob Neidorff and Errol Groff

Many, if not all, of you attended our annual exhibition on Saturday, February 15th at the Charles River Museum of Industry.

This is a great opportunity for us to show the public what we do, and also is great publicity for the Museum.

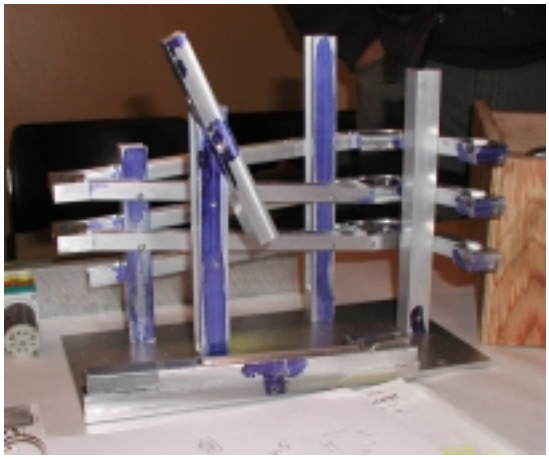
Everyone who exhibited, volunteered, or attended helped to make the show the success that it is. If you didn't make it this year, I hope you try next year. It is sure to be a great time!



← Ed Rogers mad this fantastic 1/8th scale model of a flathead Ford V-8. This is built entirely without castings. Ed made up the plans as he went along.

Gene Martha brought the parts of a gas engine he's building to display. It's always nice to see stuff under construction. →

← Bob Neidorff playing the harp he built.



↑ Flying high above the tables were some control-line aircraft built by Henry Szostek.

← This is an interesting "Marble Clock" under construction by Bill Brackett.

Here's Dave Sticker with his display of steam engines. From the left is: a Stuart Turner #4, a Reeves Double Tangye, a Tiny Power Ajax, a Reeves "Mary" beam engine, and "NDC". ↓

A phrase I've heard several times is "Each One, Teach One". If you're interested in model engineering, the most important contribution you can make is to introduce the hobby to the next generation.

← Here, Norm Jones takes the time to explain the workings of his Ryder Ericsson hot air engine to a young visitor.

Hopefully that young man left with an appreciation and understanding of the hobby, and perhaps we will see him again someday.

Here's proof that the younger generation ***is*** interested in things other than Nintendo. Here, Sam Sweeney (L) is showing his "marble pump" to a visitor. →

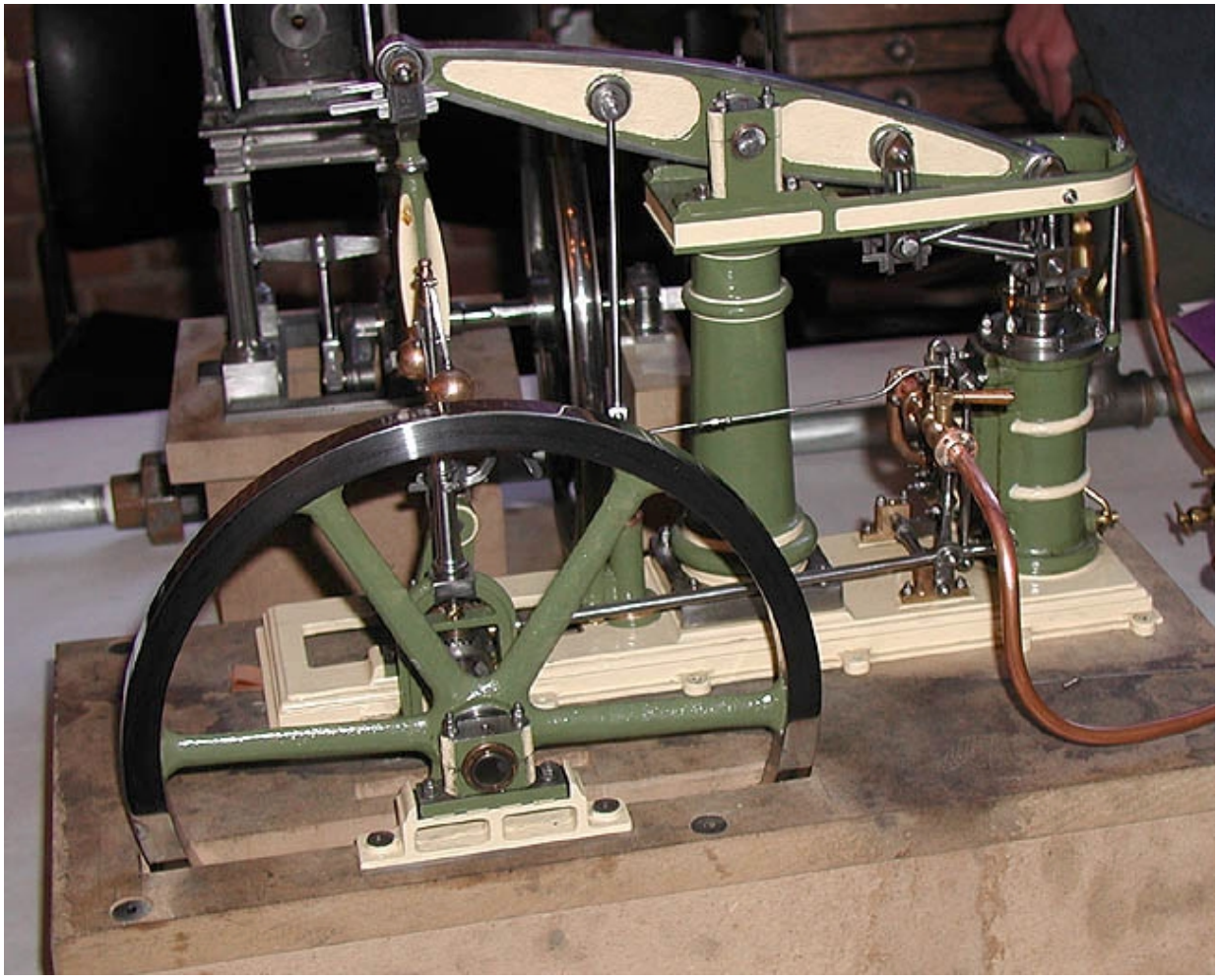
If you missed this display, you missed something very cool.

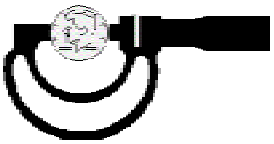
Sam designed and built a device that "pumped" marbles, entirely out of Lego. A few cranks of a handle, and a marble would appear the top of a shaft. The next crank would cause the top marble to fall off, down a parallel shaft, and back into the "well" of marbles.

Very well done, Sam!

← "Each one, teach one" isn't just for kids! Here, Walter Winship (seated at center of picture) shows Rob McDougall, Larry Twaits, and Dave Osier a scrapbook of some of the things he's built. Most of these objects were full size equipment, not models

A Beautiful "M.E. Beam" engine built by Todd Cahill. The polishing on the flywheel and other castings was fantastic! ↓





Treasurer's Report

Rob McDougall

As of 2/28/03

Balance as of: 01/31/03	**$6,664.35**
Dues Received for 2003	870.00
Dues Received for 2004	25.00
February Show Proceeds	387.35
Proceeds from CD Sales	10.00
Proceeds from T-Shirt Sales	203.00
Interest Income	.80
Less	
Gazette expense	-212.56
Balance as of: 2/28/03	**$7,947.94**

Rob

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. $5.00 shipping included.

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

Nichols Horizontal milling machine

The Museum has a milling machine for sale: a Nichols (Waltham) horizontal milling machine with sliding (up and down) head for gear cutting. Also with a Bridgeport "M" head for vertical spindle milling; horizontal spindle takes #30 milling machine taper; vertical Bridgeport head takes #2 Morse (not R8). $900.00

Charles River Museum of Industry
154 Moody Street , Waltham, MA.
(781) 893-5410

WANTED – pulleys and shafting

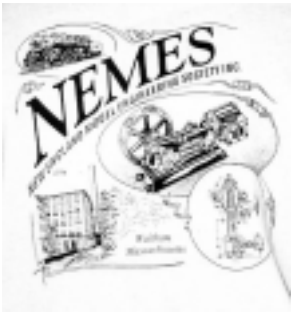
The Charles River Museum of Industry is in need of some pulleys and shafting for the machine shop project. Immediate needs are for 8" diameter, 2" face, split and solid pulleys and some shaft hangers of any kind, but especially with belt shifting fingers or forks and their shipper bars. A 6" diameter, 6" wide pulley is also needed. There is also a need for 3- and 4-step cone pulleys. If you have any of these items cluttering up your shop, we can give them a good home and get them to doing productive work.

Charles River Museum of Industry
154 Moody Street , Waltham, MA.
(781) 893-5410

Wanted - lathes

Wanted - 9" South Bend and 10" Logan lathes, any condition. Also parts for these lathes.

Jim Paquette
(508) 278-2203
toolman@cape.com



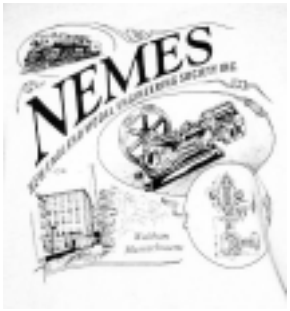
NEMES clothing

NEMES Tee Shirts

NEMES tee shirts are available in sizes from S to XXXL. These are gray short sleeve shirt, Hanes 50-50. You won't shrink this shirt! Artwork by Richard Sabol, printed on front and back.

Extra-large tee shirts are now ***OUT OF STOCK!*** If you're interested, let us know so we can judge if/when to reorder. All other sizes are still available.

Artwork:



Rear

Front

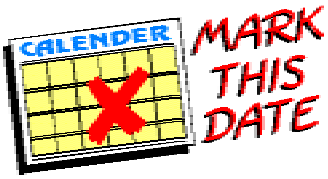
Prices:

S - L $12.00
XXL $14.00
XXXL $15.00

Add $5 shipping and handling for the first shirt, $1 for each additional shirt shipped to the same address

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 wbracket@rcn.com or 508-393-6290.

April 3 - NEMES Monthly club meeting

7PM - Charles River Museum of Industry,
Waltham, MA (781) 893-5410

April 12-13 - Trinity College 10th Annual Fire-fighting Robot Contest

Sat 12th – Noon -10:00 PM.
Sun 13th - 8:00 - 4:00
http://www.trincoll.edu/events/robot/schedule.htm

April 20 - MIT Flea Market

9AM-2PM Vassar St. Cambridge MA.
http://web.mit.edu/w1mx/www/swapfest.html

April 26-27 - N.A.M.E.S. Show

Southgate, Michigan
http://www.modelengineeringsoc.com

May 1 - NEMES Monthly club meeting

7PM - Charles River Museum of Industry,
Waltham, MA (781) 893-5410

May 4 - NHPOTP engine show

RT 113, Dunstable, MA
Robt Wilkie (207) 748-1092

May 10 - Jim Paquette's Open house

114 High St. Uxbridge, MA (508) 278-2203

May 17-18 - SSAA antique auto parts swap

Tweeter Center Mansfield MA
(508) 947-6600

May 18 - MIT Flea Market

9AM-2PM Vassar St. Cambridge MA.
http://web.mit.edu/w1mx/www/swapfest.html

May 20-22 – EASTEC

Eastern States Expo, West Springfield Mass.
http://www.sme.org/eastec
(800) 733-4763

[Editors note: If I understand correctly, registration in advance if FREE. If you register at the door, you will be charged, and it isn't cheap!]

May 24-25 – Bernardston, MA Engine Show

RT10 between 93 and 142, Bernardston, MA
Vickie Ovitt (413) 648-5215

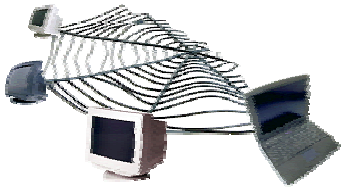
May 25 - Fiddleheads & 4x4s Spring Festival

Owls Head Transportation Museum
Owls Head, ME

May 30 to Oct 31 - American Precision Museum

Open 10:00-5:00 daily
196 Main Street, Windsor, Vermont
http://www.americanprecision.org

Bill



Web Sites of Interest

"Sharpos world"

A collection of live steam photos from the UK. Some very nice models pictured, including a page of 7 1/4" gauge 4-8-2+2-8-4 "Garratts" being double-headed.

http://www.sharpos-world.co.uk/mainindx/mini/index.htm

Berry Valve Gear

Interesting discussion of a mechanism to improve the efficiency of RR locomotive valve gears. Can't say I had ever heard of it, so it obviously wasn't all that popular, but there's photographic proof of at least one engine built with it...

http://www.forecyte.com/berrygear/

Setting Lathe Taper Angle

Here's a device for setting precise taper angle on the top slide of a lathe. Interesting theory here: create a sine bar type of device to set the top slide of lathe to any taper.

http://www.users.bigpond.com/pjifl/taper_turning_gauge.html

Powder Coating

More information on powder coating from a supplier.

http://www.caswellplating.com/powder/index.html

Buffing and Polishing

At the same site as above, there is an interesting booklet on buffing and polishing. Either use the "web site features" frame on the left side, and click on 'Free How To Buff &Polish Booklet' link to navigate, or here is a direct link.

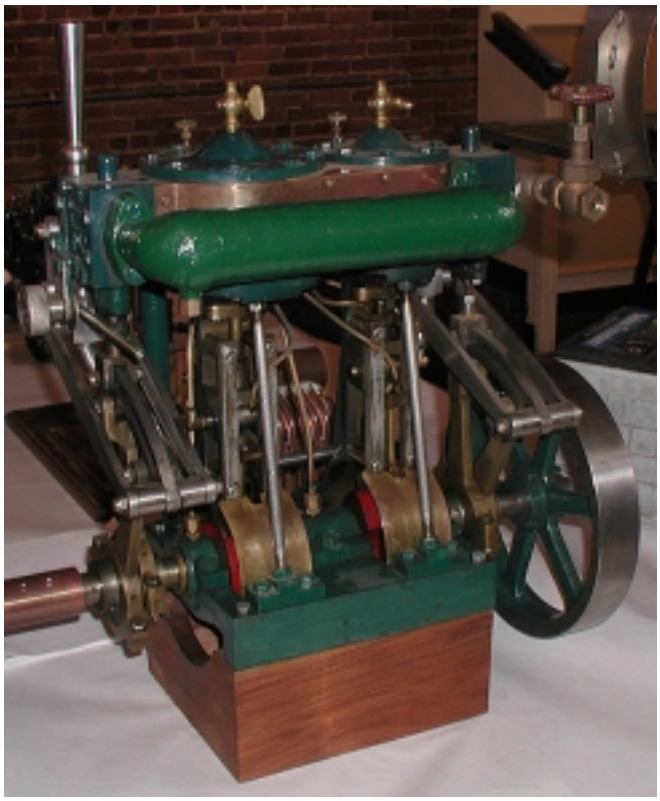
http://www.caswellplating.com/buffs/buffman.htm

You can download a .PDF version of the booklet from this page. Bill Brackett says to not print the text directly from the page as directed, as you will lose pictures and truncate text on the right side. Opt for the .PDF down load and print it.

Astragal Press

They offer a bunch of books on antique tools, woodworking, early metalworking, early technology, reprints of old catalogs, and more.

http://www.astragalpress.com/astragal_catalog.html



Instead of leaving this column blank, here is another photo from the February NEMES show. This is a compound steam launch engine built by Rollie Evans. Rollie also had the prop attached. It was large enough that it had to hang over the edge of the table. This engine can move a good-sized steamboat.