



The NEMES Gazette

NEW ENGLAND MODEL ENGINEERING SOCIETY INC.

No. 129

January 2007

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Editor's Desk

Victor Kozakevich

So, how was your Christmas? Santa not bring the big flat panel TV, after you were so good for the last 364 days? Well, maybe the problem was... No snow for Santa to land the sleigh! Well, a man in CT has found the solution to that. He offers kits, parts and free plans for a home snowmaking machine. Just hook up your pressure washer and air compressor to the precision air and water nozzles, and you'll have that landing strip ready next Christmas.

For more information, have a look at the website <http://www.snowathome.com/>

Of course, the colder and drier the air, the better this works. The site has a small section on the "Science of snow". Above -40°F, a water droplet needs a nucleation site or "seed" to form an ice crystal. Natural snow forms around dust particles in the air. DIY snow crystals can form around the impurities in tap water such as the particles of dissolved calcium. For perfect snow crystals, ski slopes use additives, like a bacteria that grows on corn. You can meet other DIY snowmakers at snowguns.com

In case you keep the compressor and pressure washer in the garage, the driveway is not the best place to test this out, unless you want to test the snowblower, too.

P.S. Here's to the 11th year of NEMES and all those who made it happen. Cheers!

Next Meeting

Thursday, Jan. 4, 2006

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

Membership Info

Check your mailing label! If you haven't paid your 2007 dues, there is a note on the label to remind you.

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.

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President's Corner

Dick Boucher

The Meeting

Once again, the January meeting is what we have been calling a Poster Session. This is a great chance to bring along a finished project or a project in the works. It is also a great opportunity to bring along a part or project that has been giving you some trouble and getting ideas on how to proceed. Whether you bring something or not, and I strongly encourage you to join us. It is a great evening to just sit around and talk with the other members of the society and enjoy the conversations.

Cabin Fever

The bus trip to cabin fever is on!!! Dick Koolish paid the bus company and the block of rooms at the Holiday Inn are filling up. A number of us have been having trouble getting through to the hotel at (717)-845-5671. If you are having trouble, call the central reservation number at 1-888-HOLIDAY (1-888-465-4329) to make a reservation. Be sure to specify the *Holiday Inn on Arsenal Road in York PA*. There are two Holiday Inns in York. If you haven't made a decision to go yet, there are still a lot of seats on the bus. Just be sure to reserve a room at the hotel and get a check to Dick Koolish for \$110.00. Many thanks to Norm for helping me organize this for the first time, to Dick for handling the checks and keeping me informed on the enrollment for the bus, and to everyone who signed up in a timely manner.

Miscellaneous Ramblings

I haven't been very active in the shop this past month. I have been working on giving it another thorough purge but I seem to be just picking the clutter up from one machine and moving it to another machine and likewise from a bench I am clearing to a cleared bench. I sure wish a lot more of the stuff would find it's way into the trash barrel. I guess if all the machines had a round base like an old Drummond lathe, keeping

the clutter off them would not be such a problem, but flat surfaces are a perfect collection point. Another problem I have with putting tools and such in their proper draws or shelves is remembering where I designated as the proper place. It seems I can find the operating materials much easier in the clutter. I am making progress, though. One of my accounts came in the other day and remarked how clean the shop was looking.



For those of you who know about the boat construction going on in my barn, the hull is finished and yesterday, Dec 22, the boat was out in my driveway and the boat builder was rigging the hardware on the mast and boom. The fellow who is having it built and the builder are quite intent on sailing it this year, that is to say next Saturday. It must be nice to be young and not be worried about just how cold the water has gotten. The pond isn't frozen yet but it is skimmed over in the morning.

I haven't made much progress on the Cretor's popcorn engine this past month due to the commitments of the Christmas season but as soon as I finish the shop cleaning, I am going to relax and

enjoy making some more chips to mess up the machines.

In closing I wish you a Happy and Prosperous New Year and that attaining the prosperity won't be so taxing that you don't have time to enjoy our great hobby.

Dick B.



The Meeting

Todd Cahill

Venerable President, Richard Boucher, called the December meeting to order at 7PM with a call for anyone who may have heard from Steve Lovely, the club's founding editor and who's shoes have been filled by many volunteers over the years. Dick suggested sending Steve a complimentary newsletter every month in recognition for setting the stage for many editors and contributors that have taken his place over the years. A vote was also taken in regards to the other fine museums that support our endeavors, namely the Precision Museum In Windsor, Vermont and The Wireless and Steam Museum in East Greenwich, Rhode Island. An amount of \$250.00 was granted to each and agreed to by the group.

An update from the volunteers working on the replica of Lowell's first loom was reported. The loom frame is nearly complete along with a replica of the shuttle thrower. Bill Bracket showed some slotted pieces of steel for the project that were cut out by water jet at a company in Northbridge, MA called Apex Machine. Ed Rogers showed a crankshaft for a miniature Crosley engine. Ed decided to build it as an assembled crankshaft with sweated joints instead of machining it from a solid blank.

President Emeritus, Norm Jones brought up the subject of fixtures in regards to the building of a Rider Erikson Hot air engine and also put out another call for people to join the group going to the Cabin Fever Model Engineering show in York PA. President Boucher also showed a simple lathe arbor for facing a split bearing trunnion. The arbor holds two at a time, 180° apart for counterbalancing.

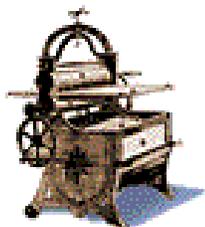
Next, Dick introduced NEMES member and automata expert John Bottoms to give a brief history as well as introduce some builders of automata that are featured in the exhibit he curated downstairs. An automaton is essentially a mechanical toy, usually depicting a human figure or animal. Motive power for automata can be provided by human, water, steam, gravity, air, and in modern examples, a battery. Automata are evocative and can promote feelings of whimsy, humor, and sympathy as well as address a political statement or sexual spirit.

The first automata found was Egyptian and dates from 2000 BC. It depicted a woman kneading dough. Another was the ancient example of a bobble headed cow. Sometime in the 2nd Century BC, Hero of Alexandria used mechanics to perform feats of magic. Through the use of hydraulics and fire, Temple doors could miraculously open by themselves. Other works by Hero described were a mechanical bird that rotated and whistled when a crank was turned and the steam aelopile or reaction turbine. In the Far East large mechanical figures were used in festival parades. A figure from Japan containing wooden gears could serve tea to guests. Tippoo's Tiger from India was the first form to move and make sound, a sort of mechanical organ.

In contemporary times, artists have taken the reins in the building of automata. Among them are Fred Abels from the Netherlands who's amazingly lifelike 'Dirk the Electric Tramp' pushes a shopping cart around and plays an organ grinder. Other examples of automata made by contemporary artists from around the world can be seen in the exhibit *Gadgets, Gears and Whirligigs* downstairs in the museum. Among the artists is Ann Hirsch from Somerville whose piece depicts 5 birds with human heads pecking at the ground. She utilized epoxy resin for the bodies and heads and a timing circuit to activate the servos inside. Another local artist chosen for the show is Dug North whose piece depicts Santa Claus exercising on the parallel bars. Dug's work has been featured in woodworking and

robotic journals. John Bottoms wrapped up the discussion with a description of the Pterodactyl that will hang from the museum rafters and whose wings will be activated by motors. John also has proposed a Saturday volunteer crew at the museum of which I joined in and had fun throwing a weighted sack with a string attached precisely through specific rafters in preparation to lift the Pterodactyl.

Todd



NEMES Gazette Editorial Schedule 2007

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

Issue closing date for contributions

February '07	January 21, 2007
March '07	February 18, 2007
April '07	March 25, 2007
May '07	April 22, 2007



Treasurer's Report

Richard Koolish

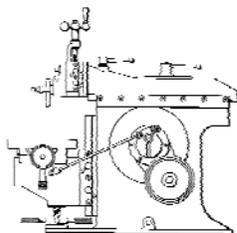
Balance as of November 24, 2006	6663.34
December Gazette	-164.07
Memberships	+675.00
Balance as of December 18, 2006	7174.27

Note: cost of November Gazette not included.



NEMES Mailing List

Send an email to nemes-subscribe@yahoogroups.com with the word **subscribe** on the subject line and in the body of the message.

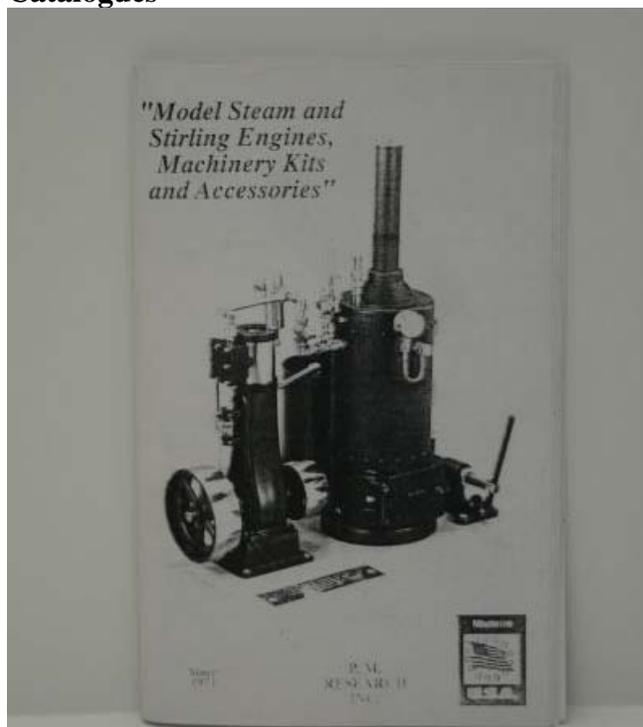


Shaper Column

Kay Fisher

Shaper Documentation (part 2 of 3)

Catalogues

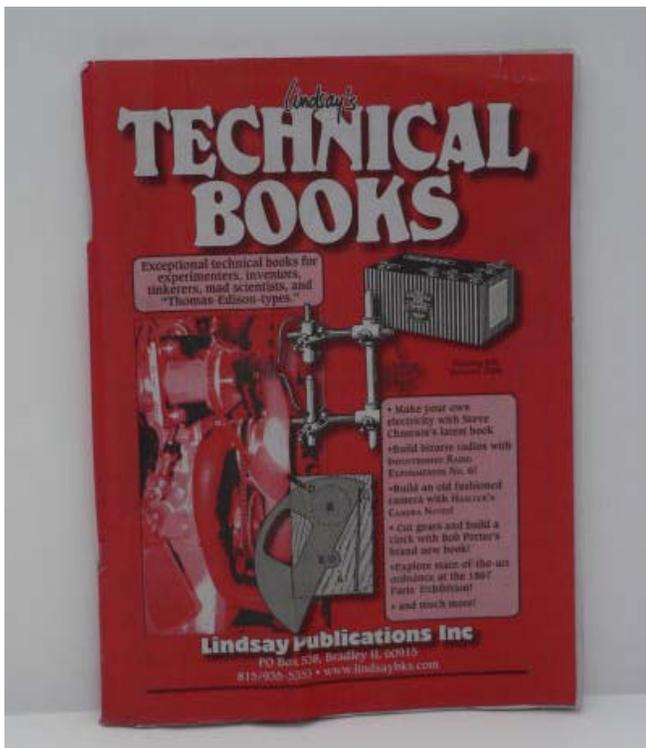


P. M. Research Catalogue Photo by Kay Fisher

PM Research 1/12 Scale shaper kit.

There is a 1/12 scale shaper kit in this catalogue. I hope to write a shaper column about it in the future. It is available as a set of castings and drawings. It is a 1/12 scale replica of the Figure 850 Crank Shaper Machine found in the Charles A. Strelinger Company catalogue of 1895. The castings are high quality. Many amateur machinists have successfully made this shaper. Warning – these kits can be addictive. You can easily spend two years building an entire miniature workshop. Also available in matching 1/12 scale are the following kits: an engine lathe, a drill press, a bench grinder, and a horizontal milling machine. \$85.00 plus shipping. Catalogue \$3.00 post paid from:

PM Research
4110 Niles Hill Road, Department 6C
Wellsville, NY 14895
Phone (800)724-3801
www.pmresearchinc.com

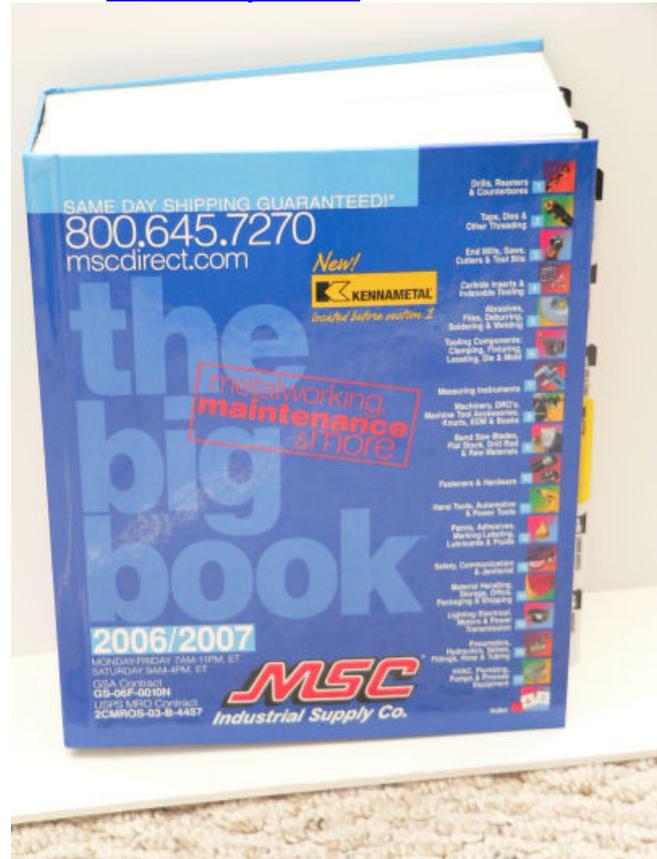


Lindsay Catalogue Photo by Kay Fisher

Lindsay Publications specializes in publishing books that have been out of print for a number of years and frequently with expired copyrights. They fill a critical need for amateur machinists since our shops are filled with old equipment.

For an entertaining free catalogue, go on-line or write to Lindsay Publications.

Lindsay Publications Inc.
P.O. Box 538
Bradley, IL 60915
Phone (815)935-5353
Fax (815)935-5477
www.lindsaybks.com



Lindsay Catalogue Photo by Kay Fisher

MSC Industrial Supply Co. is a supplier of machinists related tools and material and have a good reputation of quickly shipping quality merchandise. I have used them many times and have never been disappointed. Get their free, huge catalogue.

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75 Maxess Road
Melville, New York 11747-3151
Phone (800)645-7270
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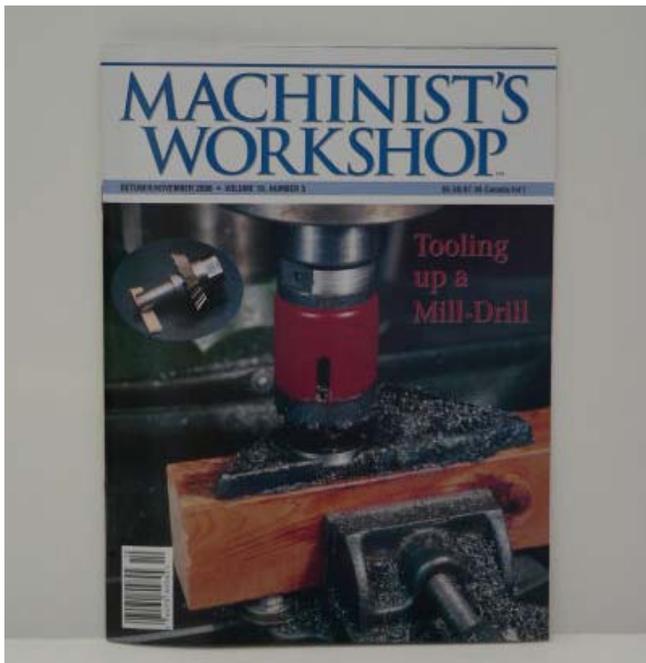
Magazines

There are no magazines dedicated to shapers. However there are two magazines that frequently have shaper articles and are always loaded with valuable tips.

"The Home Shop Machinist" magazine and its sister "Machinist's Workshop" (formerly titled "Projects in Metal") are bi-monthly publications targeted to the amateur machinist. These issues have run articles related to shapers:



Home Shop Machinist Photo by Kay Fisher



Machinist Workshop Photo by Kay Fisher

January/February 1998 Readers Forum page 22. This letter and pictures from V. W. Orlovsky

of Dresden, Maine describes his home-made shaper from modified Dave Gingery plans. If you're thinking of building a shaper from scratch, you should look at what Mr. Orlovsky has accomplished. Basically it is a 6-inch shaper with $\frac{1}{3}$ horsepower.

Also in this same issue is an article entitled "Making a Clapper" by Rudy Kouhoupt. In this article, Rudy details the construction of a clapper that overcomes tool bounce and reduces surface ripple.

Before speaking to our club, Rudy told me that he believes that the little ripple effect frequently observed on the leading edge of flat surfaces was caused by the clapper design. He thought the clapper geometry, placing the cutting surface out in front of the pivot point of the clapper, was the cause. I was skeptical, but since Rudy has made a replacement clapper with the tool bit held aft of the original position, I am now convinced. If you want to improve the quality of flat surfaces (don't we all), this should be your first step.

November/December 1994 and January/February 1995. "Reviving a Lunch Break Shaper" by Rudy Kouhoupt is a two-part article that documents rebuilding Rudy's shaper. This is the same shaper that is featured in Rudy's video (the first reference in this section). If you enjoyed the video, you may also enjoy reading this article. If you are about to refurbish an existing shaper you may want to read about Rudy's experience.

Machinist's Workshop is \$26.95 for a one year subscription (6 issues.) Home Shop Machinist is \$29.95 for a one-year subscription (6 issues.) Back issues are also available.

Home Shop Machinist Magazine
P.O. Box 629
Dept BC
Traverse City, MI 49685-0629
Phone (800)447-7367
www.homeshopmachinist.net

Next month we will continue with more shaper documentation resources.

Keep sending me email with questions and interesting shaper stories.

My email address is:

KayPatFisher@Yahoo.com

Kay

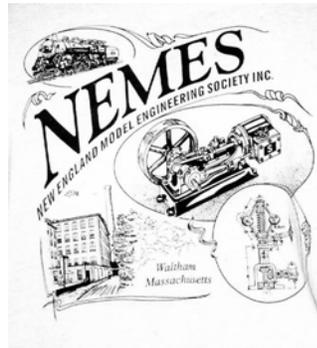


For Sale

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



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 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:

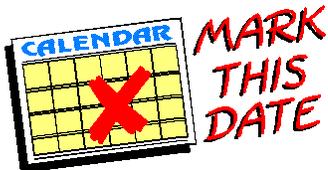
NEMES Shop Apron



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

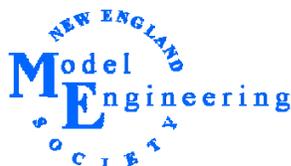
Jan 4th Thursday 7PM
NEMES Monthly club meeting
Charles River Museum of Industry
781-893-5410
Waltham, MA
<http://www.neme-s.org>

Jan 19th - 21st
Cabin Fever Expo Bus trip
Dick Boucher 978-352-6724
rlucienb@juno.com
<http://www.cabinfeverexpo.com/CFE/>

Jan 27th 9am-5pm, Jan 28th 10am-5pm
Amherst Railway Society Big Railroad Hobby Show
Eastern States Exposition, W Springfield, MA.
<http://www.amherstrail.org/>

Feb 1st Thursday 7PM
NEMES Monthly club meeting
Charles River Museum of Industry
781-893-5410
Waltham, MA
<http://www.neme-s.org>

Feb 17th Saturday 8:00am-4:00pm
11th Annual NEMES Show
Charles River Museum of Industry
781-893-5410
Waltham, MA
<http://www.crimi.org/events.htm>



Membership Renewal Form

**Renew your NEMES membership
for calendar year 2007
Enclose check for \$25 payable to:
NEMES**

Name _____

Address _____

City _____ State _____ ZIP _____

Home Phone _____

Work Phone _____

Email _____

**Please bring this form to the next
meeting or mail to:**

**Ed Borgeson, Membership Coordinator
11 Peck Avenue
Wayland, MA 01778**

*(If bringing cash, place in envelope with your
name and address on outside)*