



The NEMES Gazette

NEW ENGLAND MODEL ENGINEERING SOCIETY INC.

No. 130

February 2007

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Editor's Desk

Victor Kozakevich

Blacksmiths keep the MBTA rolling, or so believe the workers at the T's Everett Main Repair Facility. With furnaces, air hammers, torches and lathes, they keep the trolleys and subways moving, often well past 50 years of service life.

In 1995, the MBTA got rid of the group, hoping to save money, but soon realized they were at the heart of keeping the 110 year old transit system running, and hired them back. Many of the parts needed are no longer available from the maker, so the blacksmiths and their skills do battle against the bumps, rust and ice that conspire to break the equipment.

Many of the heavy and specialized tools needed have been made in the shop. The men recognize that much of what they do is a lost art, and only a handful of younger workers are entering the trade. The T blacksmiths are represented by the Union of Boilermakers, Blacksmiths and Forgers, a group 33,000 strong in 1985, but down to 1,800 by 2001.

As one T blacksmith put it, "We don't just shoe horses, we're draftsmen in metal."

Next Meeting

Thursday, Feb. 1, 2007

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.

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President's Corner

Dick Boucher

The Meeting

Our speaker this month is Reese Dill. I met Reese at Dave Dearborne's show last spring. He was operating his half scale steam tractor and I had Mike's quarter scale engine along so we did have a bit of special socializing time. As the weekend was coming to an end and Reese handed me his business card for further communication I realized I had seen him, and you may also and not realized it, at both the Dunstable and Dublin shows. Reese is the fellow who makes a few passes over the shows in a dark blue AT6 "Texan" in which he does stunt flying in the air show circuit in the summer. Large radial engines always make me look up.

Reese Dill has been flying for over 35 years with most of the flying in aerobatic or WWII era aircraft. When the subject of flying comes up there seems to be three groups of people with different attitudes about flying. Some people have no desire to fly except to get from one place to another, and they would prefer not to fly if there were some other way to get to their destination like spending all day in a car. Some people like to fly, but for one reason or another they are content to have someone else do the piloting, but they are interested in the process. The third group live to fly and despite the negative effect on their net worth, they never seem get enough of the process of making an aircraft go where they want it to go.

Until 35 years ago Reese was in the second category, but then he got hooked on flying and will try to explain why.

He is also interested in WWI era cars, fire engines and steam tractors.

February Show

Now that Cabin Fever is over, it is time to get serious about our own show, which is in a couple of weeks. Norm Jones got additional air

hose to get air to the Jackson room. I have been told that air is a problem at our show, so please cooperate so that we can make it through another year.

Setup begins at 8:00 AM. Steve Cushman will lead in the placement of the tables and any other displays. Please give him your complete cooperation. Also, don't put anything on the tables until they are covered. I know you all have your favorite spaces but a little bit of cooperation in this area will be appreciated.

We are getting five more tables this year and will extend into the lounge area beside the Jackson room. This area is strictly for static displays, nothing that might put oil or fuel on the rug. We will again also have displays on the first floor.

Miscellaneous Ramblings

I just wanted to mention that Max had a plastic bag from Travers Tool with some purchases under our table at Cabin Fever and it was not in his stuff when he got home. If anyone perchance picked it up hoping to find its owner later, please contact Max.

Dick B.



The Meeting

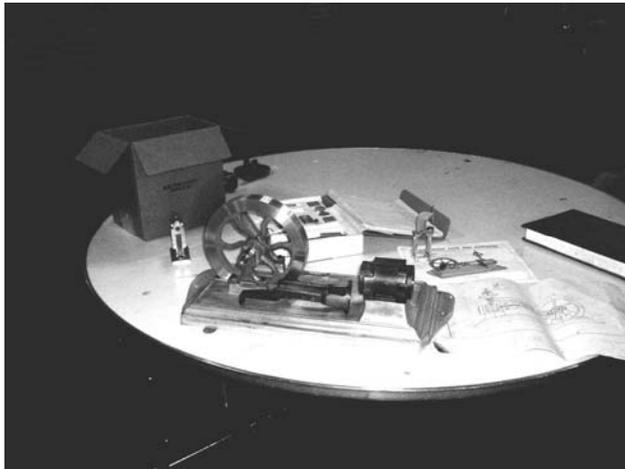
Todd Cahill

As usual for the January Meeting, members brought projects in various stages of completion and concept to what we call a poster session. Here are some highlights from the evening, only edited by the misfortune of some poor photography by yours truly.

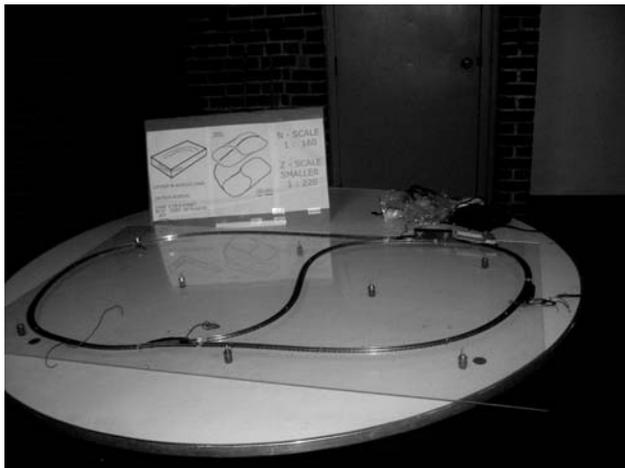
Members might want to check out an exhibit by artists that utilize models in different ways than we are accustomed to. It's called **Models as Muse** and

it is at The Phillip's Academy in Andover. While there, check out their collection of ship models. They're all located in The Addison Gallery of American Art on rt. 28 in Andover. Admission is free.

<http://www.andover.edu/addison/public.htm>



The beginnings of a Cretors Popcorn Engine by Dick Boucher



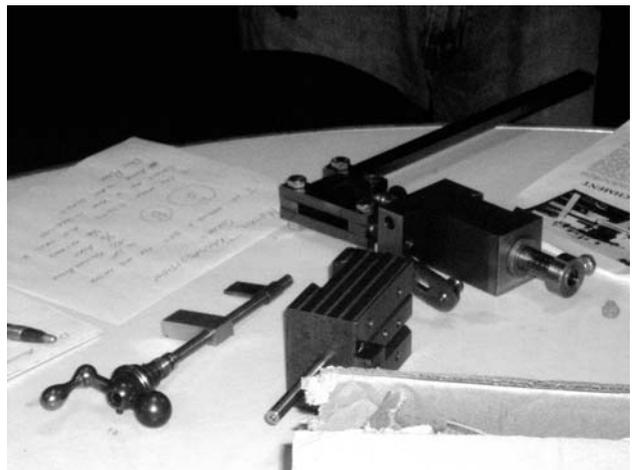
One of a two-layered N-scale train layout by Larry Keegan



A bronze casting of a sand dome for a 1" scale Pacific Locomotive made by visitor and Waushakum Live Steamer Joe Ng.



A formed copper shroud, built by Rollie Evans, made for enclosing the crankshaft of a Stanley steamer engine.



Dave Piper brought some tooling he built for his lathe. One, a cross drilling jig the other a key seat slotter. Both are used with an Aloris tool post.



Some turned aluminum elements made by Carl Mikkelsen.

Todd



NEMES Model Show

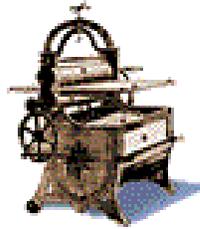
Door Prizes for the February Show

We are always looking for ways to make our February show better each year. One of the show's popular aspects is the awarding of door prizes to a number of lucky exhibitors. We have a small list of commercial donors who support the show with door prize contributions. In addition, some NEMES members have also contributed prizes.

This year, please take a look around your shop to see if there is an "extra" item that you would be willing to contribute as a door prize. It doesn't have to be new or fancy. If you like it, chances are another NEMES member would like it too. No, this is not an opportunity to get rid of that early 3,000 pound horizontal mill rusting under the tarp in your back yard. However, if you can come up with a clean usable shop item of manageable size and weight, we would be delighted to add it to the list of door prizes. Remember that the more donations we get, the better the odds that you will come up with a neat door prize too.

If you have something to donate as a show door prize, please let me know by the first week of February. My contact information is:

Frank Dorion
 23 Black Birch Road
 Plainville, CT 06062
 Tel: (860) 747-2399
fdorion@comcast.net



NEMES Gazette Editorial Schedule 2006

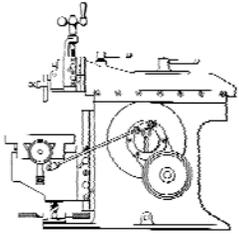
Here are the closing dates for Gazette written contributions in the coming months:

<u>Issue</u>	<u>closing date for contributions</u>
March '07	February 18, 2007
April '07	March 25, 2007
May '07	April 22, 2007
June '07	May 27, 2007
July '07	June 24, 2007



NEMES Mailing List

Send an email to nemes-subscribe@yahoogle.com and mention subscribe on the subject line and in the body of the message.

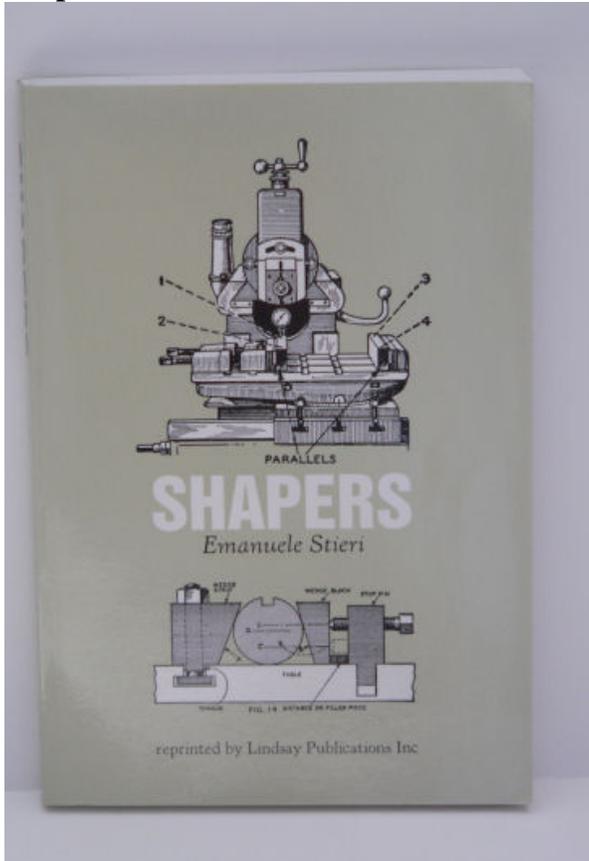


Shaper Column

Kay Fisher

basement. \$9.95 plus shipping. Part number 21460 from Lindsay Publications Inc. (See above)

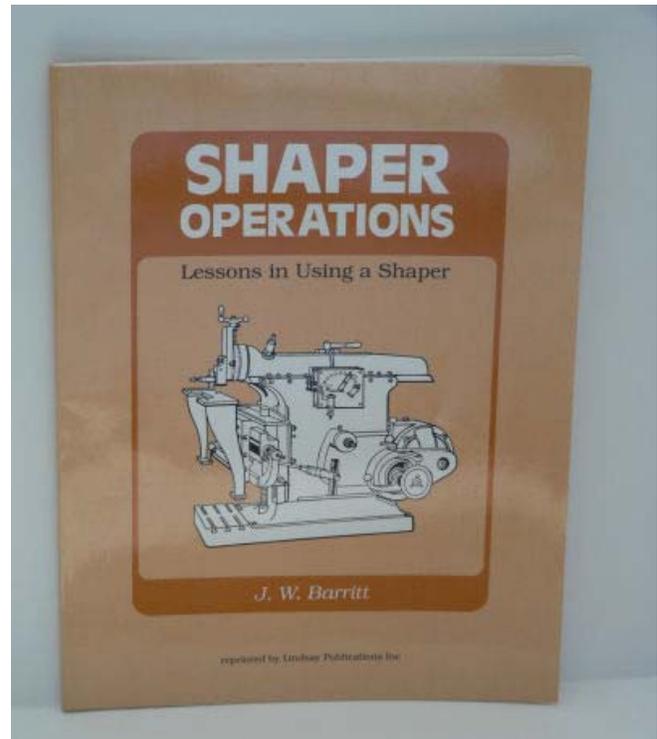
Shaper Documentation (part 3 of 4) Shaper Books



Stieri Book

Photo by Kay Fisher

Shapers by Emanuele Stieri ISBN 1-55918-146-X. This is the single best book that I know of available for shapers. The first quarter of the book is most applicable to us in that it covers column or pillar shapers and their operation. The second quarter of the book covers vertical shapers which are quite enlightening in their capabilities. The third quarter of the book covers modern column or pillar shapers which, although interesting, are machines of a size and complexity that amateur machinist are quite unlikely to own. The remainder of the book covers modern vertical shapers – again a size and type of shaper that is unlikely to be in your



Barritt Book

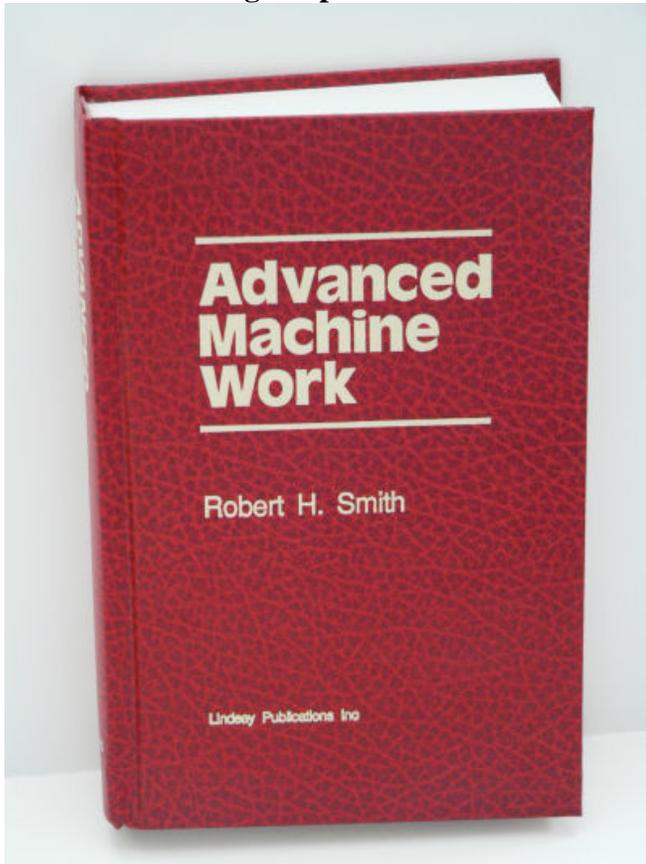
Photo by Kay Fisher

Shaper Operations by J. W. Barritt ISBN 1-55918-103-6. This book contains step by step procedures for a variety of shaper operations. It is enlightening in the scope of the operations that can be accomplished. Unlike the previous book, this one is targeted only to the column or pillar shaper, the most likely piece of shaper equipment in the hands of amateur machinists. The art work in the numerous drawings is excellent. Again Lindsay Publications is performing a valuable service in making these hand-etched drawings available long after the original publication has gone out of print. \$7.95 plus shipping. Part number 21036 from Lindsay Publications Inc. (See above)

American Planer, shaper and slotter builders by Kenneth L. Cope. This book is a great reference manual to look up and identify old shapers. It is great for machine history buffs and a nice coffee table book about shapers for the rest of us shaper enthusiasts. It is 208 pages with many drawings. \$19.00 plus shipping from:

The Astragal Press
P.O. Box 239
Mendham, NJ 07945-0239
(866) 543-3045
www.astragalpress.com

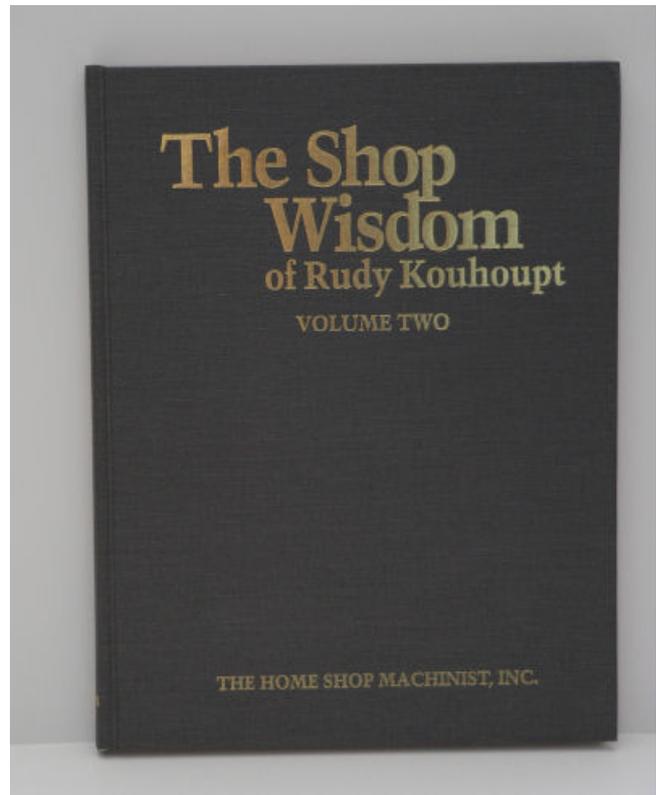
Books Referencing Shapers



Smith Book

Photo by Kay Fisher

Advanced Machine Work by Robert H. Smith
ISBN 0-917914-23-6. This book covers more than shaper operations but is well worth its price. I believe it is the most complete coverage of tool and cutter grinders that you can find. Unfortunately the title and even the titles of the chapters within the book would not reveal that. Section 9 entitled "Planing" covers shapers and is 37 pages long. That is not much text on shapers, but it is a large hard cover book of excellent quality, covering much more than shapers. If you are relatively new to amateur machinist work, this is a good book to have. This is also a good guide to using a tool and cutter grinder. \$29.95 plus shipping. Part number 4236 from Lindsay Publications Inc. (See above)

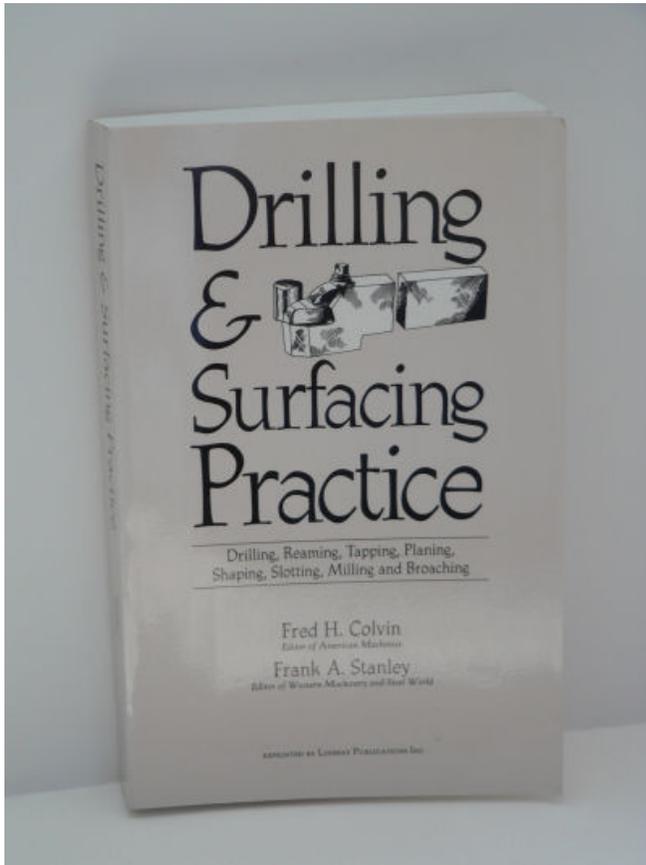


Smith Book

Photo by Kay Fisher

The Shop Wisdom of Rudy Kouhopt - Volume Two. This book includes (amongst many other interesting articles) the complete article about Rudy's rebuild of his shaper (referred to in the previous reference to Home Shop Machinist magazine). It's a great book with excellent photographs. I got my copy autographed when Rudy visited NEMES! Volume one and three are also available at the same price. If you only want this for the references to shapers then just get the two copies of Home Shop Machinist referenced above. But if you have a more general interest in amateur machinist work, you may enjoy this book - I did. The two volumes represent many articles that Rudy had published in magazines over the years and can serve as a motivator to get you away from the television and into the workshop. They are a great inspiration to those of us who are working on miniature equipment such as a Sherline or Unimat lathes and mills. \$39.00 plus shipping. Available from:

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



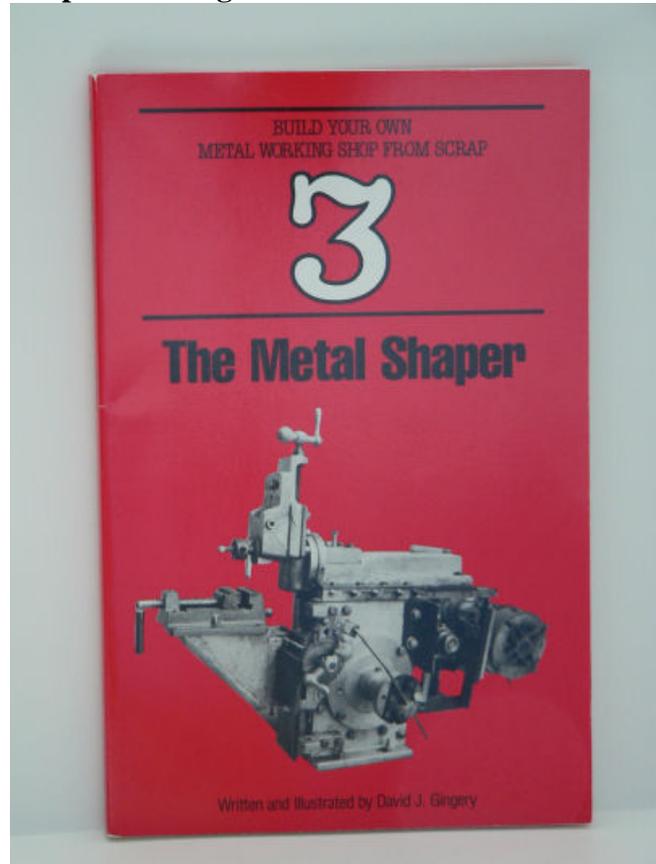
Colvin & Stanley Book Photo by Kay Fisher

Drilling & Surfacing Practice by Colvin & Stanley. The section on planers and shapers is 68 pages long. Although the shaper and shaper tools chapters are only 16 pages long, most of the chapters on planers and slotters can also be applied to shapers. This book shows some enlightening approaches to problems with shapers.

It talks about extending the tool to overcome the tendency of the shaper tool to “lift as it enters the work”. This is the crux of the modified tool holder in Rudy Kouhoupt’s article in the January/February 1998 issue of Home Shop Machinist.

It also shows drawings of a radius cutting device. With a true need and some ambition, you could build this device from scratch. In general it has many interesting ideas applicable to shapers and tells you more than you ever wanted to know about drill bits. \$19.95 plus shipping. Part number 21729 from Lindsay Publications Inc. (See above)

Shaper Building Books



Gingery Book Photo by Kay Fisher

Build a Metal Shaper by Dave Gingery. Dave Gingery has authored a series of books which are available both individually and as a set called “Build Your Own Metalworking Shop from Scrap”. The set sells for \$59.50 and includes:

1. The Charcoal Foundry - \$7.95
2. The Metal Lathe - \$9.95
3. The Metal Shaper - \$9.95
4. The Drill Press - \$9.95
5. The Milling Machine - \$9.95
6. Dividing Head & Deluxe Accessories - \$9.95
7. Sheet Metal Brake - \$8.95

There are many favorable reviews of the Gingery series of books. Many amateur machinists have successfully built his lathe. I personally have only heard of one person who completed the shaper and that effort is documented in the Home Shop Machinist article referred to earlier. However, if you are considering building your own shaper from scratch, then you owe it to yourself to read Dave Gingery’s shaper book. \$9.95 plus shipping. Part

number 187 from Lindsay Publications Inc. (See above)

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



Shop Tips

How many times have we said that we're **finally** going to organize the shop? What's your favorite excuse for putting it off? If your excuse is that you don't have enough boxes, here's a tip that might help you get started.

The US Post Office gives away different size boxes, and will even deliver them to you for free. They are called Priority Mail Boxes. I find Box-O-FRB1 which is 11" x 8½" x 5½" very useful. Two other good choices are Box-O-FRB2 which is 11⁷/₈" x 3³/₈" x 13⁵/₈" and Priority Mail Shoe! Box which is 7½" x 5¹/₈" x 14³/₈". You can see these boxes and other free boxes and envelopes at your local post office or on the web. You can even order them online at: <http://shop.usps.com/webapp/wcs/stores/servlet/ProductCategoryDisplay?catalogId=10152&storeId=10001&categoryId=13359>

Of course, the post office asks that you to use their supplies for mailing, and they come in handy for that as well. Note that if you mail something in a Priority Mail box, you will be charged the Priority Mail rate. In other words, they will not let you use a Priority Mail box for Parcel Post.

Another useful box is the box used for copier paper, available for free (used) from your local copy center (Kinko's, Staples, etc.) These

boxes are approximately 11½" x 17½" x 9" and come with a reusable lid. You can cut these boxes shorter and still use the same lid. For storing heavy material, I cut the boxes to 5" high, line the sides of the box with scrap pieces of ½" or ¾" thick wood, and line the top and bottom with ¼" hardboard (Masonite) or plywood scraps. The wood is glued to the inside of the cardboard with common wood glue. This gives in a cardboard box as strong as wood. In my shop, I paint one end of each box white with surplus house paint, and write the contents on that end with bold black marker.

Plastic or cardboard tubes, 2" or 3" diameter, are also handy for storing rods.

If possible, put boxes on 2x4s or other shelving so that they don't sit right on the concrete floor. When the shop floods, the 2x4s will get wet, but your precious materials will stay dry. I saw **when** not **if** because it happens to almost everyone.

Bob Neidorff

Editor's note:

There's a place called "The Container Store" on Rt. 9 in Chestnut Hill (Newton) and in Natick. This is a great source for specialized containers and storage systems. They also have a website:

<http://www.containerstore.com/>

Another good source is Staples. Obviously this is for those who want to take a different route and buy some items for organizing. And while you're there, you might want to pick up a Dymo or Brother tape labeling machine to mark all the drawers and boxes.



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.

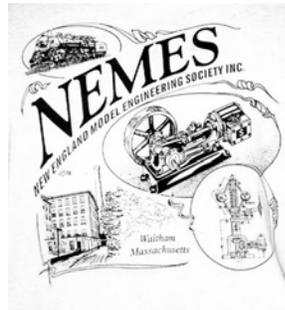
Errol Groff
180 Middle Road
Preston, CT 06365 8206
errol.groff@snet.net

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

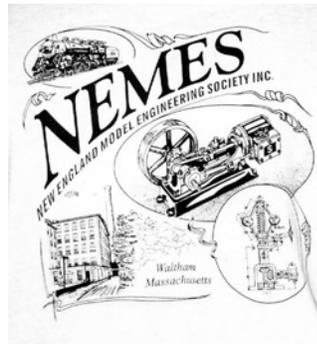


NEMES clothing

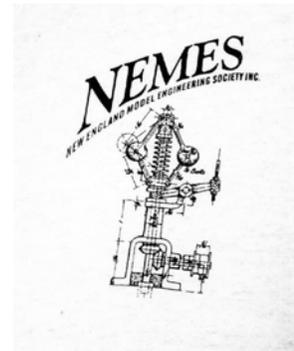
NEMES Tee Shirts

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

Lathe and Mill for Sale

I have the following:

Atlas Lathe, 12x36, 3/4 HP, about 1959. Has 4 jaw chuck, tailstock center, toolpost, small number of tool bits. Excellent condition, original paint and labels. On new Craftsman workbench.



Atlas plain horizontal milling machine. Benchtop size (4x17 table). Probably 1950s. Excellent condition, original paint, labels, motor. Has arbor and spacers, table-mounted indexing centers. On stand.

Both machines are under power, clean and ready for work or for just looking at, (which is what I do, mostly). Pictures available. \$800 each.

Bob Tanner 781-643-2881
robert.b.tanner@verizon.net



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

Feb 1st Thursday 7PM
NEMES Monthly club meeting

Charles River Museum of Industry 781-893-5410
Waltham, MA

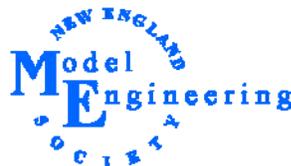
Feb 17th Saturday 8:00am-4:00pm
11th Annual NEMES Show

Charles River Museum of Industry 781-893-5410
Waltham, MA

March 1st Thursday 7PM

NEMES Monthly club meeting

Charles River Museum of Industry 781-893-5410
Waltham, MA



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)*