



# The NEMES Gazette

NEW ENGLAND MODEL ENGINEERING SOCIETY INC.

No. 128

December 2006

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## Editor's Desk

Victor Kozakevich

I happened to see a calendar recently with color pictures of scenes from old Russia, circa 1910. I assumed they were colorized, but the explanation on the back told how they had been photographed with three glass plates using filters behind the lens.

This is an early example of color photography, an invention of Prokudin-Gorskii, and part of a project funded by the last Tsar to document his empire. The collection of nearly 2000 photos shows landscapes, farms, factories and the people who worked there.

The developed images were then projected through a three-lens projector with the correct filters to show the original colors. The photographer left Russia after the Revolution, and in 1948, his family sold the collection to the US Library of Congress. The plates have since been scanned and a computer has added the color. Since the plates contained no dyes to fade, the colors are remarkably accurate.

You can see the extensive collection at <http://www.loc.gov/exhibits/empire/> or, look up color photography at Wikipedia.org

## Next Meeting

Thursday, Dec. 7, 2006

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 31<sup>st</sup> 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**

As you enter the museum this month you will see a fascinating new exhibit. Take a few minutes to turn a few cranks and enjoy the wonderful mechanical sculptures on display. Our speaker this month will be our own John Bottoms who has put together the exhibit. John will explain to us the history of such devices, the inspiration he had for the exhibit and how he managed to find the works both locally and from across the country.

### **Cabin Fever Expo Trip**

As Norm has said in the past "Time Flies". Last month we circulated a sign-up sheet during the meeting for the annual bus trip to the Cabin Fever Expo in York PA and as in previous years much remains the same except the dates and prices. The show this year is January 20<sup>th</sup> and 21<sup>st</sup>, so make sure you mark your calendars! Remember the December meeting is the last chance sign up "in person".

We have a block of 25 rooms reserved at the Holiday Inn on Arsenal Road in York. The rate is \$61.00 per night plus tax. As previously each individual must make their own room reservation. Doubling up on rooms is strongly suggested to help defer your costs on the trip. A block of rooms will be held by the hotel for us until 3:00 PM January 2, 2007. At this time the block will be released for general sale and any requests received after this date will be subject to availability at prevailing prices. The \$61.00 rate applies regardless of whether you travel with the group on the bus or drive down in your own vehicle. To make reservations call (717) 845-5671 and mention the New England Model Engineering Society Cabin Fever Expo trip. You probably need a room for Friday night Jan 19 and Saturday night Jan. 20 If you have any problems ask for Shirley Rohrbaugh, catering sales manager.

As in previous years, arrive at the Riverside T Station, Grove street exit of route 128 Newton by 8:30 AM on Friday January 19, 2007 so we can make the desired departure at 9:00 AM. I have scheduled the two usual pickup stops at the Charlton rest area and just south of Hartford CT. We will stop at the rest area on the Garden State Parkway for a lunch at the various venues available there. We will return to the Riverside T station approximately 8:00PM Sunday evening. The cost of the bus this year will be \$110.00 based on a minimum of 28 participants. If you get more folks interested in taking the trip with us, they don't have to be Society members, it will be reflected in a lower per person expense for the bus and any moneys over the expenses will be rebated.

Remember to have a check for the bus trip made out to NEMES and in Dick Koolish's hands by December 20, 2006 so that the bus reservation can be confirmed. Dick's address is:

Dick Koolish  
212 Park Ave.  
Arlington, MA 02476-5941

If you have a check for the next year's dues and a separate check for the bus trip at the December meeting it will save Dick a lot of extra work. Checks will not be cashed if we don't get the minimum of 28 riders on the bus.

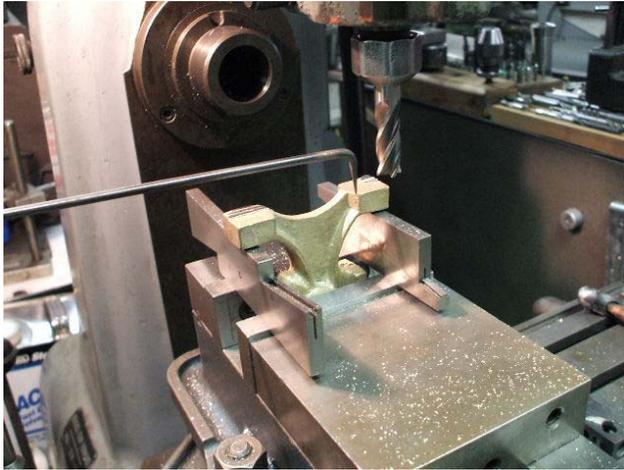
A last minute reminder will be sent out to those going on the bus.

### **Miscellaneous Ramblings**

Many members attended the open house at the Noack Organ Company last month. After an afternoon of cheese and crackers, organ music and shop tours at the Organ Company, a number of the fellows ventured to my shop for an impromptu visit. Shop visits are always interesting. It is also a great opportunity for the host to get his shop straightened up a bit. I just wish it would stay that way.

Bill Bracket suggested that members bring in some fixtures and tooling they made for their shop. It doesn't have to be an elaborate item, just something you have built or used to aid in the making of a part for a project. This example is the main bearing casting for the Cretors popcorn engine, in a machine vise with adjustable parallels under the base projections to hold the part steady while a skim chip

was taken to establish a working surface on the casting. The surface gauge scribe shown in the picture was used to establish the casting base parallel with the machine table.



To those of you who might be free on Thursdays, the Oil Can Gang still meets at the museum on Thursdays and finds plenty to do.

*Dick B.*



## ***The Meeting***

Todd Cahill

In typical fashion for a not so typical meeting, venerable president Dick Boucher brought the room to attention at precisely 7:00 PM. Dick suggested, in addition to the club's usual annual donation to The Charles River Museum of Industry, also donating to some of the other fine organizations that promote the interests of the club, such as the Wireless and Steam Museum in East Greenwich, RI and the Precision Museum in Windsor, VT.

The process for subscribing to the NEMES online discussion on Yahoo Groups was described. This online newsletter is only

available to members and can be used to notify us of upcoming events and to share ideas and techniques.

Founding President described some of the ongoing activities happening at The Boothbay Railway Village in Maine, including boiler rebuilding and hammer formed firebox building, or as Ron described it, "getting into big-time railroading". Errol Groff suggested adding cell phone numbers to the member list. Membership Secretary suggested getting some NEMES business cards made up for passing out to potential members and speakers and once more the issue of nametags or lack thereof was tossed around.

Some new visitors to the club brought to the floor several project ideas and calls for assistance, amongst them being a call for advice in the rebuilding of a South Bend Lathe, advice in the production of a vice-like tool to rebuild dental drills and the building of a model Burrell English Traction Engine.

With that, Dick introduced us to the guest speaker of the evening, Leonard Solomon, who in turn treated us to an enchanted and humorous evening of medieval and classical music played on his handmade pipe organs. Leonard began by playing a medley of classical Russian tunes on what he refers to as his Oomfullofbellaphonium or squeegeebellion but what might technically be called a Piano-Calio Forte. The instrument consists of two spherical rubber bladders which when stepped on provide the air to the flue pipes which are controlled by a number of round buttons. What makes the Piano-Calio Forte different from the usual organ is that the pipes of the organ are connected directly to the manifold so that the volume becomes louder and softer depending on the amount of pressure applied by the feet. This allows the notes emitted to be more expressive than if played on a typical pipe organ with an air pressure regulator. Leonard followed up with a medieval tune "Noel Sing We" and a traditional Irish tune "Brian Barou".



Leonard then moved on to the second instrument he brought, The Bosso Profundo Drone Pipes Thing, which he made to play at the King Richards Fair. This comparatively taller piece consists of three PVC pipes with reeds connected to long glass tankards. This instrument doesn't have its own air source so needs to be attached to the Piano-Calio Forte through a power takeoff valve. It produced a sound similar to the drone of a bagpipe.

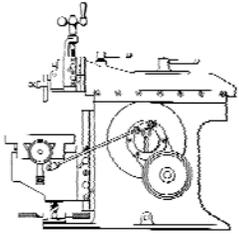
Both instruments utilized ancient technology with modern materials found in hardware stores, hobby shops and art supply stores in addition to junk and salvage materials. Leonard also brought some early experimental pipes and reeds using dog food cans, his Fidophone, and 35mm film canisters used as check valves. He made the air-supply balls. He used various size play balls as masters, over which he applied latex rubber. Pipes were made from PVC, aluminum, and copper. The variety of reeds was made from wood and very thin brass sheet. He explained an interesting technique for gluing different metals together. He uses hot glue, not in the usual method of applying direct from the glue gun but by heating up the metal with a

torch and applying the glue like solder. Leonard claims these joints have survived many years of flexing without failure.



Leonard began his career as a troubadour 25 years ago when he was working as a cabinetmaker and had friends who were making more money than him as buskers in Harvard Square. He built his first organ while still at the shop but left soon afterwards. He had a few brushes with fame, including a performance at the New England Conservatory and an invitation to perform on The David Letterman Show, which was retracted. Perhaps Paul Schaffer was afraid of being upstaged. Leonard also incorporates juggling, magic tricks and a good dose of anecdotal humor into his act.

*Todd*



## ***Shaper Column***

Kay Fisher

### **Shaper Documentation (part 1 of 4)**

This month is supposed to be the 61<sup>st</sup> shaper column. However it is actually the 2<sup>nd</sup> shaper column republished and brought up to date.

This is a list of shaper documentation resources (the most frequently asked question).

All prices and availability are current as of Oct 30, 2006. Perhaps 100 years from now your great grandson will read this book and think our prices were “wicked cheap”, perhaps not. In any case, call or write before placing any order.

### **Books on CD**

I believe the most valuable resource is the shaper CD offered by fellow NEMES member, Errol Groff. Below is a copy of his advertisement, from the most recent NEMES gazette:

### **Shaper Work CD**



**Shaper Work CD**

**Photo by Kay Fisher**

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](mailto:errol.groff@snet.net)

Tony Griffith's web site, mentioned in a few paragraphs, is also available as a set of 3 CDs or one DVD. See the on-line resources section below.

### **Videos**



**Rudy Video**

**Photo by Kay Fisher**

“Operating a Shaper” (2 hours) and “6 Projects for the Shaper” (2 hours, 45 min.) both by Rudy Kouhopt. These are \$58.95 each, post paid, for either VHS or DVD. Available through:

Bay-Com Enterprises  
P.O. Box 351  
Interlochen, Michigan 49643  
Toll Free (888) 452-6947  
[www.bay-com.com](http://www.bay-com.com)

## Operating a Shaper – videotape

If you only purchase one reference for your shaper this would be my first choice. This video by Rudy Kouhopt is worth watching if for no other reason than his advice on safety precautions. It starts with a description of various types of shapers then quickly gets into the specifics of operating the type of shaper that you are most likely to own. As in all things produced by Rudy, this video has excellent photography. It gets a little slow at times (slow is the nature of shapers) but if you are going to operate a shaper in your workshop, then you owe it to yourself to obtain this video.



Morgan Video

Photo by Kay Fisher

If you rebuild a shaper, you may have to scrape it. I have attended a club scraping seminar, read 3 books about scraping, and watched the Michael Morgan “Basic Hand Scraping” video. The video is 54 minutes long and covers the steps taken in scraping a part from a “worn” finish to a flat bearing finish. If you need to learn how to hand scrape, this video is for you. It is available for \$45 on-line at:

[www.machinerepair.com](http://www.machinerepair.com)

*{Publisher’s note: Michael Morgan’s business went through hard times a few years ago. Even though his website is still up, his book and video may no longer be available. Check before sending money.}*

## On-Line Resources

I would be remiss if I didn’t recommend this shaper column, which is available online at:

[www.neme-s.org/shapers/shaper\\_columns.html](http://www.neme-s.org/shapers/shaper_columns.html)

This is also available reformatted slightly as the metal shaper FAQ (Frequently Asked Questions):

[www.neme-s.org/shapers/shaper\\_faq.html](http://www.neme-s.org/shapers/shaper_faq.html)

One problem many first time shaper owners face is identifying a shaper they either just purchased or are considering purchasing. Tony Griffiths has a web site with pictures and descriptions of many shapers. He also sells copies of manuals and catalogues he has obtained over the years.

Main page

[www.lathes.co.uk](http://www.lathes.co.uk)

List of all shapers

[www.lathes.co.uk/page21.html](http://www.lathes.co.uk/page21.html)

List of available manuals

[www.lathes.co.uk/manuals](http://www.lathes.co.uk/manuals)

List of available catalogues

[www.lathes.co.uk/catalogues](http://www.lathes.co.uk/catalogues)

UK Phone: 44-1298-871633

If you have a question about a shaper after consulting Tony’s web site and the shaper FAQ, your next best option is to ask your question in one of the online forums. My favorite is the Yahoo group “Metal\_Shapers”. If you have never seen a Yahoo group before, go to [www.Yahoo.com](http://www.Yahoo.com), click on **Groups** on the left, then in the search box near the top labeled “Find a Yahoo Group!” enter “Metal\_Shapers” and click **Search**. Currently, this returns a list of 5 groups. All are interesting but you want to click on the Metal\_Shapers item. What you see after this will vary. The best advice I can give from here is just to follow your instincts and join the group.

There are many manuals, catalogues, and brochures available in the “Files” section of the Yahoo group Metal\_Shapers\_Pix and Metal\_Shapers. Perhaps the most interesting one is the U.S. Army shaper manual, which covers the South Bend 7” shaper. It is useful as a general shaper manual and is essential if you have a South Bend shaper.

Other interesting shaper related Yahoo groups are: "Metal\_Shapers\_Pix", Lewis\_Machine Tool", "Gingery\_Machines", and of course "NEMES".

The "Usenet News Group" [rec.crafts.metalworking](http://rec.crafts.metalworking) frequently has shaper related information and questions. Usenet news groups are a lot like Yahoo groups but more globally distributed. One way to view a usenet news group is with news group reader software. One that nearly every Windows user has is called "Outlook Express" (which is not the same as "Outlook"). Another is Mozilla/Thunderbird. You can also read or search news groups with Google Groups <http://groups.google.com> There is also a [rec.crafts.metalworking](http://rec.crafts.metalworking) "drop box" or archive, with pictures and old articles. This drop box is available through:

[www.metalworking.com](http://www.metalworking.com)

The drop box is also a good resource for copies of old manuals, catalogues and brochures.

There is also a metalworking FAQ which has information that has been published in relation to [rec.crafts.metalworking](http://rec.crafts.metalworking). at:

<http://w3.uwyo.edu/~metal/>

Several catalogues for Ammco, Delta, and Milwaukee shapers are available on Scott Logan's web site:

<http://www.lathe.com/catalogs>

He also has the parts list & instructions for the Logan 8" shaper available for \$20 as part number PL-40. Because they do not manufacture parts anymore, they also provide the dimensioned drawings for \$100 as part number PL-41 at:

<http://store.lathe.com/machinemanuals.html>

Another source for manuals is "Machinery Support On-line", but they are much more expensive. For example, the Logan manual mentioned above costs \$20 from Scott Logan and costs \$100 from Machinery Support On-line. But if you can't find it anywhere else, check here:

[www.machinerybrochures.com](http://www.machinerybrochures.com)

For a look at some new Chinese shapers check out:

[www.zhongyang-engrg.com/products/shapers.htm](http://www.zhongyang-engrg.com/products/shapers.htm)

When your just looking for something on-line don't forget the these internet search sites: [www.google.com](http://www.google.com) and [www.ask.com](http://www.ask.com)

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](mailto:KayPatFisher@Yahoo.com)

Kay

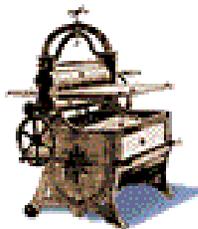


## ***Treasurer's Report***

Richard Koolish

Balance as of October 19, 2006	6436.05
Printing - Ed Borgeson	-47.71
October speaker	-50.00
November speaker	-50.00
Memberships	+325.00
Credit for Nov 05 speaker check	+50.00
Balance as of November 24, 2006	6663.34

Note: cost of November Gazette not included.



## ***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>
January '07	December 24, 2006
February '07	January 21, 2007
March '07	February 18, 2007
April '07	March 25, 2007
May '07	April 22, 2007



## Shop Tips

### A Very Simple Sharpening Fixture

In metalworking, we know that accuracy is directly related to rigidity. A heavier table, tighter fixture, and stronger machine always gives the best cut. That's true on the lathe and true on the mill.

But it isn't always true.

I've been puzzling over how to make a fixture for a surface grinder to sharpen jointer and planer knives. I envisioned a plate of ground flat tool steel with adjusting screws for tilt and adjusting screws for bevel angle. I drew lots of sketches but never got around to making one.

Today, I "just did it". But I took a short cut. Instead of using steel, I used a piece of wood. Instead of fancy adjustments, I cut it to the bevel angle with a woodworking jointer. Then I bolted a piece of 1/8" steel to the bottom so that I could hold it with a magnetic chuck. To set the blade tilt, I checked it against the wheel with a thin feeler gage and nudged it true before tightening.



**Jointer knife held in a wooden fixture on a LeBlond No. 1 Universal Grinder**

I'm pleased to report that it works fine. Even though it is only wood, it holds the blade flat enough. Could it be that the softness of the

wood damps vibrations? That is unlikely but possible.

It may be better to sharpen the blade with the wheel perpendicular to the blade edge. That way, grinding scratches wouldn't weaken the edge. But my grinder is too small for that. I removed grinder scratches with a few passes on a fine oil stone. The final edge had an extremely fine burr, like a just-sharpened plane iron. This came off easily by dragging the edge through the end grain of a piece of wood. The blade is now sharper than new and cuts beautifully.

So you don't need a precision, heavy fixture for every operation. Sometimes, a light piece of wood is strong enough.

*Bob Neidorff*



## NEMES Mailing List Update

The following is from the NEMES internet mailing list moderator. If anyone has been having trouble signing up to this valuable asset of society membership I hope this clears things up a bit.

*-Dick B.*

There are two types of subscriptions to the list, For lack of better names we'll call them "email only" (EMO) and "Yahoo Group Web Page" (YGWP). These are my names, not anything you'll find mentioned at the Yahoo web site.

EMO is email only. You send email from your account to the Yahoo groups email address ([nemes@yahoogroups.com](mailto:nemes@yahoogroups.com)). Yahoo forwards your message to each subscribed member. It also puts a copy into the archive of all emails received by the NEMES Group.

You only send and receive emails with the EMO subscription. You get this by sending a message to [nemes-subscribe@yahoogroups.com](mailto:nemes-subscribe@yahoogroups.com) with the word "subscribe" in the body and subject line. With further action, as described in the subscription confirmation message you'll receive, you can get a

YGWP subscription and a full yahoo membership (still at no charge).

Why would one want YGWP? Well, for one thing, it allows you to login to Yahoo groups and set some options for your subscription. For instance, you can set your subscription to digested email. This means you get one email with all the posts from the last 24 hours, rather than one for every email sent to the group; quite handy on a very active group. It also allows you to view the archives, files, photos, and upload/download stuff from the NEMES yahoo group storage areas or check out the calendar

Mac

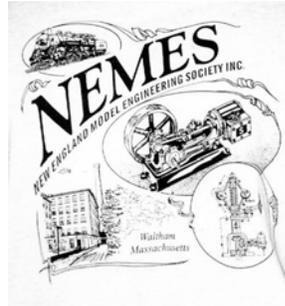


**For Sale**

**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](mailto:errol.groff@snet.net)

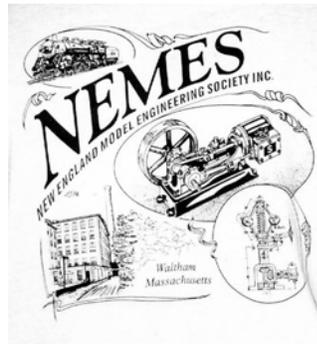


**NEMES clothing**

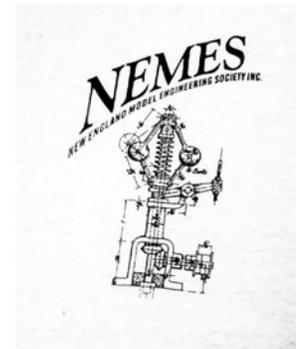
**NEMES Tee Shirts**

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](mailto:mdbouch@hotmail.com)

## 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](mailto:thebracketts@verizon.net) or (508) 393-6290.

*Bill*

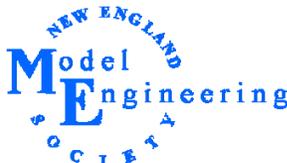
Dec 7<sup>th</sup> Thursday 7PM  
NEMES Monthly club meeting  
Charles River Museum of Industry  
781-893-5410  
Waltham, MA

Jan 4<sup>th</sup> Thursday 7PM  
NEMES Monthly club meeting  
Charles River Museum of Industry  
781-893-5410  
Waltham, MA

Jan 19<sup>th</sup> – Jan 21<sup>st</sup>

Cabin Fever Expo Bus trip  
Dick Boucher 978-352-6724  
[rlucienb@juno.com](mailto:rlucienb@juno.com)

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



## 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)*