

The NEMES Gazette

NEW ENGLAND MODEL ENGINEERING SOCIETY INC.

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Editor's Desk

Victor Kozakevich

While Googling for some information to see if it was possible to repair a sticky DVD video recorder motor, I came across an interesting use for CD/DVD motors. Some modelers have been adapting them to power model airplanes. Seems the motor's design, which puts the rotor magnets on the outside, creates a slow running high torque motor ideal for spinning a propeller.

These motors start out as "brushless DC", but with a little rewiring become a miniature three-phase motor, similar to the one on your mill. The addition of a rechargeable battery and small frequency controlled drive makes for a high efficiency variable speed motor.

And of course, people find ways to hotrod them. Back in the '70s I saw an article on how to improve performance of slot car motors by winding with thicker wire, installing more powerful magnets and better bearings. Same applies to the CD motors. Though a little like watch repair in some of the smaller sizes, modifying the larger motor from a floppy drive looks easier and lets you swing a larger prop.

More at:

<http://www.flyelectric.ukgateway.net/>

Next Meeting

Thursday, Apr. 3, 2008

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

This month we will have Peter Baldwin, president of Ramgen Power Systems, giving us about an introduction to Carbon Capture as well as Ramgen's technology that includes novel shock compression concepts. Shock compression can achieve very high compression ratios and efficiency simultaneously, and has the potential to substantially reduce compressor costs and improve efficiency in conventional applications, as well as extending the range of applications through superior capability.

More on the February show

As always happens when mentioning names in a column such as this, inevitability someone gets left out. Shortly after sending last month's column off to the editor, I remembered a very important supporter of our show in February. Bill Lopoulos has lent to us and helped setup his air manifold for many years now so that all our steam models may be in operation during the show. Thanks Bill.

I also failed to mention that our membership secretary, Ed Borgeson, was in attendance at the show. It was good to see Ed and have a few minutes conversation with him. He tells me he is recovering very well.

Please take Notice !!!

Our Gazette editor has decided that it is time to have someone take over that job. At Cabin Fever, a couple of fellows from the Chicago area talked with Ron, Norm and myself about the secret of the New England Model Engineering Society. One thing all of us agreed upon was the communication through our Gazette and the willingness for new folks take over the various jobs that need to be done for the Society to continue on. So I ask you to consider the possibility stepping forward and being the editor for 12, 24 or 36 issues. Vic has

mentioned the probability he will be able to have a handbook ready for the new editor. Remember that the editor sets up the pages and then our publisher Bob Neidorff prints and mails it, so the work of getting the Gazette out is shared.

Miscellaneous Ramblings

Not much on the ramblings side this month. I have been spending a few hours a week in between rain and wind, getting the ravages of winter off my lawn and the excess sand required to keep traffic moving in front of the house off the front lawn. After a long winter enjoying the shop, I have been anxious to get outside but it is very bitter sweet, as there are still a lot of unfinished projects still in the shop and many, many more in the "someday I will build one of those" file. Well there will be rainy days and all too soon the heat will drive me into the air conditioning of my shop.

One last ramble, Frank Stauffer's Ryder Erickson hot-air engine model is back safe in his shop in Massachusetts.

Dick B.

Dick B.



The Meeting

Todd Cahill

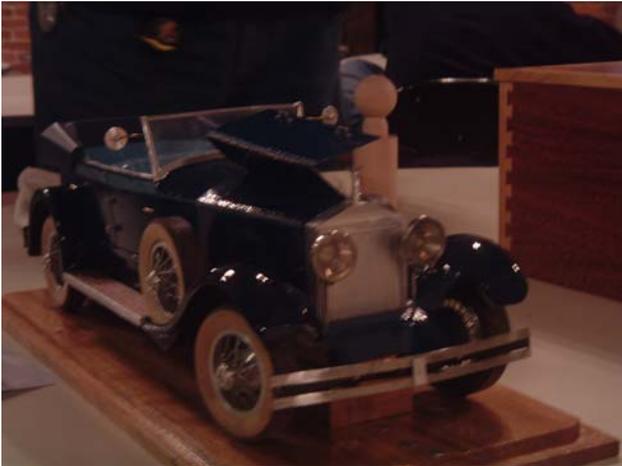
March 2008

President Emeritus began the March meeting with a report of success of our annual model engineering show. It is an important day in the club's calendar as well as the museum's. We filled the hall easily with exhibitors and, as usual, attendance to the museum was the most for the year.

Show and Tell

Errol Groff brought in another project from his student that was introduced at last month's meeting. Cody had been working on a swage block for bending and folding. It was made from shapes welded together and meticulously sanded and polished. Errol was wondering about the interest in continuing to videotape our speakers. The lighting to potentially illuminate the speaker could have the adverse affect of washing out any projections. Those who went on the Cabin Fever trip were treated to a video of model-maker Ray Hasbrouck, who spoke at one of our early meetings. In retrospect, this documentation is priceless.

Ernie Smith brought in a model of a 1927 Rolls Royce. He made it predominantly of wood with minor details in metal.



Gil showed us a nifty ball turning device he made using an old boring head.

Norm Jones reminded us of the NAMES show held in Toledo, OH in April. Perhaps not as large as the Cabin Fever show, it nonetheless attracts a whole different set of model-makers.

Robin Parker brought in an attractive box wrench made by Craftsmen. The neck of the wrench twists 90 degrees so that it is more suited to taking a hammer blow.

The main speaker for the evening was Julie Kaiser, who is regional sales manager in New England for Omax Corporation. Omax is the only manufacturer of abrasive waterjet machines to build all of their own components.

Tim who has run waterjet machines as well as EDM and laser cutters joined Julie.

There are four main components to abrasive waterjet machines: The X Y table with the Z head capable of tilting, the control system with software, the water pump, and the nozzle. The nozzle consists of a mixing tube which mixes the water with the abrasive garnet and the jeweled nozzle with a 0.014" orifice.



Butterfly cut out of stainless steel

Waterjets can cut virtually any material. The ability to tilt the head allows for greater accuracy in that the angle that spray disperses at can be compensated for. The kerf is typically 0.040". The parts being cut sit atop vertical steel slats that can be replaced or atop a plastic honeycomb material. The garnet used is 80-grit and is rarely recovered for re-use due to breakdown. Waterjet machines can cut material as thick as 2" accurately, depending on the material. There are five different qualities of cut. Finish cuts don't work well. Waterjet works best when cutting on both sides.



Design in acrylic cut with waterjet

Some very delicate looking pieces cut out of stainless steel and acrylic were passed around.



Two parts in .375 stainless that fit together nicely.

T.D.C.



Treasurer's Report

Dick Koolish

Balance as of January 20, 2008	9919.00
February Gazette	-190.77
March Gazette	-214.13
March speakers fee	-50.00
Cabin Fever refunds & expenses	-993.31
Cabin Fever signs & handouts	-60.73
1 bus fare	+135.00
Feb show t-shirt sales	+112.00
Feb show food income	+406.75 38
Memberships	+950.00
Balance as of March 19, 2008	10013.81
Cabin Fever Trip	
34 fare payments @ \$135.00	4725.00
Bus charter	-3570.00
Driver tip	-125.00
Stamps	-13.20
Envelopes	- 3.03
Printing	- 2.80
Fare refunds	- 850.00
Signs and handouts	- 60.73
Net income to club	100.24



Cabin Fever Reunion

A Happy Ending

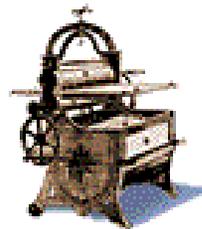
Some you may recall that Frank Stauffer's display at The Cabin Fever Expo last January didn't make it on the bus for the trip home. After a number of phone calls, I was relieved to learn that Gary Schoenly had found Frank's engine while picking things up at the show site that Sunday evening. Frank's engine has been in Gary's loving care for the past two months!

Dick Husher called me the other day with some welcome news. Bill McCarthy, who many of you may know, was on his way to The American Precision Museum in Windsor Vermont, and graciously delivered Frank's display to Dick's home in Newton MA. Dick then called me with the good news and I met with him on March 20 to pick it up. I had a very enjoyable visit with Dick and invited him to come to our next meeting. I called Frank with the good news and he mentioned to me that he was planning to come to the museum on Thursday anyway, so we could make an easy swap.

I would like to extend my thanks to: Gary Schoenly, Bill McCarthy, and Dick Husher for all their efforts in contributing to the happy ending of this saga.

The lesson learned from this experience is to place an identification label on every "treasure" so that they might find their way home if this should ever happen again.

Norm Jones



NEMES Gazette Editorial Schedule

Issue	closing date for contributions
May '08	April 18, 2008
June '08	May 23, 2008
July '08	June 20, 2008
August '08	July 25, 2008



The Steam Man of the Prairies

BY EDWARDS ELLIS,



CHAPTER IV.

THE TRAPPER AND THE ARTISAN.

"HELLO, younker! what in thunder yer tryn' to make?"

Johnny Brainerd paused and looked up, not a little startled by the strange voice and the rather singular figure which stood before him. It was a hunter in half civilized costume, his pants tucked into his immense boot tops, with revolvers and rifles at his waist, and a general negligent air, which showed that he was at home in whatever part of the world he chose to wander.

He stood with his hand in his pocket, chewing his quid, and complacently viewing the operations of the boy, who was not a little surprised to understand how he obtained entrance into his shop.

"Stopped at the house to ax whar old Washoe Pete keeps his hotel," replied the stranger, rightly surmising the query which was agitating him, "and I cotched a glimpse of yer old machine. Thought I'd come in and see what in blazes it war. Looks to me like a man that's gwine to run by steam."

"That's just what it is," replied the boy, seeing there was no use in attempting to conceal the truth from the man.

"Will it do it?"

"Yes, sir."

"Don't think you mean to lie, younker, but I don't believe any sich stuff as that."

"It don't make any difference to me whether you believe me or not," was the quiet reply of the boy; "but if you will come inside and shut the door, and let me fasten it, so that there will be no danger of our being disturbed, I will soon show you."

These two personages, so unlike in almost every respect, had taken quite a fancy to each other. The strong, hardy, bronzed trapper, powerful in all that goes to makeup the physical man, looked upon the pale, sweet-faced boy, with his misshapen body, as an affectionate father would look upon an afflicted child.

On the other hand, the brusque, outspoken manner of the hunter pleased the appreciative mind of the boy, who saw much to admire, both in his appearance and manner.

"I don't s'pose yer know me," said the stranger, as he stepped inside and allowed the boy to secure the door behind him.

"I never saw you before,"

"I am Baldy Bicknell—though I ginerally go by the name of 'Baldy.'"

"That's rather an odd name."

"Yas; that's the reason."

As he spoke, the stranger removed his hat and displayed his clean-shaven pate.

"Yer don't understand that, eh? That 'ere means I had my ha'r lifted ten years ago. The Sioux war the skunks that done it. After they tuk my top-knot off, it had grow'd on ag'in and that's why they call me Baldy."

In the mean time the door had been closed, and all secured. The hat of the Steam man emptied its smoke and steam into a section of stove-pipe, which led into the chimney, so that no suspicion of

anything unusual could disturb the passers-by in the street.

“You see it won’t do to let him walk here, for when I tried it first, he went straight through the side of the house; but you can tell by the way in which he moves his legs, whether he is able to walk or not.”

“That’s the way we generally gits the p’int of an animal,” returned Baldy, with great complaisance, as he seated himself upon a bench to watch the performance.

It required the boy but a short time to generate a sufficient quantity of steam to set the legs going at a terrific rate, varying the proceedings by letting some of the vapor through the whistle which composed the steam man’s nose.

Baldy Bicknell stood for some minutes with a surprise too great to allow him to speak. Wonderful as was the mechanism, yet the boy who had constructed it was still more worthy of wonder. When the steam had given out, the hunter placed his big hand upon the head of the little fellow, and said:

“You’s a mighty smart chap, that be you. Did anybody help you make that?”

“No; I believe not.”

“What’l you take for it?”

“I never thought of selling it.”

“Wal, think of it now.”

“What do you want to do with it?”

“Thar’s three of us goin’ out to hunt fur gold, and that’s jist the thing to keep the Injins back an’ scart. I’ve been out thar afore, and know what’s the matter with the darned skunks. So, tell me how much money will buy it.”

“I would rather not sell it,” said Johnny, after a few minutes’ further thought. “It has taken me a great while to finish it, and I would rather not part with it, for the present, at least.

“But, skin me, younker, I want to buy it! I’ll give you a thousand dollars fur it, slap down.”

Although much less than the machine was really worth, yet it was a large offer, and the boy hesitated for a moment. But it was only for a moment, when he decidedly shook his head.

“I wish you wouldn’t ask me, for I don’t want to sell it, until I have had it some time. Besides, it isn’t finished yet.”

“It ain’t?” exclaimed Baldy, in surprise, “Why, it works—what more do you want?”

“I’ve got to make a wagon to run behind it.”

“That’s it, eh? I thought you war goin’ to ride on its back. How much will it draw?”

“As much as four horses, and as fast as they can run.”

The hunter was half wild with excitement. The boy’s delight was never equal to one-half of his.

“Skulp me ag’in, ef that don’t beat all! It’s jest the thing for the West; we’ll walk through the Injins in the tallest kind of style, and skear ‘em beautiful. How long afore you’ll have it done?”

“It will take a month longer, at least.”

Baldy stood a few minutes in thought.

“See here, younker—we’re on our way to the ‘diggin’s,’ and spect to be thar all summer. Ef the red-skins git any ways troublesome, I’m comin’ back arter this y’ar covey. Ef yer don’t want to sell him, yer needn’t. Ef I bought him, it ain’t likely I’d run him long afore I’d bu’st his b’iler, or blow my own head off.”

“Just what I thought when you were trying to persuade me to sell it,” interrupted the boy.

“Then, if he got the cramp in any of his legs, I wouldn’t know how to ile it up ag’in, and thar we’d be.”

“I am glad to see you take such a sensible view of it,” smiled Johnny.

“So, I’m goin’ on West, as I said, with two fools besides myself, and we’re goin’ to stay thar till yer get this old thing finished; and then I’m comin’ after you to take a ride out thar.”

“That would suit me very well,” replied the boy, his face lighting up with more pleasure than he had shown, “I would be very glad to make a trip on the prairies.”

“Wal, look fur me in about six weeks.”

And with this parting, the hunter was let out the door, and disappeared, while Johnny resumed his work.

That day saw the steam man completed, so far as it was possible. He was painted up, and every improvement made that the extraordinarily keen mind of the boy could suggest. When he stood one side, and witnessed the noiseless but powerful workings of the enormous legs, he could not see that anything more could be desired.

It now remained for him to complete the wagon, and he began at once.

It would have been a much easier matter for him to have secured an ordinary carriage or wagon, and alter it to suit himself; but this was not in accordance with the genius of the boy. No contrivance could really suit him unless he made it himself. He had his own ideas, which no one else could work out to his satisfaction.

It is unnecessary to say that the vehicle was made very strong and durable.

This was the first great requisite. In some respects it resembled the ordinary express wagons, except that it was considerably smaller.

It had heavy springs, and a canvas covering, with sufficient, as we have shown in another place, to cover the man also, when necessary.

This was arranged to carry the wood, a reserve of water, and the necessary tools to repair it, when any portion of the machinery should become disarranged.

English coal could be carried to last for two days, and enough wood to keep steam going for twenty-four hours. When the reserve tank in the bottom of the wagon was also filled, the water would last nearly as long.

When these contingencies were all provided against, the six weeks mentioned by the hunter were gone, and Jonny Brainerd found himself rather longing for his presence again.



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.

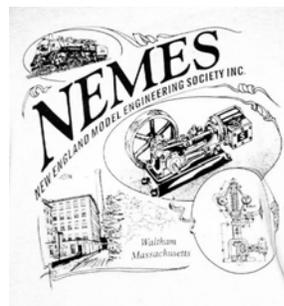
Errol Groff
180 Middle Road
Preston, CT 06365 8206
errol.groff@snet.net

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

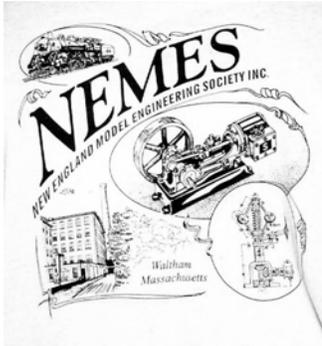


NEMES clothing

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



MARK THIS DATE

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

April 3rd Thursday 7PM
NEMES Monthly club meeting
Charles River Museum of Industry
Waltham, MA
781-893-5410
<http://www.neme-s.org>

April 20th 9:00am The Flea at MIT
Albany Street Garage at the corner of Albany and Main Streets in Cambridge
<http://web.mit.edu/w1mx/www/swapfest.shtml>

April 19th – 20th NAMES Expo
Toldeo, OH
www.modelengineeringsoc.com

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

May 3rd Connecticut Antique Machinery Museum
Spring Power Up
Kent Ct. John Pawlowski President
P.O. Box 1467
New Milford, CT 06776
<http://www.ctamachinery.com/SpringPowerUP.html>

May 3rd NHPOTP engine show
RT 113 Dunstable MA
Robt Wilkie 207-748-1092

May 18th Steam-up
Waushakum Live Steamers
Holliston MA
<http://www.steamingpriest.com/wls>

May 18th 9:00AM The Flea at MIT
Albany Street Garage at the corner of Albany and Main Streets in Cambridge
<http://web.mit.edu/w1mx/www/swapfest.shtml>

May 20-21 9:00-5:00 and May 22nd 9:00-3:00
EASTEC at Eastern States Expo
West Springfield MA
www.sme.org/eastec 800-733-4763

May 24-25 Bernardston Show
Rt 10 off Rt 91 Bernardston, MA
Vickie Ovitt 413-648-5215

May 24th American Precision Museum opens
<http://www.americanprecision.org/>

May 25th Spring Auto & Antique Aeroplane Show
Owls Head Transportation Museum Owls ME
<http://www.ohm.org/>