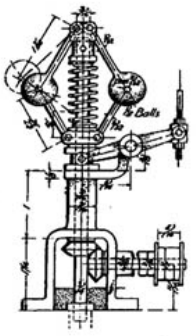

The NEMES Gazette

NEW ENGLAND MODEL ENGINEERING SOCIETY INC.

No. 141 January 2008

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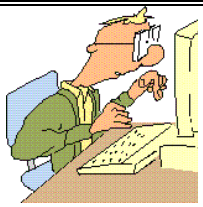

Editor's Desk

Victor Kozakevich

NEMES certainly has been busy recently. With publication of part 2 of the Stirling article, I'm sure a bunch of us will want to start building one. And don't forget to bring something for the poster session coming at the January meeting.

Many are getting ready for Cabin Fever. It's always been a great break from the usual routine and a perfect chance to catch up with friends on the bus and at dinner, as well as make new ones at the show.

Perhaps it's not too early to think about the NEMES-Waltham show. I can imagine a fleet of Norm's Stirlings chugging away.

There is even a list inside this issue of used machinery dealers to visit in case Santa had exceeded his load limit. By the way, if you haven't heard, Harbor Freight Tools has opened New England stores in West Warwick, RI and W. Springfield, MA. So if the holidays left any money in your wallet, there are yet places to use it.

It's exhausting just thinking of all the fun in store! Maybe I have time for a nap….

Next Meeting

Thursday, Jan.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

As is traditional, the January meeting is one of our two Poster Sessions. Be sure to bring something along, either a work in progress or a completed project, for the enjoyment and enlightenment of our fellow attendees. The more being displayed the more interesting the meeting.

Miscellaneous Ramblings

About the only rambling I have been doing the last couple of weeks is to ramble along behind the snowblower up and down the driveway. On the big Thursday evening storm where traffic was at a standstill and we definitely would have canceled the meeting, I noticed that Northeastern University evening classes being canceled was never mentioned on the television scroll. We might give some consideration to finding another method to notify of a meeting cancellation. We will definitely consider posting cancellation on our web site and the Yahoo list.

With the current weather conditions in December, it's hard to believe I was out on the Parker River in Newbury Massachusetts in my rowboat on January 4, 2007 chasing the sailboat built in my barn last year. Speaking of the sailboat, it received a four-page write up in *Wooden Boat* magazine's annual small boat edition.

I noticed that last month I had one date wrong in my Cabin Fever discussion. The departure date is Friday January 18th from the Riverside "T" station. As I write this, the date to confirm with the bus company has passed and we still have not received a check from everyone who has said they were going. I have contacted the bus company and obtained an extension so the trip may still be on. If you decide to join us on this pleasant excursion, please let Norm Jones or myself know.

Many thanks to those in attendance at last month's meeting for the smooth transition from the Jackson room to the mezzanine due to the lack of heat in the Jackson room. If the conditions still persist in January, we will have a much easier time holding the meeting in the museum.

Dick B.

The Meeting

Todd Cahill

December meeting

An unheated meeting space forced our group to gather in the museum. The move reminded some of us of the first NEMES meetings over ten years ago when we used to meet in the museum. Venerable President Dick Boucher called the meeting to order hoping the guest speaker would arrive in time. Now that the winter weather has arrived, it is time once again to review our meeting cancellation policy. If Northeastern University cancels evening classes because of weather, then our meeting is cancelled.

The bus trip to The Cabin Fever Model Engineering Show in York, PA is on and those who are going should pay. President Emeritus, Norm Jones, reminded us of all of the great vendors that set up there. Cabin Fever is the largest Model Engineering show in the country and this year it has moved to a larger space within the same fairgrounds. It is good to see that the hobby is healthy on that front. Gary Schoenly, the organizer of the show, is trying to arrange, for exhibitors, a visit to The York Museum of Industry for Friday evening.

A motion for the club to purchase Harvey Noel's scraping tools was put out for discussion. Concerns of too many people (mis)handling such sensitive equipment could prove to be detrimental and perhaps our coffers should not be used for such a

purpose. Those who may be interested in purchasing Harvey's gauges should keep an eye on eBay.

Speaking of the health of the club's coffers, our treasurer, Dick Koolish, took another blacksmithing class and made what he calls a "Treasurer's Tool". It appears to be very similar to a barbeque fork but is instead used to encourage people to pay there dues!

Jeff Del Papa gave an update on the exploits of his pumpkin throwing ballista. At the annual Punkin' Chunkin' competition in Maryland, they tried out a new winding mechanism which worked faster but also resulted in two 1" steel pins promptly getting sheared. A new throwing arm constructed of carbon-fiber was tried this year which snapped after a few throws, hence Jeff's call for anyone who has an aluminum flag or light pole to donate to the cause.

Next, Norm Jones gave a tale of turning a small radius on the end of a rod. Instead of grinding the concave form on a tool bit, Norm used a corner rounding end mill in his Aloris tool holder and cut the radius with one of the cutting lips. Errol Groff reminded us of another method of making a concave radius cutting tool by grinding a bit roughly to shape. A rod is next turned to the same size as the radius desired and then chucked in a drill press. With some lapping compound applied to the spinning rod, the finish radius is ground into the tool.

Next month is one of two poster sessions we have every year, so bring in your latest projects for members who don't bring anything to scrutinize.

In Dick Boucher's introduction, he described Bob DiMeo as being a member of the EAA, the AOPA and the AMA. A bit of research revealed them to be the Experimental Aircraft Association, Airplane Owners and Pilots Association, and the Academy of Model Aeronautics. Bob works for Kollsman, the company that developed the Kollsman Window in the early 1930s. This became the basis for the modern altimeter. Bob works in their civil aviations systems group, flying experimental aircraft to test instruments and equipment. Bob began by explaining some of the origins of experimental aircraft. Essentially, all of the early airplanes were experimental in nature. Some of the builders began businesses building aircraft, which soon got the government involved, Regulation of the industry became so complicated and engrained that there were very few amateur builders after 1930. In the 1960s the government was petitioned to expand some of the rules to allow for more experimentation by individual builders. Now there is a whole section in the regulations for experimental aircraft.

What motivates the builders?

Cost of aircraft: The average cost of industry built can run upwards of $300,000. The high cost of aircraft is partially due to the amount of regulation that the builder must follow. There are over 50,000 pages of rules and regulations.

Cost of maintenance: Standard aircraft has to be maintained by licensed mechanics.

The desire to fly something different: Don't want the average "Spam Can" want something faster, sleeker, more aerobatic. Bob wanted to build something bigger than a model airplane.

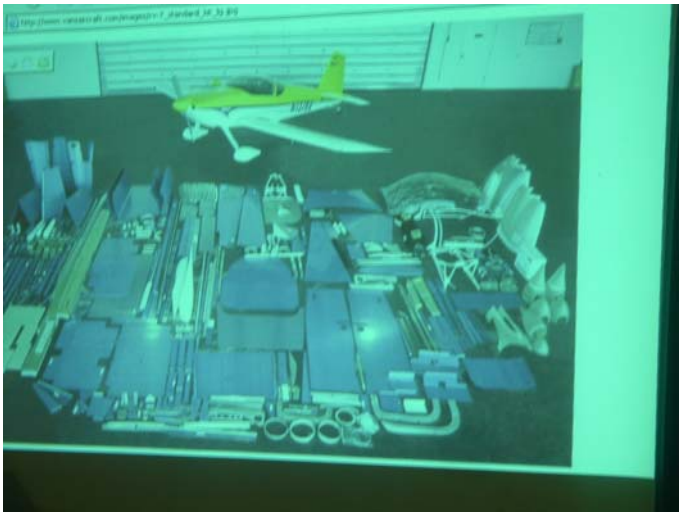
Materials

Some of the materials used in the early days of aviation are still used in experimental aircraft today.

Steel 4130. Ductile, doesn't work harden and is common to all aircraft. It maintains its integrity after welding and bending.

Wood: Was used for ribs.

Fabric: Used as a covering. Wood and fabric have been replaced by aircraft grade aluminum, and more recently by Fiberglas embedded with carbon fibers.



Types of Experimental Aircraft

Scratch-built: Individually engineered and built from the ground up. It can be very risky and requires a lot of engineering assistance. Some of the scratch-built aircraft serve as prototypes for future kits.

Plan-built: The builder acquires engineered plans to build an airplane using their own materials. There is usually some support available form the designer or from others who have built one. Sometimes there is a list of materials required.

Kit-built: The materials required to build the plane are included in the kit. There are two kinds of concepts in the airplane kits.

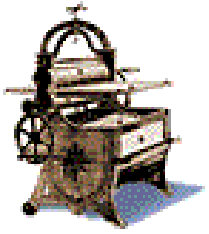
Slow-build. The Basic, or "Slow Build", where some of the more difficult parts are pre-cut and pre-fabricated.

Advanced or "Quick Build" whereas a lot of the major components are prefabricated.

Bob's first endeavor at building an experimental airplane formed on a trip to Oshkosh in 1997 when he laid eyes on a Vans aircraft RV8 and knew he had to have one. It took him over 2000 hours to build as a "slow build" kit. The engine is from a Cessna aircraft, is 180 HP and can fly 180 MPH. The kit arrives in stages. The tail section comes first, then the fuselage, followed by the wings. The last to arrive is a finishing kit that puts all the components together. The wings are completely sealed which allows the fuel to be stored inside them.

Just a brief word concerning the passing of our friend Dave Dearborn on December 10th; Dave has been a mainstay of the engine shows in New England for well over 30 years and frequented our annual show quite often. I first met Dave and his wife Jacquie at the Steam Expo put on by the museum 12 years ago. Upon seeing my collection, Dave ordered me to attend his show in the White Mountains and I missed very few since. Dave was a lover of steam technology and the people that were attached to old engines. The number of wonderful people I met through Dave is astounding. He was a true individual and is dearly missed by many.

T.D.C.



NEMES Gazette Editorial Schedule

Issue	closing date for contributions
February '08	January 25, 2008
March '08	February 22, 2008
April '08	March 21, 2008
May '08	April 18, 2008
June '08	May 23, 2008

Building a Stirling Cycle Engine

Norm Jones

Building a Stirling Cycle Engine (Part 2)
This month I will cover the remaining parts to be machined as well as final assembly of the engine. Please refer to the December 2007 Gazette for part 1 of this project for the Bill of Material and Required Hardware lists.

It has been brought to my attention that there is a hole missing on the displacer side of the **Transfer Block.** Please refer to part one of this article in the Dec 2007 issue of the Gazette for the transfer block detail drawing. A thru hole reamed to .157 dia needs to be added. It is located in the center of the counterbore on the displacer side. The displacer side is identified by locating a square mounting-hole pattern, with thru holes spaced at .410. This hole is the mounting location for the **Displacer Bushing.**

Fabrication Suggestions

Displacer Piston (1.070) and (1.122) dimensions are reference. Overall length of **Displacer Piston** with **Cap** installed to be .020 less than cylinder length (1.475 minus "two crank throws" = .159 x 2). Measure completed parts before adjusting dimension. **Cap** to be assembled to Piston with Loctite after final dimension check.

Fabricate **Displacer Piston** by drilling and boring inside diameter. Fabricate plug (aluminum) to support piston while machining outside diameter. Note that wall thickness is only .010!. Hold plug in place with a live center mounted in the tailstock. Drill a #57 (.043 dia) hole in **End Cap**. Press **Displacer Rod** into End Cap while cap is in lathe chuck. Locate Displacer Rod in tailstock mounted chuck. Position Rod in end cap to desired depth by turning tailstock wheel. **Displacer Rod** must be straight. Installed Displacer Rod must be concentric with piston. Displacer Piston must not touch cylinder wall during engine operation. File a flat on the end of Rod mating with Displacer Slide for easier rod length adjustment.

Fabricate **Power Piston** from Graphite. I made three before I got a good one! It must be a good fit. A carbon motor brush can be used as material if you don't have other graphite available.

Power Piston Insert must also be a good fit with the inside of the graphite piston. A flat head screw is used to attach Insert to the Piston. The screw head must be flush with top of piston. Use a drop of Loctite to make a seal. Use .047 drill rod as a wrist pin for **Connecting Rod**. Tap an 0-80 thread in the end and drill holes in the skirt before slotting.

Press **Connecting Rod Bushing** into larger hole in Connecting Rod. Ream Bushing to .063 dia after installation. Small diameter side of Bushing should be positioned next to **Crank Disk** at assembly.

Displacer Slide channel (.093) should allow **Displacer Roller** to move freely. Ream inside diameter of Displacer Roller to .063 dia. Broach .047 dia hole using drill rod (same stock that Displacer Rod is fabricated from).

Displacer Bushing to be reamed (.125 dia) to accept Displacer Bearing.

Inside diameter of **Displacer Bearing** should be drilled #57 (.043 dia) prior to reaming with drill rod. Lapping of **Displacer Rod** may be required to get a good sliding fit. This is one of the more critical steps to get a good running engine.

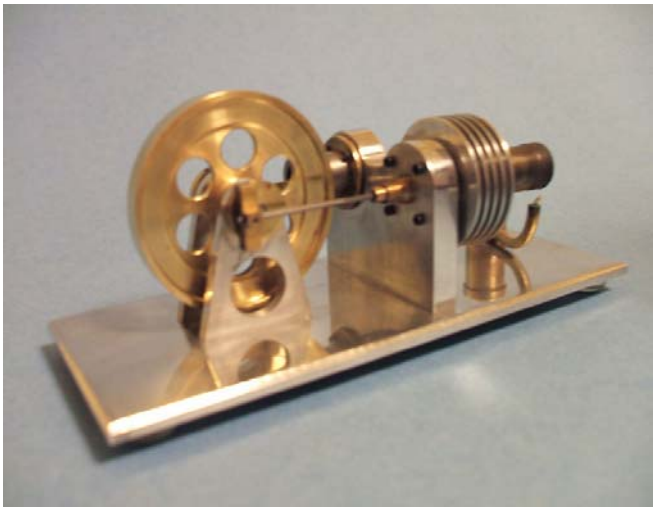
Make sure that you use brass tubing with a .062 I.D. when fabricating the **Burner Tube**. **Fiberglass Strand** bundle should extend aprox. 1/8'' above the tube and should be long enough to lay flat in the bottom of the burner. Flame height will be determined by changing bundle protrusion.

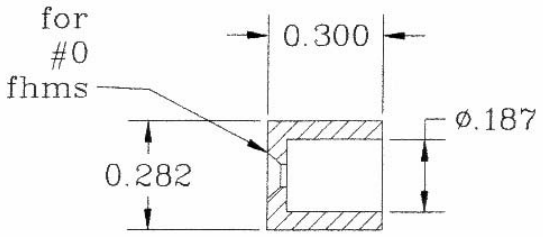
Assembly Instructions

1. Mount **Flywheel** on **Crankshaft** with Loctite.
2. Slide **Crankshaft** though bearings in both **Uprights** and mount uprights to **Base**. Flywheel must rotate freely in bearings.
3. Mount **Displacer Bushing** to **Transfer Block** with Loctite. Set screw to be located at 12 o'clock. Locate **Displacer Bearing** in Displacer Bushing with both parts flush on cylinder side prior to tightening screw.

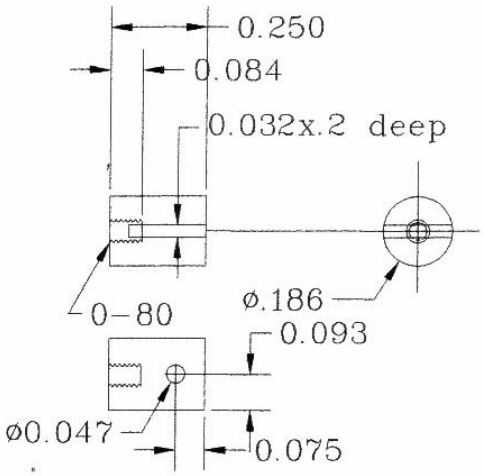
4. Measure length of **Displacer Piston /Cap** prior to attaching cap with Loctite. Assembly length must measure .020 less than depth of Displacer Cylinder. Adjust length of Piston accordingly. Piston must move freely in cylinder.
5. Mount **Displacer Piston / Displacer Cylinder** subassembly **to Transfer Block**. A thin film of oil on the interface should make a good seal. Apply a thin film of heatsink grease (available at Radio Shack) to the interface of the **Cooling Fins** with the **Displacer Cylinder**. Mounting screws thread into cooling fins.
6. Mount **Power Cylinder to Transfer Block**. Again, a thin film of oil on the interface should make a good seal. Note: any air leakage is detrimental to engine operation.
7. Mount **Crank Disk** on power side of **Flywheel** and tighten setscrew. Make sure you have the correct disk, as the two are not the same! Mount **Connecting Rod / Power Piston** subassembly to crank disk with the "smaller" diameter of **Crank Bushing** adjacent to **Disk**.
8. Position **Transfer Block** with **Power Piston** located in **Cylinder** (Crank Pin) toward cylinder to achieve .005 clearance between piston and cylinder bottom. Add holes in **Base** to mount **Transfer Block**. Note: the 2.986 ref dim is shown on the **Base** detail drawing**. Transfer Block** must be square with **Flywheel** to prevent binding.
9. Mount **Displacer Crank Disk** with crank pin positioned 90 degrees from **Power Crank**. Relative positions of cranks shown in accompanying view will make engine rotate as shown. (**Power Crank** @ 3 o'clock, **Displacer Crank** @ 12 o'clock) Changing **Displacer Crank** to 6 o'clock will reverse flywheel rotation.
10. Mount **Displacer Roller** on **Displacer Crank Disk** pin. Add setscrew to **Displacer Slide**. Position **Slide** onto **Roller** and feed **Displacer Rod** into mounting hole. Screw to be tightened after adjusting Rod length. Correct adjustment is achieved when Piston does not bottom out on either extreme. Note that this is a fine adjustment!
11. Install a 2-56 setscrew in the side of the **Transfer Block**. This is a plug for the passage way and again a drop of Loctite will insure a good seal.
12. The engine must turn without any binding whatsoever. You should be able to sense a slight amount of compression.
13. Position **Wick** in burner with 1/8" showing. Mount the **Burner** to **Base** with wick under far end of **Displacer Cylinder** using double sided tape.
14. Apply a very small amount of "very light" oil to all rotating or sliding parts except for the Power Piston. Graphite does not require lubrication and is better dry. If you happen to get some oil on the piston you will find that it will cause excessive drag.
15. Fill the Burner with denatured alcohol. Light the flame with a gas-match. A short dwell with the gas-match under the Displacer Cylinder will preheat the cylinder end cap allowing the engine to startup quickly. One tank of fuel should run the engine for about ten minutes. I have found that this engine does not run well in a draft, so a "wind shield" is a valuable accessory.
16. Drill dowel pin holes and install pins after you have had a successful run.
17. Engine disassembly is most easily accomplished by removing Transfer Block screws.

Congratulations! Time to bring your new creation to a show

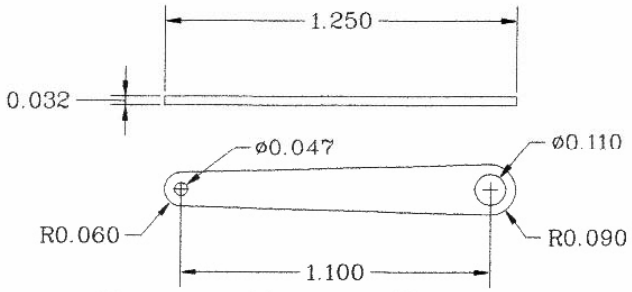




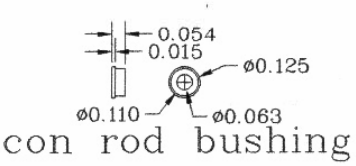
Piston



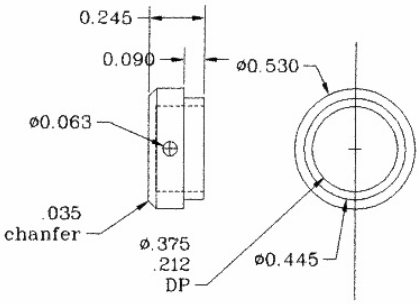
Piston
insert



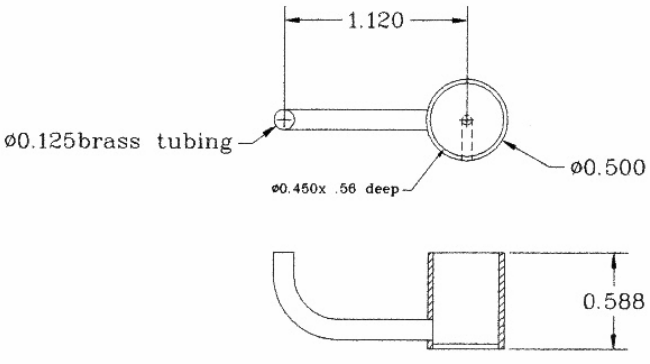
Connecting rod



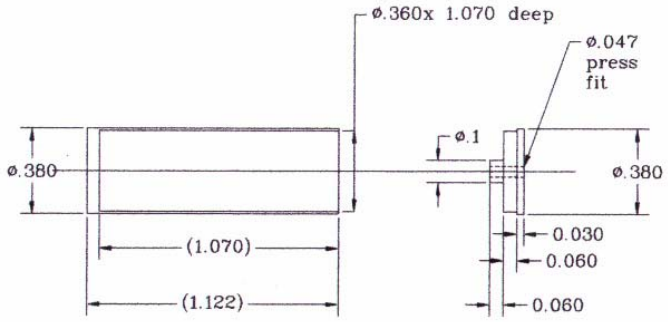
con rod bushing



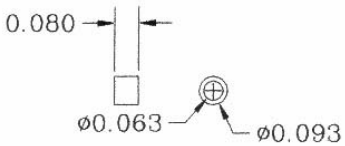
Burner cap



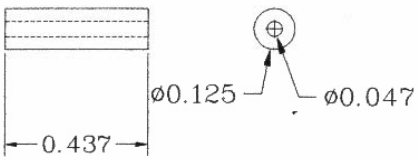
Burner



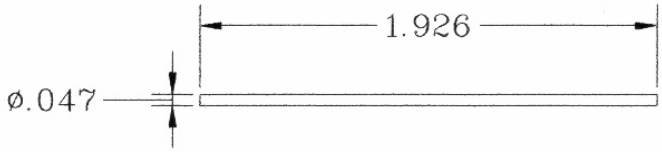
Displacer Piston



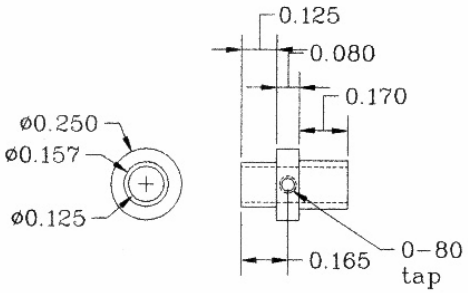
Displacer roller



Displacer
Bearing

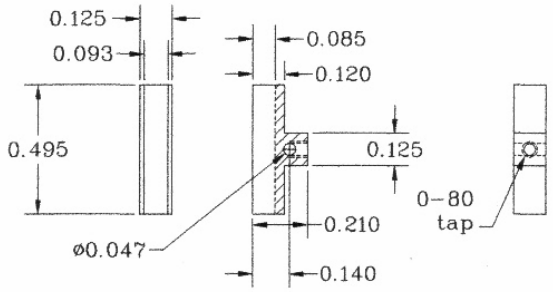


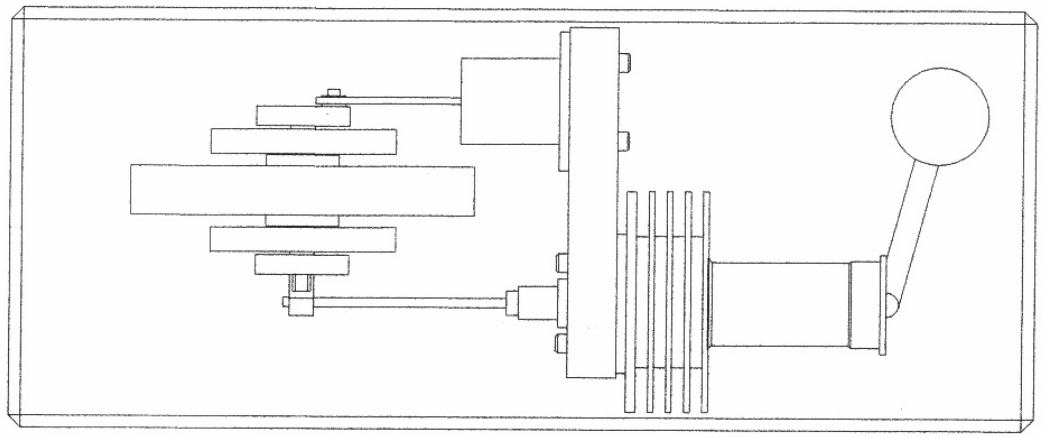
Displacer Rod

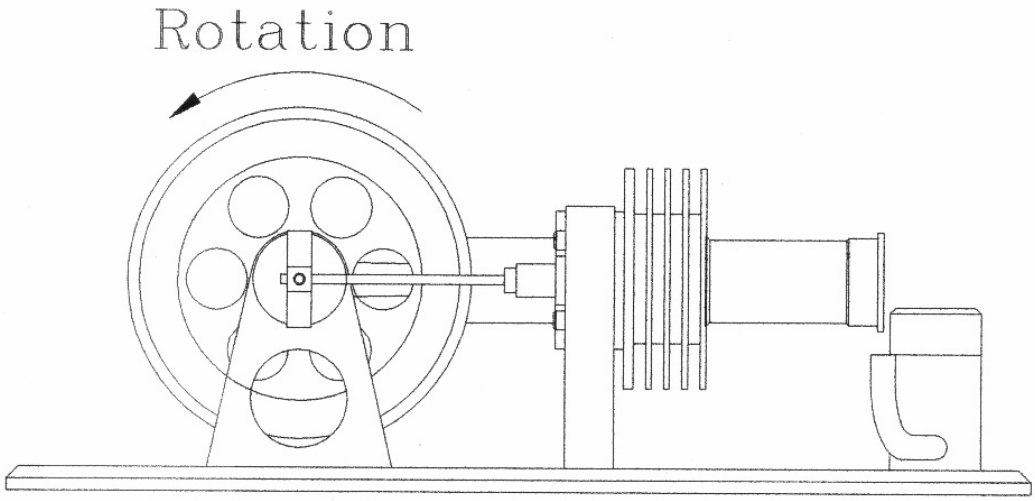


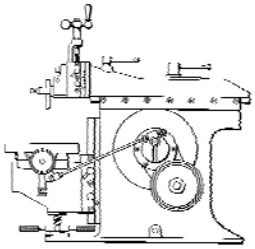
Displacer bushing

Displacer
Slide






Rotation



Metal Shapers

Kay R. Fisher

Shaper Column Substitute

I am currently short of input for the shaper column. I have lots of acquisition and rebuild articles that folks have been submitting that I need to follow up on. My question to the group is: ***are you getting bored of this type of article?*** Being a thousand miles away from the meetings, I need your feedback. I have always envisioned a doneness criterion for the shaper column. I would like to finish and document my current rebuild project on a Logan 8" shaper. I would also like to publish the rebuild of the Pootatuck Shaper by Peter Verbree, and the Baby Shaper by Frank Dorion.

Years ago while I was the Gazette editor, a friend gave me this great book of old Dime novels. One novel in particular caught my eye and I always thought that one day I would want to publish it in the Gazette. The copyright has long ago expired and it has been placed on line and reprinted in a collection. I would like to present this story in substitution of shaper columns for a while.

But first let me make a disclaimer. The book was written in 1882. As such it contains referenced to native Americans which would not be considered polite today. I don't wish to offend anyone but submit the following for your entertainment. Please overlook the referenced to native Americans in much the same way you would overlook the way Mark Twain wrote about blacks years ago.

The Steam Man of the Prairies.

BY EDWARDS ELLIS,

CHAPTER I.

THE TERROR OF THE PRAIRIES.

"HOWLY vargin! what is that?" exclaimed Mickey McSquizzle, with something like horrified amazement.

"By the Jumping Jehosiphat, naow if that don't beat all natur'!"

"It's the divil, broke loose, wid full steam on!

There was good cause for these exclamations upon the part of the Yankee and Irishman, as they stood on the margin of Wolf Ravine, and gazed off over the prairie. Several miles to the north, something like a gigantic man could be seen approaching, apparently at a rapid gait for a few seconds, when it slackened its speed, until it scarcely moved.

Occasionally it changed its course, so that it went nearly at right angles. At such times, its colossal proportions were brought out in full relief, looking like some Titan as it took its giant strides over the prairie.

The distance was too great to scrutinize the phenomenon closely; but they could see that a black volume of smoke issued either from its mouth or the top of its head, while it was drawing behind it a sort of carriage, in which a single man was seated, who appeared to control the movements of the extraordinary being in front of him.

No wonder that something like superstitious awe filled the breasts of the two men who had ceased hunting for gold, for a few minutes, to view the singular apparition; for such a thing had scarcely been dreamed of at that day, by the most imaginative philosophers; much less had it ever entered the head of these two men on the western prairies.

"Begorrah, but it's the ould divil, hitched to his throttin' waging, wid his ould wife howlding the reins!" exclaimed Mickey, who had scarcely removed his eyes from the singular object.

"That there critter in the wagon is a man," said Hopkins, looking as intently in the same direction. "It seems to me," he added, a moment later, "that there's somebody else a-sitting alongside of him, either a dog or a boy. Wal, naow, ain't that queer?"

"Begorrah! Begorrah! do ye hear that? What shall we do?"

At that instant, a shriek like that of some agonized giant came home to them across the plains, and both looked around, as if about to flee in terror; but the curiosity of the Yankee restrained him. His practical eye saw that whatever it might be, it was a human contrivance, and there could be nothing supernatural about it.

''Look!"

Just after giving its ear-splitting screech, it turned straight toward the two men, and with the black smoke rapidly puffing from the top of its head, came tearing along at a tremendous rate.

Mickey manifested some nervousness, but he was restrained by the coolness of Ethan, who kept his position with his eye fixed keenly upon it.

Coming at such a railroad speed, it was not long in passing the intervening space. It was yet several hundred yards distant, when Ethan Hopkins gave Mickey a ringing slap upon the shoulder.

"Jerusalem! who do ye s'pose naow, that man is, sitting in the carriage and holding the reins?"

"Worrah, worrah! why do yos' ax me, whin I'm so frightened entirely that I don't know who I am myself?"

"It's Baldy."

"Git out!" replied the Irishman, but added the next moment, "am I shlaping or dhraming? It's Baldy or his ghost."

It certainly was no ghost, judging from the manner in which it acted; for he sat with his hat cocked on one side, a pipe in his mouth, and the two reins in his hands, just as the skillful driver controls the mettlesome horses and keeps them well in hand.

He was seated upon a large pile of wood, while near nestled a little hump-backed, bright-eyed boy, whose eyes sparkled with delight at the performance of the strange machine.

The speed of the steam man gradually slackened, until it came opposite the men, when it came to a dead halt, and the grinning "Baldy," as he was called, (from his having lost his scalp several years before, by the Indians), tipped his hat and said:

"Glad to see you hain't gone under yit. How'd you git along while I was gone."

But the men were hardly able to answer any questions yet, until they had learned something more about the strange creation before them. Mickey shied away, as the timid steed does at first sight of the locomotive, observing which, the boy (at a suggestion from Baldy), gave a string in his hand a twitch, whereupon the nose of the wonderful thing threw out a jet of Steam with the sharp screech of the locomotive whistle. Mickey sprung a half dozen feet backward, and would have run off at full speed down the ravine, had not Ethan Hopkins caught his arm.

"What's the matter, Mickey, naow? Hain't you ever heard anything like a locomotive whistle?"

"Worrah, worrah, now, but is that the way the crather blows its nose? It must have a beautiful voice when it shnores at night."

Perhaps at this point a description of the singular mechanism should be given. It was about ten feet in hight, measuring to the top of the "stove-pipe hat," which was fashioned after the common order of felt coverings, with a broad brim, all painted a shiny black. The face was made of iron, painted a black color, with a pair of fearful eyes, and a tremendous grinning mouth. A whistle-like contrivance was made to answer for the nose. The steam chest proper and boiler, were where the chest in a human being is generally supposed to be, extending also into a large knapsack arrangement over the shoulders and back. A pair of arms, like projections, held the shafts, and the broad flat feet were covered with sharp spikes, as though he were the monarch of base-ball players. The legs were quite long, and the step was natural, except when running, at which time, the bolt uprightness in the figure showed different from a human being.

In the knapsack were the valves, by which the steam or water was examined. In front was a painted imitation of a vest, in which a door opened to receive the fuel, which, together with the water, was carried in the wagon, a pipe running along the shaft and connecting with the boiler.

The lines which the driver held controlled the course of the steam man; thus, by pulling the strap on the right, a deflection was caused which turned it in that direction, and the same acted on the other side. A small rod, which ran along the right shaft, let out or shut off the steam, as was desired, while a cord, running along the left, controlled the whistle at the nose.

The legs of this extraordinary mechanism were fully a yard apart, so as to avoid the danger of its upsetting, and at the same time, there was given more room for the play of the delicate machinery within. Long, sharp, spike-like projections adorned the toes of the immense feet, so that there was little danger of its slipping, while the length of the legs showed that, under favorable circumstances, the steam man must be capable of very great speed.

After Ethan Hopkins had somewhat familiarized himself with the external appearance of this piece of mechanism, he ventured upon a more critical examination.

The door being opened in front, showed a mass of glowing coals lying in the capacious abdomen of the giant; the hissing valves in the knapsack made themselves apparent, and the top of the hat or smoke-stack had a sieve-like arrangement, such as is frequently seen on the locomotive.

There were other little conveniences in the way of creating a draft, and of shutting it off when too great, which could scarcely be understood without a scrutiny of the figure itself.

The steam man was a frightful looking object, being painted of a glossy black, with a pair of white stripes down its legs, and with a face which was intended to be of a flesh color, but which was really a fearful red.

To give the machinery an abundance of room, the steam man was exceedingly corpulent, swelling out to aldermanic proportions, which, after all, was little out of harmony with its immense hight.

The wagon dragged behind was an ordinary four-wheeled vehicle, with springs, and very strong wheels, a framework being arranged, so that when necessary it could be securely covered. To guard against the danger of upsetting it was very broad, with low wheels which it may be safely said were made to "hum" when the gentleman got fairly under way.

Such is a brief and imperfect description of this wonderful steam man, as it appeared on its first visit to the Western prairies.

Shop Tips

Used Machinery Dealers
A couple of members on the NEMES list were swapping tips on used machinery dealers in New England. For the benefit of the larger membership, I thought I would print the list. Thanks go to Frank Dorion, Bob Neidorff, Steve Cushman and Fred Jaggi. Be sure to take advantage of those post-holiday sales.

-Editor

ABL Machinery & Equipment Co.
(401) 725-1517
250 Esten Ave Pawtucket, RI 02860

Brentwood Machine Brentwood, NH
http://www.brentwoodmachine.com/

Brothers Machinery North Andover, MA
http://www.brothersmachinery.com/

Gold Machinery Pawtucket, RI
http://www.goldmachinery.com/

Industrial Surplus Berlin, CT
http://www.industrialsurplus.com

Plaza Machinery Bethel, VT
http://www.plazamachinery.com

Rumford Supply Seekonk, MA
http://www.toolingking.com/machinery.aspx

For Sale

Milling Machine

I have a Kempsmith 22 universal mill, which needs to find a new home (I don't want to move it from our current house to our new home). It was originally a lineshaft machine and has a power head beside it now. I have the original overarm, a shop made overarm with a Bridgeport "M" head mounted to it & the original vertical head. The machine has 3 axis mechanical power feed which I have made work properly. I've got some money (the cost of the M head largely and a couple of gears) into it and would like to get at least that back. Table size is appx. 8 x 36.

Steve Cushman
SCushman@compuserve.com

Shaper Work CD

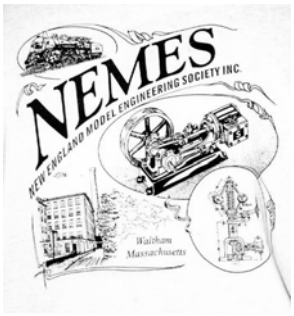
Put out in 1944 by the New York State education Department this 326 page manual is chock full of valuable tips and information on using the King of Machine tools....The Shaper. Covered is everything you need to know about the care and feeding of the shaper, use of the shaper, even how to sharpen tools 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

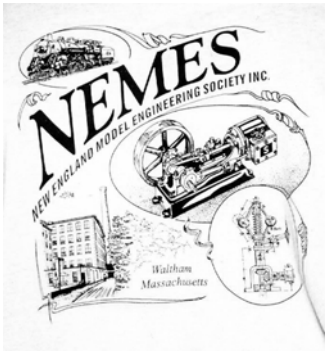


NEMES clothing

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

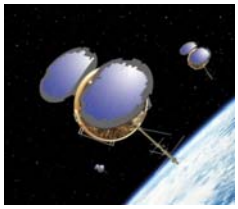
Prices:

	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



NEMES From Space

How to see the Charles River Museum

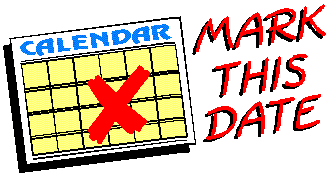
Go to http://whitepages.com
Click "reverse lookup" tab
At left type in Charles River Museum phone number 781-893-5410
Click search
Click on "Charles River Museum" result
Click on "enlarge map"
Click the icon of tall buildings for "bird's eye view"
Click and drag image to left to see museum
Click different compass points for different angle
Move up slide bar to zoom

View of Charles River Museum looking South

To easily view other places around the world, click the map image just above bird's eye, and zoom out. Click and drag your new target to center of box and zoom back in.

Urban areas will have the most detail, rural sites have much less

-Editor



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 1st New Years day run
Waushakum Live Steamers
Halliston MA.
http://www.steamingpriest.com/wls/

Jan 3rd Thursday 7PM
NEMES Monthly club meeting
Charles River Museum of Industry
781-893-5410 Waltham, MA

Jan 19th - 20th
Cabin Fever Expo Bus trip
Dick Boucher 978-352-6724

Jan 26th 9am-5pm, Jan 27th 10am-5pm
Amherst Railway Society Big Railroad Hobby Show
Eastern States Exposition, W. Springfield, MA.
http://www.amherstrail.org/

Feb 7th Thursday 7PM
NEMES Monthly club meeting
Charles River Museum of Industry
781-893-5410 Waltham, MA

Feb 10th Winter transportation Festival
Owls Head Transportation Museum Owls ME
http://www.ohtm.org/

Feb 16th Saturday 8:00am-4:00pm
12th Annual NEMES Show
Charles River Museum of Industry
781-893-5410 Waltham, MA
http://www.neme-s.org

Membership Renewal Form

Renew your NEMES membership for the calendar year 2008. Enclose a 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:

Richard Koolish
212 Park Ave.
Arlington MA 02476

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

Treasurer's Report

Dick Koolish

Balance as of November 25, 2007	8022.89
December Gazette	-189.32
Speaker fee	- 50.00
28 memberships (1 for 2007)	+700.00
Balance as of December 19, 2007	8483.57