

The NEMES

NEW ENGLAND MODEL ENGINEERING SOCIETY INC.

Gazette

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Presidents Corner

Jeff DelPappa

A 2 year adventure begins. (or a testament to what the last minute can bring). This month's talk will be by Jeremy Fryer-Biggs, founder of MeBotics, builders of a CNC tool aimed at the office environment. Their machine merges the old school subtractive technology, with the new fashion of additive technology.

Take a 3D positioning system, which can hold a combination of router heads (old school carving) and plastic extruding print heads, in a case designed to capture the noise and dust of routing, and the aroma of plastic extruding, and you have their machine.

On the theme of combining old and new, there are two Maker Faire's coming up. On August 9, there will be a mini Faire in Providence, and the New York "world" Faire is Sept 26 and 27. The NY faire is curated, and the call for exhibitors went live a week ago. Here is a chance to reach a huge, and young crowd, including a bunch that have already started to take up tools.

On June 6, the re-inaugural Sculpture Race happened, as the kickoff event of the Cambridge Riverfest. Fifteen pieces started the race, and fifteen finished. (tho at least one arrived carrying some of its running gear). There were hundreds of spectators on the route, and thousands visited the subsequent exhibit. Of particular note was the last place finisher, a piece called "Sysiphus", built by the Harvard Physics department. It was a boat, with square wheels, and catenary track that resulted in the machine running level. With just three sections of track, amusement was provided by the team grabbing the just cleared track, and running ahead of the machine to place it in front.

Thursday, 2 July 2015

Waltham Library
735 Main St
Waltham MA

Membership Info

New members welcome! Annual dues are \$25 (mail applications and/or dues checks, made payable to "NEMES", to our Treasurer Richard Baker) Annual dues are for the calendar year and are due by December 31st of the prior year (or with application).

Missing a Gazette? Send a US mail or email to our publisher. Contact addresses are in the left column.

Issue Contributions Due

AUG	JUL 20, 2015
SEP	AUG 21, 2015
OCT	SEP 18, 2015
NOV	OCT 22, 2015

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Max is taking the summer off from his column. I hope that he will re-join us in the fall

R. G. Sparber's Gingery Shaper –

Part 63

Automatic Cross Feed (part 2 of 2)



Match Drilled Holes Photo by R. G. Sparber

With the hub holes drilled and tapped, I ran the tap drill through the hub to match drill the ratchet wheel. It would have been better to do all of the drilling first and then run the tap. I got lucky and did not tear up the threads during the match drill process.

Not shown here is that I put a close fitting $\frac{3}{8}$ " rod through both the hub and ratchet wheel before match drilling.



Hub Secured to Wheel Photo by R. G. Sparber

I put a close fitting $\frac{3}{8}$ " rod into the hole and then secured the two screws. Thanks to match drilling, it fits together precisely



Ratchet Wheel Side View Photo by R. G. Sparber

You can see the 1" diameter 0.076" wide slot that will take the ratchet plate.



Ratchet Plate Markup Photo by R. G. Sparber

Using the same 13 gage sheet metal, I marked out the ratchet plate. I needed practice using my rotary table so decided to cut this on my mill rather than using a saw and file.

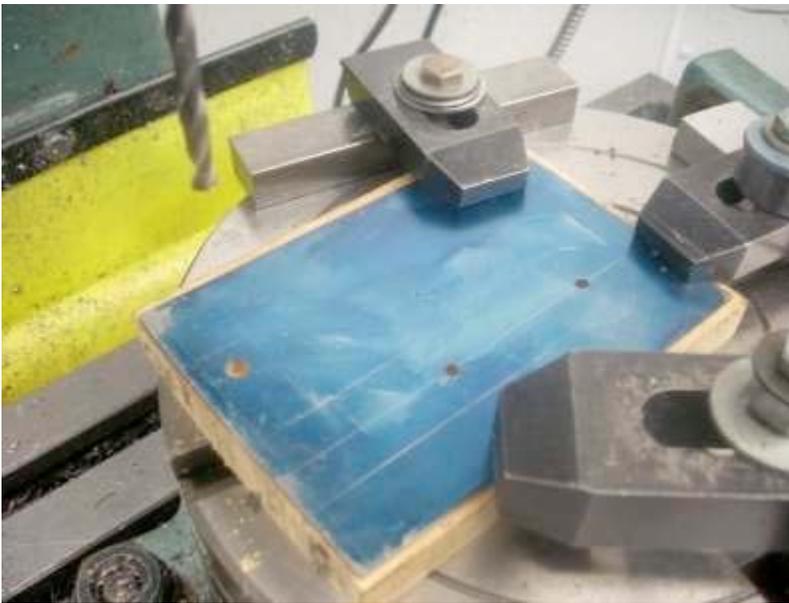


Plate on Rotary Table **Photo by R. G. Sparber**

The round part of the ratchet plate was centered on the rotary table. All three holes were drilled next.



Milling on Rotary Table **Photo by R. G. Sparber**

I then used a $\frac{1}{8}$ " end mill to cut the 1" hole, the 2" outline, and the straight parts. Initially I planned to use just my rotary table dial and DRO but in the end I just followed the layout lines. This is not a precision part. The work went very fast.



Ratchet Plate Rough Cut Photo by R. G. Sparber

Above is the ratchet plate before cleaning up the edges. You can see that my eye was a bit off on the lower edge. The $\frac{3}{16}$ " hole is not centered.

Ratchet Plate Done Photo by R. G. Sparber

After a bit of filing, it looks fairly good.



Added Ratchet Plate

Photo by R. G. Sparber

I removed the two screws, dropped in the ratchet plate, and put the ratchet wheel back on the hub.



Back View

Photo by R. G. Sparber

The ratchet plate is a smooth sliding fit on the hub.



Pawl Mounted

Photo by R. G. Sparber

The ratchet pawl was cut from a piece of $\frac{1}{8}$ " x $\frac{3}{4}$ " CRS. All features were cut and filed before it was cut free of the bar. This makes it a lot easier to clamp and handle.

Gingery suggests using a rivet but I chose to drill and tap the hole, use a screw, and have a locking nut on the back. It makes adjusting the clearance between pawl and plate easier.

Stay Tuned for part 64 from R. G. Sparber next month.

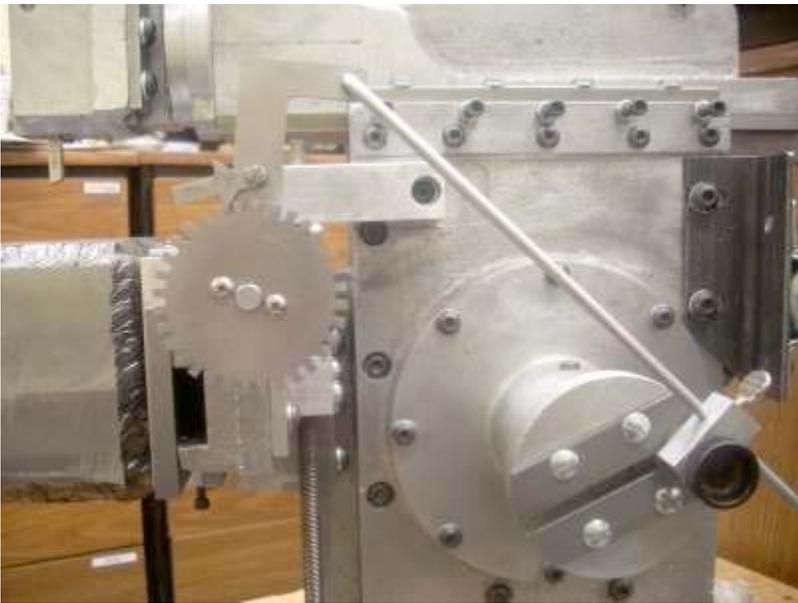
Keep sending me emails with interesting shaper stories and your questions.

Connecting Link

Photo by R. G. Sparber

The connecting link is supposed to be steel or brass. I didn't have any $\frac{3}{16}$ " steel rod and could not see wasting my precious brass rod on this part. So I used $\frac{3}{16}$ " aluminum rod. If it does not hold up, I'll make a new one from steel.

The crank block and feed crank pin were not worth documenting. I used a plastic handled $\frac{1}{4}$ "-20 screw for the crank pin.



Assembly Mounted

Photo by R. G. Sparber

I had to slide the ratchet assembly almost to the end of the cross feed rod in order to align it with the crank block. There is no room for a second crank. It would not be hard to make a new, longer rod but at this time I think I can live with just a single crank on the other end of the cross feed.

The next step is to finish the table. I plan to bolt on T slots on the top and mill a V slot on the right vertical face of the table.

	<h2 style="text-align: center;">Editor's Desk</h2> <p style="text-align: center;">Errol Groff</p>	
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As your new (and temporary) editor I will start off by asking for your contributions to the Gazette. As has every editor before me for any group that ever existed. Or ever will exist! One person can't do it all and, indeed, it would be pretty boring if he tried. This is YOUR Gazette and will be all the better for your participation.

	<h2 style="text-align: center;">Upcoming Events</h2> <p style="text-align: center;">Errol Groff</p>
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To add an event, please send a brief description, time, place and a contact person to call for further information to Errol Groff at

Errol.groff@snet.net

or 860 886 0840 (H) or 860 908 9030.(Cell)

July 2 Thursday 7PM
NEMES Monthly club meeting
Waltham Public Library

July 4 Boothbay Railway Village Antique Engine Meet
Boothbay ME Rt. 27, 7 miles south of Rt. 1

Contact: Margaret Hoffman, PO Box 123,
Boothbay, ME 04537; 207-633-4727
email: margaret@railwayvillage.org
www.railwayvillage.org

July 11 & 12 23rd Annual Long Island Power Association Show
5942 Sound Avenue, Riverhead N.Y. 11901
Directions
<https://www.google.com/maps/place/Long+Island+Antique+Power+Association/@40.982123,-72.593833,17z/data=!4m2!3m1!1s0x89e88ea0f5356c0f:0x80134009fb187c05>
<http://www.liapa.com/events.htm#July>

July 12 Pepperell Crank Up Pepperell MA
Same as always was only with new folks doing the work.
Contact Christine Scully @ 978.925.9295

July 12 ATCA New England Chapter 34th Annual Antique Truck Show
Lancaster, MA at the Bolton Fairgrounds.
Bill Semple
Contact Phone: 978-460-0465
Contact Email: oldtrucksfun@verizon.net

July 18 Owls Head Transportation Museum Show
Location: Owls Head, ME
Start Date: 7/18/2015
End Date: 7/19/2015
Description: At 117 Museum Street.
Website URL: www.owlshead.org
Contact Phone: 207-594-4418
Contact Email: ts@ohtm.org

July 18, 2015 CAMA 2nd Annual Antique Internal Combustion Engine Show
Kent CT
1 mile north of Kent on Rt. 7. 10AM to 4PM.
Free admission and food (not free) will be available this year.

July 18-19 Quinebaug Valley Engineers Assn. Summer Show and Swap Meet
The Zagray Farm Museum Colchester CT
Feature: Allis-Chalmers.
1 1/2 miles north of Colchester center off Rt. 85.
Contact Ed Bezanson, 85 Dayton Rd., Waterford, CT 06385; 860-208-2422
email: edwin_c_bezanson@sbcglobal.net
www.zagrayfarmmuseum.org

July 24-26 20th Annual Eliot Antique Tractor and Engine Show
Feature: Misfit; oddballs and orphans.
Raitt Homestead Farm Museum, 2077 State Road, Eliot ME
Contact: Lisa Raitt, 2077 State Rd., Eliot, ME 03903; 207-748-3303;
email: info@raittfarmmuseum.org
www.raittfarmmuseum.org

July 31, Aug 1 and 2 Northeast Rockbusters Historical Construction and Equipment Association
The locations is Mark Gluck's Farm located at 157 Packerville Road in Plainfield CT. We have a lot of digging, dozing, grading, hauling, there is something for everyone!! Plan to attend with your equipment and your helping hands cause we will need all the help we can get from the membership to put on another great show hosted by the Rockbusters

