

The NEMES

NEW ENGLAND MODEL ENGINEERING SOCIETY INC.

Gazette

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Club Business

Rich Baker

2018 Dues. Starting with the November meeting, we will be collecting dues for 2018. The dues remain at \$25 per person, and can be paid by cash, check or credit card, in person at the NEMES Meeting, or mailed to Rich Baker, 288 Middle St, West Newbury, MA 01985. You can even pay through the NEMES Online Store.

Online Store. The NEMES Online Store is now live, and you can order NEMES apparel and pay your dues from the comfort of your living room. The link is available on the www.neme-s.org.

NEMES Apparel. We have NEMES denim button down shirts, t-shirts, and sweatshirts for sale. The denim shirts \$35, sweatshirts \$25, and the t-shirts \$15. Order online or contact Rich Baker at 978-257-4101 if you would like to order one.

NEMES Membership List. Our mailing and email lists are only as good as the information we are given. Please let us know if you move or change email addresses. If you know anyone who has moved, let us know the new contact information.

Next Meeting

Thursday, November 2, 2017, 7 PM
Charles River Museum of Industry & Innovation
154 Moody Street
Waltham, Massachusetts
Directions are [Here](#).

Speaker for November:

Glenn Davison will be our speaker for the Nov meeting. Glenn will be telling us about a new book

that he has recently written, "Kite Physics". He will be demonstrating a number of his unusual designs.

Glenn attends festivals worldwide and has taught hundreds of people how to build and fly kites. Should

be a very informative talk.

Deadline for submitting articles is two weeks prior to the next meeting.

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President's Corner Dan Eyring

Lots to share this month. First of all, if you are wondering what happened to the October Gazette – Well, there wasn't one. Early in September, Bob Timmerman came down with a severe case of appendicitis. By the end of the month, it was clear to Bob that he wasn't recovering as rapidly as he should have and he returned to the hospital for observation. At the last moment, I took a shot at getting an issue together, but it didn't work out. Amazing how quickly one gets out of practice.

The good news is that Bob is now on course for a full recovery and expects to see us all at the November meeting. And I look forward to more of his excellent content and editorship for the Gazette.

Also in the last month, we received word from the the estate of Fred Jaggi:

“Hi folks at NEMES,
I'm sure some of you knew Fred Jaggi and that he died about 1 year ago. His family wants to see items from his shop go to folks that can make use of them. We would appreciate some type of announcement to the members of your club. Carla Jaggi is the primary point of contact for inquiries about items in Fred's workshop and her information is in the attachment. For years Fred was the president of the New England Wireless and Steam Museum as well as a good friend to many of us.

Thank you for considering our request.
Tim Straw
Narragansett, RI
[401-792-8724](tel:401-792-8724)
steamdillo@gmail.com”

And Finally -

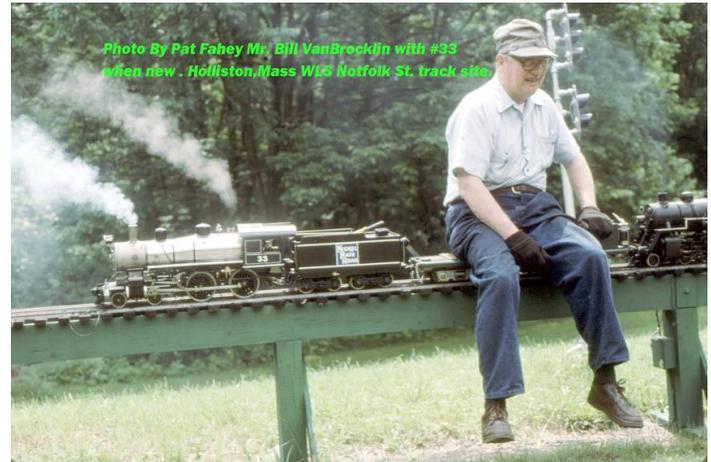
Breaking news! – If will remember back to the September Gazette, I was asking if anybody knew the origin of the Nickel Plate Railroad loco on display in the Museum's new Steam Gallery. Well, from Live Steamers Pat Fahey and Dick Boucher:

“Hi Mr. Boucher
.....Yes, that's Billy's number 33, built in 1988, sold to

Charlies Woodman no date given. As for the caboose ??? As far as I know, that engine has very little run time on it, Charlie Woodman ran it, but he had a hard time making it steam.

See attached with Billy running 33. also if you up to IBLs website you can see a complete list of Billy's engines

Pat”



Taking Pat Fahey's advice, I went to ibls.org to see what I could learn about Billy. I learned that “Bill Van Brocklin Jr. was a prolific live steam locomotive builder. Perhaps he is best known for his steam pump designs”. He built over 40 model steam model locos over his long career. Number 33, built in 1988, is a 3 ½ inch gauge 4 – 4 – 0 with **Walschaerts valve gearing**.

(https://en.wikipedia.org/wiki/Walschaerts_valve_gear).

Billy was also a prolific inventor and author in the live steam community, particularly known for his steam pump design:

(http://ibls.org/mediawiki/index.php?title=Bill_Van_Brocklin#Steam_Pump):

And by all means, stop by the new Steam Gallery when you attend the November meeting and take a look at the new display case for the amazing wooden model from the Wentworth Institute, circa 1930, of Walschaerts valve gearing.

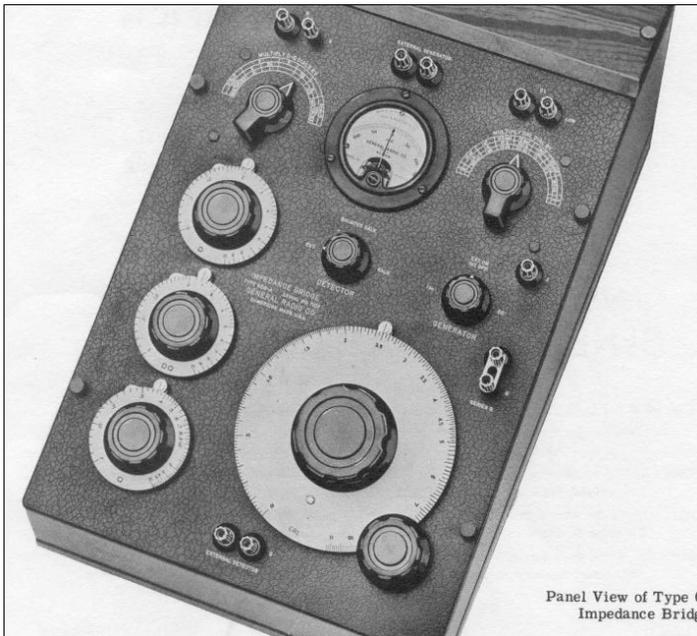
Dan



ShopTalk

Max ben-Aaron

At the last MIT flea market on Sunday 22 October, I saw a **General Radio type350 Impedance Bridge**. I remembered having fun playing with one in Electrical Engineering lab about seventy years ago. At the time it never occurred to me that one day I might have one of my own. Cosmetically, it was in good shape so I muttered to my companion that I would give 20 bucks for it. I don't know if the vendor heard me, but he came over and said "It's yours for \$20". I suppose I could have bargained him down a bit, but life is too short for that kind of nonsense. Besides, I wanted it for my private museum, so I promptly handed over \$20 and was the proud possessor of a genuine GR Impedance Bridge.



Speaking of my museum, it houses a monster dual trace Tektronix Type 551 oscilloscope. It has a separate power supply that is as big (or bigger than) most (vacuum tube) Tek 'scopes.

The 551 shown here is one of the larger Teks. It comes with a separate power supply (not shown) that holds a full five 6080 RCA Mu Twin Triode Power Amplifier tubes and supplies the 551 mainframe with regulated DC power. The 551 is a true dual beam instrument, that can hold two plug-ins and has a bandwidth of about 24 MHz.

When equipped with two 4 channel plug-ins, 8 channel displays are a real possibility, though probably of limited use, though probably of limited use with less than one

centimeter of vertical deflection per channel.

On the picture below, you can see the right hand vertical (distributed) amp and delay line.



This model does not have the power supply or signal generator, but it works on four AA cells and I have a HP audio signal generator. I will probably never use it for anything other than a museum exhibit. Part of my reason for buying it was that I hope to preserve specimens like this for posterity. You may think that such things never disappear, but you would be wrong. Unless a definite commitment to preservation is made, artifacts have a reputation of disappearing forever, like passenger pigeons.

It worked the last time I turned it on, about thirty years ago. I have never looked inside the power supply, but I would bet that it has the most wonderful power transformers in it, as well as fabulous power regulation. I would dearly like to find a good permanent home for it. If you know of a collector of Tek 'scopes who might be interested, please let me know at maxxam.357@gmail.com.

I think I may have the manual too.

On collecting Tek scopes, a personal view by Arnoud Vanderwel:

"Many people do not understand why one would collect

old Tek scopes. Sometimes, I don't understand why I collect Tek scopes either. Still, there are a number of people around the world who are into this weird hobby. What, you may wonder, is it that makes these huge oscilloscopes so interesting to the electronics enthusiast? Jim Williams sums it up neatly when he speaks of the Tek 535:

"The 535's engineering concepts and production execution were a bumpless combination of interdisciplinary technology, inspired design, attention to detail, aesthetics, and usability. It combined solid knowledge of fundamentals, unbounded thinking, and methodical discipline to produce a superior result. The thing just radiated intellectual honesty."

I couldn't have said it better myself. Jim Williams encountered his first Tek back in 1956. I encountered my first Tek back in 1994. Almost 40 years on, and the classic Tek scope retains its value in almost every way. Not cutting edge technology to be sure, but where space and electricity are not at a premium it manages to hold its own against any modern challenger. In this time where we are flooded by cheap consumer junk and equipment that really should never have seen the light of day, the contrast that the classic Tek scope offers is all the more visible. The simple fact that so many of these wonderful machines have survived for 30+ years probably says enough."

At the other end of the spectrum, I have a very cute Tek Type 317 'scope with a 3" screen.



Specifications

one vertical channel

calibrated vertical deflection factors from 0.1 V/div to

DC to 10 MHz frequency response, 35 ns risetime)

0.01 V/div in AC-coupled mode

38 pF input capacitance



Coming Events

Jeff DelPapa

November is usually a slow month for events of interest to NEMES member and this November is no exception. If you are aware of an event you would like to alert the Club about, please contact Bob Timmerman.

Have a Happy Turkey Day!