



Sunrise Herald

March 2016 Volume 9, Number 3

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Next Meeting

Our next meeting will be Thursday, April 7,
2016 at Holy Love Lutheran Church, South
Chambers Road at 7:15.

Upcoming Clinics for 2016

April – Superdetailing Structures
May – Part 1: Making Timber Trestles
June - TBA
July - TBA

August - TBA
September - TBA
October – Regional Convention
November - TBA
December - TBA

Upcoming Tool Times for 2016

April – Cutting Thin Materials
May – Double Stick Tape
June – Magnetic Tools
July - TBA
August - TBA
September - TBA
October – Regional Convention
November - TBA
December - TBA

Upcoming Show ‘n’ Tell Themes for 2016

April – 1950 – 1959 Locomotives
May - Wagons
June – Bunk/Kitchen Work Cars
July - 1960 – 1969 Locomotives
August – Shops/Retail
September – RR Pump Houses
October – Regional Convention
November - Military
December – Water Craft//Boat/Ships

March Meeting Notes



Steve Schweighofer opened the meeting at 7:20 with his steam engine whistle. There were some who didn't heed the whistle immediately and some new faces in attendance so we began with introductions including the scale that each of us works in.

Most of the announcements were about the Rocky Mountain Train Show held March 5th and 6th at the Denver Mart. Members were needed to set up our modular layout on Friday afternoon. Don Francis also called for people to run trains during the show. Exhibitor badges would also be available for members working on the modular layout.

Paul Siebels passed around a clinic schedule for members presenting clinics for the show. The Division receives an honorarium of twenty dollars for each clinic presented. Our members presented a number of clinics that helped the bottom line of our treasury.

We then described the wealth of information available on our Division website. You can access the website by entering

<http://www.trainweb.org/SunriseDivision>.

Gary Myers presented two certificates for clinics. The first one was to himself for his clinic on Railroads and Meat Packing, presented in January. The second was to Stu Jones for his clinic on tree making, presented in February.

March Tool Time

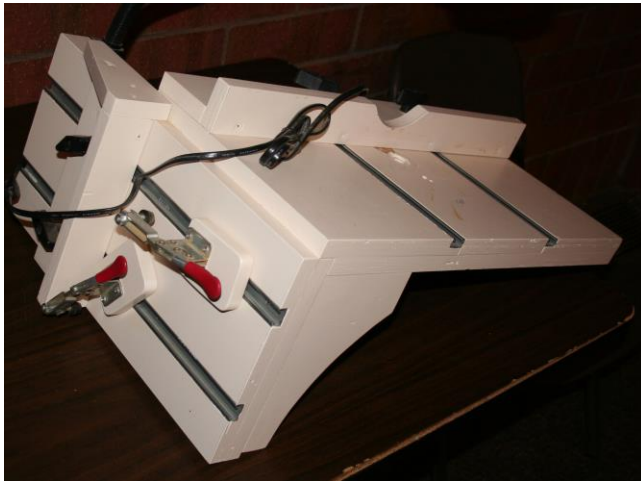
Bob Rothgery presented Tool Time with these examples of tools that are helpful for precision drilling.



The tool shown above is a clamp for holding materials to be drilled. What is useful is that the screw can be lifted up to allow quick positioning of the jaws, then lowered and tightened to firmly hold the material. The notches at the end can be used to attach the clamp to the drill press base.

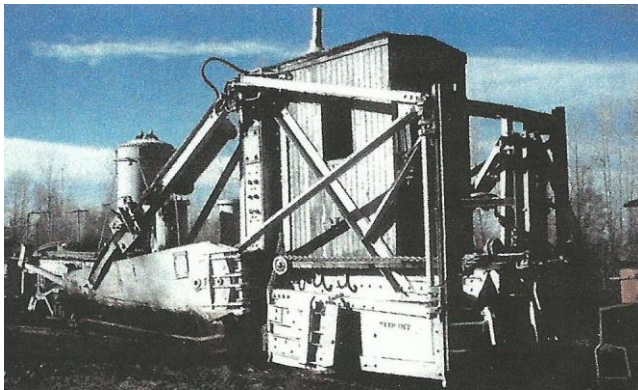


Several tools, shown above, include a chuck key attached to a retractable cord. This ensures that the key will always be within easy reach when it is needed while the retraction mechanism remains firmly attached to the user. Otherwise those pesky keys always seem to get misplaced. The second tool is a depth gauge used to determine if the hole being drilled is deep enough. The third tool is an ordinary friction clamp useful for securing the workpiece to be drilled.



This apparatus is a drill press table for holding workpieces firmly in place. The moveable clamps attached to the tracks permit the work to be positioned for optimal effectiveness. This device is particularly useful for end-boring.

March Show and Tell



Bob Bormann submitted a Denver and Rio Grande Western Jordan spreader circa. 1905. Unfortunately we did not get a good photo, so we have substituted this photo of the spreader at Chama. Not only was this spreader used to combat winter snows, but on one occasion it was used during the fire season summer to clear sagebrush and other weeds from the right of way to alleviate the fire danger.



Ernee Edwards took these photos of a 1:1 scale Southern Pacific rotary at Roseville, California.



Stu Jones displayed this HO scale model of a Jordan Spreader, offered by Walthers about ten years ago. Spreaders were the preferred method for moving snow because they could push it far away from the track. Spreaders were also used for various duties besides moving snow including mining operations to move rock and gravel away from the track.



Ron McHenry brought in this HO scale model of Rio Grande Southern Galloping Goose No. 2.

This goose had a plow permanently mounted to the pilot to deal with the almost perpetual snow in the San Juan Mountains.



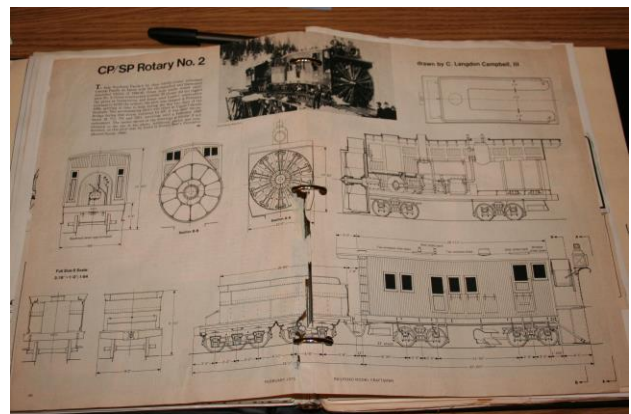
Doug Morrison brought in two N scale examples of Russell snow plows. These were more popular in the east where snowfalls were more manageable. These plows appear to have extendable wings on the sides behind the plow to push snow further from the track much like a spreader.



Gary Myers displayed this Athearn HO scale model of a Denver and Rio Grande Western Rotary plow. Rotaries were mandatory when the snow became too deep for other methods of snow removal



Bob Rothgery displayed this narrow-gauge HO scale rotary lettered for his Elk Pass Railroad. If you can't read the lettering on the equipment, you can't mistake the ownership from the elk antlers mounted just above the headlight. Nice touch, Bob!



Bob Rothgery also included these drawings from *Model Railroader* of the rotary he modeled.



Steve Schweighofer brought in this N scale rotary snow plow. The workmanship on this model included a detailed interior of the engine that drove the blades. This detail is remarkable for N scale.



Larry Stevens displayed this Athearn HO scale rotary plow. The blades on his model actually spin, powered by a small motor that is controlled remotely through a decoder. He demonstrated that the blades will spin in either direction, depending on which side the operator wants to throw the snow. The blades also spin up and down slowly in a prototypical fashion

March Clinic

Jim Laird presented a brief clinic on his homemade Resistance Soldering equipment. Unfortunately, the afternoon before his clinic, he shorted, smoked, and destroyed his transformer, so he was unable to display his apparatus and techniques.

Unlike traditional soldering using a hot iron, resistance soldering uses a low-voltage electric current to heat the material to be soldered instantly while the solder is applied. This provides rapid heating, much more control and prevents nearby pieces from becoming unsoldered and dropping off due to excessive heat.

Several basic pieces of equipment are required:

- Power Supply
- Alligator clip electrode
- An insulated tweezer tool, or,
- Hand piece with a carbon rod
- Foot switch (optional, but desirable)

Below is a photo of Jim's power supply that was originally a computer power supply. He states "I used an old computer power supply for the

case. I liked it because it had a muffin fan (for cooling the transformer), it also has a removable power cord and I included a master on/off switch. My original plan was to include a foot switch in the low voltage side, but given the available current I will probably put it in the primary side of the transformer. I reread some information on building a resistance soldering tool and noted that the author rewound the secondary of his transformer with #6 insulated wire. This would increase the current capacity of the unit significantly. The red and yellow wires are the hot (red) and common (yellow) on this transformer. Note that they appear to be #12 or 14 wires which would significantly limit the current that the transformer could carry. I will have to remove the existing secondary windings and replace it with the #6 wire."



(Editor's note: #14 copper wire has a safe current capacity in an enclosed space (such as a transformer winding) of about 5.6 Amperes, while #12 wire has a current capacity of about 9.3 Amperes. A #6 copper wire has a current capacity of about 37 Amperes, sufficient for high current applications such as resistance soldering. If you want to rewind the secondary windings of a transformer, it is wise to consult a reference manual. The number of turns will determine the output voltage and there may be some technical tricks you need to know.)

The power supply can be either a battery (six to twelve volts rated at 15 to 20 Amperes or better)

or a step down transformer with the same rating. The alligator clip electrode will connect one terminal of the power supply to a conductive part of the work to be soldered. The carbon rod provides the other electrode and when touched to the model will provide the instant temperature necessary to heat the part to be soldered and the solder itself. The handpiece will protect your hand from the heat being generated. The foot switch is handy for turning the current on and off instantly.

The advantage of the carbon rod is that it concentrates the heat in a very small area. Further, solder does not adhere to the rod so all the solder goes where you want it and you can keep it from blobbing up on your work. Another advantage is that you may be able to use silver solder that melts at a temperature that is too high for most soldering irons, and otherwise requires a torch.

Jim uses carbon rods used in a carbon arc torch. The smallest size available is 3/16th. He did not indicate his source for carbon rods. He drilled a 3/16th hole in 2 wine corks to provide a handle. He is still working on the heat insulated tweezers which is another useful tool that comes with some soldering kits. Tweezers are particularly handy when you want to remove small parts from an existing model

Micro-Mark offers a low cost resistance soldering tool, shown on the next column. It also offers several other brands and /or models priced between \$350 to \$460.

You may find additional information about resistance soldering:

Model Railroader, November 1954, page 38;
Model Railroader, November 1978, page 80;
Model Railroader, April 1992, page 112;
 and a review of the Micro-Mark soldering kit:
Railroad Model Craftsman, December 1994, page 110

CATALOG SPECIAL!

**High Performance
Resistance Soldering Unit
at an Affordable Price!**





Easy-to-use MicroLux resistance soldering unit generates heat only at the joint, so that already-soldered parts won't fall off while adding new ones. How it works: With the ground clip connected, place the carbon electrode on the tip of the handpiece in contact with the part to be soldered and step on the foot switch. The transformer passes a safe, low-voltage electrical current through the part, which heats it to soldering temperature within seconds. Apply the solder, then release the foot switch to instantly cool for a strong, durable joint. Includes 63 watt* transformer with dual power outputs for heavy- and light-weight parts, handpiece, 6 carbon electrodes, ground lead, on-off foot switch, and instructions.

#85522 MicroLux Resistance Soldering Unit with Single Electrode Handpiece ~~\$199.95~~ Now Only \$169.95!

*Since a resistance soldering unit concentrates heat at the joint, it will heat larger work than will a conventional soldering iron of the same power.

Includes everything shown here!

