IRONHEAD GAZETTE

A Publication of the Railroad Model and Historical Society of Southeastern Ohio, Inc.

PO Box 1, Albany, Ohio, 45710 January 2014

Upcoming Events:

January 14, 2015
Club Meeting
7:30-7:45pm
Ohio State Highway Patrol Post
13600 Della Drive, Athens
Membership Dues collected, Voting on Bylaws Changes (Article XI., Sections 2 & 3, See Page 2),
Bring something for show and tell!

January 17-18, 2015
Great Train and Toy Show
Columbus, Ohio
Admission: $8
Train Show/Sale, Operating Layouts, Workshops/Clinics

February 7-8, 2015
World's Greatest Hobby on Tour
Columbus, Ohio
Admission: $3
Operating Layouts, Vendors

February 28, 2015
Winter Train Meet
Parma, Ohio
Admission: $6
Operating Layouts, Buy/Sell/Trade, New and Old Trains, Parts, Supplies, All Scales

March 1, 2015
Darke County Model Railroad Club Train Show
Greenville, Ohio
Admission: $4
Operating Layout, All Things Model Railroad and Train related

March 14-15, 2015
Railfest 2015
Kirtland, Ohio
Admission: $7
NMRA Div. 5, Operating Layouts, Buy/Sell/Trade, New and Used, 100+ vendors

Another Look Back into Railroad History

By: Keith Morrow

The Saturday before Christmas, Walter Parks, Bill Beeler, Don Schultz and I made a pilgrimage to the Smoke Stack in Lancaster. We picked Don up in the Hocking Valley parking lot in Nelsonville. As we turned into the parking lot we were confronted with a large railroad snow plow decorated in New York Central Colors. Although it had been sitting there for a while, it caught my eye because of the NYC paint scheme. This stuck me as out of place, because we don't usually get enough snow in Southeast Ohio

to need a snow plow. I got me thinking about how railroads cope with winter weather and how this has changed over time. What I didn't realize was how innovative this device was in its day, compared to the rest of the world.

I started to research tactics used by the railroads to combat winter weather and discovered they differ widely depending on the part of the country they work in and the kind of winter they cope with. In some places winter is pushing a flanger along the tracks to keep snow and ice from derailing the train, while in Alaska they used dynamite to clear tracks up until the late 1930's. Today Alaska uses the jet blower to clear snow in some areas.

There appear to be three major strategies railroads use to keep the trains running: keeping snow off the tracks, removing snow from the tracks once it falls there, and keeping switches thawed out.

An example of keeping snow off the tracks are the snow sheds that were built during construction of the

Continued on Page 2

Another Look Back into Railroad History

Continued from Page 1

transcontinental railroad through the rocky mountains. When Theodore Juddah laid out the railroad in the early 1860's, through the Sierra Nevada Mountains, he was well aware of the snow fall the mountains produced, because he had been caught on the mountains in bad weather. He was also aware of the Donner party situation in the 1840's but he was sure that a powerful locomotive fitted with a plow could keep the tracks clear. The winters of 1866-67 were the worst in history. In some places snow was 40 feet high. Central Pacific's locomotive (The Sacramento) armed with a huge wooden plow reinforced with iron was no match for the snow. The solution was to build snow sheds along the route where the snow was the deepest or where avalanches could occur. In one area they constructed 37 miles of shed along one 40 mile stretch of track. The last 14 miles of shed was completed in 1869. Between the tunnels under the mountains, snow sheds, snow plows, and Chinese workers with shovels the railroad was able to keep the line clear.

In the early days of railroading, tracks were cleared with rough wooden plows with iron added on the wear points to increase longevity. Plows worked reasonably well where snow was not too deep, but a 10 foot hard packed drift can stop a locomotive or two! It is interesting to note that the highway snow plow got its idea from the railroads. The first horse drawn wooden snow plows were used in the late 1880's. These were used just to smooth the snow to make a better ride for horse drawn sleighs. The first motorized street plow was used in 1913, but was not patented until 1920. Railroads on the cutting edge of life again!

The need to clear railway tracks under a wide range of conditions, spawned the development of "rotary snow plows" in the 1880s. These types of plows were engine-powered and were made like rotating fans blades that cut through snow much faster than the wedge plow. The original rotary snow plow, built for the railroad, literally looked like a large fan mounted on the front of a train. The basic patent of the rotary plow dates back to 1870 and belongs to J.W. Elliot, a Toronto dentist.

A man by the name of Orange Jull added a cutter blade to cut through ice and drifts. By 1888 the

Continued on Page 3

Article XI. Section 2. Payment of Dues

Dues shall be payable in full on or before the date of the annual meeting of members each year ~~or in two installments due on or before the annual meeting in January, and regular meeting in June~~. Annual dues of a new member joining after the annual meeting shall be prorated beginning with the first full month following joining. A NEW MEMBER IS DEFINED AS A PERSON WHO HASN'T BEEN A MEMBER FOR AT LEAST THREE CALENDAR YEARS PRIOR TO JOINING. MEMBERS WHOSE DUES ARE NOT CURRENT MAY NOT VOTE.

Article XI. Section 3. Default and Termination of Membership

When any member of any class shall be in default in the payment of dues of for a period sixty (60) days ~~three months from the period~~ for which such dues became payable, his membership will be ~~thereupon~~ be terminated. Membership will be reinstated upon payment of dues owed. ~~Member will get at least one written notice stating dues are in arrears before termination of membership.~~

Another Look Back into Railroad History

Continued from Page 2

Canadian Pacific railroad was using the rotary plow. It still needed improvements, but the rotary plow was on the scene. By comparison it would be 1951 before Toro introduces a walk behind snow blower for use by the general public.

The real benefit of the rotary plow is that it cuts through the snow and blows it off the tracks where the regular plow just pushes it to the side where it gets packed harder with each pass of the plow in subsequent snowfalls. A big drift can stop a locomotive with a standard plow.

Railroad innovation to keep rails and switches free of ice and snow spawned a number of inventions. Most notable is the jet blower. Originally invented in the Soviet Union using a MIG jet engine, it has been used by US railroads. The jet

engine would be mounted to a railcar with the hot exhaust aimed at the switch or rails that needed thawed. This device was used in Alaska and in Canada where they have 6 months of below freezing weather.

Once the rails are clear, the next problem that can bring a railroad to its knees is snow and ice on switches that prevent them from moving. In the early days switches were freed up with shovels and spud bars and human brute force labor. Since all switches were thrown manually in the early years, you had to have someone throw the switch anyway so those people could clean the switch. Railroads in areas that have freezing and thawing conditions, were especially problematic. Switches that were freed up would refreeze as ice and snow melted then refroze. In large yards, keeping switches free was a full time job.

Continued on Page 4

Interested in Membership?

Interested in becoming a member? Join today! Membership dues are as follows:

- $40 for a single membership for 1 year
- $60 for a family membership for 1 year

Benefits of becoming a member:

- Voting
- Several great trips throughout the year
- Friends who share a common hobby and interests

Another Look Back into Railroad History

Continued from Page 3

In March of 1915, Frank Higgins applied for a patent for a series of trays that would be positioned along the rails of switches. The trays would be loaded with kerosene that would burn and warm the rails. From 1915 through 1953 there were 7 patent applications for switch heaters or improvements all fired with kerosene. Kerosene heaters needed to be tended and refilled as they ran out of fuel. In 1953 Rails Co. applied for a patent for a gas fueled rail heater. The advantage was that it would burn in any weather and since it was fueled by natural gas, it didn't need refilled. Since you needed a source of gas, it wasn't' practical everywhere. Since most rail yards were near cities during the early 50's, gas was available in many places.

Today railroads have an arsenal of heating options from electric heat strips that get attached to the rails to keep switches free, as well as propane and natural gas heaters. Advantages of

today's heaters are that they can operate over a long time, and many can be started and shut off remotely. Track insulation can be applied to the rails to minimize the heat loss. Rails only need to be warmed to just above freezing to be effective.

Railroad innovation over time not only has kept the railroads moving in winter weather, but had spilled over into our everyday lives. Rail plows lead to road snow plows. Statistics for 2006 in New Brunswick, Canada show over 36 percent of households own a snow blower. It all started with the need to keep railroads running through the winter. If you have never seen a snow plow working, there are several impressive train plow videos on YouTube. There are also some showing push plows getting stuck. Start by searching: "train snow plow".

Our Mission

To Teach...
Those who want to know more.

To Educate...
Those who want to learn the history.

To Promote...
The hobby with enthusiasm.

And to share and enjoy the pleasure of all that is Railroading.

Like us on Facebook!

Find us on the web!
www.ironheadsofseo.org

Have stories, articles, or pictures?

Want to see them in a future edition of the Ironhead Gazette?

Send them to us!

Email: jdawg9292@yahoo.com

Mail: PO Box 1
Albany, Ohio 45710

Your contributions keep the Ironhead Gazette moving!

All Aboard!