



# SASKATCHEWAN RAILWAY MUSEUM NEWS

The Saskatchewan Railroad Historical Association Newsletter

Fall 2013

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## Museum News:

### SRHA Assisting Shellbrook Museum

On August 20, 2013, Association Director Fred Tatler was asked to help (in an advisory capacity) the Shellbrook Museum. The Shellbrook Museum is housed in the C.N.R. (originally C.No.R Standard 3rd Class) Station. The Shellbrook Committee needed advice on restoring the original waiting room, office, and baggage area, back to what it was like when the Station was operational. This contact was made as a direct result of the Association participating in Parkside's 100th Anniversary Parade on June 29/13. On August 23, 2013, the Board of Directors gave their unanimous support in their agreement in allowing Fred to become an official Liaison between the SRHA and the Shellbrook Museum.

On September 2, 2013 Alanna and Nancy Carswell (Shellbrook Museum Committee members) toured the Sask. Railway Museum. They were introduced to Board Chairman, Cal Sexsmith, who was at the Museum that day, discussed the project with them and showed them the original C.No.R Standard 3rd Class Station Plans.

The group went home very thankful for the tour and all the information they received. Sexsmith made copies of the Canadian Northern Railway (C No. R) 3rd Class Station Plans which Tatler presented to them about a week later.

During September, Tatler also provided a "Discussion Paper" with suggestions on external paint schemes, external equipment, and internal articles which would enhance the Station's appearance.



Tatler also relayed information on Railway service through Shellbrook between 1978 and 2009, as well as helping with providing information for an article on the History of Shellbrook Railway Station.

On October 18/2013, the Shellbrook Museum Committee wrote the Association and formally thanked us for our help and listed artifacts which they were specifically looking for.

The Shellbrook Railway Station is in excellent condition due to the hard work of their Museum Committee. It is refreshing to know that the present Shellbrook Museum Committee is committed to preserving its Railway heritage and wants to maintain a liaison with the S.R.H.A. to assist them in this respect.



## Canadian National Box Car #74599

The 40 foot boxcar was at one time the universal freight car. Freight of all kinds was transported in these cars. Although much of the freight was packaged in crates, boxes, sacks and barrels; boxcars also carried bulk materials such as grain, coal and wood chips. The reasons for the decline of the boxcar included the shift of bulk materials to hopper cars and the shift of smaller items to containers or truck trailers on flat cars. Most boxcars currently in use are in excess of 60 feet long. At one time most way freights (local freight trains) would include a way car, which was a boxcar carrying less than carload freight. At each town the way car would be spotted at the station and the train crew would load and unload the freight to and from that town. At the present time, the Museum has six boxcars in its collection.



Originally numbered 428980, this car was probably renumbered when it was removed from revenue service and placed in work train service. This car has a steel under frame, wall braces and roof combined with wooden walls and roof. Canadian Car and Foundry built it in 1923.

In 1998 this car was used in filming the television movie "Revenge of the Land". The movie company put on the Pacific Eastern Railway markings. There never was a Pacific Eastern Railway. However, there was a Pacific Great Eastern Railway in British Columbia; it is now

known as BC Rail. In order to star in the movie it was trucked from the museum to the movie site south of Moose Jaw. (Information originally provided by Cal Sexsmith in his **SASKATCHEWAN RAILWAY MUSEUM GUIDE TO MAJOR ARTIFACTS, APRIL 1, 2001.**)

## Did You Know?

The Planning and Curatorial Committees have designated this unique boxcar for restoration and future display. The boxcar would first have the exterior painted; it would then be lettered and renumbered back to its original number of 428980.

Because the car is presently being used for storage, it would need to be cleaned out before displays and interpretation could be setup. This would give the Museum another artifact that could be opened to the public, and it would allow visitors to have insight in how the various commodities would have been transported.

## The Railway Snow Plough:

part 1

In the cradle of railways - Western Europe - the local climate-warming effects of the Gulf Stream generally ensured that snow was not much of an impediment to winter operations.

However, at higher altitudes and latitudes, European railways would face substantially the same challenges from snow and ice as their North American cousins. They would invent or adapt many of the same technologies you will see here.

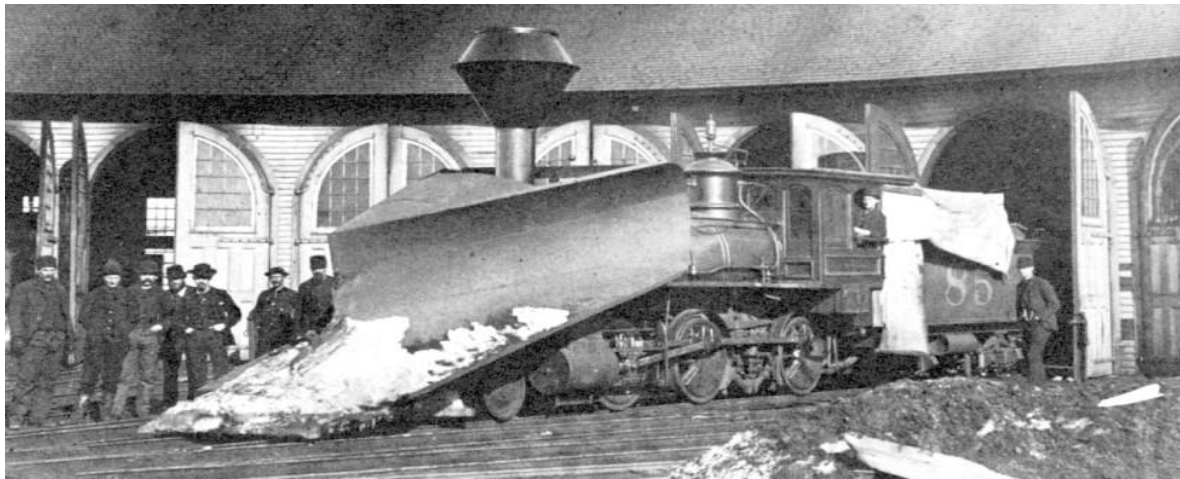
Early railways in Canada didn't even attempt to operate in winter. Getting the light locomotives over the rickety track was hard enough in good weather. Over time though, the possibility of providing year-round service, thereby maintaining railway earnings through the winter, led to the development of a succession of technologies to remove snow from the right of way.

The track structure consisted of rails, untreated wooden ties, and an earth roadbed ... the latter being peaked like a roof along the centre of the track to shed water. As railways evolved, the creosote-saturated ties were laid on/into a bed of crushed rock to improve stability and drainage.

Water causes the track structure to deteriorate, resulting in derailments. The best place for a railway would probably be in a desert at constant room temperature. In the real world, water eroded the earthen road bed. Where it saturated the earth, it created soft spots where the rails would sag as a train passed. It got into hard to reach places and expanded when it froze loosening everything up.

**So there were really two significant problems snowy winters created for North American railways :**

- 1. Early locomotives didn't have the power and/or adhesion (grip on the rail) to push through large accumulations of snow over the track.**
- 2. The track structure and safe operations were affected by water, snow, and ice ... going through thaw (infiltration) and freeze (expansion) cycles.**

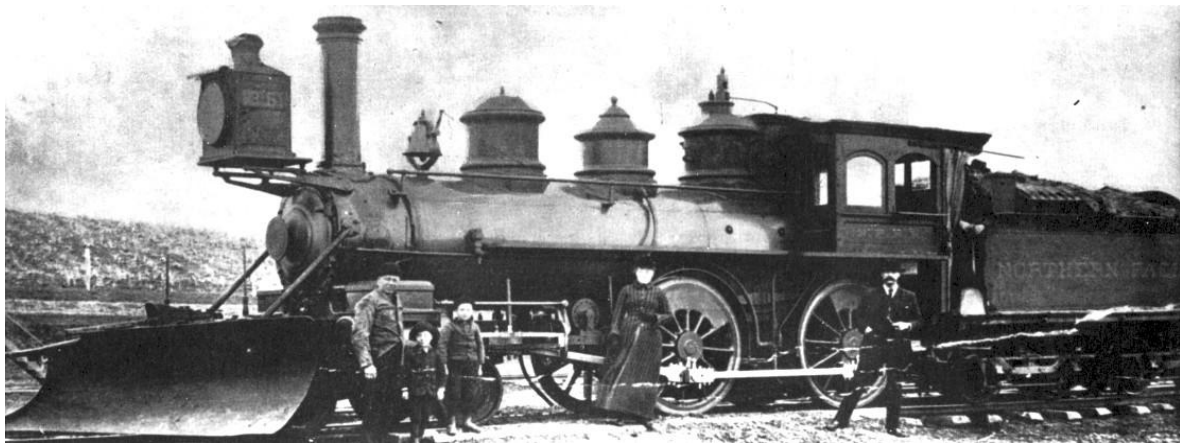


In this circa 1875 photograph on the Union Pacific, you can see an early deluxe snowplow. For the season, it is mounted on a freight engine with six, smaller driving wheels ...smaller wheels.

So this locomotive should have better adhesion and operate in a 'lower gear' against the snow load. As the snow rises up the 'shovel nose' of the plow, it will push down on the front half of the locomotive, making the drivers even less 'slippery'.

Notice the white 'winter curtains' over the open back end of the cab which also covers the fuel load in the tender. At higher speeds, powdery snow will fly through the air making it impossible to see ahead. Snow will blow and pack into every open spot ... that's why the curtains are necessary. These curtains were no substitute for a properly enclosed cab ... the fireman would bake ... then freeze ... as he walked between the firebox door and the fuel in the tender. Also notice that no headlight is visible on the locomotive with the plow mounted.

## Pilot Plows

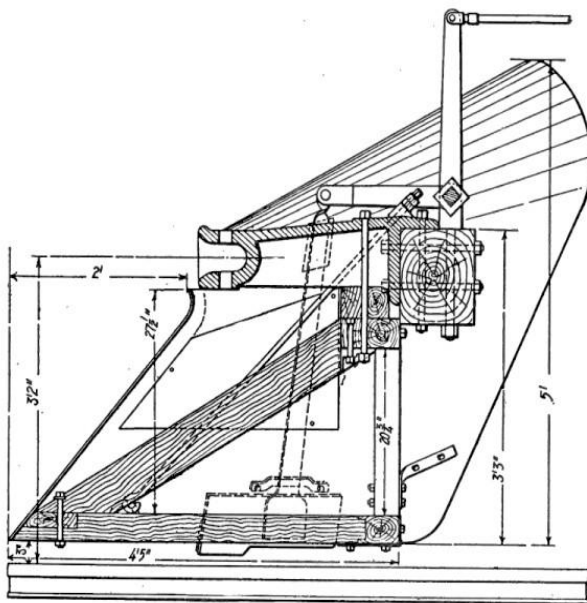


Northern Pacific branchline clearing equipment in the state of Washington, 1891.

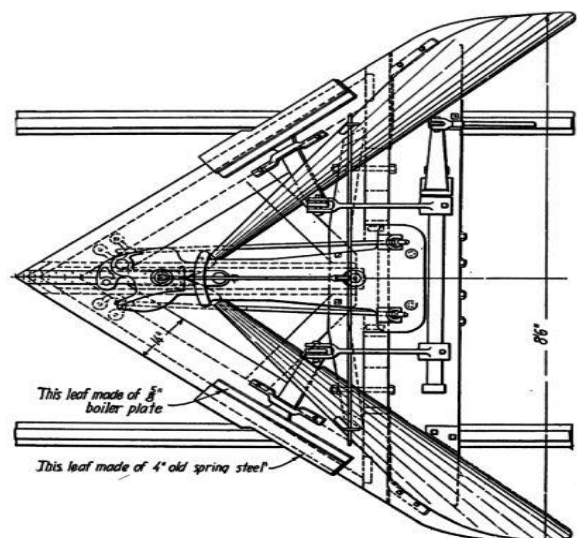
With a plow mounted on the engine's pilot (the cowcatcher area) there is probably a good match between this locomotive's power/adhesion and the snow's resistance - if the snow doesn't get too deep.

If you had trains operating with regularity over a line during a snowfall ... and each locomotive had a pilot plow ... and the trains were operating sufficiently fast enough to 'throw' the snow back. You might not need to run special plow trains to keep the line open.

Today, massive high-adhesion diesel locomotives with more subtle built-in pilot plows, leading very heavy trains with unstoppable momentum, take advantage of this principle to routinely keep most lines clear during winter.



Side view of a pilot plow.



Top view of a similar pilot plow.

Like those above, this plow is from the old 'link and pin' coupler era ... where the smooth slope of the plow breaks, you could insert a coupling bar and drop a pin.

As technology evolved, another refinement within the plow occurred... linkages. These linkages zigzag from the very top down to a plate just above the track rail at the very bottom. An operator in the locomotive cab (out of frame to the upper right) could push the linkage forward. This would force that bottom plate down below the level of the rail.

Consider that the flanges that keep railway wheels on the track are INSIDE the rail. Consider also that railway track and ICE/SNOW/WATER don't mix.

If you can dig accumulated snow and ice out the space between the rails particularly where the wheel flanges run you'll have fewer derailments and a happier railway.

The 'FLANGER' is born!

Excerpts from Railway snowplow and Flanger development.

# Chair's Report

## **The Museums Resources:**

One of the key responsibilities of the Museum's Board is the wise use of our human and financial resources. Without these resources nothing would get done. To a certain extent, these resources are interchangeable. Lots of volunteers, but little money, and we put in sweat equity to move projects forward. Lots of money, but few volunteers, then hire contractors. On the other hand, if we have more volunteers we will attract more funds because some of these volunteers will work on fund raising projects and some will make donations. At the same time, if we have more funds we may attract more volunteers because we will be able to purchase the tools and materials to enable them to work on projects.

I was recently reviewing the preliminary yearend financial statement for the Museum. In summary, we have \$17,838, which is \$985 less than last year. We will of course be going over the final statement at the AGM in January, but I thought I would make a few comments on our financial help in this report.

Our income for 2013 was nearly \$34,000. Some of the major sources of revenue were employment grants for the students, \$11,000; Cash donations, \$7,000; Gate admissions, \$6,200; Sask Culture Grant, \$6,000; Gift Shop, \$2,000; Membership Dues, \$1,200.

Our expenses for 2013 were nearly \$35,000. Major expenses were Payroll, \$19,000; Maintenance \$9,000; Administration, \$6,000. The \$5,600 for the new roof on the Kopko Centre made up the bulk of the Maintenance costs.

Restoration projects consumed very little money: \$219 for Argo Station, \$588 for Oban Tower, and \$327 for Street Cars.

Work went forward on Argo, Oban and the Streetcars because we had volunteers step forward to lead these projects. Several other projects, such as the CN Wood Caboose, did not progress because of the lack of volunteers.

What can you do to help? You can volunteer to lead a project for the Museum. It has been demonstrated time and time again that when we have a leader for a project that project moves forward. Leading a project entails many things, some of the key actions include planning the project, submitting a budget, helping to raise the funds, purchasing supplies and organizing work parties.

With a few more leaders we will increase all of our resources, both human and financial.

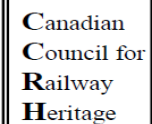
Cal Sexsmith, Chair

## Upcoming Events:

**AGM – January 25, 2014 at the Western Development Museum (Palace Hotel)  
2:00 pm to 4:00 pm**

## Calendar of Upcoming Events:

<b>Date:</b>	<b>Event:</b>	<b>Location:</b>	<b>Time:</b>
<b>January 11, 2014</b>	<b>Board Meeting</b>	<b>Cal Sexsmith's</b>	<b>10:00am to 12:00pm</b>
<b>January 25, 2014</b>	<b>AGM</b>	<b>WDM</b>	<b>2:00pm 4:00pm</b>
<b>February 15, 2014</b>	<b>General Meeting</b>	<b>WDM</b>	<b>10:00am to 12:00pm</b>
<b>March 15, 2014</b>	<b>General Meeting</b>	<b>WDM</b>	<b>10:00am to 12:00pm</b>
<b>April 19, 2014</b>	<b>General Meeting</b>	<b>TBA</b>	<b>10:00am to 12:00pm</b>



If you have any comments or submissions please forward to the editors Fred Tatler and Terry Enns at [Newsletter@SRHA.org](mailto:Newsletter@SRHA.org)

Views expressed in the Newsletter are not necessarily those of the S.R.H.A. or the editors. Submissions of photographs and articles are actively encouraged and should be addressed to the editors. All other enquiries regarding the S.R.H.A. should be addressed to the Association.

*Merry Christmas*



Wishing SRHA  
members, all the  
best of the Holiday  
Season.

From the Editors