



## ***DeWinton Station's***

***"The Outhouse for a Clubhouse"***

***Newsletter - #16 - Last Third for 2015***

***AN EVOCATIVE INSIGHT INTO MODEL RAILROADING***

***By; Barrie L. Roberts [www.dewintonstation.com](http://www.dewintonstation.com)***



***Feature articles this Third; 1 - DSGR's Circa 1915—"Old Town" Centennial year projects  
2—Dan Ellis's scratch build C424 engine 3— How To; Improve conductivity to G-track  
4 — The Paddington No.1 Mine—1897 on Chris Cracklows "Great Western Railroad"***



***2-8-2 Mikado #73 -White Pass & Yukon Route  
operating at DeWinton Stations Aug. 2nd running day event***

***These topics from DeWinton plus other interesting projects slated for the coming year.***

***5 — An introduction to ITTP sound products for your layouts in any scale.***

Dear readers,

On August 2, an Open House /invitational running day event was held at the **DeWinton Station Garden Railway** to commemorate the 100th birthday of my own father and the beginning of the centennial year for the **Circa 1915 "Old Town" theme** for my rendition of the Skaguay, Alaska town site. It has taken several years to bring the layouts to the point where they are at today



and I anticipate several more years to accomplish an envisioned finished project. At this stage in the developments I am happy to announce that most all the track has been laid, with the exception of one 30' long elevated bypass track that will be modified to have one more staging or bypass track added. The steam G- trains are running well on the three outside circuits and the 1000+ square foot indoor layout as well. Most all of the larger outdoor scenery developments are completed such as the mountain and tunnel builds, plus the many water features to include cascading waterfalls, river valleys and streams.

The inside of the Skaguay town building is coming along nicely and will hold several features such as the railhead and loading docks at the Lynn Canal, the town site as seen shortly after the gold rush at the turn of the century and the **White Pass & Yukon Railway** rail yards to include a prototypical turntable and roundhouse. The town building itself was specifically made to provide a weatherproof location to protect the expensive trains, town structures and all the electrical components that are required for a project of this magnitude. It also serves as a comfortable location to work within when the weather does not wish to cooperate ..... in Southern Alberta that can be quite often.

There will be a military presence as the world was then at war, to include my fathers father or my grandfather during WW1. Canadian and American troop movements were a visible part of the scenes within upper Canada and Alaska to protect our northern borders from invasion. The Alaska Highway was being constructed and a few die hard gold miners were still seeking their fortunes along the Klondike and Yukon rivers but the majority of **Stampede**s had moved along to Dawson City. Skaguay was still a wild frontier town and the railway a prominent fixture in the development of the North. The old Sourdough shown below is a relic of the history of those bygone days and the curator for the **DeWinton Station Garden Railways**. If you are in the Calgary, Alberta area please call and stop by for a visit before time takes its inevitable toll on him.

As we continue along on this great journey it is my sincere hope to combine many of our senses in sight, hearing, touch, taste and smell to enrich the **DeWinton Station Garden Railway experience**. I also sincerely hope that before I depart this world another railroader will step forward -that is able to carry on and be willing to host this facility so that others can enjoy the work that has gone into its development and to maintain the tradition of model railroading at its finest.



Barrie Roberts

## *DSGR's Circa 1915—"Old Town" Centennial year projects*

About 30 guests came out on Aug. 2nd to enjoy watching trains running in the gardens. The sun was brilliant and everyone was enjoying the days outing. Trains were running well considering the effort Dan Ellis and myself put into preparing the track in the days ahead of the anticipated event. We concentrated our efforts on the inner circuit which had not been used as yet this season. With Dan at the remote controls he continuously ran the engines back and forth to identify any loose connections which could cause power drops or a complete loss of power from the tracks..

### *How To; Improve conductivity to G-track*

**Part 1-** Once a trouble spot was detected I would drill through the rail joiners and into the rail, then to insert #6 self tapping *stainless steel* sheet metal screws through the joiners and rail to tighten the loose connection. This was repeated four times for each pair of joining rails.

On *page 7*, I will follow up with photos and additional tips. It is my intention to repeat this process with all of the accessible rail joints and to describe other methods for some hard to reach areas such as in tunnels, against walls or under decking. Bear in mind it would be advantageous to do these procedures when the track is first laid.

Most of the track on the *DSGR* has now been installed for about ten years and is beginning to show signs of some loosening from being walked on or simply the joints are now expanding from extreme heat and moisture, oxidation (rust) is also evident at the rail joiner connections so I then apply spray "*liquid wrench*" to dissolve the corrosion. *TBC—pg. 7*



*Cutting the ceremonial cake*

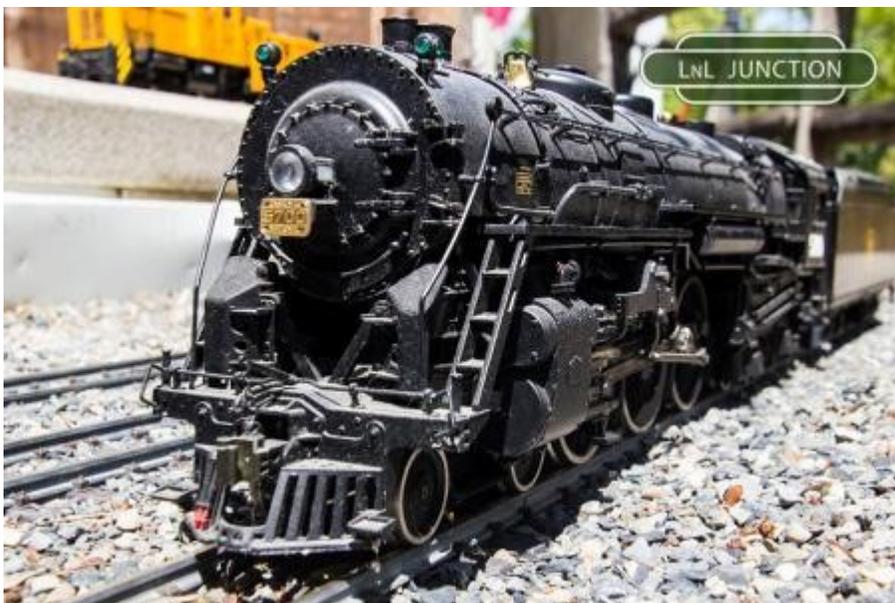


*A few first time visitors*



## More photos of the August. 2nd running day at DeWinton Station

Thank you to **David Luckman** for providing the following presentation showing some of the motive power that will be used on the **DSGR** outside layouts. David neglected to bring the batteries for his #1 camera but his I-phone provided these amazing shots just the same. David and Christine Luckman are true train enthusiasts offering scale building card kits in N -HO & OO, please visit their website at [www.lnljunction.com](http://www.lnljunction.com) or drop them an e-mail at [lnljunction@outlook.com](mailto:lnljunction@outlook.com). They would like to help you develop your own railways in the smaller scales.



In the above photo a 4-4 Climax is shown within the indoor layout, it will be teamed with a 25-T Shay to provide the massive towing capacity needed for the heavy timber lumber mill operations. These two engines are battery powered and controlled by **Aristocraft Revolution** to provide independent control to transverse the three outdoor layouts each controlled separate with multi DC and /or DCC systems plus the ultimate live steam or battery power option.

At left a 2-6-0 Mogul is pulling a mixed freight and passenger train, this wood burner will be the engine of choice for the **Circa 1915** theme when it ventures out onto the #1-2 circuits. The front snow plough will handle light duty ploughing but the Rotary plough is stationed at the Skaguay roundhouse and on call when needed.

For the larger passenger and /or freight train traffic that frequent the mainlines the heavyweight CN 4-6-4 Hudson J1e with tender will share the lines with a CN 2-8-0 Mikado plus my limited edition White Pass Mikado #73 2-8-0 as the feature engine, still in use today in the Historic Town of Skaguay, but only operates on special occasions, it came into service in 1947. ( photo on next page )



*#73 WP&YR Mikado 2-8-0 approaching Carcross Junction river crossing.*



The #73 Mikado by **LGB /Aster** is seen passing a 2-8-0 **Aristocraft** Mikado at 1/29 scale which is compared to be slightly smaller in relation to its 1/20.3 counterpart at left.

**Note;** In order to obtain a line of steam engines which would be compatible to run on the **DSGR** layouts. I did not wish to limit my selection to only those built prior to 1915, therefore I have chosen to also include a variety of CN & CP rolling stock equipment up to the year 1950 which would have served the military needs for both great wars of the past century - WW1 & WW11.

**A brief history lesson:-** The famous Klondike Gold Rush in 1898 provided the incentive to build the White Pass and Yukon Railroad. It took only two years to lay 110 miles (176 km) of tracks across the mountains from Skaguay to Lake Bennett. The line passes waterfalls, deep gorges and crosses vertiginous bridges. At Lake Bennett, gold miners boarded steam ships that took them along the Yukon River to reach Dawson City, the center of the Klondike. The gold rush did not last long, but the WP&YR continued to serve as the only means of transportation to the interior. In 1947, the railroad purchased the last narrow gauge locomotives ever made at the famous Baldwin Locomotive Works. The two powerful oil-fired Mikado's (wheel arrangement 2-8-2) No. 72 and 73 proved quite successful on the mountainous line.

Even though the first diesel locomotives arrived at the White Pass as early as 1954, No. 73 was not scrapped. Between 1968 and 1979 it was displayed at Bennett then the impressive locomotive was restored for hauling tourist trains. But just as the locomotive was ready to run again, the White Pass & Yukon stopped running trains. The Faro Mine, which had provided most of the railroad's traffic in lead, zinc and silver, had closed. Fortunately, the scenic line was not scrapped, but reopened in 1988 as a tourist railway, now No. 73 runs again from Skaguay to Lake Bennett.

An impressive, limited-edition model of the largest White Pass Steam Locomotive, completely crafted by Aster in metal and incorporating LGB drive components. However since the tender is also manufactured completely in metal, the pulling power of this engine is rather poor and the factory version can handle only very slight inclines, that problem could be resolved by adding additional powered axles in the tender.

Production was limited to 600 units. *Note:- The above text was taken from the LGB /Aster handbook.*

### **#73 WP&YR beside cantilever bridge at the DeWinton Station Garden Railway**



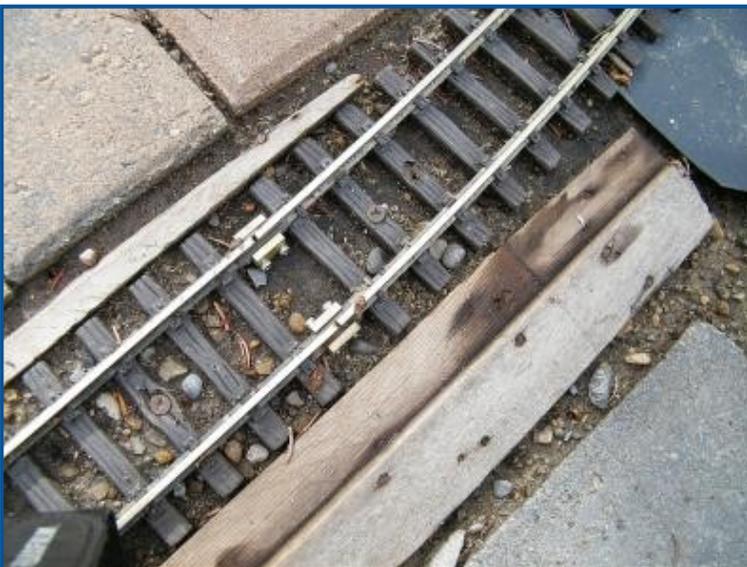
## Conductivity continued; Part 2

Shown at right four *stainless steel screws* @ two per joiner are predrilled on a *60 degree angle downward* from the crease of the brass rail joiners with a *3/32" titanium drill bit* towards the inside bottom edge of the rail followed by the *#6 self tapping stainless steel sheet metal Robertson roundhead or tapered screws*, inserted to a snug fit with a squared #2 Robertson screwdriver, being very careful not to overtighten and break off the heads. In certain tight locations where it was impossible to drill from the outside it was necessary to drill from the inside of the rail and place the screws in from the inside of the rail also. This then would make it necessary to cut the head of the screw off with a dremel tool and a metal cut off disk to allow free movement of the passing rolling stock wheels. Excess materials must be removed to prevent the train wheels from hitting possibly causing a derailment. *Never seize grease* should be applied as well to prevent the screws from being corroded too tight for removal if required.



All this could have been avoided if I would have had the foresight to anticipate that the connections may come loose at a future date. It would have been prudent to prepare the track for a secondary bus line which would additionally provide a good connection to each piece of track rail from a separate heavy duty bus feeder line running along the entire length of the layout, 12G or better.

Using a closed eye electrical connector and a similar stainless screw as described above each rail section would be connected to the bus line by a short length of flexible braided wire soldered at each end to obtain positive electrical contact. Some hard to reach areas will be impossible to do after the fact, such as in tunnels, under decking or across encased bridges. With the bus line you would be providing power to *each independent rail section* regardless of continuity through the rail joiner. Where possible I would further recommend a combination of each method. In the picture at the lower left rail clamps provide an optional alternative to fastening the rail ends tightly. In addition connectors can be fastened to the machine screws on either side of the rail. I use this rail clamp method when applying power leads to *blocked sections of track* for a sure positive connection. The bus line can derive from this location and travel the length of the block, thus transferring power to each rail section, within that block alone. This would then eliminate power transfer between separated blocks each controlled by its own toggle. In Digital Command Control operations (DCC) constant power to the track is allowed and engines controlled by hand held transmitters when the toggles are in the closed position.



## *Dan Ellis and his feature custom build of the Canadian Pacific C424*



*There is no doubt that Dan is a master when it comes to his special projects. We showed the first few pictures of the chassis for this Alco engine made by MLW (Montreal Locomotive Works) In the May 2015 issue. It is easy to see the detailing that it took to bring the project to the stage as shown on the left, and below seen prior to the primer coating of paint. Dan's craftsmanship is also evident in the hand built turntable and pit which the engine is sitting on. (below) The tan coloured sections have been cast from other engines into true rubber moulds then being poured with resin to duplicate the fine features for the Canadian Pacific C424.*

*Still incomplete the bottom photo shows the other side of the C424 engine with some of the paint detailing, weathering tricks and decal techniques applied. On the following page we will reveal the finished product to date, complete with windows. Due to recent events, the lighting and safety railings have been put on hold until he and his wife Madeline return now to Nova Scotia and commence their full retirement.*

*It is not known if this Alco model has been hand produced by another railway modeller and could be a one of a kind G- scale reproduction. It is noteworthy to learn that these engines have served the North American railroads for fifty years and a few still are in operation today. Dan's model despite just rolling off the assembly line appears destined for the scrapyard.*



*Dan Ellis has been a supporter of myself and the **DeWinton Station** railways for the past ten years, without his regular weekly assistance it is certain I would have fallen short of my goals and aspirations, surely resulting in a failure of my individual efforts to reach the most modest of personal gains. Dan has now made plans to retire and they are making final arrangements and moving plans to return home to Atlantic Canada near Yarmouth Nova Scotia.*

*The dismantling has begun on his indoor layout with plans to then rebuild back East. I will surely miss his earnest enthusiasm as a dedicated model railroader and his committed friendship. Together we have accomplished so much. I hope to be able to travel East to Nova Scotia and be a part of Dan's rebuild. This will put us both in our seventies, there is much I can offer in the planning stages but nothing beats the laying of the track.*



*Dan Ellis's Canadian Pacific C424 finished photo*



SO  
LONG  
AND  
ADIOS  
AMIGOS!

*Henry Graber, Father John Eason & Dan Ellis. Photo by B. Roberts - the "Four Amigos"*

## DSGR's Circa 1915—"Old Town" Centennial year projects—Continued

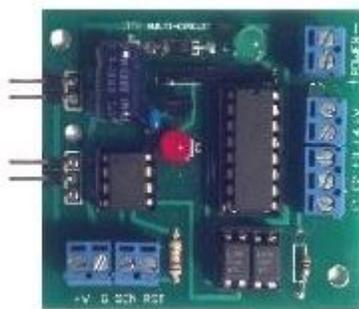


*Hyperlinked to ITTP—website, click to go directly there*

HQ Sound Module



LT Lightning Module



Every now and then a product comes to my attention that really intrigues me, this is one that stirred the creative juices within my mind and I was anxiously awaiting the notification that my parcel had arrived, to be picked up at the rural area post office. I was aware of some **ITTP** sound modules that were available at my local suppliers, but what I did not know of was the selection of the many other **ITTP** sound products I could order directly at wholesale and of the **variety of ITTP items** that were readily available by mail order.

What tweaked my interest initially was the "**Thunder and Lightning**" modules as shown at left and I quickly began to e-mail [george@ittproducts.com](mailto:george@ittproducts.com) and ask a series of questions concerning duplicate sounds if I was to order two separate units and if he was able to create custom sounds for my other projects. George responded quickly and we began to fulfill my order with unique sound applications specific to my own needs, **one being a charging multi horse drawn fire brigade**. I managed to locate a 10 second sound clip from the internet and forwarded it to George by e-mail for his custom editing.

I have arranged for the two thunder and lightning units to be placed within the Skaguay town which will play out of sync repeating approximately every three minutes. They will be mounted in the ceiling at the rear of the town site and separated about 15—25 feet apart, the lightning is timed realistically to the thunder and flashes bright LED lights. I will mount two light units per lightning module which will create intensity. In the dark of the evening it will illuminate the building with bright flashes of light, which will be seen through the windows to the outside. On a control panel I will mount 15 toggle switches that will control each sound module independent which will allow for the incorporation of other sounds such as howling wind with doors and signs banging plus the sound of agitated cattle coming from the rail yard stock pens. I told George I would be writing about his service and asked him what he would like people to know, this is what he had to say;

- \* Basically, I try to build high quality units and I stand behind them 100%
- \* Also, let it be known that I do not charge extra for custom sounds. I spend a lot of time trying to get them just the way the customer wants them. Sometimes, I spend a few hours on one, I generally prefer for the customer to try and find the sound they like and send me a sound file or tell me where to retrieve it and I will edit it as needed.
- \* Plus, I will let the customer know if I cannot do a sound scenario due to copyright issues.

Some of the other **ITTP products** include, grade level crossing signals with sensors for full automatic activation, arc welding modules and approx. 80 various sound cards. I recommend you go to his web site and to spend some time to see if there is something you would like to add to your own layout. His clients are worldwide, he said he just sent an order this week to New Zealand so perhaps one of my NZ friends is receiving his parcel this month if it is one of my readers please send me an e-mail to [dsgr01@telus.net](mailto:dsgr01@telus.net).

### *My Little Model "T" railcar:-*

I have just made a start on yet another winter's work project, now as I do not usually build intricate things from scratch by hand it is not surprising to learn I am not about to start now. One of the coolest rail rides I took when I visited New Zealand's **Pleasant Point** on the South Island was to travel in the "Worlds only remaining Model "T" Railcar." When I attended the NZ National Convention in Christchurch, I had the opportunity to meet **Dean Farrow** (wearing shorts?) whom had made a couple of replica models of the **NZR RM485** as seen in the photo at right. The larger model is pushed along by a stick on 5" rail and the smaller G-gauge unit is powered by AA-batteries and controlled with reed switches to change its direction of travel.



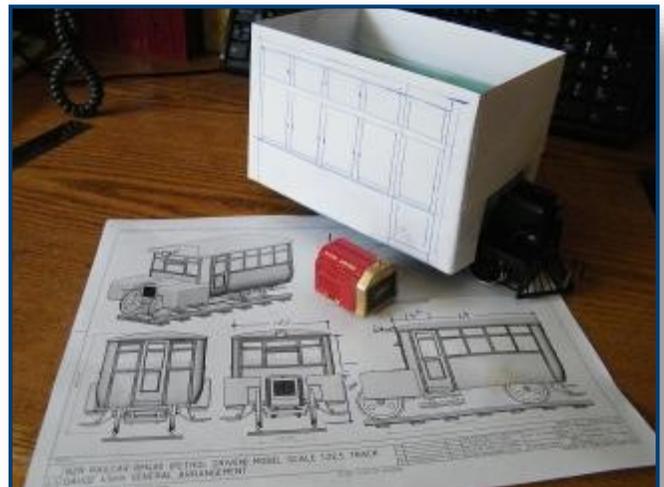
*Dean Farrow's Model "T" Rail bus*



Now this nice little black 1:20.3 scale **Aristocraft railcar** is made of brass and comes as shown with a supported roof, out of the box in complete running order. I picked it up from my friend **Henry Graber** of **Rusty Creek Railway & G-gauge Supplies** E-mail [rustycreekrail@shaw.ca](mailto:rustycreekrail@shaw.ca) for a modest sum—he says! After a few strategic cuts with a dremel tool some excess body parts will be removed and preparations made to install the formed styrene wall sides from sheet styrene. Pannier fenders as was on the original units plus a vacuum formed new roof will be added.

This will be my first attempt at vacuum forming by a technique I observed under the direction of Dean Farrow. I have decided the best way to shape the outside walls is to gently heat the styrene sheets with a heat gun (or hair dryer) around a wooden block prepared to match the rounded inside dimensions of the draft paper template (see photo below). The vertical corners are rounded and as the drawing below portrays the lower third being curved under, unlike the restored original which is now flat. Prior to the styrene cooling additional blocking will be clamped tight to ensure the styrene returns to its flat shape for the side walls. Once the four sides are joined together the block will be reshaped with a belt sander to allow the bottom section to again be heated to conform with the newly shaped additional curved dimension. These procedures will be discussed with pictures in the next—**January 2016 - "Outhouse" newsletter.**

In the photo at right is a red die cast hinged motor cover with a brass Model "T" radiator, this will fit over the existing radiator and hood. **Note:-** I will not be the first to reproduce this awesome little original railcar, to which only two were ever made in existence, but I will likely be the only one that has done so outside of New Zealand. I intend to copy the drawing by **Julius DeWall** E-mail [dewaal@xtra.co.nz](mailto:dewaal@xtra.co.nz) of Papakura, NZ, a steam engine and steam railway enthusiast, giving leeway to the engine size I have in hand. I will install the Phoenix railcar sound system that cranks over three times to start and comes with an original stock Oogha horn. **Thank you Julius** for your excellent NZR drawing.





Some of the projects I have started and set aside for the summer months, when I wish to be outside working on the outdoor railroads and to keep up with yard chores, are going to be put back on the table to work on some more this next winter. At left is my 4-8-8-2 Cab Forward with oil tender which is being converted from a coal fired 2-8-8-2 Aristocraft Mallet. This engine will then be housed on the stationary display shown below.

My original plan for this module display was to hold a second **DeWinton Station** resin building that I had in stock, since then I have decided to give the CP station building to my friend **Dan Ellis** as a token of my appreciation for his continual help to prepare my layouts with me on weekends.



When I purchased these two remarkable precision - crafted structures from my Calgary G-club associate **Robert Graham**, he was then liquidating his inventory of railway buildings. Being the first to answer the call I left nothing behind. These two didn't quite match within my Circa 1915 theme, but I was certain I would find a use for them. They now form their own theme setting as a prairie railway hub. I have a collection of tall pine trees to form the backdrop but it will be the barren prairie landscape in the foreground that will set this diorama apart from the other layouts.



When I built this custom Russell snowplough, it was featured as part of my very first literary effort for the Vancouver Clubs **Burnt Journal newsletter** as a new guest writer back in 2010. I then quickly followed up with ... pt. 2 by offering a breakdown of the kit bashing techniques I then used. Well I still have enough extra special pieces to make yet another to include the gondola snowplough and a bobber caboose. It may be necessary to refer to my own notes this time around, I absolutely know for certain it will take longer than two days to finish..... **two months is more likely**. I invite all new readers to review my earlier writings at the index section at the bottom of the webpage.



I was so impressed with the diorama displays at the **Tawhiti Museum** in New Zealand (as seen at left) that I promised myself I was going to try and duplicate some of Nigel Ogles methods in producing multi level 3D perspective images within a shadowbox setting. In the May 2015 issue of the Outhouse newsletter I dedicated a full page to describe the charging horse driven fire brigade I had in mind for the Skaguay town scene. Shown below is the cabinet I have decided to use to house this custom display when completed. The idea is to have the smaller scaled team at the structure fire, which could be an “O” scaled building partially burning, with the



“first in” arriving steamer pumper crew fighting the fire with hose lines.

A second arriving horse drawn pumper unit is seen charging towards the scene in the foreground. This display is something that would be small enough that I could easily take with me as I travel the country and attend train trade shows as an exhibitor, even if the display was unmanned as I do my tour about the other exhibits.

With the **ITTP** sound card I spoke of on page 10 of the team of horses on route, plus added lighting, sound and smoke effects mixed with some good scenery tricks, this could make for a fun and interesting if not a one of a kind display in the US and Canada.

**\*\*Now here’s the pitch....** I would like to encourage others in helping out with these projects mentioned. — **Notice the larger font size—pay attention here!**

If anyone is able to contribute a few hours to making these projects become fact v/s fiction I would like to hear from you. This is a good way to showcase your abilities in a manner that is constructive and helpful. These and many other projects have been started here at the **DeWinton Station** that do need a little help to realise their potential. Apply your talents at mentoring some of “us learners” with scenery applications or assist with a new technique such as vacuum forming as I mentioned earlier with the railcar project. I’m thinking of one or two midweek evenings throughout the winter months to work on special projects together in the upstairs craft /sunroom and one bi-weekend afternoon running steam trains on the **DeWinton Station** indoor layout.

## *The Great Western Railroad—by Chris Cracklow*

*Introduction— Chris was introduced to me by **Allan Clark (Builders Corner)** as being an avid scratch model railroader on Vancouver Island, B.C., I have yet to see his large scale layout myself, but understand it is meticulously crafted. Chris was kind enough to forward this short storyline to describe a small section of the scenery to be found in his garden. I hope to encourage Chris in a future edition to allow us the bigger picture as in the wisdom of a writer you should leave them wanting more. I am intrigued indeed! - **Barrie R***



## *The Paddington No. 1 Mine—1897*

*Coal is king here on the Island and the **Great Western Coal Company** is the major employer, there are currently 17 employees. The mine is perched on the side of the mountains and is connected to a barge loading terminal at Bristol Cove by a 13 mile long 3 ft gauge railroad. The **GWCC** has changed hands three times in its eight years of existence and has been upgraded almost continuously. The new roof is a classic example and when the company can get a bit more money, hopefully we can put some sheeting on it. After all, we live in a coastal rain forest. The last major expansion was financed by selling the railroad, which is now simply known as the **Great Western Railroad. (GWR)** A rather pretentious name for a tea kettle line!*

*On the left side of the picture is the forge and stable building. Sam (the horse) is used for switching coal cars and generally moving anything that is heavy. The next little building is the mine office, rather small but room enough for the manager and surveyor. Behind the office is the power house. Then the head frame and the processing, storage and loading buildings. On the right is the powder house.*



*Engine No. 1 sits in the sun while the engineer telephones the yard foreman from the mine managers office for orders, before rounding up the loaded coal cars and hurrying back to the Cove. Yes, it's 1897, we now have telephones on the Island. **No. 1 is a Baldwin 0-4-2 saddle tank locomotive**, built a few years ago for a sugar plantation, but never delivered. The wooden coal cars were built on the Mainland to the managers own design. They have generated quite a lot of interest from other mines.*



*The plants and trees on the Island are quite remarkable. Some areas of the Island escaped the last ice age resulting in an amazing collection of still unidentified flora. There is actually not too much vegetation left around the mine, but one or two species that nobody around here has ever seen before.*



***Afterward—** In reality, I have a small suburban lot, with a small back yard and therefore a small garden railway. I started out with a plan and very quickly discovered that there were forces at work beyond my control! **(and I don't mean the wife!)** The GWR railroad was to be integrated into an existing garden, so compromises had to be made. I imagined C16's and K27 like locomotives hauling big coal drags down to the wharf. What I ended up with was a tea kettle line! 1:20.3 can do that to you. Everything is much larger than I expected, except the space I had to fit within!*

*My pictures have a rather gloomy Victorian look about them that I particularly like, it took me an age to perfect it. I am still not sure if they should have been presented in black and white. I have pretty much made everything from scratch, however I buy lots of parts, like wheels, NBW's couplers etc. I have used just about every technique on the buildings, but they are all clad in yellow cedar. I have a big pile of it and mill my own lumber on a band saw.*

*I hope you enjoyed this, I could write more, a whole bunch more! ..... **Chris.***

***From Barrie R.** Thank you Chris, I am going to hold you to your last sentence, we would love to have you write another article for our little "Outhouse" newsletter. It is people like Chris Cracklow and Allan Clark that contribute to this publication to help make for an interesting and informative read. I couldn't help but notice the hand laid aluminum track in the bottom photo on the previous page. I will give you credit for taking on that challenge considering your little tea kettle line. With the thousands of feet of track and a hundred switches on the DSGR layouts I took the easy way out and purchased commercially available stock track and preformed manufactured switches. .... **I still don't seem to have a life outside of railroading!***





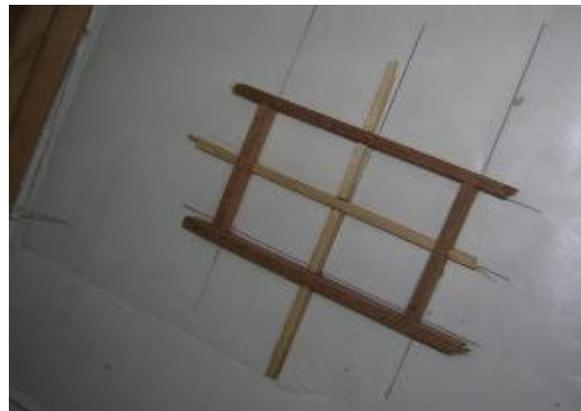
*Note the rough cut of pieces, I simply snap them off to a rough size at this stage, all parts other than the top of frame and sill are longer than the pattern drawn out and overlaid with wax paper as previous.*

*<< Cut a notch to fit the mullion /mutton pieces through the side and top & sill and ½ way through each mullion /mutton piece as they will cross each other.*



*<< Assembled frame glued and clamped.*

- Do this over the drawing and make sure everything is square.*
- When set trim off all protrusions and get onto the belt sander to clean up the edges, you may also make the whole frame thinner by using the belt sander gently on the face.*



*<< Your finished window is now ready for painting*

- Install glazing last*



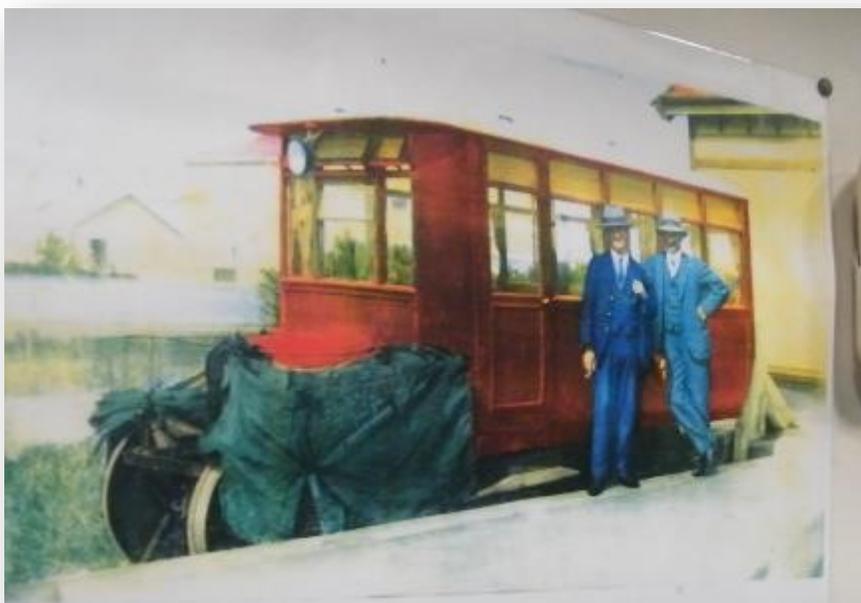
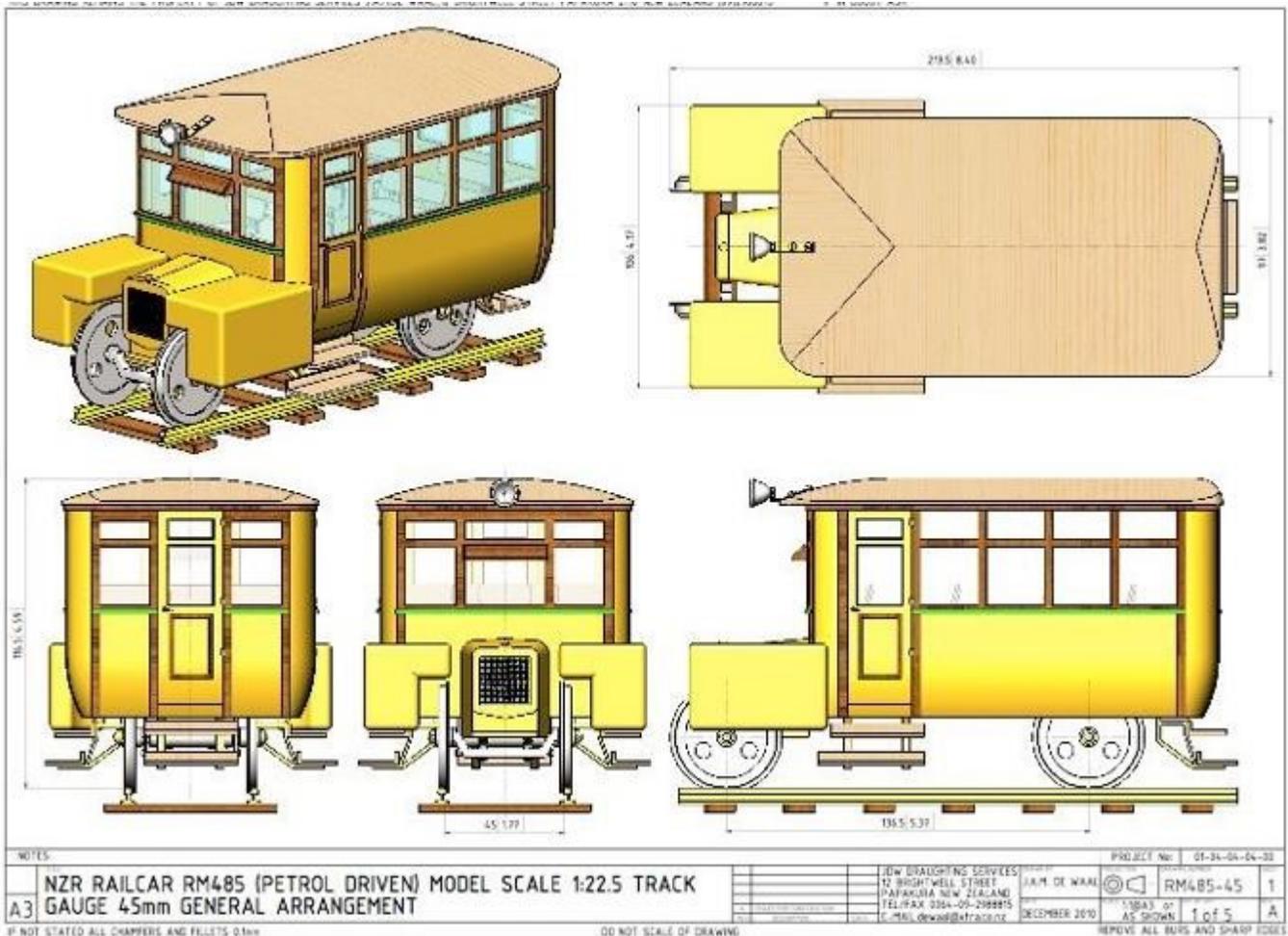
*<< Install in a suitable "hole" (rough opening) in your structure and trim out with additional boards.*

**Summary;**

*It is not very hard to make complex windows using this method and should you make one that is not to your liking use it for a complimentary detail in say a recycling yard scene or even a derelict building.*

*Closing photos of the NZR Ford Model "T" Railcar RM485*

*This 3D drawing was produced by Julius De Waal of Papakura, New Zealand*



*This photo I snapped with my camera on the wall of the Pleasant Point Museum, at Pleasant Point, South Island, New Zealand. It is the only picture I have been able to find that might resemble the true version of the RM485 railcar showing the front panniers covered with heavy tarpaulins. It is said that this caused the engine to overheat and they were subsequently removed. These panniers were used to carry anything to include chickens and pigs.*

*I have had a pretty tough month in July, being victimized twice with break & enters to my home garage. The first occasion I lost a motorcycle jacket, helmet and a GPS unit taken from within my truck totalling about \$1600.00. Not enough value to place a claim on house insurance with a \$1000. deductible and an increase in premiums. A week later the thieves returned and this time targeted my nice red truck which was in top condition for a 2011 - F150 FX4 with many extras to include leather interior valued at near \$30,000.*

*This second theft prompted the installation of security cameras and other devices.*



Police Photo

*This may not be the forum to try and convey this message but it is still a hard pill to swallow. My valued advice would be to prepare for the unexpected. On both occasions I have mentioned, I was at home and the thefts are believed to have occurred during the day or early evening.*

*Criminal activity is becoming more organized and daring, with any investigations now less likely and the onus being on you to have insurance coverage to offset your financial loss. I absorb some of the responsibility as I had considered installing quality camera security systems and only kept putting it off. Do yourselves a favour and learn a lesson from my*

*Over a month later the vehicle was found dumped at the side of a country road in this condition, having many of the exterior and interior parts removed.*

*I had just replaced the vehicle with a 2014 newer version shown below, but will have to now be responsible for the upgraded costs after a perceived value insurance settlement minus deductible. All of this reinforced the fact that I /we are susceptible to the criminal element for theft or vandalism at their will.*



*experience, the time is now to beef up the security in your home, garage, vehicle, computer, telephone, at work and most importantly the security measures you put in place for your family at home, work or while away at school or on vacation.*

*The same will apply true to your trains if left unattended at a trade show, once it has gone missing recovery will be very difficult! I have personally seen that happen when it comes time to pack up after a train show, **it only takes a few seconds!***