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MONTREAL MEET A SUCCESS



a quarterly publication of the "Canadian Association of Railway Modellers"



THE CANADIAN ASSOCIATION OF RAILWAY MODELLERS

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Founding Members: John Johnston, Peter Moffett, David King, Lex Parker

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FRONT COVER PHOTO BY JOHN JOHNSTON: Boston and Maine F3's in the McGinnis paint scheme lead a freight on the Boston and Maine Green Mountain Division of Don Janes.

MEMBERS AREA PASSWORD

**USERNAME: gondola
PASSWORD: hopper**

PROMOTING THE HOBBY OF RAILWAY MODELLING IN CANADA



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Material for the Canadian should be sent to:

**John Johnston
41 Glenview Place,
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or by
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17th Annual
Hamilton & District

LAYOUT TOUR

Saturday, November 4, 2017

9:00 am to 5:00 pm

\$5 per person

(the guide book is your ticket)

21 Great layouts to view throughout the
Greater Hamilton area

Guide books will be available for purchase at
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or at: www.trainweb.org/homesclub

Enjoy the tour!



observation platform john johnston: editor

MY OWN MODEL RAILROAD TOUR

Out of the blue, I received a call from Don Eastman who had moved from Chatham to Sarnia a number of years ago. Some of you may remember an article I had done on Don's O Scale Chesapeake and Ohio layout about 10 years ago. Don, has built a new layout at his home in Sarnia and wanted to know if I was interested in coming up for a visit. Absolutely!

Just previously, I had received an article from George Dutka which was published in the previous issue of The Canadian and knew he was located somewhere in the London area. I contacted George to see if we could stop in and see his layout on the way to Sarnia. He was happy to accommodate us.

As it turns out, both Don and George are also friends with Don Janes who lives less than a mile from Don in Sarnia and he also invited us to visit his layout.

So on a nice sunny day this June, myself and three of my club buddies set out for London and Sarnia. We first stopped at George's White River Division which is a beautiful layout with numerous scratchbuilt and kit-bashed structures. George's innovative idea of building his structures on pieces of gatorfoam so that they are interchangeable on the layout will be featured in an upcoming issue of Model Railroad Planning, and George will be giving a clinic on the subject at the Copetown RPM Meet on the Saturday of the Copetown Show. I will have some photos of George's layout in the next issue of The Canadian.

Leaving George's we headed for Sarnia. As we drove along the 402 the sky got darker and darker and we were soon in what seemed to be monsoon type rains. Looking to the north, the guys remarked on how ugly the sky looked. It wasn't till I got home later that evening that I found out that 2 tornado's touched down just north of where we were driving. As quickly as the rain came, it dissipated as we reached Don Eastman's house. Like George's layout, Don's is a work of art and I will post photo's of it in the next issue. (not enough

space in this issue to do either layout justice)

What did catch our eye at Don's and took our breath away was an O Scale lake freighter that he is building. That's right, a lake freighter in O Scale. This model has to be seen to be believed. We asked Don if it was going to go on the layout and he said "no", he was just building it for the fun and enjoyment of building it and upon completion would look at selling it. Anyone interested in an O Scale Lake Freighter let me know and I will put you in touch with Don. Needless to say for the rest of our visit we tried to convince Don that he needed to rework a portion of the layout to incorporate this masterpiece which would certainly be the focus of the layout. Before we left Don was musing about making operating Hulett unloaders. With Don, you never know, anything is possible. Below and on the following page find some photographs of this modelling masterpiece.

After lunch with Don (Eastman) and Don (Janes) at a local diner we proceed to Don Janes' Boston and Maine Green Mountain Division. Another spectacular layout dotted with impressive structures and scenic elements. I have shown a few examples of Don Janes' craftsmanship on the front cover and rear covers of this issue.

All three men were gracious hosts and treated us to a wonderful day and I can't thank them enough for sharing their work with us.

PHOTO BELOW: JOHN JOHNSTON: Here we see the bow and stern sections of Don Eastman's O Scale lake freighter. That 6 foot fluorescent lamp in the ceiling gives you a sense of size.



Being inveterate railfans as well as modellers we couldn't leave Sarnia without quickly dropping down to the station to see if anything was coming on the mainline. There was already a railfan there and he told us a train was just getting ready to head west from the yard and he had just drove down to catch it. He said to watch for the third unit, it looked like it was orange. We assumed he was talking about a BNSF "pumpkin". Lo and behold as the train came into sight the third unit was a rare SD38-2 in the orange of the Elgin Joliet and Eastern. What a great day!

JOHN JOHNSTON: EDITOR

PHOTO RIGHT: JOHN JOHNSTON: EJ&E SD38-2 is the third unit in this CN freight headed into the tunnels in Sarnia.



PHOTO ABOVE LEFT: JOHN JOHNSTON: Rear section of Don Eastman's lake freighter.

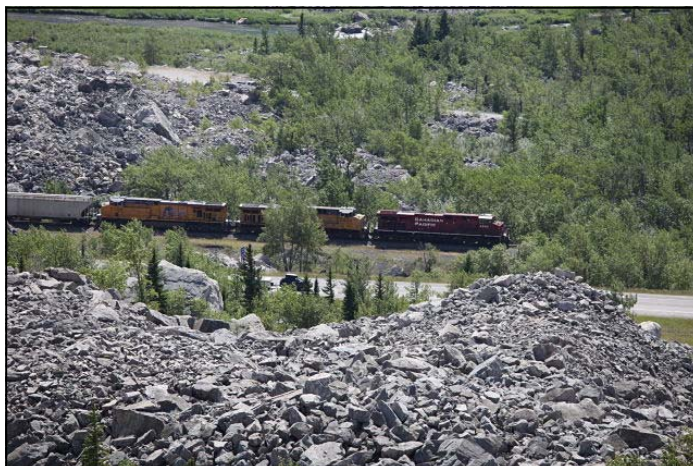
PHOTO ABOVE RIGHT: JOHN JOHNSTON: Bow section of Don Eastman's lake freighter.

PHOTO BELOW LEFT: JOHN JOHNSTON: Here is the center section of the lake freighter. When this is added to the bow and stern sections this will be a truly impressive model.

PHOTO BELOW RIGHT: JOHN JOHNSTON: Looking into the wheelhouse in the bow section we can see charts laid out on a table.



The Labour Day weekend is now behind us and tradition says that we can all go back to modeling after a summer devoted to the cottage, barbecuing, grass cutting, the CNE and all those things that the newspapers write eloquently about. If my life is anything to go by then the summer lifestyle is totally fictitious, as I seemed to be going flat out all the time, mostly with travelling, some of it for work but much of it connected with my railroad modeling and RR history hobbies. In July, driving across Saskatchewan I was lucky enough to see a CP AC4400 headlight in my rear view mirror and pull off in time to watch an 170 car, loaded, westbound potash train pass me with three locomotives distributed at front, rear and in the middle. Later on I stopped at the Frank Slide in southeastern Alberta and from the observation platform watched an apparently miniscule second potash train heading west through the massive jumble of rocks that had been brought down by the landslide. This train had two Union Pacific locomotives mixed in with the CP consist so they were likely repaying excess hours. But it reminds me that any modern train with a multiple unit consist can have almost any locomotive in the mix of power pulling it.



Later I hadn't been back to Toronto for more than a few days and I was off to Montreal for the CARM Super Meet at the beginning of August. For those of you who didn't attend you missed a marvellous event. We saw some wonderful layouts and all envied the clubs that were on display for their huge premises that allowed them to exercise the full scope of their modeling skills. On the Sunday we congregated at Sorel, east of Montreal in the morning where we visited, not only the largest layout on display but also were greeted by the Mayor of Sorel and offered coffee and croissants. Just imagine if we had the support of the Mayor of Toronto for model railroading; maybe he could make available the basement of Toronto City Hall. This layout took to extremes the development of multiple mini scenes, each of which caught the eye and drew one in to study the specific super details. The enthusiasm of the Montreal modelers was very evident when we got talking with one who invited us to see his home layout, which had not been on the tour but which was a masterful demonstration of the use of special effects lighting shining through cotton wool as can be seen in the accompanying photo of the bomber diving out of the clouds.



Elsewhere in the magazine you will find more coverage of the many excellent layouts we visited and my most important duty here is to express my congratulations to everyone involved in organizing and hosting the tour and to thank them all for the enormous amount of effort they put in to making our visit a great experience and opening our eyes to many new approaches to quality modeling.

If that wasn't enough for me, my railroad modeling brother flew in from England a week later and he and I flew off to Colorado where we spent the next week driving around the mountains looking for old narrow gauge trestles, mine head frames and anything else that could remind us of the RGS, C&S, Florence and Cripple Creek etc. We did discover many things and I got to sit in the

drivers seat of a newly restored Galloping Goose, although it wasn't doing much galloping while I was in it.



The most surprising thing I learned was that 500,000 head of sheep and cows would be loaded into stock cars at Lizard Head and transported to lower altitude ranches every September and October back in the first decade of the twentieth century. Even if most were sheep carried in double decked stock cars, that is still an incredible number of carloads when a 12 car double-headed train was about as long as they got. We also rode the 3 foot gauge Chama to Antonito steam train and switched from it at the half way point to the passing train to take us back to Chama. There was a special being pulled by 2-8-0, C-19, #315 that day as well as our regular 2-8-2, K36 powered trains so we got lots of digital images, which I am still trying to sort.

After a side trip to the Western Museum of Mining in Colorado Springs we ended up in Denver where we spent the next four days at the 37th National Narrow Gauge Convention. Both my brother and I gave clinics,

mine on "Narrow Gauge railroads in Western Canada" of which I have tracked down over 30, believe it or not. If you want to know what and where they are, come and here my clinic again at the end of September at the Brampton Show. The problem with the NNGCs is the inability to visit all the excellent home layouts open to see. We managed 13 out of 24 in four days and racked up a lot of miles getting from one to another. I learned how to make effective looking sugar cane from astro-turf at one which depicted the Hawaiian plantations.

Back to Toronto and the local fall shows and flea markets have started so I was able to visit the Lake Shore Modelers' show today and visit with Toronto Chapter members who had a table there with a switching layout and certificates for the young people who came by to try it out. If you haven't volunteered to do something like this for your local chapter I urge you to do so as it is not by any means a one-way communication as you get to talk with a lot of people, young and older, who have come to find out what the hobby is all about and why they want in to it.

We all had to start in the hobby once and if we had had some frank discussions with our peers early on we might not have made some of the mistakes we did make when we first started. I would also like to hear from any members who would be interested in getting involved with a Super Meet in 2018? You don't have to be an expert at organising such an event and the Executive has lots of talent available to assist you. So e-mail me if you would like to discuss such a concept!

Gerald Harper, Chair, CARM

Calling All Photographers

Please submit photos for the 2018 CARM calendar

If you have an image that you would like to submit to us for use in the 2018 CARM calendar please read the following. We would like 6 high quality images of prototype scenes and 6 high quality images of model railroad scenes. These images need to be in sharp focus for most of the image, well lit, well composed and of interest. Images should be in landscape format. You do not need to edit the image as we would prefer to edit the image ourselves as to maximize the image for the printer. To submit an image for consideration follow these steps.

Submit a small JPG image (less than 100kb in size) for consideration

Obtain all of the information about the image including:

Location

Date

Photographer

Camera stats

Owner of items in the scene

Description of scene

Once accepted send the large file as a JPG, RAW, TIFF, etc.

Send your submissions to calendar@caorm.org before October 15th, 2017 Thank You

MODEL RAILWAY ANIMATION

PART 2: INPUT CONTROLS

Text & Images by David King

Welcome to the next instalment of this series as we build on what we learned in the previous lessons and now we will add some controlling features. The items that we will add as new inputs will include pushbuttons and photo resistors. Both of these items are included in all of the 3 kits that I outlined in the original article so you should have all of the physical parts needed to complete the projects in this article.

The Pushbutton



PHOTOS ABOVE: These pushbuttons are from (left to right) Adafruit, Arduino, SparkFun

The pushbutton is one of the more common items that we use as an input device in the world of microcontrollers and our UNO is no exception. Pushbuttons can have a variety of physical appearances but for the most part almost of them function momentarily while they are being pressed or activated and have only 2 connections. Pushbuttons are mostly of a normally open contact type meaning that the contacts will not be connected while at rest so the 2 connections remain electrically separate from each other but once the pushbutton is pressed or activated the 2 connections are touching each other completing an electrical path between these 2 connections.

Pushbuttons can also be configured so that they are considered to be in a normally closed contact type so that the operation of the pushbutton works in the opposite state of the normally open type. This means that they would have closed or shorted contacts at rest and the contacts would open when the pushbutton is activated.

All of the pushbuttons in our kits are of the normally open type so that is the ones we will use in our sketches.

A Simple Test Sketch

To start learning more about how these pushbuttons work with our UNO's let's write a sketch that will activate an LED while the pushbutton is being pressed. This is a

simple sketch but it will show us the basic needs in our sketch to make this work properly.

Previously we have used `pinMode()` in the void setup to set one of the digital pins as an output, now we will use that same function to set the digital pin as an input device. We have 2 options in this function to set the digital pin and in one case the digital pin will be looking for a 5 volt input being connected to the pin and in the other case the digital pin starts with 5 volts on the pin and looks for it to be connected to ground. Both cases will produce an acceptable signal to the UNO using a normally open pushbutton but the first case will require us to add a 10k ohm resistor to the circuit and the second case only the pushbutton is needed.

In void setup we will add `pinMode()` and set up 2 pushbutton inputs, one using each of the possible cases for the input types. The first function will be used for the case that requires us to add the 10k ohm resistor to the pushbutton. We will declare which digital pin will be used in the variable declaration area of the sketch so add `int pushbutton1 = 2;` to that area so digital pin 2 is assigned as an input.

```
pinMode(pushbutton1, INPUT);
```

The second pushbutton will be assigned to pin 3 so add `int pushbutton2 = 3;` to the declaration area and the following code to the void setup.

```
pinMode(pushbutton2, INPUT_PULLUP);
```

At this point you will need to add 2 LED's to finish this sketch, as each pushbutton will control a LED. Be sure to declare your variables and include `pinMode()` for each of the LEDs.

In the void loop portion of the sketch is where we will check the condition of each pushbutton to see if they have been activated or are sitting at rest. Based on the results of the check we will set the states of the LEDs to match what the input pin sees. In other words if the input pin sees a high signal, near 5 volts, the LED will illuminate and if the input sees a low signal, near 0 volts, the LED will be dark. To check the condition we will use an `if ()`. The code would look something like this.

```
if(input == true) // This compares the input to a state
{
    turn LED on; // If the result of the compare is true
do this
} else {
    turn LED off; // If the result of the compare is false
do this
}
```

A new feature within the compare portion of the **if()** is the use of compares. Compares come in 2 types, basic and complex. Basic compares include *equal to*, `==`, *not equal to*, `!=`, *greater than*, `>`, and *less than*, `<`. Complex compares would include *greater than or equal to*, `>=`, and *less than and equal to*, `<=`.

We will need to do a separate compare, **if()**, for each pushbutton. The one thing that is missing from this code is that we need read the state of the digital input pin and for this we will use a code similar to the code that we use to set the condition of our LEDs. The state of the input is also a new data type as there are only states, *true* or *false*. This new data type is Boolean and we need to use this data type to declare the new variable. The variable declaration should be located in the same location as the declaration of other variables and the code for reading the state of the input would be in the void loop. Both are shown below.

```
boolean pb1State = false;
pb1State = digitalRead(pushbutton1);
```

If all has gone well the following sketch will be similar to the sketch that you have created.

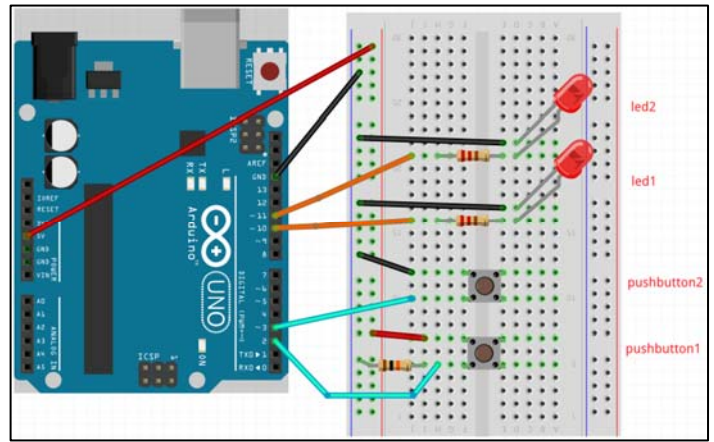
```

Pushbutton_Test
1 // Pushbutton_Test.ino by David King
2 // This sketch is used to test the function of 2 pushbuttons
3
4 // include any associated files in this location
5
6 // declare any variables needed in you file here
7 int pushbutton1 = 2; // Assign the pin for 1st pushbutton
8 int pushbutton2 = 3; // Assign the pin for 2nd pushbutton
9 int led1 = 10; // Assign the pin for 1st LED
10 int led2 = 11; // Assign the pin for 2nd LED
11 boolean pb1State = false; // Assign the initial state for 1st pushbutton
12 boolean pb2State = false; // Assign the initial state for 2nd pushbutton
13
14 void setup() {
15 // Set the pin modes for the pushbuttons & LEDs
16 pinMode(pushbutton1, INPUT);
17 pinMode(pushbutton2, INPUT_PULLUP);
18 pinMode(led1, OUTPUT);
19 pinMode(led2, OUTPUT);
20
21 }
22
23 void loop() {
24
25 pb1State = digitalRead(pushbutton1); // Read the state of 1st pushbutton
26 if(pb1State == true) // Check the state of 1st pushbutton
27 {
28 digitalWrite(led1, HIGH); // If true do this
29 } else {
30 digitalWrite(led1, LOW); // If false do this
31 }
32
33 pb2State = digitalRead(pushbutton2); // Read the state of 2nd pushbutton
34 if(pb2State == true) // Check the state of 2nd pushbutton
35 {
36 digitalWrite(led2, HIGH); // If true do this
37 } else {
38 digitalWrite(led2, LOW); // If false do this
39 }
40
41 }

```

PHOTO ABOVE: Here is the wiring layout for you to use with your UNO to work with the code above.

When using this sketch we just created it would be helpful to understand how the 2 pushbutton inputs differ in operation. In the case of pushbutton 1 the operation is straightforward in that when the pushbutton is activated 5 volts is applied to digital pin 2 on the UNO. Since digital pin 2 sees 5 volts in this case the input will read this as a true signal. When pushbutton 1 is di-activated or let go the input voltage drops to 0 volts because 5 volts is inter-



rupted as the contacts of the pushbutton open. Also the resistor that was added is connected from digital pin 2 to ground so any residual voltage remaining after the pushbutton is released will drain to ground dropping the voltage to 0 very quickly reading this as false signal.

In the case of pushbutton 2 we do things a little different. To start with we set the **pinMode()** of digital pin 3 to `INPUT_PULLUP`. Doing this applies 5 volts to the input pin and it is supplied from within the controller chip. This time when we activate or press pushbutton 2 and the contacts inside of the pushbutton close we ground out digital pin 2 causing the voltage at digital pin 3 to drop to 0 volts so that reading this input signal would be seen as a false signal. When pushbutton 2 has been released and the contacts of the pushbutton are open the voltage supplied by the internal workings of the chip will again apply 5 volts to digital pin 3. This pin is now seen as a true signal. The operation of pushbutton 2 is opposite of that of pushbutton 1 and the results can be seen in the LEDs.

If you want to experiment a little try adjusting the compare in the **if()** for pushbutton 2 so that you compare the input state equal to false. This can be done by changing the code on line 34 to `if(pb2State == false)`. This should now make both switches to appear to work the same except that pushbutton 2 requires 1 less external component. Other changes in the code can also get you to the same results as there are multiple ways to make the pushbuttons appear to work the same.

Photo Resistors or LDRs

A photo resistor or light dependant resistor is a nothing more than a device that has a variable resistance and the resistance is varied depending on the amount of light that is shining on its surface. The basic operation is simple in that if a bright light is shining on the device the resistance is low and when the light is reduced the resistance increases. The amount of light will vary the resistance from a few hundred ohms to many thousands of ohms. To test this we can create a simple circuit using our kit and display the results using the Serial Monitor.

For this test we need a way of reading this variable value with the Uno and this is done using one of the analog input pins that are labelled A0 through A5. Using the diagram below to connect the required parts to your Uno.

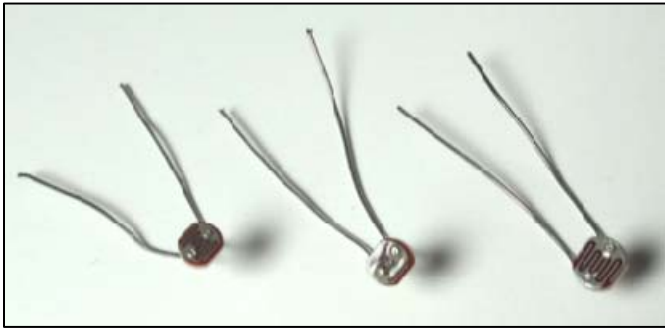
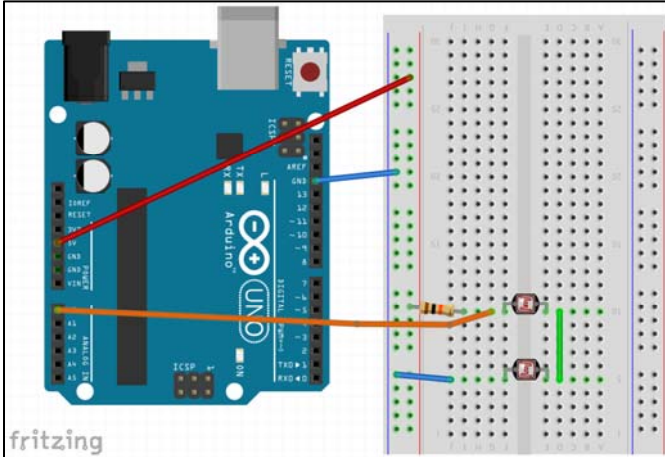


PHOTO ABOVE: From left to right these photo resistors are from Adafruit, Arduino, SparkFun



Using the analog input pin will require us to learn a new function.

```

PhotoEyeTest1
1 // PhotoEyeTest1.ino by David King
2 // This is used to test and monitor the input of a photo resistor
3
4 // include any associated files in this location
5
6 // declare any variables needed in you file here
7 int photoEyeValue;
8 int photoEyePin = A0;
9
10 void setup() {
11 // put your setup code here, to run once:
12   Serial.begin(9600);
13 }
14
15
16 void loop() {
17   photoEyeValue = analogRead(photoEyePin);
18   Serial.print("Photo Eye value = ");
19   Serial.println(photoEyeValue);
20   delay(100);
21 }

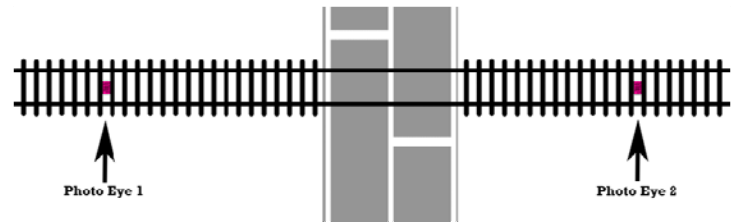
```

`int photoEyeValue = analogRead(pin);`

The value that is seen is a 10 bit number meaning that

it will range from 0 to 1023. We can use the serial monitor for this test so here is the sketch that will do this task.

Once you have the sketch completed and uploaded into the Uno as well as have this wired up give it a try and look at the resulting values displayed in the serial monitor. You should be able to see the value displayed vary as you block some or all of the light shining on each of the 2 photo resistors. You can also block the light to both photo resistors at the same time. The reason that I used 2 photo resistors is that is the minimum number needed to trigger a railway graded crossing. One photo resistor would be required on each side of the roadway. If you have more than single track to guard with your grade crossing flasher you can add more photo resistors connected in series with the first pair. I haven't tried using more that 6 photo resistors at a time.



Conclusion

Using what we have done here in this article we can put these ideas together along with what was in the part 1 and maybe just one or two more ideas and we can develop this into a fully automated set of railway grade flasher lights with sensors. If you want to give this a try be sure to go to CARM website in the member section and check out the expanded article. That article will detail the calibration of your photo resistors to work properly based on the lighting in your layout room as well as how to trigger the flashing grade crossing lights with a little extra running time to allow your train to clear the grade crossing.

The next instalment of this series will involve motion, which can be incorporated using a servo or motor. Both of these items are included in your kits.

This is a project that you can start at anytime even if you have not viewed the previous article from this series. The previous articles are available in the preceding two issues of *The Canadian*, so enjoy!

PUBLICATION SCHEDULE FOR *THE CANADIAN*
The Canadian is published four times per year. Submission by authors or Chapters should be submitted by the following dates.

Spring Issue: February 1 Summer Issue: May 1
Fall Issue: August 1 Winter Issue: November 1



CAPITAL REGION MODEL RAILWAY TOUR

2017

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WWW.CAPITALTRAINS.CA

We have 19 layouts lined up, in all scales and degrees of Completion. Registration is at St. Anthony's Banquet Hall on St. Anthony St, where there will be 5 modular layouts available for viewing. A GPS is recommended for navigation on the tour.

BOOMER AUCTION

October 28, 2017 - Annual Boomer Auction of model railroad equipment and materials at the Spirit and Life Centre, 184 Wellington St. W., in downtown Chatham. Admission \$5.00 (includes door prize draws). Tables available at 8:00 am, auction sale starts at 10:00 am. For additional information contact Gary Shurgold, 37 Holland Ave., Chatham, N7M5X8, ph. 519-352-3620, e-mail gshurgold@gmail.com

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Wooden Cars on Steel Rails



A History of the Crossen Car Company, Cobourg, Ontario

Ted Rafuse

Wooden Cars on Steel Rails chronicles the Crossen Car Manufacturing Co, Canada's largest independent builder of wooden rail cars 1866-2016.

A Railway to the Isle

A History of the Strait of Canso Railway Car Ferry
1890-1955



Ted Rafuse

A Railway to the Isle outlines the rail car ferry service between Cape Breton Island and Nova Scotia 1890-1955.

Rails across the River



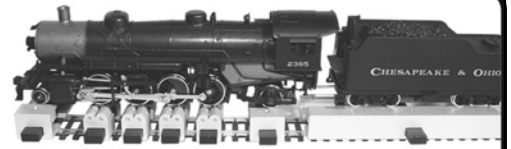
A History of the Rail Car Ferry Service
On the St. Lawrence River
Between
Prescott, Ontario & Ogdensburg, New York

Ted Rafuse

A History of the Rail Car Ferry Service on the St. Lawrence River Between Prescott, Ontario and Ogdensburg, New York, 1858-1970.

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website: www.mlwservices.ca

A 60' Boxcar

CPR International of Maine

By George Dutka photos by George Dutka and Peter Mumby

Models of this interesting CPR model have been offered over the years by Robin's Rail and in later years Walthers. CDS offered a dry transfer set, #498 for the double door version if one is starting with an undecorated model. A bit on the history of these cars is in order before I get into how I weathered my model.

Car History

Peter Mumby helped me out with a bit of history of these cars. CPR had two styles of 60' boxcars in it's International of Maine fleet, a single and double door version. The single door style is a XAP series which had 126 cars numbered 205500 to 205625. These cars which were built in 1966 are Pullman-Standard cars built at the Michigan City, Indiana plant. Being built in the US they are permitted to operate into Canada as cars from other US carriers. Being US the CP added them to their International of Maine fleet. The fleet although a Maine fleet would not have seen Maine at all as they are used to haul auto parts from US stamping plants to assembly plants in Ontario.

The CP International of Maine double door boxcars which is a small group are numbered 205000 to 205025. The cars are built during 1966 around the same time as the single door fleet. These cars also entered CP's auto parts fleet.



PHOTO ABOVE: CPAA 205589 is a well worn view of this 60' single door car. Peter Mumby collection

PHOTO BELOW: CPAA 205620 a single door car, although in its original paint all one sees is the International of Maine lettering another interesting way to letter a car. June 12, 1983, Peter Mumby photo





PHOTO ABOVE: CAAA 205011 The International of Maine logo can still be seen lightly on this double door version. Peter Mumby collection.

My Model

Sometimes one has pieces of rolling stock that just hang around so long one wonders if it will ever get completed. Well, mine is a Robin's Rail CPR 60' boxcar kit that has been sitting on top of my picture print box along with a few prototype photos I took to help with the details. I am thinking this car had sat there for a decade along with a BAR 40' reefer. I was wrong, seems I took the photos to help work with it in 1989 and 1990...boy does time fly...22 years. Over the years these two models became my parts sources of trucks, couplers, and mounting screws. Back in 2012 I finally decided to do something with this 60' boxcar. I had just purchased 8 Bragdon weathering colours that I first tried on my D&H cement car. I thought this larger car side surface could be great for experimenting on. If I mess it up it could be finally retired.

This car does not fit my 1950's era modelling but I do enjoy the other era's. I have enough equipment to run at least one or two trains from the 1960's and 1970's. I don't plan to build much more for what I call the modern era (anything after 1960). I do like to dabble with these era's.

To get this car operating once again it needed to be furnished with Kadee No. 5 couplers and a set of trucks. Once added I gave the entire car a coat of Floquil flat finish. When it was dry I began with the Bragdon pow-



PHOTO ABOVE: My model is seen with some prototype photos I used to complete my weathering.

ders. I use quality brushes which are the same as I used with my PanPastels. On such a big area, the widest brush is used for applications and also my fingers, let me explain the process.

The underside and trucks are done first using some of the rust colours brushed on. Bragdon has three rust colours, light, medium and dark. I find the dark rust colour

looks a lot like a flat finish boxcar red and I use this colour a lot. I like the look of Light Rust on the couplers which needs very little. I then moved to the roof then the ends and finally the sides. On the roof, I began with Dark Rust followed by Soot (blackish finish), Ash (a grayish white) and Medium Rust. I blended it together using my wider brush. I used the same colouring of weathering powders on the ends but less of it. On the sides, I began by streaking some Soot and Light Rust on followed with Ash over the lettering streaking it down below. I randomly added some Dark Rust to the large side panels. To get a better blend I used my finger to mix the powders together starting from the roof working down to the bottom of the car. This was done mainly over the lettering. I did not seal any of the powders as I don't handle the car much and applying a flat finish over the model takes away from the flat looking weathering.

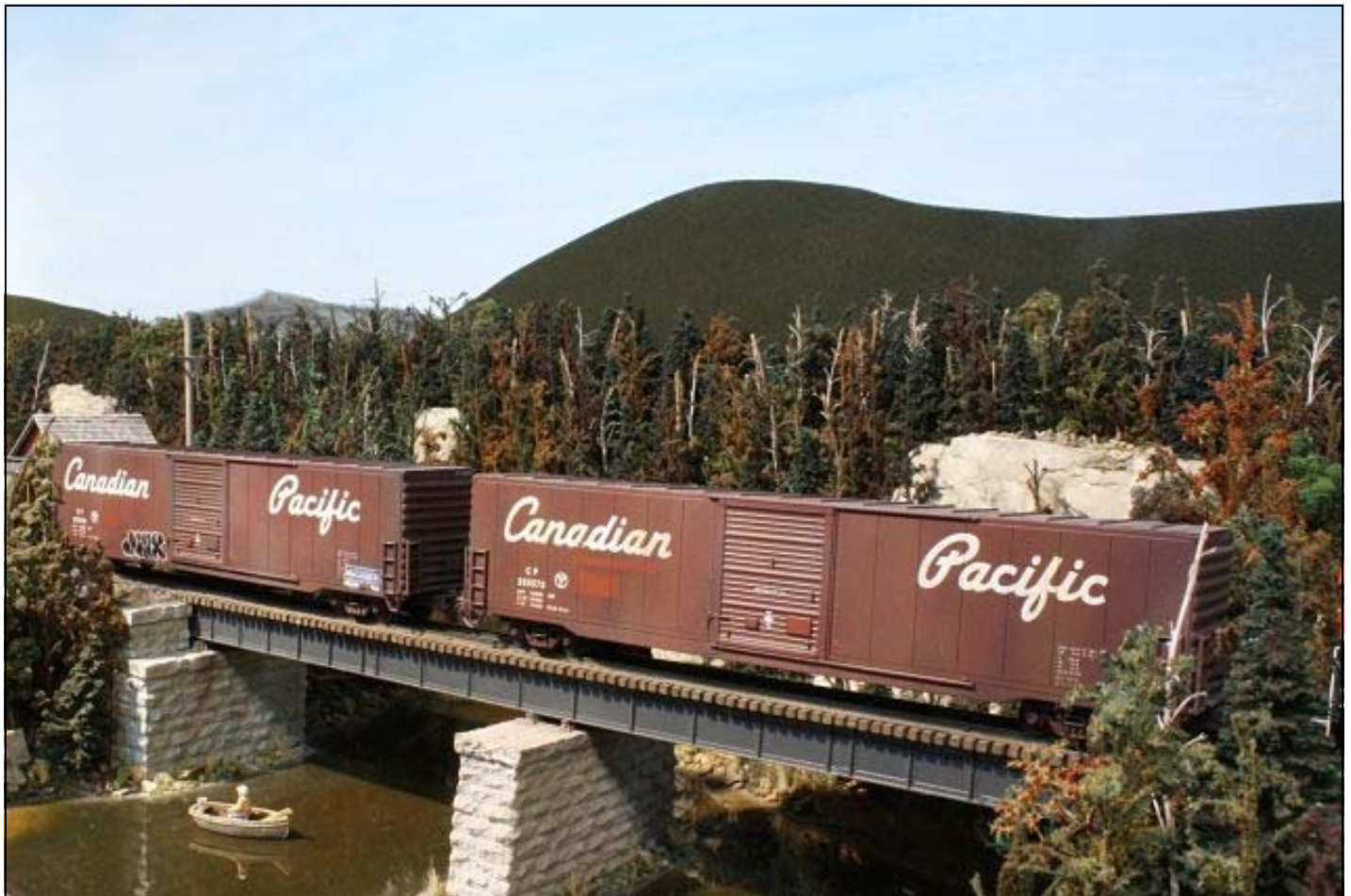
I think the car turned out great and it became a great working surface to play with my powders.



PHOTO ABOVE: A view of the colours of Bragdon Powders and brushes I use to weather my model.

PHOTO BELOW: The finished 60' CPAA boxcar is headed over the White River on the White River Division layout.





Peter Mumby came over with two Walthers cars he purchased that had some weathering and paint applied. The modeler must have photos of these cars with the International of Maine painted out. This was done to both cars. Some graffiti was also applied along with a light overspray of weathering. Two really interesting looking cars from a later era.

PHOTO ABOVE: Peter Mumby purchased a two pack of Walthers 60' models that are lettered for the CP International of Maine. His cars has a few paint outs, graffiti and weathering applied.



The Shelter Valley and Trent River Railway: Revisited

Text by Ted Rafuse

Photos by Ted Rafuse and John Johnston

The Canadian, issue #20, first revealed John Johnston's layout. In this second visit to The Shelter Valley and Trent River Railway several alterations and additions to the layout are presented. A reference to that article and the layout diagram will place these modifications in perspective in relationship to the full layout. The area to the left in the track diagram as well as the town of Cordova have received a total revision. Now in place is a truss bridge over the Trent River, a pastoral rural scene with a large curved wooden trestle and the completed town of Cordova. These areas provide the focus of this illustrated article. Additional views of John's S-Scale layout are included. The loop depicted on the diagram no longer exists being replaced by a staging yard in the furnace room.

In a further alteration to his modelling, John now employs a Digitrax system to operate his locomotives. He installed the necessary receivers in his engines with the initial assistance of a fellow modeller. The former electrical blocks are retained should trouble shooting maintenance be required.

PHOTOS BELOW LEFT: This model of a steel through truss bridge is a major focal point on the layout. John



built the span from scratch using plastic forms. Many hours later this was the product of his effort and a wonderful display of his modelling skills and detailing. The bridge is based on plans of the Burnt River structure obtained from fellow modeller Keith Hansen. Keith's father worked on this subdivision (Haliburton Sub). John constructed the bridge as a segment of the S-Scale Workshop group display when those modellers set up their display for public viewing. As such the bridge module is re-moveable. The Workshop had suggested a rural setting as a theme for the new module thus the inspiration to construct the river scene.



The bridge is not just a show of beauty. It serves a function that being to carry the weight of a locomotive and train while allowing the engine and trailing cars to span the Trent River at an elevation. Here 7528 a leased 0-6-0 switcher from the Grand Trunk is performing a transfer from Cordova to Trent River South. The locomotive is a brass Raisin River model. It is emerging from the north end of the bridge with a pair of two 2-bay covered hopper cars trailing. The train is about to trip the approach signal on the stand that spans the several tracks at the south end of Trent River South. Once in the yard, the locomotive will commence its switching of cars.



PHOTOS ABOVE & LEFT: An overall view of the half circle end of the layout which depicts a farming area. John built all the farm structures and the wooden trestle that spans a portion of the Shelter Valley. The trees along the right of way include a combination of Woodland Scenic tree kits and hand-crafted trees. For the latter, armatures are pieces of split cedar, sanded to shape, stained and painted with wire branches. Furnace filter pieces were then glued to branches and foliage added.

The farm is fastidiously maintained. The house has recently been repainted to the happiness of Esther, John's wife. The barn

is cleared of clutter, perhaps John knew a photographer would be by shortly to take images of his property for insurance purposes. Note the tractors neatly parked in the shed and the half ton GMC poised to go to town for groceries and farm supplies. The shell of the half ton box will soon find another useful purpose once John sets his mind to recycle it. Further detailing will be added to the farm so that it appears more like a working farm. The Holsteins meandering back to the barn are oblivious to the intricate engineering displayed in the wooden trestle behind them. This curved timber trestle is but another example of John's meticulous modelling skill.

PHOTO BELOW: The trestle is not merely an object of engineering beauty it is also a means by which the rails cross the farmland of the Shelter Valley. The trestle is two Hunter Line Kits combined to provide length and assembled in a curve to accommodate the right of way.

Watching the Otonabee Express pass by, farmer John idles his tractor to watch the passenger train ease its way through the junction tracks. Beyond the junction is a staging yard hidden in the furnace room. And yes, modeller John was once a farmer in the Shelter Valley and later in life became an agent for an insurance company specializing in farm insurance. So his modelling focus synchronizes with his life experience.





PHOTOS ABOVE: The coaling tower masks a modelling saga. John sought such a rail facility for his layout but could not locate an S-Scale version to his liking. Modelling friend Bob Duncan happened to have a plastic HO Model Power kit whose appearance captivated John. He borrowed the kit and transcribed the HO scale measurements to S-Scale. With this mathematical conversion he commenced to construct the coaling tower from scale wood with styrene roofing. Many modelling hours later he was able to install his coaling tower version in Cordova.



PHOTO LEFT: As a long time admirer of John's modelling skill this gasoline station to the author's mind is a prime example of his skill. It is based upon a Maritime prototype, an Irving Oil station, featured in Model Railroader, May, 1988. Except for the cedar shake roof (Campbell Scale Models) the structure is all styrene (Evergreen products) along with Grandt Line windows and doors. Vehicles are die cast Greenlight and M2 issues. Gas pumps are also Greenlight products with other miscellaneous detailing items.

PHOTO BELOW: Industries dominate the Cordova harbour front. A large cement grain terminal towers over the background of this image. Several Soo line covered hoppers rest on the terminal track and have dropped their load of grain through the tracks underneath the covered portico designed to prevent the grain from wet and windy weather. The elevator company stores the crop until sold and then ships the product out by lake boats to customers world-wide. Towering over the coal site is a large bucket crane. It is often kept busy unloading the coal from the barge, depositing the coal on site, and then loading the coal into hopper cars for forwarding to customers along the SV&TR. The crane is a unique item of modelling. The bucket crane is a Lionel truck crane removed from the truck body and mounted on track undercarriage from another toy item, painted and weathered to provide this reconstituted model. The clam shell is a commercial product. The coal barge is a Deerfield wooden laser kit.

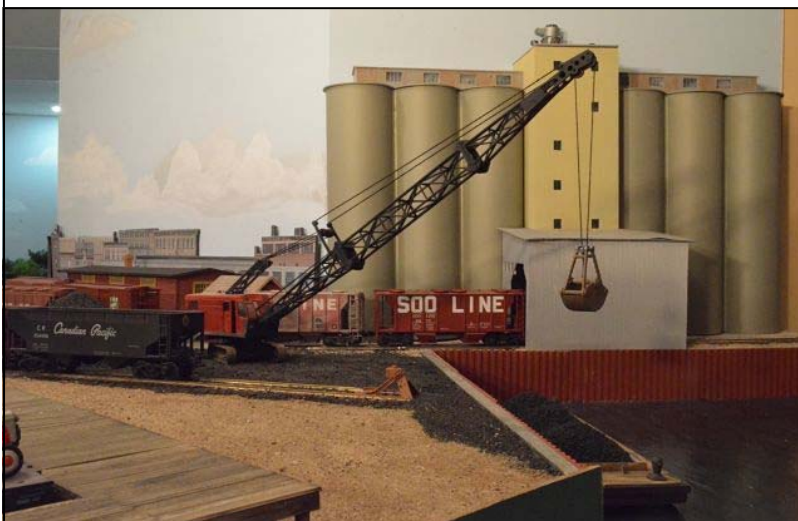
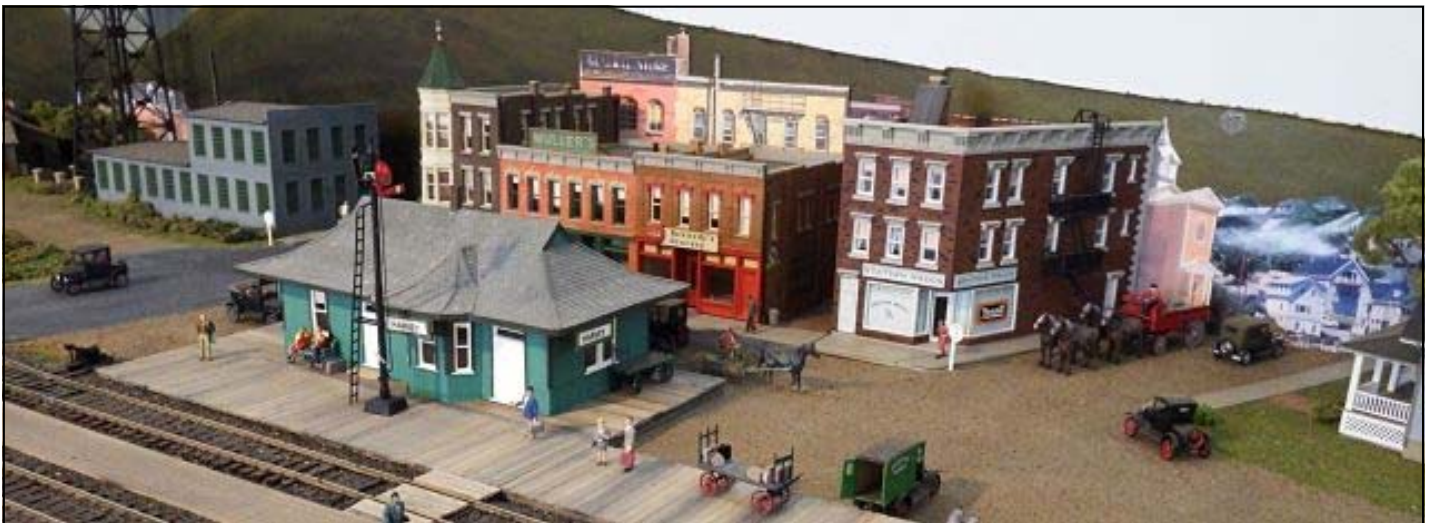


PHOTO ESSAY OF THE CARM MONTREAL MEET BY WALTER REID

EDITORS NOTE: The next several issues will feature layouts that were open for the Montreal meet.

Pierre Lamontagne's Chambord & Port Alfred Railway



Remi Gagnon's CN Ontario Subdivision



DON JANES' GREEN MOUNTAIN DIVISION

Photos By John Johnston

