



THE “CANADIAN”

a bi-monthly publication of the
“Canadian Association of Railway Modellers”
www.caorm.org

MAY JUNE 2004 ISSUE #3

CARM REACHES 500 MEMBERS



Module of the
Southern Ontario
S Scale Workshop

CARM continues its steady growth and in the early days of April passed through the 500 member threshold. This incredible early growth has highlighted the need to start the process of creating Local Chapters, which is now underway. There is more information on Page 3, the Association News Page.

You have all heard this truism, “an organization is only as good as its members make it”. This is particularly true of hobby organizations and ours is no different. If we are going to succeed we must involve modellers at the local level. If your area is not one of those where a Local Chapter is now forming, consider being the person who steps forward to get one going.

1st Annual CARM Convention

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Larry Murphy's
HO Scale Lindsay Module



FROM THE OBSERVATION PLATFORM
John Johnston: EDITOR

This month's editorial covers a variety of topics. On the cover and elsewhere we are showcasing a number of modular layouts that we have seen in the last few months at various train shows. Those of us with home layouts, club layouts, or no layouts need to recognize and applaud the role modular layout owner's play in the hobby.

They spend countless hours and considerable effort transporting and setting up their modular displays and I have no doubt that they are seen by more members of the general public than any other aspect of the hobby. They have become wonderful ambassadors for model railroading. Next time you see a modular group at a show, don't nit pick because it isn't up to your standards or doesn't follow your scale or prototype, introduce yourself and say thanks to them for being there and putting our hobby on display. One of our layout features this month is Small Layouts by Brian Fayle. For those of you who have had the opportunity to see Brian's work you can appreciate how much he packs into a small space. If you haven't seen Brian's work try to access his website at www.brifayle.ca where you will be intrigued by what he has accomplished.

I actually found a few days this month to work on my layout. That hasn't happened since CARM was formed. This hobby "really is fun".

We had a CARM Board meeting in St. Catharines in early April and that led to a visit to Niagara Central Hobbies. I was disturbed to find out that they had been broken into and much of their extensive collection of brass, \$35,000 worth, had been stolen. The robbers had disabled the security system and the video surveillance system and then made off with a large selection of HO and O brass as well as some G Scale equipment and some model airplane stock. Ray is offering a \$10,000 reward for anyone who has information, which leads to the stolen property and the thieves. One item of note, the thieves didn't take any of the boxes which the brass came in, so if you are on E-Bay or at a flea market and you see brass being sold at unreasonably low prices or without a box, contact Ray at Niagara Central at 905-684-7355.

Richard Dilley has been setting up a Chat Room every second Sunday night through the CARM Yahoo Group Site. Involvement has been both entertaining and informative. If you have web access and haven't joined in, consider doing so you will find it interesting.

The Canadian is continuing to evolve and I really appreciate those of you who have given me feedback. Let me know what your thoughts are, I value them all.

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should be sent to:

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COVER PHOTOS

Upper photo by Pete Moffett:
Module of the Southern Ontario S Scale Workshop on display at the Copetown Train Show

Lower photo by Pete Moffett:
"Fenelon Falls" Module by Larry Murphy of Lindsay on display at the Copetown Train Show

**BACK ISSUES OF THE CANADIAN
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TO ORDER BACK ISSUES CONTACT THE EDITOR

CHAIR

Membership has now passed the 500 mark, which is a significant benchmark for such a new organization. Thanks to everyone who has been spreading the word about CARM and to people like Richard Dilley who have been doing yeoman work on the Web and George Stephenson who has been a stalwart for us at Train Shows in Ontario. There are a number of items, which I wish to report on this month.

National Conventions: Plans are well underway for the National Convention in St. Catharines, Ontario, at Brock University over the Victoria Day long weekend. If you haven't registered yet there is a registration form on the last page.

Chapters: As I have previously reported we have been working hard to create local groups of modellers. We initially were calling these Divisions but have now decided to call them Chapters due to their autonomous nature. A number of our

fellow members have agreed to host organizing meetings and we will be providing them with mailing lists for their areas and they will be in contact with you. If you are invited to a Chapter organizing meeting, I urge you to attend. The Chapter will decide its own geographic boundaries and will elect its own officers. If CARM is to grow into a strong and healthy organization it will be because of the strength of these local Chapters. Here is a list of Chapters under development. If there is not one in your area, consider contacting us and being the person who gets things going.

Golden Horseshoe Chapter: covers the Hamilton/Niagara area

Credit Valley Chapter: covers the area west of Toronto including Mississauga, Brampton, Oakville, and Burlington.

Ottawa River Valley Chapter: covers the area surrounding the City of Ottawa.

Chatham Kent Chapter: covers the southwestern corner of Ontario

including the cities of Windsor, Sarnia, and Chatham.

Owen Sound Chapter: covers the Bruce Peninsula including the cities of Owen Sound and Collingwood.

Muskoka Chapter: covers the area encompassed by Barrie, Gravenhurst, Huntsville, and Parry Sound

Craftsman/Craftswoman Program: We are now ready to roll this program out thanks to an incredible amount of work by Bill and Mary Miller, supported by Lex Parker and Pete Moffett from the Executive. The program is extensive and too large to be printed in the newsletter. Information can be found on the CARM website or by contacting me by mail (mail info on page 2) and I will see that the information is forwarded to you.

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SMALL LAYOUTS

By Brian Fayle
Photos by the Author

Growing up in England and emigrating here I suppose it is only natural that my modelling has reflected my British heritage. Houses over there are much smaller than they are over here, population is denser and there are model railway clubs galore. These, with the odd exception, hold shows in small halls. All this has led to a predilection for small layouts. I have only owned one classical 'built in the basement' layout. In fact I have only owned two houses that had usable basements. Harlyn Junction was the built in one and this, for a variety of reasons, was never finished

Since then I have made 3 layouts and they all have been finished. Now how many of you can claim that with even one layout? My first 'small' layout was Camelot. This was a 30' x 2'6" modular layout. I call it small because it never took up that much space in the house as I could only get three of the 5 baseboards up at the same time. Camelot was designed as an exhibition layout and had a successful career as such. Eventually maintenance became tiresome and it was scrapped. The baseboards were made from 1/4" plywood on 1" x 2" frames with homasote on top. The support system was separate. The whole was relatively lightweight and strong. I could assemble and disassemble it by myself. The baseboards live on now in a train room I created in the basement when a new room was added to the house. So, I could well go full circle back to a built-in layout.

One of the joys of Camelot was taking it to shows and sharing my creation with others. When it came time to build a replacement, lightness and ease of assembly were at the top of my planning requirements. I chose to use 1" styrofoam on a grid base of 'doorskin' plywood. The largest baseboard was 5' x 3' and weighed 28 lbs with the folding legs attached. This survived the rigors of setting up and



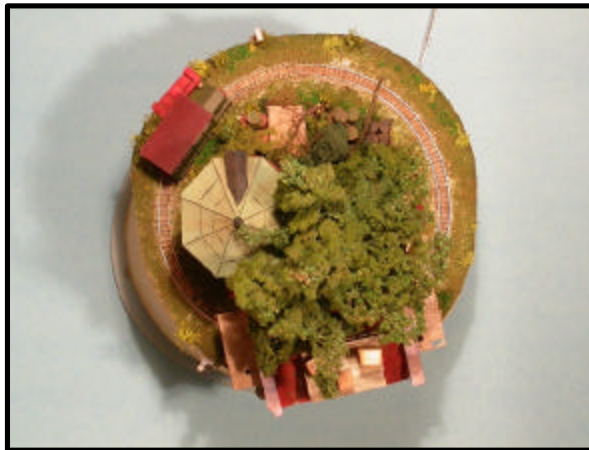
taking down very well. Knotts Wharf is still standing but has been retired from the exhibition circuit. Knotts Wharf was to 1:43 scale so it had some pretty large structures on it. Initially these were removed and put in place when the baseboards had been set up. This added considerably to set up time, especially as most of the time I was by myself. The decision was made to glue down as much as I could, and this included the backscene, and then figure out how I could transport everything at a reasonable cost. The purchase of a small trailer provided the answer.

Knotts Wharf proved to be successful on the show circuit and made an appearance in Model Railroad Planning 2002. Tony Koester wanted it there to show what a classical British layout looked like to complement the articles that Ian Rice, a well known Brit scribe, was writing for Kalmbach. The item he really wanted to show was the hidden fiddle yard, or staging yard. I think fiddle yard is a much better description because that is what you do there on a small layout. Knotts Wharf was highly detailed and the average exhibition

hall lighting left much to be desired. A self-contained system was added and now people could see the detail that was there.

In due time Knotts Wharf was finished and it was time for a new venture. One of Camelot's old baseboards looked a suitable candidate. This was the odd man out construction wise as it was made on a 3/8" plywood grid. Still relatively light and certainly strong. It's size of 43" x 41" fitted nicely in my minivan. Whereas my previous layouts had been end to end I decided to design this one for continuous running. I had noticed that at shows this sort of layout seemed much easier on the operator(s). The paying customers seemed to want action. I was still in 1:43 scale but switched to narrow gauge or 016.5, the Brit equivalent of 0n30. After much fiddling around I got two loops on the baseboard. There was a lower of 16.5 mm gauge track and a slightly higher oval of 9 mm gauge track. In a small layout it is essential to break up the scene to make the layout look bigger than it is. This was achieved with a Y shaped overhead viaduct.

Initially the layout just sat on the standard 8 or 6 foot tables provided free at shows to exhibitors. The great advantage of this form of baseboard support, apart from the fact that you don't have to bring it with you, is its solidity. The tabletop height proved to be a bit low for adult viewing so a simple box frame was made on which the layout was placed. After a few shows the need for ancillary lighting was again evident and this was added. Underneath the Arches was featured in the Sep/Oct 2003 Narrow Gauge and Shortlines Gazette



area, there are quite a few in the 10 - 15 sq. ft. range and some micros which are under 2 sq. ft. showing under the Narrow Gauge Madness banner. The advent of Bachmann's On30 range of models has certainly spurred interest here.

This has been a short overview of one persons experience with what, in North American terms, could be described as small layouts. They would all be at home in the UK. The essentials of a successful small layout I would list as one baseboard, that will sit on a table

with a continuous run, scenery designed to hide part of the track so the viewer can't see all the layout at once and everything highly detailed. It really can be thinking outside the box and a lot of fun. It also becomes addictive. I am starting on the next layout, as Red Fox is finished.

To see the layouts mentioned visit my web site <http://www.brifayle.ca>

Underneath the Arches got completed and a new challenge was needed. By now I had got interested in Gn15. This is 1:24 scale running on 16.5 mm track. My introduction to this was through a Yahoo group that I belonged to. These groups are a great way to get and share ideas but time rationing is essential otherwise you never get any

modelling done. The Red Fox Amusement Park is 30" x 23". It is built on a piece of 1" foam with a 1" x 2" and 3/8" plywood frame. Light and strong. It too is a continuous run with two hidden sidings at the back. Again, a built in light source was added, as was a box base to bring it up to a good viewing height.

When I first started showing my layouts there were not too many private, as opposed to club layouts on the circuit. Now, here in the Toronto

CANADIAN PACIFIC "WITCH'S HAT" STATION

Drawing provided by Bill Annand and based on CPR Orangeville Station



Notes:

1. Measurements were taken from the prototype building at Orangeville.
2. The roof is Asphalt Shingles, the walls wooden clap board.
3. Colour: CPR boxcar red, white trim, black roof.
4. End under "hat" is circular.
5. At rear of building, bay window is replaced by 3 narrow windows, doors to baggage room are boarded up.

CANADIAN AUTHORS

Hamilton's Other Railway traces the 19th century Hamilton & North Western Railway through its pioneering construction to its eventual absorption into the Grand Trunk Railway, and on to its take-over and assimilation by Canadian National Railways. Historically, this book is not only a tale of civic pride and ambition as Hamilton struggled to rival Toronto in its emergence as Ontario's Queen City, but from the perspective of early Ontario's tumultuous railway history, also a compelling summary of the reasons for the gradual transformation of 19th century railroading in Ontario. The ambitions of the Hamilton & North Western were a thorn in the sides of both the Grand Trunk and the Great Western as they duked it out for supremacy. Then, through its own

politically necessary merger with the Northern Railway of Canada to become the Northern & North Western Railway, it proceeded to heed the economic imperative of the budding transcontinental Canadian Pacific Railway project, and thus became a strategic property in the emerging bid of the Grand Trunk to keep the Canadian Pacific out of Ontario.

Hamilton's Other Railway features many unique, previously unpublished images from archival and other collections, along with great photographs from the Al Paterson, Dave Shaw, James Brown and Keith Sirman collections, and many other individual contributions, such as from the Gary Mauthe postcard collection, and the carefully researched track diagrams and the timeless photography of Bob Sandusky. All of these have been reproduced with singular care to provide a unique pictorial treasure trove of our railway past that reaches into all the

communities that were touched by this railway; south from Hamilton to Port Dover via Caledonia, Hagersville and Jarvis; and north from Hamilton to Barrie via the Beach, Milton, Georgetown, Beeton and Allandale; with the branch from Beeton to Collingwood via Alliston and Creemore. Also included are the later services to Meaford and Port Rowan, and a rare glimpse of the railway post office service.



Photo shows accident at Ferguson and Rebecca Sts, in Hamilton, Ontario, May 27 1953

About the book

432 pages, 11X8½, 394 b&w illustrations (an estimated 215 not previously published), hard cover, colour dust jacket, complete with bibliography and detailed index.

2,000 copies have been printed. Published by the Bytown Railway Society, Ottawa, ON 2001.

Hamilton's Other Railway has been awarded the Canadian

Railroad Historical Association's 2002 Book Award "in recognition of outstanding accomplishment".

"The book's special features"

Hamilton's Other Railway is of broader application than its title suggests because of its detailed treatment of locomotive and station development in the GTR era. Of particular interest to railway modellers as well as to historians, is the substantial chapter on the development of trestles, bridges and culverts from the railway's pioneer beginnings through to the technology of the CNR era. This is a comprehensive general reference source for architectural and engineering terminology, construction methods, techniques and practices; and therefore a practical guide for any kind of model railway project.

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Where the book may be obtained

Hamilton's Other Railway is available from participating hobby stores, booksellers, some hobby show vendors, and museum gift shops
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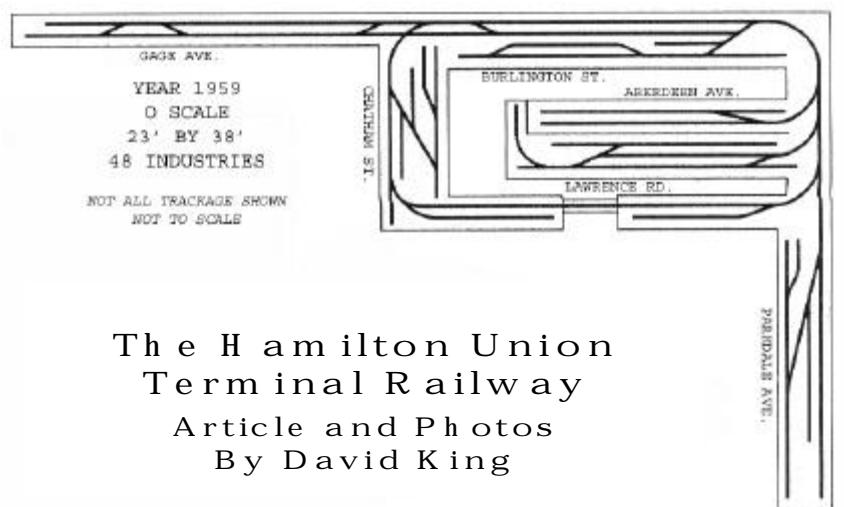
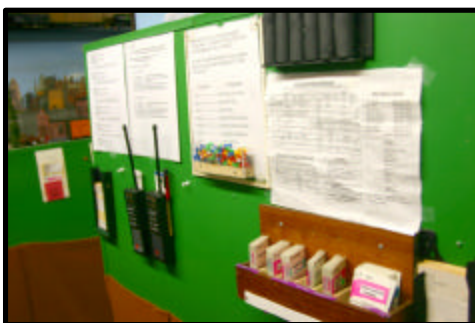
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The Hamilton Union Terminal Railway, HUT, is the O scale creation of Ken Byrnes imagination, and his familiarity with local industries in Hamilton, Ontario. This switching layout does not follow a prototype but does use real locations in Hamilton to form his fictional switching layout. The focus of the HUT is an operating layout with 48 industries to switch.

The layout is dated in 1959 and uses switchers for its motive power to complete the jobs. There are three switching jobs on the layout referred to as the White, Red and Blue jobs. Each engineer/conductor train crew uses a card/car forwarding waybill system to move the cars around the layout. At the start of each operating session, each train crew has six cars on its' interchange track. The crew has to move each of the cars to the appropriate industry. Each car at an industry also has a card that will give the crew more instructions as to what will happen during this operating session. Once these cars have been moved there will be cars that need to be passed onto the switching crew running one of the other two jobs. By this time they will most likely have cars to interchange with you. You then need to take these cars and move them to the appropriate locations and when you are finished you should again have six cars on your interchange track.

A view of the waybills, operating rules, and throttles used to switch Ken's layout.



The Hamilton Union Terminal Railway

Article and Photos
By David King

If this sounds easy, it can be, but also you should know that this can take you the better part of your 8 hour shift to complete. If this sounds like a long time it really isn't as Ken uses a fast clock to speed things up to just two or three hours. Ken makes sure that everything is ready to go again after each session so that the railway continues to flow smoothly. Ken has regular operating sessions with some of his friends and they can operate the layout with as few as three people and as many as six at any one time.

The HUT occupies a space of about 23' by 38' and is built as a 2' deep shelf layout. This concept allows for everything to be within easy reach, as most of the turnouts are operated manually. This makes for a very "hands on" layout and is easy to

operate. Throttles are a combination of wireless handhelds and one tethered throttle. The locomotives are Atlas switchers and were chosen due to their size and reliability. The 100 freight cars are from a variety of manufacturers including O Scale Athearn, Scale Craft, All-Nation and others. Some of these cars are over 50 years old so they would have been modern cars at the time that they came onto the store shelf.

Ken himself has been an active model railroader for over sixty years and still enjoys seeing trains running on the layout. His father started him with a Lionel train set and that simple joy has continued to this day.

CN switcher 7005 brings a reefer down the line behind the scrap yard



At the first convention for CARM in May of 2004 Ken's layout will be one of three layouts that will be open for an operating session on the Saturday. If you are attending you can have an opportunity to sign up for one of these sessions.



CP Switcher 6700 gets ready to switch National Grocers



Hamilton Union Terminal #2 gets ready for the days work

TIPS AND HINTS

BY JOHN LONGHURST

Vintage Signs and Billboards

One of the best ways to set the stage for your model railroad is through the use of signs and billboards. They can tell visitors at a glance which era and what part of the country you are modelling. But if you model the past, where can you find vintage signs? There are a number of commercial products available, but two other sources are old magazines (found at used bookstores) and the World Wide Web. One good web site is James A. Powell's Wiscasset, Trevino and Western (<http://www.trevinocircle.com/adsigns.asp>). The WT&W has a sign exchange that includes over 200 vintage signs you can download and print. Says James: "We have a huge library of ad signs from our former company, DP Industries. Instead of letting them all rot away in storage, we figured we'd share them all with you!" Another good source for signs is Jim and Mike Tylick's site at <http://www.trainweb.org/tylick/signintro.htm>. On their site you can find hundreds of signs to download and print for use on your layout. Finally, another great way to set the stage on your layout is with a gas station. A great source for gas station signs, and photos of gas stations, is John Cirillo's Gas Sign site, which contains hundreds of vintage and contemporary gas station signs and logos. John's Gas sign page can be found at <http://www.gassigns.org>

Simple way to change numbers

If you have several locomotives or freight cars with the same number, how can you take off the old numbers so you can put on new ones? A number of solutions have been offered over the years, ranging from using an Xacto blade to gently scrape off the numbers to various liquid solutions. Another good method is located underneath your kitchen sink, or wherever else you keep abrasive scrubbers for cleaning pots and pans. I'm talking about steel wool soap pads (such as SOS brand). To use them, first rinse out the soap, then cut off a small piece. Gently rub it on the lettering you want to take off. Don't press too hard—you just want to take off the letters or numbers. You will find that won't be very long before the letters or numbers are gone. If you want it to look like a paint job, you could surround the area you want to remove with masking tape, then rub the whole area; this will leave a box that is a slightly lighter colour. Apply the new numbers and, that's it—the "new" locomotive or freight car is ready for service.

TELEGRAPH POLES

By Lex A. Parker MMR, CRC

Telegraph poles are one of the easiest things to build. They have an amazing ability to create dimension and depth on a layout because they are installed in rows and they can be located behind or in front of the tracks and buildings. I advise locating them in front in some areas because it creates this illusion of depth. Although the following description is based on 1:48 scale, the idea can be applied to any scale. There are several manufacturers of poles and there are details for them in various scales. Poles are available in plastic for military models and I have used them and their components successfully in the past. However, the plastic parts such as insulators are delicate and break easily, especially when you start attaching wire to them. As a result, I searched for a method that would be strong, easily constructed and that could have lines attached.

POLE

I like to use birch dowels because they are strong and will not break as easily as basswood. I buy 1/4" diameter birch dowels in 24" lengths from the lumber yard. This is suitable for the approximate 12" diameter of the pole. Anything larger tends to make the poles appear heavy. Before cutting the dowels to length, I taper them on a belt sander by laying them flat with more pressure to the end and slowly rotate them. I slightly taper approximately 8" on one end of the dowel, then flip it to the opposite end and repeated the operation. This allows a bit of a handle to hold onto on the centre of the dowel and keeps my hands clear of the sander. I cut the poles to length later. I use approximately 8" on average for the pole height, but you can determine yours accordingly. I cut a point on the top of the pole on each side at a forty-five degree angle to shed water, like an inverted "V".

After I am satisfied with the contour, I apply the texture and graining, including a few knots here and there. There have been many methods described in the past to grain wood and any of these is acceptable. As the poles



may not all have the same degree of distress, I vary them. I like the added touch of texture created from the lineman's boot spikes when scaling a pole. These I create by judiciously hacking the pole with a razor saw at an angle into the grain. When done, I lightly wipe in one direction with fine sand paper. I cut the poles to the desired length adding enough to bury a minimum of 1/2" in the scenery.

After deciding the type of weathering the poles are to have, I stain the poles. As I have mentioned, there are many excellent techniques for weathering.

Remember, birch is a hard wood that doesn't take staining as well as basswood. I first stain the poles using Floquil "Grime", full strength as a base grey. Then I apply various washes when the stain is completely dry to suit the degree of weathering desired. You can create the look of freshly creosoted poles with brown shoe dye or with a "sweet & sour pickle" solution. I like to take the gray weathered poles and dip the bases into the dye and then turn them upside down allowing the dye to run up the pole. This has an interesting effect and simulates the added dipping poles often receive before they are buried.

CROSS ARM

I use 5" x 7" basswood for the cross arms. When checking photographs for reference, I noticed that the arms were cut in both long and short versions. Although I do not know the reason for it or the exact dimensions, I use both versions, i.e., the short arm for two insulators at 4'-0" and the long arm for four, six or eight insulators at 9'-0". Remember I am making poles for telegraph lines not hydro wires, although the same principles apply. I cut the arms to length and stained to suit. I like to grain and stain them a more weathered grey as they are more exposed to the environment. Next, I drill holes across the top for the pegs at 2'-0" on center to suit the peg diameter but I don't drill them completely through. I make sure the pin will fit the hole in the beads to be used for the insulators. I cut the heads off pre-blackened small brass brads or use brass wire and ACC them into the cross arm. Using a small piece of wood as a gauge, I lay it beside each peg and nip off the excess length to 8".



INSULATORS

I believe scale insulators are now available from San Juan and perhaps other sources. However, if you can't find any, try the following method. I like it because the beads simulate glass insulators beautifully and make attaching the cable simple. They also come in a variety of colours including white. A good friend of mine made me aware of beads that can be found in many craft and fabric stores. They are available in a variety of sizes, the small ones measuring approximately .095 in. Even within the package of small beads, there will be a couple of sizes. Pick out the smallest two sizes, .095 and .100 in. and set the larger one over the peg. Again, use a gauge to set the height above the cross arm at 2" to 3" and ACC the bead. When it is dry, set the smaller bead on top and ACC it in place. Not much ACC is required. Wick off any excess ACC with a tissue. If you have set the peg height correctly there should be no peg protruding. If there is, just nip it off.



Now glue the cross arm to the pole 3'0" from the top. You may want to first cut or file a shallow flat notch on the pole face to receive the arm and give it some bearing surface. Install an NBW through the arm and pole on both sides. I brace the arm with two metal straps that I make from 1/2" x 2" strip of styrene. Cut to length at 32" and ACC as shown. Install a small NBW through the brace at both ends but on one side only as it is probably a lag bolt. Just remember that telegraph lines are carried in pairs.

INSTALLATION

It is a good idea to first lay out the poles before you drill for them. Do this by attaching a clothespin to the bottom and set them on the layout and adjust the spacing. When you are satisfied, install the poles by drilling a 1/4" hole in the layout scenery and glue them in place. Pole centers vary and in a model you may wish to compress the scene. I use approximately 120' between poles and set them back 20' from the centre of the track. You should note at this time, that poles are rarely perpendicular but tend to tilt. They will always tilt if installed in a slope, tilting with the fall of the slope or tilting in the direction of a line coming off the arm. They never tilt towards each other. In these cases, and in cases where the pressure may



be great because of a change in direction, apply a guy brace. Make these with the same thread used for the cable to minimize any future damage. When you are satisfied with the poles, it will be time for the cable. Occasionally a stronger brace will be needed so I use a section of another pole set at an angle, buried at one end and bevelled at the other to fit the upright pole and through bolted together.

CABLE

Thread of some sort is the generally accepted means for cable. The problem is that anything in cotton is looks too heavy, will break if touched too hard and worst of all attracts lint and dust. I have found that fine "Spandex" thread works well. It is close to scale, can be painted and it stretches a great deal before breaking. I use the type that is not pre-wrapped in cotton thread. Spandex thread can be found in most fabric and sewing shops. Attach it to the first insulator by tying a knot and ACC it securely. Stretch it to each consecutive pole insulator and wrap around once between beads. Be sure to give it gentle sag between poles. Every ten poles or so, go back and adjust the sag by gently pulling the thread and then continue laying the line until done. The thread comes naturally in a clear grey gelatinous colour. When you are satisfied, touch a little ACC to each connection and you are done. However, if you want to paint the line an oxidized copper, then do a test case between two poles first. Use an acrylic based paint. I use Hobby Colour #H312 "Green" to simulate the green copper oxidation. I caution you that paints seem to slightly attack and reduce the elasticity. When the paint is applied, the line will sag slightly more than you desire. Don't be alarmed. Wait until dry and after a few hours the thread will assume a new sag dose to the original. Now you can determine the original amount of sag before painting the remainder.

You can now go on to building hydro pole lines in a similar fashion, using the many castings that are available for other details, such as meters, fuse boxes, transformers and so on. Other sizes of Spandex are available for a variety of cable sizes that also can be painted black.

Try making some telegraph poles. You will be very pleased with the realism that they create. Remember, if you have any trouble following my instructions; let me know.... I wouldn't string you along!



The Golden Horseshoe Mixed Convention is held jointly between the Canadian Association of Railway Modellers and the Niagara Division of the Canadian Railway Historical Association. The Convention will be held at Brock University from May 21 to May 23 in St. Catharines, ON. Accommodation is available at the University. The program will consist of historical sites and layout tours, clinics, model display and a banquet. Contact information: registrar@caorm.org or secretary@caorm.org

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