



The CRM&HA Inc. Newsletter

September/October 2008

Dennis Moriarty/Editor

Volume 17 Number 5

Meetings are held at 7:15 PM on the 1st Thursday of the month at the Central Railway Museum

Don't forget to bring your chairs.

Editorial

By Dennis Moriarty

Let me start this editorial by stating that I have been the Editor of the newsletter since December of 1998. This will be the 59th and the November/December issue will be the 60th issue put out in these ten years. I am proud to say that I have not missed a dead line. I want to thank all the members that have sent in articles and contributed to the newsletters during these many years. I have decided that after the November/December issue I will retire and turn the newsletter over to a fresh face that I hope will carry on with new energy and with more up to date ideas. Please contact Jim Reese if you are interested in taking over the newsletter. I am bringing this up now because the dead line for the 60th issue is October 12th and someone should be in place by December to be able to put out the January/February issue. I will be glad to help in any way I can to make the transition go smoothly. Also, since part of the duties include keeping the membership list and email list, the person should be interned by the end of the year when some members drop out and new ones come in so that the membership list can be kept up to date.. Also, one of the duties, since the editor has the email list up to date, is to make the meeting announcements and pass club information to the membership as required. Therefore it is important that he or she has basic computer skills.

I am planning in these last two newsletters to reminisce by going over the previous newsletters and reprinting some of the articles that I feel are worth repeating.

Unfortunately there are many more that are too long to include. For example "Rob Seel goes to Washington" that took three newsletters to complete. I have most of the newsletters from the 12 years that I have been in the club.

The work on the museum has been going better than expected and over 1200 man-hours have been expended by our members. Congratulations to all that have worked on the museum. It was announced that it is expected that all of the work on the building will be

done before starting work on the new layout. Our next big event will be the February Train Show followed closely by the Central Railroad Festival. A lot of work has been done on the portable layout and it is intended that it will be used for both events. It was also announced that since there is so much going on, that the September picnic would be put off until next year.

Please print the membership list each time it is updated and sent to you by email, so that you can contact other members when required.

Thank you Jim Reece, Brian d'Entremont and Bruce Gathman for your contributions to the newsletter this month. Also, thank you **Howard Garner** for putting the newsletter on the Web.

Michael Childress will have a new CRM&HA Inc. website up and running soon. **Also see Brian d'Entremont's article about the subject.**

Programs

By Dale Reynolds Program Chairman

September 'Clinic: Building Trees' – Jim Reese

September Picnic – Put off until next year.

October/November: 'Work Sessions, Portable HO Layout' – CRM&HA Inc. Members

December Christmas Party – TBA

January/February - Volunteers needed.

CEO COMMENTS

BY JIM REECE

GO TEAM

You know the feeling. Your team has been winning the game for more than three-quarters, but just can't put the other team away. You and your friends start making comments about the killer instinct. We need to start wrapping this team up. Let's get this game over and move on. It's not that you don't want to watch the team play anymore, you just want them to wrap this win up and move on to the next game.

The Museum work team is more than 80% complete with the remodeling task we started on July 14, 2007. We have put in over 1200 hours of work with about 300 hours remaining, and many of us feel like we need to start wrapping this game up. We've worked hard and we are ready to move on to the next game,

building a railroad. We are to the point that the work we do now is going to start showing big result each workday. Thus, the killer instinct should start kicking in so we can complete this remodeling program.

Ron Keith made a list showing the work remaining to be done in each room of the Museum. I believe this list will appear later in this newsletter. The majority of the work on this list is prepping and painting windows, door and trim, cleaning windows, prepping floor and laying carpet. Now is the time for the team to put a game plan together, dig deep, pull up that killer instinct and put this game away. The team has worked very hard and accomplished more then expected. After this last drive and the game is over the game ball should be awarded to the whole team.

BIG SHOES TO FILL

At the August 7 meeting Dennis Moriarty announced at the end of the year, after ten years and sixty issues he plans to retire as editor of the newsletter. I want to thank Dennis for a great job done and let him know that through his effort the newsletter has been the guiding headlight for the club. As Dennis has said many times the newsletter records the history of the club. And it is important that we maintain that tradition. Dennis if there is anything we can change to entice you to stay on as editor, such as less volume or fewer issues, let us know.

If you are interested in being editor or have suggestions on how to fill the position of editor. If you have ideas on changes we might make to the newsletter. Or know a way to twist Dennis arm to continue, as editor now is the time to be heard.

IMPORTANT DATES

Try to make plans to be with us on the following dates. Mark your calendar and inform the better half.

Due to everyone's busy schedules the CRM&HA INC. will not have a club picnic this September.

The dates for the February Train Show have been established as:

Friday 2/27/08	Set-up
Saturday 2/28/08	Show
Sunday 3/01/08	Show
Monday 3/02/08	Table pick-up

The dates for the Central Railroad Festival have been established as:

Friday 5/15/09	
Saturday 5/16/09	Railway Museum Grand Opening

There are no plans for the CRM&HA INC. to host a National Model Railroader Assoc. South East Regional Convention during the years of 2009-2013. Doing so in the year of 2014 is open if the club would later decide to pursue it.

Minutes Regular Meeting 3 July 2008

Central Railway Museum

President Jim Reece called the meeting to order at 7:15 with 2 guests and 13 members in attendance.

Treasurer Howard Garner gave a report on our financial status.

Feb. 2009 Train Show

Bruce Gathman has made a flyer for the show. A final decision was made to reopen the show at noon on Sunday. A memorandum has been sent and received by the City of Easley regarding items informally agreed upon and arrangements for the building will proceed with no formal contract.

A letter has been prepared for dealers and hobby shops, similar to last year's invitation. Mr. Gathman indicated that there was still a need for people (presumably not members themselves) to man a Thomas the Tank Engine exhibit for kids.

Central Railway Museum

President Reece reported costs from the month of May totaling \$190.70 and received \$1356.23 from the city for April and May expenses. Work has started on turning the bathroom into a handicap restroom.

Richard Nichols brought samples of carpet tile that were available as surplus from \$8 per square yard plus \$145 shipping. Rob Seel indicated that we required 145 square yards, not including the bathroom or kitchen. Purchase of a lush green carpet was approved assuming it is still available as overrun or red-black checkerboard if it is not. Later in the meeting, the issue of chairs for the meeting room was discussed, but no action taken.

Tax Exemption Status

Mr. Garner indicated that he is waiting on an employer ID number before he can proceed with the application for tax exemption.

Portable Layout

Jim McInnis reports having purchased Masonite board for new backdrops. The weekday work team will start raising the layout by extending the newly installed folding legs.

Regional Convention

Howard Garner has a copy of the preliminary convention manual and will distributed so that the membership may come to the next meeting prepared to discuss whether we should put in a bid. We need space for a banquet for 200 people, activities, and clinics. The convention does not need to be held in conjunction with a train show. We have until January to make a decision.

Respectively Submitted

Brian d'Entremont Stationmaster

Minutes Regular Meeting

7 August 2008

Central Railway Museum

President Jim Reece called the meeting to order at 7:15PM. Treasurer Howard Garner was absent and there was no treasurer's report.

***Old Business: ***

Feb. 2009 Train Show

Bruce Gathman, who has been organizing the show effort, was not present due to recovery from surgery. He was reported to be doing well.

Central Railway Museum

President Jim Reece reported over 1200 hours volunteer labor and \$6587 in expenses reimbursed by the Town of Central. Ron Keith presented a list of things left to do and suggested that we consider hiring someone to finish the painting. Richard Nichols moved to authorize hiring a painter at up to \$1000, but this motion has never seconded or taken to a vote. There was agreement that painting would be a priority at the next work session and progress would be reevaluated. Mr. Reece reported receiving a letter from the town that rent for the year of July 2007 to July 2008 was considered satisfied by "in-kind service" Unusually, rent is due at the end of the year, so the next payment will be due in July 2009 and can likely be satisfied in the same manner.

Later in the meeting, Mr. Nichols brought up the issue of low windows as a security risk. It was suggested that we could paint them, board the bottoms up, or cover the bottoms with "Plexiglas". No action was taken on this item.

Central Railway Festival

Mr. Keith also reported on the planning for the Central Railway Festival, which has been scheduled for the 15th to 16th of May 2009. Mr. Keith reported that the organizing committee with local businessmen will serve as a steering committee, expecting the club to mainly focus on getting the museum open and arranging dealers (if any). In support of the goal of enhancing local business, food will be handed by eating establishments on Main Street (rather than outside vendors) and the festival will remain on the museum side of Church St., not extending to the ball field, all though the caboose may be open for tours. There has been talk of live music. Mr. Keith suggested that we needed to inform the steering committee of our expectations of support from them.

Motor Car Track Project

The city has been working with NS on obtaining the right-of-way between the mainline track and the mill. It was briefly discussed that if the city wishes for use to build track on this surface, we should ask them to clear and grade the right-of-way.

Website Update

Michael Childress indicated that he had not begun work on a new Website for the club. Brian d'Entremont volunteered to purchase a domain name and arrange for hosting.

Tax Exemption Status

Mr. d'Entremont produced a letter from the IRS, which indicates our new employer identification number for the incorporated club. This is what Mr. Garner was waiting on to proceed with the application for tax exempt status.

Portable Layout

The installation of folding legs is finished and all have been extended to full height. The team that has been meeting on weekdays to work on the layout expects to move to museum projects such as window painting in coming weeks.

Hosting of Convention

There was discussion of whether we wanted to compete with Macon, GA for the hosting of the regional convention for the NMRA in 2011 or put in a bid for 2014. General agreement appeared to be that we would be happy to let Macon have the convention if they wish to host in 2011 and consider it too early to commit to 2014.

New Business: Newsletter

Dennis Moriarty expressed interest in retiring from the job of Newsletter Editor after 10 years of service. President Reece suggested that Mr. Moriarty put an article in the next newsletter about the job.

***Program: ***

After the business meeting, a program was given by Jim McInnis on DCC sound decoder installation in HO diesels.

Respectively Submitted

Brian d'Entremont Stationmaster

About Domain Names By Brian d'Entremont Stationmaster

At Thursday's meeting I agreed to purchase an internet domain name for the club. After the meeting I searched available options and purchased two: /crmha.org /and /centralrailwaymuseum.org./ These will be available indefinitely as long as we continue to pay the renewal fees (about \$8 each per year). Ownership of the domain name doesn't entitle us to any particular services such as a web site or e-mail. We have to buy or provide services separately. However, it does allow us to specify that any internet traffic to /crmha.org /and /centralrailwaymuseum.org/ be directed to a server or servers of our choosing and prevents others from taking these names.

I have a web server at my apartment and can put a web site for the club on this server for free. Sparing the technical details, I can do this as long as the traffic to it doesn't get too large (too many people asking for too many large files) or the club demands too much reliability (if my power or phone goes out, the site goes down). My server has the advantage of being very flexible and free. Unlike web site hosting, we have some options for good, reliable e-mail service free of charge. If you would rather have a simple e-mail address that advertises the club (for example brian@crmha.org) rather than your internet provider, we can talk about this at a club meeting.

Right now, if you type either address in your web browser, you should see a page from my server directing you to our current club web page on Howard Garner's site. I have talked to Michael Childress about

helping him with the development of a new website. If you have content (pictures, articles, and/or videos) that you think would be appropriate for the club site or ideas about what you would like to see at a new website, please let us know.

Superintendent Reports:

SUPERINTENDENT OF CENTRAL RAILWAY MUSEUM

Bob Folsom

My job has been to act as a kind of safety net to help keep the momentum going if we seemed to be bogging down in any respect. We have so much talent and enthusiasm in the CRM&HA that there has not been the need to “rally the troops” or dictate what should be done next. I have called a few meetings in the past years to help develop action plans or standards; and will need to do so again as we near the moment we have all been waiting for – starting on the actual construction of the model railroads. Occasionally, I helped find people willing to take responsibility for specific projects in completing interior renovation of the building, but lately, even that has not been necessary. Earlier this year, I called a steering committee into being so that things could move forward in my absence, and everyone has done a remarkable job of working together. One major responsibility that I will continue to have is to be a good listener in case you have ideas or concerns. I feel/hope that everyone is pleased with the outcome so far – I certainly am. In the past, I have stepped aside on numerous occasions so someone else who showed up to work could be allowed to do so. As we go forward, I see my role as being a personnel coordinator to make sure that all who have an interest in working on the layouts get the opportunity and training to do so, and do a top notch job.

Postcards from the Past

By Bruce Gathman

Below is a photocopy of a historical postcard. I will try to send a historical postcard from the past for each newsletter - from my collection.

The attached card is the AT&SF California Limited passenger train in Crozier Canyon, Arizona. It is postmarked July 22 at 7:00 PM (no year visible but is with a group of cards from the mid 1920's.) from somewhere near Albuquerque, New Mexico by a Trans. Clk. I assume this means it was mailed from the train.

The message read:

"Dear Folks,

We are at Albuquerque now. Jack has had the measles. He had an awful fever in Chicago and broke out in Colorado. He is feeling fine now. We are both well. Hope you are well.

Love, Flossy".



PHOTO: CALIFORNIA LIMITED IN CROZIER CANYON, ARIZONA

Articles and Items from Past Issues of the CRM&HA Newsletters

What was a Sufficient Distance?

By Rodney P. Cowen

From the May/June 2000 Newsletter

(in future it will state “NL 05-00”)

Rule 99 stated that a flagman was to go back with flagman’s signals a sufficient distance to ensure full protection. But what was a sufficient distance?

For example: One wet foggy day in August I was called as flagman for a helper engine to work between Mechanicville and Rotterdam Jct., NY. Visibility wasn’t much more than a 100 yards.

In those days the NYC ran their trains the 22 miles between Rotterdam Jct. and Mechanicville over our iron. With their own engines and crews and we supplied helpers when needed.

One other thing: On the NYC a helper engine could couple on to a slowly moving train. But on the B&M a train had to stop before a helper could couple on. Several times I have gone to Rotterdam to push a train and done nothing but follow it back when the train didn’t stall or stop.

This day we pushed the first train to Cresant tower and were cut off on the fly. At the tower we were told to go back to Rotterdam and couple on ahead of the next train as their engine was out of sand and they needed to use our sand. At Rotterdam we crossed over onto the east bound and found a train with 70 cars in on the siding leaving no room for us.

There was a block signal about ten car lengths east of the siding switch. So I decided to leave my engine on the eastbound main just east of this signal.

Then I walked back to the next signal in the rear and placed two guns just west of it. I returned to opposite the caboose of the train on the siding and waited.

Now with a signal displaying stop. Another behind it displaying be prepared to stop at the next signal. Plus two guns. I figured that eight car lengths was a sufficient distance to ensure full protection.

But I was wrong!

Soon I heard bang, bang from my guns and knew that engineer wasn't prepared to stop for anything—I whipped out a fusee and dumped the air.

I started counting cars. But when the sixty-first car came along it seemed to be going just as fast as was the first one when it had passed me. Finally the whole train stopped and after I walked up to the head end, I found the two locomotives less than 10 feet apart.

I had been back a sufficient distance to prevent a collision. But was it full protection? It was, only if every one obeyed the rules. Thus there was no distance that could ensure full protection.

Norfolk & Western #611 Revisited

By Curt Ehmann

NL 07-01

As a fledgling Railfan, I took my first all-day steam train excursion back in November of 1994. That was the last excursion for the last of the 600 series of Class J streamlined Passenger Locomotives built by the Norfolk & Western Railroad. The excursion was called the Carolina Steam Special, and it ran from Greenville to Asheville (via the famous Saluda Grade) and returned. It was a thrill for me and the hundreds of fellow passengers as we were hauled up the famous Saluda Grade in two sections, affording us some wonderful photo-ops. Yes it was a rail-fan's delight!

But the next week the 611 made her last journey, to a special spot reserved for her, at the Virginia Museum of Transportation, in Roanoke. She was a victim of progress, rising costs, and changing economies.

I'll always treasure the pictures I took that day, and my personal memories of the development of streamlined engines. For I grew up just 2 blocks from the main line shared by the Chicago & North Western and Union Pacific Railroads, and my brother and I spent many hours prowling the rail yards and watching the daily train traffic. The whole town of Boone turned out, back in 1937 when the first streamlined Class E Pacific came through town. They called it the "Steam Liner," and caused quite a sensation.

So it seemed like a reasonable thing to do, when Marilou made me stop in Roanoke, on our way back from Pennsylvania recently to check out their "Transportation Museum." It's located in the heart of the city, trackside, with lots of heavy freight traffic. Inside the freight house was a wonderful collection of photographs of the people who made the railroads work! Work crews, out on the line and in shops, offices, yards, foundries--and passenger train crews, with individual pictures and testimonials of their particular trials and contributions to the Railroad Industry.

But outside, in a specially roofed in area, stood the mighty #611, with a stairway leading to the cab, almost a story above the ground! The controls are glassed in but clearly visible, and there are still hopes that she will ride the rails again. She is still beautiful, even in her graceful repose of retirement.

Adjoining tracks hold some 66 engines and cars in various stages of repair, but I was amazed at the "like new" condition of so many of the diesel engines. A 1916 Pullman business car is currently under restoration, and their oldest steam engine, N&W Class G #6 was built in 1897. Of course, there were some cars, buses, and airplanes; but the museum is predominantly a Railroad exhibit.

Finally, the museum boasts a large Lionel train layout, with 6 operating trains, and many action accessories. It is quite large and can be viewed from an adjoining balcony, which holds a beautifully detailed Big Top Circus. Built by a local man over a ten-year period, and donated to the museum recently, it can only be called spectacular!

So if you are ever in the Roanoke area, try to set aside a few hours to see this remarkable collection.

Green Flags and Lights

By Rodney Cowen

NL 07-00

Back when there were passenger trains operated by steam power on the old Cheshire Branch, I was head-end brakeman on the Bellows Falls Milk Train for awhile. This train ran as No. 5500 on weekday nights and as No. 5552 on Sunday nights.

Both 5500 and 5552 were second-class trains, which meant that they had to keep out of the way of all first-class trains as well as all following sections of first-class trains.

In the timetable, train 5552 had a scheduled meet with train 5557 at Webb, which was the second siding east of Keene. However, 5557 being a first-class train, was not required to wait for 5552 at Webb. As a result of this, 5552 a second-class train, had to be in the clear five minutes before 5557 was due at the next station in advance.

One cold Sunday night we were a little late and pulled into Joslin, the first siding west of Webb, to wait for No. 5557. It was about twenty degrees below zero and we had no idea how late, if at all, 5557 was running, so I decided to stay in the cab of the locomotive.

When I saw the reflection of 5557's headlight, I started for the gangway, and with my face about a foot above the cab floor, I saw what appeared to be a flash of green as 5557's engine went by on the other side. Rather than go to the switch, I went to the phone, which was at about the middle of the siding, and called the dispatcher, I said, "I thought I saw Train 5557 displaying green". He told me that there was, in fact, a second section, and that we were to stay put.

After the second section passed by, I went to the switch to throw it and found the lock frozen, In attempting to get the lock open, I lost my keys in the ditch. By the time I found and fished the Keys out, plus unlocking and throwing the seldom used switch, the second section would have been by all three blocks and into us—if I hadn't caught sight of that green light.

There was a grade crossing just east of the siding at Joslin and the tracks came around a sharp curve. We

would have thought that 5557 was just blowing for the crossing even if it had sounded the "following section" signal. Besides, 5557 could not have know that we were at Joslin, and with our headlight out, plus the curve, he would not have seen us in time to blow signals anyway.

I was the only member of the crew that saw the light and none of us had the slightest idea that there was a second section on the road that night. Some company in Windsor, Vermont used to hire a special train occasionally to take its employees to ball games or shows in Boston, and so the trains were not advertised. Now, suppose the storm curtains had been drawn on that side of the gangway, or smoke or steam had covered the light, or the bulb had burned out, or I had been a foot or two lower on the steps. I would have been writing about the wreck at Joslin instead of writing this (provided I lived to tell about it). And I would have been fired for opening the switch in the face of a second section that I knew nothing about.

After the Third Try **By Rodney P. Cowen**

NL-09-00

One night right after I hired out, I caught the Silkirk job. Now on this job going west we usually had a car for the Scotia, NY house track.

At Scotia, we crossed over to the east bound and backed up quite away. Reversed and came flying toward the house track switch which we passed over with the car still attached to the engine.

When we backed up for a second try, the conductor told me to get the switch and he would ride the car. Saying as he got on the car, "Young men can't do anything right". But this second time wasn't any more successful than the first as the car and engine again came over the switch still coupled.

Before the third try, I saw the conductor Speak to the engineer and this time the car separated from the engine before the switch which I threw between them and the car rolled safely into the house track.

Although the engineer was one of the oldest on the system, he didn't seem to know that you can't lift a pin if the engineer doesn't give you some slack.

When we got back on the buggy, I asked the conductor, "What was the matter. Couldn't you get the pin?" All he said was, "Aw shut up". Then I added, "Young men can't do anything right. But some times old men can't do any better." And I then laughed. This seemed to make him angry.

Anyway I chuckled all the rest of the way to Rotterdam, which didn't make the old conductor any happier.

Turning the Tables **By Rodney Cowen**

NL 05-01

In the old days, the management would spring a signal test on us by having a maintainer turn a signal red in front of us. Then a trainmaster or road foreman

and the maintainer would hide out of sight to see how we would react to the signal.

One night up around Littleton the cab signal indicator suddenly went from green to lunar white which indicated a signal change ahead. It had all the earmarks of a test.

Now I don't remember if it was the conductor or engineer who got the bright idea. But he suggested as soon as we stopped. One of us would make believe that he had found something wrong under one of the cars, and the rest of the crew would hold our lights as if we were helping him.

We had a four car Budd P.D.C. train that night. After stopping, one of us hit the ground and acted like he had found something wrong under the head car. Soon he was joined by the rest of the crew and we went into our little act.

Not three minutes later, three figures appeared out of the dark. Which proved to be a trainmaster, road foreman and signal maintainer. One of them asked what was wrong.

We told him, nothing wrong. We just wanted to see who was hiding out in the bushes tonight. We then climbed back on the train and took off.

Management must have seen the humor in our little act for we never heard mention of that night ever after.

A Chicago and North Western Heritage **By Curt Ehmann**

NL 05-01

The railroad town of Boone, Iowa was an important Division Point on the main line of the Chicago & North Western Railroad, when I was born in 1928. Both my Grandfather and Great-grandfather had come from Germany some 40 years earlier to become stone-masons for the C&NW and built many of the bridge foundations from Chicago to the longest double track railroad bridge in the world, over the Des Moines River valley just west of Boone.

Living just 2 blocks from the railroad's main line, it was natural for me and my brother to walk those two blocks often, to watch those mighty engines go by--or stop at the depot just a block further to change crews and passengers. There was a lumberyard on our side of the tracks, and we could climb up the stacks of lumber to a brick wall facing the tracks and watch all the action.

My father, naturally, took a job with the C&NW too, but in their accounting offices, which were eventually moved to Chicago where those activities were centralized. The restrictions of the Great Depression prevented me from ever owning a toy train of my own. I just watched the real ones!

But when I grew up and married, I took a position with a large Bank in the Chicago "Loop." Guess how I went to work for the next 38 years? Right, I rode the Chicago & North Western! And the suburban station that I used for many of those years was built by a crew supervised by my own grandfather!

It was when my second daughter was born that I decided I could wait no longer for a son to buy a toy train for. So I spread the word, and under the Christmas tree that year was an American Flyer freight train, headed by a C&NW Baldwin Diesel! (My earlier research had priced it at \$20!)

Now I could build my first layout. Living in a 2-Flat building with a large basement, I began with 2 sheets of 4' x 8' plywood, raising one, and offsetting it towards one corner about a foot, and I had a 2 level railroad. It was a precarious and temporary arrangement, because I couldn't leave it up very long, but it was my start in model railroading.

This was in the late 50's and a number of Chicago discount houses had American Flyer equipment for sale--right on the way to work--along Madison Street. But money was pretty tight for a bank clerk in those days, so I could only *look and yearn* for all that wonderful rolling stock selling for 2 to 8 dollars apiece!

This is when I discovered the Great Chicagoland Train Shows held each month at the Du Page County Fair-Grounds. Here was my chance to expand my pike. I was a kid in toyland as I searched for hidden treasures to add to my collection. With all this fabulous new and used equipment in my favorite gauge--S!

In 1969 my family moved into a large home in Palatine and I worked my railroad into our family room. It was a long but well-planned strategy. First it was that beginning 4' x 8'sheet of plywood, tucked into one corner, with a closet adjoining for my first train shop. Then a few months later, I ran a double track down the wall to the other end of the room and put in a turnaround. Now I had a substantial "continuous run!" My wife, Marilou, always preferred the smaller HO Gauge, and even bought a scale replica of the DeWitt Clinton, which I now installed in the center of that turnaround. That was the "peace-offering" for my increasing invasion of the room!

Our next home was a 3-story Townhouse, which we bought in 1988, in anticipation of my rapidly approaching retirement. That bottom level held a garage, and a basement room measuring 23' x 12'. I was able to install my trusty 4 x 8 table and that corner turnaround to continue train service for another for another 4 years.

In 1992, when I did retire, Marilou and I agreed that it was time to leave "The Frozen North," so we moved to the Upstate South Carolina and gave away our snow shovel and winter coats. Now I had the opportunity of a lifetime! I could have a real **Train Room!** I planned a room 18' x 11, with a row of high windows along the Southwest wall and a row of fluorescent lights along the center of the ceiling. The neighbors, watching construction of the home, decided that room had to be a poolroom! Wrong! Behind the room was an unfinished but heated (and air-conditioned) room (13 x13), which I was going to use for my workroom. I could hardly wait to move in and build my "Dream Lay-out!"

The project began in the spring of 1993. One corner of the room had doors to the hall and the workroom, so I lined the other 3 walls with heavy-duty steel standards with adjustable shelving arms. This allowed me to add a row of shelves below the layout for storage and still keep the carpeted floor clear. I decided on a comfortable height of 45" and used 5/8" plywood throughout. The long runs are 2 feet deep; the corner just inside the door is 65" x 48" and the turnaround in the work room is just 4' x 6', to accommodate the greater radius of my .148 track. Both of these structures required a sturdy 2 x 4 framework.

The second turnaround was built in the workroom, so I had to cut holes in the drywall to accommodate an upper and lower level along the wall, and a single level in the foreground. The upper hole was hidden by building facades since the city was there, and the lower front opening was faced with a wide portal of Styrofoam painted concrete color.

Taking a hint from an old O-Gauge friend, I then glued roofing paper to the entire surface. This not only covered the unnatural surface of the wood, but also added some soundproofing to the layout!

Now I started adding the second level, both for interest, and also to make the best use of that narrow 24-inch shelf. A vertical clearance of 5 inches allowed for my tallest car, and a width of 5 inches left room for some scenery. This upper track was supported by wooden posts (painted concrete) and 1" x 2" wood strips along the wall between the shelf standards. A third level was then constructed over the train room turnaround and sceniced as a mountain, with a town (in HO Scale, for perspective) on top. Shoulder width cutouts were made in the first and second levels for emergency access later on!

Now I laid my track, with the .148 American Models track, with its larger radius, on the outside of the lower level of the entire layout. The American Flyer high-rail track, with the smaller radius, starts on the second level, so that it runs above the scale trains around the 2 sides of the layout. As the AF train comes out of the tunnel, it passes over a double-span bridge and down a 10-foot incline to the lower level where it stays until it passes the town and climbs back up in the workroom.

So the layout has two continuous runs, one in scale, and one in AF Hi-rail. But I have neglected telling you about my Train Yard. On the third wall of the train room is a 4-track yard, connecting with the Hi-Rail line through multiple switches. So I can run any one of 4 different trains AF trains. The location of that yard is accidentally perfect, because when the late afternoon sun comes in those high windows, the crowded yard, with its Engine house and backboard scenery really looks real!

On the window side of the layout is "Accessory Row". Here is a Coal Loader, 2 coal Unloaders, a Barrel Loader, an AF Sign with Diesel Horn, and an Airport

Beacon. All have operating buttons up front where visitors can operate them.

Although other gages are cheaper or smaller, or bigger, I have always preferred the "middle-size" of S-Gauge, the durability of my old American Flyer equipment, and the high quality of the new offerings by such suppliers as American Models and S-Helper Service.

Over the years my collection has grown from that 4-car train set to over 170 units of rolling stock, including 20 engines, evenly split between new and old, Steam & Diesel. Obviously, Chicago & North Western equipment is favored here, and that family tradition will be carried on by my children and grandchildren!

Which Was More Powerful?

By Rodney Cowen

NL-07-01

Which was more powerful? A GP 7 with 1500 H.P., or three Budd R.D.C.'s with two 250 H.P. engines on each. One day I had a chance to find out.

Of course the GP 7 weighed more than the three R.D.C.'s combined. But the GP 7 had only four powered axles, while the R.D.C.'s had six.

When the R.D.C.'s started to wear out, they were placed in push-pull service. Now a diesel has an eight-notch throttle and a R.D.C throttle has only four. But they M.U.ed together quite well. This was accomplished by a special cable between the R.D.C.'s and the diesel. Thus any old diesel could be used for power and any R.D.C. for a control car. A motor had to be left running on the R.D.C.'s for heat and lights.

The F.R.A. approved this arrangement. But said the Budd car motors must be isolated and not used to power the train.

One day my train was three Budds pulled by a GP 7 with a screw ball engineer. Despite the F.R.A. order. He cut in all six R.D.C. motors. At Waltham tower we received orders to run wrong iron. West Concord to South Acton.

On arrival at West Concord, the engineer chooses not to change ends and reversed the train from the diesel. But the R.D.C.'s refused to go into reverse and fought the GP 7.

That nutty engineer wouldn't go back and cut out, the R.D.C.'s and I wasn't allowed to do it. So with spinning wheels, the train seesawed back and forth on the cross over. To add to the show some leaves were ignited which set a few ties on fire.

The R.D.C.'s did a might good job of holding their own against the GP 7 until the diesel had enough sand under it to get a good grip on the rails then the contest was over.

I believe if those R.D.C.'s had a little sand in their boxes, the GP 7 could never have shoved them out on the eastbound track.

The Gardner Extra's

By Rodney Cowen

NL-09-01

Most Saturday nights after all the regular trains had gone, the YardMaster in Mechanicville would send his report of all the cars still in the yard.

If enough cars, management would order an extra train to run from Mechanicville to Gardner. Now those extras were usually very heavy with well over a hundred cars.

In those days the conductor had to write up a long wheel report on each car in his train. It contained the number and initial, consignor and consignee, where the car was received and left, net weight and loaded weight, origin and designation etc. just about everything that was on the waybill.

Just as the conductor was writing up the last car, the middleman decided for some reason or other to take down the stretcher. Now, the stretcher was attached by brackets to the ceiling of the caboose and one end was right over the conductor and his desk. It was also right under a leak in the roof and was full of black dirty water.

When the middleman raised the end of the stretcher away from the desk, all that dirty water poured down on the conductor and his just finished report.

Soon from that conductor, I learned a lot about that middleman's ancestry and intelligence. I think I learned couple of new swear words that night also.

River Junction in N Scale

by Michael W. Moore

NL-09-01

I am modeling the Greenville and Northern, CSX, and Norfolk Southern in downtown Greenville (River Junction) circa 1986. This area is special to me because I can remember my father taking me down to the Junction and the Piedmont and Northern shops when I was much younger. Because of my limited space, I have had to "improvise" a little with the track plan on my layout, but I think I've captured the essence of the locale and its railroad operations.

The layout itself is 12 feet long and about 16 inches wide. I had originally intended to mount it on shelf brackets on our living room wall, but I decided I would like to stay on my landlord's good side, so right now it's just propped up by a desk and a couple of bar stools. The track arrangement favors switching-based operations as opposed to just "runnin' trains." With four industries, two yards, and NS/CSX and CSX/G&N interchanges, there's plenty of action to keep two or three people busy for a while.

The base is made of pine and consists of two six-foot sections connected by hinges so that I can fold it up and get it out the door when I need to. I used pink Styrofoam insulation boards and joint compound to shape the landscape. I found that works very well. I am currently working on wiring and ballasting the track. I still have a lot to do scenery-wise and I have yet to build the legs underneath. Most of my locomotives and rolling stock are weathered at this point. I hope to have everything completed before February so I can bring it to our show. Maybe Steve Zonay will even let me bring

it to the big show in May! (Hint, hint.)

Since this is my first "real" layout, I am learning a lot as I go along. My experience with "helping" (read: watching) Rob Seel, Bob Folsom, Richard Nichols and others work on the club's HO modular layout has served me well and I have used a lot of their tricks on my own layout. Also, reading Dennis Moriarty's articles in the newsletter has provided me with good ideas. Here's a trick of my own for gravel parking lots: paint the base a light gray or brown (depending on how muddy you want it to look) and let it dry. Then come back over it with Plasti-kote "Fleck Stone--Gotham Gray" spray paint (Available at Wal-Mart for about \$7 a can. This stuff is normally used to make clay pottery look like stone). Make sure you mask off the area very well since this stuff really flies everywhere. (I found out the hard way!) After it's dried, you've got a great-looking gravel parking lot. (PS use the black Fleck Stone for great looking asphalt - Ed.)

Part of an Editorial from NL 01-02

By Dennis Moriarty

I was reading some of our old CRM&HA newsletters and came across one of Chuck Laman's last editorials before he passed away. (March/April 1997 issue). For those of you that don't know, Chuck was the newsletter editor for several years. And he put out a very fine newsletter. His editorial can be used again today as **we are having our train show** on February 16, 2002. The following is Chuck's editorial and I quote:

SHOW TIME!

Our advertising campaign will be kicking into high gear over the next two weeks and hopefully all your friends, neighbors, and relatives will become aware of our upcoming show. You can reinforce our ads by calling attention to them and letting everyone know that this will be a good show – **not to be missed!** Aside from attracting many dealers, and having good attendance, how do we make our upcoming train show a success? The degree of success will depend largely on the perception of us that the dealers and our paying guest walk away with. Will they get their moneys worth? That's up to us!

First we need to be identifiable—that means wearing our green club T-shirts and/or hats. Second, we must be friendly and make our guests feel at home. Encourage them to ask questions about our hobby and our club. Some will ask for advice or want to tell you about their trains. Be a good listener and be thoughtful in answering questions, even though you may be asked "How fast can that train go?" at least a dozen times! Remember, everyone you talk to may be a potential model railroader and club member. Try to make every effort to turn them onto the hobby and the club. If they didn't have a least a little interest in trains they wouldn't be there, but that little interest can quickly be killed with an inappropriate remark or attitude—don't let that happen regardless of the degree of provocation. If all of us play the part of

gracious host, show success, at least in terms of public sentiment will be assured, and we will be able to look forward to a bigger and even better show next year?

Chuck Laman

Inside/Out Series

Some Information from Past Articles

By Dennis Moriarty

NL 07-02 and 09-02

1. **Current Sensor control** of crossing gates and trains was discussed in the January/February 2000 newsletter
2. **Working with Hydrocal Plaster.** Hydrocal sets up in five to 10 minutes, which makes it easy to build with, as the base is established rapidly. It also means that you can only mix a little at a time. Paper towels dipped in a mixture of Hydrocal and water spread over crumpled paper will represent mountains or irregular terrain. I find that putting the dry Hydrocal in a five gallon pail with a cover and setting it next to a five gallon pail partially filled with water makes the job go faster. I put the two pails in an old wagon. An old cardboard box is a good worktable as it is easy to move around and can be thrown away after it is messed up with spilled Hydrocal mixture. I mix in a plastic tub, the kind that are issued to patients in hospitals. It has high sides and is wider than the paper towels are wide. Use two plastic small yellow "I Can't Believe its not Butter" containers. One in the Hydrocal and one in the water. Mix one to one putting in the Hydrocal in first and then the water. Mix as fast as possible with a 6-inch putty knife. The mixture is to wet at this point but the paper towels pull a lot of water out. First dip one towel into the mixture and push to one side. Then put and additional towel in and push to the other side. Insert a third towel and at this point the mixture is just right so apply to the layout. Next go back and redip in the mixture and apply the other two towels. There is now enough mixture for one more towel but it is to dry. Therefore, soak half the towel in water, dip into the remaining mixture and sop up as much as you can and apply this towel to the layout. Now you can repeat the procedure over and over until completed. After it is hard you can smooth it out or rough it up with drywall compound, which sets slowly. Be sure to wear Latex gloves.
3. **Lakes** can be made a number of ways but since lakes are flat, I think the easiest way is to put the lake on a flat surface such as a piece of drywall. A thin layer of drywall compound is then spread over the surface and worked to form waves, ripples etc. This is then painted by blending several colors of spray paint applied while each is still wet. A dark color in the middle, such as black looks like deep water. This is surrounded with a dark blue, then green and then light brown at the shore. The colors are all blended into one another as you

progress to the shoreline. Odd color shapes will indicate an irregular lake bottom. After the paint is dry, several coats of a clear water base high gloss coating are sprayed over the top to give it the feeling of depth and a high gloss. A very thin layer of sand and debris can be put along the shoreline and sprayed with the clear coat. Rivers are made the same way except the river bottom is not flat and can drop fast at rapids and water falls.

4. **Wire Ways:** Before adding the scenery, plastic rain gutter can be hung about one inch below the support deck by short scraps of wood screwed to the support deck and down to the gutter. The gutter under the layout is to lay the wires in from the layout to the cab area. If the gutter is stopped about six inches short at the corners the wires can be curved from one gutter to the next through the air with no support problems. Also if all or most of the wiring is done before adding scenery you will not have to do much crawling under the layout, as everything can be reached from the top. The track can be wired and tried out. If any corrections are required it is a lot easier to do if the scenery doesn't have to be moved and reworked.
5. **Roads** are a problem because they are never flat and therefore are difficult to model. Drywall compound works well for making concrete or asphalt roads. Strips of wood or wire can be placed running down the center of the road to act as a guide for a putty knife. This will hold the putty knife up at the center and maintain a constant slope to the outside edge of the road. Expansion joints are typically 20 feet apart and can be scratched in with a knife after the drywall compound has set up. (note: thinner strips of wood at the edge will keep the side of the road straight)
6. **Waterfalls** are fun to make and products from a home center will do the job. For straight drops I like to start with hot glue. Many strings can be dropped over the ledge to act as a base for other products. The hot glue can be controlled with the trigger to come out of the gun slowly enough so that it will set up on the way down and not end up as a puddle at the bottom. The problem with hot glue is that it is not clear and a little dull on the surface. Some silicon caulking is quite clear and can be dribbled over the hot glue to add more realism but it must be done in small amounts or its own weight will make it droop. The best product I have found for the finish layer and for puddles etc. is called Goop. Not the cleaner, but the glue. It dries clear and is very thick so it works well in waterfalls and steep rapids. After all this is applied a little cotton is pulled apart and sprayed with lacquer to look like spray at the bottom. Don't be afraid to highlight the fall with white paint.
7. **I personally feel** that 3/4-inch thick plywood covered with commercially manufactured cork

roadbed is the best choice for track roadbeds. Railroad track can be attached to one or more 4'x8' or smaller sheets of plywood but that is uninteresting because in real life track goes up and down. It is better to cut the plywood into 3 inch or wider strips and attach them to vertical furring strips that can be raised and lowered to the proper slope and elevation and then screwed with drywall screws to a substructure. Attach the strips end to end by gluing and screwing 3 inch x 3 inch blocks of plywood under the joints. These strips can span 16 to 24 inches between supports. Use wider strips for two or more tracks. Curves can be cut directly out of a large sheet of plywood, but that is wasteful as it generates a lot of scrap. A better method is to use a miter saw and cut segments for curves out of the 3-inch or wider strips. The 3-inch wide strips will work up to about 23-inch radius curves. Use 4 inch or wider strips for very large curves or use more segments. **An easy way of cutting segments is to take the strips and cut the ends 15 degrees. Putting 4 of the segments together will make a 90-degree segmented curve.** The track can be curved evenly over the segments. The following segment lengths will generate the radius curves noted. You can interpolate to get other radiuses.

Track Radius	Wood Segment Length (long side of segment between 15 degree cuts)
18 inches	9.64 inches
20	10.72
22	11.79
24	12.86
26	13.93
28	15.00
30	16.07
32	17.14
34	18.21
36	19.28

When making segments for two or more tracks, use the outside track radius for the proper dimension. After sawing a 15-degree cut, the **unused piece** will have a 15-degree cut already on it. Simply turn the strip over and saw the other end and there will be no scrap. Using this method a 4x8 sheet of plywood will generate almost 128 feet of 3-inch wide roadbed, so there is no need to skimp with thinner sheets of plywood. After assembly, simply glue the cork roadbed to the plywood with white glue. The track can be attached with nails but a **very small** hammer must be used to keep the nails from bending.

8. **Flat Mountains: When making** the transition from the mountains to the foothills on my layout, the width of the top of the layout went from five feet wide to 30 inches wide. The five feet width made for great mountains, almost as high as the room, but if I wanted to use the space in front of the

foothills for buildings etc., the 30-inch width seemed hopeless except for painting the foothill mountains on the background. I held up some pieces of Hydrocal mountainside from an old layout against the wall and thought it looked much better than painting the wall. Some uprights of various heights were screwed to the layout along the back. A wide sheet of blue board with an irregular shaped top was screwed to the uprights. Several of the old pieces of mountainside were then hot glued up against the blue board. The spaces in between were filled with dry wall compound and some rock castings were added. This made a high realistic looking cliff from 1 to 6 inches thick. At the top paper was stuffed in the gaps and Hydrocal soaked paper towels was applied to blend the cliff to the irregular shaped blue board. Above this, background mountains were painted on the wall to give the cliff the optical illusion of depth. I am well pleased with the result, as the larger mountain does not stop abruptly as the scenery blends around the room. I think it would have been easier to start from scratch in the workshop. In the future I will use a piece of 3/8 plywood cut to the shape of the back of the mountain. It will be about 6 feet or more wide and about 18 inches high. The top will be cut to represent mountain peaks. At the bottom I will screw a 1x6 at right angles to the plywood so when I set it on the layout I can screw it down to the frame and it will hold the plywood up against the wall. I will add a few stiffeners at the bottom to be sure the plywood remains vertical. I think a few short pieces of 2x4 screwed up from the bottom and through the back should work fine. The bottom support would not be necessary except that it is difficult to put vertical uprights against the wall now that the layout frame is in place. After this is made I will staple wadded up packing paper or newspaper to the piece of plywood making it thicker at the bottom than at the top. While it is still lying flat in the workroom, it will be covered with Hydrocal soaked paper towels. Rocks and small cliffs will be applied and after painting, dry brushing, and soaking with diluted ink, different colors of ground cover will be applied. The whole finished scene will then be carried to the layout and screwed in place.

- 9. Cleaning Train Engine Wheels:** A simple but effect way to clean train engine wheels is to lay a piece of paper towel over the track. Soak the towel at the track with liquid track cleaner using a small paintbrush to apply the cleaner. Place the front half of the engine on the wet towel and the back half on the track for electrical contact. With the power on, let the front wheels rotate and move back and forth on the towel. The cleaning fluid will make the wheels sparkle. Turn the engine around, move the paper towel to a clean area, reapply-

cleaning fluid and do the other half. You can do it on the layout or use a board with about two feet of track attached at the workbench for this purpose. I use a toy train transformer with alligator clips attached to power the track. It really works. (I found out later that cleaning RR car wheels by rolling them over a soaked paper towel on the track works to clean the wheels even though there is not a motor to turn them. Ed.)

- 10. Quarries:** Sometimes it is desired to have a river canyon have the step look of a quarry. Many years ago rock walls were quarried along riverbanks so that the blocks of rock could be slid down the bank to the river. There they were loaded on barges or boats and taken to an unloading site near a road or railroad track. To achieve that look use ceiling tile, the kind used for drop ceilings in basements etc. The tile can be used for terracing such as the riverbank or for other uses such as quarry walls. Simply break pieces off as needed and fasten in place with hot glue. Stagger each layer back to get the terraced look. Finish with drywall compound. Some wood framing will be required for support.
- 11.** I also found that the backsides of ceiling tiles are very dense and flat. The tiles can be used for building platforms and sidewalls etc. where flat wood might also be used.
- 12. Colors:** For me one of the most perplexing problems is selecting the color that I need for a part of the layout. What color should the buildings and houses be, the stations, sky, roads, grass, and even leaves. After deciding on the basic concept such as concrete or asphalt, summer/fall or winter colors, sky etc., the colors must be mixed to give the representation that is anticipated. This often takes much experimentation or requires the purchase of premixed paints or ground covers etc. I tend to use all of the above, but the majority of my painting projects start with a small or large amount as needed of flat Latex white house paint. To this acrylic colors are added to blend the color that is wanted. If a large quantity of paint is required, such as a mountain scenery base coat, I have it mixed at the store. It takes a lot of experimenting. Wet paint that is mixed is usually lighter in color than when it is dry on the layout. Asphalt is not black, concrete is not white so it is fun to try to find a mixture that works properly. Experimentation is the only answer. I find that a little black and a little brown is needed for concrete and asphalt can be realistically represented with a black base coat rubbed with chalk powder to lighten it. "Dry brushing paint" can usually be mixed by adding white paint to the base coat paint. Working a layout is not a science but an art. Everyone's layout is an expression of him or herself and color makes it even more difficult. For another example, I was trying to paint a mountain extension up on

the wall. My walls are drywall and prepainted in shades of blue, darker at the top and lighter at the bottom to represent sky. The clouds were painted over the blue of course. I thought that I could use the same paint that I used for the base coat of my mountains painted over the blue to make the mountain appear larger. My base coat is a dark gray and when I painted the dark gray mountain on the dry blue sky it turned brown. I guess you have to be a trained artist to get the paint color correct the first time. Anyway don't be afraid to experiment. That is half the fun.

13. Bridge Abutments: Most layouts have several bridges crossing canyons, streams, lakes and over track and roads. I am modeling a more modern era where most of the bridge abutments (the support for the bridge structure) are made of concrete or stone. Many times the sides of the abutments are extended and flanged back on the sides with concrete walls to hold the earth from falling under the bridge. I looked back through several years of Model Railroader magazines to find ideas for these bridge supports. What I found was a surprise to me. Bridge supports are modeled in every way you can imagine. If you have a prototype to follow there will be no problem with selecting the design but if you are free lancing you can take your choice of about anything that works. Most of the abutments that I found are a single block of concrete about four feet thick. The sides are usually tapered from the about 1-foot from the side of the bridge to about 2 feet from the side at the ground level. The top is stepped. The front is lowered by the thickness of the bridge below the track and the bridge support expansion slides. The back half goes up to the bottom of the RR ties to keep the dirt from falling in. The side wings are about 1 to 2 feet thick and taper back from the support block. But each one is different depending on the situation or conditions of the bank. I found that the easiest way for me to model the abutments was to make them out of a piece of 2x4 lumber. It is about the right width for HO scale when the grain is up and down. The taper can be cut with a chop saw and the notch at the top can be cut with a band or hand saw. After painting it with flat gray latex house paint and weathering, it has the appearance of concrete. Plastic abutments can be purchased with block or stone facing. They can be cast in plaster and carved for a stone look. The point is there is no steadfast rule; on real railroads almost all of the abutments are different so design one that fits your layout.

14. High Speed Cut Off Wheels: High speed cut off disks are useful to use when cutting off track sections as the cut does not crimp or bend the end of the track. This allows the track connectors to slide on the end of the track without any filing. The cut off disk is also useful for cutting off plastic ties.

Most high speed cut off motors such as Dermal do not allow the cut off disk to cut straight up and down because the diameter of the motor is wider than the cut off disk. Always remember to cut the track with the motor on the side of the cut that is going to be on the layout. This makes the slight bevel to have the long side on top of the track so it will meet the next section of track. If you do it backwards there will be a "Vee" cut in the top of the track. **Electrical isolation gaps** can be added to existing track by cutting through the track with the disk. The disks make a cut so thin that the train wheels cross with no problem. Some modelers like to fill the gap with plastic and glue but I don't find that it is necessary because the disks are so thin. When using flex or other commercial track always make the electrical isolation cut where there is a solid plastic connector from tie to tie under the track, this helps keep the track aligned. In this case the slight angle of the cut does not matter because both sides of the cut are at the same angle. If an electrical isolation joint is installed while laying the track, plastic track connectors can be purchased instead of the NS connectors. **For track work** you want thin cuts so only use one cut off disk on the motor at a time. For other work around the shop it is helpful to use two disks stacked together because the cut off disks are very fragile and break easily. Using two at a time makes them stronger so they are not as easily broken. **Please remember** to use your safety glasses while using high-speed tools.

15. Using Some Natural Materials on the Lay Out: Trees

Materials needed:

Woodland Scenics - Green Grass T45 - Yellow Grass T43 - Green Blend T49 - Polyfiber Green FP178
Hallmark Card Stores grass for their Christmas Villages
Unscented Aqua Net
In addition to Crape myrtle and Nandena, Howard Garner suggested the use of Oak Leaf Hydrangea and Nandena.

Using Crape-myrtle branches to make trees.

- A. Wait until February after the crape-myrtle branches and seedpods are dry. Some varieties and some different aged crape myrtle make better trees so try to get some from your neighbors as well.
- B. Save the seedpod ends.
- C. Cut the ends apart to make miniature tree branches and trunks in one piece and save the small pieces for bushes.
- D. Hold the seed pods over a waste container and crush off with fingers or use scissors to cut the pods off.
- E. You can save the best ones for dead or winter trees with no leaves on them.

- F. Pull small amounts of Polyfiber apart and spread over each miniature tree branch. A very small amount; the fiber should be thin and wispy.
- G. Spray with hair spray.
- H. While rotating the trunk with your fingers, sprinkle on blended or green turf grass.
- I. Highlight with a small amount of yellow grass on branch tips.
- J. For a more natural look use some fine iron ore and some lighter colored grass on parts of the tree.
- K. Drill a small hole and stick in the layout. Extra work can be done on the trunk with a little clay to fatten it up and makes roots for up front show trees. But this will probably not be necessary.

Using Nandena for tree trunk and branch material.

- A. Wait until spring to harvest the berry clumps off the Nandena bushes. The berries are now dry and are easy to pull off the branches. Discard the berries.
- B. Cut pieces off the clumps that look like little dead trees. You can get several off one berry clump.
- C. Spray the branches with hair spray and hold over a container of ground foam and sprinkle the ground foam over the branches.
- D. Spray again and apply a coat of grass particles, which are available at the Hallmark Card Stores.
- E. Spray again and apply another layer of ground foam.
- F. The tree is finished and ready to plant.
- G. Save some of the better branches and apply to the layout without adding turf to represent dead trees.

Other

Many stores sell **treated** dried plant material, which can be used for trees and bushes. Suitable plant material can also be found in fields or along the road. However, neighborhood materials may have to be soaked with a glycerin solution to keep them from getting brittle when they dry out. See Below.

- A. The large wheat stalks can be cut to make small pine trees.
- B. A can of green spray paint can help the look.
- C. Other dried plant material can be cut bundled and sprayed with hair spray and turf.
- D. Natural sponges can be torn apart and sprayed green for bushes etc.

Moss and lichen

- A. Natural moss can be found in sunny spots that are covered with pine needles. You see a lot along side of the roads. And another form is found in the tops of trees. It can be obtained when a branch falls or a high wind and rain tears it loose. Keep your eyes open.
- B. Lichen is sold to hobbyists. This is usually treated and colored in the factory with various natural colors.
- C. Locally picked Moss will dry out and turn to dust if touched. Soaking the moss in a solution of glycerin and hand lotion can stop this problem. I use about 1 pint of glycerin and one to two bottles

of hand lotion to a gallon of water. Glycerin can be obtained from the drug store. Use the cheapest hand lotion you can find. Most contain glycerin, aloe, lanolin and/or other like materials.

- D. Clean your moss in a 5-gallon bucket of water to get the dirt and pine needles out. Drain then soak in the glycerin/lotion solution a little while and set out on plastic to dry. The moss will hold a lot of the solution after you take the moss out, so you do not have to soak to long. Do a large quantity, as the glycerin/lotion solution does not keep well.
- E. After it dries you can spray paint it with a light touch of green paint and other natural colors.
- F. I passed around a piece of moss at the meeting that is over 4 years old to show that it is still soft.
- G. The moss looks nice as bushes and other plants but do not over do it. Pieces of weed and sticks etc. can be stuck in to make it look more like the real thing. You can attach moss with glue or double sticky tape.

Lesson No. 47?

By Rodney Cowen

I am calling it lesson No 47, although it was probably nearer lesson No 147 as it was four years after I learned my first RR Lesson at Shelburne Falls, Massachusetts back in 1939. It was now 1943 and I was a yard foreman with the 730th R.O.B. in Tehran, Iran.

After I had switched out and reset the oil plant, my next move was to place a car on the Small Goods Track and then return to the crossovers there by the oil plant. The Small Goods Track was some distance away and it was slightly down grade to the switch, then up a sharp incline into the track. To save time, I decided to kick the car down there. I had sent a man down to line the switch and protect the move while we spotted the tank cars for unloading.

We kicked the car and I rode it. Everything went according to plan. The car rolled down and coasted safely up the incline into the Small Goods Track. But that isn't the end of the story.

When I dropped off to set the hand brake, I found that I didn't have any. Those GI boxcar brake staffs ran horizontally across the end sill with a brake wheel on each end and could only be set by a man standing or running along side of the car. **I dropped off** and started to wind and wound and wound. Then it dawned on me, that brake chain wasn't connected to anything. Just then my car gently touched another car standing on the track and started to roll the other way. I glanced up and to my horror I saw a double-headed freight just starting to pull out of the depot. I thought my car was going to hit that train right smack in its middle. So I tried to derail the car.

Fortunately for me, the freight had hold off only seven cars as they were throwing out a cripple. When the engineers saw my predicament, they both latched out their throttles and cleared the switch.

The car rolled down the incline and was safely caught by the road crew who then shoved it along with their cripple, back into the track where it belonged.

That's how I learned another lesson. That is, to never depend on a hand brake to stop or hold a car until you have first tested the brake.

B&O Museum By Donald Rumer

NL 11-02

On my most recent trip to Baltimore, I finally got over to the B&O Railroad museum. The entrance is the original Mt. Claire station, reputedly the oldest railroad station in America. The museum also includes a roundhouse, which houses many 19th century originals as well as replicas including Peter Cooper's Tom Thumb. I was fascinated by a Shay loco with its vertical cylinders, couplings and drive gearing. Twentieth century locomotives and rolling stock are in a large area outside the museum. Most are former B&O, C&O, Chessie and Western Maryland railroad equipment.

A recent retiree I knew from my former employer is now employed full time by the museum. He's now being paid for what he did formerly as a volunteer. He gave me a tour of the shop area. I had a chance to climb into the surprisingly roomy cab of an old C&O streamliner. Also had a chance to get in the much more crowded cab of an old yard locomotive the museum uses regularly for short trips. The shop had just completed restoration work on a Western Maryland F-7 and it looked really great. Also saw a Chessie GP-9 undergoing some restoration.

The museum has a HO layout upstairs. They did a very impressive job of modeling a section of B&O (now CSX) mainline through the Paw Paw narrows along the Potomac. A special portrait exhibit of 19th Century railroad tycoons and inventors, loaned from the National Gallery, was also on display. Ironically, the first and most impressive portrait was that of Jay Gould, one of the most notorious and hated financiers of the period.

Industrial Sidings By Dennis Moriarty

NL 03-02

I came across a copy of Engineering and Operating Criteria for Industrial sidings in my files. I don't know if the modern standards are the same or if they are the same in all states. These are from the Office of Chief Engineer in Philadelphia, Pa. and are dated November 17, 1972. But even if they are not up to date, they are historical and are interesting. For those wanting to learn the names of rail parts the following is invaluable. The report is long so it is summarized. Almost all of the materials referred to below had a comment that they had to be new or used in good condition. That was left out in the interest of space.

Clearances:

- a. Minimum side clearance 8'6" from the C/L of tangent track to any part of building, platform or other obstructions.
- b. If track is curved add 1 inch per degree of curve to the side clearances.
- c. Track centers between parallel adjacent tracks to be 14'.
- d. Adjacent properties to be cleared by 12'-0" minimum plus 1"/degree of curve.
- e. Overhead clearance should be 22'6" from rail top. If rail enters a building 18'-0" may be permitted. (depending on state laws)

Turnouts:

No. 10 in Main Line tracks, No. 8 in side or industrial tracks.

Derails:

Derails shall be used on main tracks, secondary tracks and sidings where required by Federal or State Authorities or the Chief Engineer-Maintenance of way of the RR.

Curved Track Requirements:

- a. Minimum radius of all sidings 459' – (12deg-30')
- b. Where two curves over 6 deg are reversed a tangent of 50 to 100' should be provided between curves.
- c. Wherever possible the curved track should have radius greater than 459'.

Grade and Sections:

- a. Maximum grade not to exceed 2 ½% including compensation for curvature. Compensation to be at the rate of .05% for each degree of curve. 50 feet of level track should be provided in advance of door entrances.
- b. Floor elevations should be 3'-8" above top of rail.
- c. Sub grade to be 1'-2" minimum below bottom of ties.
- d. Where excavation of fill is necessary, the base or top of slope should be 24' wide, 12' each side of centerline of track to permit walking space for train crew.
- e. Minimum slopes to be 2 to 1.
- f. Depressed track to have proper drainage.
- g. Pipes crossing under track should be installed at least 5'-0" below base of rail to top of pipe.
- h. All sidings to be level where cars are placed, or stored for any length of time.
- i. Gauge 4'-8½" on tangent track and curves up to 8 degrees inclusive. 4'-9" on curves over 8 degrees.

Operating Conditions:

- a. An operating track to be provided from which individual sidings are installed to serve a building or individual property.
- b. Should it be necessary to reverse direction of siding, a run-around track must be provided.

Materials:

- a. Rail shall be 100# or heavier Switch and Yard secondhand and 119# new.
- b. Cross Ties shall be 8" wide by 6" thick, 8'-6" long, oak and be pressure creosote treated.

- c. Switch timber shall be 9" wide by 7" thick, square-sawed oak, and allow 19" outside base of rail.
- d. Sub-ballast shall be a minimum depth of 8" of porous material such as gravel, stone or slag.
- e. Ballast shall be crushed limestone, trap rock, will pass through 1 ½" ring. Minimum size shall not pass ½" ring.
- f. Splice Bars shall be of same design as rail used.
- g. Compromise Bars shall be manufactured to conform to rail design use. They shall not be burned with acetylene, etc., to fit.
- h. Track Bolts and nut locks shall be the proper design for rail and splice bars used.
- i. Tie plates shall be proper design for rail supplied.
- j. Switch points, plates, rods, connecting rods, frogs and guardrails must be of same standard and size. Self-guarded frogs may be used on sidetracks, connected to sidetracks only.
- k. Track spikes shall be 6 inches long and conform to ASTM Spec. A-65-33.
- l. Switch stands shall have a locking device and it is preferred they be placed on the engineman's side.
- m. Switch stand targets shall be coated with reflectorized material and conform to the RR's standards.
- n. Insulated joints shall be new fully insulated and conform to rail size used.
- o. Bumping posts shall be high bumper and fit rail used.
- p. Rail anchors shall fit rail used.

By Popular Demand: The Kudzu Comeback!

By Rob Seel and Don Rumer

NL 09-03

If you are modeling this part of the country, adding kudzu to your layout is nearly unavoidable. So, here for the first time in print is the basic "How To" for kudzu. It is also convenient for covering those scenery mistakes and mountains that did not turn out so well the first time.

1. Begin with 4/0 steel wool for base ~ Spread out like a spider web, fine and lacy.
2. Apply heavy coat of cheap, 99-cent Wal-Mart spray paint to "seal" the steel wool. Colors for summer should be green dusted over with yellow. For winter, colors should be brown dusted over with almond and skip over to Step 9.
3. Use Super 77 spray adhesive for stickiness on one side of spray-painted steel wool -- It's expensive, but worth the price since a little goes a LONG way.
4. Use medium (or as appropriate per scale) turf -- medium green ~ one side only. When dry, turn Kudzu over, and sprinkle loose foam turf over a clean sheet of newspaper for recycling
5. Use hair spray - Suave Double Super Extra Ultimate Hold - for sealing. In addition, don't be frugal with Sauv  -- it's cheap!
6. Sprinkle on fine "burnt grass" for spice and

highlights before the hairspray dries.

7. Turn Kudzu over, and sprinkle loose foam turf over a clean sheet of newspaper for recycling
8. Saturate with more hair spray and keep open flames away.
9. Paint the landscape base a caramel color. Apply full-strength white glue to kudzu zone and sprinkle dry, finely ground, red clay. When the glue is dry, vacuum-up the excess clay.
10. Flip kudzu facedown on a clean sheet of newspaper and use Super 77 on backside of kudzu to stick to layout
11. Spray adhesive to hillside also for extra grip.
12. Use miniature boxwood twigs for tree trunks and branches and drape kudzu all over everything, including weathered wood shacks, rusted cars, slow pedestrians, and abandoned boxcars.

Note: It helps to cut and shape kudzu patches during the initial unrolling and spreading. Kudzu is clumpy, so no need to worry about "smoothness" where patches overlap. Set aside several "whisps" of steel wool for individual vines that climb guy wires, power poles, etc. This method was used on the club's HO layout and it has withstood all kinds of less-than-ideal climates while in storage without rusting or crumbling. Just be sure to keep the edges away from the tracks as not to get sucked into locomotive motors! Unlike the "real thing", it is completely under your control -- but just don't turn your back to it for too long!

Working with Plywood

By Dennis Moriarty

NL 03

Many RR layout projects require the use of ½ inch or thicker plywood pieces. I personally like to use ¾-inch thick plywood for track roadbeds. Since the plywood is sold in 4'x8' sheets, the sheets can be quite heavy to be handled by one person. Some lumberyards will cut the pieces into more manageable sizes. However, if a few sheets are kept in the workshop for different projects you may have to cut the sheets yourself.

Handling the large sheets: Since 4x8 plywood sheets are heavy, carpenters usually tip them up on edge and place one hand under the middle and one hand on top of the sheet to carry. This works fine outdoors where there is a lot of headroom but does not do well indoors. In addition, most carpenters are used to carrying heavy loads but many of us are not so lucky. I find it is easier to handle the large sheets by making a sling out of ½-inch rope. I make about 14-inch loops on each end of the rope and slip them under the two bottom corners when the sheet is tipped up on its edge. The length of the rope between the loops is spaced so that you can pick up the sheet from the middle of the rope. The plywood hangs like carrying a briefcase. Your other hand guides the top. Since the sheet is, only a few inches above the floor it can be carried under doorways with no problems.

Cutting the Plywood: since the sheets are, so heavy it is difficult to saw them with a table saw. When cutting strips for roadbed for example, many 3-inch wide strips are required. It is much easier to place the plywood on a couple of sawhorses and cut them with a circular saw. If you wish to take advantage of the table saw, cut the plywood 12 to 18 inches wide with the circular saw and then the smaller pieces can be put through the table saw with little effort. You can protect your sawhorses by screwing a sacrificial piece of wood like an old furring strip on the top edge of the sawhorse so that the edge of the furring strip sticks up about $\frac{3}{4}$ inch above the horse. When setting the circular saw make sure it only sticks out a little way from the bottom of the sheet so that it just nicks the furring strip. When the strip gets chewed up just unscrew it and turn it over. I have used mine for 5 years and they are in pretty bad shape but still have enough wood left to hold the plywood up. Plywood comes in several grades. First, the number of plies affects the cost. Boat builders use plywood with many plies. The normal plywood found in local lumberyards is fine for RR use. The facing of the plywood is graded from A to C, with A being the best with few knots. B has more knots but they are plugged with wood. C has many knots, which are not plugged. The higher the grade, the higher the cost. B/C is fine for layout use. Always saw from the poorest side. When you lay the plywood on the sawhorses have the C side facing up. The saw blade tends to tear out the edges of the side it is cutting on, so the good side on bottom will not be damaged. When using the table saw put the bad side down for the same reason. The circular saw can be guided with a straight edge clamped to the sheet. Remember to measure the distance from the blade to the edge of the saw base plate to set the straight edge in the correct position. If you do not want to go to the expense of a commercial straight edge, which must be eight feet long, you can use a good furring strip as a straight edge. With a chalk line, snap a line where the furring strip will be placed. Use a few dry wall screws to fasten it to the plywood. The guide-furring strip can be straightened to line up with the chalk line while screwing it down. Be sure the screws do not penetrate the good side, if the hole will show after removing the furring strip. Remember to wear your safety glasses and follow the safety rules that came with your power tools.

A Short History of my Grandfather and the Southern Railway By Maurice R. Adams

NI 01-03

As most of you know the Atlanta & Charlotte Air Line Railway started operations in 1873. It was later sold under foreclosure to the Piedmont Air line Route. It followed a very crooked route from Westminster SC to the old steel plant north of Toccoa GA. When the Southern double tracked, it abandoned this section of

track and the roadbed was deeded to South Carolina and Georgia. With a little work they opened Highway 123 on the old roadbed. Later parts of it were rerouted and paved. Still later more of it was rerouted.

The double tracking is when my grandfather, Henley Adams came into the picture. The new route went right through the middle of his little farm. It missed the house by about 100 yds. The house was built before 1850 as a one room log house with an attic; later more rooms were added. My grandfather was born in this house and so was I. It is located at milepost 537 on Toxaway creek and it still stands.

Henley and Zelia Cox Adams had 5 children, Carley who died as a baby, Beaxie my father, Lyda, Leslie and Bertha. More about the children later.

From my grandfather's house to Westminster is about 4 miles by the railroad, which was to be built. About 6 miles by road, which got very bad in the winter time. The men that didn't want to live in the camp had to find a place to live. The steam shovel operators, who were better paid, boarded at my grandfather's home. Joe Burrel, a shovel operator, later married the oldest girl Lyda. Cliff Childers, married the youngest girl Bertha. Will Gentry and Cleve Hart also married local girls. Joe, Will and Cleve lived to be old men and operated heavy equipment all their working lives. Will Gentry did some of the grading on 123 when it was paved. I don't know about Cliff Childers because Bertha died of the flue not long after they married.

There was a lot of work in that area which lasted for some time. The cut nearest to the house is one of the deepest cuts in that area with lots of blue granite rock. The cut is why they moved the road. Two more of the cuts were deep also.

Back to my grandfather and the Railroad. He got his water from a spring nearby. After they moved the road on account of the deep cut, it ran between the house and spring. They moved the road because it was easier to put in an underpass than to build a high bridge. They worked a way to get water easier. First they put in a well and installed a hand pump. That didn't work because of quick sand, which clogged the pump. Then they went to the spring and used concrete to make it deeper, put a pipe in it, and ran it through the culvert under the road to a spring house they built. The spring house they built was about 8ft. square made of solid concrete. They put a partition across one side about 30 inches high and 18 inches from the wall. Water entered one end and went out the other end about 20 inches deep. So my grandmother had a good place to keep her milk butter and other food cool. Not as good as a refrigerator but better than most people had at that time.

There is an outcropping of granite rock on a hill near by, so the Railroad opened a quarry there to get rock for abutments and pillars for the trestle and the underpass etc.

So you see my grandfather did pretty well when the Railroad came through. He got two son-in-laws. A

pump that didn't work, an improved spring, a very nice spring house and a concrete back porch.

My father worked a short time as a section hand on the maintenance crew after they started regular operations.

Two of the workers went on with the Railroad and became conductors. They were on different trains. They would gather up the newspapers that passengers left on the trains, bundle them up and throw them off to grandfather for many years. That's how we got the news. "No Radios" Until my father built one...

Tips

Most coming from old newsletters

Remember to save your Crepe Myrtle, Nandena, and Oak Leaf Hydrangea cuttings for making trees on your layout

I mentioned in an inside/out article that **I don't like Homosote** for track bed because it is messy to work with and does not have a consistent thickness. It also swells with humidity and temperature changes. Using plywood covered with cork strips solves the problem, but it is hard to put little nails in plywood except that using a small jewelers hammer makes it easy.

Before adding the scenery I like to **run plastic rain gutter** supported about one inch below the support deck by short scraps of wood screwed to the support deck and down to the gutter. The gutter under the layout is to lay the wires in from the layout to the cab area. If the gutter is stopped short about six inches or so at the corners the wires can be curved from one gutter to the next through the air with no support problems. Also if all or most of the wiring is done before adding scenery you will not have to do much crawling under the layout, as everything can be reached from the top. (This assumes you are using narrow plywood track beds and filling in the open areas with cardboard strips) The track can be wired and tried out. If any corrections are required it is a lot easier to do if the scenery doesn't have to be moved and reworked.

Snap Switches on turnouts detract from the appearance of the layout but are much easier to use and are inexpensive which can be important in large layouts. They can be made less noticeable by painting them the same color as the layout at that point and then covering them with ballast or grass, weeds, and bushes.

Cloths Pins make great clamps for holding small parts together while gluing, soldering and other applications. However the cloths pins have a tapered end to make it easier to slide over a clothesline. This makes it hard to grab a small part. Simply cut the tapered end off with your saw and you will have nice square edges to work with.

Wax Paper has many uses around the train room. It is great to spread over buildings, trees, track, bridges etc. while painting or plastering to keep the objects clean. It is also great for protecting your workbench when painting or gluing.

"Elmer's Siliconized Acrylic Latex Squeeze'N Caulk" dries clear and is useful when modeling water and water falls. Spread thinly on thin plastic sheets it can be hung vertically to look like falling water or can be spread over rocks to look like cascading water.

Bounty paper towels are advertised as the quicker picker upper. They hold more water because the tear perforations are farther apart than most other paper towels, which make the sheets larger. This makes the their use for Hydrocal soaked paper towels when making mountain terrain go much faster. Use the plain white colored towels.

When using ground foam for grassy areas on the layout, use more than one color ground foam. Dark green, light green, yellow (weed), and iron ore Ballast Iron Ore Fine B70 (red for flowers or rust stains between RR tracks etc.) make the scene much more realistic.

Many modern RR companies print Calendars for the next year with nice pictures of their rolling stock. Visit their Internet sites to find out how to obtain one from your favorite RR.

Several stores sell ornamental grasses for dried flower arrangements. One of these, **China Millet Natural**, is useful for making trees. It looks similar to a wheat stalk except it has a fuzzy end that ranges from three to 8 inches long. It does not have the big seed grains that the wheat has so it looks like a small pine tree. You start by cutting off the long stalk, (which can be used for making fence railing and posts) and then cutting the top in half. You get two trees since the top tapers to the end and the other end tapers to the stalk. If the end is very long, cut a tree off each end and save the middle to make bushes. The natural color is a pale green which works great just as it is. The Millet is hard to find and sometimes you have to purchase tan colored millet. It can be colored with Rit dye or green paint. I have found China Millet at the Seneca Wal-Mart, (two bundles on a top shelf in the artificial flower section) and at the stores that sell crafts and dried flowers. Placing the smaller trees in the background and the larger ones in the front adds perspective to the layout and creates an illusion of depth. The smaller trees work well as ornamental plants around buildings etc... It is easy to apply the trees to the layout with hot glue.

Overhead Power Lines

Consider using black elastic thread instead of wire for the overhead power lines etc. on your layout. If you accidentally hit them when reaching for a train or other object, the elastic gives and lessens the possibility of causing damage to your power poles

Trivia

From Old Newsletters

In 1830 the first passenger railroad in the United States began service between Baltimore and Elliott's Mills.

There were 1,334 train wrecks in South Carolina from 1990 through 2001 including 184 derailments and 61 collisions.

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