Holidays and toy trains
The good life for many of us includes country music and toy trains. If you like either or both, then you want only the best.

When it comes to country music, David Allen Coe once sang that the perfect song had to mention trains and trucks, getting drunk, being in prison, and lovin’ your mama.

What about the perfect toy train layout? Bill and Diane Kavchak say it must be set up around Christmas and feature porcelain structures, stands of fir trees, horse-drawn carriages, a ton of snow, and vintage electric trains.

One look at the Kavchaks’ S gauge model railroad leaves no doubt that they have achieved perfection. Being in the holiday mood, they’re delighted to share what they’ve learned so that other hobbyists can build the perfect Christmas layout.

Keep things simple

Associating toy trains with the winter holidays – Christmas or Hanukkah – comes easily to most of us. We probably received our first train at that time of the year, and winter after winter we built bigger and better railroads thanks to subsequent train-related gifts.

Bill remembers those wonderful times from his youth and has enjoyed re-creating them with Diane’s help. They survey the game room in their home and figure out how, after pushing some of the furniture to one side, to get enough space for a small yet pleasing S gauge layout.

Why American Flyer trains? “Well,” Bill admits with a smile, “both Lionel and Flyer sets came my way as a boy growing up in the postwar era. But even then the realism of Gilbert’s two-rail track won me over. Now I run nothing but old Flyer trains.”

When Bill creates a plan for the annual Christmas layout, certain considerations influence him. “Back when I was a kid,” he explains, “layouts expanded with the use of right- and left-hand switches, crossovers, and bumpers. Those track components are a lot of fun, but they complicate things and can cause trains to derail or short out.”

So the Kavchaks offer a simple piece of advice: Design a track plan that amounts to a giant oval. And keep it on a single level instead of having the main line rise and fall. “We leave off the switches and trestles because they just invite trouble,” Bill remarks.

Diane and Bill also keep their plan small. “Look,” he says candidly, “every kid – and every adult – dreams of a huge layout. But building a large model railroad
can take so long and require so much maintenance that you never finish the project. For our holiday layouts, Diane and I go with something small and manageable.”

The latest version of the Kavchaks’ perfect Christmas layout measures 8 by 12 feet and went together fairly quickly yet at a leisurely pace over a couple of months in the autumn. Their U-shaped railroad fits perfectly in the game room and even leaves some space for a second layout that’s about one-third the size of the main one featured here.

**Constructing the benchwork**

An interesting track plan shouldn’t be burdened with complicated benchwork that saps your enthusiasm because it takes so long to build and carves a big dent in your budget. Bill and Diane provide a simple, practical solution.

“We went to a local lumberyard and bought three 4- by 8-foot sheets of ½-inch-thick plywood, plus eight sawhorses,” Bill says. He then screwed the plywood to the sawhorses to create a secure, sturdy, and inexpensive foundation for his layout.

Over the tabletop, Bill glued down 4- by 8-foot sheets of ½-inch-thick Styrofoam that he purchased at a home improvement center. Besides deadening much of the racket the trains make, the Styrofoam works great for “planting” miniature forests and fields.

Much as Bill loves running vintage American Flyer locomotives and rolling stock, he had no intention of using old S gauge track. “The sections of GarGraves track that I screw down look more realistic and provide more reliable electrical connections than the old straights and curves that I might pick up at swap meets,” Bill points out.

In only a few evenings of relaxed work, the Kavchaks finished what they describe as the preliminary phase of building a Christmas layout. They even ran some trains, using two postwar Lionel no. 1033 transformers to crank up the juice, to see just how well everything operated.

Satisfied with their progress, Diane and Bill eagerly moved ahead to the tasks that they enjoy most. “Scenery and structures are what we look forward to doing because they give life to any model railroad, especially a Christmas layout.”

**Adding Department 56 buildings**

If I’d inquired about Bill’s Christmas layout, say 25 years ago, he probably would have extolled the virtues of using collectible Gilbert or Plasticville structures. Or he might have pointed to houses and businesses he had assembled from commercial kits, along with a station or a church he had built from scratch out of wood.

Today, however, Bill, like many modelers, sees no reason to use vintage buildings or the latest plastic kits. Department 56, a Minnesota company, markets quaint and fanciful porcelain structures, complete with interior illumination, that are the right size to find homes on O and S gauge layouts. Even better for the Kavchaks, any of the buildings fit beautifully in winter scenes because they come with simulated patches of snow on the roof and icicles hanging from the eaves.

“Diane and I caught the fever for Department 56 early on,” Bill admits. “In particular, we like the buildings in the Dickens’ Village Series [one of Department 56’s themed lines of buildings] because they look like they’ve been lifted out of a rural town in England in the 1870s or 1880s.

“We go out of our way to buy just about every structure, figure, detail, and more that comes out under the Dickens’ Village name. I once drove through a snowstorm just to snag a piece called Kenilworth Castle because the store selling it had only one left. Over the past few years, Diane and I have been expanding into the Alpine Village line.”

Thanks to their tireless campaign, the Kavchaks can claim dozens of porcelain houses, inns, churches, stations, pubs, and shops (or should that be “ye olde shoppes”?). Lining the streets of their imaginary English village would be no problem whatsoever, not when Bill and Diane had so many structures at their disposal. They also have the porcelain vehicles, animals, fencing, and figures that round out the Dickens’ Village line.

**Making scenery and trees**

Before the Kavchaks selected which structures they wanted on their layout, Bill rolled up his sleeves, pulled out his hobby tools and materials, and set out to create the right landscape. “Scenery may be my favorite part of building a layout,” he says, tipping his hat to Dave Frary, the author of *How to Build Realistic Model Railroad Scenery*. “That book

![The Kavchaks indulge their interest in 19th-century Great Britain by designing their layout to look like jolly old England. Does it seem a bit illogical for them to run nothing on it except American Flyer trains?](image)
has been my bible: I’ve learned so much from the tips and techniques in it.

“Remember when I mentioned buying sheets of Styrofoam to cover the plywood on my layout?” Bill begins. “I also picked up smaller pieces of 3-inch-thick Styrofoam at the same home improvement center. Later, I smeared white glue on the faces of these sheets to turn them into multi-layered stacks that serve as the foundation for my hills.”

Once these “landforms” had sat on Bill’s workbench for two days and were solid, our host carved them into the shapes he wanted. A rasp, hobby knife, and hot-wire tool helped him transform piles of Styrofoam into mountains.

Bill vacuumed up the chunks and dust left from the carving before coloring the bare hills with a light tan shade of water-based latex house paint. To add accents and shadows in crevices and cracks, he followed the tips in *How to Build Realistic Model Railroad Scenery* and brushed on India ink diluted with rubbing alcohol.

With help from Diane, Bill placed these mountains on the tabletop. Then they discussed the rolling hills and other small landforms needed to integrate the massive landforms into the overall scenery. Again, they worked together to come up with the look they thought would be best for spotlighting the village and the trains running through it.

“Once more,” Bill says, “I turned to Dave Frary’s book for guidance. I followed his instructions for cutting out strips of cardboard, which I glued to the Styrofoam base to create the basic shape of the hills. “I covered the cardboard webbing with Rigid Wrap. That’s a brand of gauze impregnated with plaster. As Dave writes, you just cut the Rigid Wrap into pieces, dip them (one at a time) into water, and lay them over the cardboard or Styrofoam.” Rigid Wrap can be purchased at art, craft, and hobby stores.

Keep in mind, Bill warns, that Rigid Wrap dries in about 10 minutes, so you need to work at a pretty good clip. Over that neat, solid foundation, he slathered Sculptamold, another popular modeling material available in craft and hobby shops. The same water-based paints and diluted ink nicely stained the hills now dotting the layout.

Naturally, Bill and Diane had to make sure that “the hills are alive!” Not with the sound of music, but with hundreds of evergreen trees. Fortunately for the Kavchaks, Heki (telephone: 866-799-6098), a German firm, markets bags of juniper, pine, fir, and other species of trees.

Bill buys dozens of bags at A.B. Charles & Sons (his favorite hobby shop in the Pittsburgh area) in preparation for a few evenings of “gardening work.”

> Trains take a supporting role in many sections of the Kavchaks’ Christmas layout. Here, mountains and structures dominate. Bill painted the backdrop drop on linoleum remnants.

> THE SNOWY HILLS, like the frozen pond where skaters twirl, reinforce the impression that the coldest days of winter have arrived.
With an awl, he pokes holes in the Styrofoam base of the layout. Dabbing some white glue on the lower part of each tree trunk precedes Bill’s gently jamming them into the holes. Before long, he has a forest.

**Baking powder for snow**

Okay, Bill, we have evergreen trees crowding the hills, figures caroling outside rustic houses, and miniature wreaths hanging from churches and stores. Isn’t something still missing that defines the perfect – or any – Christmas layout? “Snow! Lots of glittering snow!”

Correctamente! So how did you model snow? “I used to combine baking powder and ground glass,” Bill answers. “Recently, though, I’ve been substituting a product from Department 56 called Fresh Fallen Snow for the glass. It shimmers and sparkles as well as glass and is safer to handle.”

Bill applies his snow with a tea strainer, and it enhances the appearance of the structures, hills, trees, streets, and trains. Another realistic touch is the piles of tiny shale that he dumps at the base of his mountains; he sprinkles snow over them, too.

The snowy hills and sidewalks, like the frozen pond where skaters twirl, reinforce the impression that the coldest days of winter have arrived. So do the wisps of cotton that Bill has attached to most of the chimneys.

One more special effect hits the ears rather than the eyes of visitors. Bill operates Department 56’s “Village Sounds,” a cassette tape of holiday sounds and songs, through a speaker that he suspends above the layout. “Hearing the tape never fails to bring a smile to the faces of kids and adults as they walk into our game room,” he says.

“Does it have to come down?”

Bill enjoys every aspect of the Christmas layout, except one. “What was the worst part of having a layout back in the 1950s?” he asks. “Having your mother tell you it was time to pack up the trains until next winter.”

No wonder Bill dreads hearing Diane remind him, as the weather starts to get warmer in the first months of a new year, that they had better clear out their game room by putting the trains to bed for another year.

Luckily, Diane has changed her tune. Maybe it was Bill’s whining, “Does it have to come down?” that broke down her resistance. Whatever the reason, the S gauge layout we’ve been admiring is now a permanent part of the Kavchak household.

Being able to see their American Flyer trains dashing through Merrie Olde England in the late 19th century was the final touch needed for Bill and Diane to create the perfect Christmas layout. Now it’s your turn to build a “more perfect” one.
BUILD A BETTER holiday display for your O gauge trains

Many Magical Moments
Tips for operating a kid-friendly layout

Christmas & trains

A TOY TRAIN RUNNING under a Christmas tree has become just as much a part of the seasonal decoration as the Christmas tree itself. While this holiday tradition has remained uncomplicated over the years, there are many ways to enhance the magical experience for friends and family of all ages.

In this special section, you’ll discover helpful tips and techniques for operating a layout that’s especially fun for children.

Also in this section you’ll see how to create a charming holiday train set using inexpensive items you may already own. Then in the last feature of this special section, you’ll discover a spiraling track plan that’s designed to sit under your Christmas tree. Happy Holidays!
LIKE COUNTLESS other builders, nearly all of the permanent and temporary layouts I’ve built featured a centralized control panel used to hold the controls, accessory switches, and transformers. However, the arrival of grandchildren has now changed my approach to how I design and construct layouts.

When I recently decided to rebuild my basement railroad, I did it with kids in mind. Now that the railroad is fully functional, my wife and I invite families and their children of all ages to visit and enjoy the layout during the Christmas holiday season. At each open house, I observe what young aspiring engineers like to do best and then look for a way to make that easier and more enjoyable for them.

One of the biggest changes I made was to remove the accessory switches from the control panel and relocate them along the perimeter of the layout. In this location they’re well within reach of the most enthusiastic operators, as is evident in the photo above.

In the following paragraphs, I’ll share a number of additional tips for making nearly any layout more kid-friendly – not only for the holiday season, but throughout the entire year.

**Manual control for automatic accessories**

**WHILE IT IS GREAT FUN** to watch the various automatic accessories perform when the trains pass by, children also enjoy turning them on and off by themselves. It’s easy to install switches and push buttons to let everyone get in on the fun.

With a little extra wiring, you can provide the option of either automatic or manual operation of such accessories with the flip of a switch. The master switches should be located on the main control panel where they won’t be activated accidentally.

First, connect the accessory to a fixed-voltage post providing about 14 volts. The ground post must be the same as the ground connection to the outside rails of the track. Next, mount a single-pole double-throw (SPDT) toggle switch to the main control panel and then attach a simple on-off switch near the accessory.
one Install a command-control system

CONVENTIONAL TRANSFORMERS tie an engineer down to one place in the train room and limit an operator’s ability to view the action. To overcome this problem, my layout is wired for both Lionel’s TrainMaster Command Control (TMCC) and MTH’s Digital Command System (DCS). These handheld cordless devices allow an operator to closely follow the progress of a train. I’ve also found that today’s technology-oriented youngsters adapt quickly to keypad commands and find them more appealing than a transformer throttle.

Additionally, when youthful visitors are operating the trains with a Lionel CAB-1 controller, I keep a second CAB-1 remote keyed to the same locomotive. In the event of trouble, I can immediately override the operator’s control or shut down the entire layout.

Lionel no. 12868 CAB-1 controller
MTH no. 50-1002 DCS controller

Ten-year-old Emily Dewolfe operates command-controlled trains using a Lionel CAB-1 remote controller and TrainMaster (TMCC) command-control system.

two Locate a city street or highway within easy reach of children

WATCHING THE TRAINS run is fun, but kids learn best when they’re free to touch or handle items on a layout. Many of my younger guests enjoy playing with the hundreds of cars, trucks, and buses that fill the easily accessible city streets and country roads on my layout.

Speaking from experience, you may want to avoid placing fragile scenery between the edge of the layout and a roadway lined with vehicles.

Eight-year-old Colin Hassell unloads vehicles from an MTH flatcar, while his five-year-old brother Douglas keeps the traffic moving along Main Street.

Athearn no. 90864 box van

three Include operating accessories and animated action

A LAYOUT FEATURING animated action can keep children of all ages entertained for hours. Both Lionel and MTH manufacture a wonderful assortment of stand-alone operating accessories for O and S gauge layouts.

The accessories that feature animated human figures or animals seem to be especially intriguing to youngsters. Some of the items on my layout date from before World War II, but many are contemporary reproductions of classic Lionel and American Flyer toys. The newest accessories feature modern components and mechanisms designed to provide smooth, quiet, and very reliable operation.

While the buttons to activate most of my accessories are positioned within reach of even the smallest children, you can also wire many accessories for operation via a Lionel CAB-1 or an MTH DCS controller.

Jamie Patterson, 10, points out the animated action of a Lionel no. 14199 playground that his sister Alyssa, 13, activates using a toggle switch at the edge of the layout.

Lionel no. 14145 animated lumberjacks

Athearn no. 90864 box van
SOME OF THE MOST exciting operating accessories are those that actually load or unload freight. Even a single freight-handling accessory promises to keep mechanically minded youngsters busy for a long time. Now imagine how much fun they’ll have with multiple accessories!

During our open-house events, some of the kids like to load and reload barrels, crates, and logs while others are running the trains. To help keep the main line cleared for operation, I installed a number of accessories in an industrial park along a siding. Be sure to locate these freight-handling accessories within easy reach of the layout perimeter so children can handle or adjust the various loads when the need arises.

Accessories that do not require direct access, such as signals, crossing gates, and animated structures like gas stations, firehouses, and carousels, may be placed farther back, but the view of them should not be blocked. Also, accessories with sound modules should be close enough to viewers so that their sound effects are not drowned out by the noise of the operating trains.

Most of these clever accessories require only two connections, power and ground, and may be wired together in parallel as shown in the wiring schematic. Complex accessories, such as the MTH nos. 30-9154 operating gas station and 30-9157 operating firehouse, feature both lights and animation. The toggle switch leading to wire posts A and D turns on the lights and provides power for the action, but only when the push button (connected to wire post C) is activated. Posts B and E are ground connections for the animation and the lights, respectively.

With few exceptions, toy train accessories work well at about 14 volts. A single set of wires may extend sequentially to a large number of these toys.
ADULTS AND CHILDREN alike enjoy searching out amusing vignettes located throughout the layout. Several companies such as Arttista (arttista.com) and Woodland Scenics (woodlandscenics.com) are now producing a vast array of miniature figures in lifelike poses.

Observant visitors to our layout may discover a motorcycle cop chasing a convertible driven by an attractive young lady or a mail carrier fending off an aggressive dog. I try to change the scenes frequently so that return visitors do not get bored.

All figures are held in place by a wax-like substance called Mini-Hold, made by Handcraft Designs, Inc. of Hatfield, Pa. This product can hold the tiniest details securely in place and leaves no sticky residue.

YOU’LL WANT young visitors to have a positive experience, which may encourage them to become involved in the hobby themselves. Unfortunately, accidents can happen with anything as complex as a toy train layout, especially when the room is full of visitors. Consequently, beginning engineers are better off operating relatively inexpensive locomotives, while you keep your collector’s items well out of reach.

Despite having as many as 20 people crowded around the layout on many occasions, I’ve had very few problems and only minimal damage. Regardless of how or why it happens, kids shouldn’t go away feeling guilty if something is damaged. The best approach is to assure everyone that toy trains can be repaired or replaced and then continue to enjoy the layout.

Add a touch of humor to the scenes you’ll want young visitors to have a positive experience, which may encourage them to become involved in the hobby themselves.

It’s easy to see what’s happening here: an impromptu race between Alyssa and Jamie Patterson, with the potential for derailments and even worse. This is no place for your most prized locomotives and rolling stock.

Protect rare or expensive items.
seven Create familiar places and situations

EVEN TWO- and three-year-olds are fascinated by a world in miniature. They’re invariably intrigued by animations, such as the K-Line no. K-42443 Belmont carousel, K-Line no. K-424081 operating billboard, and the Lionel no. 14199 playground. A large number of miniature figures involved in everyday activities will help to hold their interest as they discover tiny versions of things they recognize. They can search for children like themselves, playing on the swings and seesaws and riding on their tricycles or in their wagons in the tiny town square.

It’s surprising how many children will notice and comment upon a layout’s small scenes, such as the man mowing the grass (lower left) and the dog sniffing his way across the plaza between the little red schoolhouse and the library (lower right).

eight Ensure a safe environment for young visitors

BE SURE ALL electrical equipment is shielded from inquisitive fingers, and be certain that there are no rough edges or protruding nails or screws on the layout table. Provide stepstools for taller visitors to sit on while exploring the accessories, but if your table is fairly high off the floor, younger children will need the stools to stand on. Such stools should have a safety railing. When there are many people viewing the layout at once, situating smaller kids on stools offers an additional measure of safety.

Emily Dewolfe sits comfortably on a folding stepstool as she operates the controls of the industrial siding.

Steven Moggy clings to a safety rail as he climbs up to reach his favorite locomotive near the four-foot-high turntable area.
A gift from the heart is something to treasure. If the gift happens to be a train, that's all the better. Such is the case with the Christmas train I created for my club layout to operate throughout the holiday season.

While a variety of special holiday sets are readily available from toy train manufacturers, I didn’t want to spend too much money on items that would only be used seasonally. Additionally, I also wanted a train with unique charm. After thumbing through various toy train catalogs, I was finally inspired to create my own Santa Claus Special.

Poring over the details of the Large scale Lionel no. 81029 Holiday Special, an O gauge Lionel no. 28660 North Pole Dockside switcher, and a no. 36529 work caboose got me thinking about similar, little-used items I already had on hand. In the photos that follow, you’ll see how I was able to rescue those items from the Island of Misfit Toys and then convert them into a special train well suited for Santa.

When sorting through the items in my storage area, I came across a humble Lionel no. 8905 dockside switcher from the late 1970s.

After using a razor saw and hobby knife to cut out the doorways of the cab, I then removed the ornamental bell, whistle, and headlamp. Next, I separated the chassis and sprayed the body with red paint that's suitable for use on plastics. Once the body color dried, I used a brush to paint the coal load black. I also trimmed some of the boiler piping and the stack stripe with green paint before re-assembling the locomotive mechanism.

For the crew of my switcher, I used the Santa and Mrs. Claus figures removed from a well-used Lionel no. 18403 handcar. After going under the hobby knife for weight loss and elbow surgery, the Clauses fit perfectly into the doorways.

To give the locomotive a more seasonal appearance, I added a few miniature decorations to the front and sides. Lastly, using a computer and printer, I fabricated a couple of "Merry Christmas" signs to cover the "8905" cab number.

'Tis the season...or occasion for a train

Take a look at the toy trains you have in storage and you might see a way to transform them into a train commemorating a birthday, vacation, seasonal holiday, graduation, or any other special event.
**two** Goodies for the gondola

What kind of loads does the Santa Claus Special carry? Why presents, of course! Returning to my collection of stored trains, I found a Lionel MPC-era O27 gondola that I could fill with goodies.

The first step was to spray paint the car red. I knew that I couldn’t just drop the load of goodies into the car, so my wife graciously fashioned two red cloth bags, complete with drawstrings. To fill these bags, my wife and I bought several packages of miniature ornaments at a local home-decorating store. In addition to the wrapped presents, I also inserted a candy cane, teddy bear, and snare drum ornament into the bags and then secured them using clear-drying craft glue.

**three** Festive flatcars

Since Santa is taking a break from flying his reindeer-guided sleigh to drive the locomotive, I figured the Santa Claus Special needed suitable accommodations for the reindeer and sleigh.

I found two Lionel MPC-era O27 flatcars to carry each load and sprayed both of them with red paint. I constructed the reindeer corral using strips of balsa and wood glue. After painting the fence green and allowing it to dry thoroughly, I then cemented it to the deck of the car. On the second flatcar, I cemented a storage box from a Lionel no. 12838 crate load set.

While it was easy to find the ornaments and seasonal decorations in stores, I was challenged to locate an appropriately scaled sleigh and set of reindeer. Eventually, I acquired plastic reindeer and a chromed sleigh through online auctions. I painted the sides of the sleigh red and green, and then tied it to the flatcar using the same ribbon used to make the drawstring for the red cloth bags. To finish the two cars, I cemented the reindeer to the deck using craft glue.

**four** A “cool” caboose

A respectable Santa Claus Special should have a caboose bringing up the rear end of the train. Rather than select something commonly seen on an O gauge layout, I decided to use an LGB no. 80999 Gnomy caboose to make a unique bobber-style caboose.

After cutting the wheels off the LGB caboose, I mounted the body on top of a postwar Lionel no. 479-1 basic truck with coupler. Finally, by removing the railing from the back of the caboose, I was able to fit a frosty, snowman ornament to the rear platform. The caboose just wouldn’t be complete without a memorable vision for the kids to see as the Santa Claus Special passes by.
THREE TIMES around the tree

by Neil Besougloff

WE ALL SAW THE MOVIE The Polar Express, right? In one scene, the Polar Express passenger train spirals up a mountain peak like a red stripe around a barber pole.

Here’s an O gauge track plan in which a train spirals up and down a white slope beneath the boughs of a Christmas tree. The track plan you see here features O-42 tubular track curves, a tunnel, and a 45-degree crossing. It all fits in a 6½ by 6½-foot space.

Elevation plays a key role in this plan. One of the three loops is flat but at a height 5½ inches above the base of the layout. The other two loops are split between climbing to the upper level of the layout and descending to its base.

The best way to build this layout is by using the “cookie-cutter method.” First, fit pieces of plywood together to create a 6½-foot square. Then set down your track, and use a marker trace its roadbed path (about 1 inch to the left and 1 inch to the right of the ties) on the plywood.

Next, where the track climbs or descends, use a saber saw to cut those lines. Don’t, however, completely cut out those pieces. Lastly, use shims below the cut sections to raise the track roadbed to the necessary height.

If you are still confused, look at the diagram on the next page, which shows how the cookie-cutter method works for a figure-8 layout.

If you’re not into cutting cookies, you can use Lionel or MTH graduated tres-
16 inches on center

1-by-4 select pine frame and crosspieces

Risers and braces as required

1-by-4 pine risers with 1-by-1 cleats

½-inch plywood roadbed, cut out as needed for track, structures, and scenic features

1-by-4 select pine frame and crosspieces

Tunnel beneath raised 45-degree crossing section

Tunnel portal

K-Line O-42 track switch creates short storage spur

3½-foot-diameter opening for base of Christmas tree

Retaining wall between levels of track

Lionel no. 356 operating freight station

Grades up and down to raised section of layout

Orange or maroon American Flyer no. 571 truss bridge adds a touch of color to the winter scenery

“Cookie-cutter method”

Lionel
Number/Product
356 operating freight station
445 railroad switch tower

Gilbert
Number/Product
571 truss bridge

<table>
<thead>
<tr>
<th>Suggested accessories</th>
<th>LIONEL O GAUGE TUBULAR TRACK COMPONENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lionel</strong></td>
<td><strong>Quantity</strong></td>
</tr>
<tr>
<td><strong>Number/Product</strong></td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

“Cookie-cutter method”

½-inch plywood roadbed, cut out as needed for track, structures, and scenic features

1-by-4 pine risers with 1-by-1 cleats

Risers and braces as required

16 inches on center

1-by-4 select pine frame and crosspieces
BUILD A MULTI-LEVEL
Christmas tree layout

story and photos by Lou Melick

Like many model railroaders, I set up a train to run around the Christmas tree every year. This normally involves a loop of O gauge track for a main line, a siding or two, and a line for a trolley car. Toss in some porcelain buildings and a few white sheets or sections of quilt stuffing, and my North Pole Central is ready for business.

One of my favorite Christmas-tree layouts was inspired by the track plan “Three times around the tree” in the December 2006 issue of Classic Toy Trains. (Subscribers can view a PDF of the original track plan at ClassicToyTrains.com). The plan’s theme, taken from the movie The Polar Express, revolves around a train climbing a mountain. The loops lift the train up and then back down again.

I tweaked the plan to fit my space, and I was very pleased with the results. The plan offers more visual excitement than a simple flat loop. In dim light, especially striking is the reflection of the lights from passenger cars.

This is an easy project that doesn’t require a lot of heavy-duty lumber or industrial-strength screws and bolts. Since there is also a limited amount of cookie-cutter work, this is a handy introduction to that method of building benchwork. Best of all, building this layout is affordable.

So if you want to build a new layout next year, just remove the track and toss the roadbed. Let me show you how I built a three-lap holiday layout.

WOODWORK

The base: The foundation for this project, quite literally, was a Christmas-tree base I use every year for my holiday layouts. I like to watch trains running a bit higher than floor level, and this base raised the deck of the layout 12 to 15 inches above the floor.

However, you can just as easily adapt it to a floor-running project.

I made the foundation by placing two sheets of \( \frac{3}{4} \)-inch-thick plywood (one 4 x 8 feet, and one 2 x 8 feet) on a simple truss frame. This created a 6 x 8-foot base upon which to build.

The plywood sections were held together with three 2-inch strips of plumber’s tape that I secured with \( \frac{1}{2} \)-inch screws along the seam.

When I completed the layout, I attached a cloth with a holiday pattern along the edge to conceal the
truss work. You can craft a fascia for it, depending on how permanent you want it to be.

Track: Some quick mental calculations led me to believe that I had enough K-Line tubular track on hand to build this design. I had track with O-42 curves and switches as well. I needed to cut just a few custom-fitter sections.

I also needed to cut out roadbed for the elevated sections, so I sketched the outline on the plywood that would constitute the raised levels.

The roadbed: I used a saber saw to cut ½-inch plywood into 4-inch-wide sections. My goal was to cut as few pieces of wood as possible, so several sections could support multiple sections of track. I cut both straight and curved sections of wood to fit the mated lengths of track. I re-joined the wood sections by using plumber’s tape and ½-inch screws.

Risers: All risers were cut from kiln-dried 2 x 4 lumber. The upper-level risers were the highest at 5½ inches.

I determined the number of risers needed by dividing the height (5½ inches) by the number of track sections in the incline. The result equals the height differential between each section. Since the two inclines differ, I needed to come up with individual calculations for both.

I took the joined roadbed sections and screwed them to the risers. In several spots, I screwed the risers to the base, using 1¼-inch screws. Soon, I had a secure structure.

I placed the stand for the tree in the central open area. Other than briefly placing track on the structure to make sure it all fit (and removing it), I was ready for the next stage – setting the holiday scene.

SHEET AND HOLIDAY FABRIC

Landscape: Planning proved essential. I included three special features: tunnels (along with related portals and retaining walls), a stream, and mirrors that serve to visually expand the depth of the layout.

I created the tunnel portals and retaining walls by cutting up cardboard boxes. I painted the cardboard pieces with latex house paint and stapled them to the risers and the base.

To create the stream, I used inexpensive mirror pieces and sprayed their surfaces with clear, flat lacquer. This gave a softer look to the reflective surface. To simulate rapids, I overlapped several mirrors and painted the edges white. For the shoreline, I covered the mirrors with white felt and then trimmed the shape.

Also, to create the illusion of a larger layout, I mounted these mirrors to the wall in easy-to-see spots. They gave the layout more depth, improved the length of the stream, and resulted in the occasional thrill as a train raced toward itself in the mirror – disaster averted by the timely curve in the track.

Let it snow: The layout’s seasonal spirit was created with a few simple products: a white bed sheet, crumpled newspaper, and some white holiday display material.

I placed a queen-size sheet over the layout. Then I stuffed, crumpled, and stuffed newspaper again until I got the “look” of the terrain I was after.

Next came the snowfall. I placed the white-cotton sheeting (you can also use quilt stuffing) over the bed sheet. I found this glitter-accented material at a crafts store.

To avoid the look of unrealistic folds, I cut the felt into some basic sub-sections. The seams where the sections met were hidden beneath the track.

With the use of a dozen loosely driven screws, the track – and the felt cover – were snugly affixed to the woodwork.

The layout’s lone power hookup is situated at the base of the inner incline, which is nearly circular. Power requirements were simple, so I used a Model Rectifier Corp. PurePower transformer, which easily handles the load.
TREES AND TEXTURE

Trees (the small ones): Trees (or the lack of) can make or break a layout’s appearance. For the total holiday spirit, I opted to use many sizes of evergreen trees.

Using care, I brushed on white latex paint from top to bottom. By dabbing the edges of the limbs, a light application looks like frost while a heavy application looks like the residue of a heavy, wet snowfall.

I also set each tree in a gob of plaster of paris (on a sheet of waxed paper). When the plaster dried, it created a weighty, flat base that reduced the chances of the trees falling over. It also emulated a pile of snow at the base of the tree. I generally placed the taller trees up front and the smaller trees in the back, which created a forced perspective “distant” look.

Tree (the big one): When placing the decorated live tree on the stand, I protected the newspaper and fabrics by wrapping the water reservoir with a plastic trash bag.

I did more paper crumpling and fabric wrapping to create the look of the tree being atop a mountain.

For the final mood-setter, I replaced the regular bulbs in my light fixtures with blue “party” lights. The whole layout is bathed with a moonlight glow.

You don’t need to invest a fortune to build this layout. Lou installed track he already had on hand, and he made his portals and retaining wall from old cardboard boxes. Where color was needed, he added common latex house paint. Virtually everything on his railroad can be reused next year for a new, innovative holiday display railroad.

The multi-level look of the three-lap track plan adds an extra dimension of fun. Lou’s use of overlapping mirrors is effective, particularly the way the mirrors’ white-painted edges simulate rapids or a small dam. The spare use of white paint and the trees’ plaster bases make it look like a Nor’easter has just passed through a sleepy mountain town.

Lou created water with mirror sections sprayed with flat lacquer. He placed white felt over the mirrors and then used a hobby knife to cut out a shoreline. Mirrors were also affixed to the walls to reflect the train action, which “extends” the panoramic scope of an otherwise modest railroad. Subtle changes in the lighting can have an awesome effect on the feel of the layout.
Ray, while cleaning out my parents’ attic I found my old trains. Even after I had grown up and moved away, Mom and Dad still used them for years around their Christmas tree. Now, however, my trains have been boxed up and haven’t run for five years. I’d like to put them under my Christmas tree this year. How can I get them back to speed? – John Terra, Cherry Hill, N.J.

John, this is the time of year we get a lot of questions about putting together a Christmas tree layout. So here are some general suggestions, based upon your letter and many similar letters, to help you get your trains ready for the big day.

Keep things simple
A holiday layout is not the place to try out complicated track plans and control circuits. Design a layout the kids can handle by themselves. Most adults are occupied with many other things during the holiday season, so they’re happy to just sit back and watch trains run.

A basic oval, perhaps with one pair of switches to provide interest with an alternate route, is all that’s needed. If you want to run two trains, set up another oval inside the first.

Integrate the scene
Tie the tree and the train layout together in some way. A winter scene works well, even in California. Accentuate the whimsical: cute buildings, oversized accessories, and blinking lights.

Prepare the track
If you’re using old Lionel or American Flyer track, examine each track section and make sure the rail fiber insulation (center rail on Lionel track) is still in place. If the track is warped or bent, straighten the rails by hand or with pliers. Badly damaged sections should be replaced.

Track pins must be tight. Secure them by carefully pinching the hollow end of the rails with needlenose pliers. Your goal is to get the track sections to fit together snugly so they won’t come apart during operation. If you have track clips, use them.

Test the transformer
Examine your transformer cord before you plug it in. If it’s an old transformer, look for signs of deterioration or damage. Be sure that the plug is still firmly attached and there are no bare wires or gaps. Bad cords can be dangerous, so, if in doubt, replace it. Let a qualified electrical specialist do the job.

Working transformers usually hum or vibrate and get warm to the touch when in use. Test the transformer’s output by connecting a short length of wire to one of the binding post terminals.

Then, with the throttle about halfway open, carefully touch the other end of the wire to the other terminal. There should be a small spark. If the transformer has more than two binding posts, the ones used for track voltage are usually labeled as such.

Inspect the locomotive
Turn the engine on its back. Spin the wheels to see that everything moves freely. Check for loose or damaged parts. If the locomotive is a postwar Lionel with Magne-Traction, make sure that no stray metallic objects are clinging to it.

If the drive mechanism is clogged with dust, rug fuzz, or cat hair, clean it out as best you can with WD-40 on a swab. Probe gently as far as you can see. Stay away from the mechanical sequence-reverse unit (also called an E-unit) if your locomotive has one. And avoid any green circuit boards.

Get ready to jingle!
Here are some quick tips for enjoying your holiday trains

Ray, while cleaning out my parents’ attic I found my old trains. Even after I had grown up and moved away, Mom and Dad still used them for years around their Christmas tree. Now, however, my trains have been boxed up and haven’t run for five years. I’d like to put them under my Christmas tree this year. How can I get them back to speed? – John Terra, Cherry Hill, N.J.

John, this is the time of year we get a lot of questions about putting together a Christmas tree layout. So here are some general suggestions, based upon your letter and many similar letters, to help you get your trains ready for the big day.

Keep things simple
A holiday layout is not the place to try out complicated track plans and control circuits. Design a layout the kids can handle by themselves. Most adults are occupied with many other things during the holiday season, so they’re happy to just sit back and watch trains run.

A basic oval, perhaps with one pair of switches to provide interest with an alternate route, is all that’s needed. If you want to run two trains, set up another oval inside the first.

Integrate the scene
Tie the tree and the train layout together in some way. A winter scene works well, even in California. Accentuate the whimsical: cute buildings, oversized accessories, and blinking lights.

Prepare the track
If you’re using old Lionel or American Flyer track, examine each track section and make sure the rail fiber insulation (center rail on Lionel track) is still in place. If the track is warped or bent, straighten the rails by hand or with pliers. Badly damaged sections should be replaced.

Track pins must be tight. Secure them by carefully pinching the hollow end of the rails with needlenose pliers. Your goal is to get the track sections to fit together snugly so they won’t come apart during operation. If you have track clips, use them.

Test the transformer
Examine your transformer cord before you plug it in. If it’s an old transformer, look for signs of deterioration or damage. Be sure that the plug is still firmly attached and there are no bare wires or gaps. Bad cords can be dangerous, so, if in doubt, replace it. Let a qualified electrical specialist do the job.

Working transformers usually hum or vibrate and get warm to the touch when in use. Test the transformer’s output by connecting a short length of wire to one of the binding post terminals.

Then, with the throttle about halfway open, carefully touch the other end of the wire to the other terminal. There should be a small spark. If the transformer has more than two binding posts, the ones used for track voltage are usually labeled as such.

Inspect the locomotive
Turn the engine on its back. Spin the wheels to see that everything moves freely. Check for loose or damaged parts. If the locomotive is a postwar Lionel with Magne-Traction, make sure that no stray metallic objects are clinging to it.

If the drive mechanism is clogged with dust, rug fuzz, or cat hair, clean it out as best you can with WD-40 on a swab. Probe gently as far as you can see. Stay away from the mechanical sequence-reverse unit (also called an E-unit) if your locomotive has one. And avoid any green circuit boards.

Get ready to jingle!
Here are some quick tips for enjoying your holiday trains

Ray, while cleaning out my parents’ attic I found my old trains. Even after I had grown up and moved away, Mom and Dad still used them for years around their Christmas tree. Now, however, my trains have been boxed up and haven’t run for five years. I’d like to put them under my Christmas tree this year. How can I get them back to speed? – John Terra, Cherry Hill, N.J.

John, this is the time of year we get a lot of questions about putting together a Christmas tree layout. So here are some general suggestions, based upon your letter and many similar letters, to help you get your trains ready for the big day.

Keep things simple
A holiday layout is not the place to try out complicated track plans and control circuits. Design a layout the kids can handle by themselves. Most adults are occupied with many other things during the holiday season, so they’re happy to just sit back and watch trains run.

A basic oval, perhaps with one pair of switches to provide interest with an alternate route, is all that’s needed. If you want to run two trains, set up another oval inside the first.

Integrate the scene
Tie the tree and the train layout together in some way. A winter scene works well, even in California. Accentuate the whimsical: cute buildings, oversized accessories, and blinking lights.

Prepare the track
If you’re using old Lionel or American Flyer track, examine each track section and make sure the rail fiber insulation (center rail on Lionel track) is still in place. If the track is warped or bent, straighten the rails by hand or with pliers. Badly damaged sections should be replaced.

Track pins must be tight. Secure them by carefully pinching the hollow end of the rails with needlenose pliers. Your goal is to get the track sections to fit together snugly so they won’t come apart during operation. If you have track clips, use them.

Test the transformer
Examine your transformer cord before you plug it in. If it’s an old transformer, look for signs of deterioration or damage. Be sure that the plug is still firmly attached and there are no bare wires or gaps. Bad cords can be dangerous, so, if in doubt, replace it. Let a qualified electrical specialist do the job.

Working transformers usually hum or vibrate and get warm to the touch when in use. Test the transformer’s output by connecting a short length of wire to one of the binding post terminals.

Then, with the throttle about halfway open, carefully touch the other end of the wire to the other terminal. There should be a small spark. If the transformer has more than two binding posts, the ones used for track voltage are usually labeled as such.

Inspect the locomotive
Turn the engine on its back. Spin the wheels to see that everything moves freely. Check for loose or damaged parts. If the locomotive is a postwar Lionel with Magne-Traction, make sure that no stray metallic objects are clinging to it.

If the drive mechanism is clogged with dust, rug fuzz, or cat hair, clean it out as best you can with WD-40 on a swab. Probe gently as far as you can see. Stay away from the mechanical sequence-reverse unit (also called an E-unit) if your locomotive has one. And avoid any green circuit boards.
Clean the wheels

This is essential for good electrical contact. Using your ScotchBrite pad, remove the dirt and oxidation from all locomotive wheel rims. Scour them even if they don’t appear to be dirty, but be careful with wheels that have rubber traction tires. You don’t have to clean the rubber tire. If you don’t have a ScotchBrite pad or something similar to clean the wheels, use a pencil eraser.

In the same way, clean the third-rail pickup shoes. Rub them until they shine. Whether sliders or rollers, these pickup shoes are spring loaded and should bounce back when depressed. If yours don’t, try to find the obstruction. Usually it is dirt.

Car wheels and couplers can best be cleaned by using cotton swabs sprayed with WD-40. If you find a layer of accumulated “gunk” stuck to the wheel rims, scrape it off with a knife or sharp screwdriver blade before applying the WD-40. Mop up with dry cotton swabs. Wheels are clean when the dry swabs no longer turn black.

Lubricate the train

Put just one drop of oil on each of the axle bearings and exposed gear shafts. Don’t overlook the truck pivots. If desired, the gears themselves may be lubricated with a thin application of white lithium grease or petroleum jelly.

On older Lionel and American Flyer locomotives with open-frame motors, lubricating the motor’s armature shaft is critical. One end of it can be found between the brush holders. The other end usually has a gear attached and is located on the opposite side of the mechanism. Use one drop of oil on each end.
But be careful not to get any on the brushes or commutator face. Accidental runs or spills should be mopped up with a cotton swab at once.

Car wheels, especially those on prewar and postwar trains, should be lubricated in order to reduce friction. One drop of light household or machine oil, dispensed from the end of a toothpick, is all that’s required.

Test-run the train

This is the moment of truth. Put the engine on the tracks and turn on the power. After this kind of cleaning and lubrication, most locomotives in good condition will run, but a year or more of inactivity may leave them sluggish at first.

Be patient. It takes time for the lubricant to penetrate dry bearings. Internal parts, like the electrical contacts on the reverse unit, may need to be exercised a few times before they consistently perform as they should.

Put the locomotive through its paces. Let it warm up. Run it fast and slow, forward and backward, for 10 to 15 minutes. The unit’s performance should improve with use as the gremlins disappear and it gets up to speed.

When you’re satisfied that the engine is running smoothly, couple on the rest of the train, sit back, watch, and enjoy. You don’t have to wait until Christmas.

If your train needs more serious attention, there are hobby shops that repair trains located throughout the country. Consult the listings in back of this magazine for one near you.

Or, if you’d like to learn more about fixing your own trains, pick up a copy of my Beginner’s Guide to Repairing Lionel Trains and Toy Train Repair Made Easy at your hobby shop. (Order direct by calling 800-533-6644 or going to www.kalmbachbooks.com.)

QUESTION & ANSWERS
CHRISTMAS IS JUST around the corner, and visions of sugar-plums and Christmas layouts are already dancing in hobbyists’ heads. And no holiday layout worth its salt would be complete without a big fat helping of the white stuff — better known as snow.

I’ve discovered three different materials that effectively mimic snow on a toy train layout. First, there’s Woodland Scenics brand snow, a powdery substance that can be shaken onto a layout just like ground foam to produce pleasing winter scenery. Second is the “holiday village” snow that is sold in bags this time of year as an accessory for Department 56 and similar ceramic buildings. And third is old-fashioned cotton skirting, which lies flat and makes no mess. Follow along with me to learn the pros and cons of each method.
You can make snow permanent with diluted white glue. First use a pump sprayer (or an old Windex bottle) to soak the area with water that contains a few drops of dishwashing detergent to break the water’s surface tension. Then, before it dries, spray the snow again with a 50/50 mixture of white glue and water. You will need to repeat the routine of soapy water and then glue if your snow layer is thick.

A wild and wooly winter storm blew through Train Town, Ohio, thanks to Woodland Scenics snow. The granules of snow powder, when dropped from directly above, look realistic atop the automobiles and in gentle drifts in front of the snow-removal equipment.

I used a kitchen flour sifter to apply the Woodland Scenics snow. Also on my “parts list” were lichen, small holiday fir trees (available from craft and hobby stores), and O gauge figures dressed for winter weather.

You can shake Woodland Scenics snow directly from its plastic jar, but for me it created uneven piles of snow. I had better control using a flour sifter. With the sifter, even unplanned “snow drifts” looked more natural.

An effective winter scene needs more than just snow. I placed a few “snow accented” holiday trees and “dead” shrubs in strategic spots before adding snow. Don’t forget to let a little snow trickle down between buildings to catch all the nooks and crannies.

By including a few winter detail pieces, snow on an empty field can become a small park with kids playing. Lemax makes the walls and street light, and I found the Santa and snowman with children at Walgreen’s a few years ago. The Santa figure also makes a nice “jumbo” seasonal decoration for a front yard or store roof.

You can make snow permanent with diluted white glue. First use a pump sprayer (or an old Windex bottle) to soak the area with water that contains a few drops of dishwashing detergent to break the water’s surface tension. Then, before it dries, spray the snow again with a 50/50 mixture of white glue and water. You will need to repeat the routine of soapy water and then glue if your snow layer is thick.

Woodland Scenics granular snow works great for creating vehicle tracks in the snow. The snowplow effect was created the old-fashioned way – the truck with the plow was pushed through a drift!
“Holiday village” is a label I coined to cover the packaged snow sold as an accessory to ceramic Christmas village buildings. Most brands are made from ground-up plastic. Like coffee, it comes in more than one grind: fine, as shown in this photo, and coarse. “Village snow” tends to be a seasonal product, so you probably won’t be able to find it at your hardware store in July. I experimented with two brands of “fine” snow and one brand of “coarse” or confetti-style snow.

Without thinking, I tried to use the coarse village snow in my flour sifter. Wrong! This particular brand of snow was made of plastic pieces the size of shredded tissue paper, which was hardly digestible for a sifter.

For the coarse stuff, I resorted to a technique my grandmother taught me when decorating a coconut cake. Grab a handful and toss it!

While the “confetti” style of snow might look fine in a field, it made Train Town look like the local Charmin factory had exploded.

As you can see in the photo, the fine-ground village snow worked much better on a toy train layout, even when applied without a sifter. Because this snow is plastic, it won’t absorb water and therefore it won’t glue down as well as Woodland Scenics brand snow. I suggest you leave it up to gravity to hold things into place.

The pros and cons of snow

**Woodland Scenics snow**

**Pros:** Looks great, readily available year-round, excellent material for leaving vehicle tracks, easily applied with flour sifter, can be permanently adhered

**Cons:** Moderate to high price ($8 to $10 a shaker), very small grains easily slid through my sifter making unwanted “drifts,” clean up requires a vacuum cleaner, leaves a dusty residue on roads, vehicles, trains, and structures

**Holiday village snow**

**Pros:** Low to moderate price ($3 to $10 a bag), lightweight, finely ground styles look realistic, terrific prices at after-Christmas sales

**Cons:** Seasonal product, almost too many choices and brands, coarse-ground styles can look like coconut flakes, clean-up likely requires a vacuum cleaner, doesn’t work well with most glues, some types leave a dusty residue on roads, vehicles, and structures

**Cotton snow**

**Pros:** Low to moderate price ($4 to $15 a roll), covers large areas quickly, no mess, can be purchased year-round at fabric stores, works well with village snow

**Cons:** May need two layers to prevent visual bleed-through, fibers get tangled on drill bits when placing trees and telephone poles, not realistic looking, a magnet for pet hair, cotton tree skirts have hole for tree trunk, so planning is required
7 tips for great snow scenes

1. Use brown lichen for shrubs to simulate “bare” branches.
2. Use small snow-covered trees or tiny wreaths purchased from craft shops.
3. Include people dressed in winter attire.
4. No 1:43 convertibles unless they’re in a showroom window!
5. Out-of-scale Santa and similar figures are right at home – they can be used as rooftop or “larger than life” lawn decorations.
6. When applying snow to a “green” surface, make sure to evenly cover alleys and all gaps between structures.

You can easily find cotton-skirting material at your local hobby or craft store. You can buy the style intended to cover the base of a Christmas tree or you can try the batting used to fill a quilt. This is the least sophisticated of our three snow methods, but it can deliver a nice, even foundation upon which you can place track, trains, buildings, and roads. It is inexpensive (especially considering the space it covers), has a consistent texture, and it does not have the potential to be messy.

To prevent “bleed through” of the bare plywood, I needed to double-fold my sheet of cotton. Other brands may be slightly thicker. You may want to consider putting a layer or two of white paint on the wood before adding cotton. If you wish to glue down the cotton, use a light layer of straight white glue spread evenly with a scrap piece of cardboard used like a spatula. If you apply too much glue it will bleed through the cotton – so don’t overdo it. If your holiday village is constructed on your living-room carpet, the trains, track, buildings, and good old gravity will easily hold everything in place.

Be warned! If you need to drill holes through the cotton for trees, light poles, or other objects, a drill bit will merely twist the cotton into a wad. Use a cutting tool to make a hole in the cotton, and then drill the hole, making sure there is no chance a stray fiber will wrap around your drill bit. If you are using street lights similar to those sold by Lemax, you may want to pre-position them and mark where to cut. The power lines will be concealed beneath the cotton snowfall.

In this photo, I combined the best of both worlds. Cotton bunting provides what appears to be a good 1:48 scale “inch or two” of snow on the ground. After I placed a few holiday details on top of the surface of the cotton, I gave my scene a fresh coating of village snow. I also added a little bit of silver or “pearlescent” glitter I bought at a craft store to give my scene the look of a new snowfall on a bright day. Regardless of the method that you choose, adding snow to a seasonal layout will help get you misty-eyed and nostalgic for egg nog, Bing Crosby, and of course, electric trains.
MORE SO THAN we ever realized possible, toy trains are very much a holiday tradition in the Flynn household. What started with a circle of O-27 track more than a quarter century ago has today become a fully landscaped winter village display. It’s a tradition that has followed us to three different houses, all the while constantly evolving in terms of size and focus.

It all started in 1973, when my dormant interest in trains was awakened with help from an old friend: the Lionel General. I had received a Lionel General set in 1959. Somehow, the set had survived my divestiture of trains when a rock ‘n’ roll amplifier became a more important priority in my life. However, even during the years when I tried to fashion myself as a musician, the General held a special place in my world. It bravely climbed my bedroom wall (I had wired the couplers together and hung the train on picture hooks from its pilot truck) and served as a reminder of my love of toy trains.

After I married, the venerable General stole another heart: my wife’s, Debby and I loved the little wood-burner, and, as we planned our first Christmas together, we agreed it should circle our first tree. But first we had to find the appropriate track and transformer, not an easy task for a layman collector in 1973. We hunted through malls and followed various leads until we found the accessories we needed.

Our first holiday display was a simple one, yet grand in its own way. The circle of O-27 track around the tree joined Nativity figures on our shag carpet. From that point on, we knew that circle of track would always be part of our Christmas. If we only knew what else lay ahead!

The General gained reinforcements during the next two holiday seasons. We celebrated our newfound tradition in 1974 and 1975 with modern Lionel rolling stock, enthusiastically chased by our Schnauzer around a well-tinselred tree. (In those days, tinsel was metal, so it posed more of a threat to operation
than the dog.) Two significant changes in 1976 gave our holiday tradition a new look. Debby and I moved into our second house, and so did prewar trains. My collecting shift brought American Flyer Wide gauge and Lionel Standard and O gauge trains into our annual display. Among the pieces taking turns around the Christmas tree was an early Lionel no. 42 set and an apple-green Lionel 408E set.

While it all looked impressive, the trains didn’t work well on carpeting. Gear grease didn’t do much for the carpet, either.

Raised benchwork debuted on the 1986 layout. Thought to be an element reserved for permanent layouts, benchwork can provide definition and stability to any train display.

From my perspective, benchwork helped in many ways. Now I could more conveniently operate multiple trains and gauges, wire signals correctly, add finer display details and scenery (including snow, figures, trees, and small accessories), and more easily employ hands-off operation. Plus, an elevated platform tends to discourage dogs and other pets (but, naturally, not cats) from invading the layout area.

Our 1986 layout included an outer Standard gauge loop, middle O gauge loop and center 2-rail loop for wind-ups. The interesting mix of trains tended to hold the attention of guests for more than a few circles around the tree. Marx and Hafner ran the inner loop while a Lionel no. 226E freight and an early no. 33 freight set ran on the outer loops.

By 1988, a major home remodeling project gave us a large new family room with a two-story ceiling – plenty of room for a taller than usual tree. We selected a 10-foot pine that towered above the railroad on a raised platform. On that platform, we pieced together the most complex O gauge layout to date.

Plans began to take shape in early November with the construction of the odd-shaped platform, measuring roughly 6 by 16 feet. Originally, the track plan included eight 022 switches and four interconnected loops with crossings and sidings. Fortunately, I came to my senses after we had installed the tree and snow. I simplified the track plan to a more practical configuration without switches. Still, this was our first holiday layout to feature O-72 wide radius track.

Prewar and postwar Lionel and Marx trains ran on this smooth-operating layout. Accessories included tin Marx and ABove: The North Pole Express pulls into the land of its namesake, carrying gifts and goodies.

Left: Dusk falls as the local freight, headed by a commemorative Louis Marx steamer, slowly works its way past Main Street. The Flynns used Christmas village snow, icicles and lights to dress up the tinplate Marx Girard station.
Lionel pieces, Plasticville structures, a forest of bottle-brush trees, and a large no. 924 Lionel tunnel. We devoted many nights and weekends to building this layout. Now we realized what a challenge our holiday tradition had become.

We entered the 1989 holiday season with a new component: the Village Christmas Tree Lot, our first Department 56 piece. It broke down our resistance against what, to a purist, wasn’t truly a train accessory. I placed the tree lot in a prominent location, adding squirrels, birds, a Westie, and, finally, a stand-up sign in front that read “Moon’s Xmas trees, $5 & up.” (Moon, our dog, was in charge of chasing the train around the tree.)

Department 56 continued to break ground on our holiday layouts into the 1990s, starting with the Kid’s Tree House and the Honeymooner Motel, our first illuminated ceramic piece. The new decade also brought about another change in trains. Early 1990s layouts featured all Marx trains and accessories (in addition to Department 56 pieces). By the mid-1990s, our holiday layouts featured products by the new Marx Trains, including a line of tin lithographed toy trains that were much more common before and shortly after World War II. [Jim and Debby Flynn are the producers of new Marx Trains. – Ed.]

To dress up the layouts, we also started using backdrops, which among other things made the scenes more photogenic.

Our once-private tradition, typically seen only by family and friends, has gained widespread notoriety in recent years. Our 1994 layout was filmed for an episode of PBS’ “Tracks Ahead” series. TM Productions Inc. videotaped our layouts built from 1995 through 1997 for its “Toy Trains and Christmas” series. (Also in 1997, Lionel trains rejoined our display for the first time since 1989 in the form of an early No. 6 set.)

In 1998, we built our grandest layout yet – four trains operating on three levels with more than two dozen Department 56 buildings, including a Halloween hold-over Haunted Mansion.

As you’d expect, the tradition continues, and it remains a satisfying challenge. Ironically, during the same quarter century, I started, yet never “finished,” many permanent layouts. Perhaps the definitive holiday deadline motivates me to complete complex layout displays in mere weeks each year.

Whatever the motivation, I’m glad trains are part of our annual holiday routine.
Benchwork – Raised benchwork beats building a display on the floor. Determine the height. (I suggest a minimum 4 inches on a 1 by 4 frame, or higher if you have pets and kids.) The benchwork should be sturdy enough to walk on, preferably using 4 by 8 sheets of plywood with internal bracing screwed down on the framework.

Track planning – To help you meet the time crunch and to aid in reliable operation, simplify your track plan. Avoid switches by having as many loops and free forms as feasible. Instead of a figure-8 crossing, make two opposing loops. This will let you run two trains with more action and fewer derailments. Run some test trains before you lay down your “sheet” snow (described below). Don’t forget that the track layout must accommodate your tree.

“Sheet” snow – Sheet snow is thin white felt material with sparkle accents. It can be found where holiday decorating supplies are sold. Because snow sheets are semi-transparent and allow plywood to show through, you’ll want to paint your benchwork white.

Electrical considerations – Based on your track plan, run power supply wires under the benchwork and up through it at track connection points. Remember that long loops require more than one track connection to compensate for voltage drop. If you modify your track plan after laying the sheet snow, you can run additional wires under the sheet snow. I suggest using a lamp cord, which is heavy enough to eliminate heat from resistance and is available in white. Wires can be held in place with clear tape until snow is placed. Any humps or connections under the snow sheets can be easily disguised later.

Track installation – Use tacks or small screws to hold track in place. Elevated track (such as urban passenger trains) should also be tacked or screwed down. Take care not to crush rails or ties when mounting track with screws or tacks. After installing track over sheet snow, temporarily hook up the power supply to test the track. It’s easier to make corrections now, with the benchwork open, than after you install subsequent layers of scenery.

Signals – If you prefer automatic signal control, use track sections with insulated blocks instead of Lionel no. 153C-type mechanical controls. You can easily make control tracks by removing one outside rail, adding insulators, reattaching the rail, and installing insulated pins. When signals are wired to the center rail and the insulated rail, the train’s wheels will complete the circuit as the train crosses that section of track. For crossing flashers, you can use Lionel no. 154C contactors, but to reduce a derailment hazard you should file a slight level depression in the outside rail of a straight piece of track. Again, test all signal equipment under power before proceeding.

Illumination – It’s worth considering right-of-way illumination before decorating the layout. Placing outlet boxes and control switches where they are accessible, yet hidden from view, can be tricky. So plan carefully how you will install outlet boxes for tree lights, village building lights, tunnel lights, and roadbed lights.

For a dramatic effect, I also attach a string of Christmas lights along the track edge and cover them with the semi-transparent sheet snow.

Control panel – Centralize your control panel so that you don’t have to lean over the layout to turn off switches in various locations. If possible, try to hide it behind a backdrop. Depending on size and power draw, you may want to use three outlets: one for transformers, one for village lights, and one for tree lights. Label each transformer for
the train it controls. Newer solid state transformers (one per train) are better for long, sometimes unattended operation. (Older, improperly serviced transformers can overheat.) Low voltage circuits can heat up due to damaged or overloaded wires or transformers. Check for hot components or wires and replace as necessary.

Christmas tree logistics – Set-up and wire your natural or artificial tree before decorating the layout. It’s much easier to decorate the tree if you don’t have to worry about stepping on villages and miniature people. Try to place your tree on a sturdy riser such as a wooden box. An additional 12 inches of height gives more drama to the layout below, helps with accessibility, and improves photo opportunities.

Track-related scenery – Mountains, tunnels and bridges should be the next stage of decorating, given that clearance problems are easier to fix at this stage. You can make dramatic mountains quickly and inexpensively by building a wood framework and then covering it with heavy brown paper or cloth. Bunch up or crumple the cloth or paper to create rocky shapes and formations. Apply earth-tone paints, liberally spraying or brushing them on. Judiciously apply white paint, spray foam snow and scatter flake snow (sold at holiday display outlets) to all top surfaces and other areas where snow would likely accumulate. If you plan to put buildings on mountain-tops, make a wood or cardstock platform for them. Interior lighting can create a dramatic effect in tunnels.

Backdrops – You can place rural, mountain, winter, or city scenes along the wall or along the rear perimeter of the layout. Affix backdrops to the wall or layout. I incorporate a combination of antique Built-Rite retail store display pieces and computer art. Trees or buildings can be used to disguise any gaps or joints between backdrops.

Buildings and related accessories – A variety of ceramic village buildings and accessories are available. If you are using multiple Department 56 buildings, buy the firm’s multi-light accessory string, which allows up to 12 buildings to be powered by one cord. Remember, don’t overload your home’s circuits. If in doubt, consult a qualified electrician. If plugs or wires heat up during operation, you probably have an overloaded circuit or a damaged extension cord. Use a new heavier gauge cord or redistribute loads to eliminate hot wires.

Finer flat scenery – After you’ve installed, wired, and tested the track, lights, and various accessories, and have decorated your tree, you can apply another thin layer of scenery. Roadways (made from black or gray heavy construction paper or fine emery paper) and brick or stone roads/walkways (using pre-printed patterns or computer-generated clip-art glued to card stock) provide a place for vehicles and figures. You can make skating ponds using small mirrors and create “running water” using aluminum foil covered with cellophane, plastic wrap, or clear Mylar. The perimeter edges of these scenery elements can be disguised in the final stage with scatter flake snow.

Trees, people, and cars – These small three-dimensional elements add life to your holiday layout. You can simply stand the trees on their bases (also disguised with scatter flake snow) or fit them into holes drilled into the benchwork. (I prefer bottle brush-type trees for the best toy-like landscaping. Department 56 and craft stores offer such trees.) Place vehicles, people and small accessories to your liking, creating scenes that will make your village’s guests take a closer look and visualize their own holiday memories.

Scatter flake and sparkling snow – After everything is in place, you can make it snow. Sprinkle scatter flake snow to cover unrealistic edges, hide wires, and create the illusion of shoveling, plowing and drifting. In addition, you can buy iridescent sparkle snow (a finer mix sold in craft and hobby shops) to sprinkle over everything to create the twinkle of new-fallen snow. Avoid sprinkling any snow directly on the tracks.

There you have it. Enjoy your winter wonderland! Perhaps your holiday display will become a tradition and inspire your guests to explore their own newfound tradition.

An overview shows how the Flynns have worked the various elements into one large holiday display, complete with some added greenery along the edges. Bottle-brush trees hide the gap between the city and mountain. The Flynns’ aluminum Christmas tree is on the far left.
During the early postwar years, the December issues of Lionel’s Model Builder magazine featured articles to help readers improve their Christmas layouts, utilizing the latest Lionel products, of course. Most of the ideas and drawings came from the fertile mind and skilled hands of Lionel’s chief artist-in-residence, Bob Sherman. We are republishing some of them here for the first time.

Taken together, they provide a charming, almost whimsical amble down memory lane – a second look at what was certainly the latest thing in Christmas tree layouts a half century ago. Sherman’s artwork is classic, and many of his suggestions are still very applicable to holiday train layouts that might be created today.

Of course, the scale is smaller these days. The houses in Sherman’s world were considerably more spacious, and there was probably more spare time to fabricate things back then. The technology at the hobbyist’s disposal was primitive and some of the products he used are no longer on the market, but there remains a pervading wishfulness and fantasy about it all that transcends the years. Sherman’s handiwork is still able to capture the optimism of youth and the magic of the season.

The logging sled is a piece of colored cardboard, with bent paper clips for runners and a bundle of sticks on it!

Rustic buildings could be made from small cardboard food boxes, painted brown and ruled with ink to simulate logs. The snow on the roof is salt, stuck in place with “mucilage,” a water-soluble liquid glue that was dear to the hearts of grade-school teachers back then. I suppose that Elmer’s washable school glue could be made to work today.
A piece of glass laid over light blue paper, or a mirror, can be transformed into a frozen lake. Cover the edges with moss, stone, or sand. Sprinkle fine rock salt on top for snow. For a more ice-like appearance, cover the mirror with saturated salt solution and let it dry.

Small figures could be made by dying pipe cleaners in various colors and using marbles for heads. The fishing pole is a toothpick with thread dangling from its end. The ice hole is painted on the mirror with India ink.

Good ideas that would still work well today are set forth in these five frames — little presents in open freight cars, stick candy in the log loader and peanuts in the coal elevator. I have no idea what Uncle George’s gift might be. It is hard to imagine anything so small that it would fit inside an automatic merchandise car. It must be from Aunt Martha.

This was Bob Sherman’s concept of a typical Christmas layout, circa 1946. It was designed to be built on a basic ping-pong table by simply throwing a white sheet over it. Like so much of Sherman’s work, it has a larger-than-life quality. Two ping-pong tables might actually handle it. That’s no standard 8-foot ceiling either, and the sheet is more like a tent! Winter scenes were very big on Lionel’s Christmas tree layouts back then, and Model Builder was full of ideas.
For a heavy snow scene, make a plow for your locomotive by bending two pieces of Bristol board to the right curvature and cementing a supporting piece on the back. Cut another piece to fit the top of the pilot and front of the engine. Use string or a rubber band to hold it in place. *Model Builder* suggested painting a bow on the plow with “red lead” paint (that might be harder to find today than mucilage).

Bob Sherman stressed that trains should be made an integral part of the gift giving festivities. I love this plan: set up the layout, then cover it with a big sheet. Put the presents on top of the sheet. The gift closest to the tree should be attached to the sheet so that when it is picked up, the sheet comes along with it, revealing all the new trains ready to run underneath.

Cover the locomotive and cars with “snow and ice” that won’t drop off by coating them with mucilage. While wet, sprinkle table salt over top and shake off the excess. The article said that “at any time, the salt and mucilage may be washed off with a cloth and warm water.” I’m not sure how many train collectors would want to try this today!

This isn’t a Bob Sherman original, but it captures the great American dream of “Everyboy” at the end of 1947. Mom, Pop, Rover, and a huge layout of new trains under the tree. Aren’t we glad that the war is finally over so we can enjoy all of the good things in life?