

75

ideas from the *GR* staff and readers

Garden
RAILWAYS
MAGAZINE

Tips & Tricks

for your garden railway



Tips & Tricks

This booklet of garden-railroading tips is brought to you by the staff and readers of *Garden Railways* magazine. We hope that you enjoy it and find it useful in your pursuit of garden railroading.

1 Rolling stock lubrication

Lubricate trucks with powdered graphite (available at hardware stores, used for lubricating locks), since oil can pick up dirt while running.

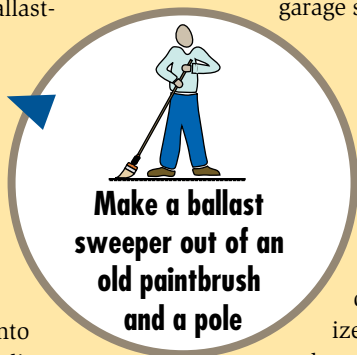


2 Controlling solder flow

When working with metal, it is sometimes desirable to limit the area into which solder can flow. There are two common materials, probably in your desk drawer, that work well to contain solder flow—pencil lead and “Liquid Paper.” Liquid Paper is easier to apply, but pencil lead is easier to remove when you are finished. Just make sure the metal is clean and dry before applying.

3 Ballast broom

If you do a lot of reballasting (or ballasting) on your railway, take an old 4" paint brush and screw the handle to an extension pole, about 3' long. This becomes a mini-broom to push the ballast around. You can use it standing up, it is narrow enough to get into tight spaces, and it won't disturb plants or trackside structures.



4 Screws dropped in ballast

When assembling track with rail joiners that screw to the rails, it is easy to lose the tiny fasteners in the ballast if you're not careful. One way to save yourself aggravation is to put a piece of thin cardboard under the joint you're working on. The cardboard backing from a legal pad works well. Then, if you drop a screw (as is likely), it is easy to retrieve.

5 Holding rail-joiner screws

Some track manufacturers supply their track with rail joiners that screw to the rails with tiny screws. These are commonly supplied stuck to the underside of the track in a sticky wax. Don't try to clean the wax off the screws too well, as you can use it to hold the screw to the screwdriver, making assembly easier.

6 Garden knife

Use an old, dull kitchen knife for digging up and dividing groundcovers. They're easy to find at thrift stores and garage sales.



7 Rock-garden plants

Rock-garden plants are almost always small scale and very slow growing. Your local garden center will likely have a section dedicated to these specialized plants. This is a great place to find new plants, flowers, and groundcovers to experiment with.

8 Making a trench for your track

An old grass edger can be used to form the edges of a shallow trench in which you can lay your track. Cut off the cutting blade of the edger, leaving just the star



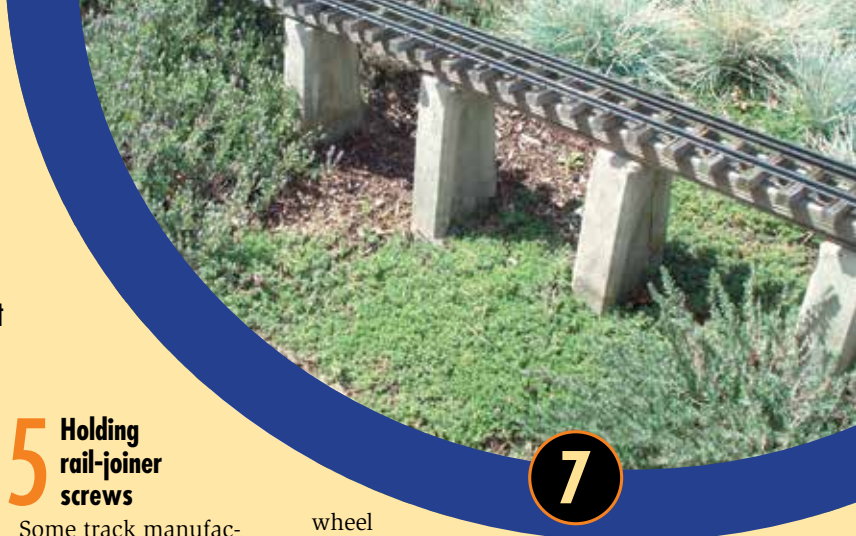
10 Cosmetic-brush duster

A cosmetic brush (available at drug stores and beauty-supply houses) makes an ideal duster for those trains that have been sitting on the shelf all winter. They come in a variety of sizes and are economical to buy.

wheel on a pole. Then, temporarily lay out your track on the ground and simply roll the modified edger along both sides of the track at the width you want for your ballast. The wheel will leave a nice cut in the ground. Then remove the track and hoe out your ballast ditch.

9 Ballast

When ballasting your track, don't use pea gravel or other “round” rock. This type of stone has had all of the sharp points taken off after years of being washed in river beds. If you use this type of rock, it will never “set,” will not hold the track at all, and will be easily disturbed and washed away by the sprinkler or a heavy rain. Instead, use a crushed rock, something with pointy corners that has a lot of “tooth.” This tends to lock with itself, providing a strong, stable base for your track. This type of rock is often called crusher fines or quarter minus, and is available at rock yards and landscape suppliers.



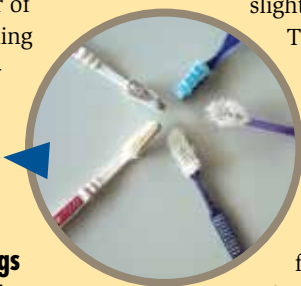
Tips & Tricks

11 Isolating a siding

It is often convenient to park a locomotive on a siding. Many engines have built in, on-off switches, but these are often awkward to get at. A simple solution that works for any engine is to isolate the siding itself. Replace a rail joiner at the switch-end of the siding (or at both ends of a passing siding, both on the same rail) with an insulating rail joiner. Buy an exterior grade, gray plastic switchbox from the hardware store. (This resembles the control boxes found near some railroad crossings). A regular household light switch goes inside. A piece of curved plastic conduit will both carry the wires and serve to anchor the box in the ground. Run a wire from the mainline to the control switch, then from the switch to the siding. It is a simple matter, then, to turn electrical power to the siding on and off with the switch. —Photo: R. Samoietta

12 Keep that old toothbrush

An old toothbrush is a great tool for any number of projects, such as cleaning kit parts before assembly or brushing small bits of debris from a structure.



13 Changing the scale of drawings

When looking for drawings of a specific building or piece of rolling stock, you'll often find what you are looking for, but drawn to a different scale. It is a simple matter to take the drawing to a copy shop and get it enlarged or reduced to the scale you desire. But how to determine the percentage of enlargement or reduction? It's really very simple. You divide the scale that the drawing was produced in by the desired scale. For instance, if you found a drawing of a station in HO scale (1:87) and you want it enlarged to 1:20.3, divide 87 by 20.3. The answer is 4.28. Move the decimal two places to the right to get the percentage of enlargement; in this case, 428%. If you find drawings in 1:20.3 and

you want them to be 1:29, do the same exercise. $20.3 \div 29 = .70$. Move the decimal place two places to get 70%. When ordering your reduction or enlargement, always tell the clerk to reduce (or enlarge) to this percentage, not by this percentage.

14 Paintbrush weathering

To create a weathered finish on a passenger car with a paintbrush, fill four or five small containers to the three-quarter mark with semi-gloss paint in the desired color. Then mix in *very small* amounts of light gray or white, making each container slightly different from the others.

Then, randomly paint the individual "boards" with the different shades of your chosen color. When all of the boards have been painted in this way, the finished car will have a well maintained but slightly faded look. For "wooden" freight cars, follow the same procedure, but use flat paint instead of semi-gloss. —Photo and model: Larry TeGantvoort

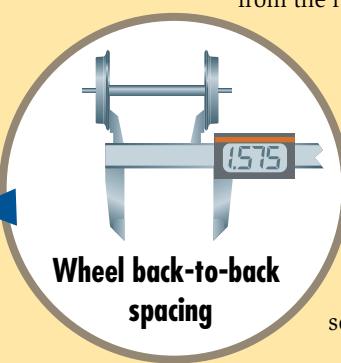


15 Cheap source of light bulbs

Christmas-tree lights are a cheap source of low-voltage bulbs.

16 Back-to-back wheel spacing

One of the primary causes of derailments is improper back-to-back wheel spacing on engines and rolling stock. The dimension that works best for most gauge-1 track and



switches is 1.575". You can check the back-to-back spacing on your engines and rolling stock with an inexpensive dial caliper. You will be surprised at how much variation there is in off-the-shelf products.

It's not necessary to check every piece of equipment, but if you are having chronic derailments with certain cars (but not others), this could be the cause. With most plastic wheelsets, the distance between the wheels can be adjusted by wiggling the axle halves back and forth while pulling (or pushing). Worst case, replacing the wheelsets may be in order.

17 Plant sizes

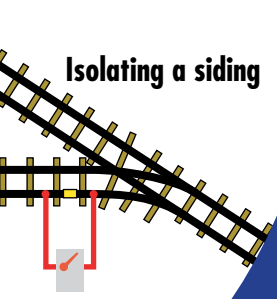
Use smaller-scale plants closer to the tracks and "scenes." Larger plants look more natural in areas away from the railroad.

18 Effective use of groundcovers

Intermix groundcovers of different kinds for a more interesting effect. The different colors, textures, and habits of the plants will help enhance the visual presentation of your railway.

11

Isolating a siding



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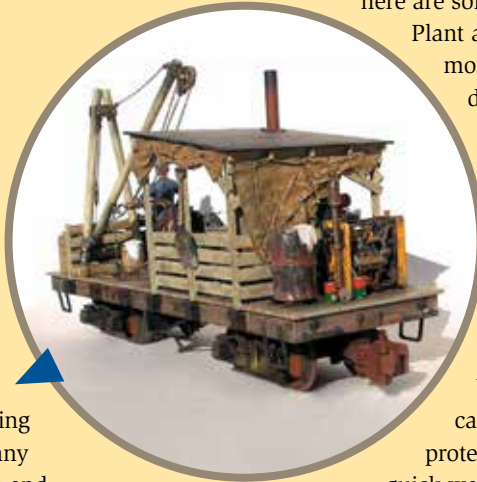
"Lengthening" the mainline

If your train can be seen throughout the length of its run, especially on smaller railroads, it becomes toylike and boring. The illusion of distance can be greatly enhanced by simply breaking up the view and allowing the train to disappear and reappear as it travels along. This can be accomplished by designing in tunnels, vegetation, or other visual barriers.

20 Scale canvas

Canvas is used on railroads as covers to protect freight and other merchandise and equipment, for curtains to keep out the weather, as roofing material, and for many other uses. A simple and effective way to make canvas is to cut a piece of one-ply paper towel (with no embossed pattern) to the required size and soak it with a solution of water and white glue. Once dry, the towel retains its shape. When wet and draped over the item to be covered, the results are quite convincing. The side and end curtains on the car in the photo were laid on waxed paper, wetted with the glue/water mixture, and carefully positioned so that they appeared to be hanging. After they dried, they were painted and dusted with colored chalk, then glued into position. Cloth rags can be made using the same process and examples can be seen in the photo on the wooden barrel on the front and the fuel barrel in the rear of the car. —*Model and*

photo: Roger Baker



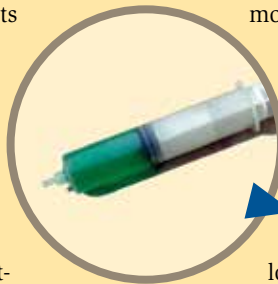
21 Plastic buildings in hot climates

Plastic buildings that are left outdoors continuously in hot climates may suffer from chronic roof warpage. If this is the case, consider removing the plastic roofs altogether and replacing them with exterior-grade plywood roofs, cut to shape and painted.

22 Discouraging rodents from digging bulbs

For those of us who have trouble with chipmunks and other rodents that freeload on our newly planted bulbs, here are some suggestions.

Plant all bulbs six or more inches deep to discourage surface diggers. When planting an area such as a bed, make a cage of ½" hardware cloth (wire netting) to fit the bed and bury the bulbs inside the cage for complete protection. Another quick way to discourage the marauding critters is to put small, plastic baskets (such as used for selling strawberries) over several bulbs as they are planted. Make sure the openings in the basket are at least ½" across. Less effective methods include scattering moth balls among the bulbs or placing stones throughout the planting area.



23 Color your alcohol

If you operate alcohol fired, live-steam locomotives, you are well aware that alcohol and water look alike. To avoid possible confusion between the two (it has happened!), add a few drops of food coloring to your alcohol supply. This will not affect locomotive performance and will easily distinguish the alcohol from boiler water.

Workshop safety: Work safely

24

When you are in your shop, who is in the room with you? You can't concentrate on the job at hand and on young children at the same time. Do not allow them in the shop while you are working with power tools. When they are old enough, teach them to respect the equipment around them.

If a helper is required for any job you are doing, be sure to communicate the procedure to them beforehand. Make sure they are dressed safely for the job. Take your time with the job. Rushing is one of the leading causes of accidents. Fatigue is not far off either. Never use power tools when you are tired.

When you are finished with a task, put everything away. Remove the safety keys from any tools that have them and put them away. If your work area can be locked up, secure it when you are away. All that neat stuff is very inviting to curious little minds.



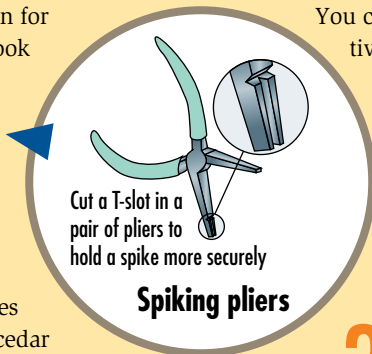
25 Using herbs
Smaller and fine-textured herbs make great greenery for railroads, and you can eat them, too!

26 Milling lumber
If you have a table saw, set aside your carbide blade and install a steel, hollow-ground planer blade. Your cuts will be glass smooth, with no burns, checks, chips, rip-outs, or blade scars. These blades need regular sharpening, but the typical, occasional use for modeling will not cause the blades to lose their edge for quite some time.

27 Spray-can weathering
One of the fastest way to weather a car is with spray paint. Over the finished car, spray *light* coats of tan, gray, and black. Make it darker toward the bottom and lighter near the top. Experiment on scrap until you get the hang of things. —Photo and model: Larry TeGantvoort

28 Creating a harmonious look
Repeat colors, textures, and shapes of plants throughout the railroad garden for a more harmonious look and feel.

29 Spiking pliers
When hand-spiking track, a pair of pliers is often used to push the spikes into soft redwood or cedar ties. You can easily modify a pair of needle-nose pliers to help hold the spikes securely at the proper attitude for spiking by making a T-cut in one jaw, as per the drawing. This can be quickly done with a Dremel tool and a cutoff disk.

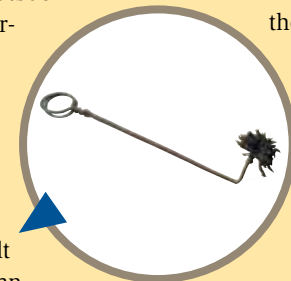


30 Steel rodding
Iron or steel rodding (for truss rods, etc.) is hanging in your closet, disguised as coat hangers. The really flimsy ones work the best, as the wire can be threaded with a 2-56 die for proper fastening.

31 Track ballast
Universally available gravel, screened through 1/4" hardware cloth (open wire mesh, available at hardware stores) provides very uniform, prototypical ballast for weedy, outback lines or most narrow-gauge operations.

32 Engine igniter
On windy days, and even in the best of times, it is often difficult to light the burners on an alcohol fired, live-steam locomotive with a match or barbecue lighter. You can make a simple and effective igniter by attaching a little wick material to the end of a stiff wire. Dip this in alcohol and light it. Even the strongest wind will have trouble blowing it out before you can ignite the wicks of your engine.

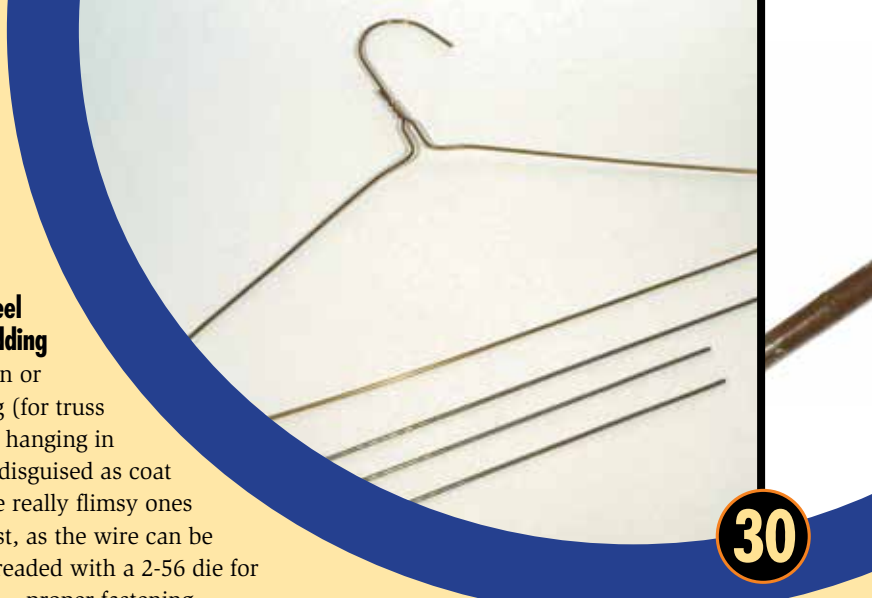
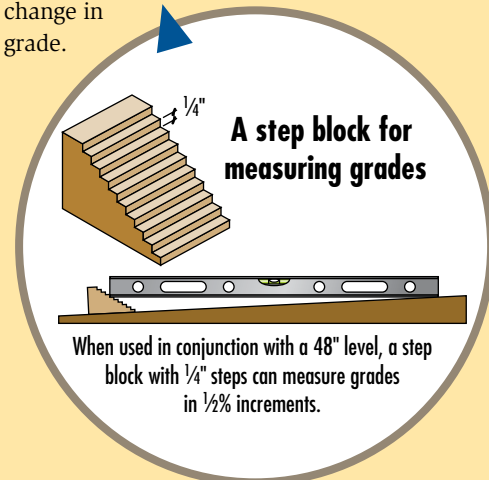
33 Rechargeable grass clippers
Rechargeable grass clippers are handy for removing flowers from groundcovers. They also work great for shearing the softer branches of small trees and shrubs.



34 The law of odd numbers
For some reason, a scene looks better with odd numbers of cars in a train, plantings, buildings, objects (sacks and boxes), people in groups, etc. This is true except for single objects and people, which just look lonely.

35 Coupler height
If you find that your trains uncouple in the middle while running, irregular coupler height may be the culprit. Check coupler heights on all of your rolling stock and adjust them to a standard height. Kadee's height gauge is good for this, or pick a favorite locomotive and adjust all to fit.

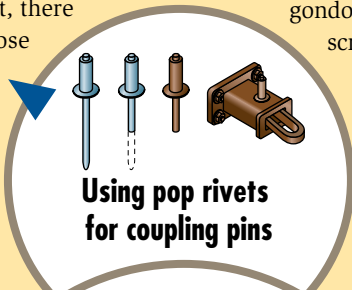
36 Checking your grade
Full-size railroads try to keep their grades to a minimum (usually under 3%). To check the grade of your track, make a step block with 1/4" increments to use with a 4' carpenter's level. Each step will represent approximately 1/2% change in grade.





37 Pins for link-and-pin couplers

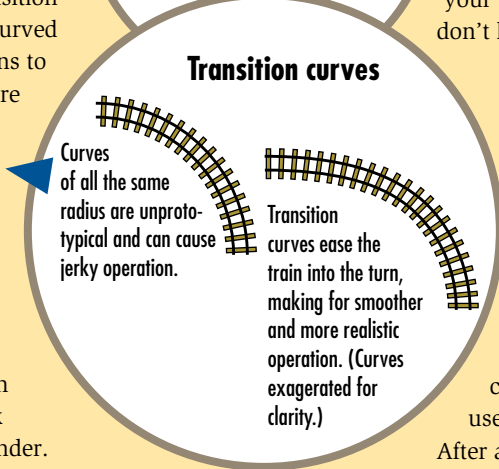
Small pop rivets with most of the stem cut off make good pins for link-and-pin couplers. They are easy to grip and, if they get lost, there are plenty more where those came from. Paint them black or brown to make them less obtrusive.



Using pop rivets for coupling pins

38 Transition curves

Use "transition curves" between curved and straight sections to help trains run more smoothly. True transition curves start with a very wide radius at the straight section and gradually get tighter until they meet the curved sections. These can be made using flex track and a rail bender.



Transition curves

Curves of all the same radius are unprototypical and can cause jerky operation.

Transition curves ease the train into the turn, making for smoother and more realistic operation. (Curves exaggerated for clarity.)

A simple transition curve can be as easy as adding a section of wider-radius curve between the straight and regular curved section.

39 Removing wheel gunge

Metal wheels on rolling stock tend to build up a sticky, dark gray or black "gunge," especially when running live steam on aluminum rails. This can be scraped off with a hobby knife, but lacquer thinner (in particular, Floquil Diosol) dissolves it effectively. Dip one end of a cotton swab (Q-Tip or such) in the Diosol and run it around the wheel tread. Then use the other (dry) end of the swab to remove the Diosol and the gunge.

40 Parts from old electronics

Never turn down the opportunity to take apart a piece of scrap electronic equipment (computer printers, etc.) or machinery. They are chock full of gears, wheels, springs, and fasteners that are perfect for repairing and kitbashing large-scale trains. The odd-shaped bits can make wonderful flatcar loads, and everything else can be painted with rust-colored paint and tossed into a gondola as a convincing load of scrap going to the steel mill.

41 Deer repellent

Hanging a bar of Dial soap near a deer trail will help to keep deer out of your yard. They really don't like the scent.

42 Plastic lids for paint palettes

You can save plastic lids from various sources (yogurt cups, cottage cheese containers, etc.) to use as paint palettes.

After a couple of uses, just toss them. The same

applies to small cups and caps from spray cans (bathroom cleaners, Lysol, etc.). They are an inexpensive and convenient receptacle for washes or small amounts of cleaner.

43 Cheap motor and gearbox

Looking for a cheap motor with a reduction gear and a rechargeable battery to power your next kitbashed or scratchbuilt large-scale locomotive or railcar? Inexpensive cordless screwdrivers are often on sale at hardware stores for about \$10.



Tips for garden railroaders in the sub tropics

Make sure you have shady places to sit and operate your trains. Your setup area should also be shady, as it is grueling work to look for dropped parts in the south's ozone-depleted, noonday glare.

If at all possible, raise the roadbed, even if only a foot, because, while the weatherman may report a comfortable humidity, at ground level it will actually be more like a sauna. Also, with tropical fronts dropping 2"-3" of rain in a few hours, height means drier and more reliable operation.

Insect repellent will help prevent insect-borne disease (West Nile virus) and reduce that strange, southern twitching dance people do as they try to scratch bites while maintaining normal posture and composure.

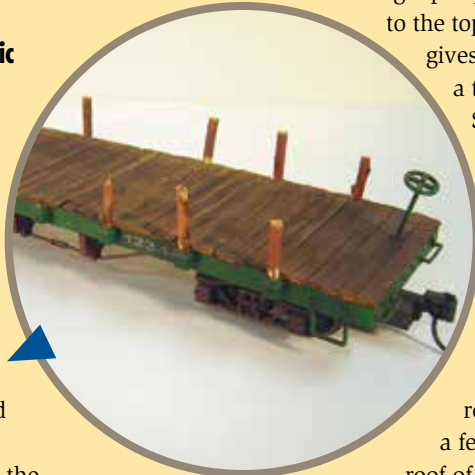


Tips & Tricks

45 Weathering bare wood Place several bits of rusty iron or steel (nails are good) into a jar of white vinegar. Let it steep overnight. Brushing on the mixture will result in a silver-graying of the wood. The more you brush on, the darker it gets. It's very convincing.

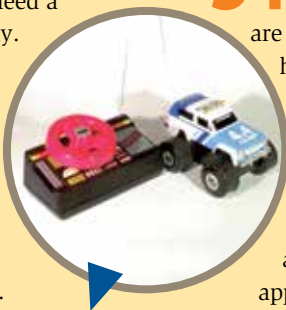
46 Improving plastic flatcars

To improve the appearance of plastic flatcars, first paint and letter them for your railroad. Then add a real wood deck, gluing stripwood boards over the plastic. Color the wood parts with a light brown or gray wood stain. Cut some twigs to short lengths and whittle the ends to fit into the stake pockets. The quickly achieved result will be a car that looks scratchbuilt. —*Photo and model: Larry TeGantvoort*



47 Trees in the snow Be sure to use plenty of dwarf pines, junipers, and spruce trees if you like to operate trains in the snow—they really add to the fun and beauty of winter running.

48 Watering ballast When laying your track in ballast, the final step is to water it in. To do this well, you need a lot of water applied gently. A hose is often too forceful. A watering can with a large rose (nozzle) on it can be used to apply a lot of water gently, to thoroughly soak the ballast and set it in place without washing it away.



49 Cheap radio control Basic on/off-type radio control units can be obtained from cheap R/C cars.

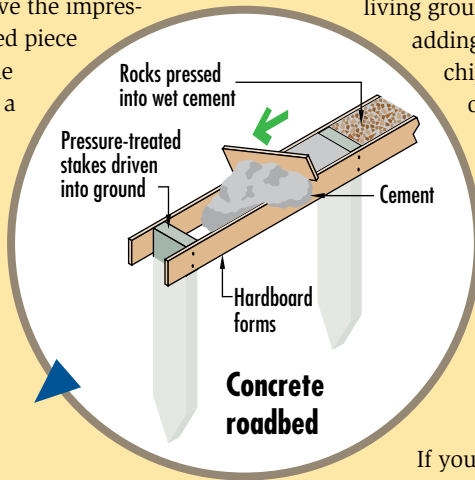
50 Tips on roof detail Since our trains are often viewed from the top, it makes sense to detail the roofs. Black

masking tape applied to the top of a car gives the look of a tarpaper roof. Spray a *light* coat of gray primer over it to give a weathered appearance, then paint black lines along the edges of the tape to represent tar. Just a few details on the roof of a weathered car

will give the impression of a fully detailed piece of rolling stock. Some examples of this, on a caboose, are cupola braces, window awnings, and a plate with bolt-head detail around the smokejack.

—*Photo and model: Larry TeGantvoort*

51 Concrete roadbed Concrete track bases are very stable and reliable. Use hardboard for forms, held in place with pressure-treated stakes about 1½" x 1" x 18" long, hammered in down the centerline of the trackbed. Pour in the cement and level it using the form walls as guides, then gently press in an appropriate grade of stone. It looks good and is very durable.



52 Photo op When designing your railway, have at least one curve leading



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onto a bridge, with plants or hills behind the outer part of the curve. When you or your friends want to photograph a favorite engine and cars, this will provide you with a realistic backdrop with no (full size) houses or fences behind it.

53 Cooling the soil and discouraging weeds Groundcovers help cool the soil and keep out weeds. If you don't use living groundcovers, consider adding a layer of fine wood chips, gravel mulch, or other small-scale organic material available to reduce water use and keep the railroad weed-free.

54 Antenna modifications for Train Engineers

If you use Aristo-Craft's Train Engineer, but do not want to stretch out the onboard receiver's antenna, try this. Cut off the supplied antenna and add a female connector to the stub on the circuit board. Add a male connector to the cut-off part. The cut-off antenna can now be strung inside or underneath a dedicated follower car. This should give much better reception than a folded-up antenna. Several "following" antennae can be made and kept permanently installed on a variety of follower cars. A baggage car is an obvious choice for passenger trains, while a stock car would work well for freights.

Workshop safety: Clothing

When working in our shops we usually pull out faded/ripped jeans and an old T-shirt. This is great for painting or staining, but a poor choice for wearing around power tools. Loose fitting or torn clothing can quickly find its way into moving parts. Coveralls are a good choice. Not only are they comfortable, they adequately cover all areas of your body and are designed for movement. To obtain a pair at a very reasonable price, call a uniform supply company to see if they sell off older inventory. Restrictive clothing can be dangerous, too, when you cannot achieve a full range of motion. Try on a few pair to find the right fit for you.

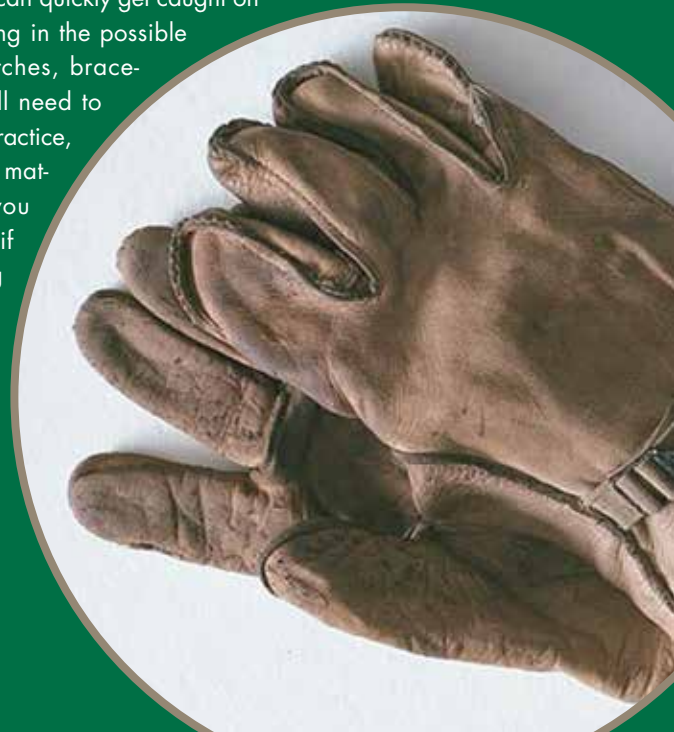


Footwear should be steel toed. You would be amazed at how easily a falling object can injure your feet and cause the loss of mobility as a result. Steel-toed work boots have become very light and comfortable.

Leather gloves can save you from a lot of nicks and cuts. They may also prevent you from shaving off a layer of skin with a sharp blade.

Eye protection is an absolute must. No exceptions! Many goggles will fit over a pair of glasses with ease. Keeping the lenses clean ensures easy viewing of your work.

Jewelry is a big hazard when working with power tools. Remove it—even wedding rings. A ring can quickly get caught on a moving part, resulting in the possible loss of a finger. Watches, bracelets, and necklaces all need to come off. As good practice, always do this no matter what tools you are using. And if you have long hair, make sure it is securely tied back.



55 Tiny groundcovers

Plant tiny groundcovers, such as thymes, along embankments and over tunnel openings. They'll hold the soil in place and look nice, too.

56 Tightening loose rail joiners

You can use Channelok (or similar) wire cutters use to tighten rail joiners a little to help keep the rails in line and improve conductivity.



By using a small piece of rail in the open end of the rail joiner, you can tighten the joiners right on new sections of track as you install them. —

Photo: Marty Cozad

57 Metal trucks for improved operation

Replace plastic trucks with metal ones to improve tracking and car stability. If this is impossible or impractical, replace plastic wheels with metal, which will still be a big improvement.

58 S-curve sidings

Full-size railroads work hard and spend lots of money to avoid short S-curves, which put a lot of strain on couplers, trucks, and rail, and can cause derailments. Garden railroaders should avoid them for the same reason. Model sidings are often set up as in figure 1. A better way of

Figure 1
Bad S-curves

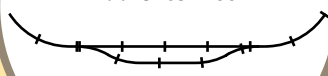
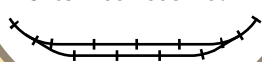


Figure 2
S-curves resolved



Tips & Tricks

doing it is shown in figure 2, where the right- and left-hand switches are reversed. This not only avoids the S-curve, it usually gives you a longer siding as well.

60 Low cost track cleaning

Cleaning the track on large rail-ways can be a long, tedious job. An inexpensive and effective solution is for a cheap battery-powered locomotive to tow a weighted Scotch Brite pad around the track a couple times, then finish up with a track-powered engine. Fasten a wire to two corners of the pad, hook them to the tender's coupler, then weight the pad with some brick pieces. There must be enough weight to keep the pad on the track, but not so much that the engine labors.



61 Bonding roadbed

Loose ballast and gravel can be displaced by wind, water, animals, or people. If this is a persistent problem, consider bonding your ballast. Glues generally don't work well and break down after only a few months. Try using Quikrete Concrete Bonding Adhesive, available in hardware or construction-supply stores. This will hold ballast in place for many years without breaking down or cracking.



62 Keeping Bachmann couplers coupled

Trouble with Bachmann couplers separating? Try this. If you have any spare springs leftover from Kadee coupler kits, cut them down to fit in the upper space in the Bachmann coupler where the release pin resides. This will provide enough pressure to prevent the release

pin from bouncing upward and allowing the knuckle to open. At the same time, it has enough free play for use with automatic uncouplers.

63 Scale cable

Cables are often necessary for rigging equipment or for anything that requires securing or connecting. Realistic, scale cables can be produced by burning the fuzz off pipe cleaners.

A cigarette lighter, candle, or match will do the job. (**Safety note:** Don't burn your fingers—the wire gets very hot near the flame.)

If a longer cable is needed, the ends of two defuzzed pipe cleaners can be pressed together so the strands

of wire intertwine slightly. A drop of CA cement will make a strong joint. The cables are stiff and can't be used for a working mechanism, but they look great in a static situation.

The lower photo shows an antennae with coon tail attached. This was made by burning all but $\frac{3}{4}$ " of the fuzz off the pipe cleaner and adding stripes with colored felt-tip pens. —*Models and photos:*

Roger Baker

64 Powder weathering

Weathering with powder will provide a more blended look than can be achieved with paint applied with a brush.

It can be applied to rolling stock and structures alike. Powdered chalk works, but powdered pigments used by masons to color mortar

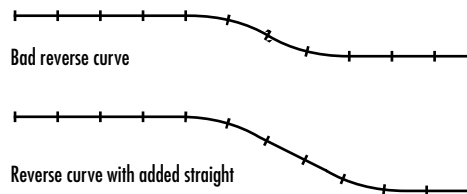


Figure 1 — Easing reverse curves

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will hold up to the elements better. Buy several colors and experiment on scrap.

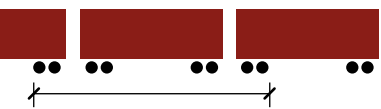
After painting and lettering the object, spray the entire piece with clear, flat finish. The flat finish has a slight roughness necessary for holding the weathering powder in place. Dip a 1"-wide paintbrush into the dry powder. Starting at the bottom, lightly brush the powder onto the subject with vertical strokes. Continue adding powder in light coats until the desired look is achieved. Finally, overspray with a second coat of flat, clear finish to seal the powder in place. —*Photo and model: Larry TeGantvoort*

65 Flat wire

Many of Ted Stinson's plans (and others) call for flat wire (for stirrup steps, et al). If you can't find any locally, you can make your own out of discarded tin cans. A pair of tinsnips or good kitchen shears will easily cut the material to any width you need.

66 Easing reverse-curves

Reverse curves (S-curves) are both unsightly and prone to cause derailments. To ease these curves (if you must have them), insert a piece of straight track between the curves, as in figure 1. The lengths of the track should be the length of the longest car you will run through the curve, plus the distance to the trucks of the cars on either side (see figure 2).



2—Length of added straight

67 Refuelling gas-fired live steamers

If you are operating a gas fired, live-steam locomotive and are sharing the track with other steamers, when it comes time to refuel your engine, do it well away from the track. Otherwise, a passing locomotive could ignite the small amount of gas that vents from the tank as you fill it.

68 Cheap aluminum roofing

The greatest damage to structures outdoors is caused by ultraviolet radiation. For both wood and plastic, the need for UV protection is evident. The part of the building most subject to direct UV light is the roof. An excellent way to render realistic roofing that is completely UV resistant is with aluminum sheeting. You can obtain this material free in the form of beer and soda cans. Twenty-four-ounce beer cans have heavier-gauge aluminum and the larger size gives more material for the effort.

First, cut off the ends of the cans with a razor saw to make a cylinder. Then cut down the length of the can with heavy scissors and flatten the metal by drawing it across the edge of your workbench.

Make marks on the unprinted side of the flattened can, depending on the size of the individual sheets of roofing you want to make. A scale 3 to 4 feet by 6 feet to 8 feet works well. Cut them out



Garden-railway etiquette

69

Visiting others' garden railways is one of the great attractions of our hobby. However, when doing so, we need to behave like good guests. Here are some guidelines that have proved useful over time.

- Don't arrive early. Most garden railroaders tend to work frantically up until the last minute getting their lines ready. Arriving early can be disruptive.
- Don't stay late. Our hosts are exhausted by the end of the day, so please leave by closing time.
- Thank the host and hostess. Whether you liked the railway or not, the owners have gone to a lot of work to make you their guest. A thank-you is always appreciated.
- If you have kids, keep an eye on them. Kids love garden railways and most garden railroaders welcome well-behaved children. However, your kids' behavior is ultimately your responsibility. There have been far too many instances of kids who ran amuck while their parents were elsewhere or, worse, blandly looked on.
- Don't step into a railway without first making sure it's OK. Sometimes there are obvious footpaths or signs directing you into the interior, but if there aren't, just ask.
- Don't ever step over the track while a train is passing. This minimizes the risk of accidents.
- If you bring a train to someone else's track, make sure you have permission before putting it on the track. In one memorable episode, a fellow brought his trains in and just plunked them on the track without asking. The result was a bad accident, as the track was not clear.
- If you're running live steam and sharing a track with other trains, keep an eye on what's ahead. Any number of accidents have been caused by thoughtless or distracted engineers.
- Sign the guest book. Owners like to know who and how many attended their event, so take a second to enter your name.
- If you don't like what you see, keep your remarks to yourself until you leave. Critical remarks about someone else's work have a way of being overheard.
- If you're a host, it's nice to have drinks available. Even cold water is appreciated on hot days.
- If you're shooting video, be considerate of those around you. People hesitate to walk in front of someone with a video camera, even though they may have the urge to push him down the hill. Video-takers sometimes block proceedings in crowded gardens for minutes on end, oblivious to the fact that they were holding up traffic. Be aware.

Workshop safety: Shop prep

70

A messy work area is not only unsightly, it is unsafe. A shop floor needs to be kept clear of dust and debris. Losing your footing can result in a sprained ankle, not to mention hitting your head on your workbench. Sweeping up at the end of your work session is all that is needed to ensure a safe working environment.

A smoke detector as well as a carbon-monoxide detector provide insurance that all is well while in or out of your shop area. If they are not hard wired in, be sure to test batteries frequently.

Check all your tools on a regular basis. Make sure that the cords are in good shape and not nicked or cut. If found faulty, repair them before you use them. Ensure that blades are tight when preparing to use any saw. A loose blade is lethal. Test-run your tools for a few seconds prior to actually working with them. Listen closely for any unusual sounds. If you hear anything unusual, check it out. Always unplug the tool prior to inspecting it. If you have manuals for your equipment, read up on their proper use and maintenance. Inspect blades for missing teeth and replace as needed. Dull blades put an extra load on motors, so be sure to keep blades sharp.

Mounting power tools, such as smaller table saws and drill presses, to your workbench will also help avoid accidents. Larger tools with their own stands should be made level on your shop floor.

Lastly, make sure the room has adequate ventilation. Use a dust mask for wood cutting and a carbon-filter mask for any work requiring the use of chemicals.



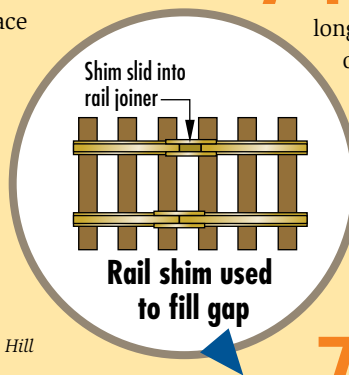
71

on a cutting board to produce a good, straight edge. Wash the panels in warm, soapy water to get off any dirt or grease. Then, using commercial spray paint, give the unlettered side a light coat of a dull metallic color and overspray that with a thin weathering of flat-black and red-oxide primer.

Bond the metal sheets the roof substructure with Outdoor or Marine Goop adhesive. This product has UV stabilizers in it and is very long lasting outdoors. The resulting roof is extremely durable, looks realistic, and is relatively easy to construct. —*Model and photo: Don Parker*

71 Concrete-block roadbed

A strong and stable roadbed can be made of concrete blocks laid end to end in a trench. Stake the 8" x 8" x 16" blocks in place with #4 rebar ($\frac{1}{2}$ ") driven approximately 24" into the ground, then back-fill with gravel and fill dirt. If you are using electrical wires, they can be placed in $\frac{3}{4}$ " PVC conduit. Seal the conduit ends with silicon where the wires exit. —*Photo: John Hill*



72 Roadbed maintenance with a shrub rake

A shrub rake—a narrow rake with long, thin tines—is ideal for clearing your track of leaves, twigs, and other debris. When used carefully, its flexible tines will not harm adjacent foliage.

73 Better drilling

When hand-drilling drilling white-metal castings with a pin vise, especially when using small, delicate drills, the soft metal will tend to grab the bit and can even break it. To help alleviate this problem, dip the end of the bit in a drop of dishwashing liquid.

74 Thoughts on tunnel design

Never build a tunnel longer than twice the length of your arm. Don't build tunnels on curves. If you must build a long tunnel, make sure you have an access hatch in the middle, because that is where your train will surely derail.

75 Mating uneven rails

If the mating rails leave a gap on one side or the other when installing bridges or closing a loop, this can be filled in with a small slice of rail. Measure the gap, then cut a piece of rail (shim) to fit. Slide it into the rail joiner, then slide the mating track section together for a perfect fit.