



Frisco Folk Rick McClellan shares with us an assortment of modeling tricks, tips, and neat things to do that are relatively simple, inexpensive, and quick, all of which can enhance the appearance and operation of your layout.

## Track Feeders

Smooth train operation is dependent on the quantity of electricity that goes from the power source through the rails and into the locomotive. Most beginning model railroaders connect the power lead wires from the power pack to a section of snap track with a screw type terminal that attach to the rails. The closer the locomotive is to the terminal section, the better it runs and vice versa. This occurs because the rails used in our hobby are not the best conductors of electricity and the amount of electricity conducted decreases as the distance from the power source increases. In addition, rail joiners are meant to align track and cannot be relied upon for a permanent electrical connection between track sections. Rail joiners will become oxidized and loose over time both eroding the electrical connection. Finally, terminal track sections simply do not look realistic.

The only real solution to the power decrease that occurs through the rails is to power each section of track on the layout. The wires that provide power to each track section are

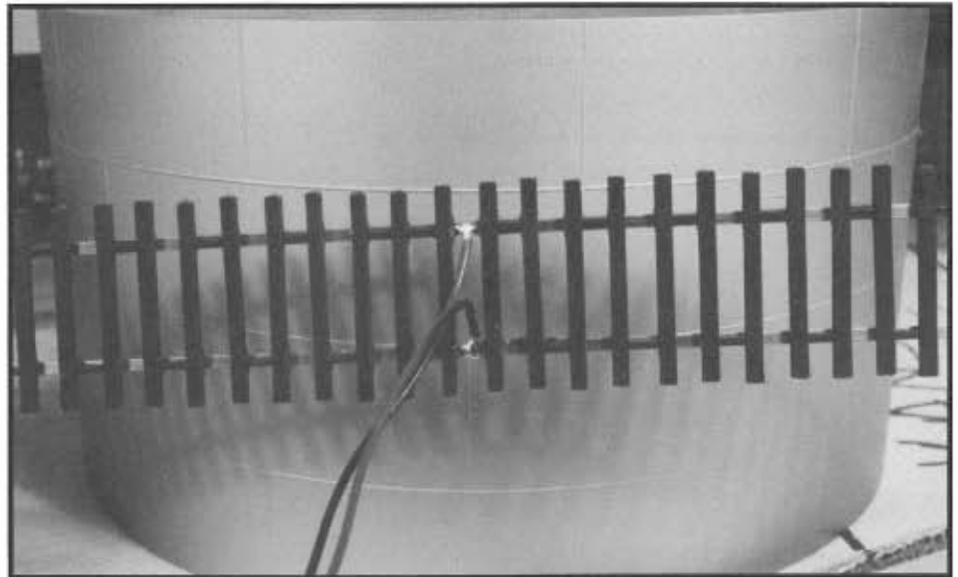


Figure 1

known as *feeder wires* because they feed off of a main or *bus* power line. A bus line from the power source should run underneath the mainline and branch lines of the layout. A pair of 14 gauge copper wires (*this is the same gauge used in home building*) should be adequate for most bus lines. Feeder wires, soldered to each track section, are *dropped* to the bus line. Any gauge from 18 to 24 should be sufficient for feeder wires but keep in mind that the larger wire will conduct more power. Try to keep the feeder wires as short as

possible as well. I recommend soldering the feeder wires to the underneath side of the rails. (*See Figure 1*) This hides the wires effectively and can be done in the track laying phase. For better solder joints, apply solder to the rail and wire individually then hold them together and heat with the iron. This should minimize the amount of time needed to heat the combination of rail and wire which should result in fewer melted plastic cross ties. If track is already in place, solder feeder wires to the outer side of each rail and paint the

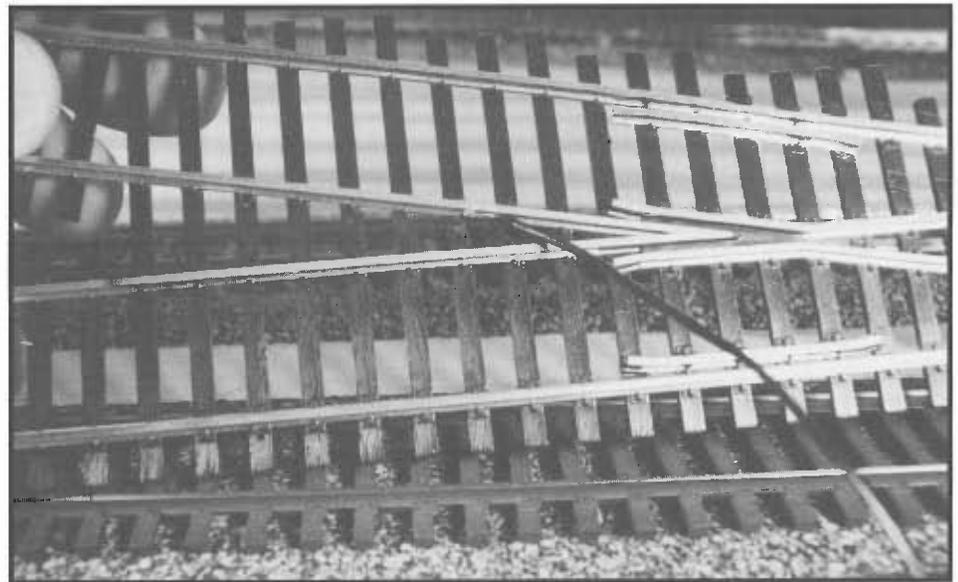


Figure 2

solder connection black to help disguise it. Connections on the outside of the rails will avoid any excessive solder on the inside of the rails that could cause derailments.

Power routing type turnouts (*Peco, Shinohara, Walthers, and others*) should also have a feeder wire attached to the frog section of the turnout. Power routing turnouts send power to the frog rail with pressure from the points or the moving sections of rail from either of the outside rails. When the switch is thrown, the polarity of the frog rail is reversed. Pressure between two pieces of rail is not a reliable method to send power to the frog. This is easily seen when a locomotive stalls when passing through a turnout. Turnout frogs can be powered by soldering a feeder wire to either outside rail on the frog (See Figure 2) and connect it to an internal switch on Tortoise brand turnout machines. The nice thing about the internal switches on the Tortoise is that they are activated when the throw bar moves from one side to the other. This means that power to the frog can be switched from positive to negative automatically when the turnout is thrown. There are two internal switches in a Tortoise. They are positions 2 through 4 and 5 through 7 (See Figure 3). Either positions 4 or 5 can be connected to a turnout frog and positions 3 or 6 can be connected to the positive side of the power bus line. Positions 2 or 7 are for the negative side of the power. Just be sure to use the position groupings 2 through 4 or 5 through 7. With the frog receiving direct power from the bus line, all locomotives will

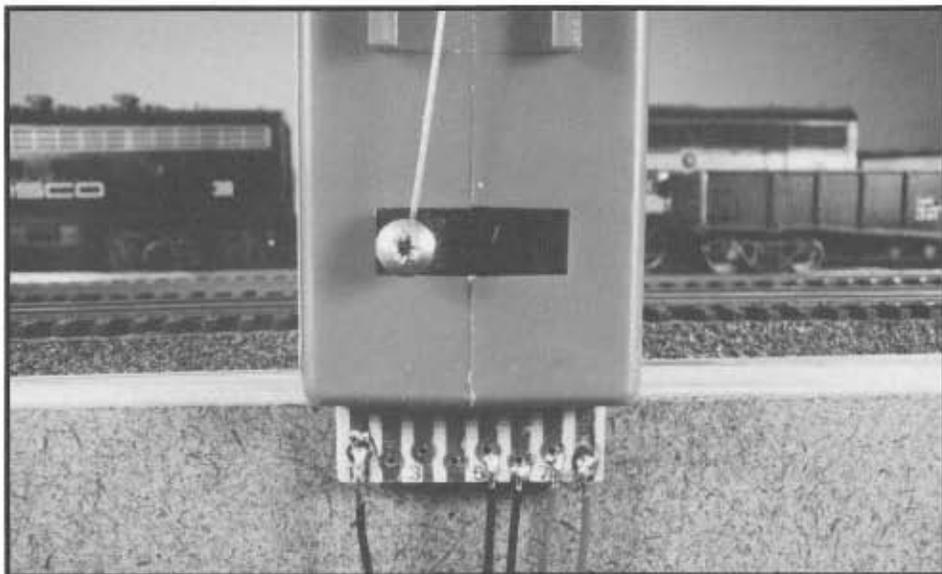


Figure 3

pass smoothly through the turnout.

There is one other tip that can help your locomotives receive the maximum amount of electricity. Keep your railhead clean with a model railroad abrasive cleaner (See Figure 4). These eraser like cleaners are an effective method to clean the rail without damaging it. Sandpaper or emery paper will permanently damage the rail.

After your track maintenance gang finishes attaching feeder wires to each track section and the frogs of power

routing turnouts, your subdivision of the Frisco will run smoothly and efficiently.

With this increased reliability, customers will definitely want to...



Figure 4

# Getting It Correct



*Frisco USRA Box Car #128522, Springfield, MO, March 7, 1935.*

*Frisco photo*

**EDITOR'S NOTE:** In the January-February, 1994, edition of the *All Aboard*, the above photo of Frisco USRA Box Car #128522 was inadvertently printed backwards. In response to a number of member inquiries to reprint it, and provide additional information about the series, we are offering an expanded **Getting It Correct** profile of the cars in question.

In the early 1920's, the Frisco took delivery of 3,520 40-Ton capacity steel under-frame double sheathed box cars, series 127000-130519. They were built by American Car & Foundry Co. and purchased from the United States Railroad Administration at an average cost of \$2,828.70 each. The car bodies were built according to USRA specification 1003B and the trucks were USRA 1274B design. The cars were purchased by the Frisco under Trust Agreement Series

71. According to a December 9, 1919 paint & lettering diagram, the outside of the car body including tops and ends was painted with two coats of Pittsburg P & G Co. Carhide Red, all lettering was white,

and the Frisco Lines logo was white on black. This series of box cars proved to be the mainstay of Frisco freight operations for many years. In the late 1930's, over 3,400 were still in service.



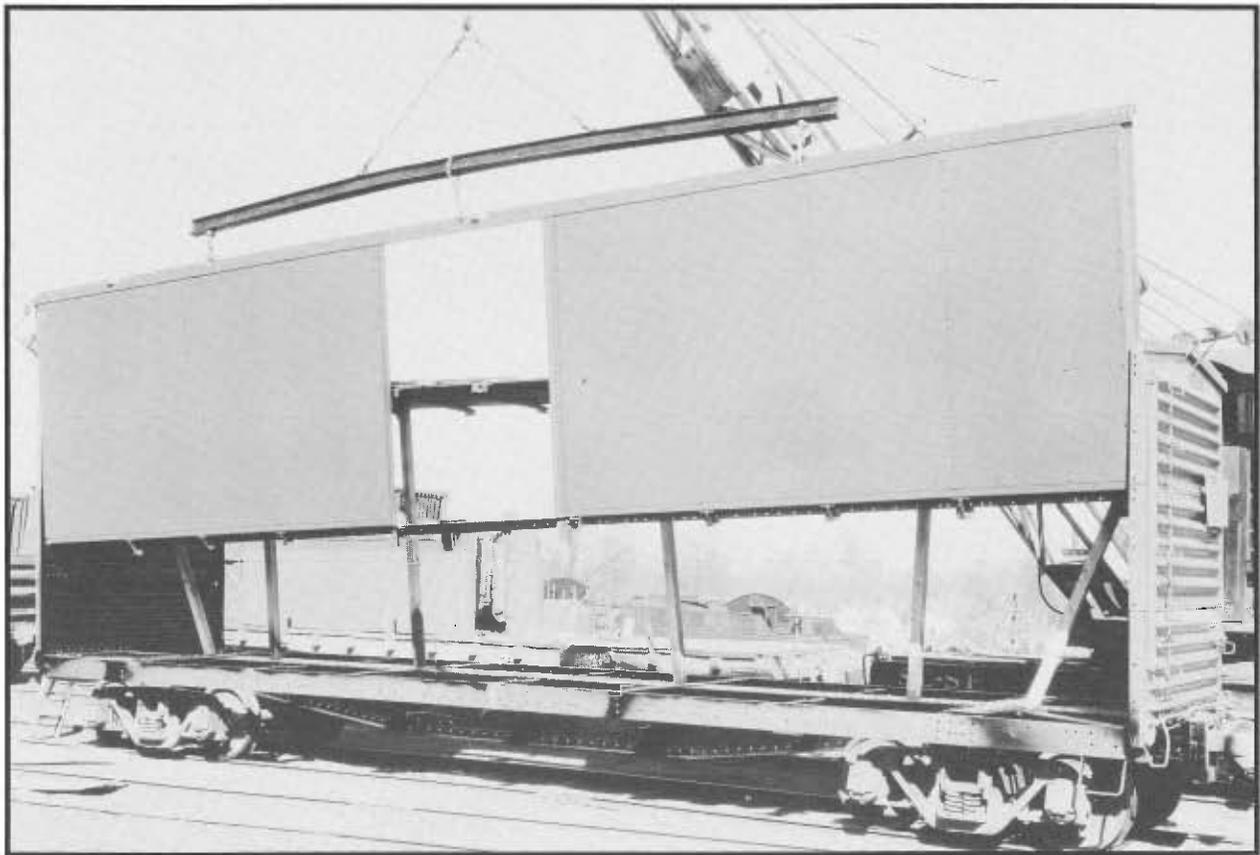
*Frisco 127000-130519 series box car stripped to steel ends, frame, and trucks, Springfield, MO, February 23, 1935.*

*Frisco photo*

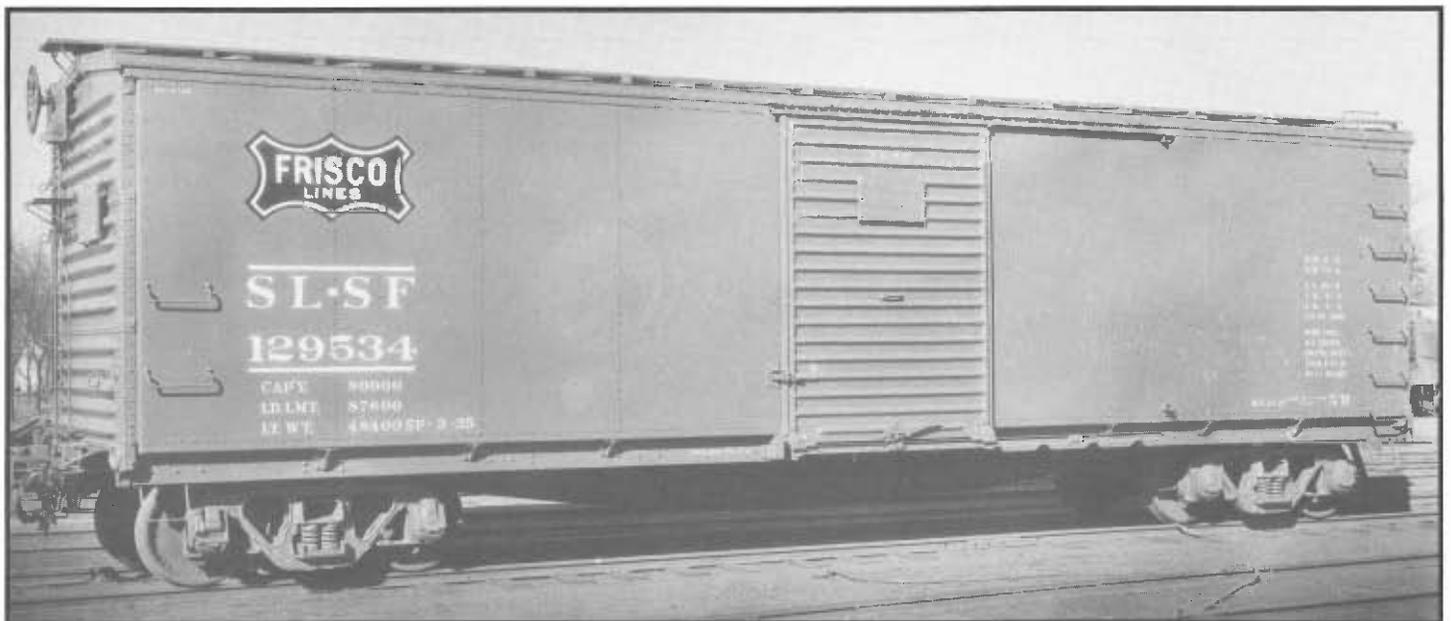
Between 1935 and 1941, a number of the cars in the series were rebuilt in the Springfield North Side Car Shops. The wood sides were replaced with single piece riv-

eted side panels and new doors. The paint & lettering design of the earlier units was retained on the new cars. These rebuilt units continued to provide service for another thirty years,

with the last ten in the series being retired from revenue service in 1968. According to our records, close to 100 of the cars were converted to company service. 



*Application of fabricated steel side panels to Frisco 127000-130519 series box car, Springfield, MO, February 23, 1935. Frisco photo*



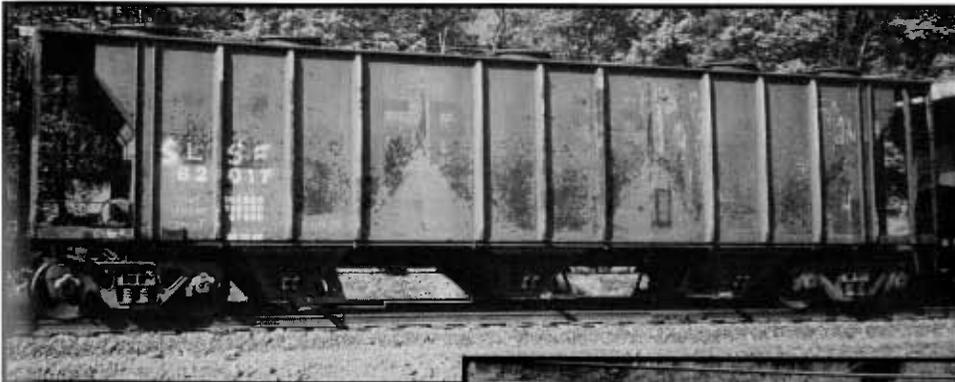
*Frisco USRA rebuilt box car #129534, fresh from the paint shop, Springfield, MO, March 7, 1935. Frisco photo*

# FRISCO IN THE 90'S

Frisco in the 90's is a photo feature of the *All Aboard* in which we showcase photos of surviving 1990's Frisco equipment & facilities as photographed by members of our Frisco Folks.

Have you seen a piece of *"real"* Frisco equipment or facility lately? Did you get a picture of it? If so, please let us know and, if possible, send us a copy for publication.

In this installment of Frisco in the 90's, Frisco Folk George Green submits three photos of Frisco covered hoppers shot on April 25, 1994, on BN sidings in Linnton, OR. Although they are all from the same faded gray series, their re-stenciling represents some interesting paint shop creativity.



**82017 has faded red paint behind number and data, black behind capacities & limits, and the SLSF appears to have been free-lanced with a can of white spray paint!**

**82234 has faded red paint behind reporting marks, number, and data.**



**82313 has bright white paint on three panels behind reporting marks, number, and data.**



## — 25 years of progress and popularity

A quarter of a century ago—March 15, 1902—the Frisco Lines established a new train, *The Meteor*, between St. Louis and the fast-growing state of Oklahoma.

Since this first trip, 25 years ago, the prairies have become fertile farms; hamlets have grown to thriving cities; immensely productive oil and gas fields have come into being; industries have flourished, and comfortable homes—even mansions—have taken the place of makeshift habitations.

In the past 25 years we have seen *The Meteor* transformed from a train of gas-lighted wooden cars to an electric-lighted, all-steel, modernly equipped train, drawn by powerful oil-burning locomotives over a road-bed laid with heavy steel rails, scientifically maintained and protected with automatic block signals.

As the Frisco Lines have served in the past so will they serve in the future—acting as a vanguard of progress, keeping always in advance of the development of the territory through which they pass.

Schedule of the  
**METEOR**

Read Down		Read Up	
6:58 pm	Lv..... St. Louis	Ar	7:59 am
5:23 am	Ar..... Vinita	Lv	9:13 pm
7:00 am	Ar..... Tulsa	Lv	7:25 pm
7:40 am	Ar..... Sapulpa	Lv	6:45 pm
10:45 am	Ar..... Oklahoma City	Lv	4:00 pm
7:40 am	Lv..... Tulsa	Ar	6:30 pm
12:20 pm	Ar..... Enid	Lv	2:05 pm
8:10 am	Lv..... Sapulpa	Ar	6:15 pm
9:20 am	Ar..... Okmulgee	Lv	5:10 pm