



Building – and rebuilding – the Carrabasset & Dead River Ry.

The evolution of a model railroad

BY BOB HAYDEN

PHOTOS BY DAVE FRARY

THERE MUST BE a hundred different ways to build a model railroad, and though I haven't tried them all — yet — I suspect all of them are fun. The HO_n2½ Carrabasset & Dead River Ry. is a product of almost constant rebuilding over a period of several years, so by definition it's been as much or more fun than most layouts.

If the C&DR is a pleasing model railroad, it's because during its planning and construction we were willing to try different things and to make changes — minor and major — as they suggested themselves. Now complete, the layout is far from finished, and more changes will improve it and keep it fresh and enjoyable. Most of this article is devoted to illustrating the idea of "if it isn't as good as you expected, change it." I hope you'll go away convinced that this is an idea you can put to work on your own railroad.

A BOOST FROM THE CHRONICLE

The Carrabasset & Dead River started with a classified ad in the *San Francisco Chronicle* in August 1972. I was Weapons Officer on a diesel submarine parked at Hunter's Point Naval Shipyard for a lengthy overhaul, and for the first time in a couple of years I had a chance — or at least, the time — to do some model railroading. I was living in a Bachelor Officers' Quarters, no place to build a layout, so the first order of business, after building a few cars and engines and running them on a loop of N gauge track on my desk, was to find a place to house a larger railroad.

Frankly, I never expected the ad to do the job, but I placed it anyway. It went something like this:

"Wanted to rent: Garage for model railroad project. Call 641-2211, Lt. Hayden."

And it worked! In short order I got not one but three replies, and one of them was a clean, heated garage under a house in the city's Diamond Heights district. The owner was slightly intrigued at having a model railroad abuilding in his unused garage, and for 15 bucks a month he was willing to let me raise holy Cain down there as long as I knocked off before midnight. It was a deal.

I rented the garage Friday night and started moving in the materials for the

benchwork on Saturday morning. The overall dimensions of this first incarnation of the C&DR were 8 x 20 feet, and the general shape was that of a tall, backwards G. See fig. 1. The track plan was a simple dog-bone loop with almost 90 feet of main line — well over a scale mile in HO. While the continuous-running feature was important, almost 20 feet of the loop was hidden under the scenery to help establish the idea that the narrow gauge pike was a point-to-point operation from the interchange with the standard gauge at Pritchard's Junction to the end-of-the-line logging camp at Carrabasset.

Construction moved right along with help from several Navy buddies, and we celebrated the golden spike with a champagne party on December 2, 1972. Another month of frequent evenings at the garage added more blocks, dual cab control wiring, and about 20 running feet of rough hard-shell scenery. By February 1973, though, the submarine overhaul demanded so much time that I had to let the layout collect dust. In April I gave my landlord 6 months' advance rent and told him I'd be back to clean out his garage as soon as the tempo of our operations cooled down and I could take vacation leave.

Meanwhile, Dave Frary and I had been talking. As I locked up the garage in San Francisco, contractors were digging the cellar hole for an 11 x 24-foot addition to his house near Boston. The upstairs was spoken for, but if I could take the C&DR apart and move it the 3100 miles from San Francisco to Boston, its new home would be ready. Once again, it was a deal.

Moving a medium-size model railroad one-eighth of the way around the world is no mean feat, and if I ever have to do it again, I'll start by flipping the Yellow Pages to "Moving Companies" and let my fingers do the walking. In July 1973 I drove from San Diego to San Francisco, disassembled the layout in an evening, and loaded it into — and onto — my Dodge van. Since the layout was too big to fit inside the van, only the two yard areas — Pritchard's Junction and Carrabasset — went inside. The remaining sections were lashed to the roof of the van and covered with a sturdy — I thought — tarp.



In July 1973 there was no energy crunch and no 55-mph speed limit, and I was in a big hurry. At highway speeds the "sturdy" tarp rapidly tore itself to bits and the wind action whipped the tatters against the framework, track, and scenery, scouring the sections on the roof down to the bare bones. I still wince when I remember looking into the rear-view mirror and watching track sections, switches, and bits of scenery sail off the top of the van and scatter over U.S. Route 80 through Nevada, Utah, and Wyoming. I can imagine what a hapless motorist might have thought as he pulled a Code 83 turnout out of a flat tire.

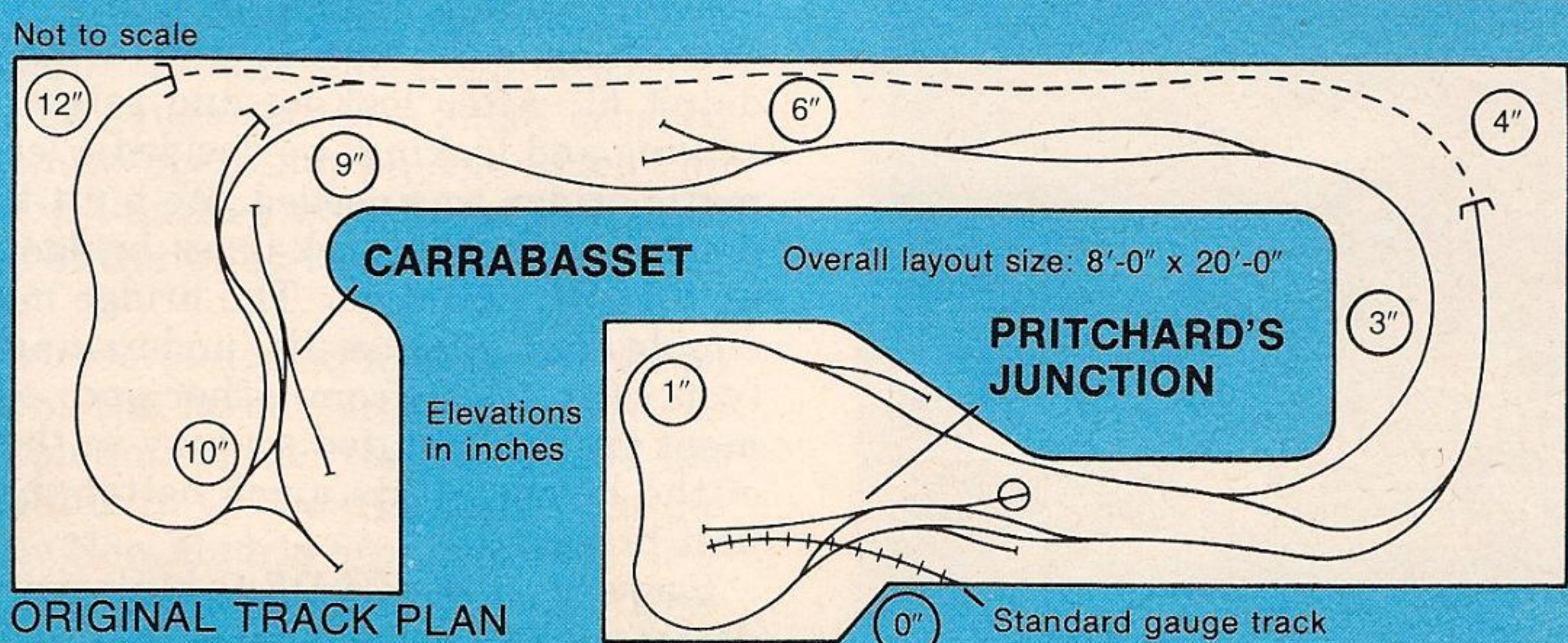


Fig. 1 ORIGINAL TRACK PLAN
San Francisco, 1972

By the time I got to Nebraska, the only recognizable parts of the sections on the roof were the wiring and a powdery green residue from the flapping tarp, so I dragged them off the roof, broke them down to the L-girders, and stuffed them inside the van to cut down on wind resistance and allow better mileage at higher speeds. I arrived at Dave's about midnight on July 3, 1973, with a headache, half a model railroad, and a story that nobody would believe.

REBUILDING THE RAILROAD

Because the layout was so thoroughly scrambled in its cross-country trip, we re-

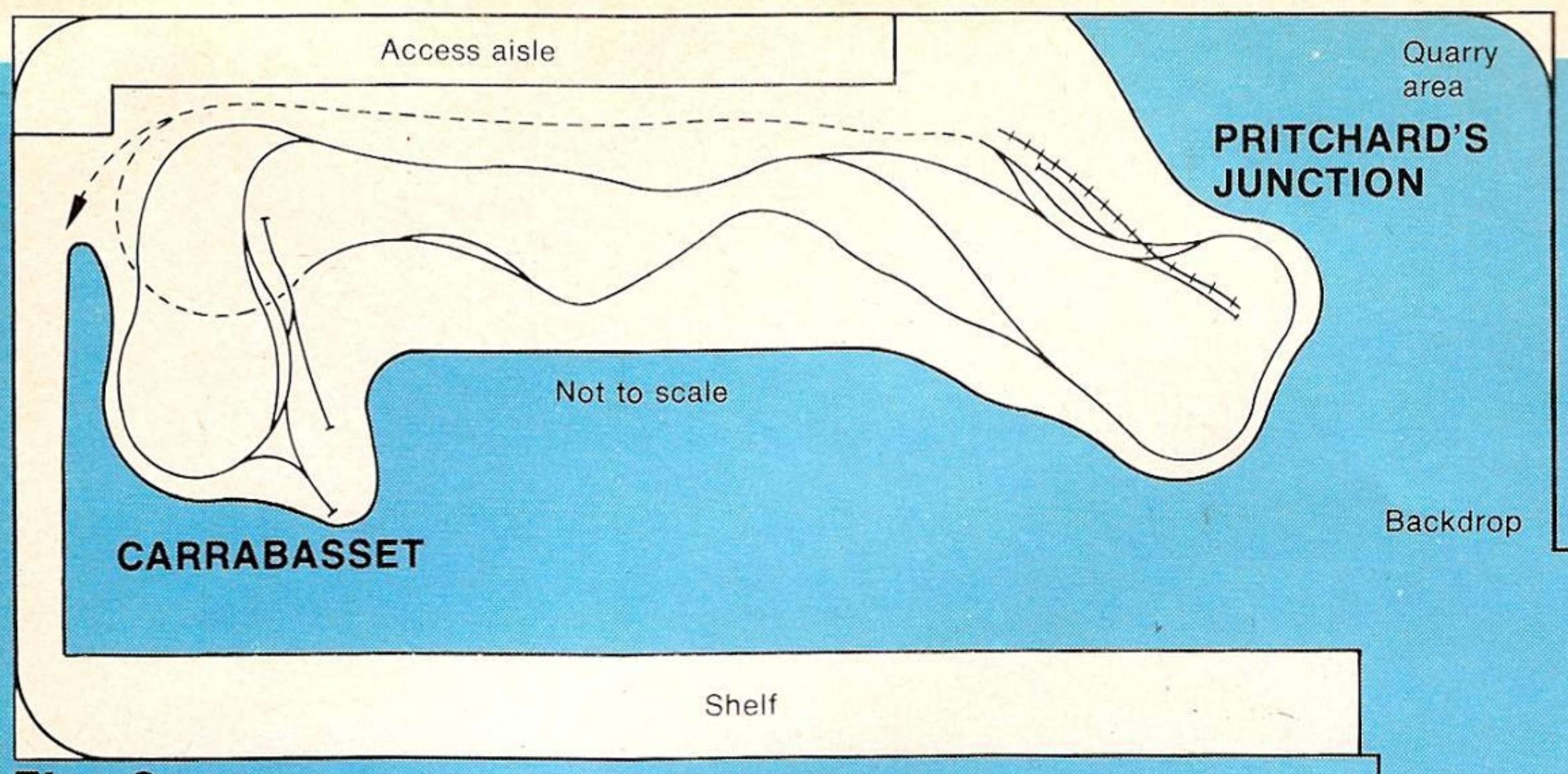
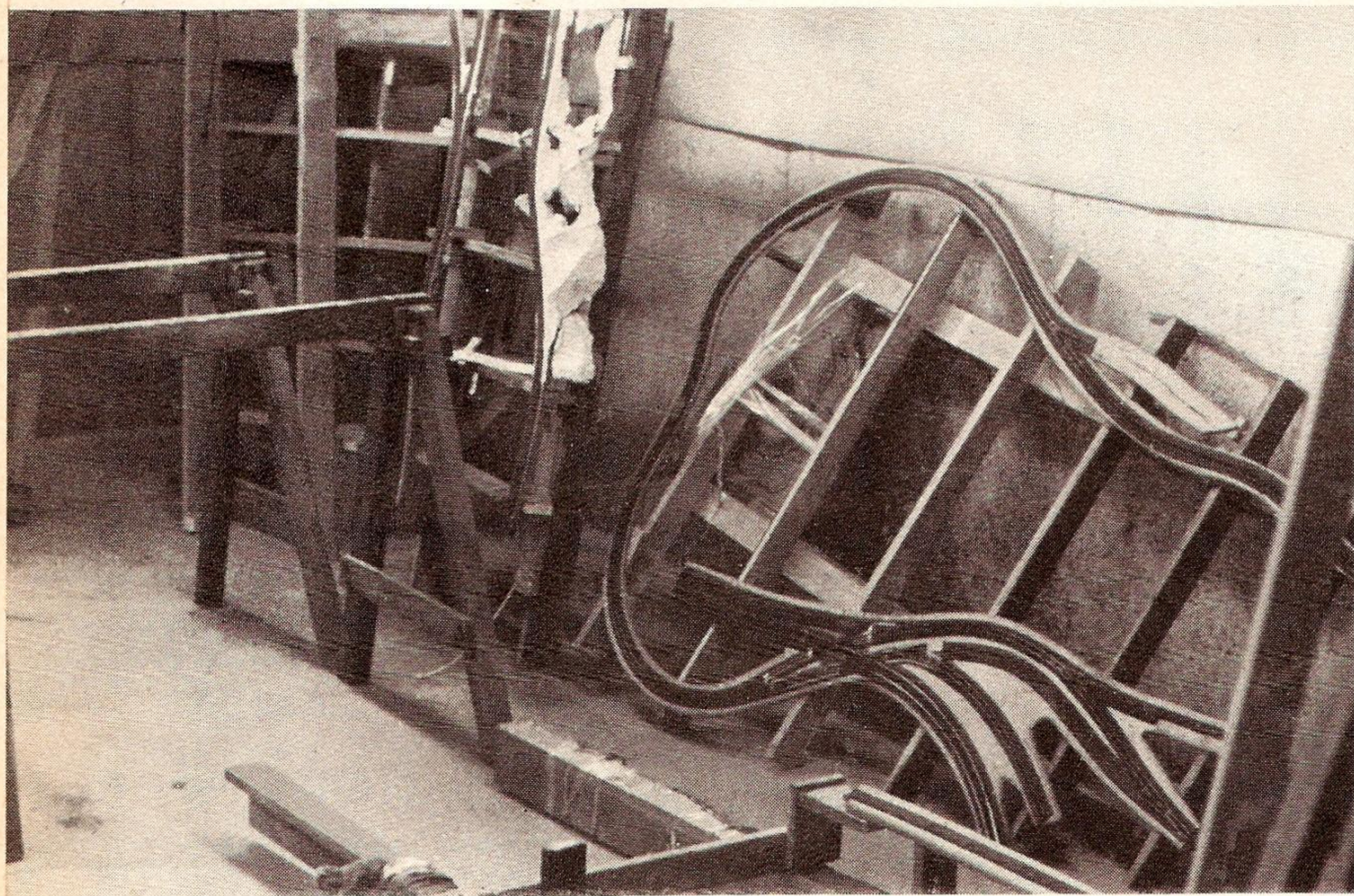
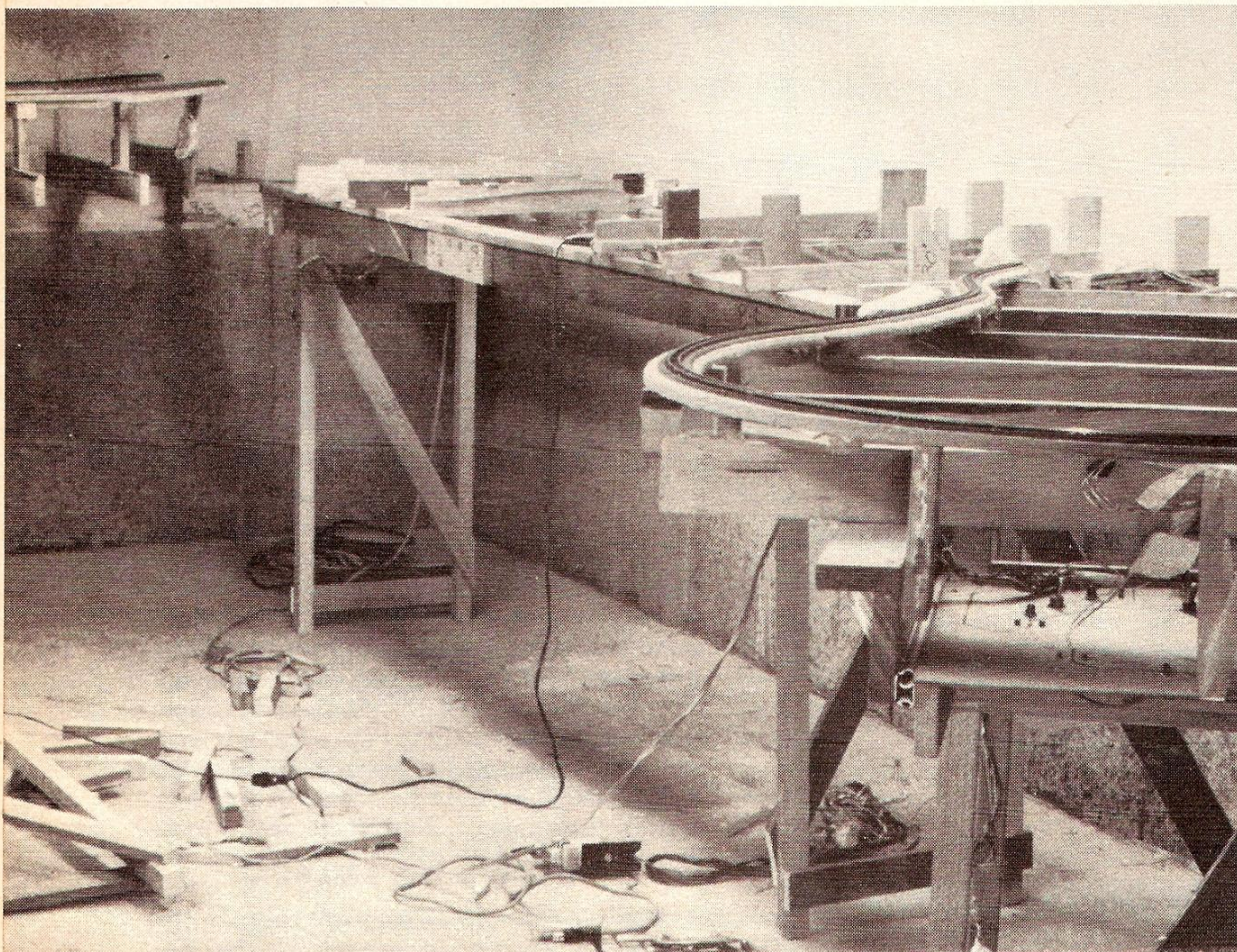


Fig. 2 RECONFIGURED TRACK PLAN—Boston, 1973



Above. When the C&DR arrived at Dave Frary's house after its cross-country journey, it was in a shambles. But a couple days' work made it start looking like a model railroad again.



sembled it in a configuration considerably different from the original. The new look, fig. 2, eliminated most of the mirror-image G shape and made the Carrabasset section the end of a branch running up and over the mainline loop. We had the pike up and running — after a fashion — in a week.

Perhaps the biggest change in the C&DR between San Francisco and Boston was not a result of the great trek at all. I had originally built the railroad at a base height of 56" off the garage floor. This, coupled with a 7" drop in the garage floor, placed sections of the layout as much as 66" above the floor — great for eye-level viewing realism, but utterly impractical for working on the railroad. This had led to some interesting predicaments. I had to do an awful lot of the work on the layout while perched on a stepladder — a lot more than I'd planned, I'll tell you — and on at least two occasions I inadvertently wired the stepladder into the railroad by passing cables through it. A few wisecracks suggested selling popcorn under the layout during open houses, and that was enough to prove the whole layout was just too high. When we reconfigured the layout in its new home, we cut the average height down to 45" — high enough for comfortable eye-level viewing, but low enough for convenient work.

Dave had the majority of the layout re-wired, re-leveled, and adjusted by the fall of 1973, and he smoothed out the kinks and humps caused by the differences in humidity between a San Francisco garage and a Boston basement. Meanwhile, he added extensions to the standard gauge at both ends of the layout and stretched the HOn2½ trackage onto the narrow shelf on the opposite side of the room.

The first areas to be scenicked on the C&DR were around Pritchard's Junction. Here, Dave divided the irregular turnback curve with a 5"-high ridge. He worked the Junction yard and interchange trackage into one side of the ridge and built Pritchard's Pond on the other side. This was our first instance of building distinct scenes on either side of an emphatic view block, and it was to become the pattern for the scenic treatment of the rest of the railroad.

This is a good place to bring up an early example of our "if it doesn't work, change it" theme. Early in 1974, Dave added an SS Ltd. Dinky Creek bridge to the layout over Baker Stream. The scenery at either end of the bridge was low, rolling, and understated — scenery without drama — but the bridge was tall, muscular, and dramatic. Something was wrong; the bridge just didn't fit. After looking and talking, and talking and looking, we decided a less-dramatic bridge was needed. We built the underslung covered deck-truss bridge using an SR&RL prototype. The bridge model is simple, but because its underslung lines (you can't see it from either end) complement the understated scenery in this area of the layout, it fits much better than the first bridge.

Scenery on the C&DR is built using Hydrocal-soaked paper towels over a lattice network of 1"-wide corrugated cardboard

strips. This system is a compromise between the self-supported hardshell technique developed by Linn Westcott and the all-supported screen wire method, but it's a method that we find workable and inexpensive.

SCENIC CONCEPTS

One of the things that came up quite frequently when we discussed the scenic treatment for the layout was the thought that we wanted to model *plain* topography. This flies in the face of what some of the experts have preached, but we decided that the C&DR should mirror the low foothills and mundane comings and goings of its SR&RL prototype. Having done it — and I think, well — I'm ready to admit that the C&DR's understated scenery is probably more difficult to model convincingly than the exaggerated vertical planes — reminiscent of the D&RGW's Silverton branch — of most model railroads.

Massive lichen cover, another practice considered passé by many knowledgeable model railroaders, forms the background for most areas of the C&DR. More than anything else this is an expedient; we have a fairly large railroad, and we had to find and use a gross-effect technique to simulate lush stands of timber typical of our prototype road. The fine-tipped lichen heads — we pick and process them ourselves from a stony mountain up in Maine — provide a convincing illusion of dense forest growth without the need of painstakingly modeling every tree and shrub. In another sense, the coarseness of the lichen directs the viewer back toward the trains, track, and railroad activity that is the primary focus of our modeling.

The C&DR was the first place we tried the concept of the initial detailed area. For brevity, let's call it the IDA. Most model railroaders that we've known build layouts in a benchwork-track-wiring-scenery progression. This is fine, but to our way of thinking, it isn't much fun. The IDA method is to build a section of the layout to the point where it will operate, then scenic, add structures, and detail it to develop your modeling skills. Then, as you build up skills, you can go back and improve your initial detailed areas. This method certainly isn't any more difficult than the traditional way to build a layout, but we've found it a good deal more fun.

CHANGES

The first area to be detailed was the dual-gauge area on the shelf where Dead River is now. Almost predictably, it was later the first area to be changed. The first scenic treatment featured a rugged mountain that reached to the ceiling to hide the soil and water pipes from an upstairs bathroom. Both standard and narrow gauges had tunnels through the mountain, and the narrow gauge served a small crushed stone quarry operation on one side. The contours in this area were largely vertical, and most of the walls were faced with rock castings.

As the understated scenery developed on the rest of the layout, it became obvious that the mountain and the quarry did not fit. The thing in the quarry scene that did fit was the New Madrid branch with its low, rolling contours, so we'll talk about it before explaining how the Dead River area came to be.

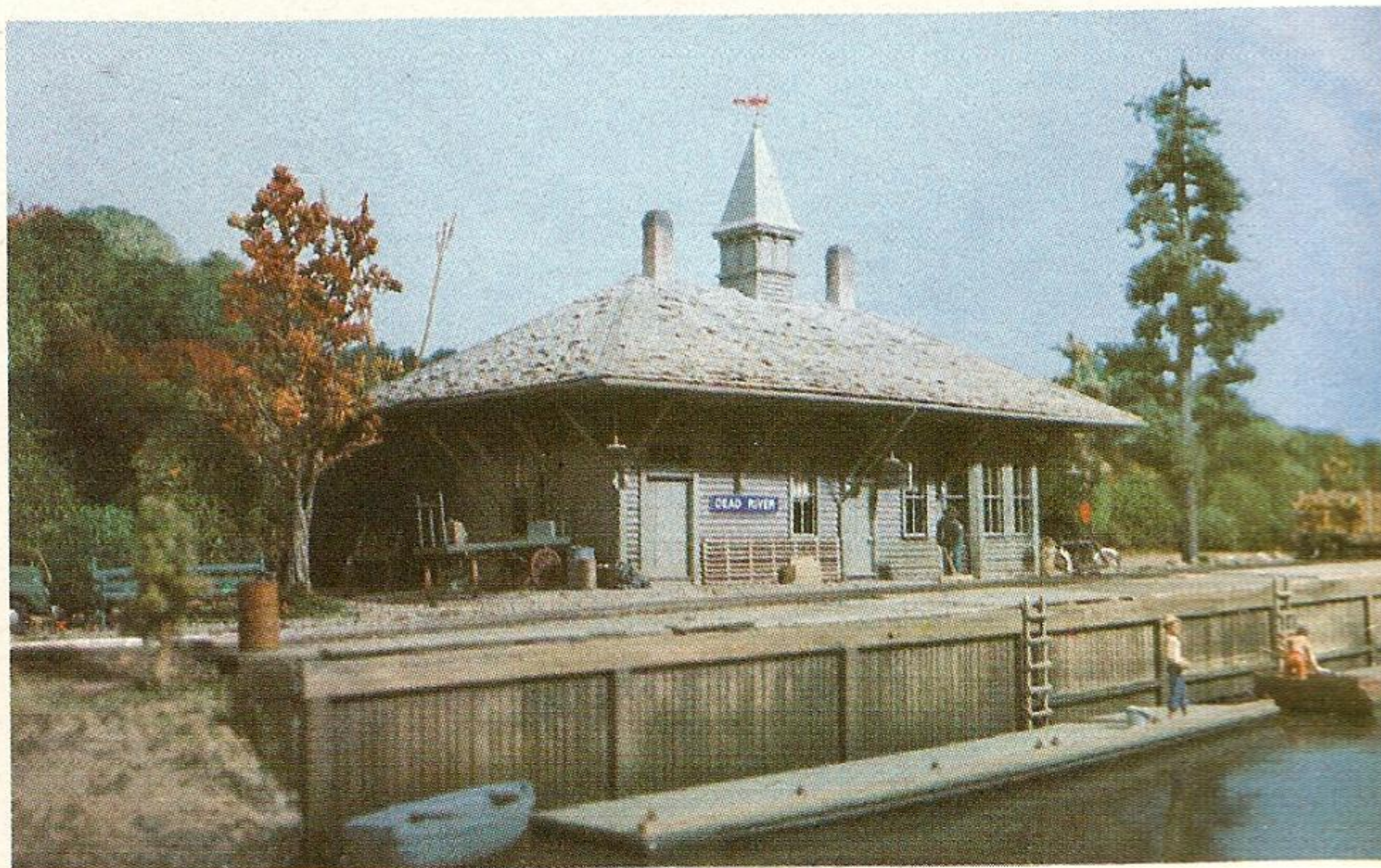
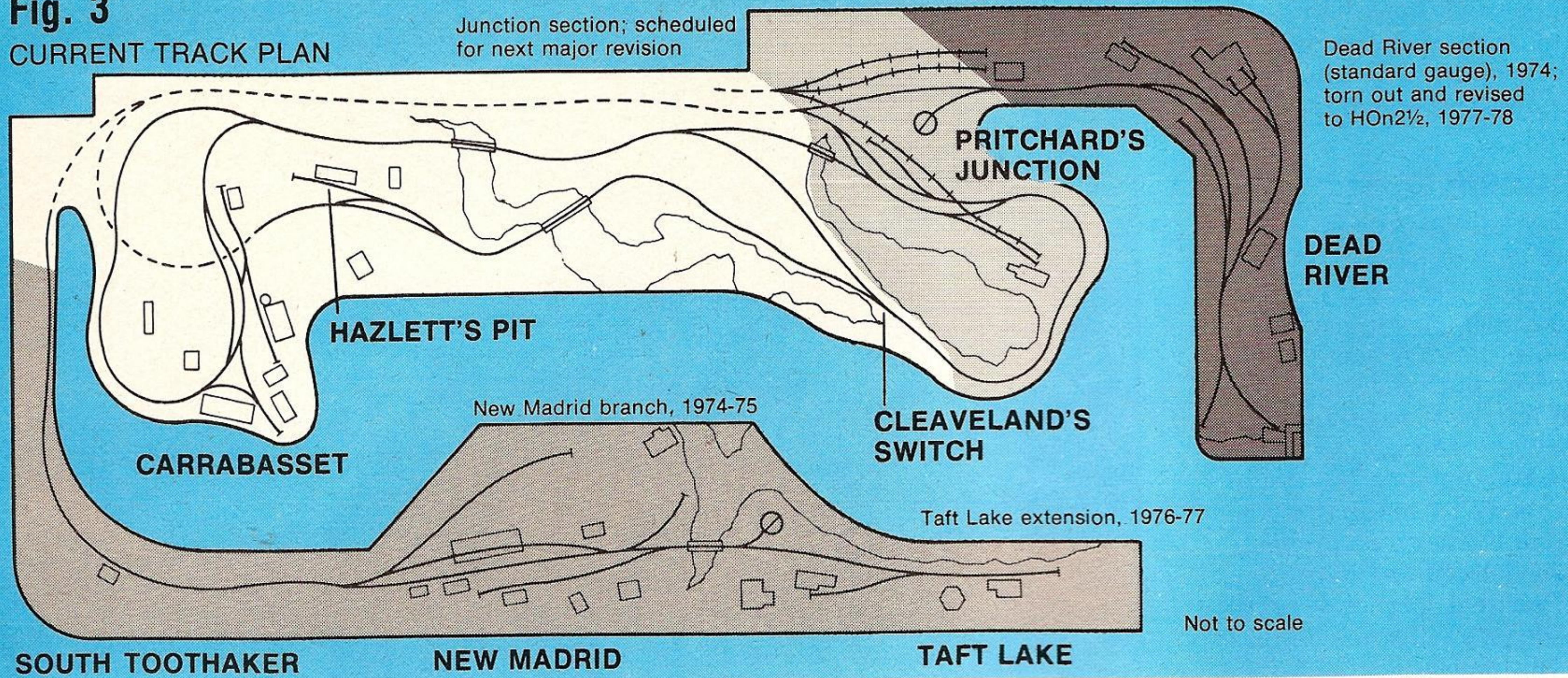


These two photos show that nothing on a "completed" model railroad should be considered permanent. The curved yard at Dead River (above) occupies the former site of the old coverup mountain and quarry (below). The quarry featured a loader/processor.



Fig. 3

CURRENT TRACK PLAN



Above. The station that now stands at Dead River (photo on preceding page) once served Taft Lake. Below. The current Taft Lake station is a fanciful structure built from a Campbell cafe kit. It fits the town's resort image.

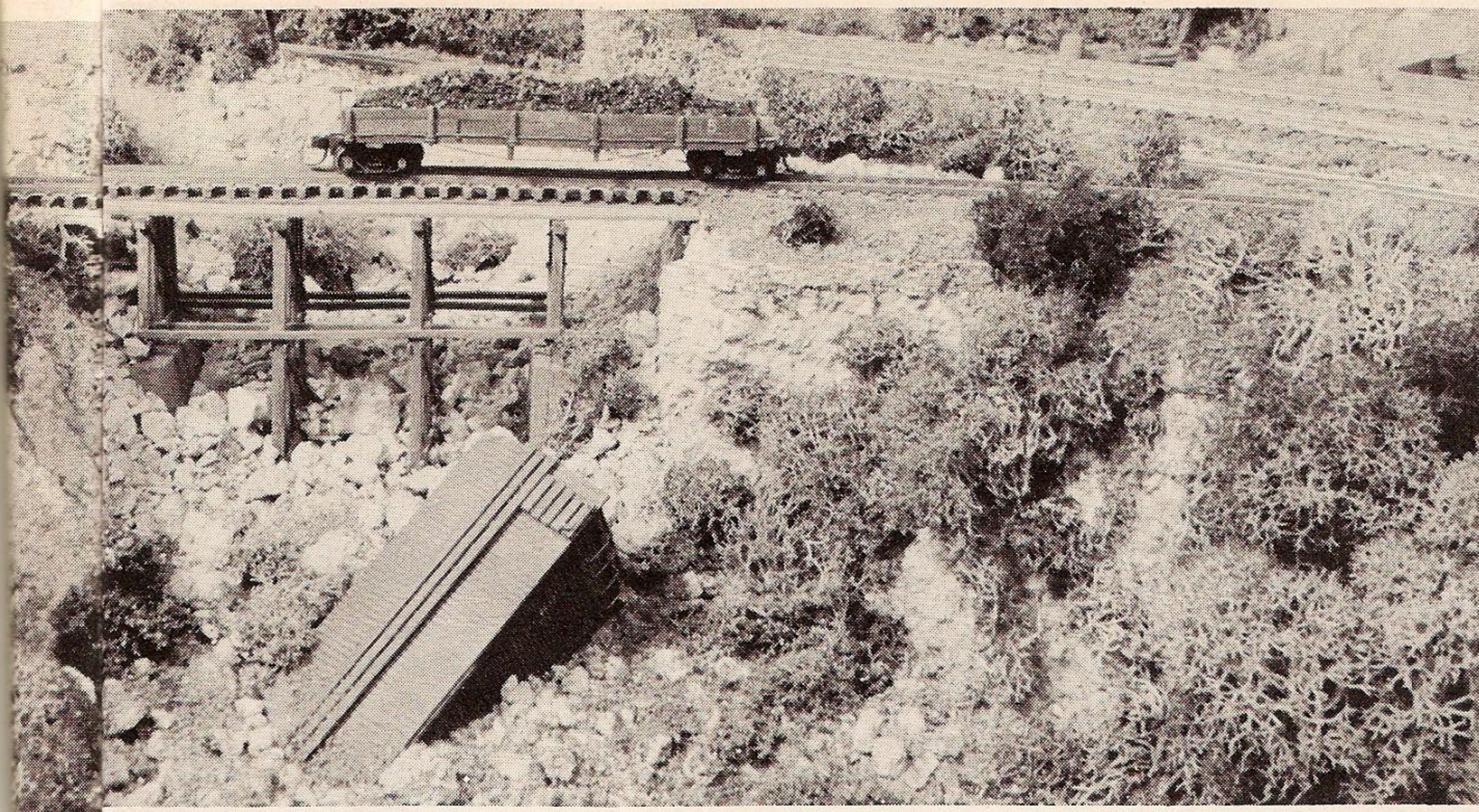


By summer 1974 the central section of the layout between Pritchard's Junction and Carrabasset was scenicked. This is not to say that this area was finished — far from it — but it had all scenic contours roughed in and the massive lichen cover and basic texturing added. The track was ballasted and painted, and there was enough in the way of scenic detail and structures that the pike was pleasing to view, operate, and photograph.

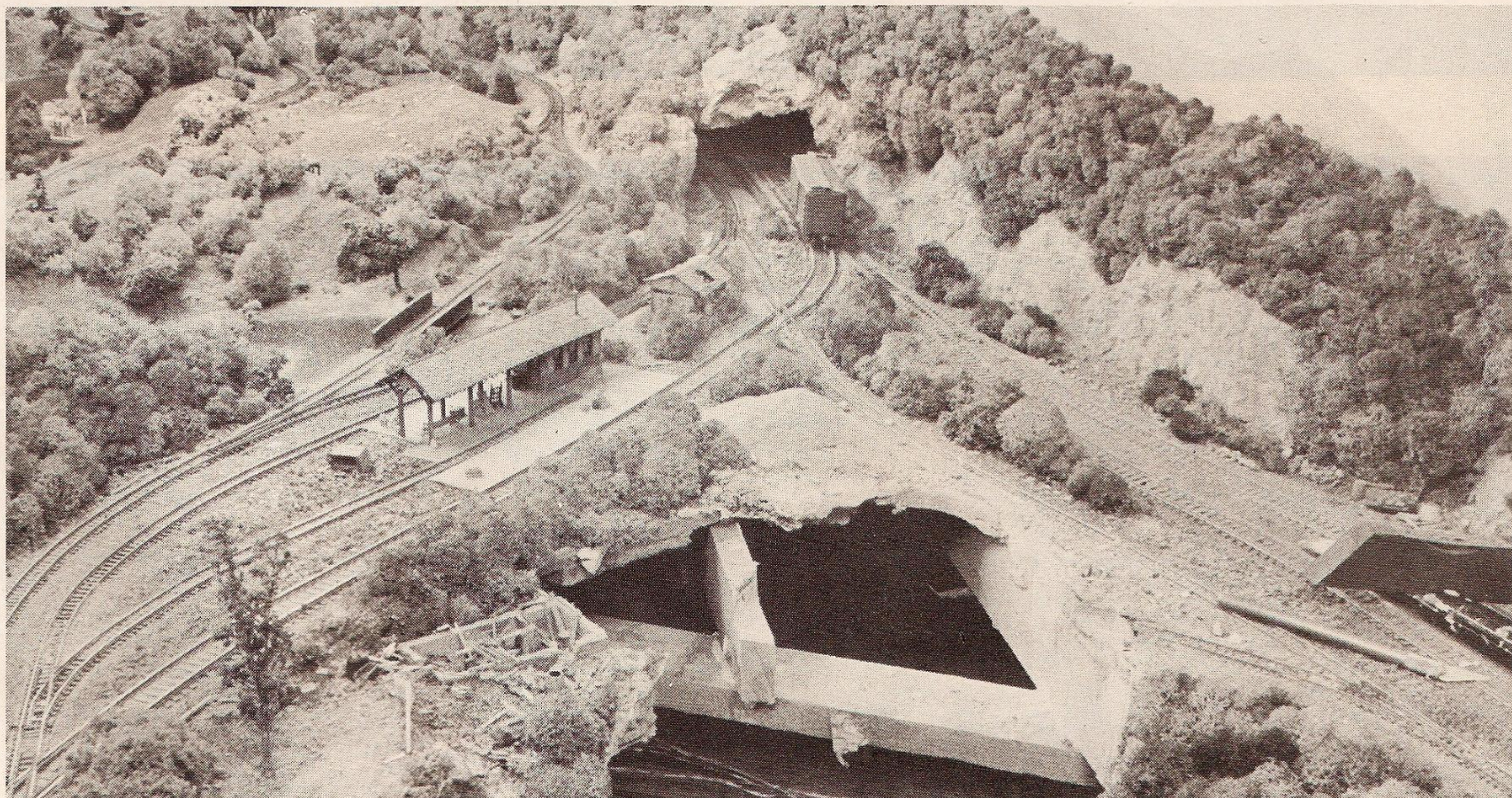
The shelflike bench on the wall opposite the main section of the layout was originally set up as an area for building and photographing dioramas and structures and for holding tools and materials used on the layout. After a major cleanup campaign one weekend, we realized how much this area could add to the interest of the layout. The benchwork frame from an earlier HOn2½ layout, the Thatcher's Inlet Ry., would fit the available space, and for a while we toyed with the idea of the C&DR heading for the seashore. We finally gave up that idea, and on Labor Day weekend in 1974 we dismantled the earlier pike and spliced the benchwork onto the existing shelf. See fig. 3.

The New Madrid extension was built over the next couple of years and completed in early 1976. For a time, a lift-out section across the entrance of the room allowed standard gauge trains to make a big loop of the room. This turned out to be more fun to do without, so by late 1976 we did away with the grand loop and started a rework of the quarry area.

Dead River Yard was built on the shelf benchwork opposite Pritchard's Junction during the winter of 1976-1977. What was gratifying about this rebuilding project was that it made an immediate improvement in the whole layout. With another major place to go, there was more operation to keep more people busy running the trains and more places to store the growing roster of locomotives and rolling stock. By far the biggest improvement was in appearance. When viewing the railroad from



Left. A short trestle spanning a dry wash near the Junction was pleasing enough; unfortunately, it stood in the way of a much-needed turntable. Right. The author went after it with a hammer and chisel.



Above. An evening's work was all it took to leave a gaping hole in the scenery. Below. The completed girder turntable serves both the Junction and Dead River and looks like it has always been there.

almost any angle, we now saw the non-descript low hills around Dead River in the background instead of the overpowering vertical coverup mountain.

Since our success with the Dead River area, tearing out what doesn't work and trying again has become the ongoing theme of the C&DR. The Junction/Dead River turntable offers a small example of this. After Dead River was added, the need to turn trains at the Junction (and now, at Dead River) was greater than ever. A small trestle in the corner of the Junction yard was torn out and replaced with the needed table — all in an evening! Again, the results were improved operation and improved appearance.





Mogul no. 12 is about to couple onto her train, back through the Carrabasset wye, and lead the final move of the day down through Junction and home to Dead River. Note how well this view, which shows almost 5 feet of the layout, is isolated from all other parts of the railroad.



Left. An AHM Minitrains 0-4-0T works the Junction Yard lead, while (above) just on the other side of the scenic divider - 2" away - local folks inspect a steam road roller in front of Abbott's General Store.



SCENIC DIVIDERS

The Carrabasset & Dead River is designed to be photographed, and in practice this means it is divided into separate scenes. Photography notwithstanding, we've found dividing the layout into distinct scenes is valuable. Particularly with walkaround control, operators experience a sensation of distance as they run trains through one scene into another, then another. Figure 4 shows how this relatively small layout is divided into viewing areas for the camera and the operators.

The most-frequently used scene-divider device is tall trees — lots of them. There are more than 400 scale trees on the C&DR, and Dave expects to add about three dozen per year from now on. Other scene dividers include tall, narrow ridges topped with lichen tips and open areas with few or no details that force the viewer to look to one side or the other.

Water is a subtle scenic divider, and there is lots of water on the C&DR. Pritchard's Pond, Baker Stream, Taft Lake, and Saddleback Lake are essential to the concept of a railroad that operates in a semi-wilderness area, and they also serve to expand the apparent space the railroad occupies. It's harder to judge distance over smooth, reflective water than over rough terrain with recognizable scale features, so water is on our side when we seek to expand the layout visually.

PLANS FOR THE FUTURE

The C&DR is a complete model railroad as it exists today, but it is far from finished. As we've gained experience in operating the layout, we've realized that the simple dual cab control power distribution system, even with the walkaround throttle, is far

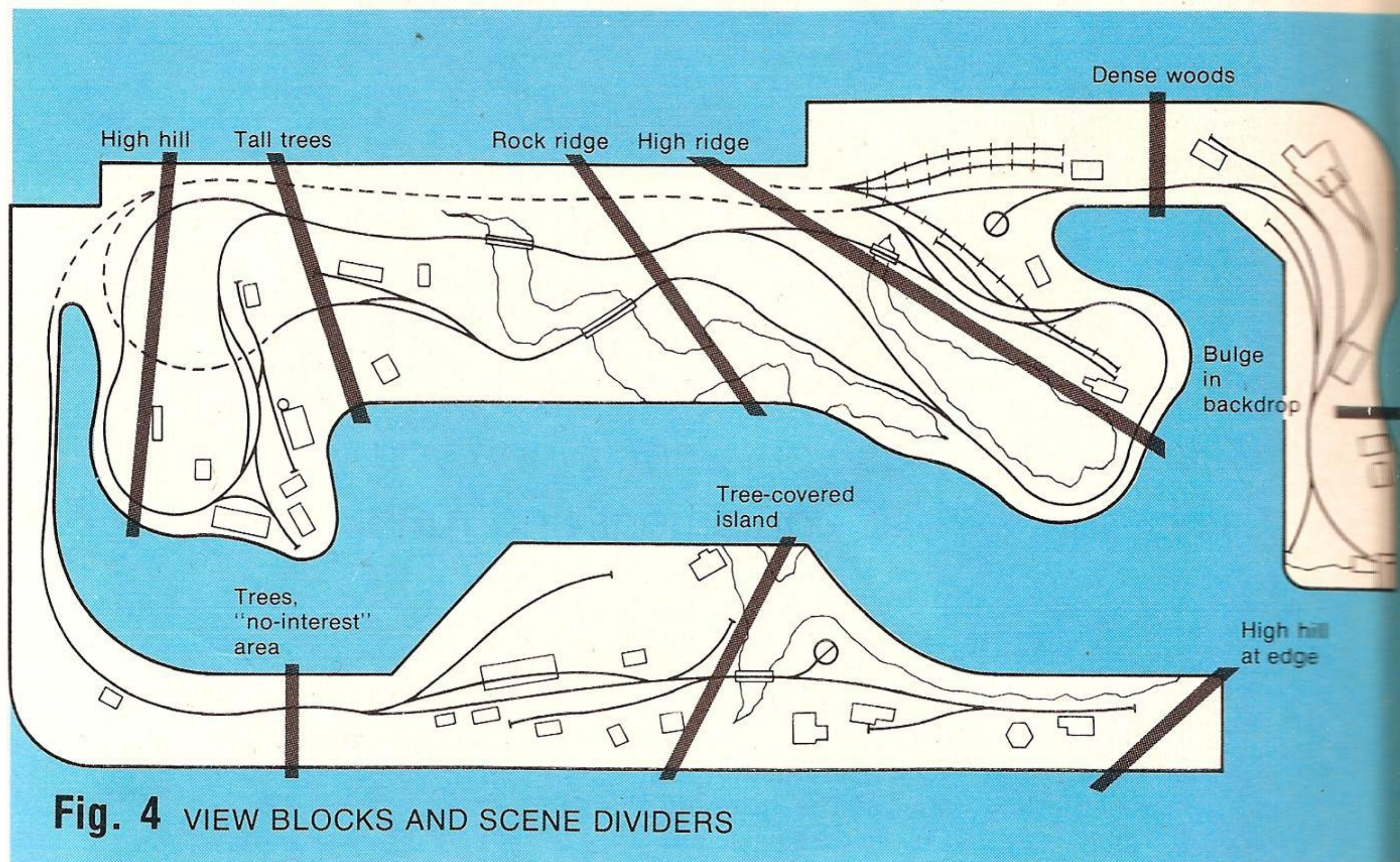


Fig. 4 VIEW BLOCKS AND SCENE DIVIDERS

from optimum. We don't have enough blocks, and there are too few isolatable engine holding tracks and not enough passing sidings. Two of the many possible solutions to the problem are a major rewiring job (doesn't sound like much fun) or installation of one of the new multichannel carrier-control systems. We're looking at the carrier-control systems as the easier, if more expensive, solution, but it may be a while before the hardware becomes small enough to shoehorn into HO_n2½ equipment. Maybe we'll wait.

The next scheduled change is the addition of a passing siding at South Toothaker tank to allow more operating action on the

New Madrid Branch. After that, Dave plans to revise the Junction area to make the track layout more workable and to make space for a busier grouping of structures. This change will have a practical side, too, since the Junction yard is where most of the plastic-frog N gauge turnouts are located. When the track is rearranged, they'll be replaced with Shinohara all-rail turnouts.

In closing, I want to reemphasize that building the C&DR has been fun because we've been willing to change the layout as our ideas and knowledge changed. If we've learned a lesson that you can use to get more fun out of your layout, that's it. ☺