possibly want from a model railroad. Yards, industrial areas, logging switchback shortline railroads and all the other tricks to get more railroading in less space offer lots of operating enjoyment. All of us, though, want to see trains run in a manner that is remotely like what we see in real life. Most of the trains we see out in the real world are passing by, not shuffling back and forth. It's that "through train" operation that makes this compact plan so unusual.

This plan is 9-feet wide, which means that you could build it across the end of a single car garage or in just one corner of a basement. The dimensions are small enough so you can feel assured that the layout can move if and when you have to find a new home. If you build the benchwork in manageable sections (see the following article), this compact railroad can last a lifetime. It would be possible to lengthen the plan, along the 8-foot walls, by inserting segments of parallel tracks. Those lengthening segments of benchwork should also be made portable so the layout can be compressed back to the 9x8-feet if your next home has only that much space to spare for a model railroad.

OPERATING THE LAYOUT

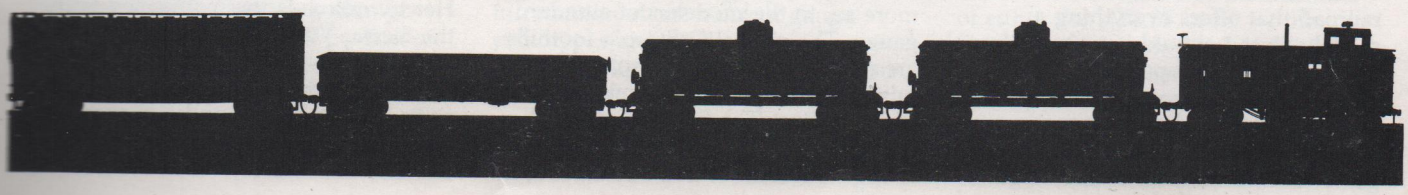
This track plan is really a compacting of the 10-foot 4-inch x 11-foot plan shown in the previous (Vol. 13, No. 4) issue of **Model Railroading** magazine. All the train operating options available for that larger layout apply to this one. Briefly, the layouts are designed to allow you to simulate a small branchline's point-to-point shuffling of ore cars from the various mines to the smelter — nearly all small layouts have that type of operation. What's different about these plans is that they also allow the operation of true big time, mainline trains. The 8-foot and longer passing and holdover sidings are enough for a train with a two-unit diesel at the head of a dozen modern freight cars. Those long trains travel from east to west before disappearing from the layout to reappear (in whatever sequence you choose) to operate on the return west to east trip. You can watch trains on this layout and see exactly the kind of operation you see when watching real trains; a long freight or passenger train coming from "somewhere" and heading to "somewhere else."

The lower level tracks are just a few inches below the upper level on both of these plans. The lower level tracks are hidden by the upper level tracks and scenery. Access to the lower level is obtained by crawling under the table and reaching beneath that scenery. That access should only be required in the case of a derailment; the operations are all routed through the turnouts (switches) by remote control. Those hidden switches provide the alternate routes needed to reverse both eastbound and westbound trains. The hidden switches and tracks also provide places to hold five trains (on this 9x8-foot version) while still leaving tracks open for hidden reversing and unit train action.

Unit trains have open top cars with visible loads. To simulate the operation of empty trains eastbound and loaded trains westbound, simply build two identical trains, one loaded and one empty. Operate the trains in opposite directions around the oval, routing through the hidden lower level tracks to maintain that realistic "empties eastbound" and "loads westbound" visible action.

There's a reason why this layout is smaller than the 10-foot 4-inch x 11-foot version; the larger layout is just large enough so that you can walk into the operating area. This 9x8-foot plan has a drop-down bridge across the doorway that you must either duck under or drop to reach the operating area. It is possible to operate the branchline with the bridge dropped, but all those through east, west and unit trains must cross the drop-down bridge. If you build the railroad so that the "zero" elevation indicated for the lowest tracks in 50-inches from the floor, then the highest, visible tracks (at the two mines near the Phoenix engine house) will be 61½-inches high. Build the benchwork and roadbed that high and the tracks across the doorway will be 50-inches to the tops of the rails. Use 2-inch angle iron to support the drop down bridge (and the ½-inch plywood and Homosote roadbed) and you'll be left with 48-inches or more of clearance; just high enough and the drop down shelf just narrow enough, so you easily duck under that shelf. I'd suggest you make the shelf removable, if not hinged to drop down, so you can get into the room with supplies or boards. The door would certainly have to open outward if you leave that duck under bridge permanently in place.

THE SCENERY

The scenery and the structures dictate the geography and the operations of the visible portion of the railroad. I've used smaller "Scene Module" segments of track and structures from the same layout that appeared in both the Spring 1982 and the Volume 13, No. 4 issues. You can see that, regardless of how much you might change the layout, at least small segments of it can be built to last forever. We'll show you how to build those "Scene Modules" in a future issue of **Model Railroading** Magazine.

Those modules and the scenery suggest that this is a coal or ore mining railroad set in the hills. The original layout was based on a prototype in the Canadian Rockies, but ore and coal operations are common to the hills and mountains of about half of the United States. If you prefer, those mines and the smelter could be replaced with a sawmill and log dumps to simulate a logging operation in the south or northwest. In truth, nearly all the hills could be replaced with buildings and the layout operated as an industrial line in the confines of a large city.