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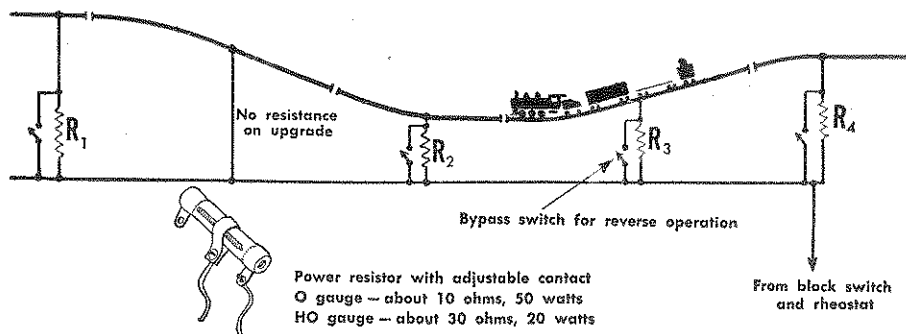
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On page 64
Central Valley
Model Works
is running its
55th ad in
Model Railroader

The first Central Valley ad appeared back when James Forrestal became the nation's first Secretary of Defense. It was July, 1947, to be exact. 55 Central Valley ads have made 4,795,000 impressions on MR readers. No wonder more fans have bought more kits from ads in **MODEL RAILROADER** than from all other fan magazines combined!

In model railroading
nearly everybody reads MR



Train speed variation on grades can be controlled by running power through fixed resistors as shown here. Determine the size of resistors by trial. Note that gaps are placed where power requirements of average trains vary rather than at points where the grades actually begin and end.

down this variation in speed with adjustable resistors in the feed to the track at various points. The resistor settings will require a little playing around with to get the best results with the type of trains you operate. The resistor bypass switches shown in the sketch are needed only if and when you need to operate fully-loaded trains in the reverse direction.

As we noted in the beginning, this layout is to accommodate mainline equipment and make it look at home, so if you have or want an articulated, it will fit right into the picture — at present, most B&O freight through Harper's Ferry is pulled by the big EM-1 2-8-8-4's, with 2-10-2's and Mikes doing their part too. Don't overlook the operating interest of having passenger trains stop at the station — eleven of the 22 daily trains stop, including the lengthy Baltimore-Detroit *Ambassador*.

The branch is laid out with No. 4 turnouts, so you are restricted to branchline motive power — certainly nothing bigger than a 2-8-2. If like so many thousand others, you have a Dockside or other small switcher, it will be comfortably at home in the quarry.

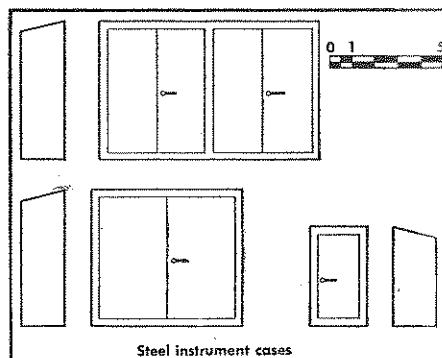
Chances are, though, that you yourself aren't a B&O modeler, and that there are a good many other places that interest you more than Harper's Ferry. The basic layout plan, with or without the branch line, is surprisingly adaptable to other places and other railroads. If you want a river-crossing scene for a freelance line, simply reverse Harper's Ferry from right to left and no one will recognize it. If you do this, it will take a little tinkering with the storage to fit it in with right-hand double-track operation, unless you take the easy way out and say that your road runs left-handed like the C&NW.

The second plan shown is basically identical in track scheme, but here the lines have been so twisted as to represent a crossing of two double-track

lines of the same railroad. Connecting tracks link the two main lines; to get a workable grade, all the tracks are sharply curved and interlaced, and four bridges across the river are needed. The scene is quite typical of actual junctions in the heavy-traffic territory of Pennsylvania and eastern Ohio, where even short branches may be double track and a railroad either follows a river valley or must tunnel repeatedly through transverse ridges.

This plan, which can be put into a space about two and a half by seven times the minimum radius used, has the advantage of exposing a greater percentage of the track to view. For a convincing effect, though, the steeply graded end loops must be concealed, with the hidden portions at least as long as a train. The hills covering the end loops should be high so as to "frame" the picture. Electrically speaking, this layout also does not have a reversing loop unless a cross-over between the mainline tracks is added.

Look around on your favorite railroad — chances are that there is at least one place on its line already pretwisted so that you can fit it neatly into your available space and create a stage across which your prize rolling stock can parade in all its glory, with the loops and cutoffs that got it there out of sight and out of mind.



Relay and instrument cases like these are often mounted on poles, signal standards or bridges.