

Model a cattle guard

Plans for a simple scratchbuilding project

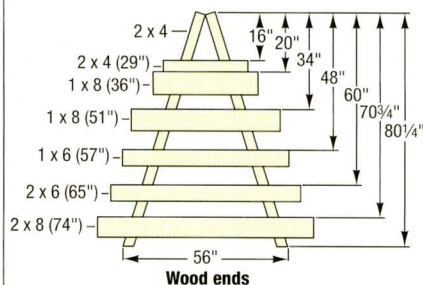
By Harold W. Russell

When the railroad right-of-way crosses a farmer's fence, some device must be used to keep livestock from wandering, yet allow trains to pass freely through the field. Years ago the cattle guard was created to serve that purpose.

Although rarely seen today, the cattle guard's design is essentially the same. The fence terminates near the railroad track. Here a sloped, triangular-shaped wooden structure provides clearance for trains but still serves as a barrier. Horizontal plates with metal spikes are

Ratio 1:64, S scale

TO CONVERT S SCALE
DRAWINGS TO YOUR SCALE
COPY AT THESE PERCENTAGES:
N 40 percent HO 73.5 percent O 133.3 percent

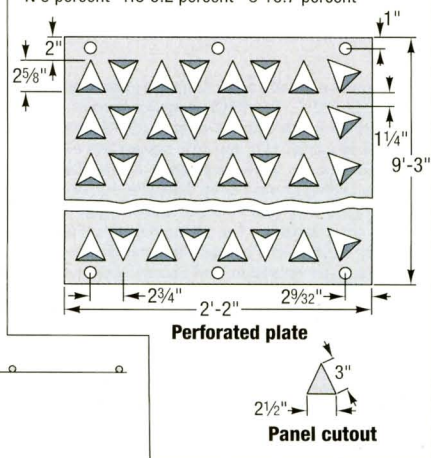


Drawn for Model Railroader magazine by
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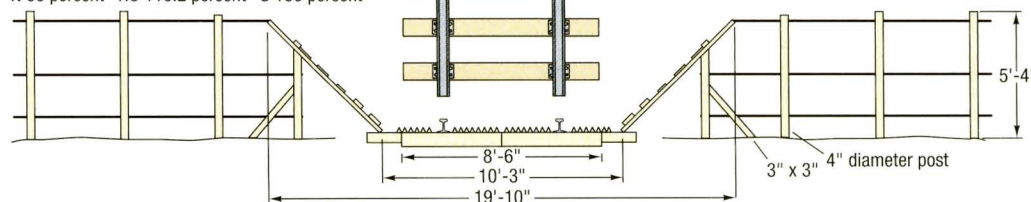
Ratio 1:8, 3/4" = 1'-0"

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Ratio 1:96, 1/2 O scale

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Cattle guards, such as this one on the Denver & Rio Grande Western, kept livestock from wandering onto the tracks. Glenn Wagner photo

laid next to and between the rails. These spikes are painful when stepped on by livestock and prevent them from crossing the tracks.

Use what's available

The design shown here, located on the Arcade & Attica RR in New York state, was apparently assembled with random pieces of wood. You can vary the dimensions to suit your needs. The wood pattern of the two sloping portions can be different, and the slats need not be horizontal. The angle of the sloping portion can be varied based on the height of the adjacent fence.

The spiked metal plates were obtained from a railroad hardware supplier and are made particularly for this purpose. The prototype has v-shaped holes punched in rows into sheet metal. The triangular spike is bent up along one edge at an angle of about 75 degrees. Notice that the direction of the spikes alternates, and they are turned 45 degrees in one outside row.

For modeling purposes, the plates could be made of heavy aluminum foil. A sharp needle can be used to make circular punches, but a special punch would have to be made to obtain the triangular pattern.

Though holes are provided for bolting the plates to the ties, the plates were just set in place.

A simple project

This cattle guard could be a first scratchbuilding project, and can be finished in one evening. The wood can be obtained from a scrap box. You may want to distress it with steel wool since finished lumber wouldn't be used in this application.

The wood of the prototype is weathered to a gray color. Simulate this with a wash of light gray paint. Use several shades for variety and realism. The perforated plates are a dark rust color. Foulouil Rail Brown mixed with black would approximate the color.

When placing the model on your layout, be sure to add suitable foliage growing up around the fence and through the plate's perforations. **MR**

Harold W. Russell has contributed illustrations and articles to Model Railroader magazine since the 1960s. His drawings of the Morristown & Erie's water tower in Whippany, N.J., were published in the March 2008 issue.

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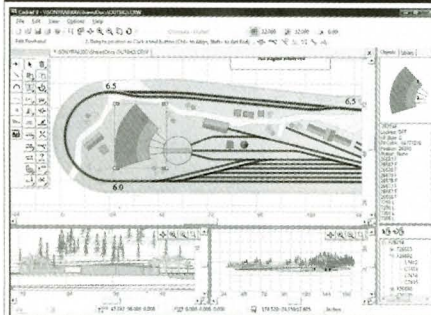
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