

fashion, not a spoonful of the contents was lost.

To improve this situation, I tried made a cradle from ordinary lumber to support drums when emptying. This device is shown in the accompanying photograph and diagram. The barrel rests on two 2-in. by 4-in. boards spaced 13½ in. apart, as measured from the outside edges. The sills



View showing a barrel in place on the cradle

are 34½ in. long. At the bottom end of each sill, there is a toe made of ¼-in. or 3/16-in. by 1½-in. strap iron, inserted under the edge of the barrel before it is tipped. The support frame is made of two pieces of 2-in. by 12-in. lumber 14 in. long, which are

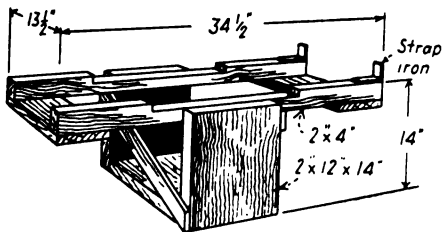


Diagram showing the principal dimensions of the barrel cradle

fastened together as illustrated. Sway braces increase the strength of the cradle and support frame.

In using this device, the barrel is placed on the cradle so the bung hole is on the high side, thus allowing the contents to be poured freely without slobbering when the barrel is tipped. As the barrel is emptied, it can be turned to the left to lower the height of the bung hole, thus allowing the contents to be poured easily until the entire drum is drained.

This column is published to encourage the interchange of ideas on railway signaling and communications subjects, and letters from anyone in these fields are welcomed by the editor. Letters published are signed with the author's name, unless he objects, but letters may be signed with pen names at the request of the author. In such instances, the correspondent must furnish his name and address as evidence of good faith. This information is disclosed to no one, even on inquiry, unless consented thereto by the correspondent.

Light-Out Protection At Home Signals

TO THE EDITOR:

The following is fiction but could become fact in many instances:

It was a dark, hot night in mid-summer. The engineer on westward preferred run No. 95 sat in his accustomed place on the engine's right side, maintaining a lookout ahead. Behind him 80 box cars, tanks and "reefers" rumbled and rattled. Just ahead was an approach signal displaying a beautiful, shimmering, green aspect, the kind with "whiskers" on it. On ahead, around Cartwright's curve, was the home signal at the crossing of the Alpha and Omega R.R. The engineer sighed with relief when he saw the green approach signal, which indicated that the home signal was not red. The double main tracks were sharply outlined by the headlight of an approaching Diesel on train No. 12, the high-ball passenger run. No. 12 and No. 95 would pass on the curve, that was certain. No. 95's engine had just passed the beginning of tangent track following the curve and the engineer peered through the darkness looking for the home signal. It wasn't there. A second look and still it was not there. What was he to do? The rules said, "The absence of a signal at a point where one is usually displayed indicates the most restrictive aspect of the signal." Should he apply the brakes in emergency and risk buckling the freight train on the curve? Or should he run past the home signal and pray that no switches had been opened or no train or engine had fouled the main track? Perhaps the trainmaster was making an efficiency test with the light out, and hadn't set the approach signal at approach. Running the dark signal might mean loss of his employment after 30 years of

service with the railroad company. What did he do? Brother, what would you do?

The Solution

This situation could be corrected where signals are continuously lighted by the use of a light-out relay which would set the approach signal to approach when the light in the home signal is burned out, and this practice is being followed on some railroads. Permitting the display of a green approach signal and a dark home signal is the same, as far as signal indications are concerned, as allowing the display of a green approach signal and a red home signal. Neither one gives an engineman a fair opportunity to stop at the home signal.

What is your opinion? If this could be answered in the open forum column, it might bring out some worthwhile discussion.

SIGNAL INSPECTOR

D.C. Track Circuit Measurements

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TO THE EDITOR:

Mr. Malcolm S. Smith's letter on page 308 of your May issue, following Mr. Alvin P. Boettcher's article on d.c. track circuit measurements, on page 178 of your March issue, suggests that you may be interested in the accompanying nomogram. I found it helpful to design this some two or three years ago in connection with a series of calculations made on the London & North Eastern, for the purpose of drawing up tables of adjustment which would ensure stable working of a given track circuit.

The nomogram is a little more than a combination of the two diagrams submitted by Mr. Smith, but by using an intersection line, it is possible to reduce the number of operations. A diagram not less than 16 in. by 26 in. is necessary if the advantages of using the distributed-leak method are to be retained.

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