

# What's the Answer?

Comments Received from Readers Replying to Current Questions Relating to the Installation, Maintenance and Operation of Automatic Signals, Train Control and Interlockers

An open forum for the discussion of maintenance and construction problems encountered in the signaling field. *Railway Signaling* solicits the co-operation of its readers both in submitting and answering any questions of interest.

TO BE ANSWERED NEXT MONTH

1. *What experience have you had with fire retarding paint for trunking? How is it applied?*
2. *What method do you use to prevent the white corrosive substance from forming around the lid and terminal of a primary battery?—J. B. S.*
3. *How important is an initial polarization test for caustic soda primary cells? What*

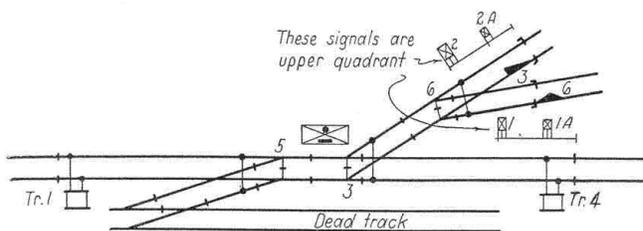
*minimum voltage limits should be specified and under what current discharge and temperature conditions should such readings be obtained? What is your opinion of the proposed specification for primary batteries?*

4. *Can you design a circuit to obtain the desired operation of the call-on arms as indicated in the sketch below?*

## Information Desired in Question No. 4

I would like to install a circuit to clear signal 1 and prevent call-on signal 1A from clearing when a train passes No. 1, such a circuit to use the same signal lever in the tower but not a middle position on the segment, using only the full normal and full reverse position. The same requisite applies to signals 2 and 2A.

The present condition allows the operator to use the



Track and signal plan of interlocked junction with call-on signals at two locations

call-on signal under all conditions and I would like to change it so that when he pulls lever 1 or 2 (which ever route is set up) the train will receive full protection from the high signal. Signal 1A must not be allowed to bob. I would also like to include signal repeaters for the call-on arms. Note that I do not want to use push buttons to clear the call-on signals, but want the same lever to clear both signals.

If a train approaches and passes either high signal and opens the track circuit, putting the high arm at stop I do not want the call-on arm to clear immediately.—P. H. W. (\$5 will be paid for the best answer.—Editor.)

## What Electrical Instruments Are Needed for Signal Maintenance?

*"What types of electrical measuring instruments do you use for signal maintenance; what scale ranges do you recommend? What special care do you take while on the road to prevent injury to instruments?"*

Two Voltmeters, a Voltammeter and a Megger Tester Comprise the Maintenance Instruments on the Illinois Central Chicago Terminal

ON the Chicago terminal of the Illinois Central, the signal maintainers are furnished with a Model-433 Weston a-c. voltmeter having two scales, 15 volts and 150 volts, equipped with leather carrying case and shoulder straps. Maintainers are thus able to take good care of their instruments.

The scales on this instrument are too high to be used in reading track circuit voltages and are not intended to be used for this purpose but are very satisfactory for checking voltages on lamps in color-