

## WHAT'S THE ANSWER?

(Continued from page 36)

pairs to relays and other signal equipment are made, all unserviceable or surplus material being sent to this shop. Material and equipment is reclaimed and made serviceable when practical to do so. Labor and material required to repair is charged out by the shop foreman.

There are other factors involved in keeping maintenance costs down. However, the three above would, so far as we are concerned, be the most important.

## Battery Developments

M. I. RAYNER, General Sales Manager, Thomas A. Edison Industries, Primary Battery Division, Bloomfield, N.J.

At the Primary Battery Division of Thomas A. Edison Industries we have constantly kept just this question in front of us throughout our 70 years as a supplier of primary batteries for railroad signaling. Many years ago we developed the M-1000 cell which provided twice as much life as the 500-a.h. cell and, in that manner, reduced maintenance costs. Not too long ago we developed a re-

newable 1000-a.h. carbon cell for use in standard 1000-a.h. jars.

More recently we have developed the type RE-1000 primary cell, a renewable carbon cell which enables the user to get 1000 a.h. from his present 500-a.h. jars. We also have developed the type Y Carbonaire battery, which is a non-renewable air-depolarized cell having a capacity of 2500 a.h. This cell is activated merely by the addition of water. Its 2500 a.h. of capacity may be adapted very well to many signal applications and should help in maintenance savings.

Not only the Edison Industries, but other manufacturers as well, are continuing to develop new types of signal batteries which require less routine maintenance combined with other advantages such as greater ampere-hour capacity. This is one of the major contributions of the signal battery industry toward the steady reduction of maintenance costs.

## Absolute Signals

*Do you use a name plate, symbol, light or other device to indicate that a signal is an ABSOLUTE (stop and stay) signal? If so, why is this preferable to marking permissive signal and leaving absolute signals unadorned? How is fail-safe protection provided in the event the device becomes inoperative or is knocked off?*

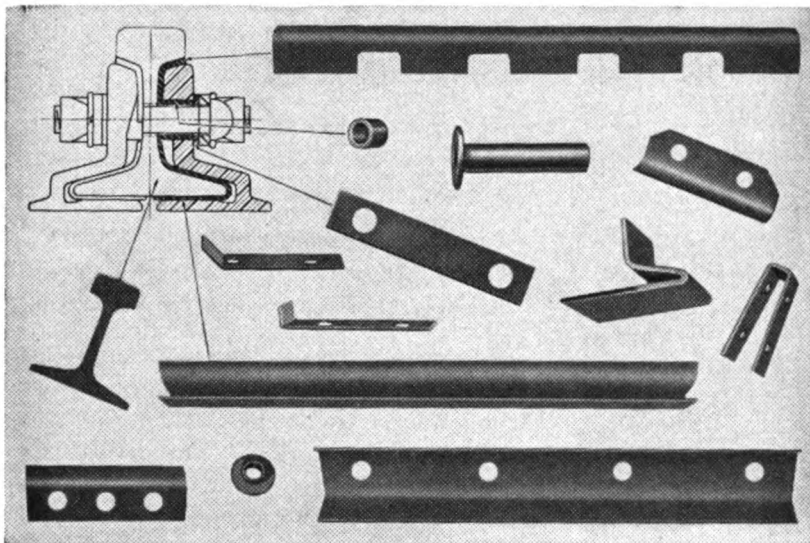
### "A" Markers

L. B. YARBROUGH, Superintendent Signals and Communications, Wabash, Decatur, Ill.

Our signal system is based fundamentally on the Stop and Proceed (permissive) signal displaying an aspect including a number plate on the mast showing the mile location of the particular signal. The absence of the number plate produces an aspect for a Stop (stop and stay) signal. The removal of the number plate by accident, or otherwise, creates a more restrictive indication because it changes the aspect from Stop and Proceed (permissive) signal to Stop (stop and stay) signal.

On Stop signals where the rules require communication between a member of the train crew and the dispatcher or operator before train can be authorized to proceed past a Stop signal under the rules, such signals are equipped with "A" markers attached to the masts. The absence of the "A" marker by accident or otherwise does not change the aspect of a Stop signal as it requires special authority to proceed past a Stop signal.

The indication of a Stop signal under our rules is "STOP. Note: Trains must not pass this signal unless authorized to proceed in accordance with rules or special instructions in time-table."

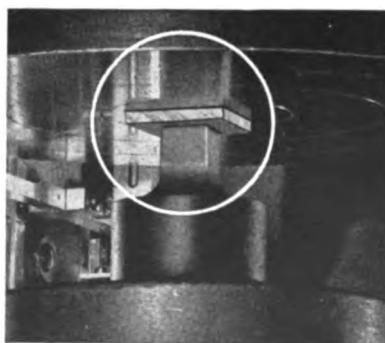


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