

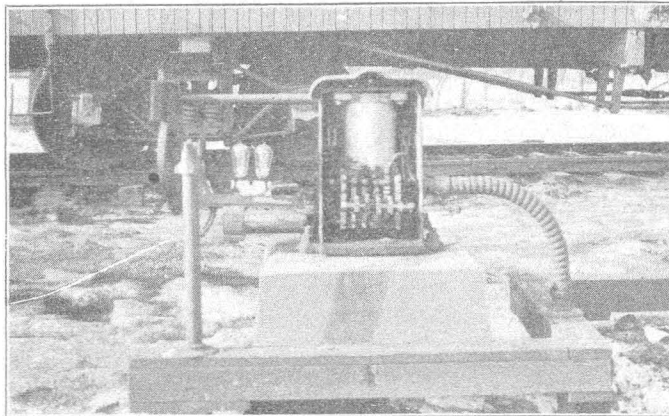
tion. The case is of such arrangement that it affords complete protection for all relays and at the same time does not necessitate crowding. The front of the relay case is provided with sliding glass doors, and the back, which is solid, is removable, so as to provide for easy access and inspection.

The terminal board, which is located in the power room, is so arranged that no wiring is exposed and proper spacing of terminals provides convenience in the testing of circuits. The terminal case is provided with glass doors on the front, which are removable. On each terminal connecting strap is designated the nomenclature of the wire or wires terminating thereon.

Signals, Switches, Lighting and Track Circuits

All signal and switch mechanisms are of the Federal Signal Company's design. High signals are type 4 top post, switch machines are type 4I, each switch and derail being operated from a separate lever. Dwarf signals are style "B" solenoid with the exception of two that operate in three positions, which are type 4, motor driven.

All signals are electrically lighted, 14-volt a.c. being used. This is obtained through transformers from the city supply. Auxiliary circuits are installed which allow



Solenoid Dwarf Showing the Two Electric Lamps

signal lights to be operated from the low voltage battery in case of emergency. Each signal is equipped with a New York Central lines' standard sheet steel lamp box containing two bulbs. The lighting of all signals is controlled by means of switches on the operating board in the operating room.

Track circuits are d.c., and the operating current is obtained from the track storage battery. All rail is 90 lb. ASCE section and all insulated rail joints are Keystone. No. 6 B. & S gage copper-weld bond wires are used for the track bonding. The resistance units between the battery and the track are all of the fixed type varying from 1 ohm to 3 ohms and are located on terminal blocks in the terminal case. The tower, insulated joints, rail anchor blocks, cast iron rail braces, main motor-generator set, lock and switch rod insulations, were furnished and installed by the C. C. C. & St. L.

The Telegraph and Telephone Division, A. R. A., will not hold a spring meeting at St. Louis, Mo., on March 30, 31 and April 1. A circular under date of January 21 was sent out by J. F. Caskey, chairman of the T. & T. Division, A. R. A., and superintendent telegraph, Lehigh Valley, saying that in order to conserve the best interests of the division the Committee of Direction has decided not to hold the spring meeting. The fall session will be held on September 22, 23, 24. Formal notice covering the place of the meeting, which is the annual meeting, will be sent out later.

WATCH THE SECOND HAND

As a "timely" safety precaution, C. E. Burchfield, superintendent of the Appalachia division on the Southern, suggests that everyone should form the habit of glancing at the second hand of his watch when looking to see what time it is in order to be sure that the timepiece is running.

"Ninety-nine times out of every hundred," says Mr. Burchfield in a letter to the men of his division, "when we pull our watches from our pocket to look for the time the only thing that we look at is the minute hand and the hour hand. An hour later, you may look at your watch and find the hands in the same place, which means that your watch has stopped. If when taking your watch from your pocket to ascertain the time you will glance at the second hand for the smallest part of a second, you will know that your watch is running."

This precaution, Mr. Burchfield points out, may mean the saving of the employee's life or the life of his friend.

SECTIONAL COMMITTEE ACTIVITIES

THE meeting of the Chicago Sectional Committee, scheduled for the afternoon and evening of February 20, as announced on page 88 of the February issue of the *Railway Signal Engineer*, was postponed to a later date because of the threatened strike of the maintenance of way employees at that time. This meeting will be held the latter part of March, or some time in April, and will consist of a program devoted to educational matters for the men and of the relation of signaling to train operation.

The St. Louis Sectional Committee

A meeting of the St. Louis Sectional Committee was held on Friday, February 20, at the railroad Y. M. C. A., 20th and Eugenia Street, St. Louis, Mo. The meeting consisted of a one-day session and was called to order at 9:30 a. m. Two papers were presented on subjects of special interest to signalmen. The paper presented at the morning session was on the storage cell during charge and discharge, illustrated with lantern slides showing a miniature transparent cell in action. This paper was presented by H. M. Beck, engineer Electric Storage Battery Company. The afternoon session was devoted to a paper, illustrated by lantern slides, on production testing and use of insulating fibre for rail joints, by H. F. Roach, president Reinforced Rail Joint Company. A report of this meeting appears upon page 115.

The April meeting will be held on Friday, April 16, and the program will consist of two papers; one by J. P. Millwood of the Okonite Company on wire installation, illustrated by lamp slides, and a paper by H. P. Gage of the Corning Glass Works, on the electric lamp and the semaphore lens.

The May meeting will be held on Friday, May 21, and will consist of a paper by J. M. Spangler, manager railroad department, National Carbon Company, on the building, testing and using of dry cells. This paper will also be illustrated by lantern slides.

The St. Paul Sectional Committee

The St. Paul Sectional Committee will hold its next meeting in St. Paul on March 20. The meeting will open at 9:00 a. m. and is to be held in Room 710, on the eleventh floor of the Railroad building, at Fifth and Jackson streets, St. Paul. Among the subjects of interest to be presented at this meeting are: Lenses and Roundels, by a representative of the Corning Glass Company; Primary Batteries, by a representative of the Thomas A. Edison, Inc., and Concrete for Signal Work, by a representative of the Massey Concrete Products Corporation.