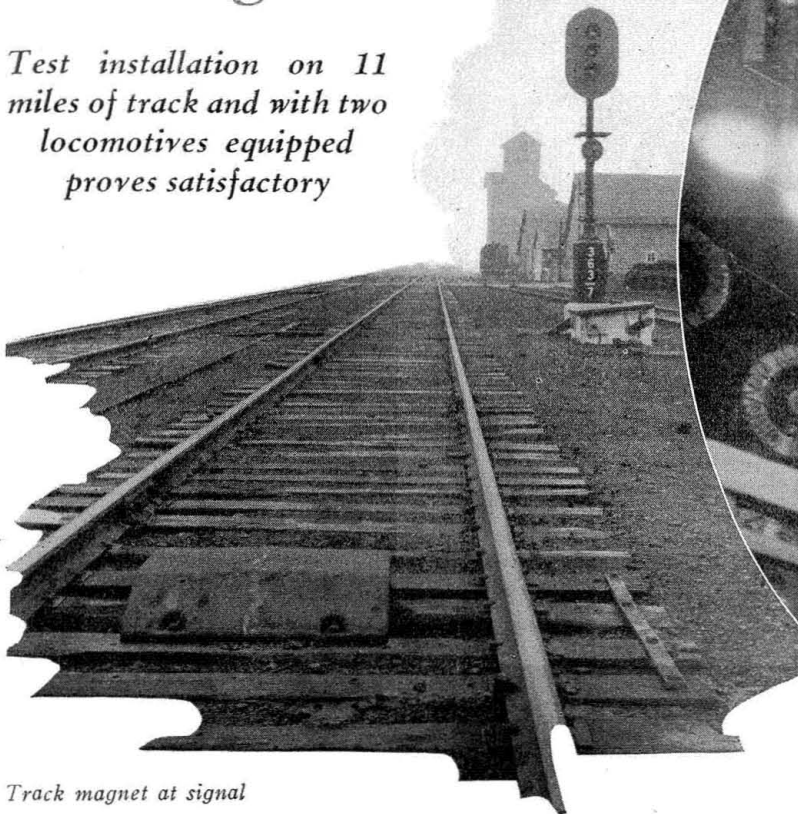
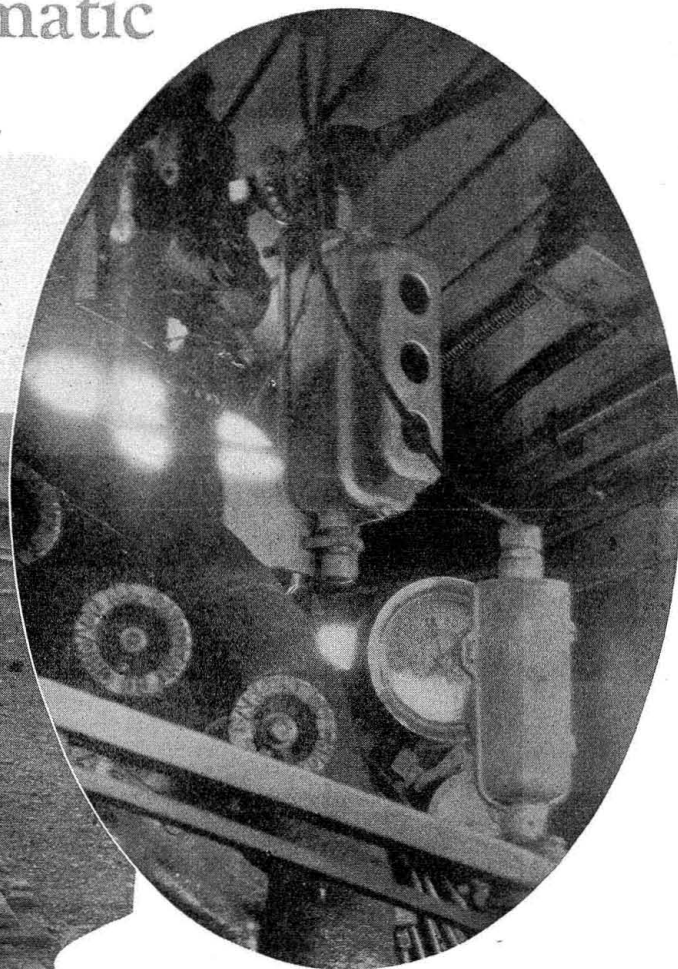


# Wabash Tests Automatic Train Control with Cab-Lights

*Test installation on 11 miles of track and with two locomotives equipped proves satisfactory*



*Track magnet at signal*



*Signal in locomotive cab*

**T**HE Wabash recently made an extensive test installation of the Strowger automatic train control system manufactured by Automatic Electric, Inc., Chicago. This apparatus is of the intermittent magnetic inductive type of control, with a special arrangement for the control of cab-light indications. The wayside control units were installed at eight signal locations on the eastbound track of a double-track line between Decatur, Ill., and Bement. Engine equipment was provided for two different locomotives, which were operated over this territory for several months. A complete set of detail tests were made on December 14 and 15.

## Description of the System

The Strowger Automatic train control system provides, in brief, the following features:

1—A complete duplication of the wayside signals in the cab of the locomotive, on passing, and also at braking distance from, each signal.

2—A positive check on the locomotive apparatus at every indicating location.

3—An automatic brake application, unless forestalled, at stop and caution signals and at braking distance therefrom.

4—An audible warning when passing every signal and at braking distance from each signal.

5—Immunity from the effects of foreign current.

6—An acknowledging device by means of which the engineman may forestall an automatic application.

7—A universal magnetic receiver on the locomotive, operating with the locomotive running either forward or backward with the current of traffic.

If desired, the system may be operated without the automatic brake control in which case the system functions as a cab-light device complete in itself. The pneumatic apparatus, added to the electrical, provides automatic control of the brakes, hence the electrical and pneumatic apparatus combined constitutes the train control and cab-light signal equipment.

The roadside equipment includes two inductors *A* and *B* which are provided at each signal location (and also at braking distance from the same). The *A* inductor, consisting of a set of permanent magnets, checks the locomotive signaling and control apparatus and puts it to "zero" position, at every roadside signal location and at every braking distance point therefrom.

The *B* inductor is an electro-magnet with two windings through which the direction of current may be reversed, and the flow controlled in accordance with the condition of the track circuits ahead. The purpose of the *B* inductor is to set up either a green or a yellow light in the locomotive cab. The current for operating the *B* inductors is derived from an independent train control battery located at each signal.

The roadside train control apparatus was superimposed on the existing standard system of signaling. Referring to Fig. 2, which illustrates a complete scheme of operation for one-way traffic on double track, it will be seen that the relay *G* is connected in parallel









