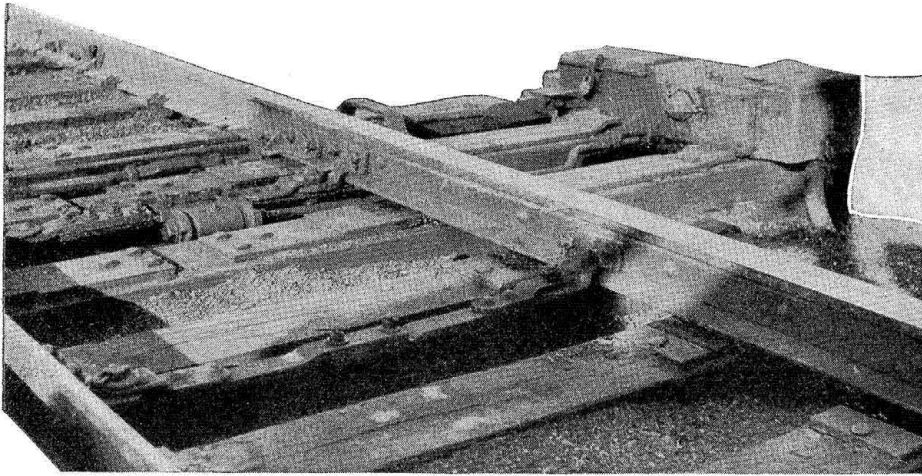
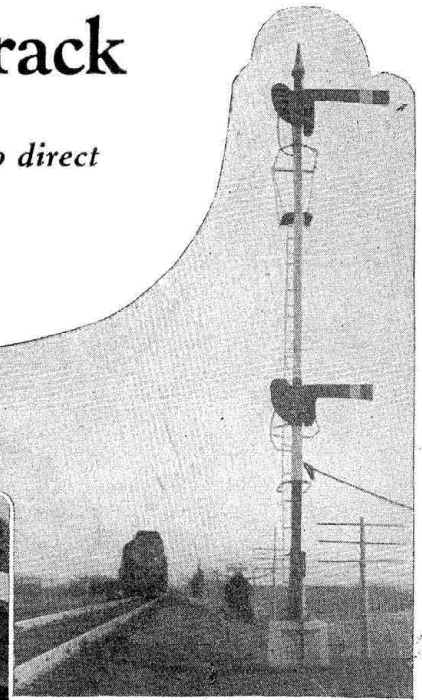


# Centralized Control Used for Ends of Double Track

*Burlington installation including two switches and signals to direct train movements without orders, saves wages of six operators*



*The switches are remotely controlled with electric switch machines*



*A northbound train leaving double track*

THE Chicago, Burlington & Quincy has installed the centralized control system for the control and operation of the switches and derails at the two ends of double track and signaling on the two miles of single track between switches located at Gibbs, Ill., and Arenzville. The control system is that of the Union Switch & Signal Company, using only two control wires throughout the territory and extending two miles farther south to Concord, Ill., where the control board is located in the telegraph office. By means of this new installation, train movements are now directed over the single track by signal indication without written orders, and this change together with the operation of the switches has permitted the elimination of one operator on each trick at each end of double track, or a total of six men.

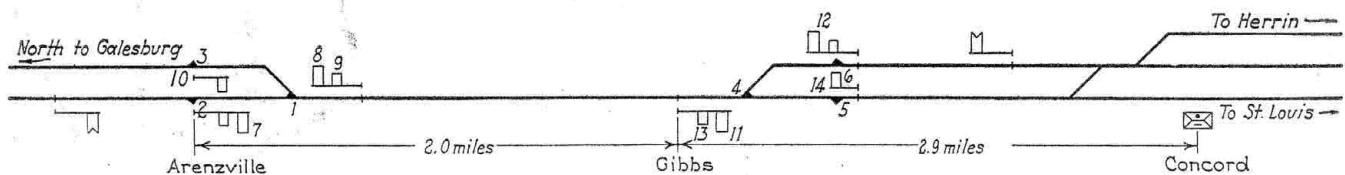
This section from Gibbs to Arenzville is a part of the Beardstown division of the Burlington, which extends from Galesburg, Ill., to East St. Louis, with a

grades would have been required to secure a good line and for another reason the grade is descending northbound, which is the direction of heavy tonnage. The Class M4 locomotive, which hauls about 100 cars of coal totaling 5,000 tons northbound down the grade, can handle the maximum operating limit of empty cars up the hill.

## Train Movements Are Directed by Signal Indication

The functions controlled include the two switches, the four derails, the four two-arm high signals and the two dwarf signals. The distant signals are automatic, being controlled from the home signal and by the intervening track circuits.

Under the former method of operation, trains were required to pick up train orders directing movements over the single track between Gibbs and Arenzville. Under the new system, the dispatcher keeps the oper-



Remote control facilities which are operated from telegraph office at Concord, Ill.

branch from Concord through Herrin, Ill., to Metropolis, Ill., and Paducah, Ky. The traffic includes three passenger trains and about four freight trains each way daily. During the winter season there are in addition about 10 extra freight trains each way daily. The major portion of the northbound freight traffic consists of coal. At the time the second track was built on this line about 20 years ago, the second track was not added to the two-mile section from Arenzville to Gibbs because a complete and expensive revision of

ator at Concord informed as to the approach of trains, and issues instructions as to which shall be given preference. Track circuits are provided so that trains on double track approaching the single track are announced automatically by an annunciator bell and by a light on the board in the operator's office at Concord. The machine has four small levers, two at the top for the control of the switches and the two below for the signals.

For example, when the operator sees the light on



