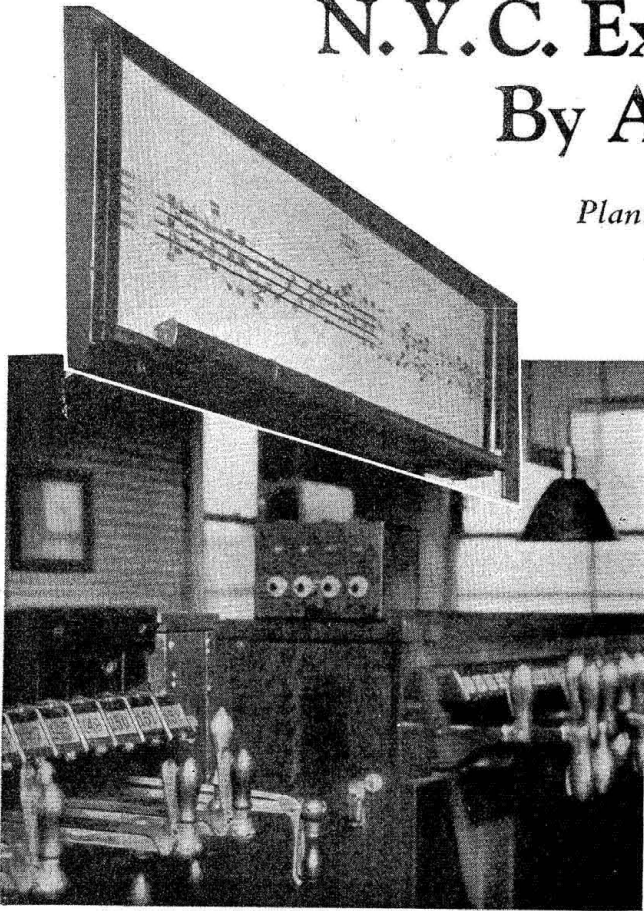


# N. Y. C. Expands Electric Plant By Adding 48-Levers

*Plant at 16th Street in Chicago is one of the earliest  
in the country—Heavy traffic on  
four-track line*



*The old machine at the left—New one at right*

A RECENT extension of the 16th street electric interlocking plant of the New York Central at Chicago, to take care of crossovers located immediately south of the old plant limits, is of unusual significance because of the fact that the original installation is one of the first G-R-S electric installations using the principle of dynamic indication in the United States. The original G-R-S 152-lever Model-2 machine was placed in service at 16th street in June, 1901. To take care of the crossovers and industry switches in the vicinity of 22nd street, an additional interlocking plant has been installed with a 48-lever machine located in the same interlocking tower. In order to avoid confusion in this article, the new plant will be referred to as the 22nd street interlocking plant.

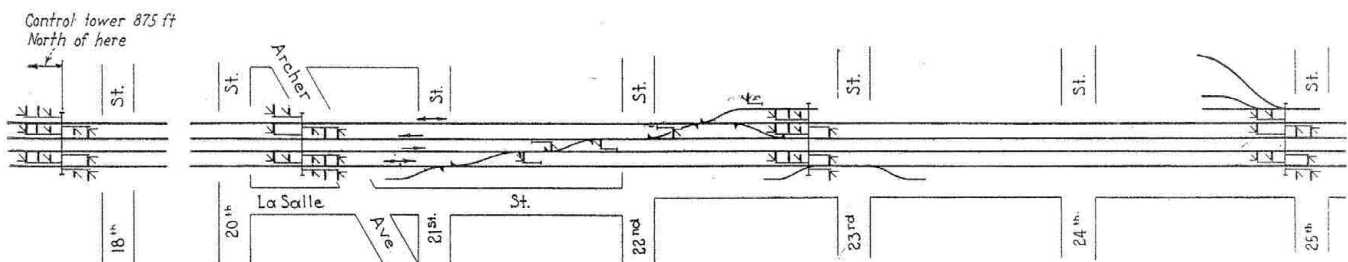
This section of railroad is a very busy four-track line, the daily average of train movements running close to 600. The individual tracks in this four-track system are numbered 2, 3, 4 and 5, beginning with the easterly track of this north and south line.

Tracks Nos. 2 and 5, that is the two outside tracks, are fully equipped with signals for either-direction operation. Track No. 3 is signaled only for north-bound movements into the LaSalle street station. Track No. 4 is signaled only for southbound movements out of the station. In addition, all of the Illinois Central passenger and freight movements on this railroad's western line, as well as all freight train movements on what is known as the St. Charles Air Line are also handled from the 16th street N. Y. C. interlocker. The I. C. and St. Charles Air Line tracks cross in an easterly-westerly direction immediately south of the interlocking tower. All switching movements on the Illinois Central tracks east of the New York Central right-of-way as far as Dearborn street, which is about 1,800 ft. east, are handled by the towerman at 16th street.

## Tower Reconstruction

In order to provide room for the addition of a 48-lever G-R-S Model-2 unit lever type of electric interlocking machine, it was necessary to pull out the south wall of the tower and build an addition. The new 48-lever machine is located a few feet south of the old 152-lever machine and there is no mechanical or electrical connection between the two machines. In effect, they are operated as two distinct interlocking plants, the control levers in the new machine being operated by the levermen in addition to those in the 152-lever machine which comprised the original 16th street installation. The control levers in the new machine are numbered consecutively from 153 to 200, thus there can be no confusion in lever numbers between the two machines.

One of the noteworthy features of the new G-R-S machine is the type of cross-protection relay used. In contrast to the old practice of carrying the control for the main power circuit breaker of the interlocking plant through the individual contacts of the polarized relays installed on the switch and derail levers, the new machine is so arranged that the cross-protection relays, as they are called, break only the individual switch or derail machine circuit. Moreover, should one of the cross-protection relays open, the fact is



Track and signaling plan of N. Y. C. 22nd street plant which handles busy terminal traffic





