

EDITORIAL COMMENT

Economy of Smaller Towers

ON numerous installations of centralized traffic control, the machine has been located in an existing office or interlocking tower alongside or at the end of an interlocking machine, thereby making it unnecessary to enlarge the existing building or provide another structure. Similar installations of centralized traffic control machines at interlocking plants on the Canadian Pacific, the Big Four, the Boston & Maine, the Rock Island and other roads reveal the fact that where such control systems are used the size of the machine is not the governing factor in determining the size of the tower building. The machine itself occupies a very small part of the floor space of the operating room, the required dimensions of which are dependent upon the area required for chairs, desks and other facilities not a part of the signal or interlocking system.

In planning the new interlocking at Trois Rivières, Que., on the Canadian Pacific, as described in the November, 1930, issue, the use of the centralized control type of machine, placed in an existing crossing-gate tower, eliminated the expense of constructing a new tower and thereby reduced the first cost of the installation to such an extent that the construction of the plant was authorized, whereas a larger expenditure would not have been considered justifiable. Thus, it may be seen that the use of a centralized-type control machine may, by reducing tower costs, be a factor worth considering when estimating for new plants or for the consolidation of existing ones.

Why Not Eliminate Train Stops at Permissive Wayside Signals

WHERE local grade conditions permit, intermediate permissive signals are usually so located that a tonnage train, if stopped at the signal, can again be started without difficulty. Where signals are located on long ascending grades on which trains cannot be started without delay and damage to equipment, numerous roads are using so-called grade signals, consisting of a disk attached to the signal mast, which gives the engineman of a tonnage train authority to eliminate the stop at such a signal if it is displaying its most restrictive indication, and to proceed through the block at slow speed, expecting to find the block occupied or a switch open. The same type of special signal is used on some roads where tracks run through towns with numerous grade crossings of streets, the desired result in this case being to keep the trains moving so as not to block the streets any longer than absolutely necessary.

If these train stops can be eliminated safely at some permissive automatic signals, why not at all such locations, especially for heavy tonnage trains? This result has in effect been accomplished on those sections of the Atchison, Topeka & Santa Fe, the Illinois Central and the Chicago & North Western, where automatic train control, with cab signals, is in service without the use of permissive wayside automatic signals. The Rock Island has gone a step further in that the wayside automatic signals have been retained, but the requirement for the train

stop has been eliminated on automatic train-control territory.

On three of the train control installations mentioned, the speed is automatically limited in an occupied block, and, likewise, where grade signals are employed, the speed is naturally limited by grade conditions. However, it is conceivable that the speed when entering and proceeding in an occupied block can be limited by rule. In fact, this is exactly the requirement in effect on almost all roads, the only difference being that the stop must first be made at the signal.

In conferences of signal and operating officers on one large road, serious consideration has been given to the matter of changing the rules to permit all trains to proceed at low speed past a permissive signal. Quite recently, the signal officer of another road was requested by his general manager to secure complete information on both sides of the argument. With the idea that progressive thought of today will welcome an open discussion of the subject, a question is being published on page 98 of this issue, and those who have given the matter study are invited to send discussions for publication in the next issue.

Fight for Your Job

IN a statement to its employees, the management of the Nashville, Chattanooga & St. Louis railway directs attention to the fact that "five years ago this road had 9,684 employees; now it has 6,807. Five years ago it operated 76 passenger trains daily; now 32. It once hauled 4,500,000 revenue passengers a year; now less than one-third of that number. The movement of package freight by railroad is but half what it was five years ago, the number of agency stations has decreased from 239 to 151; more than 40 miles of track have been torn up and abandoned; applications are pending for authority to abandon 11 miles more and every possible economy is being practiced to save other portions of the line."

J. T. Gillick, operating vice-president of the Chicago, Milwaukee, St. Paul & Pacific railway has addressed the employees of that road in a similar vein, calling attention to the decrease of more than \$27,000,000 in the gross earnings of that carrier in 1930, as compared with the preceding year and to the further striking fact that the gross earnings were \$2,400,000 less than in 1920. Mr. Gillick points out that until the causes that are contributing to this condition are corrected, the railways have no alternative other than to continue to curtail their maintenance and other expenses and to reduce the number of employees and the amount of materials purchased.

The Cause

The present railway situation—for the Nashville, Chattanooga & St. Louis and the Chicago, Milwaukee, St. Paul & Pacific are no worse off than the average railway in this respect—is largely the result of new and intensified competition from other transportation agencies, outstanding among which are the motor coach and the motor truck. These agencies are using the highways as a "place of business" without paying adequate compensation therefor, are not taxed on a basis comparable with the railways and are not required to maintain