

Indiana, and several other states have already provided for the safeguarding of traffic, and other states are contemplating similar action. Each successive investigation of the subject by a state commission naturally takes into account, as a matter of convenience and expediency, what the other commissions have done. A digest of the requirements, laws, rules, and precedents for both steam and electric roads would thus be very valuable for reference, and a study of the conflicting regulations placed side by side would undoubtedly show a number of things to be avoided in future enactments. If this work were to be undertaken by the Railway Signal Association it is quite probable that co-operative action with some of the state commissions could be brought about with the possible result that the Signal Association's standards and its suggestions and advice as to new requirements will tend to secure more uniform and satisfactory laws and requirements in general.

THE NEWEST TERMINAL INTERLOCKING.

THE smallest interlocking plant is fully as capable of satisfying the conditions which demand its installation as the largest, and, if properly installed, is quite as effective in the facility of operation secured. The problems connected with large interlocking plants such as those at terminals appear, however, to be much more complicated than at smaller plants.

At any rate the terminal interlocking plant seems to represent the highest development of signal engineering. Several terminal plants recently installed are particularly impressive in the number of levers they contain, and the conditions that have had to be met in their construction. Among these is the interlocking for the new passenger terminal of the Chicago & North Western which was put in service on June 4. Not only did the planning and installing of this interlocking and signaling demand a high degree of engineering skill on the part of the officers in charge, but the conditions surrounding the actual work required the constant exercise of tactfulness, diplomacy and executive ability.

Only those who have been aware from time to time of the tremendous strain under which Mr. Peabody and his forces and the General Railway Signal Co., the contractors for the signaling and interlocking, have carried on the work, appreciate what a gigantic task was completed when the installation was turned over to the operating department. This installation and those connected with the Grand Central Terminal and the Pennsylvania Station in New York seem to be fully capable of handling the increases in traffic during the periods for which these terminals are designed, and it is hard to conceive how any larger or more complicated plants can be required, but in view of past and present growth in the signaling field, it is probable that before many years these terminal installations will be as far from the record for size as the plants at St. Louis, Pittsburgh, Philadelphia and Boston now are.

SIGNALMEN AND ORGANIZATION.

A RECENT attempt by the maintenance of way employes of certain railways entering Chicago to compel recognition of an organization has gone the way of previous movements of a similar nature. The attempt, however, was interesting to signalmen because of the part played by some of their number. The maintenance of way employes, realizing, it seems, that their own work was lacking in the professional, trade, or promotional qualifications that would make their places difficult to fill, persuaded certain signal maintainers, whose positions appeared to possess these elements to join them. But the project, in spite of this, resulted somewhat ignominiously for the maintainers, for not only did the movement with which they had allied themselves fail of recognition but most of the maintainers lost their standing with their roads. It is plain that the signalmen did not profit by the alliance; and probably they never will profit by alliances outside of their own department.

There are certain phases of the relations between railways and their employes as they are affected by organizations that may be profitably considered. There is undeniably a difference in the treatment awarded organized and unorganized labor. The former

is recognized and well paid, while the latter heretofore often has been given less recognition and been poorer paid. Railway managers condemn many of the methods employed by the unions, but they continue to accede to many of their demands, while they continue their efforts to stamp out possible emulation of the unions by their unorganized employes. This attitude has the effect of stimulating unorganized labor to follow the example set by the brotherhoods.

A feasible solution of the labor problem lies in the recognition by the employer of individual merit in the employe. There is a good excuse for this in the differences in conditions under which various employes work, such as signalmen, stationmen, etc.; and such action would tend to discourage efforts to organize, as it would enlist, on the side of the companies the best men in the service, who are apt to be the leaders in an attempt at organization, and would thus disarm them by the most powerful appeal that could be made,—that of self-interest. They would have little to gain by an organization and much to lose. This would also tend to improve the quality of the work done by any class of men, as it would stimulate individual effort. The railways are apt to say they cannot afford to recognize individual effort in this manner. But in their attempts to stamp out unionism, they often lose their best men, which costs considerable in the long run. This, together with the losses incident to these occasional outbursts of part of a partially or poorly organized class of employes makes the continual repression of organization more costly than would be the policy that would probably render it unnecessary. Railways cannot expect to subdue efforts to organize indefinitely by forcible means, especially while they are constantly acceding to the demands of the strong organizations.

THE INFLUENCE OF LOCAL CONDITIONS.

TWO ARTICLES in this issue describe installations, in each of which the governing consideration was the satisfying of local conditions. One article explains the Santa Fe's application of a high development in signaling methods and apparatus to a situation where prevention of damage from floods was necessary, and the other shows how a clever adaptation of the controlled manual system was made to simplify operation on a busy stretch of single track. The essential point is that each situation presented its own peculiar problems. The fact that every situation is unlike every other situation has often been referred to in these columns as a fundamental consideration underlying the principles and practice of signal engineering, and it is generally accepted that the first thing to be considered in any piece of work is the extent to which local conditions will necessitate the modification of general practice.

The difficulty in making general practice applicable to all local conditions is shown by the wide difference of opinion among the members of the committees on uniform signaling on what should be adopted as standard practice. Both the majority and minority factions in these committees have based their proposed schemes of signaling on the indications adopted by the American Railway Association. The difference is that the members from the east, influenced by conditions peculiar to the east, have developed a number of indications in addition to and based upon the A. R. A. standards, which they consider necessary for eastern operating conditions and which they maintain can be adapted to any road by omitting such indications as are not required by local conditions; while the members from the west, influenced by conditions peculiar to the west, hold that no road requires more than the indications laid down by the American Railway Association. To the argument that special operating conditions demand additional indications, the minority would reply that all such special conditions are amenable to its scheme of signaling. It seems probable, however, that both eastern and western roads will continue to operate under traffic conditions similar to those existing at present, and if this is the case the scheme of signaling proposed by the members of the majority would seem to have an advantage over the other scheme since it does not require changes in operating conditions to permit its use.