

# Editorial Comment

## *Secure New Ordinances for Changes in Crossing Protection*

IN years gone by, highway crossing protection was provided by the railroads in the form of flagmen or gates, as required by local city authorities or state railroad commissions. With the increase in automobile traffic on the streets and highways during the last few years, the railroads have voluntarily approached the city authorities in many towns and cities for permission to replace these inadequate and antiquated methods of crossing protection with more modern and effective equipment. In many such cases, flagmen and manually-operated gates have been replaced by signals controlled either automatically or manually from a central point. Ordinarily there are included in such a change several additional crossings at which no protection was afforded before. An additional point in favor of the new signals is the fact that protection is afforded during the full 24 hours, instead of only during certain periods, as was customary with the flagmen or manual gates.

During the last few years a number of articles have been published in *Railway Signaling*, describing changes made in crossing protection, as for example at DeKalb, Ill. and Elgin, on the Chicago & North Western; at Cedar Rapids, Iowa, on the Rock Island; at Beaumont, Tex., on the Santa Fe; at Wabash, Ind., on the Wabash; at St. Louis, Mo., on the Manufacturers' Railway; and at Minneapolis, Minn., on the Milwaukee. These installations represent a wide diversity of equipment and local conditions. In each case the railroad took the leading part in explaining to the city or state authorities the desirability of providing more modern and effective crossing protection. After the installations were in service, the general public as users of the streets, the city authorities and the railroad officers have been convinced that the new equipment was not only satisfactory, but actually provided greater safety for the full 24 hours.

All of this evidence should be taken into consideration when reading the item "Flagmen at Memphis Crossings," published in the news pages of this issue. This item abstracts the decision of the Supreme Court of the United States requiring the Nashville, Chattanooga & St. Louis to pay damages for an accident in the city of Memphis, Tenn., where a train struck an automobile, killing the driver and injuring three other occupants of the car. This crossing was protected by an automatic flashing-light signal and while proof was presented that the occupants of the automobile knew that the railway did not maintain a human flagman at this crossing they were awarded damages, the decision being based on the validity of a city ordinance passed in 1880, requiring all railroads in Memphis to maintain a flagman waving a flag in the daytime and a red lighted lantern at night at grade crossings to give warning of approaching trains. This old ordinance had not been enforced and, according to the best information, no flagman had ever been maintained at the crossing in question, while records show that for at least eleven years no flagman had been employed. The railroad had voluntarily installed automatic flashing-light signals, not only at this crossing but at other crossings in the city, and the city authorities had not only acquiesced, but had encouraged the use of these electrical devices, and in a

conference unanimously approved this type of signal as affording better protection than a human flagman.

The railway admitted that the ordinance was valid when passed, because at that time human flagmen constituted the best known method of protection. However, it contended that in view of changed conditions, due to inventive genius, mechanical flagmen furnished the public greater protection, at less cost, than human flagmen. The contention, therefore, was that as the city authorities, which passed the ordinance, had never weighed the comparative worth of the two forms of protection, to require the continuation of a wholly obsolete form of protection lacked due process of law. The Supreme Court of the United States held that the court could not find that the form of protection (human flagman) required by the Memphis ordinance was, in the light of modern inventions, so wholly useless and obsolete as to say with absolute certainty that its enforcement lacked due process of law.

There is nothing in this decision to the effect that flagmen cannot be replaced by automatic signals, and the case need not, therefore, retard railroads and local authorities in their efforts to provide better crossing protection, but it should emphasize the fact that before installations of modern signals are started local ordinances should be revised to comply with these new conditions.

## *Simplification of Interlocking Permits Economical Installations*

THERE are many track layouts, junctions and crossings at which interlocking facilities have never been provided because of the excessive cost; and at which the major portion of the expenditure would be required for apparatus to connect and protect switches which are used infrequently. Typical of such a condition is a crossing of one road with a heavy freight and passenger traffic with another road which operates only a few light trains. As the crossing is at the bottom of ruling grades in both directions on the heavy traffic road, the stopping of trains at the crossing was the controlling factor in limiting the tonnage of trains. Regardless of this fact, the second road was unwilling to pay its share of the cost of a complete interlocking on account of the expense of including infrequently used connecting track and industry track switches.

The problem was solved by installing a signal-interlocking, including signals, but without derails or connections to switches. As operators are required at this point for the handling of trains, it was decided to let them control the signals with desk levers, in order to give preference to tonnage trains, which feature could not have been effected if an automatic interlocking arrangement had been used. Switch circuit controllers, connected to the switch points, provide the same protection as is afforded in automatic block signal territory.

At a crossing of single-track lines of two other roads, a mechanical plant, which had been in service for years, included passing track and connecting track switches, as well as main-line derails. One road handled main-line traffic, while the second had