Editorial Comment

40-Hour Week Means More Signaling

NUMEROUS proposed signaling projects which formerly could not be entirely justified on the basis of savings to be accomplished, can now be reconsidered on the basis of the increased savings to be effected on account of the 40-hour week. For example, as figured on one large railroad, the future operating expenses for a continuously open block office or outlying interlocker, including wages for operator or levermen, as well as maintenance of building, etc., may total approximately $12,000 annually. This, capitalized at 10 per cent, would warrant an expenditure of up to $120,000 for the installation of signaling facilities, such as centralized traffic control, that would eliminate the outlying office or interlocking tower. Where power interlockings are now in service at outlying points, the addition of line code equipment and circuits to control these outlying plants remotely, from some other office, will readily be justified.

At street or highway crossing with railroads, where watchmen or gatemen are now on duty one, two or three eight-hour tricks every day, the saving in wages and increased protection which can be effected, will, in numerous instances, now warrant the installation of electrically-operated gates with flashing-light signals, controlled automatically by track circuits—with, if necessary, part-time manual supervision during switching movements. Many such projects, which have been held in abeyance can now be justified on the basis of increased savings, while at the same time affording improved protection that can be effected by uniform protection in service 24 hr. every day of the week. Prospects such as these will increase the volume of new signaling construction.

Merits of Modern Communications

THOSE who design, install and maintain railroad communications facilities would have been pleased if they could have heard the reports and discussions by railroad operating officers at the annual convention of the Association of Railroad Superintendents in Chicago, June 21 to 23. In years gone by, some superintendents of telegraph have had to talk long and loud to convince operating officers of the old school of the need and possible benefit of a proposed telephone train dispatching project; a system of printing telegraph machines; or some long-distance telephone service between important offices. Now, the Superintendents Association is taking the lead and prepares committee reports concerning the benefits of modern communications facilities, such as train communication on the road and loudspeakers in yards.

An abstract of the report on communications presented at their last convention is given elsewhere in this issue, but superintendents of communications may well consult with members of the Association of Railroad Superintendents on their respective railroads to secure copies of the reports. At the same time, they should solicit suggestions from these operating officers concerning new communications facilities that could be recommended on their respective railroad.

Truly, it is a brighter day for railroad communications when the users, i.e., operating officers, brag about the facilities they have and want more. The proof of the pudding is in the eating.

A Mile-Stone In Signaling

CAR retarders, made on the job, were first developed and installed at Gibson, Ind., on the New York Central's Indiana Harbor Belt, in 1925. In this early project, as well as in the first installations of commercially-manufactured car retarders in 1926, at Markham yard on the Illinois Central, each retarder and each power switch was controlled by a separate lever. In general, the same practice has been followed in the 50 or more classification yards in the United States which have been equipped with power switches and retarders since 1926.

A basic principle of the operation of a gravity yard is that, in order for a car or cut of cars to be routed down the hump to its proper classification track, each switch in that route must be in a certain position. Based on this principle, circuits have now been devised, by means of which the route from the hump to each classification track is established merely by pushing a button marked with the number for that track. These buttons, one for each classification track, are on a small panel-type control machine which can be located at the crest of the hump where the pin puller works, so that this man or some one else at this location can push the button for each car or cut of cars.

In the new system, all the retarders in even a fairly large yard can be controlled by one man in charge of a machine in a tower at a central location. This is practicable because he concentrates his attention on the control of retarders—the switches being controlled by the push-button machine at the crest of the hump.

When a button in the push-button machine is operated, the switches line up for the corresponding route as soon as the preceding car has cleared the track circuits to release the electric locking. Thus, in general, this practice of using one push button to control switches in a lineup to a classification track, is based on the "exit end" of circuit systems used in entrance-exit or route control interlockings. In this instance, however, the entrance is always the same, and, therefore, only the exit needs be determined. This push-button control of routes at classification tracks has been adopted by the Canadian Pacific for installation in its new yard at Montreal, Que., which was to have been the first installation of this control system in America. In the meantime, the Illinois Central saw the need of revising the yard layout, locations of retarders, and modernization of control at Markham yard, which, as mentioned previously, was the first installation of manufactured retarders. In this reconstruction program, now under way, the new push-button control of switches for routes to classification tracks will be installed. Thus, a race is on to see whether the new Canadian Pacific yard or the reconstructed Illinois Central yard is completed first. Under the circumstances, perhaps the Canadian Pacific should be given credit for having first adopted the new principle of controls. In any event, regardless of who wins or is given the credit, another mile-post has been added to important developments in signaling.