

EDITORIAL COMMENT

Spending to Save

AMONG ALL the new developments in signaling systems and equipment during the last decade, it is important to note that the fundamental unit of equipment, the track relay, has been decidedly improved so far as safety and economy of operation is concerned. For example, on some of the more recent signal installations on the Frisco where modern track relays are used, the three-cell primary battery on each track circuit now has an average life of 12 months, whereas on similar track circuits employing relays built more than 15 years ago, the three-cell track battery gives a life of only 7 or 8 months. Assuming that battery renewals cost \$1.50 per cell, the annual saving averages \$2.75 per track circuit annually. If a modern relay cost \$20, the saving in battery is 13.7 per cent of the cost of the new relay, or, in other words, the saving will buy a new relay in about seven years. Another important point to consider is that, in addition to operating more economically, the modern relay operates more safely than the older types.

With these thoughts in mind, one large road has for several years been following a regular program of installing from 50 to 75 modern track relays every month, the old relays being scrapped. This would seem to be a much better policy than spending from \$4 to \$6 overhauling an old relay which, even if made as good as new, would still consume battery at the previous rate.

A New Deal on Train Control

DURING the last year the Interstate Commerce Commission has granted eight roads permission to discontinue the operation of their train control or train stop systems, while four other roads are awaiting action on similar requests. None of these roads has contended that the train control equipment did not perform the function intended, but they maintain that the expense of providing this additional protection is not warranted by the traffic now being handled.

On some of the roads, such as the Pennsylvania and the Union Pacific, the equipment for applying the brakes automatically is to be eliminated but the continuous cab signaling is to be retained. Thus some of the roads now consider the cab signaling, which was developed originally as an accessory, to be more valuable from a practical standpoint than the major feature of the train control.

Another point of view on modern signaling is brought out on the Missouri Pacific which contends that centralized traffic control, as used on certain sections of that road, affords full protection in safeguarding train operation without the addition of automatic train control. The commission in its decision, with reference to the Missouri Pacific, stated "in view of the development and installation of centralized traffic control in automatic train stop territory, and of other safeguards established by the petitioner, we find that, at the present time, conditions do not require the continued operation and maintenance of automatic train stop devices. . . ."

Thus cab signaling and centralized traffic control, both of which were developed during the last ten years, have introduced new considerations regarding the necessity and practicability of train control. This does not mean

that no more train control equipment will be installed or that all such equipment now in service is headed for the scrap heap. On the contrary, there are conditions for which train control will always be the ultimate in safety protection. It is also to be remembered that the orders of the commission permit the respective carriers to discontinue the maintenance and operation of the train control—which may or may not mean that the commission may order the equipment restored to service in the event that train accidents should occur on these territories.

Signal Publicity

AMONG the very real, although indeterminate, benefits that may be derived from any extensive signal system is the safety appeal which such a system, properly publicized, makes to prospective users of transportation. Few developments in railway engineering have done as much as automatic signaling to make safety and security cardinal advantages of rail passenger transportation. A few roads, realizing this, have "sold" their signal systems to the public, through the continued use of signal copy in their displays and advertising programs. More of this publicity work can and should be done.

The Pennsylvania affords an illustration of the appeal that automatic signals make to the public. Recently this road installed, in its Chicago ticket office, a most effective window display (*Railway Signaling*, January, 1933), which features the automatic position-light cab and wayside signal system used on that road. Attention to the display was impelled by the unique photo-electric control arrangement which enables the spectators to operate the signals to any desired position by merely passing their hands between the display window and any one of three small mirrors suspended on the outside of the window. Thousands of curious people stop to inspect and operate the display, and it is reasonable to suppose that many of these people carry away lasting impressions that will influence them in deciding whether to use trains or buses.

An example of what happens from a lack of publicity came to light recently. A passenger, riding on the observation platform of one of our fine trains, commented rather disparagingly on the fact that there were no wayside signals. Another passenger, more familiar with the road, explained that the line on which they were traveling was equipped with the most modern automatic train control and cab signal system, that such a system made wayside signals unnecessary, and that the train was under better protection than could possibly be afforded by any wayside signal system alone. A recurrence of this incident might possibly be prevented by printing, on each menu card used in the dining cars, a brief statement that the line is equipped with train control and cab signaling.

Not only will the signal engineer help his as well as other railroads by promoting or aiding in the judicious use of signal copy in passenger-traffic advertising programs, but he may thus be able to help himself later in convincing his operating officers of the justification of this or that signal project, by reason of the effect that such advertising will have even on the officers of his own road. No advertising copy can be made more arresting and interesting than that which dramatizes the various signaling systems on our railroads.