see the signal or is concentrating on starting his car.

Being convinced of the additional protection afforded, the proponents of bells contend that such equipment should be provided, and that, being of this opinion, the elimination of the bell on a proposed installation, for fear that it might fail, violates the principle of furnishing as complete protection as is possible. Good apparatus, properly installed and adequately maintained, is relied upon to provide reliable performance, thus reducing to a vanishing minimum the number of instances in which the failure of a bell would contribute to the cause of an accident. It is contended that such occasions are so rare as to be negligible in comparison with the benefits of improved protection afforded by the bells.

It is granted that the noise created by bells is objectionable in some locations but these are, as a rule, just the locations where audible warning is most needed, and the railroad, therefore, has a logical argument for using the bell. The nuisance can be alleviated by using a soft-toned bell. Where control limits are occupied for extended periods on account of trains switching or standing at stations, automatic cut outs and starters should be provided, regardless of whether bells are used, for otherwise the drivers of vehicles soon grow to disregard the signals. Confining the operation of the signal protection to the period immediately preceding the arrival of a train at a crossing has been effective in reducing objections to bells on the part of residents in the vicinity. At locations on single-track lines where crossings near stations are blocked by a train while making a station stop, some roads arrange the control so that the bell is cut out when the locomotive passes the crossing.

The conclusion is that the recommendation of the Joint Committee, to the effect that "bells should be used when required by local conditions," is sound.

A Letter to the Editor

Highways vs. Railroads

TO THE EDITOR: I.C.C. Accident Report No. 1994, dated September 18, covers a derailment of Pennsylvania passenger train at Upper Sandusky, Ohio, July 17, 1935, as a result of striking a motor truck.

The crossing was protected by A.A.R. standard flashlight crossing signals. The report of the I.C.C. is especially pertinent in that it takes special notice of the fact that truck drivers are allowed to operate without adequate time for sleep, which condition represents a very serious hazard. The following is quoted from the report:

".... from the above, it appears that Driver Williams had traveled nearly 600 miles in less than 48 hours and slept two nights on his truck, the second night's sleep apparently being of very short duration. It is doubtful whether men working under such conditions are in the mental or physical condition which is necessary in order to permit them to operate with safety in present day traffic on the highways of the country."

Either I do not read the available propaganda of the railroads, or the railroads are not, in my opinion, using information of this type in the right way to obtain regulations of motor vehicles competitive to the railroads, which would be comparable to the regulations which represent an important part of the cost of their operation.

I am frequently impressed with the almost futile efforts of the railroads to effect the closing of seemingly unnecessary grade crossings. When we observe the paths made across vacant lots, corn fields, through parks, and see the holes which have been cut in, and palings knocked off, expensive right-of-way fences, public park fences, etc., we must realize the uncontrollable urge of pedestrians to make "short cuts."

I wonder if, instead of trying to close crossings entirely, efforts have been made to close them to vehicular traffic but maintain a pedestrian crossing. The latter could be maintained and protected at a small portion of the cost for a regular road crossing. Probably the local residents would be satisfied with a sidewalk crossing in many cases where they refuse to consider closing a crossing entirely.

In all seriousness, I wonder why the railroads do not meet their bus competitors on their own grounds as relates to soliciting business. Why not locate railroad advertising posters on buildings and in empty store windows immediately adjacent to bus depots and in hotel lobbies, and use "eye catching" posters, showing the attractively low fares on railroad trains, with a few suggestions thrown in as to the added conveniences.

ICONOCLAST.

Truck Derails Passenger Train

ON JULY 17, 1935, the westbound "Liberty Limited" of the Pennsylvania was derailed after striking the trailer of a motor truck at a grade crossing at Upper Sandusky, Ohio. The engineman was killed and 27 passengers, 9 employees and the truck driver were injured. The following information was obtained from the report of an investigation by the Bureau of Safety.

The accident occurred at the Sandusky avenue (U.S. highway 23) crossing which includes the double-track main line of the Pennsylvania and a siding. From the street, the view of approaching westbound trains is obstructed by buildings. The crossing is protected by automatic flashing-light signals of the back-to-back type, located on each side of the tracks. The westward track-circuit control extends 3,430 ft. east of the crossing and the maximum authorized speed of trains in this vicinity is 75 m.p.h.

After traveling during the night the driver of the truck arrived at the crossing in Upper Sandusky shortly before 4:15 a.m., where he stopped to wait for an eastbound passenger train to pass. Believing that the crossing was clear, although the evidence indicated that the signals continued to operate, the driver of the truck immediately proceeded over the side track and the westward main line in the path of the westbound passenger train, which was approaching the crossing at 55 to 60 m.p.h.

The tractor of the semi-trailer type truck was thrown onto the eastward track west of the crossing, while the body of the trailer was south of the tracks and west of the crossing. The rear end of the trailer, including axles and wheels, was carried to the frog of a trailingpoint crossover, at which point the engine became derailed and subsequently turned over, sliding along the tracks on its right side. The engine stopped across and (Continued on page 505)

(Continued on page 595)