

1924. They can, at any rate, dismiss all thought of adverse effect on railway traffic volume due to the existence of a presidential campaign.

The statement was made that business is better now than it was expected a few weeks ago it would be thus early in the year. This statement applies notably to the railway equipment market which is playing an important part in the present promising business situation. Domestic orders thus far this year have been as follows:

	Locomotives	Freight Cars	Passenger Cars
January	125	6,020	29
February*	214	29,291	326
Total—2 months.....	339	35,311	355

*Includes orders reported in *Railway Age* of March 1.

The feature of this tabulation is the large freight car orders in February, nearly all of which were placed in the latter part of the month. The February figure does not break any records. The total of 29,291 compares, for example, with a total reported in March, 1923, of 35,514. On the other hand the figure is approximately equal to the orders reported in the combined months of January, February and April, 1923. But few orders were placed in 1923 in the months from May to November. The February, 1924, figure of 29,291 was actually $3\frac{1}{2}$ times the total of all freight car orders reported in 1923 between May 1 and November 30. Passenger car and locomotive orders also were small in the summer and fall of 1923. The car and locomotive builders went through the latter months of the year with a constantly decreasing volume of unfilled orders on their books. They ended the year with only about enough orders to promise two months' production. The situation is thus seen to have changed rapidly. The present volume of unfilled orders on the builders' books is much more satisfactory. That, combined with the present volume of purchasing, offers great promise for the equipment builders for coming months. It is not without reason, therefore, that the analysts of business conditions have given the heavy purchases of railway equipment important mention in their analyses of present business conditions.

It is with marked satisfaction that one realizes the splendid condition the railways are in at this time to handle the large volume of traffic that may be offered to them in the coming months of 1924. The *Railway Age* has on a number of occasions expressed the view that the chief reason the railways were able to handle the record-breaking traffic of 1923 as efficiently and economically as they did was their unusually good equipment condition. The railways started 1923, it will be remembered, with 48,905 of their locomotives in serviceable condition, which figure they had raised by means of the acquisition of new motive power units and as a result of abnormal activity in the railway repair shops to 54,159 on October 1. They thus handled their October peak traffic with the largest number of serviceable locomotives that they had ever had, at least since the compilation of statistics showing such data was begun. On January 1, 1924, the number of serviceable locomotives totaled 54,031, approximately 5,100 more than on January 1, 1923. During 1923 the railways reduced their bad order cars approximately 60,000. Whereas the per cent of bad order cars on January 1, 1923, was 9.5, on January 1, 1924, it was 6.9.

These figures have appeared at various times in these columns, but they deserve to be repeated again for the reason that the favorable condition in which the railways started the year is not being maintained. In December, 1923, the railways cut their shop forces rather sharply—some believe too sharply. The result has been, at any rate, that the carriers are now falling behind insofar as their equipment condition is concerned. Thus, the number of serviceable locomotives has gradually declined since it reached its high point on October 1, 1923. The figure as of that date was 54,159. On February 1, 1924, the number of serviceable locomotives was 53,586. The reduction in number is not large enough

to be serious, but the tendency is in the wrong direction nevertheless. The number of locomotives stored serviceable is declining because of the increased traffic. The stored locomotives on January 1, 1924, totaled 5,061; on January 15, 4,731, and on February 1, 4,116. The latter is certainly not a large number of locomotives to be stored in a period of comparative low business, such as February normally is.

The bad order car situation offers even less encouraging features than exist in the case of the trend in locomotive condition. What, for instance, has become of the goal of 5 per cent unserviceable freight cars which the A. R. A. 1923 transportation program set to be reached on October 1? Have the railways abandoned the high ideals which they set before themselves when they formulated their program last April? The lowest percentage that bad order cars have reached for the past three years was the figure of 6.5 per cent reported on December 15, 1923. It has since risen gradually to 6.9 per cent on January 1, to 7.0 on January 15 and to 7.1 per cent on February 1. A marked improvement, of course, from the 15 per cent reported early in 1922, but are the railways content to live on their 1923 laurels? The tendency upward is wrong and seems particularly so to anyone who gives a large share of the credit for 1923 operating excellence to improved equipment conditions.

The optimists expect big things for 1924 and conditions already have improved rather faster than even they had hoped a month or two ago. The railways should set themselves to be prepared for whatever may develop. Operating and mechanical officers have no right to rest on their oars. Railroading is a continuous job, and shippers' "grief" will not be answered by reference to the many wonderful performances that may have taken place in a previous period of efficient handling of record-breaking traffic volume such as existed during most of 1923.

Automobiles and Grade Crossings

THE ADDRESS OF A. H. Rudd of the Pennsylvania, before the New York Railroad Club, the address of C. E. Hill of the New York Central, reported in the *Railway Age* of February 23, and other recent utterances concerning highway crossing slaughters, are all alike in emphasizing the fact that it is the state that is primarily responsible for the discovery and application of a remedy for the trouble. From the standpoint of the public officer, the crossing problem is, or should be, only a part of the broader problem of general highway safety.

Why do railroad men spend so much time and thought on the crossing question? Simply because conditions are so distressing that no one, knowing the conditions, can refrain from doing whatever he can, whether it be a well-defined duty to do anything, or not. Crossing fatalities which are due in part to some error or neglect on the part of the railroad or its employees, and of which we hear so much in the court records, constitute, after all, but a small percentage of the whole record of losses, material and otherwise; the real problem of making crossings safe is far greater than any question discussed in these personal injury lawsuits.

It is important to get a correct view of the whole situation. When railroads were introduced, 90 years ago, with their moderate speeds, a whistle-blast 80 rods away, with a 36-lb. bell on the locomotive, afforded all necessary means of warning (though careless drivers got killed, even then). After a few years, increases in speeds of trains and in the volume of highway travel resulted in the employment of the flagman and the gate; and then the automatic bell. Today Mr. Rudd feels sure that the bell, which has served us for 40 years, is out of date, and that visual signals constitute the best kind of automatic warning.

But whatever means of warning may be used, it is to be

borne in mind that the railroad company is acting only as the servant of the state. From the state it had authority to build its railroad, as an instrument for serving the public; to establish crossings and to run passenger and freight trains at reasonable speeds. If a crossing must be guarded or be rebuilt, or changed in any way, or if train speeds must be limited, the state, primarily, must take action. Usually the state begins by calling upon the railroad to make some heavy expenditure; but this does not alter the principle. The people finally have to pay the cost. If they require the railroad to pay more than a fair share of a big expenditure, the main result of such unreasonableness is to shift the public burden to the future, perhaps putting it on the next generation.

As in various other elements of their relations to the public, the railroads have often done more than their share. In New York the railroads usually pay 50 per cent of the cost of changing grades at crossings. In Massachusetts for many years they paid 65 per cent. Railroads pay the whole cost of gates, flagmen and automatic warnings. In innumerable cases railroads have put on a flagman at a crossing that was not very much used simply because some dull person had been killed there, wholly by his own fault; this to satisfy public clamor. Public clamor has to be dealt with whether it is reasonable or unreasonable.

In proposing the flashing red-lights, simulating a swinging lantern (the arrangement described in the *Railway Age* of March 14, 1923, page 651) Mr. Rudd undoubtedly voices the most advanced railroad sentiment of today. Whether he will be so well supported in rejecting the bell remains to be seen. To make no use at all of the principle of an audible warning would be a bold move. The use of the locomotive whistle is almost universally required by statute; and the entire abolition of audible warnings except on the locomotive, would have an appearance of inconsistency. Even the shouting of a gate-tender or a flagman sometimes saves lives.

The public—that part of it which is thoughtful—has at last come to realize that the comprehensive remedy, the abolishing of all grade crossings, will take years of time and will call for untold millions of money. It is necessary also to realize that the next most thorough remedy, that of installing gates or flagmen or automatic warnings where they are needed, is also a question of time and money. The varied requirements of thousands of crossings cannot be dealt with in a month, or in a year. The statement was made in a recent court proceeding that the railroads of the country are buying 1,500 automatic crossing signals yearly. The railroad officer who claims that the railroads are doing their duty in this matter more intelligently and faithfully, as a whole, than are the municipal officers who have responsibilities in the premises, cannot be lightly contradicted.

And so we come back to the third phase; to the immediate problem; that of preventing people from killing themselves at crossings, *considering the crossings just as they are*. And from this viewpoint all of the essayists call for laws; for legislative regulation; that is, for police action. "Cross cautiously campaigns" are only palliatives. Campaigns conducted mainly by means of the printing press can hardly be dignified by the term "moral suasion," for it is so difficult to bring them, at the right time and with the right force, to the attention of the person who needs to be persuaded. In view of the unsatisfactory or partial or doubtful results, thus far, of all legislative attempts at curbing the automobile traffic evil on highways generally, it must be said that this single branch of that evil still belongs in the class of very knotty problems. But, knotty or otherwise, it is the problem of the lawmakers; and the relation of the railroad officer to it is that of a citizen, not of a specialist. As a specialist—that is, in his capacity as sponsor for the railroads' conduct or activities in the matter—the railroad officer, generally speaking, can give a good account of himself. Where is the legislative Moses who is going to lead us out of this wilderness?

Books and Special Articles of Interest to Railroaders

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Books and Pamphlets

Agriculture and National Transportation, by James C. Davis. Address before Monday Club of the Norfolk-Portsmouth Chamber of Commerce. 12 p. Published by Western Railways' Committee on Public Relations, Chicago.

Annual Bulletin 1923. "Statistical digest of related economic and transportation factors applied to the movement of the country's production during the year 1923, and prior years. . . ." 40 p. Compiled and issued by the Car Service Division, American Railway Association, Washington, D. C.

Short and Long Distance Hauls, Interstate Commerce Law. Report by the Interstate Commerce Commission on administration of Section 4 of the Interstate Commerce Act. 68th Cong., 1st sess., Senate Document No. 50, 42 p. Published by the Government Printing Office, Washington, D. C.

Periodical Articles

The Commercial Possibilities of the Airplane, by Archibald Black and Donald R. Black. Discusses capital and equipment required, and exactly how and why air service will compete with fast passenger and freight train service (p. 135-137), *Mechanical Engineering*, March, 1924, p. 133-137.

German Railways Since the Armistice. Statistics and text comparing 1922 with 1913. *Commerce Reports*, March 3, 1924, p. 596.

Getting It Settled Out of Court, by Herbert Corey. How the Railroad Administration and the railroad companies settled a billion dollars in claims without lawsuits. *Nation's Business*, March, 1924, p. 26-28.

Helping to Solve the Nation's Transportation Problem, by Matthew W. Potts. Describes numerous ways in which motor vehicles can supplement rail transportation. *Industry Illustrated*, March, 1924, front cover, and p. 18-22, 42-48.

How Will the Recapture Clause Decision Affect Railway Securities? by Joseph M. Goldsmith. *Magazine of Wall Street*, February 16, 1924, p. 678-679, 727.

The Ore Ship of the Great Lakes; the Link Between the Iron Mines and the Smelter. "The Story of Steel—III." While the Duluth, Missabe & Northern, miscalled in this article, "Duluth, Missabe & Southern," is not featured in the title, its Proctor yards are described and illustrated, and its handling of ore traffic mentioned in some detail. *Scientific American*, March, 1924, p. 162-163, 316.

Origin—Destination Survey of a Large Port—What Goes on Within the Port-Terminal and the Important Function of the Terminal Railroad System, by J. Rowland Bibbins. ". . . the history, present status, organization and in-transport operations of the great railroad system serving New Orleans, forming the rail-heads of five large railroad systems. . . ." p. 35. *World Ports*, February, 1924, p. 33-53. Discussion, p. 53-72.

Replica of First Locomotive. *Stevenson's "Rocket" Rebuilt for Movies*. *Run by Auto Motor*. ". . . The technical director who built the locomotive estimated that the cost of the 'Rocket's' construction and the building of special lengths of narrow gage track upon which it ran, at about \$20,000." *Science and Invention*, March, 1924, p. 1097.

The West as I Saw Her, by Shaw Desmond. A visiting Irishman comments on western Americans and railroads, chiefly railroads. *Scribner's*, March, 1924, p. 253-262.