

How can the report become really effective? is the next question. As we see it, the advice of the President should be followed; namely, get the facts to those interested, and these facts are most fairly set forth in the report itself. As we have said above, the report becomes a valuable aid. But railway men cannot, on that account, sit back and expect the situation to clear up automatically. The report emphasizes the duties of the railways themselves, but at the same time gives them most effective assistance.

Finally, we believe that the statement that "The electric railway problem admits of a satisfactory solution once the elements that compose it are made known and the principles of ordinary economic and business common sense are applied"—a statement already eagerly grasped by the daily press—can well be used by railway men and others interested to urge upon their fellows that men of good business judgment be elected to political office. For, as the report so ably points out, much devolves on the organized public, and we need sensible men in office to perform the work of the public.

Economic Conditions Increasingly Favor Electrification of Steam Railroads

IT IS now some time since any important announcement regarding steam railroad electrification has been made. This has been due to the condition of the industry, not to lack of interest on the part of railroad managers and engineers. A sound 25 per cent investment possesses no attraction for the moneyless individual and an offer of a means of increasing track capacity at small cost or of reducing fuel consumption falls upon deaf railroad ears when the treasury is empty. But now that the railroads are to have a square deal as to rates conditions will be changed and they can be reasonably expected to enter upon a constructive electrification program in due course.

Our view of this matter was indicated in an editorial in the Aug. 7 issue, written soon after the decision of the Interstate Commerce Commission to increase freight and passenger rates had been announced. The point made was that with the higher rates railway income and especially railway credit should so improve as to make judicious electrification possible. The reasons for ultimate electrification are so many and potent, however, that the forward-looking railway men and the makers of equipment who see large markets for their products in this field can afford to be patient.

Of course, the steam railroad properties are very much run down and are short of needed steam equipment, hence much of the available money at first will have to go to supply the deficiency. At the same time, the possibility of electrical operation, either by locomotive or multiple-unit cars, brings a new element into heavy traction, permitting some things to be done that could not be done at all before and making economies possible along other lines. Hence the sooner the job of electrifying the steam roads is tackled the better.

As we see it, the electrification proposition divides itself into three phases: namely, a first, in which electric power is applied in places where there is no possible competition with steam; a second, in which the electric locomotive or multiple-unit train is admittedly superior, and a third, in which there is competition, which will become keener as time goes on. As examples respectively of these phases it is only necessary to cite

the Grand Central Terminal in New York City, the Pennsylvania Railroad Broad Street Terminal in Philadelphia, the Norfolk & Western or the Butte, Anaconda & Pacific, and the Chicago, Milwaukee & St. Paul electrifications. These and other examples which will automatically occur to the mind are harbingers of the electric age to come.

Credit and Transportation Are Partners

IT IS about time for harvests and crop movements. Crop movements necessitate adequate transportation facilities and a large volume of credit is needed to finance crop marketing.

Since last November the Federal Reserve Banks have limited loans and tried to reduce the outstanding credit volume, but with little effect. For the past year the railroads have been devoting their attention to the imperative transportation demands, also with little effect, because of lack of credit and equipment.

The outstanding credit in July exceeded that at the close of 1919 instead of being lowered, and the financial men say this was largely due to inadequate transportation facilities, which obstructed free movements of commodities.

To an unusual degree crops will have to be held by the producers this year, this because of lack of cars and because of an 8 or 9 per cent money rate on time loans.

It seems to us self-evident that the transportation system and the banking system are mutually dependent. Give the railroads and railways credit and transportation facilities will soon be made adequate and the credit volume of industry reduced.

The intelligent method to reduce credit volume is to insure rapid commodity movement; the foolish method is to reduce production and the volume of business. Which is this country trying to apply?

Progress in Rail Joint Construction

THE subject of rail joints never seems to lack interest on the part of maintenance engineers. This is largely due, no doubt, to the fact that in many instances the joints are so obviously present that they cannot be overlooked. However, a study of conditions on any road will generally indicate that those joints which are still "among those present" are not in the class of modern joints. The term "modern" has to be defined here and we shall define it as covering the period of the last ten years.

Modern rail joints are the product of a long and costly process of evolution and we cannot say that they have reached perfection. Nevertheless, the study and experiment which have been devoted to them in the past decade have led to marked progress in that direction. Among other features, the progress which has been made in the several forms of welded joints for steel work is particularly striking, and it may safely be said that the welded joint has come to stay. Just what particular type of weld will ultimately reign supreme as the acme of perfection cannot be predicted, principally because of the element of time required to prove the ultimate worth of any joint.

The general acceptance of the welded joint as the proper type to be used for street work marks a very