

other producers of the same commodities who meet with them in common markets, the apparent difficulty disappears. Considered in this manner, such competition is clearly within the terms of the definition of President Hadley, and if there is any to which it does not conform it is one which is not abreast of the modern development of industrial relations.

Competition of Producers and Consumers.

A summary statement of this method of explaining the decline of railway charges may be given in the language in which the writer thought best to present it to the rather mixed audience which gathered at the Conference on Trusts, held under the auspices of the Civic Federation of Chicago, during September, 1899.

"A little thought will suggest a cause that may have produced the decline, in spite of, though somewhat hindered by, the wastes just discussed.

For lack of a better phrase this cause may be designated as the competition among producers for the privilege of selling in the dearest markets and that of consumers for the privilege of purchasing in the cheapest markets. This needs to be qualified by the suggestion that railways must be considered as producers for the reason that the productive process cannot be regarded as complete, in connection with a particular article, until that article is available for consumption. In more technical words, that are, however, perfectly clear in their meaning, production consists of the creation of utilities of place as well as of utilities of form.

Railways, therefore, are partners in the production of the commodities that they carry. Partners with whom? The answer is, with every separate productive establishment, farm or factory, workshop or mine, that exists along their lines and furnishes traffic for their trains. Each railway forms, in effect, a separate combination [the word combination is here used in a clearly innocuous sense] with each separate productive establishment and, as either place or form utilities might be useless without the other, these combinations are essential to the completion of the productive process. Obviously, any railway may participate in many such combinations which produce the same article. These combinations may compete among themselves, and as most producers of form utilities have a definite cost of production per unit of product while most of the costs of producing transportation cannot be assigned to particular services, it is not difficult to force railways to assume the greater shares in the sacrifices which such competition involves."

The concept of a separate combination between each productive establishment and the carrier serving it, suggested in the foregoing extract, requires further

elaboration. Nearly every railway carrier has along its lines and at its terminals large numbers of industrial establishments which together usually cover a wide range of productive activities. These establishments, or most of them, have among themselves no contractual or other fixed relations except those resulting from the legal or commercial institutions of the country in which they are located, and few of them have any fixed relations, beyond those so indicated, with the railway itself. The products of these establishments may be classified with regard to whether they are supplied to meet a local demand on the one hand or to meet the wants of consumers in other regions upon the other. In the former case the relation of the railway to the producers is rather indefinite and is not likely to be expressed by any special action. The wants of such producers in regard to personal transportation and as consumers of goods produced elsewhere are grouped with those of other residents of the locality or treated with regard only to the conditions of the production which in turn supplies them.

The relations of the carrier with those who produce to supply regions that can be reached only by the utilization of transportation agencies are obviously very different. Such producers furnish the carrier with its freight traffic and upon them it is dependent for its revenue. In this situation the local producer and the carrier are each capable of supplying commodities which, having by themselves no value, or none that need be regarded in this connection, have together a considerable value. The local producer has his utility of form, his wheat, cotton, pork, pig iron, steel rails, woolens, or other goods; the carrier, producer of utilities of place, can render these available to consumers by transporting them to the regions where the latter are located. Without the added utility of place the commodities of the local producer might be mere negative utilities or, in rare instances, they might have some value for local consumption. The latter possibility in no way modifies the argument, however, for there is no objection to considering the advantage which the producer of exported commodities must abstain from realizing through their local sale, as a part of the cost production of articles which are reserved for export. Of course this advantage has to be overcome before the commodities enter the class with those which furnish railways with traffic. The railway and the local producer, therefore possess commodities which are complementary to each other. The union of these commodities is necessary before either can realize his cost of production, to say nothing of such profits as may reasonably be anticipated. That such a union will take place in most cases is not doubtful. It is the

economic necessity of at least one of the possible parties and to the economic advantage of the other.

Classification of Products.

If it is possible to obtain from an examination of the circumstances which attend the agreements under which the respective producers of these complementary utilities effect their union, any definite information concerning the terms upon which they must meet, it will materially advance the knowledge of the conditions which determine railway rates. For this purpose it is desirable to classify the producers of utilities of form according to the terms on which their products enter the markets that they supply. If these products are so limited in quantity and so peculiar to the region from which they are shipped as to enjoy monopoly privileges in the market or markets to which they are consigned, the carrier will share whatever profits may accrue from that monopoly with the local producers upon terms which will be fixed by contract. Each party to such a contract will naturally attempt to secure the greatest share possible and the result will depend largely upon the wisdom, ingenuity and persistence with which each presses his respective aim. The traffic in products so monopolized is, however, under modern conditions, very limited and opportunities to secure very high rates even on such traffic are closely restricted by the necessity of adjusting even monopoly prices to the effective demand of consumers. Though it is apparently necessary to leave this branch of the subject with a generalization that is unsatisfactorily indefinite in terms, a recurrence to observation will show that, however successful railways may have been in their efforts to secure high rates upon this portion of their business, the total contribution to revenue obtained therefrom has not sufficed to prevent a very material reduction in the rate of return to railway capital. This is equivalent to saying that even though it should appear that railways are able to and do take very large shares of the value of the monopolized commodities carried over their lines, this will serve merely to demonstrate that they secure smaller shares than would be otherwise indicated of the value of the commodities that are marketed under competitive conditions.

The vastly greater bulk of railway freight traffic is composed of articles which are produced in many regions and by large numbers of independent establishments. With regard to such products consumers have usually little if any preference for those of one region over those of another and whatever preference does exist is expressed by a moderate differential. The latter being overcome, the product of the less favored region is unhesitatingly substituted. The concept of a separate combination