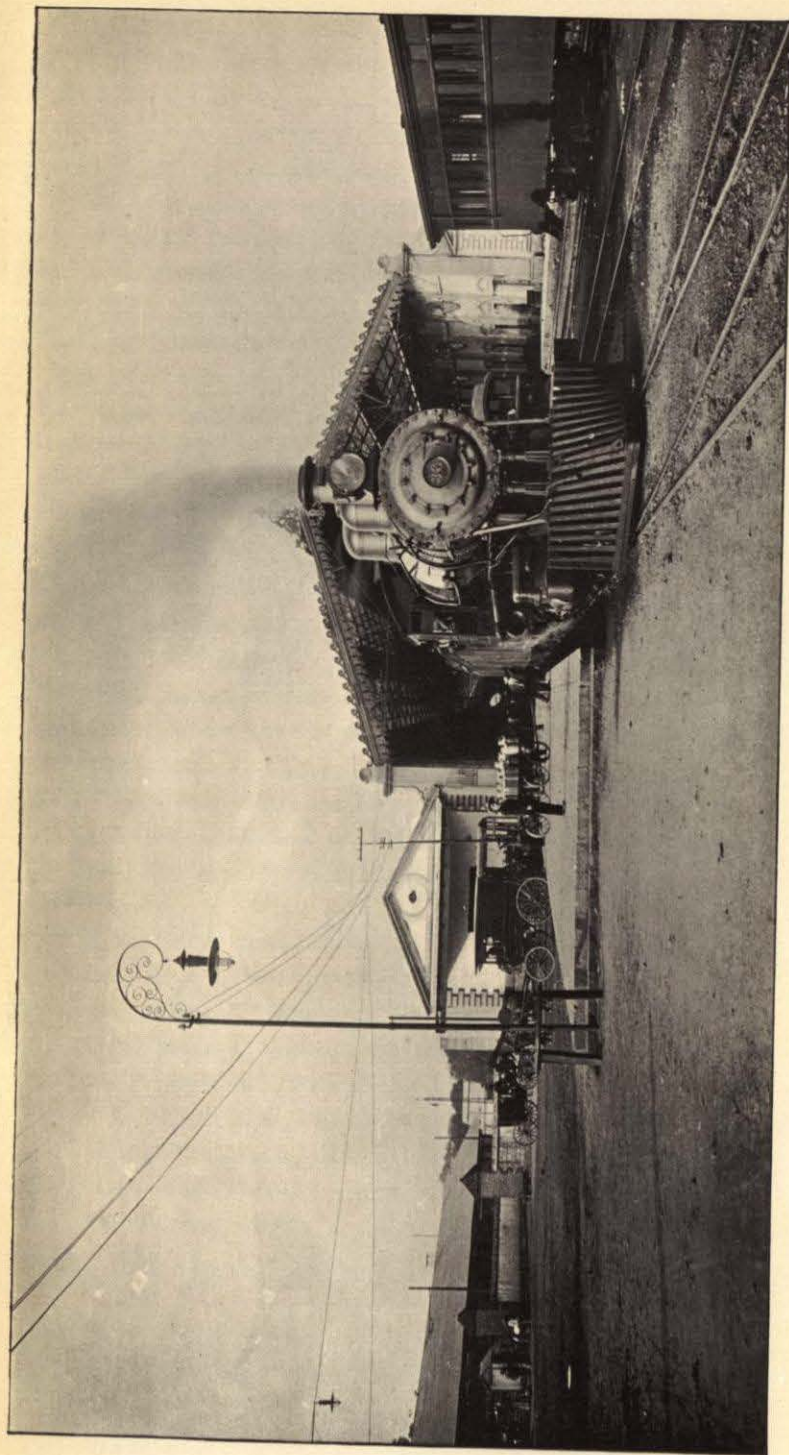


CHAPTER XXIX

Central Railway—Original construction—Government subsidy—Mileage—Length of main line, divisions, extensions, etc.—Districts and cities served—Agricultural centres—Universal traffics—Increasing ore freights—Merchandise and miscellaneous receipts—Tampico improvements—Short-line construction—Tuxpan-Colima extension—Port of Manzanillo—Rolling stock—Government control of central system—Distribution of capital—Officials—Vice-President Hudson—The company's future.

If, as Gibbons tells us, the roads of a country are an accurate indication of its progress, how much more so should its railways act as a guide to its onward march? Mexico's advance as a commercial and financial factor among American nations practically dates from the commencement of her railway construction, as far back as 1857, when the Mexican railway was inaugurated. Although it would be untrue to say that the rate of progress has since then proved uninterrupted, it has avowedly a right to date from that period; since previously Mexico's history had best remain unrecorded.

With the commencement of the Central Railroad, a new era dawned for the Republic, and with its later and more successful career has been bound up this splendid system of internal communication, which had outgrown its financial resources, and of late months has been protected from the consequences of its own splendid enterprise by a watchful and shrewd Government. The organisation of the "Mexican Central Railroad Company, Limited," took place in the year 1880, receiving its charter from the State of Massachusetts, in the United States, on February 25th of that year. It may be regarded as the concrete result of a full decade's attempts to connect Mexico City with the Northern Republic, and while many concessions had been granted and Government subsidies



THE MEXICAN RAILWAY; BUENAVISTA STATION, MEXICO CITY, SHOWING TRAIN SHED.—see pp. 278-280.

offered, the attempts to raise sufficient capital abroad to make a commencement, had always failed. When the Government found at length that it had substantial men to deal with, it was not slow to encourage them by liberal grants and handsome subsidies. No less than \$15,200 (£3,040) per mile was offered as a subsidy, and the right was granted to import all materials for construction, repair and operation free for the term of 15 years; exemption from taxation until after the expiration of 50 years from the completion of the line, and other privileges of more or less importance. These concessions have been made by the Mexican Government to other lines; but it may be doubted whether henceforth cash subsidies will be granted to railway concessionnaires, who must be prepared to finance their undertakings without such material aid from the Government. With the early construction of the Central Railway's main line, commencing from the Mexican side of the border (Ciudad Juarez), are connected the names of several prominent men as engineers, surveyors, contractors and administrators. M. Rudolf Fink, the first General Manager, 1880, proved a competent official, and in the year 1884, after the main line was completed, the gross earnings came to \$3,742,221. Compare these with the gross earnings for the eighteen months ending June 30th, 1904, which amounted to \$38,548,507, or with the freight traffics alone of the twelve months 1905-1906, amounting to \$20,816,478.

Although the main line of the Central Railway, namely that running from the City of Mexico to Ciudad Juarez, has but a length of 1,224 kilometres, the large number of branches and amalgamated railways brings up the total mileage to 3426.80 kilometres. Among these the more important are the St. Louis division, Chicalote to Tampico, 406 kilometres; the Monterey division, Tampico to Treveño, 388 kilometres; the Guadalajara branch, Irapuato to Ameca, 217 kilometres; the Coahuila and Pacific division, 202 kilometres; the Cuernavaca division, 181 kilometres; the Zapotlán extension, Guadalajara to Tuxpan, 119 kilometres; and the Parrál branch, Jimanez to Rosario, 95.79 kilometres.

I give on next page the full list of divisions, branches and extensions of the Central Railway to date:—

	Mileage.
Main Line, City of Mexico to Ciudad Juarez ...	1,224.16
Belt Line, Mexico City	5.95
Santiago Branch, City of Mexico to Santiago ...	1.40
Pachuca Branch, Tula to Pachuca	43.81
Guanajuato Branch, Silão to Marfil	11.56
Guadalajara Branch, Irapuato to Ameca ...	217.06
Zamora Extension, Yurecuaro to Los Reyes ...	85.90
San Marcos Branch, La Vega to San Marcos ...	29.37
Zapotlán Extension, Guadalajara to Tuxpan ...	119.68
San Luis Division, Chicalote to Tampico ...	406.93
Smelter Branch, San Luis Potosi	5.19
Rio Verde Branch, San Bartolo to Rio Verde ...	26.32
Bar Extension, Tampico to La Barra	6.21
Mexican Union Railway, Rincon de Romos to Cobre *	10.88
Laguna Branch, Gomez Palacio to San Pedro ...	39.78
Parrál Branch, Jimenez to Rosario	95.79
Santa Barbara Branch, Adrian to Santa Barbara ...	5.47
Dynamite Branch, kilom. 163 to Dynamite Works ...	6.21
Sulphur Branch, kilom. 1,221 to Sulphur Mines ...	3.26
Panuco Division, Lecheria to Apulco, and Topenacasco to Canales	109.40
Monterey Division, Tampico to Trevino	388.36
Cuernavaca Division, Mexico to Rio Balsas ...	181.25
Coahuila and Pacific Division	202
Mileage of side tracks	356.44
Total	3,426.80

The Central Railway lays claim to the fact that there are but four cities in the whole Republic, possessing anything over 5,000 inhabitants, which are not served by one or other of its systems, main-line branches, divisions or extensions. The largest and most important places outside of Mexico City itself which this railway serves are Guadalajara, with 125,000 inhabitants; Leon, with 70,000; Aguascalientes and Zacatecas each with 40,000; Guanajuato and Querétaro each with 45,000, and numerous other towns with populations ranging from 35,000 down to 1,000. The population in practically all the cities served is increasing slowly but surely, while building construction is proceeding in all directions, and local manufacturers are, with but a few exceptions, exceedingly prosperous. The Central Railway has served to open-up many districts which, before its advent, lay practically dormant, altering little year by year either in their popula-

* This line is leased.

tions, their commercial importance or their productiveness. More especially has its services been valuable to the cause of agriculture, and a glance at the freight returns of the railway show that the whole of its main line, and most of its branches, carried two-thirds of the agricultural produce of the entire country.

The railway serves the most fertile and productive portion of Mexico, opening-up an ever-increasing outlet for the farmers' and planters' produce. Such centres as San Juan del Rio, Penjamo, Silão, the fine territory known as El Bajío and Lagos, all materially benefit. The cattle-industry owes practically the whole of its present success to the carrying capacity of the Central Railway, a large number of fine *haciendas* being located upon the line, and averaging in extent from 1,000 to 5,000 acres each. Here, as elsewhere, some of the finest cattle in the Republic are reared. Some portions of the Central line pass through rich semi-tropical country, and carry coffee, bananas, sugar and numerous other kinds of produce. By far the most important freights, however, are those comprising the mineral traffic, and, again, these are rapidly augmenting as more mines are opened-up, and fresh smelters and mills are erected. During the past year the mineral ores carried averaged 26.54 per cent. of the traffics. So encouraging has been the mineral traffic, indeed, that the company runs a large number of special ore-trains, and is now constructing four additional mineral branches. An enormously valuable silver-belt of country, extending from north-west to south-east, and from which, in times gone by, nearly one-third of the entire silver production of the world has emanated, lies in the direct track of the Central Railway.

The relative importance of the various railways in Mexico as freight carriers may be seen from the following comparative figures of the goods traffic returns for the last full year (1905-1906):—

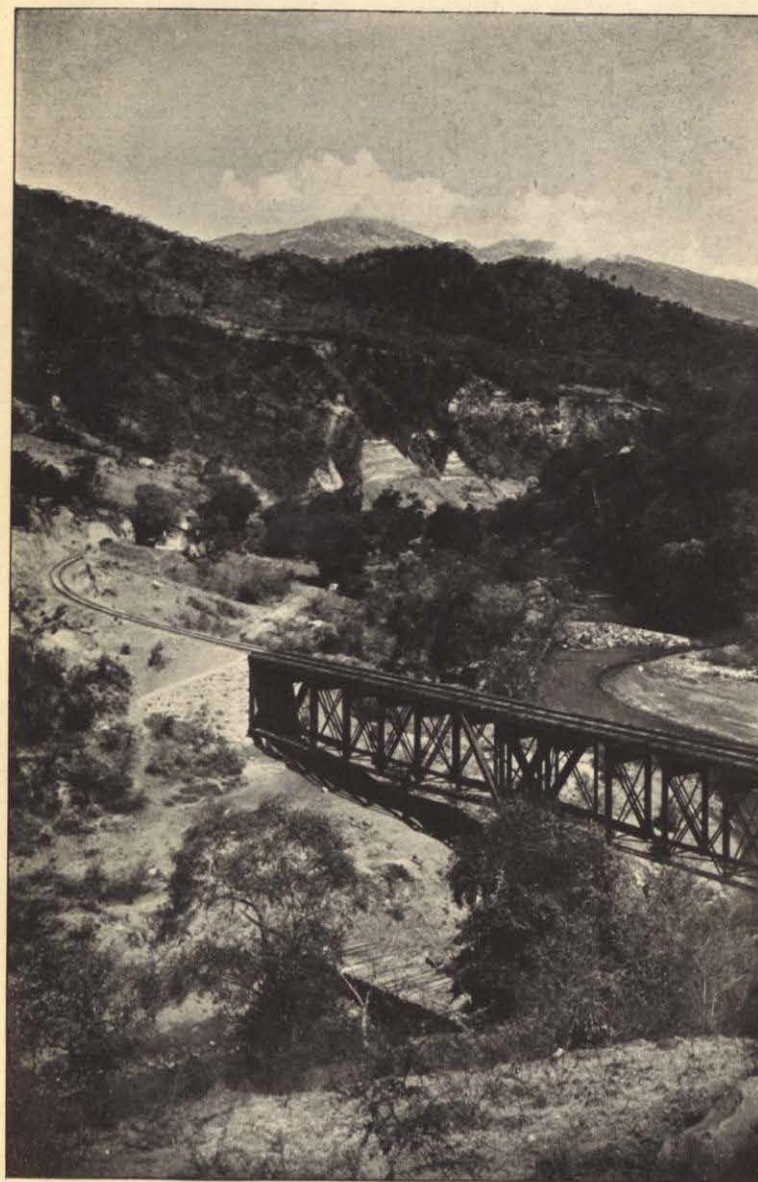
Mexican Central	\$20,816,478.63
Mexican National	8,893,759.67
Mexican International	5,704,140.54
Interoceanic	4,411,808.77
Mexican	4,293,815.79
Tehuantepec	833,063.87
Hidalgo and N. Eastern	709,743.68

In regard to the number of passengers carried for the same period the following figures show the Mexican Central still far ahead :

Mexican Central	\$3,371,281
Mexican National	1,559,908
Interoceanic	1,419,141
Mexican	1,033,073
Hidalgo and N. Eastern... ..	342,080
Mexican International	264,559
Tehuantepec	249,075

Merchandise and miscellaneous receipts figure prominently in the company's returns, accounting for some 9·34 per cent. of the freight receipts. The Central Railway lines pass through some of the most thriving manufacturing districts and towns, such as Jimenez, where cotton is both grown and spun; Lerdo, the centre of an important cotton-producing district, and where more of the material is gathered annually than in any other district of the Republic; Torreon, where there are several cotton-mills and rubber (guayule) factories; Aguascalientes, where there are woollen-mills and one of the largest silver and copper smelting plants in the world, and in which town also the company's own shops are located, employing 2,000 workmen; and St. Luis Potosi, with its population of nearly 61,000 and direct connection with the Port of Tampico, the principal port for Northern Mexico.

It is due almost entirely to the splendid enterprise of the Mexican Central Railway that this port has advanced so much in importance during the last few years, the company having expended many hundreds of thousands of *pésos* in constructing jetties and wharves, perfecting the port works, and extending the capacity and length of its existing lines. Nearly 600 vessels enter Tampico annually, a total, however, which is destined to be considerably increased during the present and subsequent years. When the new and costly short line of railway, which the company is building to the capital, is finished, Tampico will vie with the Port of Veracruz both in geographical importance and value of imports passing through it. The construction of this line, which will lessen the distance between Mexico and Tampico by no less than 1,000 kilometres, is, however, only one of the stupendous



THE CENTRAL RAILWAY.—Extension to Colima, First bridge below Tuxpan.

engineering undertakings which the Central Railway has on hand. The question of eventually extending the Tampico short line north from Tampico has been mooted, following the coast to Matamoras and connecting with the St. Louis, Brownsville and Mexico line now being built. The extension would be of immense value in the trade between Mexico City, New Orleans and the Southern States of America.

Tampico will be within 12 hours of Mexico City, the new line being but slightly longer than that of the Mexican Railway between Mexico City and Veracruz, and with a lessened grade and curvature. That Tampico with its charming sea-coast suburb—La Barra—will become a fashionable bathing resort with residents of the capital, there can be no doubt whatever. It is the best to be found in Mexico.

Another enterprise, of which it is difficult to speak too highly either as to its ultimate value to the Republic or the skilful manner in which it is being carried out, is the Tuxpan-Colima Extension. As already stated, the western terminus of the Central Railway, up till now, has been the town of Tuxpan, a few hundred kilometres beyond Guadalajara; but by the end of the present year, or at any rate by the commencement of next, this line will have been extended to the City of Colima, whence a railway, already existing, will carry freight and passengers direct to the Port of Manzanillo, where, again, the Central Railway has expended large sums of money in improving the embarking and disembarking arrangements.

The Mexican Government itself has expended considerably over £3,000,000 upon constructing the Port of Manzanillo, full details of which will be found in Chapter XXXV. [Plan at end of this volume.] Only those who may have visited the west-coast of Mexico, and who have been thus enabled to witness for themselves the stupendous physical difficulties which the country offers, can appreciate the vastness of the undertaking which the Central Railway has almost carried out. It is hardly surprising that in performing so gigantic a task, the company's financial resources should be taxed to the utmost. But it is all reproductive expenditure, and a few years hence the enterprise is destined to meet with a return sufficiently encouraging to have thoroughly

warranted the outlay entered upon. Of very few expensively built railways can this be truthfully said; but it is merited in regard to the Central.

Among other construction work now being undertaken by the Company may be mentioned a branch-line from Ocatlán (on the Guadalajara line, in the State of Jalisco) to Atotonilco, in the same State. Eventually, this will be extended north from Atotonilco to Arandas, the surveys having already been completed, and the active work of construction about to commence. The line will run through a practically level country, and there will be no heavy grade or other engineering difficulties to encounter. It will open up a particularly rich agricultural district, where fruit-growing and agriculture are actively indulged in, while the line will also act as an important feeder to the Guadalajara division.

With lines extending over 3,000 kilometres in length and with a considerable number of branches, as well as a small portion of narrow-gauge to operate, it is not surprising that the rolling stock to be found on the Central System is of an extensive and varied description. The whole line being more or less modern, the latest patterns for both freight and passenger cars, locomotives, etc., are adopted. There are in use to-day some 10,224 freight cars, including box, fruit, beer and ice, refrigerator, stock, wood, coal, coke, flat, combination and caboose in operation; while, out of these, over 8,500 cars are fitted with automatic couplers. All the freight cars and service cars (oil, water, ballast, wrecking, pile-drivers, steam-shovel and derricks) are equipped with efficient air-brakes to the number of 9,807, or say 97.48 per cent. of the total freight equipment. The Central Railway has of late months introduced grill-cars, which have now practically replaced the old buffet-cars, which were found both inconvenient and costly. The Pullman cars which are found in continual use on the Central, as on most of the other Mexican lines, are of the usual pattern, and are operated in connection with the Pullman Co. It may be hoped that some day the Mexican Systems will own their own Pullmans, or cars constructed upon the Pullman pattern, for in Mexico, as throughout the U.S.A., some dissatisfaction with the manner in which the Pullman cars are operated by the

Pullman servants is felt. It is impossible to refrain from drawing comparisons between the courtesy and attention of the Mexican Central servants and those employed by the Pullman Co.

The locomotives, which are of various types, number between 470 and 480, but they are continually being increased. They include the 4-wheel, 6-wheel, 8-wheel, and 10-wheel types; bogie, Mogul, and consolidation. The latter is the more commonly-used type, there being some 158 of them, about 143 of the 10-wheel type, and 62 of the 8-wheel type. The very latest improvements in locomotive construction are observable upon the last consignment of (25) locomotives received, the majority being used for freight-hauling, and the remainder, of a somewhat smaller pattern, being used for shunting and switching in the yards. The first-named are of the consolidated pattern, specially adapted for steep inclines, of which there are many, especially on the Cuernavaca Division. The Central Railway was among the first in Mexico to adopt oil-burning engines, and has found the preliminary experiments in every way encouraging. The ordinary fuel-burning locomotives are gradually being replaced, and the Company has spent considerable sums of money in building tanks and reservoirs at Aguascalientes and other important stations upon its line. A large number of storage-tanks have been erected, and special oil-tank cars are used for carrying petroleum from the wells to these tanks. Out of the total number of locomotives in use by the Central at the present time there are over 130 converted to oil-fuel, which results in a considerable economy, and must be reflected to a great extent in the future working expenses of the Company. Some idea of the saving which will be effected by the free use of oil instead of coal may be gathered from the fact that the monthly amount of coal at present used is something over 60,000 tons, half of which is brought from Baltimore and Philadelphia in the U.S.A., and hauled some 2,000 miles to Mexico City. Moreover, for the future, one man will be employed to handle the oil for the engines, where twenty-six were formerly necessary to handle the coaling operations.

The Mexican Central Railroad has upon its pay rolls some

12,700 Mexicans, 1,226 Americans, 345 West Indian negroes, 1 American negro, 22 Chinese, 21 British, 15 Germans, 9 Frenchmen, 16 Spaniards, while about 20 other nationalities are represented. It will thus be seen that practically 90 per cent. of the employees of this, the largest railway system in the Republic, are Mexicans, and it may be additionally mentioned that the highest salaried employee, whose headquarters are in Mexico, is also a Mexican.

Towards the end of last year a very important arrangement was concluded by the Mexican Government by means of which it acquired a preponderance of the share capital of the Central Railway, enabling it to acquire control of the line. Up to this time the Mexican Government had been in possession of the Mexican National Lines, the Veracruz and Pacific Railway, and held control of the Tehuantepec National Railway, so that, to-day, having acquired the Central Railway, it is virtually in control of all the Railways of the Republic. It is only right to point out that the determination of the Government to acquire a controlling share in the Republic's railways is born of no desire to interfere politically with the management of the lines. To use Mr. José Y. Limantour's own words, uttered in 1903: "The Government by acquiring a controlling share in the directorates of the various railway corporations would be able to constitute a system which, by reason of its great extent and the importance of the regions traversed, would enable it to exercise over the other railway corporations an influence which would be equally beneficial to all, obviating ruinous competition and directing traffic into its narrow and cheapest channel, securing for the population the benefit of a considerable share of the economies realised, and protecting in an equitable manner the capital invested in railways and in all other forms of public wealth." In a word, the Government's entrance as a shareholder into an extensive system of railroads means increased power to the public authorities, adding to the natural functions of Government the rights inherent to a majority of votes in the management of a private corporation.

The working out of the new capitalisation involved much care and trouble upon the part of the Finance Minister and the bankers who had the matter of amalgamation in hand, and

after several arrangements had been discussed and rejected as unacceptable, the Government, in July last, sanctioned the following plan of capital issue:

Total amount of capital	\$460,000,000
Divided as follows:		
	\$60,000,000	First Preference Shares.
	250,000,000	Second Preference Shares.
	159,000,000	Common Stock Shares.
	462,000,000	4½ per cent. 10 to 50 years Preferred Bonds.
	372,000,000	4 per cent. 30 to 70 years General Mortgage Bonds.
Total	\$1,303,000,000, or £130,300,000.

This is a policy which the Government has had every justification for carrying out, and *has* carried out with conspicuous success. It is a source of gratification to be able to add that it has adhered rigorously to its self-imposed stipulations, and has not in any way interfered with the management of the railway or its officers who were in charge at the time when the Government assumed control.

Several officers who resigned voluntarily, including the highly-esteemed and popular President, Mr. A. A. Robinson, have been replaced, but no actual dismissals ensued. There is not a railway official in the Republic of Mexico who is not ready to admit that the policy of the Government is in every way enlightened, and that its dealings with the railways throughout the Republic are both prompt and just. Thus this policy, which has spelt so much success for railway undertakings in Mexico, it may be taken for granted, will continue indefinitely.

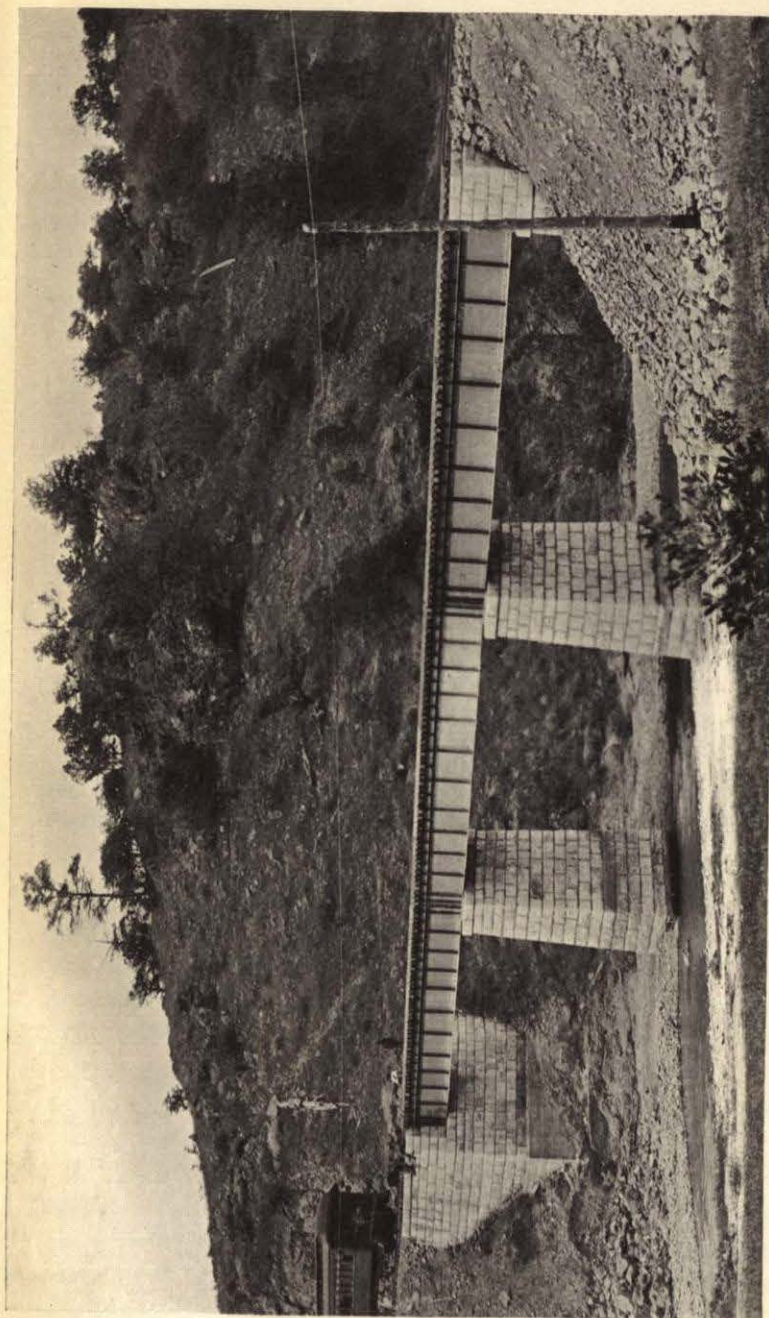
The Government is assisted in its decisions and actions by a singularly well-selected Railway Commission, which was called into being in January 1900, and whose deliberations are held under the direct auspices of the Department of Communication and Public Works. To this Commission all questions of tariffs are referred by the Department for study and recommendation, the Body consisting of highly-intelligent men, whose labours, onerous and complicated as they sometimes are, have up till now proved uniformly successful. Now that the Central Railway has additionally passed under their wise direction, so far as its general financial condition

is concerned, there can be nothing to stand in the way of its future success. It needed some such amelioration in the condition of affairs as this, however, to rescue the Central Railway from the comparative slough of despond into which it had fallen by reason of its immediate and maturing heavy financial obligations.

The splendid enterprise shown by the Mexican Central Railroad in its construction work, to which I have so fully referred above, is one of the most important factors in the future prosperity of the Republic.

Mr. C. R. Hudson, Vice-President of the Mexican Central Railway and practically the ruling hand of the whole great enterprise, has done as much as anyone to bring the road up to its present state of working completeness and efficiency. For years he had worked in conjunction with the late President, Mr. A. A. Robinson, who, to every one's regret, retired from the presidency last year, to release the railway from its former difficulties, financial and physical. Formerly Traffic-Manager of the Central, Mr. Hudson left the Company in 1903 to assume the Presidency of the San Antonio and Aransas Pass Railroad. He returned, however, to the Central in 1905, and has remained with it since, although some alterations among the staff have taken place from time to time.

Mr. Hudson has seen some 20 years' active railway work, and in every position that he has held—on the New Mexico, Arizona and Sonora Railroads, Rio Grande and El Paso, the Atchison, Topeka and Santa Fé, and the San Antonio and Aransas Pass—he has brought to bear his great administrative genius, a remarkable faculty for knowing and controlling men, and with all a charm of manner which distinguishes him even when saying "No," as he frequently must, in dealing with the many and astonishing demands made upon a big railroad corporation.



TYPE OF RAILWAY BRIDGE ON THE KANSAS CITY, MEXICO AND ORIENT RAILWAY.