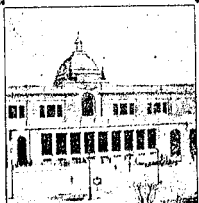
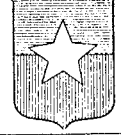
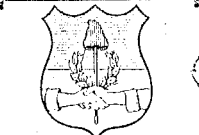


ARGENTINE

AND CHILE RAILWAYS



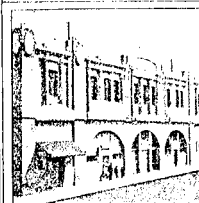
BUENOS AIRES. New Terminal Station, Cent. Argent. R., Buenos Aires.



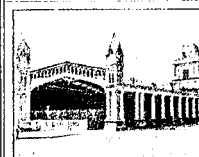
MONTEVIDEO. The terminus of the Central Uruguay Railway.



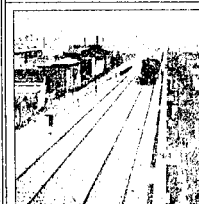
TRAIN FERRY. The connection between Zarate and Iticua.



BARRACAH. A good example of station architecture.



ASUNCION. Exterior view of Terminal Station.



BUENOS AIRES. One of the many suburban railway tracks.

ARGENTINA, the second largest of the Republican States of South America, has considerably the longest mileage of railways, and on the basis of population has the exceptionally generous provision of nearly forty miles of line per 10,000 inhabitants, a figure which is exceeded only by two States in the Australian Commonwealth. Development is largely due to British finance, by far the greater portion of its 23,000 miles of privately owned railway being in the hands of companies controlled and financed in the United Kingdom, these representing a capital of about £250,000,000. Government lines aggregate about 4,200 miles. Three gauges are in use, 5 ft. 6 in. (broad), 4 ft. 8 1/2 in. (middle), and 3 ft. 3 in. (narrow), and this lack of uniformity, especially in regard to the two former, is likely to prove somewhat of a drawback, particularly in view of inter-connections and extensions projected or contemplated. It is not, however, so serious a hindrance as it is in many other countries, so much of the traffic being direct upon the ports of Buenos Aires, Rosario, and Bahia Blanca, each line naturally having complete routes for its own traffic. In the province of Buenos Aires, Cordoba, Entre Rios, La Pampa, and Santa Fe, there is a most elaborate system of lines, many paralleling one another for considerable distances, and often not more than twenty miles or so apart.

Projected Lines.—Resources of the Argentine are, however, almost inexhaustible, and many further lines are projected, though the Government has adopted the principle in late years of exercising a close control upon proposals for new lines, and concessions are not so readily granted as in earlier days. Indeed, in certain respects Government action is becoming somewhat irksome to many of the company railways, especially as there is a tendency for it to be of a political nature, due to the fact that the railways are so largely in the hands of "foreigners"; but with improved political conditions, and realisation by the companies that as time progresses there is less justification for exceptionally liberal treatment, the happy medium will no doubt be attained.

Facilities for Construction.—An important factor in regard to Argentine railways is the Mitre law, which provides that materials for construction and working may be imported free from duties until 1917, subject to a tax of three per cent. on net products, sixty per cent. being taken for working expenses. The companies coming under this law are exempt from all other taxes, national, provincial, or municipal. Proceeds of the tax are devoted to the construction and maintenance of roads and bridges in districts served. The Government also have the power to intervene in the fixing of tariffs when the gross product of a railway in three successive years exceeds seventeen per cent. of the recognised capital, provided that working expenses do not exceed sixty per cent. Interpretation of this law and Government action in other directions have caused a degree of friction, and certain measures are only in tentative operation or in abeyance, so that the political aspect of future development is somewhat complicated.

Effects of the War.—As a result of the war, too, difficulties have arisen, the restriction of world markets for Argentine products and shortage of shipping being associated with seriously increased costs of material, labour troubles, disastrous floods, and bad harvests, so that the war increase of twenty-two per cent. on tariffs has not enabled the companies to continue their prosperous record, some having materially reduced their recent dividend declarations. This position is, however, purely of a temporary nature, and due to world conditions as a whole, so that a resumption of pre-war progress is to be anticipated in due course.

RAILWAY DEVELOPMENT

Railway construction commenced in 1857 with a small State line from Buenos Aires. Mileages at different dates: 1865, 150; 1875, 1,220; 1885, 2,820; 1895, 8,820; 1905, 12,370; 1913, 21,340. Of the last total mentioned, 8,500 were State-owned, and 17,450 in the hands of companies. Original lines were all of broad (5 ft. 6 in.) gauge, but in 1882 narrow (metre) gauge construction was commenced, and is being extended. The middle (4 ft. 8 1/2 in.) gauge is principally used in Entre Rios and Corrientes. Percentages for the three gauges are now about fifty-nine broad, eight middle, and thirty-three narrow. These railways can be considered in several groups, and may be thus reviewed in conjunction with remarks concerning amalgamations, working arrangements, etc.

BRITISH SYSTEMS

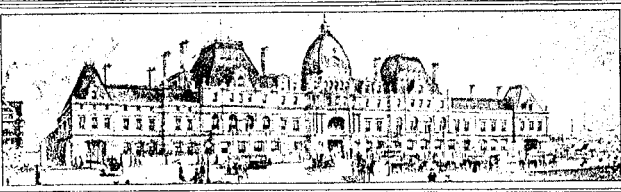
Broad gauge.—The Buenos Aires Great Southern is the largest, mileage 3,702, including 100 miles belonging to the Buenos Aires, Ensenada, and South Coast Railway. It has splendid port facilities at Buenos Aires and Bahia Blanca. The Buenos Aires Western, relatively a small system, but enjoys considerable prosperity. Mileage, 1,882; lines radiate through the province of Buenos Aires

westwards. An underground line is being built from the Once terminus to the docks in Buenos Aires. The Buenos Aires and Pacific Railway at present provides the only Trans-Continental Railway in South America, as it works the Argentine Great Western Railway (879 miles), and by virtue of that the Argentine Transandine Railway (111 miles) connecting with the Chilean system to Valparaiso. The mountain section is metre gauge, so that change of carriages and transhipment of goods are necessary. The Bahia Blanca and North Western (874 miles), and Villa Maria and Rufino (141 miles) are also worked by the Pacific Railway. A section of the old Andino Railway (State) was in 1909 divided between the Buenos Aires and Pacific, Argentine Great Western, and Central Argentine Railways. Mileage of the Buenos Aires and Pacific system proper is 1,430; including worked lines, 3,656. The Central Argentine Railway includes also the Buenos Aires and Rosario Railway, and now has a mileage of 3,305, 27 both broad and narrow gauge. A prosperous and energetic system; lately erected a notable terminus in its Retiro station in Buenos Aires. There is a heavy suburban traffic in that city, and electrification is projected. Both in Buenos Aires and in Rosario there is up-to-date equipment for dealing with traffic and for shipment.

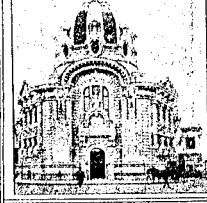
Latest Statistics in £1,000

Railway.	Gross Receipts.	Working Expenses.	Traffic, Passenger.	Goods.	Live Stock.
B. A. Gr. Southern	5,838	4,447	1,089	2,600	707
B. A. and Pacific	5,279	3,468	882	3,511	306
Central Arg.	6,181	4,672	1,430	3,747	633

[Continued on page 474.]



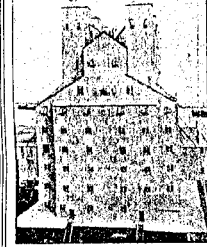
PLAZA CONSTITUCION, BUENOS AIRES. The imposing terminus of the Buenos Aires Great Southern Railway, which is one of the great architectural features of the federal capital.



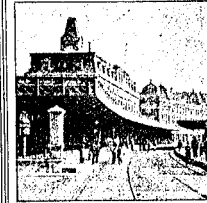
LA PLATA. The handsome exterior of R.A.G.S. Station.



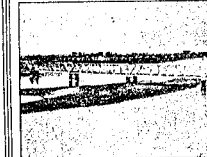
ONCE. The terminus of the Buenos Aires Western Railway.



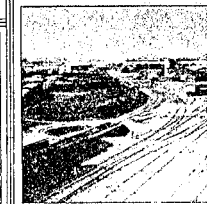
BAHIA BLANCA. Huge elevator for shipping grain.



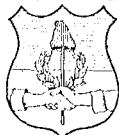
VALPARAISO. A level crossing on the Chilean State Railway.



NEUQUEN BRIDGE. An engineering feat on the B.A.G.S.R.

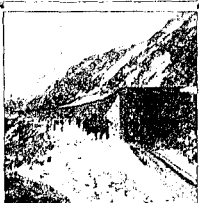


JUNIN. Railway works of the Buenos Aires and Pacific Railway.

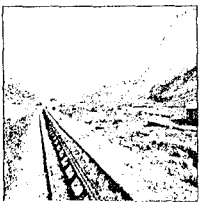


ARGENTINE

AND CHILE: RAILWAYS



TRANSANDINIAN R. Entrance to a snow tunnel.



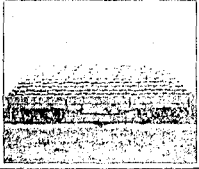
TRANSANDINIAN R. Back system for the steep gradient.



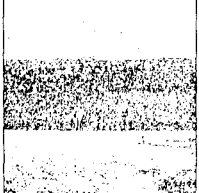
THE ANDES. The railway bridging a deep gorge.



GRAIN. Stacked ready for the train journey to the ports.



WHEAT. Method of packing 500 sacks on one wagon.



SALTED BEEF. Better known as "jerked" beef, awaiting train port.

Continued from page 473

BRITISH SYSTEMS (continued)
Narrow gauge.—The Transandinian is worked by the Buenos Aires and Pacific; completed for through traffic in 1910; length is 111 miles, the highest point, 10,400 feet above sea level. The Buenos Aires Midland (322 miles) is controlled by the Buenos Aires (Great Southern Railway). The Cordoba Central group of lines includes also the Central Northern section, North-West Argentine extension, Cordoba and Rosario, and Cordoba Central Buenos Aires Extension Railways. Total mileage, 1,295.

MIDDLE-GAUGE LINES
 Referred to sometimes as the Mesopotamian systems, these connect up with the Paraguayan lines, but complete intercommunication between Buenos Aires and Asunción involves two train ferries. The Buenos Aires Central Railway extends to Zarate, whence ferry connection is made with Itabaty on the Entre Rios Railway. From Guaremba northwards is the Argentine North Eastern Railway, extended to Posadas, with ferry connection via the Paraguay Central to Asunción. Total mileage of the Entre Rios Railway is 831, including 101 miles forming the National Government Eastern line, and of the Argentine North Eastern, 752 miles.

SANTA FE LINES
 Founded in 1888 by Belgian capital, may be considered with the French lines. They extend from Rosario to Santa Fé and thence in various directions. Mileage is 1,709, metre gauge.

Latest Statistics in £1,000

Railway.	Gross Receipts.	Working Expenses.	Traffic, Passenger, Goods.	Live Stock.	
B. A. Western	2,850	2,163	691	1,339	506
Cordoba Central	1,749	1,265	1,300	258	235
Entre Rios	657	410	100	326	142
Arg. N. E.	394	247	74	181	110

ARGENTINE COMPANY RAILWAY
 In 1912 the Argentine Railway Company was constituted under the laws of the State of Maine, U.S.A. It is a holding company only, and is generally referred to as the Farquhar Syndicate. Formed mainly with the object of grouping together certain railways in order to obtain the benefits of unified management, and to increase facilities in northern districts, the Company has controlling or substantial holdings in the Entre Rios, Cordoba Central, Rosario-Puerto-Belgrano, Santa Fé and Comandante Auxiliare de Cienfuegos de Fer dans la République Argentine.

RAILWAY DISTRIBUTION
 The striking feature of the railway map of the Argentine is the practical limitation of the railways to the Provinces of Buenos Aires, Cordoba and Santa Fé. In addition to the Transandinian, the chief arteries radiate in the valley of the River Salado towards Oran.

TRAFFIC CHARACTERISTICS
 Passenger traffic is naturally not a very large factor, though on some sections it is considerable. Two classes, first and second; suburban traffic is heavy. Several praiseworthy express train services are operated on main routes. Goods traffic comes largely in periods, especially in the early months of the year, when the bulk of the wheat for export is normally carried. Lined and maize also provide heavy seasonal loads. Elevators and silos are provided at the great grain-shipping ports.

In addition to cereals, wool, meat, hides, firewood, sugar, tobacco and wine form part of the goods traffic. A large portion of the meat traffic on the railways is in the form of live stock proceeding to the slaughtering, meat extract and refrigerating centres. One of the largest railways carried in twelve months 27,000 horses, 1,000,000 cattle, 3,100,000 sheep and 1,400,000 pigs. The weight of the exported wheat, flour, wool, etc., amounts in a year to 4,000,000 tons; this indicates the volume of traffic on the railways.

FRENCH COMPANIES' RAILWAYS
 In 1905, the Cia. Generala, Buenos Aires, was formed to construct metre gauge railways south of Rosario. From Buenos Aires in that city the Cia. Generala lines complete connection for the Santa Fé and Government lines to be referred to. There are also lines from Buenos Aires and La Plata to Villenas and Salgado, while works in hand cover a new line from Buenos Aires to Puerto-Belgrano, near Bahía Blanca. The railways serve the same areas as do the main broad gauge railways, and, in a sense, are competitive. In conjunction with Government railways north of Santa Fé there is now complete narrow gauge communication between Buenos Aires and the Bolivian frontier. The Rosario and Puerto-Belgrano Railway (broad gauge) also has French associations. It extends across most of the railways radiating from Buenos Aires from Rosario south to Puerto-Belgrano, near Bahía Blanca.

GOVERNMENT LINES
 A metre gauge line is under construction by the Buenos Aires Provincial Government from La Plata to the Fifth Meridian. State Government railways comprise mainly the Central Northern line from Santa Fé to San Cristobal and Tucuman and northwards to form a second transandinian line in conjunction with the Antofagasta and Bolivia Railway. The Argentine Northern consists of several lines west of Juan Ponce, in Cordoba province, but connection across to Santa Fé is projected. In Patagonia the Clubbut Central and other lines are largely still under construction. State mileage (metre gauge) is at present 2,522.

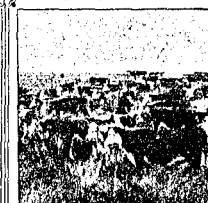
CROSS CONNECTIONS
 The main cross connection runs from Bahía Blanca in the south of Buenos Aires Province through Rosario and on to Asunción. The railways of Entre Rios Province are mainly connecting links between the Paraná and the Uruguay Rivers. Bahía Blanca will, in time, be joined to the Transandinian line at Mendoza.

ROLLING STOCK
 British motive being mainly involved, locomotives and rolling stock are largely based upon British practice. But while maintaining these characteristics, development is in many ways in advance of what is done in England. Locomotives are usually of notable design, and so considerable size, a large proportion being built in the United Kingdom. Passenger rolling stock includes restaurant cars and sleeping cars for principal trains on all three gauges, and for certain services special vehicles are employed. Steel vehicles of thirty-four ton bogie types are extensively used for the heavy grain, cattle, and general goods traffic. On the French lines, French locomotives and rolling stock are to be found.

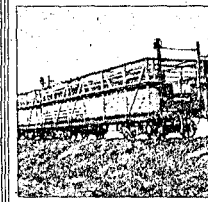
TRADE AND ENGINEERING
 Modern permanent way is solidly built with 80, 90, and 100 lb. rails, and 70 and 75 lb. rails on metre gauge. Lines, metal sleepers are extensively employed. Among notable engineering works may be mentioned the Central Argentine Viaduct, connecting opposite sides of the town of Rosario; the Rio Segundo Bridge, Central Argentine Railway; Retiro Station in Buenos Aires, Central Argentine Railway; La Plata Station and the Plaza Constitución terminus, Buenos Aires Great Southern Railway; the wharves, docks, and grain elevators at Bahía Blanca, Buenos Aires Great Southern Railway; the Neuquen Viaduct, Buenos Aires Great Southern Railway. Buenos Aires has a heavy local suburban traffic, amounting to about 35,000,000 passengers annually. The Buenos Aires Great Southern has about forty-five miles of suburban lines, the Central Argentine over forty. A scheme of electrification for these lines is in hand. Mendoza also has a considerable suburban traffic.



INUNDATIONS. The bridge at San Carlos, washed away as a result of great storms, which not infrequently cause mud-slides and suspension of all traffic.



LIVESTOCK. In the "camp" awaiting railway transport.



CATTLE WAGON. An up-to-date Argentine example.



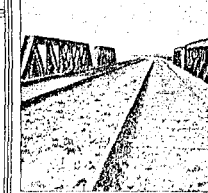
A FEATURE OF THE TRANSANDINIAN RAILWAY.



CHILE. Typical railway bridge. Chile is very mountainous.



RIO SEGUNDO BRIDGE. A notable engineering work on the O.A.R.



PERMANENT WAY. Showing the 100 lb. rails.