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REPORT OF PROGRESS
IN MANCHURIA
1907-1928

THE NORTH CHINA RAILWAY
GEORGE BROWN, 1929

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THE SOUTH-MANCHURIA RAILWAY

DAIREN, MARCH, 1929

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IN MANCHURIA
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PLAN OF DAIREN HARBOR

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INTRODUCTION

1 Manchuria

Manchuria lies in the northeastern extremity of China. Parts of Russian Siberia and Japanese Korea form its northeastern boundary. Its area, covering about 382,000 square miles, is almost the same as that of Egypt, or the aggregate area of Texas and New Mexico in the United States; it is almost half the size of Mexico, or more than three times the size of Japan proper. The population of Manchuria in 1927 was variously estimated at from 23,000,000 to 27,500,000. It is now steadily and rapidly increasing owing to the constant inflow of Chinese immigrants.

The natural resources of Manchuria, in contrast with those of other parts of China, are rather rich, especially the agricultural, mineral, and forestry products. Arable land, covering about twenty-five per cent. of the total area, is of the most fertile soil, and many areas were virgin and awaiting development. Manchuria was in fact a "Forbidden Land" for many generations, not only to the world at large, but, more particularly to the Chinese themselves. The fame of Manchuria, though its economic possibilities were so great, was not well known until it became the battlefield of nations. This was, first, during the Sino-Japanese war of 1894-5 and, second, during the Russo-Japanese war of 1904-5. After the Sino-Japanese war, the Russians opened up portions of Manchuria by building the Chinese Eastern Railway. But it fell to the Japanese after the Russo-Japanese war, to make Manchuria a land of opportunity for the world, in co-operation more or less with China, Russia, and other countries.

2 Peace and Order

By the Russo-Japanese war, the Russian Pacific Fleet with her Baltic Fleet was practically annihilated. Subsequently most of the main squadrons of the other European Powers were withdrawn from Oriental waters and concentrated in the North Sea and Mediterranean Sea. After the Russo-Japanese war, a period of tranquility set in throughout the Far East. As to Manchuria, more enduring peace and order being fortunately maintained, the development and progress effected in this

region during the past two decades were by no means inconsiderable, while revolutions, civil wars, or other political disturbances were unfortunately as frequent in China proper, after the establishment of the Republican regime, as at any time in the past. Indeed, Manchuria was the only region in the whole vast area of China which offered the benefits of peace and order to the calamity-stricken people of Shantung, Chihli, and Honan, who were driven out by famine and warfare, and tax extortion, prevailing specially during the civil war of 1926-8. Order in Manchuria has thus been preserved for nearly a quarter-of-a-century, since the Russo-Japanese war, without serious interruption, despite the frequent forays of Manchurian bandits upon isolated settlements. This has been achieved principally with the aid of the Japanese troops, while the military authorities of the Three Eastern Provinces, particularly Grand Marshal Chang Tso-lin, also played an important part in the maintenance of peaceful conditions. The railway guard of the Chinese Eastern Railway, one of the important factors in the maintenance of peace in North Manchuria, were formerly Russians, who were replaced by the Chinese in 1922. According to the annual report of this Railway, it pays to the Chinese guards each year from 3,500,000 to 4,100,000 roubles, which sum is recorded under the head of "Expense for the Chinese Government offices." Participating in the maintenance of order in Manchuria is costly to Japan. Though the number of railway guards is reduced to less than that allowed by treaty, Japan still has to spend more than 15,000,000 yen a year on soldiers and police in the Railway Zone and Leased Territory. And, in times of crisis, when civil war or other disturbance threatened the peace and order in Manchuria, in a way calculated to affect Japanese interests, the military expenditure increased. Maintenance of peace and order in Manchuria is vitally important, particularly to Japan, whose investments in the territory amount to some 2,000,000,000 yen; the territory is increasingly becoming the chief granary and source of raw material for Japanese industries. Japan has thus vital relations with Manchuria. In a broader sense, historically and politically, Japan can not permit any repetition of the bitter experience of the past—any disturbance of Manchuria which would affect the security of Korea and Japan, and ultimately the general peace of the Far East. Furthermore, 1,000,000 Japanese subjects, including 760,000 Koreans have their homes in Manchuria to-day. Japan would thus not be doing her duty in allowing Manchuria to become involved in any serious disturbance of tranquility.

3 Railways

The railways in Manchuria have played a most important part in its development, as they do elsewhere. More than three thousand miles of railways have been built in Manchuria since 1897, while little over five thousand miles have been built in the vast territory of China proper since 1877. Of the total in Manchuria, China owns about half, Russia one-third, and Japan the balance. The Chinese railways, though aggregating a greater mileage than the Japanese or Russian, were mostly financed by foreign, specially by Japanese, capital; while the Manchurian section of the Peking-Mukden line, between Mukden and Shanhaikwan, with branch lines, was built with British capital. Until quite recently, the agricultural crops were transported by means of the inadequate waterways, and by the primitive Manchurian cart, but the railways are to-day carrying every year larger numbers of immigrants and great stocks of agricultural products and other staples. Especially the South Manchurian Railway, running through the heart of Manchuria, with a terminal at the highly improved port of Dairen, and connecting with the railways running to China proper, Korea, and westwards to Europe, is playing the most significant part in the remarkable growth of the agricultural produce and in the stupendous development of the international trade of Manchuria.

The activities of the South Manchuria Railway Company in coal and iron mining and other industries are not only augmenting the supply of agricultural and mineral products, but also providing employment for hundreds of thousands of Chinese, who have been attracted to Manchuria from the neighbouring provinces, chiefly from Shantung.

4 Growth of Production

The railways being gradually developed, and peace and order maintained, agricultural, mineral, forestry and other industrial developments made steady progress, greatly aided by ample supplies of labor, due to the constant inflow of Chinese coolie immigrants and ready capital, mainly Japanese. In 1915, the estimated production of soya beans, kaoliang (a sort of sorghum), millet, wheat, barley, oats, rice, etc., amounted to 404,500,000 bushels. Twelve years later, in 1927, these crops were estimated at over 786,800,000 bushels. The soya bean, to-day commanding a world-market, and kaoliang, used as the staple food of the native populations and also as cattle fodder, are the most important

among agricultural products. The production of soya beans to-day, amounting to about 190,000,000 bushels, or 5,400,000 tons, has doubled during the last twelve years, while production of kaoliang, amounting to 184,000,000 bushels, has remained stationary. The cultivation of kaoliang has given place to that of the bean in many districts. The tradal importance of the soya bean and its products—oil and cake—has made Manchuria famous. They are so predominant that they now constitute more than one-half the value of the entire export trade of Manchuria. Of 4,407,000 tons of beans and bean products exported in 1927, a little less than one-half went to Japan, about 30% to Europe, 12% to China, and the rest to the United States and other countries. Next to beans, millet is the important crop to-day, producing 143,000,000 bushels every year, of which about 13,000,000 bushels were exported exclusively to Korea in 1927. Korea, notwithstanding a deficient rice supply, exports rice to Japan proper amounting to 31,000,000 bushels, and imports the Manchurian millet and cheaper grade of Indo-China rice as a substitute for the rice deficit. As the Manchurian bean and beancake, imported to Japan as foodstuff and fertilizer, are to-day helping in the solution of the national food question of Japan, Manchurian millet affords the same service to Korea.

5 Expansion of Trade

The trade of Manchuria with other countries remained insignificant for many years, as the region was undeveloped and Newchwang was the only Manchurian port opened to trade. But the Russo-Japanese war, which marked a new epoch for Manchuria, preceded a most radical change in the tradal situation, particularly after the opening of the port of Dairen. Prior to the war, Japan and the United States took the initiative in opening additional ports in Manchuria, such as Antung and Mukden. Japan secured from China by formal agreement her consent to the opening of sixteen places in Manchuria, including Harbin, Manchuli, Aigun, Suifenho, Liaoyang, etc. China, after first opening Antung on March 1, 1907, formally opened nine other important towns including Harbin, Mukden, and Manchuli by 1911. In July, 1907, Dairen, in the Leased Territory, was opened by Japan as a free port. In the year Dairen was opened, the total trade of Manchuria was valued at 52,000,000 *Hk. Tls., i. e., 6 per cent. of the total trade of China. In

* Haikwan Taels.

1927, this was increased to over 676,000,000 Tls., i. e., 21 per cent. of China's total trade. Of this amount, 376,420,000 Tls. belongs to Dairen. That is to say, the trade of Manchuria itself expanded more than twelve times in the last 21 years, and Dairen's share amounted to more than 50% of Manchuria's total trade. Manchuria has one bright aspect in its trade in that it maintains an excess of exports over imports in most years, contrary to the trade in China proper, where imports invariably exceeded exports, as in Japan and Korea.

Of the total exports for 1927, amounting to 408,000,000 Tls. Manchurian beans and derivatives occupy more than half, or 215,000,000 Tls. As already stated, Japan is the heaviest purchaser of these products. Europe and America bought over 30 per cent., and there is a strong upward tendency in the overseas market in supplying chemical industries and for cattle feed.

Regarding the import trade of Manchuria, cotton goods are still the most important item. Total imports for 1927 aggregated 268,000,000 Tls., of which 67,000,000 Tls. represented the share of cotton goods, including yarn. Of the cotton imports, Japan's share is about 53% and China's share 42%. When Newchwang was the only open port in Manchuria, England maintained a virtual monopoly of the import of cotton goods, and later the United States attained the leadership in this trade. Japanese cotton goods were first imported several years before the Russo-Japanese war, but to a rather negligible amount. The Japanese industry in those days was not in a position to compete with either British, American, or Indian mills. Japan's strenuous but constant efforts to develop this industry, specially after the Russo-Japanese war, were gradually crowned with success. Moreover, Japan's geographical position, and her ability to produce a much cheaper staple by mixing raw materials of the American higher grades and those of Indian and Chinese lower grades, ultimately secured the market. Before the outbreak of the European war, the imports of cotton goods, except of the best qualities, were almost wholly supplied by Japan. The war temporarily crippled the cotton mills in Western countries and also ocean transportation, and at this period, Japan enjoyed complete supremacy in this trade in Manchuria. After the war, goods manufactured in China proper gradually increased, and they now represent 42%, next to those of Japan, as already stated.

It must be remembered, however, that the increased importation of Japanese cotton goods into Manchuria means that the Japanese mills must buy more raw cotton from America, India, and China. Nor does

the falling off in the imports of British and American cotton goods affect adversely the total of their imports into Manchuria. On the contrary, the trade of both Britain and the United States has increased in other departments. Imports of machinery and other iron manufactures from America and Europe have steadily increased. Since the South Manchuria Railway Company entered the field, there has been a steady demand for supplies of iron manufactures for mines, iron works, and other industrial undertakings. Imports from the United States, including the Philippines, amounted to 6,775,000 Tls. in 1908, and were increased to 17,638,000 Tls. in 1927; while those of Great Britain and dependencies increased from 2,693,000 to 17,734,000 Tls. during the same period. German imports increased from 150,905 to 5,469,000 Tls. Moreover, the foregoing probably do not represent the total figures; they are the Customs returns, which do not include goods shipped to Japanese ports and Shanghai and thence reshipped to Manchurian ports.

In the trade of Manchuria, as a whole, Japan still maintains the supremacy gained in imports as well as in exports, but she purchases more than she sells. While American and European trade in Manchuria also markedly increased during the last two decades, those countries sold more than they bought, with the exception of Denmark, Holland, and Italy, which are large buyers of soya beans. Manchurian trade with China proper has steadily grown since the European war.

6 Chinese the Chief Beneficiaries

Historically, politically, and economically, Manchuria, in which China's sovereign right is safeguarded, is internationally concerned more particularly with Japan and Russia. Yet the Chinese themselves are the chief beneficiaries, so long as peace and order are maintained and the development of the country continues. Manchuria was liberated from Russian military control after several years of actual occupation by the forces of the Czar, and outside of the leased territories and the railway zones, the administrative entity was restored to China. Ever since, order in Manchuria has been preserved without serious interruption. While people in the central part of China suffer from frequent disturbances, the Chinese in Manchuria enjoy the benefits of peace and prosperity. As already stated, an extensive railway system has been constructed which has proved a very important factor in developing Manchuria. This not only conveys Chinese travellers and immigrants with safety, but the farmers' harvests to waiting markets. The South

Manchuria Railway Company in its various undertakings, railways, harbour, mining, etc., employs less than 12,000 Japanese, and over 13,600 regular Chinese workers, besides sixty thousand coolie day-workers. While the Company paid 22,000,000 yen to shareholders as dividends in the fiscal year ending March 31, 1928, the aggregate amount of wages paid was 26,450,000 yen, of which 75 per cent. went to the Chinese. Probably ten or twenty per cent. of the earnings of the Japanese employees might be sent to Japan for the support of their families, but the remainder of their earnings is practically spent in Manchuria, and the bulk of it goes into Chinese pockets. Along with the extension of railways and the development of the country, the products of Manchuria have been stupendously increased in the last two decades, which have converted Manchuria into an exporting country. The result of these combined advantages is seen in a marked improvement in the standard of living of the Chinese. Before the Russo-Japanese war, bean oil was generally used for lighting purposes, and sugar was regarded as a luxury or medicine. But, in recent years, the imports of sugar and petroleum have increased year by year. The women-folk in bygone days wore heavy imported cotton piece goods, weighing 17-8 pounds per bolt, but now the weight of such goods has been reduced to 12-3 pounds, which is significant of the improvement in the general condition of living.

7 More Co-operation Needed

As noted already, Manchuria, though the object of much international attention, has nonetheless made marked progress during the past two decades. Should China, more particularly the authorities of the Three Eastern Provinces, and the foreign Powers concerned, especially Japan and Russia, co-operate more fully in the development of Manchuria, instead of prejudicing their respective interests by international jealousies and cut-throat competition, or by incurring occasional boycotts by the Chinese, which have been productive of so much harm to all in the past, it would promote the respective interests of every nation concerned, and would improve the moral and material well-being of the Chinese.

After the war with Russia, Japan, in the development of her acquired interests in Manchuria, upheld the principle of equal opportunity for all nations and endeavoured to work in the spirit of co-operation and conciliation, particularly so in her dealings with China

and Russia. She opened in 1907 the port of Dairen in the Leased Territory as a port free to all nations. When the South Manchuria Railway Company was about to be formed in 1906, Japan invited the Chinese Government and individuals to take over any part of the stock offered for public subscription. But the offer was ignored in silence, and China thus lost an opportunity of participating in what it was expected would be a profitable undertaking. Fortunately, a number of Sino-Japanese joint undertakings in iron and coal mines, the lumber industry, waterworks and electric plants, railways, produce exchanges, etc., subsequently were formed. International traffic being an important aspect of the work of the South Manchurian Railway, the Company made constant efforts to establish international through traffic, particularly in co-operation with the railways of China and Russia. When Baron Goto (now Count), the first President of the Company, went in May, 1908, to Petrograd on a visit of courtesy, he took the initiative in arranging for direct through traffic between the South Manchuria Railway and the Chinese Eastern Railway, which connects with the Russian line to Europe. When the reconstruction of the Antung-Mukden line was completed in 1911, an arrangement for international through traffic for passengers and freight between the South Manchuria Railway and the Peking-Mukden Railway of China was made. At intervals since, the so-called Interlines Conferences between China and Japan and Russia have been held and much benefit has been derived by all parties from these meetings.

In the development of Manchuria, the co-operation of foreign capital and skill have played an important part. Most of the railways were built by foreign Powers or by the co-operation of foreign capital. During the period of reconstruction and improvement of the South Manchuria Railway, the Company on several occasions issued debentures, aggregating £14,000,000, on the London market, and purchased rails, locomotives, and other rolling stock in large quantities from the United States. The Russians built the Chinese Eastern Railway mostly with French capital, while the Manchurian section of the Peking-Mukden line of China was built principally with a British loan amounting to £2,300,000. Several Chinese lines in Manchuria were built with Japanese capital. Japan, though she may object to lines being built parallel to or in other ways seriously prejudicial to the interests of the South Manchuria Railway, is quite willing to invite foreign capital to participate in the development of Manchuria. The Japanese Government formerly held the preferential right to grant loans for railway construction in South Manchuria and

Eastern Inner Mongolia, and also for other purposes in these regions, but Japan voluntarily renounced certain parts of this preferential right in a statement made at the Washington Conference, and threw the field open to the joint activities of the International Consortium. In the spring of 1928, when the newspapers reported that the South Manchuria Railway contemplated the issue of a foreign loan for the further development of its iron works, coal mines, and other enterprises, it is said that the project was objected to by certain Chinese who feared such a loan would prejudice Chinese sovereignty in Manchuria. Such fear or suspicion seemed rather sentimental and superficial. Americans for generations past have demonstrated their co-operative talents by introducing British and other European capital in opening up their vast continent, as also in the development of the extensive international co-operative interest in Mexico. Such was also the case with the industrial development of Japan, where foreign capital was liberally used for a quarter of a century. Such industrial co-operation in the past has not affected in any way national independence or territorial integrity, as is sometimes feared in China.

The most dreadful visitation of bubonic plague has more than once been experienced by the people in Mongolia and Manchuria. But co-operative measures for preventing the spread of the plague in Manchuria, promptly undertaken by the Chinese, Japanese, and Russians have proved of real benefit over the whole vast area. The lesson taught by this single instance of co-operation is suggestive of the value of co-operative effort in promoting the welfare of Manchuria as a whole.

The present Report, though describing succinctly the geographical features of Manchuria and the country's history, chiefly referring to its international relations, as the necessary background, is intended to deal more in detail with the material and moral progress effected during the last two decades. It is, however, a matter of regret that the statistical records of parts of Chinese and Russian activities are not as readily accessible as those relating to the Japanese.

I GEOGRAPHICAL FEATURES

8 Situation and Climate

Manchuria lies in the north-eastern extremity of the Chinese Republic. Its area is about 382,000 square miles; that is, about the same as that of Egypt, including the Libyan Desert, or about half of Mexico. While the name, Manchuria, is familiar to foreigners, it is called by the Chinese "Three Eastern Provinces" (Tung-san-hsing), since it comprises the three provinces of Amur (Heilungkiang), Kirin, and Mukden (Fengtien). The terms North and South Manchuria are often mentioned in the newspapers or other publications, but no clear demarcation between the two has been made. Russia first used these terms in a treaty document, namely, in Article III of the Supplemental Agreements between China and Russia, of July, 1898, re the Chinese Eastern Railway. The terms are frequently used in the Sino-Japanese Treaty of May, 1915. So far as transportation facilities are concerned, it is much safer to say that South Manchuria is served by the South Manchuria Railway, and North Manchuria by the Chinese Eastern Railway.

Manchuria extends between lat. 38°43' and 53°30' North, and long. 117°50' and 135°20' East. It is bordered on the north by Siberia, the Amur River being a natural boundary. Its eastern boundary, between the Maritime Province of Siberia and Korea, is marked by the Ussuri, Tumen, and Yalu Rivers. On the west, its borders touch Eastern Inner Mongolia and China proper. Finally, in the south, Manchuria is washed by the waters of the Yellow Sea and the Gulf of Pechihli. The coast line of Manchuria from the mouth of the Yalu River in the east to Shanhaikwan measures 855 nautical miles, or 976 geographical miles.

Manchuria is traversed from north to south by two large mountain ranges—the Khingans, Great and Little, in the north-western section, and the Changpai mountains near the south-eastern boundary. Between them, extensive valleys, containing the most fertile lands of Manchuria, stretch in a south-westerly direction towards Eastern Inner Mongolia and the Gulf of Pechihli. The mountainous regions are rich in timber and minerals, especially coal. Several great rivers with many branches, running through the valleys between the mountain ranges, serve not only to irrigate the regions through which they pass, but also as routes for navigation. They are the Amur, Sungari, Ussuri, Yalu, Tumen,

and Liao rivers. Though frozen in winter, each of these waterways plays an important part in the commercial traffic during other seasons, this having been the case especially before the present extensive railway communications came into existence.

The climate in Manchuria is more continental than that of Japan, Korea, France, England, or Germany, though Manchuria lies practically within the same zones as the northern latitudes of these countries. It is less affected by ocean currents, but is greatly affected by the proximity of the great Mongolian desert. Manchuria is naturally much drier than Japan or Korea, and has long severe winters and short hot summers. The spring season is windy, terrific winds occasionally coming from the Mongolian plain. These are called by the Chinese "Huang-tu," or "Yellow dust" in literal translation. The following table shows the temperatures of the four seasons of the year 1927, in centigrade, in various localities:

Locality	January	April	July	October
Dairen	- 4.9°	9.4°	24.0°	13.0°
Mukden.....	-11.1°	10.4°	25.1°	9.2°
Newchwang.....	- 8.5°	10.1°	25.5°	10.7°
Changchun	-15.6°	8.9°	23.4°	7.1°
Harbin	-19.6°	7.5°	23.8°	9.4°

9 Area and Population

The taking of a census or cadastre survey after the methods adopted by modern nations has not been attempted as yet in Manchuria, except in the Japanese Leased Territory and Railway Zone, and naturally estimates of area and population of Manchuria have varied in some degree. This is especially the case with regard to population, changes in which have become significant owing to the recent heavy migration from the South. The Research Office of the South Manchuria Railway Company gives the following estimates as to area, population, and density of population in Manchuria according to provinces.

Province	Area in sq. miles	December 31, 1927.	
		Population	Pop. per sq. mile
Mukden	90,224	13,591,100	151
Kirin.....	81,018	8,766,800	108
Amur	211,385	5,154,900	24
Total.....	382,627	27,512,800	Av. 72

Although the indigenous native of Manchuria is the Manchu, ninety

per cent. of the present population of 27,512,800, are Chinese. The population in 1907 was estimated at from sixteen to twenty-two millions. The increase is in great measure due to the constant inflow of Chinese immigrants, especially the most extraordinary movement of refugees in recent years. The average population per square mile in Manchuria is 72, or about the same as in European Russia, and considerably greater than that of the United States as a whole, which is 35.5. But, in comparison to Japan, in which the average per square mile is 421, Manchuria is thinly peopled.

The alien population of Manchuria, includes 768,280 Koreans, 240,108 Japanese, 140,554 Russians, and 529 British, 384 German, 322 French, 190 American, and 1,733 other nationals, according to estimates made in 1927.

10 Immigration

Many centuries ago, Chinese and Koreans immigrated to Manchuria. Especially after the Mings drove out the great Mongol ruler in 1368 and occupied the southern part of Manchuria, hundreds of thousands of Chinese settled in the Liao Valley, but while the Manchus engaged in prolonged warfare with the Ming dynasty, most of the Chinese fled for safety to their native provinces. The Manchu dynasty, after it had destroyed the Ming dynasty, adopted a drastic policy, excluding the Chinese from Manchuria by issuing a primitive form of passport, called Lu-piao, without which no person could pass the border at Shanhaikwan. Although this and other exclusion laws existed nominally until 1905, when they were nullified by the Military Governor of Mukden, many Chinese, mainly from Shantung and Chihli provinces, managed to enter by way of the sea, landing on the coast at points now occupied by Newchwang and Port Arthur, and sailing up the Yalu River by means of junks. They continued to increase in numbers.

After the Russo-Japanese War, the extension of railways, which was followed by agricultural and industrial developments, encouraged further immigration. The total of Chinese coolies landed during the period 1922-5 at Dairen, Yingkou, and Antung, or transported by the Peking-Mukden Railway, was estimated from 400,000 to 500,000 a year, but the number increased considerably in 1926 and 1927 as is shown by the following table:

	Dairen		Yingkou		Antung		Peking-Mukden Railway		Total
	No.	Per-centage	No.	Per-centage	No.	Per-centage	No.	Per-centage	No.
1922	170,000		92,176		33,053				
1923	172,014	40	77,087	18	46,577	11	138,011	31	433,689
1924	167,206	34	61,904	13	42,641	9	210,719	44	482,470
1925	197,392	37	96,647	18	40,740	8	197,991	37	532,770
1926	267,062	44	124,743	20	48,287	8	167,260	28	607,352
1927	599,452	51	182,558	15	68,599	6	327,645	28	1,178,254

Of the immigrants arriving during the 1922-25 period, 50 per cent. or more, according to statistics taken at Dairen, where such estimates are most accurate, were merely seasonal labourers who returned to their homes in the late fall, when the harvest work was finished. That is to say, a little less than half remained as permanent settlers in Manchuria. But a marked increase occurring in 1926, and the still more extraordinary increase in 1927, constituted virtually a new phenomenon. Civil war between the South and the North was again raging in 1926. Especially in Shantung, Chihli and Honan provinces, warfare, the prevalence of banditry, tax extortion, etc. drove out the native population, who were desperately seeking refuge and the benefits of peace and order which Manchuria only offers. In the late fall of 1926, contrary to the tendency during the same season of any previous year, many hundred thousands of Chinese immigrants arrived and continued to enter in increasing numbers throughout 1927 during which, it was estimated, no less than 1,178,254 persons arrived. Of these, 599,542 landed at Dairen, 182,558 at Yingkou, 68,558 at Antung, and 327,645 were carried by the Peking-Mukden Line. The refugee immigrants, bringing with them their families and chattels, came with the determination to settle permanently in Manchuria. The statistics taken at Dairen show that the number of those returning to their home provinces in 1927 greatly decreased, as follows:

Year	Migrants landed at Dairen	Migrants returning home through Dairen	Percentage returning against those landing at Dairen
1922	170,000	103,551	61%
1923	172,014	122,474	71%
1924	167,206	113,248	68%
1925	197,392	97,130	49%
1926	267,062	129,642	49%
1927	599,452	141,859	24%

If 24 per cent. of these immigrants returned to their homes in 1927 as shown in the above statistics made in Dairen, those remaining

in Manchuria for the same year would be about 894,000 or 76 per cent. of 1,178,000.

Every possible care is taken to assist the immigrants. The railways provide transportation at reduced rates, while the Chinese guilds and other charitable societies assist them during the period of their migration. The Fushun Collieries of the South Manchuria Railway Company encouraged Chinese immigration immediately after the European war by establishing recruiting offices in Shantung and Shanhaikwan. The South Manchuria Railway in 1925 offered Chinese immigrants a reduced rate of 40% of the ordinary tariff, and since April 1st, 1927, gave free passes to children under the age of fifteen and to persons above the age of sixty.

The Chinese Eastern Railway provided free transportation to children under the age ten and persons above the age of sixty, while the Peking-Mukden Railway gave free transportation to children under the age of twelve.



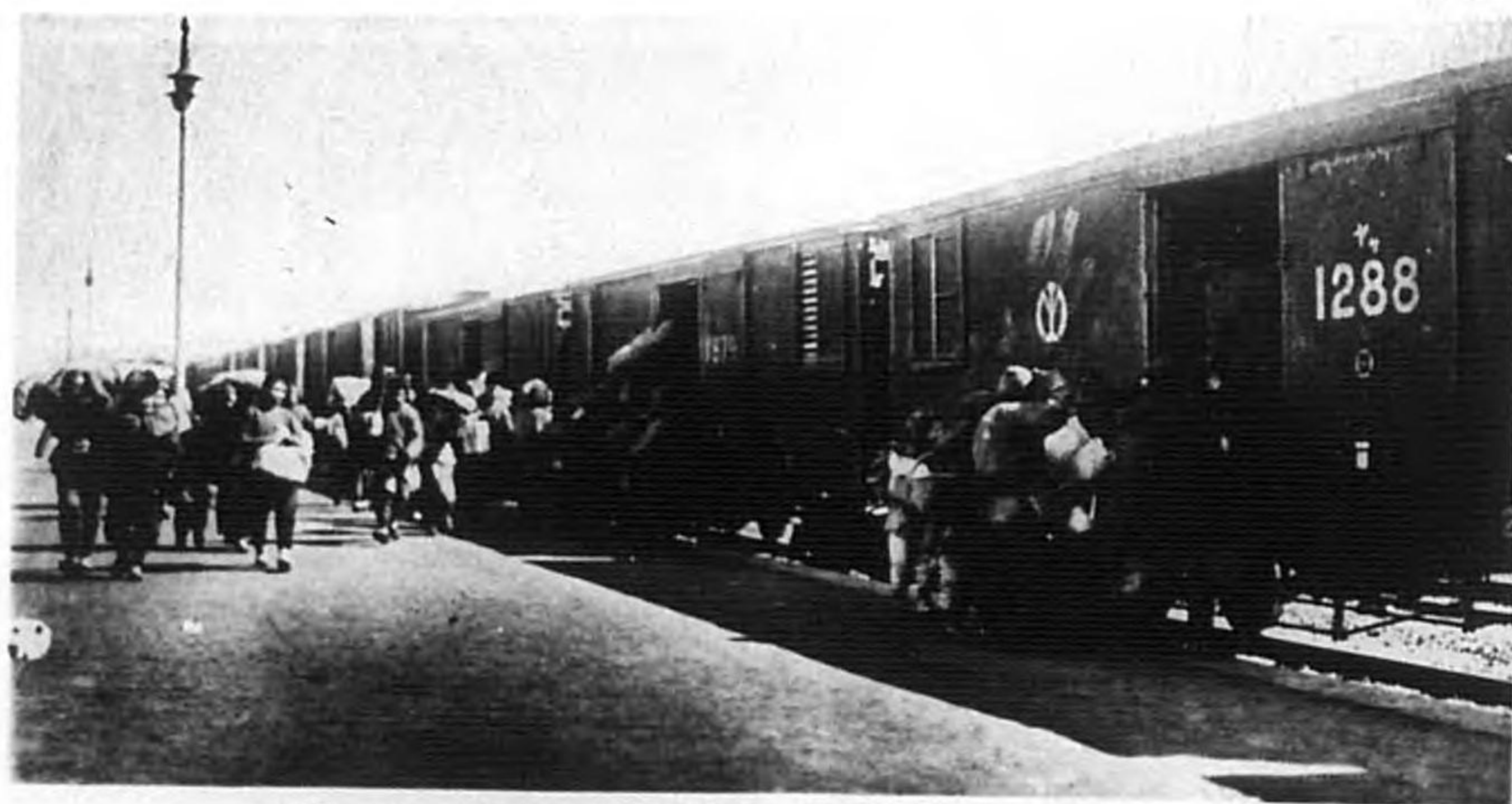
Refugee Immigrants from Shantung on Deck of Steamship, One Million Chinese arrived in 1927.



Immigrants Arriving at Dairen.



Immigrants Awaiting Quarantine Inspection at Dairen.



Immigrants Boarding Train for the North at Dairen.



Immigrants Travelling on Foot to their future Homes in Manchuria.

II HISTORICAL BACKGROUND

11 Tribes and the Great Wall

Manchuria is said to have been inhabited by aboriginal tribes, chiefly the race of people called the Tungus, as early as 2000 years before Christ.

The ruling tribes were known among the Chinese by different names, such as the Sushen, the I-lon, Tung-hu, Mieh-mo, Fuyu, Kaoli, etc. for many centuries. The Sushen, and their descendants called the I-lon, centered along the Ching-po-hu lake in the upper reaches of the Hurka River, a branch of the Sungari, and spread out in the north-eastern part of Manchuria. The Fuyu inhabited the plains of the present Nung-an prefecture, north-west of the city of Changchun, and spread toward the upper valley of the western branch of the Liao River. The Kaoli, though originally settled in the upper valley of the Yalu, descended to the south-east and spread toward what we know as Korea. A certain anthropologist holds the view that the Japanese and the Koreans are descended from the Tungus race in the greater degree than is any other race. Another tribe was Tung-hu, whose name was dreaded by the Chinese in the period of military anarchy in the Six Kingdoms of China. The Wu-won and the Kitan were related to the Tung-hu. These tribes, though they originally belonged to the Tungus race, mixed in a predominating degree with the Mongol Tartars, and principally inhabited the western part of Manchuria. These Manchurian tribes hunted in the open fields, like the Mongol Tartars, and were nomads, — warriors and herdsmen. As time went on, and the tribes and Tartars grew in numbers and strength, internecine warfare became frequent, and they were a constant menace to the Chinese. The Great Wall, first built by Chao Hsing, King of the Yen Kingdom, in 255 B. C., extended and completed in 214 B. C. by Shih Huang-te, the first Emperor of the Chin dynasty, and running for over 2,000 miles from its western extremity in Shensi province to the Liaotung in Manchuria, proved an effective defense against the assaults on the Empire by the Mongolian and Manchurian tribes which early Chinese annals mention as the Tung-hu and the Hsing-nu (Huns).

12 Tribal Kingdoms

As the aboriginal tribes of Manchuria intermingled with other immigrant tribes and Chinese refugees of superior civilization and higher culture, it was a natural development that several kingdoms, maintaining state organizations, should come into existence. Those recorded are the Fuyu (37 B.C.-494 A.D.), Kaoli (37 B.C.-668 A.D.), Pohai (717-927), Kitan (916-1125), Kin (1115-1234), and the Later Kin (1616-1644). These kingdoms, though some had nominally a sort of tributary relation with China, made war and peace at their pleasure, and often sent envoys as do modern states. The people of Fuyu centered about the plains surrounding the city of Changchun, now the northern terminus of the South Manchuria Railway. The Kaoli, the original tribe of which was said to have separated from the Fuyu, centered in the valley of the Yalu river, and this kingdom once dominated the northern part of Korea and the greater part of South Manchuria, with the Liao river as its western boundary. At the time when Korea was divided into three Kingdoms, Kaoli was also counted one of them, and was called Kokuri in the Korean pronunciation. The Han Dynasty was on friendly terms with the Fuyu, in order to counterbalance the activities of the Kaoli. History records that Japan more than once engaged in warfare with the Kaoli. The tablet inscribed on a stone monument which was erected at Tungkou, the old site of the Kaoli Kingdom, on the Chinese side of the Yalu, about 500 miles up the river from Antung, describes the heroic work of Kuang-kai-tu-wang (392-413), the nineteenth king of the Kaoli, especially his activities in Manchuria and Korea, and also very clearly mentions his warfare against the Japanese. But the Kaoli, when menaced by invasion by a Tang Emperor of China, made an alliance with Japan in 662. The Fuyu surrendered to the Kaoli in 493; the Kaoli were crushed by the Tang Dynasty in 664.

After the wreck of these two states came the Pohai Kingdom, which dominated practically the territories of the old Fuyu and the Kaoli. This state maintained friendly relations with both China and Japan. When it was finally crushed by the Kitan Tartars in 927, it had lasted for over two hundred years, during which time the Pohai and Japan exchanged envoys, and had trade relations.

The vigorous Kitan chieftain, Opaochi, subjected the Nu-chen tribe in the north, dominated the eastern part of Mongolia, and next proclaimed himself emperor of an independent state, with the dynastic title of

Liao, in 916. He entered at once upon a long course of encroachment upon the neighbouring kingdoms; and the final result was that Peking was for the first time raised to the status of a metropolis as the Kitan capital. The Kitan Empire spread over Mongolia, Manchuria, the northern part of China, and North Korea to the coast on the Japan Sea. It embraced Outer Mongolia in the West and the greater part of Chihli province in the South, its eastern boundary confined by the Japan Sea.

The Nu-chen, descendants of an original Manchurian tribe, the Sushen, centered at Paicheng, near the present Harbin, and gradually extended their domain eastward into North Korea, and south-westward into the Kitan's territory. By 1150, Akuteng, the leading chief of the Nu-chen, had so far advanced the foundation of an independent kingdom that his dynasty called Kin (Gold) was established. Previously, the Chinese under the North Sung had made an alliance of brotherhood with the Kitan Kingdom under a blood oath, and had not only escaped invasion by the latter, but had gained in prestige. When the Kin gradually grew in power, and the Kitan lost in proportion, China abandoned the brother kingdom and made a secret alliance, in 1120, with the growing new kingdom in order to destroy the Kitan. By this alliance China was to obtain the seventeen Kitan provinces in the Liao valley, and the pledge that the Kin were under no condition to march south of the Great Wall. In return China promised the Kin to invade the southern capital of the Kitan state and to furnish an annual tribute amounting to 500,000 Taels. The Kin's movements were so overwhelming that the Kitans were severely defeated in all directions, and Peking was finally taken by direct assault in 1122, the Kitan Emperor having already sought safety in flight. But China failed to take the southern capital of the Kitan state, and appealed to the Kin for immediate aid in taking the capital, thus giving the latter an opportunity to penetrate considerably beyond the Great Wall. When the question of a settlement of territory between China and the victorious Kin came up, the Chinese Emperor found himself powerless, and the lion's share of the territorial rewards was taken by the Kin. The yoke imposed by the latter on account of China having violated her promise, was more burdensome than that of the dreaded Kitans. The Kin's southern campaigns cleared out everything. The capital of the Sung Emperor was captured. By 1129, the whole of China north of the Yang-tze River was in the hands of the Kin.

The Kin supremacy did not last long. When the Kin people came

into contact with the Chinese, the hardy warriors of the conquering race were quickly softened by the ease and luxury of the Sung civilization. They were no longer strong enough to resist the invasion of the newly rising Mongol Tartars under Genghis Khan. The southern Sung, seizing an opportunity again to play their traditional diplomacy, entered into a secret alliance, this time with the Khan to destroy the Kin. Finally, in 1234, the Kin Dynasty of Nu-chen was crushed by Ogotai, third son of Genghis Khan, with the aid of the Southern Sung, who were themselves in turn wiped out by Kublai Khan, the first Mongol Emperor to rule over the whole of China.

China in those days often practiced the traditional diplomatic axiom, known as "Yuan-Chiao-Chin-Kun" (遠交近攻) or "I-I-Cheng-I" (以夷制夷). The former means, "Check your neighbour by befriending those who are further from you"; and the latter, "Fight in co-operation with one foreign devil against the other." "Double-crossing," however, did not always operate successfully when it met overwhelming foes, such as the Kin or Kublai Khan. On the contrary, the Chinese themselves rather became its victims. Thus the Kin Dynasty was destroyed by the Mongol conquerors, who, one hundred and thirty-four years later, in 1368, were themselves driven out of China by a native Chinese, known as Chu Yuan-chang. He placed Manchuria under a Chinese dynasty, known to history as the Ming. But the tribesmen of the old Kin under the name of Nu-chen were never annihilated either by the Mongolian or the Ming Dynasty. Ming rule did not extend further than the present Liaotung Peninsula.

Among many tribes which traced their ancestry to the Nu-chen of old, three groups were prominent; the Haisi Nu-chen, in possession of the western portion of the valley of the Sungari; the Chienchou Nu-chen on the Korean border, and the wild Nu-chen, on both banks of the Amur. During the ensuing two hundred years their warlike spirit, however, led to frequent warfare with the Mongol Tartars, with the Koreans, and with the Chinese rulers. It is no wonder that the Nu-chen tribes produced, in 1559, a young hero, called Nuerhachi, who altered the course of Chinese history to such an extent that for nearly three hundred years his descendants sat on the throne of China as the Taching Dynasty. He first came into prominence in 1583, when, at twenty-four years of age, he took up arms in consequence of the treacherous murder of his father and grandfather; and he finally succeeded, three years later, in securing from the Chinese, not only the surrender of the murderer, but also a money indemnity. Soon he suc-

ceeded in amalgamating the Nu-chen tribes under his personal rule. Following up his victory by the annexation of neighbouring states, he began in 1616 to present a bold front towards the Chinese, declaring himself independent, calling his domain the Kingdom of the Later Kin, and refusing any longer to pay tribute. Mukden, Liaoyang, and Kaiyuan were successively taken by him. The Ming army and a Korean force were driven before him in the valley of the Liao. But he was never able to break through Shanhaikwan and the Great Wall. At his death, in 1626, his fourth son, Abkai, succeeded him at the age of thirty-four. This new leader of the Nu-chen, a tried warrior himself, was ever determined on the conquest of Peking. He was very successful in his campaigns against the Koreans and Mongol states, and in bringing them to his side in the hope of thus securing an easy passage for his armies into China. In spite of the fact that he had done admirably well all through his hard struggle against the Chinese, he failed to penetrate to Peking just as his famous father had failed. He died in 1643 very suddenly while his big campaign was still pending. In 1636, this ruler had changed the name of his Kingdom of Later Kin to Taching. It is said that this Taching monarch in the same year gave the name "Manchuria" to the land of Nu-chen by taking the Buddhist-posthumous name of his father, Manchu, in commemoration of the founder of the dynasty.

Taching's ninth son, a mere infant of five, succeeded him. This infant sovereign, under the able regency of his father's younger brother, continued the campaign to complete the work of the late ruler, by placing 100,000 Manchu warriors in the region west of the Liao River. Meanwhile, internal trouble broke out on the Chinese side, and a rebel, called Li Tzecheng, took Peking. The Ming Emperor hanged himself in March, 1644. This gave the Manchu leader a good opportunity to enter Peking unopposed, which he did in May, 1644. The boy sovereign moved his capital from Mukden to Peking simultaneously, and the Manchu dynasty of Taching was proclaimed over all China on the first of October in the same memorable year.

13 Manchuria under the Manchu Dynasty

Manchuria remained under the sway of the Taching, or Manchu Dynasty, for 268 years — from 1644 to 1912, when the last Emperor, Pu Yi, issued his final Imperial Edict by which he renounced the Imperial throne and proclaimed the most radical change in the form of

(5) Any treaty relating to Manchuria which may be concluded by the Peking Government, shall require his direct approval.

As a matter of fact, Chang acted as the representative of an independent state, and concluded on October 8, 1924, a separate agreement re the Chinese Eastern Railway in the name of "the Government of the Autonomous Three Eastern Provinces of the Republic of China" with the Soviet Republic of Russia, without referring to the Peking Government.

The second Mukden-Chihli collision took place in the autumn of 1924, when Marshal Wu Pei-fu, of the Chihli party, was overthrown by Marshal Chang Tso-lin, of Mukden, in association with General Feng Yu-hsiang, of the Kuominchun, who abandoned his former chief, Wu Pei-fu. The following year Tuan Chi-jui was made Provisional Regent acting as President with the support of Marshals Chang and Feng.

Now Feng began to struggle with Chang for the mastery of Peking, in co-operation with Tuan Chu-jui, and with the support of Soviet Russia. At the beginning Feng was so far successful that in December, 1925 he forced Chang's forces to withdraw to Tientsin, and later to retreat to Manchuria, by a flank attack in secret co-operation with Kuo Sung-ling, who, though he was a trusted general of Chang Tso-lin, revolted against his chief. Chang, this time in association with Wu Pei-fu, waged another war for the overthrow of the Russian-supported Feng. This was called the third Mukden-Chihli war. Feng's army, the Kuominchun, finally evacuated Tientsin and Peking in April, 1926.

The victorious Chang Tso-lin, though he remained for some time at headquarters in Tientsin, entered Peking December 27, 1926, as Commander-in-Chief of the Ankuchun (Peace Restoration Army), assuming the leadership of all the anti-Southern armies in North China. It was generally believed that he would assume office as President, but after conferences with various military leaders, and ostensibly at their request, Chang Tso-lin ceremoniously assumed the office of Tayuanshuai, Grand Marshal or Generalissimo, on June 18, 1927. On the same day, a Mandate on the Organization of the Military Government of the Chinese Republic was issued, containing seven articles, in part as follows: (1) The Grand Marshal controls the Army and Navy of the Republic. (2) During periods of military administration, he represents the people of the Republic, exercises supreme authority, and guarantees the legal rights of the people. (3) A cabinet is to be attached to the Military Government to assist the Grand Marshal in the conduct of political affairs.

15 Russia's Advent in the Pacific

In the sixteenth century, the Russians crossed the Ural mountains primarily to obtain furs in Asia, while the Portuguese and Spaniards opened a sea route to further Asia in order to obtain the famed spices of the East. Encouraged by lucrative gains, the fur-hunters gradually pushed their way eastward through Siberia to the Behring Sea, and even across to Alaska. These forerunners of empire, with the Cossacks, in the 17th century came into contact with the Chinese, and often engaged in warfare on the Upper Amur. A Treaty concluded on October 27, 1689, at Nerchensk, between Chinese and Russian envoys, brought Russia to the northern boundary of Manchuria along the Argun River, a tributary of the Amur, and the mountain range of the Kamennue to the Okhotsk Sea. This was the first treaty China ever signed with a European power; it was also the first treaty relating to Manchuria. While China was much concerned as to the question of ratification of the Tientsin Treaty with Great Britain and France, Muravieff, Viceroy of Eastern Siberia, took the opportunity to exact from China the so-called Aigun Treaty of May, 1858. By this Treaty the whole vast territory north of the Amur River to the Behring Sea was definitely handed over to Russia, and another large territory east of the Ussuri River to the Sea of Japan and the Korean frontier, which is called the Maritime Province, was placed under the common ownership of China and Russia. China again got into trouble with the British and French Commissioners, who were flatly refused permission to proceed to Peking where the Tientsin Treaties were to be ratified. Subsequently, British and French allied forces, of 18,000 men, took Tientsin and Peking, in 1860, and the Imperial Court fled north to Jehol, a summer capital. During the progress of this catastrophe, General Ignatieff, Russian Minister, offered his services as intermediary. China finally ceded the demands of Great Britain and France. At the same time, China was not in a position to deny Russia what she wanted for her services, though the latter had spent little money and used no force. After the ratification of the Tientsin Treaties, Russia advanced from the common ownership (with China) of the Maritime Province, and assumed absolute ownership through the Peking Treaty concluded on November 14, 1860.

On Peter-the-Great Bay, of this province, Muravieff, as Viceroy, founded the port of Vladivostok for the accommodation of the Russian Pacific Fleet.

16 Railway Penetration in Manchuria

Emperor Alexander III dreamed of the construction of a Trans-Siberian Railway connecting European Russia with Vladivostok, and was so impatient that he appointed Sergey Yulyevich Witte to be Finance Minister, on September 11, 1892, in addition to the post he then held of Minister of Ways and Communications. The Finance Minister, as head of an independent ministry, had heretofore naturally discouraged, if not opposed, the vast enterprise involved in this railway construction. But in his double capacity, Witte concentrated his energy on the contemplated construction of the Trans-Siberian Railway, and is reported to have said to his sovereign: "I will devote myself body and soul to the task!" The construction of the Ussuri Railway, connecting Vladivostok with Khabarovsk, inaugurated on May 19, 1891, was hastily completed under Witte's administration. In the meantime, the Trans-Siberian, which was under construction, had reached Transbaikalia, and the question arose as to the further direction which the railroad should follow. Witte conceived the idea of building the road straight across the Chinese territory, Manchuria, toward Vladivostok, as being much easier and more economical than would be a road built entirely in Russian territory along the course of the Amur River.

Japan was victorious in the war with China in 1895, and demanded the cession of the Liaotung Peninsula, a part of South Manchuria. A provision in the Shimonoseki Treaty ceding the Liaotung to Japan by China excited the Russian statesmen, especially Witte. As he believed that Japan's permanent occupation of the Peninsula would interfere with his plans for railway penetration in Manchuria, Witte initiated a triple intervention of Russia, France, and Germany against Japan for the restoration of that territory to China. Japan at that juncture could only most reluctantly comply. Witte also made an arrangement with a French syndicate to furnish China with a loan to pay the Japanese indemnity, this being a four per cent. loan of 400,000,000 francs under a Russian guarantee. In the meantime, the Russo-Asiatic Bank was established to participate in the new financial activities in China.

Russia was not slow to utilize these friendly acts to obtain compensation from China. When Li Hung-chang was sent to attend the Czar's coronation in April, 1896, Witte was empowered by his sovereign to conduct negotiations with the Chinese envoy concerning the so-called "secret pact." This secret pact was concluded in treaty form as "the Treaty of Alliance between China and Russia." The treaty was kept in

strict confidence for many years, and became ironically known to publicists as the Cassini Convention. Through this treaty, which provided for a Russo-Chinese alliance against Japan, Russia obtained from China formal consent to extend the Trans-Siberian Railway straight through Manchuria to Vladivostok, in the name of the Russo-Asiatic Bank. Thus it was possible to shorten the Trans-Siberian line by 568 miles. The railway, 919 miles in length, running through Chinese territory, was called the Chinese Eastern Railway, the Company of that name being organized in 1896, and construction beginning in August, 1897. The contract for the construction and operation of the Chinese Eastern Railway was signed between the Chinese Minister to Russia and the Russo-Asiatic Bank at Berlin. By the fifth Article, civil and criminal jurisdiction in the Railway Zone was given to the Chinese Eastern Railway Company, this being something like consular jurisdiction. "Absolute and exclusive right of administration" in the Railway Zone was given to the Company.

Russia was not satisfied with Vladivostok as an outlet on the Pacific, for the port is ice-bound more than half the year. Immediately after Germany acquired the lease of Kiaochow harbour and the railway concession in Shantung province, in the spring of 1898, Russia obtained, by a convention concluded on March 28 of that year, a lease of Port Arthur and Dairen, and the adjacent territory and territorial waters for twenty-five years. By this Convention, the Chinese Eastern Railway Company was authorized to construct a branch line running 624 miles from Harbin to Dairen and to Port Arthur on the same conditions as those relating to the Chinese Eastern Railway, including civil and criminal jurisdiction and administrative power in the Railway Zone.

The construction of a trunk line to Dairen and a branch line of the Chinese Eastern Railway to Port Arthur, the reconstruction of Port Arthur as a Russian naval station, with extensive fortifications, the construction of a modern harbour and city at Dalny (Dairen) as a terminal of the branch line, and the founding of the modern city of Harbin, as a junction of the Chinese Eastern main line with its South Manchurian branch line to Dairen, were practically completed prior to the Russo-Japanese war, and Russia was said to have spent thereon more than 588,000,000 roubles.

The following table gives details of expenditure:

Construction of the Chinese Eastern Railway (including branch line to Port Arthur)	Roubles 375,000,000
Additional expenses of construction	75,560,000

Dairen Harbour construction expenses	10,000,000
Dairen City construction expenses.....	8,800,000
Dairen land purchase expenses	1,380,000
Port Arthur Harbour and City expansion expenses	17,400,000
Harbin City foundation expenses	100,000,000
Total	588,140,000

In addition, many millions of roubles were spent for the reconstruction of fortifications at Port Arthur, the amount of which is not known.

The Boxer outbreak in 1900 gave another advantage to Russia, in that she placed large bodies of troops throughout Manchuria. Though frequent assurances that she would withdraw these troops were given owing to the representations of Japan, Great Britain, and the United States, Russia did not carry them out. Meantime, Russian penetration into Korea gradually became acute. Russia's unconciliatory attitude toward Japan's approaching attempts at a friendly adjustment of the rapidly developing problem of Manchuria and Korea finally led to the Russo-Japanese War, 1904-5. By the peace treaty concluded at Portsmouth, N. H., U. S. A., Russia ceded to Japan her railway from Changchun to Port Arthur and her territorial lease of the Kwantung Peninsula.

After the war with Japan, Russia changed her policy in Manchuria and looked upon her Manchurian railway more as a commercial undertaking. As Russia was much concerned with European politics in connection with German activities in the Balkan Peninsula and Morocco, she showed a spirit of co-operation with Japan in joint activities in Manchuria, as was shown in the convention and treaty with Japan concluded respectively in 1907 and 1910. Instead of double-tracking her Chinese Eastern Railway line, Russia built the so-called trans-Amur Railway connecting Europe with Vladivostok on Russian territory throughout. The construction of these 1,240 miles of line began in 1908, and was completed in 1916 at the cost of 295,000,000 roubles.

17 After the Bolshevik Revolution

The Bolshevik revolution in European Russia brought about chaotic conditions in Siberia, and had a bad effect on Russian railway and other interests in Manchuria. After the separate treaty was signed between Soviet Russia and Germany at Brest-Litovsk, on March 3, 1918, the Bolshevik army combined with the German and the Austrian prisoners, who had been released, fought the anti-Bolshevik leaders, Admiral Kolchak, of

the Omsk Government; General Semenov, leader of Russian reactionaries in Eastern Siberia; and General Horvath, of the Chinese Eastern Railway. Chinese military forces seized the opportunity to occupy a part of the Chinese Eastern Railway on December 18, 1917, ostensibly to maintain peace and order, as well as to protect the inhabitants, both foreign and native. Subsequently, a new and important factor was injected into the Siberian situation through the advent of fifty thousand Czecho-Slovaks, who moved from European Russia toward Siberia and came into collision with the Bolsheviks and their German allies. It was deemed necessary that they be rescued by international effort.

Among many other non-Bolshevik Russians, Mr. Eugene de Schelking, formerly Secretary of the Russian Embassy at Berlin, most strongly urged allied intervention in Siberia with a force of 80,000 soldiers, of whom at least 50,000 must be Japanese.

The Russian citizens in Harbin and Vladivostok also passed resolutions appealing for military aid from the Entente allies. The advance of the Bolsheviks under the leadership of German Imperialism was regarded as a serious menace to the Far East by the Japanese Press, which urged the Government to provide measures to meet it, but the Japanese Government did not take any actual step till the United States began in June, 1918, to negotiate with Japan with a view to sending a Japanese-American force to Siberia to the aid of the Czecho-Slovaks. A contingent of the allied forces, American, British, French, and Japanese, landed at Vladivostok, and was received with great enthusiasm. The Commander-in-Chief, General Oh-i, of the Japanese Army was elected as the Commander-in-Chief of the Allied Force. A Committee of the allied forces, including representatives of China and Russia, arranged the distribution of this international army along the railways. The western part of Baikal was assigned to French, British, and Czecho-Slovak troops; the eastern part of Baikal to Russian and Japanese; the Chinese Eastern Railway zone to Chinese forces; the southern part of Ussuri Railway to the American force; and the northern part of the Ussuri Railway and the Amur Railway line to Japanese troops. In order to ameliorate the disorderly condition of the Chinese Eastern and Siberian Railways, and thereby to restore their efficiency, an Inter-allied Committee consisting of a representative each of China, France, Great Britain, Italy, Japan, Russia, and the United States, under the presidency of a Russian, was organized in January, 1919. Under this committee there were two boards: first, a Technical board under the charge of Mr. John F. Stevens, an American engineer, and, second, a Military

Transportation board under the charge of Major-General Shibo, of the Japanese Army. According to this arrangement, 20,000,000 yen was to be defrayed by the allied countries, of which 8,000,000 yen each was apportioned respectively to Japan and the United States.

In the meantime, the attitude of the Great Powers towards the Bolsheviks underwent a change. In January, 1920, the United States suddenly withdrew her troops from Siberia, as she deemed that the original purpose of the expedition had been accomplished. Japan made a declaration on March 31, 1920, that she was looking forward to the withdrawal of her troops at an early date, but that withdrawal was not so simple a matter for Japan as it was for other Allied Powers. The massacre at Nicolaievsk of more than seven hundred Japanese, including a Consul, women and children, caused Japan to occupy certain points in the Russian Littoral and Sakalin as a measure of reprisal. The Japanese evacuation of Trans-Baikal and Amur Province was completed by August of the same year.

After the Far Eastern Republic had been established in Chita in 1920 with the approval of the Soviet Government, Japan, in 1921, approached that Government in order to negotiate an agreement relating to the evacuation and the re-establishment of commercial relations. At the Washington Conference the Japanese delegation declared that it was the fixed policy of Japan to respect the territorial integrity of Russia, and that Japan's evacuation from the Maritime Province would be effected as soon as the security of the Japanese residents and of the Korean frontier region was established. The negotiations with the Chita Government ended in a deadlock, but Japan withdrew her entire forces from Vladivostok and other points in the Maritime Province on her own initiative at the end of October, 1922.

China, however, did not withdraw her forces from the zone of the Chinese Eastern Railway. On the contrary, China took steps gradually to recover military and police power in the Railway Zone, taking advantage of the attitude of the Soviet Government, which was anxious to obtain recognition from the Chinese Government by renouncing "all rights, privileges, and concessions," provided in the agreements concluded by the former Czarist Government. In the spring of 1920, General Pao Kuei-ching, Military Governor of Kirin province, availing himself of a disturbance among workmen of the railway, prevented General Horvath from continuing his official functions, and disbanded all the Russian military guards and police forces along the railway. The zone of the Chinese Eastern Railway was thereafter

exclusively guarded by the Chinese army and police. With the withdrawal of recognition by the Chinese Government of the Czarist diplomatic representative and consuls, which was effected by the President's mandate issued on September 23, 1920, the Consular jurisdiction of Russia in China was suspended. By another mandate, dated October 31st, Chinese courts were established in Harbin and in other sections of the Railway Zone, and the Russian tribunals were thereby all closed. As a consequence of the Presidential mandate of February 10, 1921, the Chinese authorities were to assume municipal administration in Harbin and along the railway.

Meanwhile, Soviet Russia was cultivating a good understanding with China. Mr. Leo Karakhan, Assistant Commissioner of Foreign Affairs in Moscow, made a declaration in 1919 "to the Chinese people and the governments of North and South China," stating that it was Soviet Russia's policy to enter into treaty relations with China on an absolutely equal footing, by renouncing, without compensation, all rights, privileges, concessions, and properties provided in the agreements concluded during the old Czarist Regime, and also stating that the obligation of the further payment of the Boxer indemnity would be cancelled. China was also advised to dismiss the Czarist diplomats still in Peking.

Mr. Yourin was sent during the following year to China as the representative of Chita and Moscow. He had an informal interview with the Chinese Foreign Office, but could not enter into any formal negotiations.

Mr. Abram Adolph Joffe was sent to Peking in August, 1922. Nothing was effected, however, until Mr. Leo Karakhan himself arrived in September, 1923, as Joffe's successor in the "Ambassadorship of the United Soviet Socialist Republic to the Far East." After protracted negotiations, two agreements were finally signed, on May 31, 1924, by Mr. Karakhan representing the Soviet Republics, and Dr. Wellington Koo, Foreign Minister of China. One agreement on the general principles for settlement of the questions at issue between the Republics provided for the establishment of normal diplomatic and consular relations. Among the important items, Russia abandoned her extraterritorial privileges in China. She restored all her concessions to China and further renounced the entire balance of the Boxer indemnity due to her. The Republics reciprocally agreed not to recognize any treaty with a third power affecting the sovereign right of the other. With regard to the Chinese Eastern Railway, the agree-

ment recognized Russia's economic ownership, but political sovereignty in the Railway Zone, "such as judicial matters, matters relating to the civil administration, military administration, police, municipal government, taxation," etc. were handed over to China. Another agreement provided for Sino-Soviet joint management of the Chinese Eastern Railway. This stipulated that five Russian directors and five Chinese directors were to constitute the governing board, but in actual management of the railroad, Russian preponderance was guaranteed by a provision that the manager and one of two assistant managers should be Russian, one assistant manager being Chinese. Three months later, the Soviet Government concluded an agreement with the Government of the Autonomous Three Eastern Provinces of the Chinese Republic, on October 8th, at Mukden. So far as the Chinese Eastern Railway was concerned, this agreement was almost similar to the provisions of the agreement concluded by the Peking Government. The only difference was that while the Peking agreement remained silent regarding the period of concession of the Chinese Eastern Railway, the Mukden agreement provided that the time limit as stipulated in Article XII of the contract for the construction and operation of the Chinese Eastern Railway of September 8th, 1896, should be reduced from eighty to sixty years. Regarding the redemption of this railway, the Peking Agreement simply provided that "China may redeem the railway at some future time," but the Mukden Agreement distinctly provided that China should obtain possession of the railway and appurtenant property without compensation at the expiration of sixty years.

According to this Mukden Agreement, the Governing Board of the Chinese Eastern Railway was soon reorganized in the appointment of directors and managers by the Soviet and the Mukden Governments. It was said that the expense of the railway guards, which amounted annually to about 4,000,000 roubles, should be paid to the Mukden Government by the Company.

18 The Japanese in Manchuria

Setting aside Japan's relations with the tribal kingdoms of Manchuria in ancient times, Japan did not come into direct contact with this region until the war with China broke out in 1894, as the result of a controversy over the question of Korean independence. The Japanese armies occupied the southern portion of Mukden Province in Manchuria from the Yalu River to the Liao River at Newchwang in

their campaign of half-a-year. After the fall of Port Arthur and Weihaiwei, when the Japanese army and navy concentrated at the mouth of the Gulf of Pechihli and were ready for a direct attack on Peking, Viceroy Li Hung-chang visited Japan for peace negotiations, and the Treaty of Peace was signed at Shimonoseki on April 17, 1895. By the Shimonoseki Treaty, China, among other things, ceded to Japan in perpetuity all the territory south of a line drawn from the mouth of the Yalu to Yingkou (Newchwang) through Feng-huang and Haicheng, commonly known as the Liao-tung Peninsula, covering the area of about 10,582 square miles. Russia hurriedly obtained the co-operation of Germany and France in concentrating their Asiatic squadrons in North China, and these three Powers "advised" Japan, "in a spirit of cordial friendship," to restore the Liao-tung to China. As the Japanese naval forces, after their hard struggle with China, were unable to cope the squadrons of the three Powers, the only practical step was to accept the advice of the allies.

19 After the Sino-Japanese War

Although the legitimate fruits of war were thus snatched from Japan by the intervention of the Continental Powers, Japan through the Shimonoseki Treaty took a significant step toward opening China to world commerce, particularly by securing access to new ports and waterways extending into the interior, specially in the Yangtze valley. Foreigners were also permitted to "engage in all kinds of manufacturing industries in open cities, towns and ports in China." Newchwang, opened early in 1861 in accordance with the Tientsin Treaty, was the only port opened to foreign trade in Manchuria. Japan's trade through this port was insignificant until after the Sino-Japanese war. Japanese soldiers and civilian traders attached to the army came back from Manchuria with keen appreciation of the value of the Manchurian beans and bean-cake — beans for foodstuff manufacture and bean-cake for Japanese rice-field fertilizer. The export market for the latter had hitherto been limited to South China, where it was used in the sugar plantations as fertilizer. Just about this time, Japanese farmers were greatly handicapped by the high cost of fish fertilizer, which they had been using for generations past. Japanese purchases of bean-cake increased so rapidly that they exceeded the total export to South China by 1899. Japan's increasing purchases of this product naturally stimulated the gradual increase of the import of Japanese staple goods into Manchuria.

Prior to the Russo-Japanese war, the foreign trade of Newchwang was carried on chiefly by Japan, Great Britain, and the United States. While Japan was the heaviest purchaser of Manchurian products, the United States and Great Britain were the largest importers of cotton goods. The table below shows the trade at Newchwang for 1903. Although the figures showing the shares of Great Britain and the United States in the Customs returns seem rather negligible, the greater percentage of 14,786,056 Hk. Tls. under the heading of "foreign goods imported from other Chinese ports" were cotton goods imported chiefly from the United States and Great Britain.

Countries	Import	Export
Japan	2,466,002	9,374,320
Hongkong	2,972,368	695,023
Great Britain	46,842	12,674
U. S. A.	10,850	—
Other countries	254,933	96,946
Total	5,750,995	10,178,963
Foreign goods imported from other Chinese ports (indirect).....	14,798,056	
Chinese goods, imported and exported	7,330,611	9,802,626
Grand Total.....	27,879,662	19,981,589

20 Russo-Japanese War and the Treaty of Portsmouth

During the Boxer trouble in 1900, Russian troops occupied the Port of Newchwang and Mukden, and the civil administration of the former was conducted by the Russian Consul. The Shanhaikwan-Newchwang-Hsinmintun Railway, built with a loan furnished by the Hongkong and Shanghai Bank (an English institution), was held by Russian troops from the end of September, 1900. While the peace negotiations between China and the Allies were being conducted at Peking, the Peking correspondent of the London Times reported, in the issue of January 3, 1901, a "Manchurian convention" by which all foreigners, save Russian, would be excluded from trade in Manchuria. The Russian movement in Manchuria gave occasion for alarm to the trading nations, particularly Great Britain, Japan, and the United States. One of the chief aims of the Anglo-Japanese Alliance, concluded on January 3, 1902, was to counteract the Russian penetration into Manchuria. Somewhat influenced by the Anglo-Japanese Alliance, and by the representations of other Powers, Russia modified, by the Convention of April 8, 1902, her demand in respect of Manchuria and promised to evacuate Manchuria.

Russia seemed faithful to the undertaking in the beginning, but she not only failed to carry out her promise, but renewed her activities in the spring of 1903, and demanded in return for evacuation a series of new conditions, which Japan regarded seriously as a destruction of equal opportunity for the commercial nations and an infringement on Chinese sovereignty. The Japanese were further provoked by the movement of the Russian troops in Manchuria and the northern part of Korea, and by the Russians strengthening their naval forces in the Far East. In Korea, Japan had been politically and economically much concerned with Russia after the Sino-Japanese war. Japan, however, approached Russia directly in an attempt to settle the questions at issue in Manchuria and Korea by treaty negotiations, which started in June, 1903. After procrastinating pourparlers, Japan, gradually realising that Russia was utterly insincere as to a diplomatic settlement, was compelled, on February 5, 1904, to take independent action to safeguard her "established rights and legitimate interests," which resulted in the Russo-Japanese war.

After a campaign of less than one year and a half, the Japanese army again occupied Southern Manchuria, but this time as far as Changchun. Through the mediation of the President of the United States (Mr. Roosevelt), a peace treaty was finally concluded between Japan and Russia, on September 5, 1905, at Portsmouth, New Hampshire. In the Russo-Japanese war Japan lost 120,000 lives and 2,000,000,000 yen. During the negotiations, Japan asked Russia for "reimbursement" of the cost of the war, instead of an "indemnity," but this was refused, and only 100,000,000 roubles were paid to meet Japan's expenses in caring for Russian prisoners of war. Russia, by the Portsmouth Treaty, transferred to Japan her lease of the Kwantung Province, the railway between Port Arthur and Kwangchengtzu (Changchun) and branches, and the coal mines along the railway, as well as various rights appertaining thereto. Soon after his return to Japan, Baron (later Marquis) Komura, the Japanese plenipotentiary at the peace negotiations, proceeded to Peking "to obtain the consent of the Chinese Government." The Treaty of Peking, signed on December 22, 1905, approved the above-mentioned transfers to Japan. By an additional agreement, China also gave Japan "the right to maintain" and "improve the military railway line between Antung and Mukden" which had been built during the war by the Japanese troops, so as to make it "fit for commercial and industrial goods of all nations." By an appended protocol to this treaty, China pledged herself to Japan "not to construct any main line in the neighbor-

hood of and parallel" to the South Manchuria Railway, "or any branch line which might be prejudicial to the interest of the above-mentioned railway."

21 Post Bellum Policy of Japan

Prior to the Russo-Japanese war, the maintenance of the Open Door policy by Japan in Manchuria was one of the important issues in her contest with Russia, and it was most natural that when peace came Japan and Russia should agree to uphold this policy. By an agreement supplementary to the Peking Treaty of 1905, Japan caused China to open nineteen important cities and towns in Manchuria, such as Liaoyang, Hsinmintun, Tiehling, Kirin, Harbin, Tsitsihar, Aigun, Manchouli, etc. In view of Japan's declared policy of the maintenance of equal opportunity for all nations and the territorial integrity of China, the development of Manchuria through Japanese enterprise was realised to be a most complicated and delicate matter. A commission on Manchurian Post-bellum Enterprise was organized in February, 1906, for the special study of the subject. The members were the Prime Minister, Marquis (now Prince) Saionji; the Chief of the General Staff, Baron (later Count) Kodama; and other heads of departments concerned. Marquis Saionji paid a visit to Manchuria; after which the commission laid down fundamental principles: one, to maintain Chinese sovereignty and equal commercial opportunity, and to encourage joint enterprises of Japanese and Chinese; the other to supersede Japanese military by civil administration as quickly as possible. The program formulated by the Post-bellum Enterprise Commission was approved on May 22nd at a Council of Cabinet Ministers and Elder Statesmen before the Imperial Throne.

Two important steps were rapidly taken by Japan in South Manchuria. By an Imperial ordinance promulgated on June 7, 1906, the South Manchuria Railway Company was called into being and the newly-acquired railway operated by the Japanese military authority was transferred to the management of this joint-stock corporation; the second step was the establishment of the Government-General of Kwantung by an Imperial ordinance promulgated on July 30, the same year. The military administration in the Leased Territory hitherto conducted by the Japanese army authorities was converted into a civil administration under the Governor-General.

While Japan was preparing to restore the administrative entity of China and to open Manchuria to foreign trade, the foreign business

communities, especially American and English merchants at Shanghai, who were impatient to resume commercial activities in the late war area as soon as the Russo-Japanese war had ceased, complained to their Governments, alleging (1) that Japanese goods, having free entry to Manchuria through Dairen, where there was no Chinese Customs office, enjoyed a great advantage over the goods of other nationals, who had to send their goods through Newchwang and pay duty; (2) that the Customs house at Newchwang being in the hands of the Japanese military administration, Japanese officers discriminated in favor of the merchants of their own nation; (3) that the Japanese military bridge over the Liao River hindered water traffic at Yingkou and naturally gave an advantage to Japanese railways; and so on. These complaints, although perhaps exaggerated, may have had some basis in fact. It should not be forgotten, however, that Manchuria could remain, as the Portsmouth Treaty provided, under the military administration of Japan and Russia until the end of March 1907, if so desired.

Japan, however, was very sensitive in the matter of restoring Manchuria to Chinese administration, and with it establishing the Open Door policy, so much discussed at that time. In the middle of June 1906, a commission headed by Mr. Yenjiro Yamada, Director of the Political Bureau of the Foreign Office, was sent to China. The special mission was said to have been instructed to arrange, according to the conclusion arrived at by the Council of Elder Statesmen and Cabinet Ministers, held on May 22nd, for the replacing of the Japanese military administration by a Chinese civil administration. This mission was understood to involve the question of the opening of Dairen, as well as Customs matters connected therewith. As soon as the Chinese administration was restored, the Customs station at Newchwang was to be handed over to the Chinese authorities and the Japanese military bridge over the Liao River removed. The preliminary agreement relating to the restoration of Newchwang was signed at Peking on October 2nd. By the final agreement, signed on December 5th, the Japanese military administration was withdrawn on the next day and all Customs administration was promptly handed over to the Chinese authorities. Sanitary undertakings and other public works initiated during the Japanese military regime were turned over to the Chinese authorities without radical change.

The Japanese Government gave notice to the Powers, on August 22, 1906, that the port of Dairen would be established as a free port on September 1st proximo. An agreement was signed at Peking, May 30, 1907, by which a Chinese Customs office was established at Dairen

on July 1st, and merchandise brought by sea to Dairen was to enter free of import duty, but was to be levied on by the Chinese Customs if the merchandise was intended to pass the Japanese frontier of the Leased Territory and so reach the interior of Manchuria.

22 Controversial Questions

It may be regarded as to some extent unfortunate that Japan in the course of her peaceful undertakings in Manchuria, was occasionally involved in controversies with the Chinese authorities, and that these frequently concerned, though in lesser degree, British and American nationals and their interests in regard to the railway concessions. Disputes concerning the Hsimintun-Fakumen Railway concession, the Antung-Mukden Railway, the Chien-tao question (Chinese-Korean boundary controversy), Secretary Knox's proposal to internationalize the railways in Manchuria, etc., occurred at different periods.

In 1907, China was about to give a British firm, Pauling and Co., a railway concession to finance the building of a fifty-mile line from Fakumen to Hsinmintun, with the ultimate right to extend it to Tsitsihar, four hundred miles north, on the Chinese Eastern Railway. Japan repeated friendly warnings against this concession as constituting a violation of a provision of the protocol attached to the Peking Treaty of 1905, by which China agreed not to construct any line "in the neighborhood of and parallel to the South Manchuria Railway." When the contract for this concession was signed in November, Japan promptly opposed it. In February, 1908, Japan proposed a compromise by endorsing the Chinese plan, if China would consent to extend the line to Tiehling or some other suitable point on the South Manchuria line. China refused to accept this, and suggested that the question be referred to The Hague Tribunal. Japan declined to agree to this solution, and the matter became deadlocked. Meanwhile a report of Sir Valentine Chirol, Director of the Foreign Department of The Times (London), who visited Japan in the spring of 1909, modified public opinion on this question in England, and China abandoned the scheme.

The Antung-Mukden Railway controversy took place in 1909, when the South Manchuria Railway Company commenced, in January, to convert the narrow-gauge line to one of standard gauge, the right to do which was given to Japan by the protocol appended to the Peking Treaty of 1905. After several months' negotiation, Japan was still unable to secure a modification from the Chinese, and finally she sent

to China, on August 6, 1909, an ultimatum, announcing independent action in carrying out the work of reconstruction according to what the Japanese Government conceived to be its treaty rights.

Another question which for several years caused controversy between Japan and China concerned the Korean boundary, involving the Chientao district lying on the north or right bank of the Tumen river. The possession of this district, covering an area of some 1,550 square miles, with a population of 82,999 Koreans and 27,371 Chinese in 1909, was a pending question for many years. In the years 1885 and 1887, respectively, "Boundary Commissions" were despatched to the district by the Korean and Chinese Governments, with a view to solving the frontier problem, but they failed to fulfil their mission. As time went on, maltreatment of Koreans by the Chinese authorities became acute. Furthermore, the Koreans were always exposed to attacks from Manchurian bandits. These Koreans in Chientao constantly asked their Home Government for protection. Following the establishment of the Japanese Protectorate in Korea, the Japanese Government entered into negotiations with the Chinese Government.

These controversial questions became more and more acute, with unpleasant effects upon Sino-Japanese relations. The two Governments, recognizing the vital importance of maintaining permanent peace in the Far East, finally came to an understanding, and a memorandum relating to the Antung-Mukden Railway was signed on August 19, 1909, by which China recognized Japan's right to reconstruct the Antung-Mukden Railway, substituting the standard gauge. A few days later, two conventions were concluded, on September 4. One of these was called the "Convention relating to Manchuria," and the other the "Convention relating to Chientao."

By the first convention, China engaged previously to consult Japan in the proposition to build the Hsimintun-Fakumen Railway. The other pending questions, such as a branch line of the South Manchuria Railway from Tashihchiao to Yingkou, Mukden station, and the coal mines of Fushun, Yentai, etc. were settled satisfactorily to both Governments. By the convention relating to Chientao, Japan waived Korea's long-standing claim to Chientao district and recognized China's territorial sovereignty in this region. Through this convention, Japan caused China to open four towns in Chientao to international trade and residence, which was another evidence of Japan's faithfulness to the principle of the "Open Door" in Manchuria. Japan also took the initiative in withdrawing her extraterritorial jurisdiction in China by

recognizing Chinese law and jurisdiction over the Koreans residing within this district.

23 Treaties and Notes of 1915

By virtue of the Anglo-Japanese Alliance, Japan was promptly brought into the Great War. On August 15, 1914, she advised Germany to surrender Tsingtao, for eventual restoration to China, and, when the ultimatum expired on the 23rd, without any response from Germany, war was declared. After two months' operations, Tsingtao was surrendered on November 7th. The Japanese Navy continued to police the Pacific and Indian Oceans, and the Mediterranean Sea; convoyed Australian troopships to Egypt, and assisted in driving von Scheer's German squadron down the Chilean coast. Soon after the surrender of Tsingtao to Japan, China demanded the withdrawal of the Japanese Army from the German railway between Tsingtao and Tsinan, the capital of Shantung. Japan refused to leave until after the European war was over, and the disposition of the German rights had been settled by a treaty of peace. When China independently proclaimed the revocation of the war zone on January 7, 1915, general disappointment was aroused in Japan as China's attitude was contrary to the popular expectation of Chinese appreciation. Japan, however, in order "to adjust matters to meet the new situation created by the War between Japan and Germany, to define Japan's special position in Manchuria and Inner Mongolia, and adjust other pending questions," had determined to approach China with a view to concluding treaties on specific demands. The demands were divided into five groups. Group I concerned the Shantung settlement; Group II dealt with the recognition of Japan's special interests and position in South Manchuria and Eastern Inner Mongolia; Group III was directed to safeguarding Japan's interest in the Han Yehping Company; Group IV was to emphasize China's territorial integrity; Group V represented certain wishes of Japan respecting Japanese advisers employed by the Chinese Central and Local Governments.

The negotiation of these demands commenced on January 18, at Peking, and two treaties relating to the first and second groups were signed on May 25. By the treaty and notes exchanged respecting South Manchuria and Eastern Inner Mongolia, the Chinese Government recognized the following items:—

1. The extension of the term of lease of Port Arthur and Dairen

and the terms of the South Manchuria Railway and the Antung-Mukden Railway to 99 years.

2. Permission for Japanese subjects to lease lands and to enter, travel, and reside in South Manchuria for trade, manufacture, and agriculture.

3. The opening of more towns in Eastern Inner Mongolia for international trade.

4. Recognition of joint enterprises of Japanese and Chinese in agricultural and auxiliary industries in Eastern Inner Mongolia.

5. To call first on Japanese capital, if China should propose to build railways in Manchuria and Eastern Inner Mongolia through foreign loans or to raise foreign loans by mortgage of the taxes in these regions.

6. Opening of nine mining districts in Manchuria to Japanese enterprise.

7. Preference given to Japanese in case China should employ foreign advisers or instructors on political, financial, military, and police matters in South Manchuria.

8. China's promise to revise the Kirin-Changchun Railway Agreement according to the most favoured agreements concluded or to be concluded with other nationals.

With regard to the extension of the leaseholds in Manchuria, it was natural that Japan should claim the term of 99 years which was granted by China to most of the foreign leaseholders. It was still more natural that Japan should ask China for an extension of the term of her railways in South Manchuria, so long as the term of the Chinese Eastern Railway of Russia remained at eighty years.

24 Japanese Loans to China

Before the European war, China had been financed largely by British, and some German, French, and American capital. After the outbreak of the war, China was in serious need of funds, and Japan and the United States were the only countries which could furnish capital. During the ministry of Count Terauchi, 1916-18, quite large sums were loaned to China principally through the three Japanese chartered banks, amounting in gross to 177,000,000 yen as shown by the following table:—

Purpose of Loan	Date of Contract	Amount
1. Bank of Communications Readjustment...	Sept. 28, 1917.	¥ 20,000,000
2. Chihli Province Flood Relief	Nov. 22, 1917.	5,000,000
3. Telegraph Administration Improvement...	Apr. 30, 1918.	20,000,000
4. Kirin-Huining Railway	June 18, 1918.	10,000,000
5. Kirin and Amur Provinces Forest and Mining	Aug. 2, 1918.	30,000,000
6. Four Railways Loan in Manchuria and Mongolia	Sept. 28, 1918.	20,000,000
7. Shantung Railway	" " "	20,000,000
8. Arms and Ammunition	" " "	32,000,000
9. War Participation	" " "	20,000,000
Total		177,000,000*

Out of these loans, several of them were designated to be spent in Manchuria and Eastern Inner Mongolia.

25 Railway Loan Agreements

Of the above-mentioned loans by Japan to the Chinese Government during 1917-18, two were furnished for the construction of railways in Manchuria and Inner Mongolia.

At the time of the establishment of the Republic, the Government at Peking under President Yuan Shih-kai was anxious to obtain recognition of the new Republic from the foreign Powers, and also realised the national financial incapacity. This caused China, during 1912-1914, to conclude railway loan agreements with Belgium, Germany, England, Japan, and the United States. On October 5, 1913, the Chinese made an agreement relating to a plan of co-operation with Japan with particular reference to the loans for constructing five railways in Manchuria and Inner Mongolia, by an exchange of notes. China agreed to a loan from Japanese capitalists for the construction of the following railways:

- a. Ssupingkai to Taonanfu, with a branch line to Paiyintala.
- b. Kaiyuan to Hailungcheng.
- c. Changchun to Taonanfu.

China further agreed that if in the building of the following two lines foreign capital should be needed, negotiations should first be entered into with Japanese capitalists:

- d. Taonanfu to Jehol.
- e. Kirin to Hailungcheng.

In connection with the five railways loan agreement made in 1913,

* These loans are outstanding with the exception of the Chihli Province Flood Relief Loan.

construction work on the line from Ssupingkai, via Chengchiatun, to Taonanfu was started in April, 1917, by the Chinese Government with funds furnished by the South Manchuria Railway Company and a loan floated by the Yokohama Specie Bank, to which Americans and Europeans were also subscribers.

By an agreement relating to railway loans in Manchuria and Inner Mongolia, signed on September 28, 1918, the funds of the following four railways were to be furnished by a syndicate of three Japanese chartered banks:

- a. From Kirin to Kaiyuan via Hailungcheng 230 miles
- b. From Changchun to Taonan 180 "
- c. From Taonan to Jehol..... 470 "
- d. From a point on the Taonan-Jehol Railway to a seaport 220 "

The priority right for furnishing loans to the Kirin-Hailungcheng line and the Taonan-Jehol line provided for in the exchange of notes of 1913, was decided definitely in favour of Japanese capital according to the agreement of 1918. By this agreement the Taonan-Jehol line was to be extended to a seaport. These lines, totaling over one thousand miles, were to cost more than 75,000,000 yen, of which the Japanese syndicate advanced 20,000,000 yen.

By another railway loan agreement, signed on June 18, 1918, the Kirin-Huining line was to be constructed with funds furnished by a syndicate of three Japanese chartered banks. An advance of 10,000,000 yen was made when this agreement was signed. This line was to connect the Kirin-Changchun railway with the Korean Government railway at Huining, or Kainei, on the Japan Sea coast of Korea.

26 Ishii-Lansing Agreement

The special interests of Japan in Manchuria were recognized by France, Russia, and Great Britain during the years 1907 and 1911 in their respective conventions and treaties with Japan. Shortly after the United States entered into the European war, the Japanese Government, in the summer of 1917, sent a special mission, headed by Viscount Ishii, formerly Minister for Foreign Affairs, to congratulate the United States on her decision to enter the war and to make some arrangement for co-operation between the two countries. One of the most significant events of this visit was the exchange of notes with Secretary Lansing. By these notes the "Government of the United States recognizes that Japan has special interests in China, particularly in the

part to which her possessions are contiguous." "The part to which her possessions are contiguous" undoubtedly referred to Manchuria, to which Korea is contiguous. The two Powers also pledged themselves to observe the principles of the independence and territorial integrity of China and the "Open Door," as Japan had done with France, Great Britain, and Russia by their respective conventions. This exchange of notes removed certain misunderstandings which had existed between the two Powers, and paved the way to the gradual development of mutual co-operation in commerce and industry in the Far East. Several months later, another mission, called the Finance and Economic Commission, was sent to the United States. The chief commissioner, Baron Megata, suggested the joint co-operation of America and Japan in the commerce of the Far East, particularly in China. The Ishii-Lansing Agreement and the Anglo-Japanese Alliance Agreement, however, were revoked soon after the Washington Conference.

27 Versailles Treaty

The world war was ended by the Armistice Treaty signed on November 11, 1918. On January 18, 1919, the delegates of the Allied and Associated Powers assembled at Versailles to formulate the terms of peace which would be offered to Germany and her Allies. Among many other desiderata, China sought the abrogation of the Japanese treaties of 1915, so far as these concerned Manchuria, restoration of the leased territories, restoration of foreign concessions and settlements, abrogation of foreign spheres of influence, withdrawal of all foreign troops and police, etc. These Chinese claims seemed to have small direct concern with the purpose of the Conference, which was to formulate the terms of a treaty of peace with Germany, and they were, therefore, not taken into serious consideration.

28 Consortium

On October 15, 1920, the new Consortium Agreements, to finance China, were signed by the banking group representing France, Great Britain, Japan, and the United States. Historically speaking, the first consortium initiated by Mr. Willard Straight, representing certain American banking interests, was organized on April 15, 1911, when various banks of France, Germany, Great Britain and the United States were to provide China with funds to the amount of £10,000,000 for the reform of China's

currency and for undertaking certain industrial enterprises in Manchuria, by means of a loan agreement. This agreement was kept secret until its text prematurely appeared in the Peking and Tientsin Times. Article XVI, providing for the priority of this consortium in case foreign capital should be invited "to participate with Chinese interest in Manchurian business under this loan or to be undertaken in connection therewith," caused much popular ill-feeling in Russia and Japan. This article, it was explained, was not to be construed as being inimical to the special interests of Japan and Russia. This agreement, however, was never carried into effect, owing to the fall of the Manchu Dynasty. When the Inter-Bank Conference was held in June, 1912, in Paris, Japanese and Russian banks joined the Four Powers' Consortium, but with the reservation that the Japanese and Russian groups would withdraw from the agreement if the proposed business should appear to prejudice their interests in Manchuria and Mongolia. From this Six Powers' Consortium, the American group withdrew in 1913. With the outbreak of the European War, the German Group was forced to withdraw. On October 8, 1918, the United States Government, recognizing "the change in our international relations, both diplomatic and commercial, brought about by the war," proposed to Great Britain, France, and Japan the formation of a new consortium to render assistance to China. While these Governments were exchanging notes on the consortium matter, the bankers of the four Powers involved met in Paris to discuss terms. Mr. Thomas W. Lamont, of J. P. Morgan & Co., who was in Paris as financial adviser to the American delegation to the Peace Conference, took a leading part in the bankers' conference as representative of the American group. In May, 1919, the conference drafted a preliminary agreement. Japan was quite ready to agree to the American plan, but proposed that "all rights and options held by Japan in the regions of Manchuria and Mongolia where Japan had special interest," should be excluded from the scope of the consortium, maintaining that "this is based on the very special relations which Japan enjoys geographically and historically with the regions referred to, and which have been recognized by France, Great Britain, the United States, and Russia on various occasions." The United States and Great Britain opposed the Japanese reservation regarding Manchuria and Mongolia. After protracted negotiations, Mr. Lamont, with the approval of his Government, went to Tokyo, where a compromise was reached which was accepted by all the Powers involved. Based on this compromise, Notes were exchanged between the representatives of the Japanese and

American groups on May 11, 1920. The main items are as follows:—

1. That the South Manchuria Railway and its present branches, together with the mines which are subsidiary to the railway, do not come within the scope of the Consortium;

2. That the projected Taonanfu-Jehol Railway and the projected railway connecting a point on the Taonanfu-Jehol Railway with a seaport are to be included within the terms of the Consortium Agreement;

3. That the Kirin-Huining, the Chengchiatun-Taonanfu, the Changchun-Taonanfu, the Kaiyuan-Kirin (via Hailung), the Kirin-Changchun, the Sinminfu-Mukden, and the Ssuningkai-Chengchiatun Railways are outside the scope of the joint activities of the Consortium.

29 Washington Conference

The Washington Conference was in session from November 12, 1921, to February 6, 1922. The conference dealt with questions of armament and the Far East, and the Chinese, again, as at the Peace Conference, strongly demanded *inter alia* the withdrawal of foreign troops, annulment of foreign leaseholds, and the cancellation of the treaties and notes of 1915 concluded or exchanged with Japan. On November 29, Mr. Alfred Sze, a Chinese delegate, demanded in the committee on Pacific and Far Eastern questions that all unauthorized foreign troops, police and foreign telegraph and wireless systems should be withdrawn from Chinese soil. Mr. Hanihara, a Japanese delegate, replied clearly by stating that while Japan was willing to withdraw her troops from China proper as soon as conditions warranted, it was impossible for Japan "to forego the right, or rather duty, of maintaining railway guards in Manchuria, whose presence is duly recognized by treaty." At the meeting on December 3rd of the same committee, Mr. Koo, a Chinese delegate, demanded the annulment and termination of the foreign leaseholds, referring specially to the Japanese leaseholds in Manchuria and Kwantung Province, including Port Arthur and Dairen. To this Mr. Hanihara promptly answered that "Japan has no intention at present to relinquish the important rights of the leaseholds which she has acquired lawfully and at no small sacrifice."

At the meeting on December 14, Mr. C. H. Wang, another Chinese delegate, urged that "the Treaties and Exchange of Notes of 1915" be "reconsidered and cancelled." To this Mr. Hanihara responded that if there be "a question of the validity of the Treaty or Agreements of 1915, or the change or abrogation thereof," he

believed that "this question was one to be taken up between Japan and China, if it were to be taken up at all, and not at this conference." At the meeting on February 2, before this question was brought up, Baron Shidehara, a Japanese delegate, made a statement in the form of a declaration. The statement observed, with regard to the procedure of the Chinese delegation on this question, that the Japanese delegation, while appreciating the difficult position of the Chinese delegation, did not feel at liberty to concur in the procedure taken by China "with a view to cancellation of an international engagement which she entered into as a free sovereign nation." It also stated that "if it should once be recognized that rights solemnly granted by treaty may be revoked at any time on the ground that they were conceded against the spontaneous will of the grantor, an exceedingly dangerous precedent will be established, with far-reaching consequences upon the stability of the existing international relations in Asia, in Europe, and everywhere."

This statement further remarked that as changes had taken place in the situation since the conclusion of the Sino-Japanese Treaties and Notes of 1915, the Japanese Delegation made the following declarations so far as Manchuria was concerned:

1. "Japan is ready to throw open to the joint activity of the International Financial Consortium recently organized, the right of option granted exclusively in favor of Japanese capital, with regard, first, to loans for the construction of railways in South Manchuria and Eastern Inner Mongolia, and, second, to loans to be secured on taxes in that region." But it is understood that this declaration by no means affects the understanding arrived at by the exchange of notes in connection with the Consortium Agreement of 1920.

2. "Japan has no intention of insisting on her preferential right under the Sino-Japanese arrangements in questions concerning the engagement by China of Japanese advisers or instructors in political, financial, military or police matters in South Manchuria."

Baron Shidehara concluded the statement by saying that "in coming to this decision," "Japan has been guided by a spirit of fairness and moderation, having always in view China's sovereign rights and the principle of equal opportunity."

30 Construction of Railways for Chinese

With the view to developing agriculture and industry in the vast

arable area of Eastern Inner Mongolia contiguous to Manchuria and to developing the lumber industry in the wooded areas of Kirin Province, the Communications Committee of the Government of the Three Eastern Provinces contemplated the building of additional railways. Subsequently the Government determined to establish more effective communication between the capitals of the three provinces. A contract to construct the Taonan-Angangchi Railway, covering a distance of 143 miles, in order to connect with Tsitsihar, the capital of the Amur province, across the Chinese Eastern Railway at Angangchi, and to connect with the South Manchuria Railway line at Ssupingkai, through the Taonan-Ssupingkai railway, was given to the South Manchuria Railway Co. The construction work was commenced in June, 1925, and completed in July, 1926. It was provided that if the Chinese Government should fail to pay the expense of construction within one year after the completion of the construction work, the amount involved should be converted into a railway loan. Another line constructed under contract with the South Manchuria Railway Co. is the Kirin-Tunhua line, covering 130.4 miles, a part of the Kirin-Huining line of 260 miles, which is to be connected with the Korean railway at Huining. As already stated, the whole construction fund for building the Kirin-Huining line, according to preliminary agreement, should have been furnished by three chartered banks of Japan, and 10,000,000 yen was advanced to the Chinese Government at interest of $7\frac{1}{2}$ per cent. Owing to political turmoil and frequent changes of government in China, the construction of this railway has not yet been carried out. Meanwhile, a light railway of 2 feet 6 inch gauge, running 69 miles between Huining, on the Korean side, and Tienpaoshan, was promoted by a joint undertaking of the Chinese Government and Japanese private individuals, and its construction was completed in 1924. By an agreement signed on December 24, 1926, the Kirin-Tunhua line, running 130 miles west of Kirin towards Korea was built for China by the South Manchuria Railway Co. as the contractor at a cost of 24,000,000 yen. Construction was started in June, 1926, and was completed in October, 1928. As in the case of the Taonan-Angangchi Railway, it has been agreed that if the cost of this railway should not be paid within one year after the completion of construction, the amount shall be converted into a railway loan. Of the Kirin-Kainei (Huining) Railway of 260 miles, the 130 miles of the Kirin-Tunhua line and the 69 miles of light railway from the Korean side to Tienpaoshan have thus been completed, and about 60 miles separate the two railheads.

31 Japanese Investments in Manchuria

Japanese investments in Manchuria and Eastern Inner Mongolia, particularly since the establishment of the South Manchuria Railway Company, have been immensely increased, and aggregated over 1,563,000,000 yen outstanding on March 31, 1928. The table below gives details of capital investments.

If the Government property owned by the Kwantung Government and the Japanese Army, the annual grant from the home Government for the last 21 years, private property owned by Japanese residents in Manchuria, etc.—aggregating in all 443,688,000 yen—be added, the total investment of Japan in Manchuria to-day amounts to 2,006,800,000 yen.

JAPANESE INVESTMENT IN MANCHURIA

(December 31st, 1927)

Investors	Items of Investment	Amount	
South Manchuria Railway Company	Direct Undertakings	Railways.....	248,277,556
		Harbours and Wharves	59,789,109
		Vessels in Harbour service	4,044,933
		Coal Mines.....	102,730,711
		Iron Works	20,747,607
		Sanitation	14,550,686
		Education	13,489,848
		Municipal Undertakings	134,979,952
		Others.....	46,231,332
		Total	644,841,734
	Securities of affiliated companies and public bonds	55,287,181	
	Loans to Chinese Railways and for Encouraging Industries.....	59,452,855	
	Cash Advanced for Contract Construction of Chinese Railways, Deposits, Uncollected Credits, etc.	150,528,206	
Japanese Government	Loans to Chinese Government	98,730,823	
Japanese Corporations	Loans to Chinese Government and Individuals...	20,282,080	
Japanese Corporations	Capital Funds invested by Corporations.....	439,003,410	
Japanese Individuals	Capital Funds invested by Individuals	94,991,560	
	Total	554,277,050	
Grand Total		1,563,117,849	

32 Manchuria Today

The foregoing sections provide a brief historical survey of Manchuria; of the Russian advent and the subsequent Japanese succession in this region. It has been made clear there can be no question as to the enjoyment by China of sovereign rights and by all nations of equal opportunity, in Manchuria. In their political and economic aspects, particularly relating to the railway system, China, Japan, and Russia today stand in Manchuria in a sort of triangular relationship.

There were about 3,400 miles of railways in operation, or soon to be in operation, as they existed in 1928. Of this total, China owned over 1,500 miles, Japan about 700 miles, Russia (in joint management with China) about 1,070 miles, and Sino-Japanese joint undertakings aggregated 146 miles. Although the Chinese railways aggregated a greater mileage than Japanese or Russian lines, most of them were financed by foreign, especially Japanese, capital, as shown in the following table:—

Name of Railway	Distance in miles	Gauge	Remarks
Chinese Eastern Railway & Branches.....	1,069	5'	Sino-Russian management, with Russian and French capital.
South Manchuria Railway & Branches.....	695	4'8½"	Japanese undertaking.
Manchurian section of Peking-Mukden Railway & Branches in Manchuria.....	466	do.	Chinese Government Line, partly British capital.
Ssuping kai-Taonan Railway with branch line to Paiyintala	265	do.	Chinese Government Line, with Japanese capital.
Taonan-Anganchi Railway.....	142	do.	do.
Kirin-Changchun Railway	79	do.	Chinese Government Line, with Japanese capital, under Japanese management.
Kirin-Tunhua Railway	130	do.	Chinese Government Line, with Japanese capital.
Mukden-Hailungcheng Railway	147	do.	Chinese Semi-Government Line (Mukden Province).
Takushan-Paiyintala Railway...	125	do.	Chinese Semi-Government Line (Mukden Province).
Hulan-Hailun Railway.....	70	do.	Chinese Semi-Government Line (Amur Province).
Tsitsihar-Anganchi Railway ...	18	1 metre	Chinese Semi-Government Line (Amur Province).
Shaochengtzu-Muling Colliery Line.....	37	5'	Muling Colliery Co. (Sino-Russian management).
Nuerho-Tayaokou Colliery Line	18	4'8½"	Tungyu Colliery Co. (Chinese enterprise).
Kaiyuan-Hsifeng Railway	40	1 metre	Chinese private enterprise.



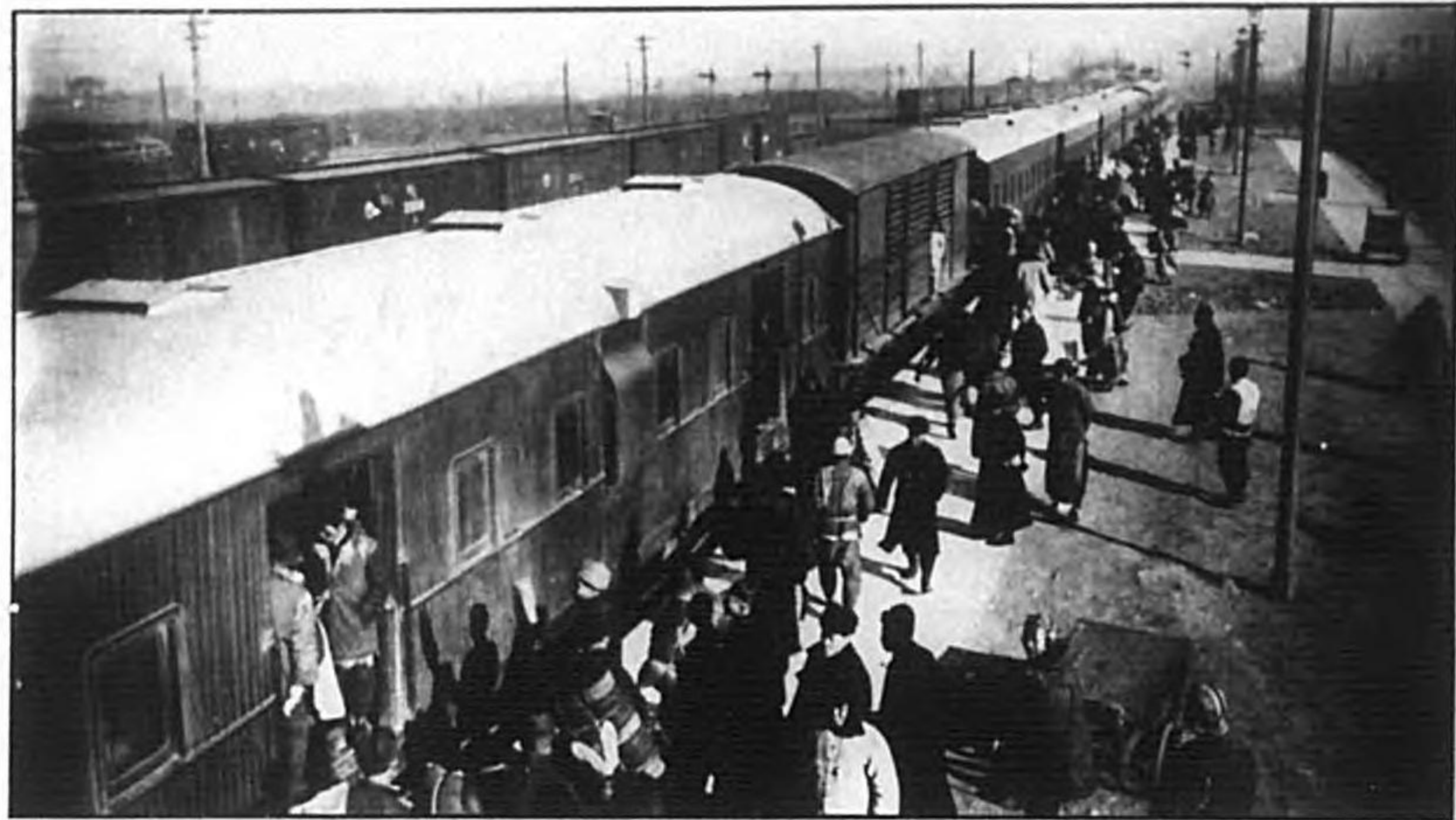
Camel Traffic in the North Manchuria — Mongolia Region.



The Famous One-Wheel Cart utilizing the Sail.



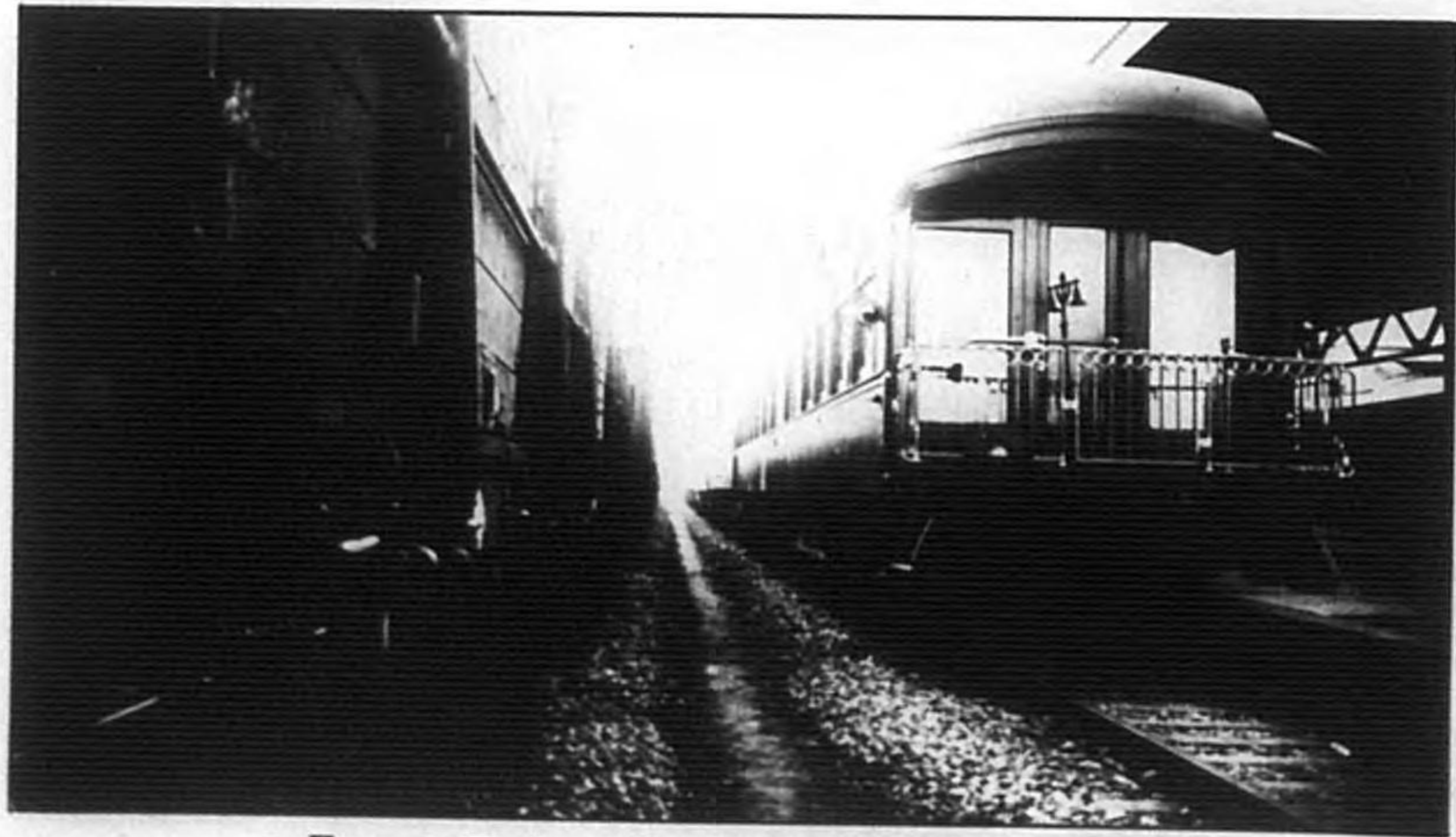
Country Folk enjoy an Outing.



Passenger Train of the Peking-Mukden Line.



Passenger Train of the Chinese Eastern Railway.



Express Train of the South Manchuria Railway.

Chinchou-Pitzuwo Railway ...	63	4'8 1/2"	Sino-Japanese undertaking.
Penhsihu-Niuhsintai Line	14	2'6"	Sino-Japanese undertaking.
Tumen-Tienpaoshan Railway...	69	do.	Sino-Japanese undertaking.
Total miles.....	3,447		

Of the 1,500 miles of Chinese railways, over 695 miles were built with Japanese capital, and the 466 miles of the Peking-Mukden line, with branch lines in the Manchurian section, partly with British capital. Those lines built with Chinese capital cover only 418 miles, and are five in number: Takushan-Paiyintala, 125 miles; Mukden-Hailung, 147; and Hulan-Hailun, 70 miles, are significant ones.

By means of the Chinese Eastern Railway, traversing North Manchuria from west to east, the Japanese line traversing South Manchuria from north to south connecting with the Chinese Eastern line in the north; and another Japanese line traversing Manchuria from the Korean frontier to Mukden, where it connects with Mukden-Peking line, the economic development in Manchuria achieved a record with the passing years. It has been well said that a railway brings prosperity and civilization. This is particularly true in the case of Manchuria. More than two generations ago the Russians opened portions of Manchuria, but it may be said to have been the Japanese who have made it a land of opportunity for the world. It is the Japanese and Russian example that has stimulated the Chinese to build railways with their own capital.

With the railway expansion as well as the advent of Japanese enterprise, entailing heavy investment of capital, many neglected areas in Manchuria were brought under cultivation. The arable land under cultivation, which amounted to 17,000,000 acres in 1907, was increased to 31,000,000 acres in 1927. The annual crop of the famous soya bean totaled only 700,000 tons in 1907; it was 5,873,000 tons in 1927. The total output of agricultural products for 1927 was estimated at 20,000,000 tons, of which beans represented 5,873,000 tons, kaoliang 5,351,000 tons, millet 3,793,000 tons, corn 2,099,000 tons, and wheat 1,285,000 tons. The aggregate export of beans, beancake and bean oil for the same year amounted to 4,407,559 tons, of the enormous value of 215,857,246 taels. Japan, being the heaviest purchaser of this product, took 46%, China proper 20%, and Europe 30%. The trade of the three provinces was valued at 52,000,000 taels in 1907; it had increased to 679,900,000 taels in 1927. Of this total trade, Japan represented 38.78 per cent., China 30.15 per cent., Russia 13.10 per cent., England 2.65 per cent., and the United States 4.44 per cent. The remarkable

increase of the Japanese trade does not in any way prejudice the trade of England, the United States, and other nations. On the contrary, their trade is increasing, due partly to greater purchases of American and European machinery, etc., by the South Manchuria Railway Company, and other Japanese companies. The Chinese Government railways also purchased rails and rolling stock from America and Europe.

The enormous increase of Japanese trade is due not only to mere geographical propinquity, but to her vital needs for food and the raw materials of industry. Manchurian beans, used in the manufacture of Japanese foodstuffs (soya sauce, tofu, etc.) and beancake for fertilizer for the rice fields, have been assisting largely in solving the food problem caused by Japan's ever-increasing population. Korea last year purchased 5,721,161 piculs of Manchurian millet, valued at 28,503,035 Hk. Tls. as a substitute for the rice which Korea exported to Japan. Thus Manchurian millet, also, is assisting indirectly in solving the increasing demand for food in Japan.

In the remarkable development of agriculture, industry, and trade in Manchuria, aided chiefly by the steady progress of railways, with heavy investments of foreign, especially Japanese, capital, the Chinese themselves are the main beneficiaries. In her foreign trade, Manchuria has in most years enjoyed an excess of exports over imports. This favourable balance amounted to 140,000,000 taels in 1927. That is to say, the Manchurian farmers sell more than they buy.

The net profit of the South Manchuria Railway Company for 1927 was 36,274,320 yen, and the aggregate amount of wages paid by the Company for the year was 26,450,000 yen, of which 75 per cent. went to the Chinese employees and coolie day-workers. The Company has invested over 162,000,000 yen in welfare enterprises chiefly in the Railway Zone, and spends each year more than 13,000,000 yen on education, sanitation, water works, public roads, and other public works in the Railway Zones, the population of which is 300,000, of whom 70 per cent. are Chinese. While chaos and misery rule in many areas in war-ridden China, Manchuria is the only region in North China where peace and order are uniformly maintained. The people, harassed by warfare, banditry, kidnapping, official extortion, excessive taxation, and famine, have naturally hastened to seek the benefits of peace and the opportunity for obtaining better living conditions which Manchuria offers. Shantung province, where the Washington Conference expected great prosperity to prevail after its restoration to Chinese rule, has experienced a great mass migration of its inhabitants, constituting possibly

a movement of population unique in human history. These emigrants poured into Manchuria during the year 1927, the total being estimated at over one million souls, including hosts from Shantung, Chihli, and other northern provinces. To those who passed through Dairen, every possible assistance was given by the South Manchuria Railway Company and by the Dairen Steamship Co. in co-operation with Chinese charitable societies.

When Grand Marshal Chang Tso-lin established his military Government at Peking in June, 1927, while still holding the Governor-Generalship of the Autonomous Three Eastern Provinces, he seemed to act as the *de facto* ruler of the Republic in North China as well as of Manchuria. As far as the railways in Manchuria are concerned, the Chinese Eastern Railway under Sino-Soviet management, with Chinese military guards, operated since October, 1924 without serious disturbances; the Peking-Mukden Railway operated uninterruptedly after the withdrawal of the army of Marshal Feng Yu-hsiang from Tientsin and Peking in April, 1926; and the South Manchuria Railway is operating most efficiently, but with military guards. In Manchuria as a whole, peace and order have been maintained fairly well during these troubled years, and there has been no serious disturbance. But China proper remained in a state of turmoil. What will happen tomorrow, in Peking or Nanking, or wherever the centre of government may be, and what effect it will have in Manchuria, no one is able to predict.

Soon after Baron Tanaka, President of the Seiyu-kai, or Constitutional Party, organized his Cabinet, the Premier, in his capacity of Minister of State for Foreign Affairs, summoned in August, 1927 the Japanese Minister at Peking and Consuls in China for a conference on the Chinese situation. At the close of this conference the Premier summarized Japan's China policy in the following terms:

1) The Japanese Government thinks it would be unwise to interfere "in the Chinese civil war or in the domestic political quarrels of China."

2) The Japanese Government will "co-operate with other Powers to meet the reasonable demands advanced by such of the Chinese people as entertain moderate ideas as regards China's rehabilitation."

3) If a strong central government be organized "by the coalition of the Northerners and Southerners, or by factions of certain local origin," Japan will support it with the other Powers, "whether it be located in the North or the South."

4) While Japan will rely upon China's own efforts to control agitators and unruly elements actively engaged in causing trouble, she may, if Japanese lives and property in China be endangered, be forced to take necessary measures for their protection.

5) "Peace and order in Manchuria and Mongolia have a vital bearing upon Japan's national existence and national defence. The Japanese Government, therefore, feels itself responsible for the maintenance of peace and order in these regions, not only in view of Japan's special position there, but also in the interest of China herself."

Thus Baron Tanaka's statement clearly expressed Japan's policy of rendering all possible assistance to China to organize a solid central Government and to promote the national rehabilitation in co-operation with other Powers. Regarding Manchuria and Mongolia, in which Japan has invested so heavily, whence she obtains raw material and foodstuffs, and where the maintenance of peace and order is essential for her national defence, the statement declares that the Japanese Government feels itself responsible for the maintenance of peace in these regions. The civil war again became acute in May, 1928. When the fighting between the Northern and the Southern armies, the latter an alliance of the forces of General Chiang Kai-shek, Marshal Feng Yu-hsiang, and General Yen Hsi-shan was developing in the direction of Peking and Tientsin, the Japanese Government through its Minister and Consul handed to the belligerent parties a warning memorandum (May 18). The memorandum stated in part that "should the disturbances develop further in the direction of Peking and Tientsin and the situation become so menacing as to threaten the peace and order of Manchuria, the Japanese Government, on its part, may possibly be constrained to take appropriate and effective steps for preserving peace and order in Manchuria." The reason for this warning lay in the fact that Japan, as far as possible, desired to prevent Manchuria being involved in the civil war.

III LEASED TERRITORY AND RAILWAY ZONE

33 General Remarks

The area under Japanese jurisdiction in Manchuria is limited to 1,300 square miles of territory known as the Kwantung Province or Liaotung Peninsula, including Port Arthur and the Port of Dairen, and to 100 square miles of railway zone belonging to the South Manchuria Railway Company. The total area under Japanese control amounting to 1,400 square miles, thus represents but a fraction of Manchuria, to be precise, the 273rd part of the whole area.

The territory at the southern extremity of the Liaotung was originally leased to Russia, on March 27, 1898, for 25 years, subject to extension by mutual agreement; but by the Treaty of Portsmouth, 1905, the lease was transferred to Japan, which was subsequently affirmed by China, and in 1915 it was agreed that the lease should be extended to 99 years from the date of the original lease of the territory. That is to say, the term of this lease will expire in 1997. The terms of the South Manchuria Railway Company's line from Dairen to Changchun, and of the Antung-Mukden Railway, were also extended to 99 years from the original date of lease, and the respective Railway Zones will remain under Japanese control until the years 2002 and 2007. The area and population in the Leased Territory and the Railway Zone, according to statistics compiled by the Kwantung Government, are given in the table below as of August 31, 1927.

	Area	Population				Total
		Japanese	Korean	Chinese	Others	
Leased Territory...	1,300 sq. m.	97,002	1,169	706,975	498	805,644
Railway Zone	100 " "	88,197	11,278	202,158	1,687	303,320
Total.....	1,400 " "	185,199	12,447	909,132	2,185	1,108,964
Total Population in 1907 ...		37,885	—	396,067	77	434,029

During the past twenty-one years the Chinese population has increased immensely, especially in the Railway Zone, where the Chinese numbered only 8,902 in 1907. Indeed the Chinese population in the Leased Territory and Railway Zone to-day has increased to more than 82 per cent. of the total population of 1,108,000. It may be noted that the

area under Japanese jurisdiction contains over 790 people per square mile, while the average population per square mile in Manchuria is 72. It should be remembered that about 55,000 Japanese and 756,000 Koreans reside outside the Leased Territory and Railway Zone. In Manchuria as a whole, there are today about 240,000 Japanese and 768,000 Koreans.

34 Kwantung Government

By Imperial Ordinance No. 196, promulgated on July 30, 1906, the Kanto Totoku-fu (Government-General of Kwantung Province) was established. The military administration of the Kwantung Peninsula conducted by the Japanese Army following its occupation during and after the Russo-Japanese war was replaced by a civil administration under the Governor-General, who was a direct appointee of H. M. the Emperor and who originally was to be a general or lieutenant-general of the Japanese Army. By this organic regulation, the Governor-General not only controlled civil and judicial administration in the Leased Territory of the Kwantung Peninsula, but for the maintenance of peace and order in the Leased Territory and in the Railway Zone in South Manchuria, he was invested with military power, commanding the Japanese garrison and the railway guards. In addition, the Governor-General had to protect the Japanese railways in Manchuria and to supervise the administration of the South Manchuria Railway. By virtue of a special commission he was charged with the conduct of negotiations with the Chinese local authorities. As to political matters, he was subject to the supervision of the Minister of State for Foreign Affairs in Tokyo, and the Minister of State for War with reference to military matters. His government had two departments — those of Civil Administration and the Army Corps. The former conducted all administrative affairs, except military matters, namely, general affairs, police, finance, public works, and prisons, all of which were under the control of the Chief of Civil Administration, who was subordinate to the Governor-General. In addition, a bureau of posts and telegraphs was established in the department of Civil Administration.

In the matter of local administration, Kwantung Peninsula was divided into three administrative districts, which were later reduced to two. The head of each district executes therein the laws and ordinances, and discharges his administrative functions under the direction of the Governor-General. In the cities of Dairen and Port Arthur, self-governing municipalities have functioned since 1924. The self-govern-

ment principle is also adopted in the village administration, the head of which, Hui-chang, is a Chinese appointee.

With regard to the administration of justice, Japan decided not to recognize foreign jurisdiction, as in the case of the leased territories held by other Powers in China. By Imperial Ordinance No. 198, promulgated on July 31, 1906, the Totokufu-Hōin (Courts of Justice) were established under the direct control of the Governor-General to adjudicate in all civil and criminal cases, irrespective of nationality, in the peninsula. This was a two-trial system which was modified at a later date to the three-trial system in vogue in Japan.

During the European war, the need for the more effective maintenance of peace and order in Manchuria was keenly felt, and the Organic Regulations of the Government-General were modified by Imperial Ordinance No. 82, promulgated in July, 1917. The Governor-General had hitherto only supervised the business of the South Manchuria Railway, but it was now provided that he should directly control the Company and act as its President *ex officio*. Simultaneously, the Police Section was enlarged into a Police Bureau, and it was provided that the commander of Gendarmerie of the Army Corps should be the Bureau Chief *ex officio*.

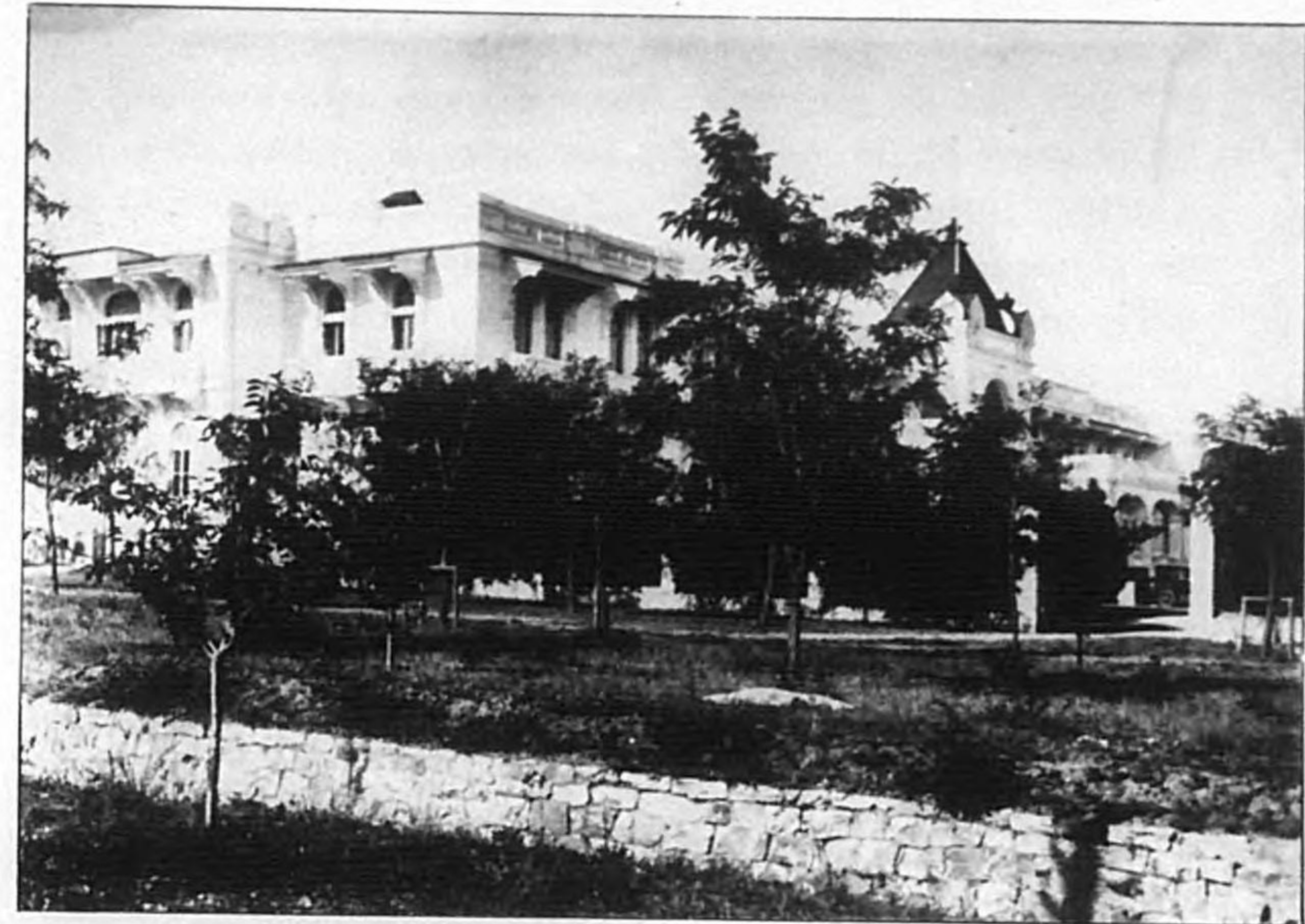
Following the trend of world movements generally, especially after the Great War, Japan adopted a more liberal policy in her rule in the Kwantung Province and in the Railway Zone in Manchuria. By Imperial Ordinance No. 94, promulgated on April 12, 1919, the Organic Regulations of the Kanto-cho (Kwantung Government) superseded those of the Government-General. The Governor-General was replaced by the Kanto-chokan (Governor of the Kwantung), a civilian official. The Governor has jurisdiction over the Province, control of the policing of the railways in South Manchuria, and supervision of the business of the South Manchuria Railway Company. The military power possessed by the Governor-General was vested in the Commander-in-Chief of the Kwantung Army, a post then created. Formerly the Governor-General acted as *ex-officio* President of the South Manchuria Railway, but now the Governor only supervises the business of the Company. The Organic Regulations of the Government of Kwantung were again modified in 1924, in order to effect financial retrenchment by abolishing the office of Chief of the Civil Administration and other important subordinate offices.

Baron Gonsuke Hayashi, lately Ambassador to Great Britain, was the first civilian Governor of Kwantung. The present incumbent, Governor Kinoshita, was appointed in November, 1927, after the resignation of

Count Hideo Kodama, who occupied the office for several years.

The present organization of the Kwantung Government, with affiliated offices, is shown in the table below:—

Governor of Kwantung Government	Governor's Secretariat.....	{ Private Secretaries' Section Secretary's Section Foreign Affairs Section Board of Councillors
	Home Affairs Bureau.....	{ Local Administration Section Education Section Industrial Affairs Section Civil Engineering Section
	Police Administration Bureau.....	{ Police Affairs Section Peace Preservation Section Sanitation Section
	Finance Department.....	{ Accounts Section Finance Section
	Local Administration Offices.....	{ Branch Offices Primary Schools Schools for Natives
	Courts of Justice.....	{ High Court { Cassation Dept. (Court of Cassation) { Appeal Dept. (Appeal Court) District Court
	Procurator's Office.....	{ Procurator's Office for Local Court Procurator's Office for High Court
	Communications Bureau.....	{ Post Offices Branch Post Offices Telephone Sub-stations Telegraph Sub-stations Telephone Offices Telegraph Agencies
	Prison.....	Branch Prisons
	Marine Bureau.....	Branch Marine Offices
	Port Arthur Engineering College	
	Middle Schools	
	Girls' High Schools	
	Normal School (for Natives)	
	Commercial Schools (for Natives)	
	Agricultural Schools (for Natives)	
	Police Training School	
	Meteorological Observatory.....	Branch Observatory
	Government Hospitals.....	{ Port Arthur Hospital Port Arthur Women's Hospital Port Arthur Isolation Hospital Dairen Women's Hospital Dairen Isolation Hospital
	Agricultural Experimental Station	
	Sericultural Experimental Station	
	Stud Farm	
	Stock Breeding Station	
	Aquatic Products Experimental Station	
	Exchanges (Produce, Currency, etc.)	
	Museums	
	Temporary Land Investigation Department	



The Kwantung Government Office, Port Arthur.



The High Court of the Leased Territory, Port Arthur.

35 Finance

The Government expenditure in the Kwantung Province from the time of the military occupation was defrayed out of the extraordinary war fund which was created during the war with Russia. After the Government-General of the Province was established, the annual expenditure (since 1907) was placed under a special account. The principle is that the Government expenditure be defrayed from the revenue derived from this province and, if any deficit should occur, it is to be met with a grant from the Imperial Treasury of the Home Government, with the object of gradually or ultimately placing the finance of the Kwantung Government on an independent footing. The following table shows the growth of annual expenditure and revenue for the last twenty-one years, together with the annual grant from the Home Treasury, amounting from two to four million yen each year:

	Revenue			Total	Expenditure
	Taxes and other Receipts in K. P.	Grant from Treasury	Surplus of preceding year transferred		
1907-8.....	1,273,472	3,000,000		4,273,472	3,451,487
1912-3.....	1,887,141	3,122,500	1,153,129	6,162,770	5,359,503
1917-8.....	3,645,827	2,007,000	2,072,397	7,725,224	4,612,985
1922-3.....	12,032,925	4,300,000	3,011,051	19,343,976	15,217,555
1927-8.....	13,760,290	4,000,000	4,441,316	22,201,606	16,985,029

In the budget of the Kwantung Government for the fiscal year 1928-9, the total revenue, including extraordinary revenue, was estimated at 20,674,610 yen. The revenue from taxes, direct and indirect, was estimated at about 3,389,000 yen only, in which the tax on the incomes of corporations, paid mostly by Japanese, amounted to over 1,778,000 yen, while the land tax amounted to 217,000 yen, 60 per cent. of which was paid by Chinese. The indirect taxes — on tobacco, liquor and salt — were estimated at from 300,000 yen to 600,000 yen each. The most important items of the revenue are the receipts from public undertakings and state properties, amounting to 9,297,000 yen, of which 6,000,000 yen are contributed by the postal, telegraphic and telephone services. The extraordinary revenues amount to 7,217,000 yen, of which 4,000,000 yen is furnished by the Imperial Treasury, 1,000,000 yen from a loan, and 1,781,000 yen from the surplus of the revenue transferred from the preceding fiscal year.

Of the expenditures for the same fiscal year, aggregating 20,942,254 yen, about 4,556,000 yen, it was estimated, would be spent on

communications services — posts, telegraphs, and telephones. The next important item of expenditure is the police service, amounting to 4,079,000 yen. Another important item is the cost of the educational service, amounting to 2,269,000 yen. The sum of 3,400,000 yen was allotted for Government buildings, communications improvements, etc. under the heading of expenses for public undertakings.

The following table shows the general features of the Budget of the Kwantung Government for the fiscal year 1928-9:—

Revenue		Expenditure	
ORDINARY		ORDINARY	
Taxes:	Yen	Expenditures of the Kwan-	Yen
Land tax	217,220	tung Government	1,605,732
Salt tax	319,364	Expenses of the Law Courts	
Income tax on Corporations	1,778,775	and Prisons.....	482,263
Business tax on Stock and		Police expenses	4,079,815
Grain Exchanges	6,578	Education expenses	2,269,563
Business tax	109,500	Expenses for encouraging In-	
Tax on Liquors.....	342,001	dustrial Enterprises	305,113
Tax on Tobacco	615,591	Expenses of Monopoly Bureau	966,618
Revenue from public under-		Communications expenses ...	4,556,416
takings and State property:		Expenses of Marine Bureau...	153,845
Receipts from Posts,		Expenses of Hospitals	424,819
Telegraphs, and Tele-		Ground and House Rents.....	161,170
phones	6,013,060	Expenses for the prevention	
Revenue from Monopolies	2,054,733	of Infectious Diseases	35,159
Rents from Lands and		Transferred to National Debt	
Houses	1,088,536	Consolidation Fund special	
Income from Prison		account	174,686
Labour.....	52,984	Miscellaneous expenses	58,207
Income from Hospitals...	88,115	Reserve funds.....	300,000
Stamp Receipts	444,217	Total.....	15,573,406
Miscellaneous Receipts.....	322,199		
Total.....	13,452,873	EXTRAORDINARY	
EXTRAORDINARY		Expenses of public under-	
Proceeds from sale of State		takings.....	3,466,382
property	436,372	Expenses for celebration of	
National Treasury grant	4,000,000	Imperial Enthronement ...	16,556
Surplus from the preceding		Extraordinary Police expense.	246,176
year transferred.....	1,781,365	Subsidy for Local administ-	
Proceeds of Loan	1,000,000	ration*	1,588,650
Total.....	7,217,737	Miscellaneous Receipts	51,440
Grand Total	20,670,610	Total.....	5,369,204
		Grand Total	20,942,610

* Regarding village administration, the revenue from local taxes, public properties and undertakings, licences, fees, etc., is applied to expenses of village offices, education, sanitation and other items of local administration. Any deficit incurred is made up with a subsidy from the General Account of the Kwantung Government.

36 Maintenance of Peace and Order

Mounted banditry in Manchuria and junk piracy on the coasts have been common since time immemorial. Their frequent occurrence even at the present day seems to indicate that it is beyond the ability of the Chinese authorities to eradicate the evil.

When Russia inaugurated the Chinese Eastern Railway in 1896, "the preservation of law and order" in the Railway Zone was "confided to the police agents appointed by the Company." This provision was applied to the Southern Manchuria Branch of the Chinese Eastern Railway, extending from Harbin to the seaports of Port Arthur and Dalny (Dairen), the concession of which was granted to Russia by China by the Convention of 1898. The convention gave Russia territorial leaseholds of the Kwantung Peninsula and the adjacent waters over which "the entire military command of the land and naval forces and equally the supreme civil administration" were concentrated in the hands of the Viceroy of the Far East. By the Treaty of Portsmouth, by which the leaseholds of the Kwantung Peninsula and the railway concession of the Southern Manchurian branch line from Changchun to Port Arthur were transferred to Japan, Japan and Russia reserved to themselves "the right to maintain the guards to protect their respective railway lines in Manchuria," not to exceed fifteen per kilometre. Furthermore, Japan, by an agreement annexed to the Treaty of Peking, of 1905, reserved the right to maintain her railway guards until "China shall have become herself capable of affording full protection of the lives and property of foreigners." For the maintaining of peace and order in the Leased Territory and the Railway Zone under Japanese rule, the Governor-General, as already stated, was charged with police administration and military matters; but since the Governor-General was replaced, in 1919, by the Governor of Kwantung, a civilian appointee, while the Governor retains police power, the military power has been wholly transferred to the Commander-in-Chief of the Kwantung Army.

At the Washington Conference, held in 1921-2, the Chinese Delegation strongly insisted upon the withdrawal of the foreign troops, but the retention of the Japanese troops along the South Manchuria Railway was defended by the Japanese Delegation which submitted the following statement:

"It is a measure of absolute necessity under the existing state of affairs in Manchuria — a region which has been made notorious by the

activity of mounted bandits. Even in the presence of Japanese troops, these bandits have made repeated attempts to raid the Railway Zone. In a large number of cases they have cut telegraph lines and committed other acts of ravage. Their lawless activity on an extended scale has, however, been effectively checked by Japanese railway guards, and general security has been maintained for civilian residents in and around the Railway Zone. The efficiency of such guards will be made all the more significant by a comparison of the conditions prevailing in the Railway Zone with those prevailing in the districts remote from the railway. The withdrawal of railway guards from the zone of the South Manchuria Railway will no doubt leave those districts at the mercy of bandits, and the same conditions of unrest will there prevail as in remote corners of Manchuria. In such a situation it is not possible for Japan to forego the right, or rather the duty, of maintaining railway guards in Manchuria, whose presence is duly recognized by Treaty."

When the Government-General was established in 1906, the police force numbered 931, of whom 250 were Chinese assistant policemen. It had been increased to 2,604, including 531 native assistants, at the end of the fiscal year 1927, ending on March 31, 1928.

With regard to the cost of police administration, about 500,000 yen was spent in 1906, but it was estimated that over 4,000,000 yen must be spent in the fiscal year 1928 (ending March 31, 1929). In addition, 246,176 yen were allotted for extraordinary expenses of the police administration.

For the maintenance of railway guards, the Japanese Army Department of the Home Government has spent 6,000,000 yen to 11,000,000 yen annually. In cases where peace and order in Manchuria have been threatened by civil war or other disturbance on a large scale, the Army authorities have incurred much additional expense.

Keeping peace and order in the Leased Territory and Railway Zone in Manchuria is, indeed, costly to Japan. Yet it can not be avoided, in Manchuria, in which Japan has invested heavily, and whence Japan obtains raw materials and foodstuffs. The maintenance of peace and order is also essential to effective national defence. It would have been most excellent had the Washington Conference had any beneficial moral effect upon conditions in Manchuria, but immediately after the conference civil war between the Kuomintang of the South and the Mukden party of the North broke out, and, as the world knows, has since intermittently continued. On each occasion of these outbreaks, more especially at the time of Kuo Sung-ling's revolt against Chang Tso-lin,



Manchurian Bandits of the Present-Day.



The Bandits in Manchuria become active when the Kaoliang is high.

Manchuria was in danger of becoming involved. The critical situation which developed in the spring of 1928 is fresh in memory. When the war was moving in the direction of Peking and Tientsin, and the situation became so menacing as to threaten the peace and order of Manchuria, the Japanese Government sent both belligerents a memorandum of warning which intimated that Japan would take appropriate steps to keep the belligerent armies out of Manchuria. As before stated what Japan wishes, as far as possible, is that Manchuria be not involved in civil war. It is a matter of simple fact that Manchuria, especially South Manchuria, is the only region in China where civilized people can live and trade with a guarantee of safety.

37 Communications

The Japanese communications system, post and telegraph, in South Manchuria was first established by the Japanese military authorities during the Russo-Japanese War. Soon after the establishment of the Government-General of Kwantung, the communications system was transferred to the Civil Administration Department of the Government-General by the Imperial Ordinance issued in July, 1906. The Communications Bureau was established in Dairen, the Chief of Bureau taking charge of affairs relating to posts, telegraphs, and telephones chiefly in the Leased Territory and Railway Zone under the instruction of his superiors.

38 Postal Services

Mails between Manchuria and Japan were originally carried by steamer twice a week, but this was increased to a daily service, by the land route, when the Antung-Mukden Railway was connected with the Government Railway of Korea in June, 1912. This was further increased to a service twice a day in August, 1918. Mail communication between South Manchuria and Europe was inaugurated in 1908, but was suspended for several years after September, 1918, owing to political disturbances in Russia.

The postal services conducted by the Communications Bureau outside the Railway Zone, in such districts as Hsinmintun, Kirin, and others, were transferred, in 1922, to the postal system of the Chinese Government as a result of the Washington Conference.

The progress made in postal matters in the Leased Territory and the Railway Zone under Japanese rule may be seen in the following tables:

Year	Ordinary Mails			Parcel Post		
	Mail Matter Dispatched	Mail Matter Received	Total	Parcels Dispatched	Parcels Received	Total
1906-7...	12,821,242	13,014,613	25,835,855	52,941	146,072	199,013
1911-2...	13,182,814	16,636,493	29,819,307	167,882	346,804	514,686
1916-7...	18,650,218	22,191,108	40,841,326	233,574	494,580	728,154
1921-2...	45,261,990	50,470,004	95,731,994	396,993	827,118	1,224,111
1926-7...	41,656,134	48,410,573	90,066,707	334,681	739,941	1,074,622
1927-8...	49,949,123	54,044,010	103,993,133	346,931	799,612	1,146,543

POSTAL MONEY ORDERS

Year	Money Orders Issued			Money Orders Paid		
	Domestic	Foreign	Total	Domestic	Foreign	Total
1906-7 ...	6,196,940	278	6,197,218	1,348,308	176	1,348,484
1911-2 ...	6,514,280	15,336	6,529,616	2,702,890	5,190	2,708,080
1916-7 ...	9,103,950	9,474	9,113,424	4,057,266	6,113	4,063,379
1921-2 ...	20,305,443	17,385	20,322,828	10,425,284	8,190	10,433,474
1926-7 ...	16,071,691	62,496	16,134,187	8,516,987	107,326	8,624,313
1927-8 ...	17,458,948	66,693	17,525,641	8,243,679	113,327	8,357,006

POST OFFICE SAVINGS BANK

Year	Amount Deposited	Amount Withdrawn	Amount of Balance at End of Year	
			Number of Depositors	Amount of Deposits
1906-7	1,331,733	605,303	19,650	652,571
1911-2	2,516,694	2,326,418	61,362	2,349,666
1916-7	3,352,363	2,851,857	83,598	2,890,582
1921-2	7,821,406	6,962,200	147,292	7,298,626
1926-7	9,795,152	9,048,274	226,277	12,194,995
1927-8	14,019,291	10,579,185	243,952	16,373,338

39 Telegraphs and Telephones

When the Communications system was transferred to the Kwantung Government, the Japanese telegraph system in Manchuria had no connection with that maintained by the Chinese Government. Telegraph messages from Dairen to China proper had then to be sent through Japan. In order to facilitate telegraphic connection with China, a submarine cable was laid between Kwantung and Chefoo by a Sino-Japanese joint undertaking by virtue of a convention concluded on October 12, 1908. Three months later another agreement was concluded between the two Governments, by which the telegraph system in the

Railway Zone should be connected with the Chinese telegraph system at Antung, Newchwang, Liaoyang, Mukden, Tiehling and Changchun. Cable connection with Japan consisted of a telegraph line along the railway, via Chosen, and a submarine cable between Dairen and Saseho. In order to serve the increasing cable traffic, a direct line between Dairen and Tokyo, via Chosen, and another direct line between Mukden and Osaka were established in 1919. Further to facilitate the ever-increasing cable business between Manchuria and Japan, the Government, in 1920, caused the South Manchuria Railway Company to lay a submarine cable between Dairen and Nagasaki, which cost 2,720,000 yen. This cable was leased to the Government, and has been in operation since April, 1921.

A wireless telegraph station was installed in Dairen Bay in November, 1911, chiefly as an aid to navigation.

The telephone service in the Leased Territory and the Railway Zone, which was at one time operated by the Japanese military authorities in Dairen, Liaoyang, Mukden, and Port Arthur, was later taken over by the Communications Bureau and was opened to the public. This service was further extended to the principal towns along the railway.

The progress of the telegraph and telephone services made in the last twenty-two years is shown by the following table:

TELEGRAPHS

Year	Messages Dispatched			Messages Received			Messages in Transit
	Domestic	Inter-national	Total	Domestic	Inter-national	Total	
1906-7...	201,800	90,240	292,040	205,119	65,123	270,242	212,714
1911-2...	861,980	34,194	896,174	796,681	36,239	832,920	1,168,171
1916-7...	1,246,656	72,944	1,319,600	1,171,954	80,188	1,252,142	1,566,892
1921-2...	2,205,402	126,987	2,332,389	2,105,796	117,271	2,223,067	2,571,442
1926-7...	1,811,396	211,665	2,023,061	1,734,457	208,850	1,943,307	2,249,000

TELEPHONES

Year	No. of Users	Number of Automatic Telephone Boxes	Number of Messages		
			Within Urban Areas	Outside Urban Areas	Total
1906-7	785	—	1,948,871	105,100	2,053,971
1911-2	3,630	42	20,152,027	220,448	20,372,475
1916-7	4,976	58	26,907,685	369,756	27,277,441
1921-2	11,155	74	55,293,251	791,931	56,085,182
1926-7	14,816	99	110,521,767	1,097,210	111,618,977
1927-8	15,484	106	118,294,205	1,275,199	119,569,404

40 Educational, Hygienic and Other Services

In the Leased Territory and Railway Zone, where more than 82 per cent. of the total population, numbering 1,093,000, is Chinese, about 7,000,000 yen has been spent annually for education by the Kwantung Government and the South Manchuria Railway Co. The Kwantung Government also looks after hygiene and sanitation in co-operation with the South Manchuria Railway Co. Undertakings for the encouragement of agriculture and industry in the Leased Territory are conducted by the Kwantung Government and by the South Manchuria Railway Company. All these educational and hygienic services, as well as agricultural and industrial encouragement, will be treated later in separate chapters under the respective headings.

IV SOUTH MANCHURIA RAILWAY

41 Introductory Remarks

The South Manchuria Railway is more than a railway company. In addition to the extensive railway undertakings in South Manchuria which constitute the main business, it conducts, as accessory enterprises, coal mines, iron works, wharves, warehousing, etc. The Company also conducts educational, hygienic and other public works within the Railway Zone; controls a number of joint-stock companies, electric and gas works, shipping and dockyard companies, hotel undertakings, etc., chiefly in South Manchuria, and acts also as a holding company for these concerns. The functions of the corporation and the volume of its business are possibly the largest of their kind in the Orient, and in some respects, are unsurpassed by any other concern in the Pacific area. The story of its development is also, to a great extent, the story of the progress of Manchuria in the last twenty-one years, for both are inseparably related.

42 Formation of the Corporation

The Japanese Government engaged in most serious considerations prior to the establishment of the Company. In contrast to the political or military line first built by the Russians in Manchuria, it was decided that the railways to be conducted by Japan should rather be commercial in order to serve international trade and facilitate the development of industry and agriculture in Manchuria. Whether the railway should be conducted directly by the Government, as in Japan proper, or by a joint-stock corporation was another question. The capital of the undertaking had to be adequate, otherwise efficiency of operation and international service might not be obtained. Above all, the most important consideration was that the principal business of the Company was to be operated and conducted in a foreign land.

As stated in a previous chapter, when the *post-bellum* program was submitted to the Council of Cabinet Ministers and Elder Statesmen in May, 1906, it was held that the Japanese policy adopted in Manchuria

should respect China's sovereignty and should adhere to the principle of equal opportunity for all nations.

The Imperial Ordinance sanctioning the organization of the South Manchuria Railway Company was promulgated on June 7, 1906. The ordinance provided, (1) that a joint stock corporation, called the Minami Manshu Tetsudo Kabushiki Kaisha (South Manchuria Railway Joint Stock Company) should be organized for the purpose of engaging in railway traffic in Manchuria; (2) that the shares of the Company should be registered and owned only by the Japanese and Chinese Governments or by their nationals; (3) that the Japanese Government may offer as a part of the capital its Manchuria railways, coal mines and appurtenances obtained in 1905 from Russia by the Treaty of Portsmouth and approved by China in virtue of the Peking Treaty concluded in the same year; (4) that the President and Vice-President should be appointed by the Government, and the directors appointed from among the shareholders, but that the directors should be elected at the General Meeting of the shareholders; (5) that to matters relating to the Company not provided for by this ordinance the provisions of commercial law should be applied. On the 13th of July, the organization committee of eighty persons, including higher officials in several Government departments, leading members of the Diet, University professors, and eminent businessmen of the Empire, was organized. General Kodama, who served as Chief of the General Staff to Field Marshal Oyama in the war with Russia, was appointed chairman, and on his death Viscount Terauchi, who was War Minister at the time, succeeded him. On August 1st, an order setting forth the conditions of the formation of the Company was given to the committee by the Ministers of Foreign Affairs, Communications, and Finance conjointly.

These conditions provided, (1) that the railway tracks should be changed to 4 feet 8½ inches (standard) gauge within three years from the day when the Company should commence operations; (2) that on the Dairen-Changchun trunk line, the tracks between Dairen and Suchiatun (near Mukden) should be doubled; (3) that the necessary arrangements for connecting land and sea where harbours or bays were approached by the railways should be provided; (4) that business functions be provided, mainly in connection with railway enterprises and accessory undertakings — coal-mine operation, water transportation, warehousing, electric enterprises, etc.; (5) that furthermore the Company should carry out public works, education and sanitation in the Railway Zone with Government permission; (6) that a Government guarantee would be

provided for the payment of interest on debentures and for the repayment of principal. It was also provided that when the dividend of the Company for any business year should be less than 6 per cent. on the paid-up capital, the Government should make up the deficiency for the period of fifteen years. Acting on the above-described Imperial Ordinance and Government order, the committee finally, on the 14th of August, drew up the articles of incorporation of the South Manchuria Railway Joint Stock Company, observing in many respects the provisions of the commercial law of Japan, and the articles of incorporation of the Company obtained the Government's approval on the 18th. When the general meeting of shareholders for the establishment of the Company was held on November 22nd, the articles of incorporation were unanimously passed. Thus the South Manchuria Railway Company came into existence by a special charter of the Government, but essentially as a joint-stock company organized in conformity with the provisions of the commercial law of Japan. When Baron Goto (now Count) was recommended at the general meeting as the President of the newly-established corporation, the President spoke on the mission of the South Manchuria Railway. He declared that though the total length of the railways to be operated by the Company was a little less than 700 miles, their position constituted a link in world communication and provided international business facilities, not only for the Orient but also for the world at large. The policy of the Company should be in conformity with the will of the Government and the shareholders, but should give the greater weight to the general wishes of business men at home and abroad. More particularly should a spirit of co-operation with the Chinese authorities and people be cultivated.

43 Organization

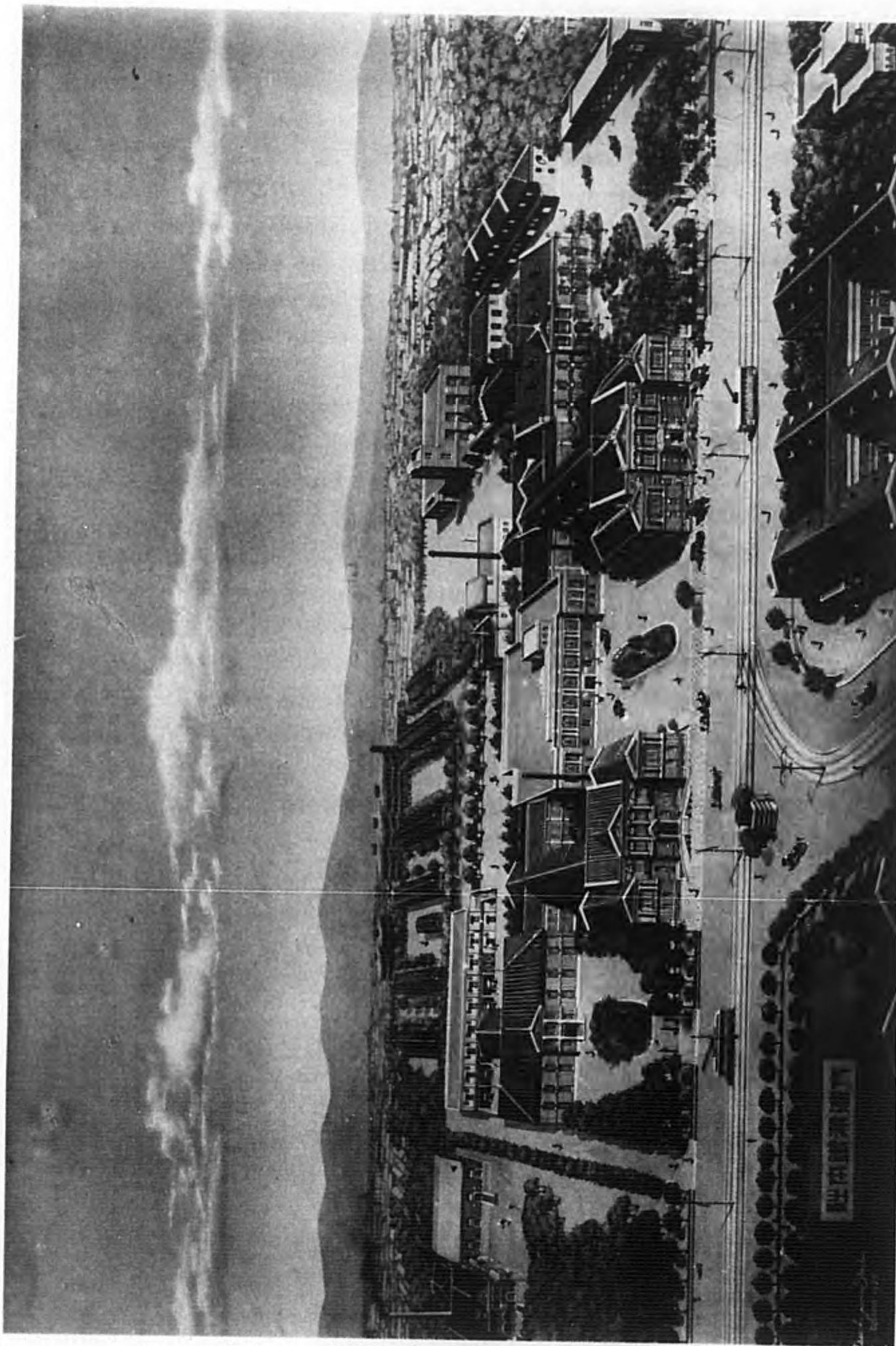
Most serious attention was paid to the selection of the personnel of the governing board of the Company. Baron Goto, who had exhibited organizing and executive ability in civil administration and industrial undertakings in Formosa, having been appointed President, the directors of the Board were selected from among persons having ability and experience in banking, trading and railway operation, in the legal profession, and in civil administration. Baron Goto's service, though it was of short duration, being rather less than two years, placed the Company on a sound basis. The terms of office of the President and Vice-President were fixed at five years, and of Directors at four years;

but it is a matter of regret that political changes in Japan have often compelled a change in the presidency of the Company, so that nine Presidents have functioned during the last 21 years. Yet during these years the Company has made great progress. Its investments have grown to 644,800,000 yen from 101,800,000 yen, and its annual profit to 36,274,000 yen from 2,017,000 yen.

The present President, Mr. Jotaro Yamamoto, and the Vice-President, Mr. Yosuke Matsuoka, were appointed on July 19, 1927. President Yamamoto is a business man well known in Japan for high executive ability; Vice-President Matsuoka spent many years in the diplomatic service, and joined the Company as Managing Director in 1921, serving in this office until 1926.

It is the policy of the new President to place the Company's business on a more sound economic basis, and to take progressive steps to develop enterprises which will afford benefit to Japan and equally to China. In a speech made at the shareholders' general meeting held on June 20, 1928, he stated that Manchuria and Mongolia contain a vast territory still to be opened up, where many natural resources await a market. The extraordinary migration of Chinese to Manchuria and Mongolia, annually numbering over one million people, is one of the important factors entering into the development of these regions. In the economic relation of Japan with Manchuria, Japan's primary consideration lies in receiving from Manchuria foodstuffs and industrial materials, while fostering the export of Japanese manufactures to China, which is a great customer for Japanese goods. The South Manchuria Railway, he declared, is naturally charged with the mission to carry out this national policy and to function as an instrument for its execution. As the first step, it was decided that the Fushun shale oil industry project, which had been pending for several years, should be carried into effect so as to ensure the production of 55,000 tons of heavy oil a year. By installing one more blast furnace, with a capacity of 500 tons, at the Anshan Iron Works, its annual output is to be increased to 200,000 tons from 150,000 tons. Following the policy of placing the Company's business on a more sound economic basis, by readjusting the extensive organization and by eliminating supernumeraries, expenses were cut down, while equipment and efficiency were improved. The result was that the Company's net profit for the fiscal year ending March 31, 1928, increased to 36,270,000 yen, i. e., an increase of 2,120,000 yen over that of the preceding fiscal year.

When the Company commenced operations in April, 1907, its



A Bird's-eye View of the Head Offices of the South Manchuria Railway Company, Dairen.

organization was divided into five departments: General Affairs, Research, Transportation, Mining, and Local Affairs. The directors, though constituting the board of administration, had also to act as departmental chiefs, but in the course of years the administration underwent various changes, until in April, 1923 the organization as it at present exists was evolved. In addition to the President's Secretariat, there are five departments, General Affairs, Railways, Industries, Local Affairs, and Treasury. Affiliated offices are the Tokyo Branch Office, Fushun Coal Mining Office, Anshan Iron Mining Office, Technical Committee, etc. As the functions and volume of business are steadily increasing, the directors have ceased to perform the duties of departmental chiefs, but attend jointly to the supervision of important business under the control of the President, besides acting as a board of directors, leaving departmental business to the general managers who act as department chiefs.

At the close of the fiscal year ending March 31, 1908, the Company employed 2,967 officials, and 6,135 Japanese and 4,129 Chinese workers, totaling 13,231. After twenty-one years, i. e., on March 31, 1928, the official staff had increased to 8,832, the Japanese workers to 11,865, and the Chinese to 13,677, totaling 34,374. In addition, the coolie day laborers who are nearly all Chinese, increased from 30,000 enrolled per day to 70,000.

The organization of the South Manchuria Railway Company and its affiliated offices, as they existed at the end of the fiscal year, on March 31, 1928, is shown in the following summary:—

	General Secretary's Office
	Personnel Office (including Apprentice School, and Stenographers' and Typists' Training School)
President's Secretariat	Business Consulting Office
	Information Bureau
	Councillors
	Inspectors
	Private Secretaries to President
	Efficiency Section
	Secretary's Office
	Welfare Office
	Research Office
Dept. of Welfare, Research and Foreign Affairs.....	S. M. R. New York Office
(or General Affairs Department)	" Shanghai "
	" Peking "
	" Mukden Cheng-li Office
	" Chengchiatun Office
	" Kirin "
	" Taonan "
	" Tsitsihar "
	Secretary's Office
	Traffic Office
	Inter-Line Affairs Office
	Train Operating Office
	Engineering Office
	Mechanical Engineering Office
	Electrical Engineering Office
	Accounting Office

President Board of Directors	Railway Department	{ Dairen Railway Division Office Mukden " " Shakako Railway Workshops Liaoyang " " Kan-ching-tzu Temporary Construction Office Technical Testing Investigating Institute
		{ Secretary's Office Local Affairs Office Civil Engineering Office Architect's Office Educational Affairs Office Sanitation Office
	Local Affairs Department	{ S. M. R. Wafangtien Local Public Works Office " Tashihchiao " " " " " Yingkou " " " " " Anshan " " " " " Liaoyang " " " " " Mukden " " " " " Tiehling " " " " " Kaiyuan " " " " " Ssupingkai " " " " " Kungchuling " " " " " Changchun " " " " " Penhsihu " " " " " Antung " " " "
		{ Manchuria Medical College Dairen Hospital (and 17 branch hospitals) South Manchuria Technical College Manchuria Teachers' College Middle School Girls' High School South Manchuria Medical School Dairen Library Mukden Library Dairen Engineering Office Sanitation Laboratory
	Industrial Department	{ Secretary's Office Commercial and Industrial Office Agricultural Office Sales Office
		{ Agriculture Experimental Station Cattle Plague Research Institute Geological Bureau Infectious Animals' Station Commercial and Industrial Museum Central Laboratory
	Treasury Department	{ Finance Office Accounting Office Stores Office
	Technical Advisory Committee	
	Special Economic Advisory Committee	
	Tokyo Branch Office	{ Secretary's Office Traffic Office Accounting Office Oriental Research Bureau
		{ Investigator Secretary's Office Accounting Office Coal Transportation Office
	Fushun Colliery	{ Engineering Office Power House Engineering Shops Investigation Office
		{ Kuchengtzu Mine Oyama Mine Togo Mine Higashigaoka Mine Laohutai Lungfeng Yentai
	Anshan Iron Works	{ Administration Office Iron Manufacture Office
	S. M. R. Harbin Office	{ Secretary's Office Traffic Office

44 Finance and Accounting

The authorized capital of the Company was originally 200,000,000 yen, of which 100,000,000 yen was furnished by the Japanese Government turning over all its property in railways and coal mines and their appurtenances to the Company. The other half was offered for subscription to the Chinese Government and the Japanese and Chinese public, but this offer was not accepted on the part of the Chinese. When the first issue of shares was floated in September, 1906, the Japanese general public over-subscribed the issue no less than 1,066 times. Up to March, 1920, 80,000,000 yen was paid up, leaving 20,000,000 yen uncalled, but with the necessary development of the Company's activities, especially after the Great War, the Company increased its capitalization from 200,000,000 yen to 440,000,000 yen. The Government again increased its holdings, by 120,000,000 yen, or half of the increased capital, by taking over three debenture issues which the Company had floated on the London Market: £4,000,000 of five per cent., £2,000,000 of five per cent., and £6,000,000 of four and one-half per cent., totaling £12,000,000. The actual net receipts were £12,000,000, being 117,156,000 yen in Japanese currency, while of the Government holding 2,844,000 yen was left unpaid. Of the remaining shares, amounting to 220,000,000 yen allotted to the general public, 138,000,000 yen have been subscribed, and 82,000,000 yen remain uncalled, as on March 31, 1928.

The Company was originally authorized to issue debentures to the amount of the unpaid share capital belonging to other than Government holders. By Imperial Ordinance No. 4 of 1910, this amount could be expanded to twice the amount of all paid-up share capital, but could not exceed the amount of the authorized capital. The Government may guarantee the payment of interest and principal of the debentures to the same extent, if necessary, but debentures issued with the Government guarantee must be redeemed within twenty-five years.

The financial policy of the Company in the first stage was to raise funds for its undertakings more by issuing debentures than by floating new capital shares. Finding the most favourable market in London, four issues of debentures, aggregating £14,000,000, were floated there in succession during the four years ending January 3, 1911. Of these debentures, £12,000,000 were, as previously stated, taken over by the Government in payment for its holdings of share capital, and the remaining £2,000,000 were redeemed on July 1, 1911.

Since then, more than twenty-two issues of debentures were made in Japan up to May 31, 1928, except one amounting to £4,000,000 which was issued on the London market on July 19, 1923. Nine out of these twenty-two issues had been redeemed up to the end of the business year on March 31, 1928, leaving fourteen issues outstanding, aggregating 278,152,000 yen.

The Company started its undertakings in 1907 with an estimated fund of 100,000,000 yen, of which 80,000,000 yen was raised by floating bonds in England and 20,000,000 yen by calls on shares.

The fund thus raised by the means mentioned above have been invested in various enterprises. During the last twenty-one years, ending March 31, 1928, the investment in direct undertakings, including the appraised value of properties taken over by the Company from the Japanese Government in 1906, aggregated 644,841,734 yen, as shown by the table below:

	1907-8	1912-3	1917-8	1922-3	1927-8
Railways	34,542,910	97,113,296	105,530,752	189,616,304	239,517,926
Workshops	763,906	6,048,094	7,569,359	11,068,325	8,759,631
Steamships	—	3,385,357	2,680,317	3,559,874	4,044,933
Harbors.....	6,640,837	14,779,320	24,099,384	37,064,308	59,789,109
Coal Mines	46,396,043	56,469,164	71,097,985	121,056,784	102,730,711
Iron Works	—	—	4,447,760	34,541,803	20,747,607
Electricity.....	474,695	5,002,052	5,738,182	15,237,405	—
Gas	3,592	1,170,495	1,554,778	5,434,140	—
Hotels	216,302	1,342,106	2,075,006	2,370,222	—
Public Works ...	3,374,494	11,022,573	17,786,171	40,863,288	164,679,343
Others	9,459,178	18,544,224	21,782,973	46,074,005	44,572,475
Total	101,871,957	214,876,681	264,362,667	506,886,458	644,841,735

The growth of these enterprises is shown by the following table of receipts, expenditures, and net profits:

Fiscal year	Receipts	Expenditures	Profits	Percentage of expenditure against receipts
	yen	yen	yen	
1907-8	12,543,116	10,526,531	2,016,585	84
1912-3	33,546,477	28,620,433	4,926,045	85
1917-8	69,429,252	54,503,610	14,925,643	79
1922-3	169,956,646	134,876,402	35,080,244	79
1927-8	230,558,523	194,284,201	36,274,323	84

The net profit of the Company for the year 1907 was 2,000,000 yen; it had increased to 36,000,000 yen twenty-one years later. The railways furnish the most important item of profit, the total amounting

to 68,000,000 yen today, surpassing by far the net profit of the Company. Next to the railways, the coal mines yield about 9,700,000 yen profit, and harbor undertakings about 970,000 yen. Other enterprises of the Company to date are conducted at a loss, or a nominal profit, but are designed for the public benefit and to develop traffic for the railway. The expenditures for local public works such as schools, hospitals, street and road-building, industrial and agricultural model farms, etc., were more than 19,000,000 yen, and the receipts less than 6,000,000 yen. The hotel undertakings were losing more than 264,000 yen a year, and Anshan Iron Works 157,000 yen a year. The following table shows the profit and loss account of the Company for the fiscal year ending March 31, 1928.

	Receipts	Expenditures	Profit and Loss
Railways	113,244,180.15	45,235,834.93	68,008,345.22
Harbors	10,275,942.58	9,305,782.43	970,160.15
Coal Mines	82,787,419.09	73,039,118.77	9,748,300.32
Iron Works	9,223,114.00	9,380,656.31	— 157,542.31
Hotels	1,000,859.52	1,264,943.69	— 264,084.17
Local Public Works	6,098,233.67	19,104,444.35	—13,006,210.68
Interest on Deposits and Loans	5,445,735.56	20,567,502.88	—15,121,767.32
Sundry Profit and Loss...	2,483,039.34	2,839,438.77	— 356,399.43
Overhead Charges		11,482,935.73	—11,482,935.73
Depreciation Fund for Debentures		2,063,542.97	— 2,063,542.97
Total.....	230,558,523.91	194,284,200.83	36,274,323.08

In the matter of dividends on the net profit of the Company, the Japanese Government guaranteed payment up to 6 per cent. on the publicly held shares, if the dividend should fall below that percentage; but the Company's enterprises, especially the railways, were so successful that a 6 per cent. dividend on the publicly held shares was paid from the first fiscal year, and was gradually increased to 10 per cent. The Government shares in the profit, but only after payment has been made of all charges and of the 6 per cent. dividend on the public shares. The Government received such dividends from the fiscal year 1909, and has received 4.3 per cent. on its holding since 1921.

Appended is the General Balance Sheet — Assets and Liabilities — at the end of the Fiscal Year, March 31, 1928, and the disposal of Profits.

ASSETS

Capital Stock uncalled	¥ 84,844,000.00
Fixed Investment	644,841,734.32
Merchandise	4,787,214.55
Stores and Supplies	7,450,956.25
Bonds and Shares	55,287,181.24
Cash on Hand	240,204.72
Deposits	40,490,222.96
Loans	59,452,855.32
Securities Received in Pledge.....	5,577,794.52
Due from other Concerns	997,409.82
Guarantee Fund.....	894,931.20
Bills receivable	5,798,421.51
Miscellaneous Accounts receivable.....	56,848,639.66
Miscellaneous Accounts paid in advance.....	13,728,372.07
Unadjusted Balance in Engineering and Workshop Accounts...	728,969.27
Discounts on Bonds and Charges	12,970,972.68
Exchange Accounts	9,095.99
Total Assets	994,948,976.08

LIABILITIES

Capital Stock authorized	¥ 440,000,000.00
Legal Reserve.....	17,463,903.38
Special Reserve	127,400,000.00
Bills payable	3,700,000.00
Retirement Allowance Fund for Employees	2,500,000.00
Debentures	278,152,000.00
Due to other Concerns.....	1,217,131.28
Securities given in Pledge	882,000.00
Guarantee Fund.....	3,210,429.01
Exchange Accounts	53,279.82
Savings Deposits of Employees	7,771,566.99
Guarantee Deposits of Employees.....	27,507,530.61
Mutual Relief Society Fund	4,331,057.51
Miscellaneous Accounts payable.....	23,371,630.93
Matured Bonds unpaid.....	769,700.00
Miscellaneous Accounts received in advance	11,548,586.44
Balance brought from previous Term.....	8,795,837.03
Net Profit	36,274,323.08
Total Liabilities	994,948,976.08
Net profit for the Year ended March 31, 1928.....	36,274,323.08
Balance brought from previous Term.....	8,795,837.03
Total.....	45,070,160.11

DISPOSAL OF PROFITS

Legal Reserve.....	¥ 2,836,096.62
Dividends on Government Stock	9,337,708.00
Dividends to Shareholders other than Government (6% per annum)	7,740,000.00
Supplementary Dividends to Shareholders (4% per annum) ...	5,160,000.00
Special Reserve	8,000,000.00
Retirement Allowance Fund for Employees	2,000,000.00
Bonuses to Officials	500,000.00
Balance carried forward	9,496,355.49
Total	45,070,160.11

For the past twenty-one years, the special reserve and the legal reserve were gradually increased, and aggregated about 150,000,000 yen at the end of the fiscal year closing March 31, 1928. On the other hand, more than 100,000,000 yen in the investment account have been written off in the same period in respect of depreciation of the Company's properties. It will thus be seen that the financial standing of the Company is on a sound basis.

45 Railways

The South Manchuria Railway Company today owns and operates railway lines totaling 690.8 miles, in which the sum of 239,517,926 yen was invested up to the end of the fiscal year ending March 31, 1928. The gross revenue for the year was 113,244,180 yen, expenditure 45,235,835 yen, and profits 68,008,345 yen, or 98.449 yen per mile. These figures reveal the fact that in efficiency and earning capacity the S. M. R. probably surpasses the leading railways in America, Europe, or Japan. But, owing to the heavy investment in capital stock in the form of debentures and the various services for sanitation, education, and other public works, the profits of the Company as a whole are considerably diminished by the payment of interest and by the expense of these services.

46 Reconstruction and Improvement

The railway system that the Company first took over from the Japanese Government, in April, 1907, was in rather a depleted state. During the Russo-Japanese war, most of the rolling stock was withdrawn by the Russians, or destroyed on their retreat, and the

bridges were blown up. With the march of the Japanese armies to the north, the track was changed from the five-foot Russian gauge to the narrow gauge used by the railways in Japan, so that Japanese rolling stock might be the more readily utilized in the Manchurian campaign. Before the Company came into existence, however, the standard gauge of 4.8½ feet had been already adopted in Korea and China. In order to serve international trade on the Asiatic continent more efficiently, the South Manchuria Railway Company promptly adopted the standard gauge and the double track as ordered by the Government.

By adopting the standard gauge, it was also observed that the reconstruction work might be quickly carried out without much interruption of traffic if American rails and rolling stock were imported.

Immediately after the railways were transferred from Government control on April 1, 1907, a comprehensive program of reconstruction was begun. The work of widening the gauge on the branch line, Dairen-Port Arthur (31.6 miles) was completed by December 1, 1907; on the main line, Dairen-Changchun, through Mukden (438.5 miles), by April 30, 1908, and on two other branch lines, respectively to Yingkou and Fushun Mine, by May 30. The doubling of the track between Dairen and Suchiatun, a distance of 238½ miles, was begun at the same time, and was completed on October 27, 1909. The doubling of the track between Suchiatun and Mukden, a distance of ten miles begun in June, 1915 was completed in November, 1918. The doubling of the track further north, from Mukden to Changchun, was begun in 1919, and is now nearly completed. The original Russian 65 lb. rails were first replaced with 80 lb. and, later, with 100 lb. rails. The roadbed being constantly improved, the steepest grade in the trunk line between Dairen and Changchun is now only one per cent., while the shortest radius of any curve is 15 chains.

The line between Antung and Mukden was originally built as a light military railway by the Japanese during the Russo-Japanese war. As already stated, Japan obtained from China the right to reconstruct the railway on standard gauge and operate and maintain the same for the purpose of international trade and industry. When this railway was transferred to the charge of the Company, it was decided to substitute the standard gauge within three years. But, owing to the controversy which arose on the subject between China and Japan, and to the line traversing mountainous regions, the reconstruction work was delayed until August 7, 1909, when the tunneling work at Fuchinling was begun. The whole work, including 24 tunnels, 205

bridges, and 213 culverts, was completed in two years and three months, and on November 1, 1911, the opening of this 161-mile railway was held with appropriate ceremony. The reconstruction cost amounted to about 25,000,000 yen. This line is still a single track and 80 lb. rails were used, but these are now being replaced by 100 lb. rails.

The lines owned and operated by the South Manchuria Railway Company are as follows:—

1. Dairen-Changchun Main Line	438.5 miles
2. Antung-Mukden Main Line	161.7 "
3. Port Arthur Branch line from Choushuitzu.....	31.6 "
4. Yingkou Branch line from Tashihchiao.....	13.9 "
5. Yentai Colliery Branch line	9.7 "
6. Fushun Branch line from Hunho	35.4 "
Total	690.8 miles

Rolling stock has been increased more than three times during the past twenty-one years, as shown in the accompanying table:

	Fiscal Year ending March 31, 1908	Fiscal Year ending March 31, 1928
Locomotives	202	441
Passenger Cars	104	486
Freight Cars	2,181	7,260
Total	2,487	8,183

47 Traffic and Operation Regulations

Regarding traffic and operation regulations, those controlling the administration of the Government Railways in Japan proper were first applied to the South Manchuria Railway. In order to meet the different conditions existing in Manchuria, as well as to make these lines more effective as an important link in world communications, the Company enacted its own Traffic Regulations in October, 1909. By these Regulations, the Company's responsibilities towards both passengers and shippers of goods are more clearly defined, and greater facilities provided, while the operation of the lines was developed into a smoothly working system. However, many changing conditions, specially during and after the great European war, necessitated the revision of these regulations in October, 1927, by which greater traffic efficiency and unity in operation have been secured.

48 Railway Rates

The rates for passengers at present are: first class, 7 sen per mile; second class, $4\frac{1}{2}$ sen; third class, $2\frac{1}{2}$ sen. For travel on the express trains, composed of excellently equipped Pullman sleeping and dining cars, an extra express ticket is required, at the rate 3 yen for first class, 2 yen for second class and 1 yen for third class for distances up to 500 miles. Special reductions in rates, however, are made from time to time to encourage local development and assist in relief work. During the North China famine in 1920, a 50 per cent. reduction in freight rates on supplies moving into the famine district was made, while thousands of Chinese famine refugees were transported free of charge. As already stated in the section on Immigration, for the refugee immigrants driven out during 1926-7 from Shantung and Chihli provinces by the civil war, a 35 to 40 per cent. deduction was made, while infants under the age of 15 and aged persons above 60 were carried free.

49 International Through Traffic

International through routes for passengers and freight have been gradually established in co-operation with the various railways and sea lines to Chinese and Japanese ports and inland cities, and to Europe and America. Supplementing international traffic being an important undertaking, the Company made constant efforts to this end, particularly in co-operation with Russia. When Baron Goto, the first President of the Company, went in May, 1908, to Petrograd, he made preliminary arrangements with Mr. Wentzel, Vice-President of Chinese Eastern Railway for direct through traffic between the South Manchuria Railway and the Chinese Eastern Railway. In October, the Company inaugurated an express service between Dairen and Changchun, consisting of sleeping and dining cars of Pullman type, and connecting at Changchun with the Trans-Siberian trains of the International Sleeping Car and Express Train Co. and the Russian State Express. At Dairen an efficient steamship service operated between Dairen and Shanghai; and another service was arranged between Dairen and Japan. By the rebuilding of the line from Mukden to Antung, and the opening of the great bridge across the Yalu in 1911, thus connecting the Manchuria and Chosen lines, which connect with the Imperial Government Railways of Japan through the channel steamer service between Fusan and Shimonoseki,

a new world highway system between Japan and Europe was established. In January, 1913, more detailed arrangements for through traffic service of freight were made at Petrograd between the Japanese Government Railways, Korean Government Railways, South Manchuria Railways, Osaka Steamship Company, Chinese Eastern Railway of Russia, and Russian Volunteer Fleet. There was also a through traffic arrangement for tourists between the Far East and Europe, going via Trans-Siberian Railways and returning via Suez Canal, or vice versa. In this round trip, the North German Lloyd, the Peninsular and Oriental Steam Navigation Co., and the Messageries Maritimes participated. Round-the-world through traffic was also arranged by the participation of the Canadian Pacific Railway Co. and other companies with regular services on the Atlantic and Pacific. But the European war, and later the Russian political disorders, caused all these international through traffic arrangements to be suspended.

Subsequently the International Through Traffic Railway Convention was concluded by the Second General Conference on Transportation of the League of Nations, held at Geneva in November, 1923, and to which the South Manchuria Railway Company adhered. Japan made persistent efforts to re-establish through traffic between the Far East and European Russia; the Soviet Government recognized this necessity, but negotiations did not reach a practical stage until the preliminary arrangement was made in December, 1926.

Today, travelers between Europe and Japan or China, taking the South Manchuria Railway, can save a great deal in both expense and time. The firstclass fare from Tokyo to London is 530 yen, the time 16 days by rail, as against 1,100 yen and 30 days via America by steamer. From Shanghai to London, the fare is 600 yen; the time 16 days by rail, and 1,050 yen and 41 days by steamer, via Suez.

50 The Growth of Traffic

During the last twenty-one years, there has been a remarkable growth of traffic on the South Manchuria Railway, despite all obstacles to progress, the constant activities of Manchurian bandits, and the frequent threat of civil war. The number of passengers carried has increased more than five-fold, and the tons of freight handled more than twelve-fold. The stupendous increase of freight, though augmented each year by shipments of coal mined by the Company itself, is due to the ever-increasing agricultural produce, especially the Manchurian

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bean. The number of passengers increased more than five times in the period—an increase wholly due to the thirdclass passenger. On the other hand, first and secondclass passengers rather show a decrease. The express train service, including Pullman cars and American dining and observation cars, is maintained for the international traffic, and is run at a loss.

The table below shows the growth of freight and passenger traffic:

Items	Tons of Freight		Passengers		
	1907-8	1927-8	Passengers	1907-8	1927-8
Coal	165,521	8,830,593	1st class.....	39,152	13,275
Beans	202,857	2,696,405	2nd "	925,493	157,724
Beancake.....	637,773	423,915	3rd "	547,586	8,092,090
Kaoliang		895,425			
Millet		428,135			
Flour	12,410	207,775			
Other Grain ...	73,847	601,703			
Lumber		463,603			
Salt	47,012	193,308			
Mineral Pro- ducts		393,493			
Other Items ...	852,469	3,293,421			
Total	1,491,859	18,427,775	Total ...	1,512,231	8,263,089

The accompanying table shows in greater detail the activities of the Company in regard to capital investment, passengers and freight, gross receipts and expenditures, and net receipts during the past twenty-one years:—

Year	Length of Lines open to Traffic	Amount of Investment	Passengers		Freight		Total Receipts	Expenditures	Profit	Profit per mile
			Number	Receipts	Tons	Receipts				
1907-8	706.1	¥ 9,694,126	1,512,231	¥ 3,594,239	1,486,434	¥ 6,160,274	¥ 9,768,887	¥ 6,101,615	¥ 3,667,272	¥ 5,194
1908-9	707.0	32,545,131	1,868,140	2,964,587	2,509,036	9,542,262	12,537,142	5,161,408	7,375,734	10,432
1909-10	704.0	40,878,992	2,179,062	3,250,412	3,568,527	11,241,859	15,016,198	5,818,333	9,197,865	13,065
1910-1	710.9	55,830,384	2,349,088	3,264,639	3,922,164	11,641,529	15,671,605	6,542,640	9,128,965	12,841
1911-2	701.2	67,758,738	3,158,270	4,273,423	4,705,690	12,471,415	17,526,288	6,908,354	10,617,934	15,143
1912-3	693.8	72,264,513	3,905,822	5,008,633	4,681,698	13,913,341	19,907,456	7,846,923	12,060,533	17,383
1913-4	693.9	74,317,325	4,143,687	5,069,127	5,782,161	16,159,171	22,275,132	7,913,948	14,361,184	20,696
1914-5	690.8	75,557,956	3,617,547	4,367,168	5,705,948	17,550,150	23,216,721	8,345,286	14,871,435	21,528
1915-6	687.3	76,257,202	3,708,165	4,842,338	5,860,716	17,260,655	23,532,118	8,174,520	15,357,598	22,345
1916-7	687.2	78,040,072	4,410,816	6,040,453	6,229,757	19,882,476	27,815,349	8,435,939	19,379,410	28,201
1917-8	687.2	80,681,968	5,844,929	8,136,707	7,274,177	23,793,056	34,457,923	10,858,734	23,599,189	34,341
1918-9	687.2	86,136,390	7,491,946	10,911,382	8,334,084	30,377,682	44,992,872	17,038,157	27,954,715	40,679
1919-20	686.9	113,268,698	9,274,114	14,243,790	10,096,672	46,305,759	67,060,720	30,528,938	36,531,782	53,184
1920-1	686.2	141,376,680	8,123,411	14,659,337	10,154,259	63,867,090	85,316,806	36,760,264	48,556,542	70,762
1921-2	686.0	153,998,741	6,926,619	12,194,288	10,400,208	59,615,835	78,204,132	32,172,717	45,031,415	65,642
1922-3	686.0	164,767,521	7,645,068	12,389,464	12,043,870	69,518,111	87,813,029	34,169,285	53,643,744	78,196
1923-4	686.9	173,274,243	8,762,862	13,431,856	13,371,673	72,582,757	92,269,704	35,787,589	56,482,115	82,228
1924-5	693.3	186,608,309	8,732,718	13,645,538	14,588,437	77,019,368	92,561,732	36,553,297	56,008,435	80,785
1925-6	694.8	195,940,081	9,109,004	14,530,942	15,045,292	80,535,820	97,395,228	38,800,691	58,594,537	84,333
1926-7	693.5	200,190,586	8,290,085	15,216,353	16,535,194	89,513,059	107,923,567	45,951,623	61,971,944	89,861
1927-8	690.8	214,669,143	8,263,089	16,102,953	18,427,775	94,040,819	113,244,180	45,235,835	68,008,345	98,449

bean. The number of passengers increased more than five times in the period — an increase wholly due to the thirdclass passenger. On the other hand, first and secondclass passengers rather show a decrease. The express train service, including Pullman cars and American dining and observation cars, is maintained for the international traffic, and is run at a loss.

The table below shows the growth of freight and passenger traffic :

Items	Tons of Freight		Passengers	
	1907-8	1927-8	1907-8	1927-8
Coal	165,521	8,830,593	1st class.....	39,152
Beans	202,857	2,696,405	2nd "	925,493
Beancake.....	637,773	423,915	3rd "	547,586
Kaoliang		895,425		8,092,090
Millet		428,135		
Flour	12,410	207,775		
Other Grain ...	73,847	601,703		
Lumber		463,603		
Salt	47,012	193,308		
Mineral Pro- ducts		393,493		
Other Items ...	852,469	3,293,421		
Total	1,491,859	18,427,775	Total ...	1,512,231
				8,263,089

The accompanying table shows in greater detail the activities of the Company in regard to capital investment, passengers and freight, gross receipts and expenditures, and net receipts during the past twenty-one years :—

Year	Length of Lines open to Traffic	Amount of Investment	Passengers		Freight		Total Receipts	Expenditures	Profit	Profit per mile
			Number	Receipts	Tons	Receipts				
1907-8	706.1	¥ 9,694,126	1,512,231	¥ 3,594,239	1,486,434	¥ 6,160,274	¥ 9,768,887	¥ 6,101,615	¥ 3,667,272	¥ 5,194
1908-9	707.0	32,545,131	1,868,140	2,964,587	2,509,036	9,542,262	12,537,142	5,161,408	7,375,734	10,432
1909-10	704.0	40,878,992	2,179,062	3,250,412	3,568,527	11,241,859	15,016,198	5,818,333	9,197,865	13,065
1910-1	710.9	55,830,384	2,349,088	3,264,639	3,922,164	11,641,529	15,671,605	6,542,640	9,128,965	12,841
1911-2	701.2	67,758,738	3,158,270	4,273,423	4,705,690	12,471,415	17,526,288	6,908,354	10,617,934	15,143
1912-3	693.8	72,264,513	3,905,822	5,008,633	4,681,698	13,913,341	19,907,456	7,846,923	12,060,533	17,383
1913-4	693.9	74,317,325	4,143,687	5,069,127	5,782,161	16,159,171	22,275,132	7,913,948	14,361,184	20,696
1914-5	690.8	75,557,956	3,617,547	4,367,168	5,705,948	17,550,150	23,216,721	8,345,286	14,871,435	21,528
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1916-7	687.2	78,040,072	4,410,816	6,040,453	6,229,757	19,882,476	27,815,349	8,435,939	19,379,410	28,201
1917-8	687.2	80,681,968	5,844,929	8,136,707	7,274,177	23,793,056	34,457,923	10,858,734	23,599,189	34,341
1918-9	687.2	86,136,390	7,491,946	10,911,382	8,334,084	30,377,682	44,992,872	17,038,157	27,954,715	40,679
1919-20	686.9	113,268,698	9,274,114	14,243,790	10,096,672	46,305,759	67,060,720	30,528,938	36,531,782	53,184
1920-1	686.2	141,376,680	8,123,411	14,659,337	10,154,259	63,867,090	85,316,806	36,760,264	48,556,542	70,762
1921-2	686.0	153,998,741	6,926,619	12,194,288	10,400,208	59,615,835	78,204,132	32,172,717	45,031,415	65,642
1922-3	686.0	164,767,521	7,645,068	12,389,464	12,043,870	69,518,111	87,813,029	34,169,285	53,643,744	78,198
1923-4	686.9	173,274,243	8,762,862	13,431,856	13,371,673	72,582,757	92,269,704	35,787,589	56,482,115	82,228
1924-5	693.3	186,608,309	8,732,718	13,645,538	14,588,437	77,019,368	92,561,732	36,553,297	56,008,435	80,785
1925-6	694.8	195,940,081	9,109,004	14,530,942	15,045,292	80,535,820	97,395,228	38,800,691	58,594,537	84,333
1926-7	693.5	200,190,586	8,290,085	15,216,353	16,535,194	89,513,059	107,923,567	45,951,623	61,971,944	89,861
1927-8	690.8	214,669,143	8,263,089	16,102,953	18,427,775	94,040,819	113,244,180	45,235,835	68,008,345	98,449

51 Railway Workshops

Originally, during the Russian regime, a railway workshop stood within the compound of Dairen Station. After the Company had taken charge in 1907, it was decided to build a new modern-equipped workshop on an extensive scale at Shakako, near Dairen. Construction work was commenced toward the end of 1908 and completed in August, 1911. These shops have the capacity of executing repairs simultaneously on 27 locomotives, 36 passenger cars, and 130 freight cars, while at the same time, constructing or repairing other railway material, mining machinery, etc. The Shakako shops are among the largest in the Orient. Of the rolling stock now in use, 105 locomotives, 281 passenger cars, 4,179 freight cars, and 145 caboose cars were constructed at Shakako. In addition, a number of orders have been filled for the Chosen Government Railways and Chinese Government Railways. Another repair shop on a smaller scale is located at Liaoyang. The Company has invested more than 8,700,000 yen in these shops where today 1,387 Japanese and 1,508 Chinese are employed. During the fiscal year ending March 31, 1928, 229 locomotives, 454 passenger cars and 2,186 freight cars were repaired and reconstructed, while 78 locomotives, 20 second-class passenger cars, 15 parcel-post cars, 1,013 freight cars, and 100 caboose cars, were constructed or assembled. The total expenditure on the shops during the year amounted to 11,506,363 yen.

52 Harbors

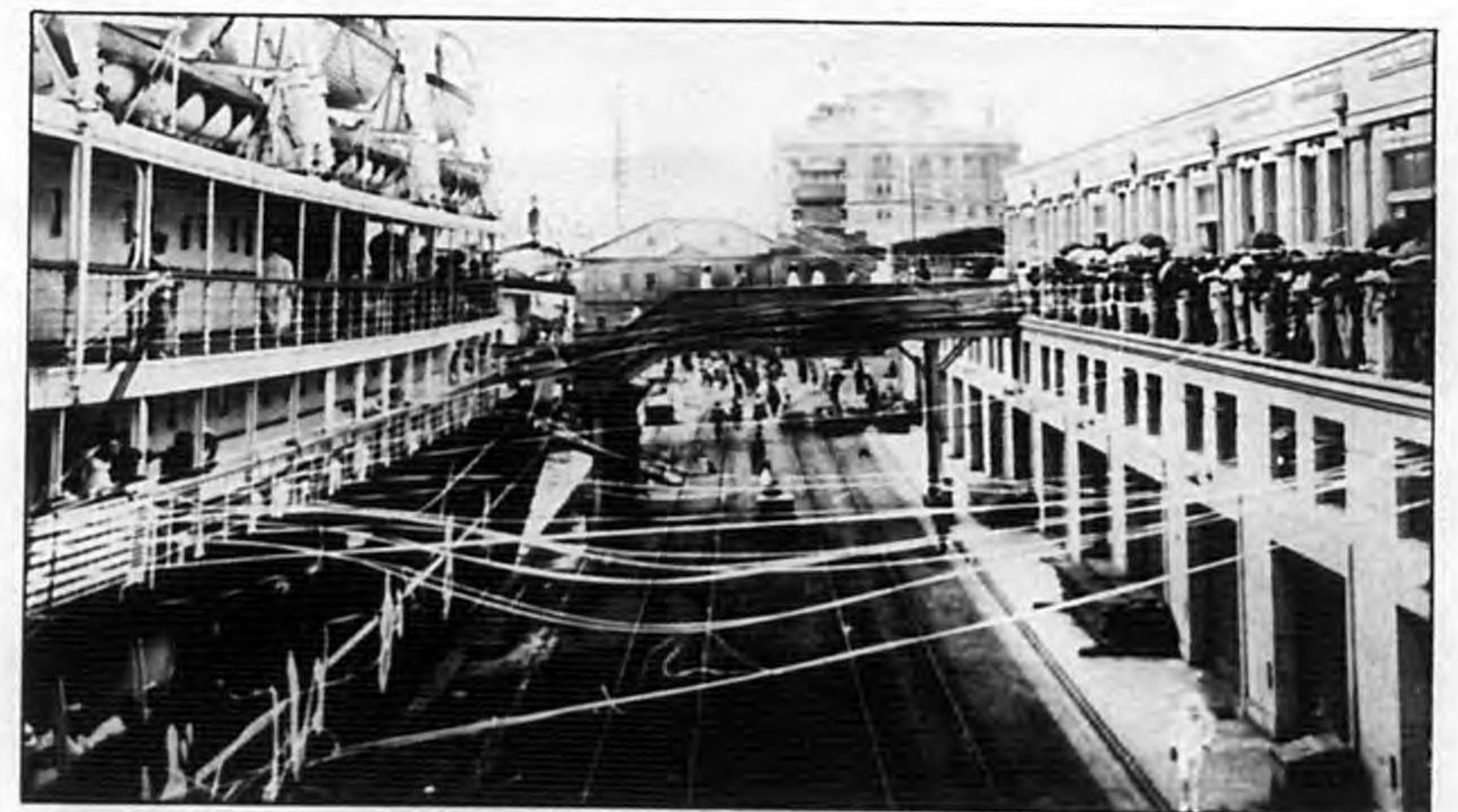
The construction and administration of harbors in most countries are conducted by the Government. At the port of Dairen in the Leased Territory, however, harbour construction and administration are entrusted to the South Manchuria Railway Company, much as the Great Western Railway Co. carries on similar works at Cardiff, Port Talbot, and Barry Dock, in South Wales. But the quarantine administration in Dairen harbor is wholly conducted by the Kwantung Government. The Russians planned to make the port of Dairen (Dalny, as christened by them) the southern terminal of the Chinese Eastern Railway, it being an ice-free port, of which they had dreamed for a century. Their investment in the development of the city and harbor of Dairen was estimated over 30,000,000 roubles. When the harbor was placed under the Company's charge, it was far from being complete, only one pier having been finished, while quays and breakwaters were only



Second Wharf at the Port of Dairen.



Interior of the Wharf Provided with Passenger Facilities.



Facilities for quick Travel Connections.

partly constructed. The dredging of the harbor had also been very imperfectly done, the greater portion being untouched.

The Company, though it followed in the main the plan laid down by the Russians, immediately entered upon a comprehensive scheme of harbor improvement. Direct communication between land and sea being one of the Government orders, it was provided that trains come direct to the steamer-side, and thus cargoes and passengers are transferred with the least delay. The breakwaters were improved and completed in March, 1918, and the old Russian pier was reconstructed. Two new piers have since been built, and the fourth is now under construction, the completion of which is expected in 1931. Three wharves between four piers were also completed. The present breakwaters aggregate 13,137 ft., or 2.5 miles, and the area enclosed by them is a little less than 800 acres. The total length of berthing quays is 14,396 feet, which will be increased to 18,896 feet after the fourth pier is completed. At present steamers totalling 173,000 tons can be docked at one time, and this will be increased to 242,000 tons by 1931. Just outside the breakwater, there is a pier 1,135 feet in length reserved for loading and unloading oil and other combustibles. One junk wharf for junk cargoes, having the capacity of 200,000 tons a year, is also provided. For steamers discharging or loading in the harbor, there are fifteen steel lighters. There are also two 50-ton and five 5-ton floating cranes, and one 45-ton, one 27-ton and three 5-ton locomotive cranes on shore. A number of electric and steam cranes have been installed on the piers to handle heavy cargo. Coal-shipping facilities include cardampers having the capacity of supplying 1,800 tons per hour, and belt-conveyors with the capacity of 900 tons per hour. Within the wharf compounds are 68 miles of railway to facilitate the shifting and handling of cargoes.

The Company's investment in harbor and wharf development at the Port of Dairen up to March, 1928 aggregated 52,987,000 yen. If expenditure incurred in the piers constructed by the Company at Yingkou, Antung, Port Arthur, and Shanghai be added, the total investment amounts to 59,788,000 yen.

The progress of the Wharfage Traffic at the Port of Dairen may be gathered from the following table:—

	Number of Soybean Cakes	Tonnage of Cakes		
		1917-18	1922-23	Total
1917-18	1,140	55,100	26,700	81,800
1922-23	1,500	100,000	1,500,510	1,600,510
1921-2	2,500	100,000	2,100,000	2,200,000
1920-1	3,000	100,000	5,100,000	5,200,000
1919-20	4,200	1,000,000	1,200,000	2,200,000

In addition, the Company conducts an extensive warehousing business at Dairen and the principal stations along the railway which will be treated in the following section. Receipts, including anchorage, wharfage, storage, etc., expenditures, and profit in five-year intervals are shown in the following table:—

Year	Receipts	Expenditures	Profit
	Yen	Yen	Yen
1917-8	572,493	569,351	3,142
1918-9	1,688,720	1,489,384	199,336
1919-20	3,499,934	3,106,262	393,672
1920-1	8,674,535	7,392,162	1,282,373
1921-2	10,275,943	9,305,782	970,161

53 Warehousing

The warehousing facilities, originally in a very crude state, have been greatly developed since the Company assumed the management in November, 1911. On the piers, and within the wharf compounds, Dairen harbor today has 67 warehouses with floor space aggregating 312,482 square metres. In addition, there are 97 warehouses with floor space aggregating 123,728 square metres at the leading stations along the railways.

In order to facilitate the shipment and marketing of soya beans, the Company inaugurated a so-called mixed storage system first at the Dairen wharves in 1913, which was later extended to Mukden, Tieling, Kaiyuan, and other centres on the main line. By this system, beans are graded and classified at receiving points according to qualities and weight, and receipts, negotiable at the bank, are issued, which call for the delivery of like quantities and qualities at terminal points. The system was later introduced for the storage of beancake, bean oil, and wheat.

The cargoes handled at the warehouses now amount to over 11,000,000 tons a year, 60 per cent. of which are beans and bean products.



Car-load of Soya Bean Cakes brought to Mixed Storage at Dairen.



Soya Bean graded at Mixed Storage of Dairen awaiting Shipment.



Soya Bean Cake at Mixed Storage awaiting Shipment.

The table below shows the growth of the Warehousing business:—

Years	Cargo trans- ferred from previous year	Cargo Received	Total	Cargo taken out
	Tons	Tons	Tons	Tons
1911-2	7,507	718,777	726,284	568,312
1912-3	157,972	969,192	1,127,164	996,867
1917-8	331,418	3,332,967	3,664,385	3,157,080
1922-3	643,527	5,213,722	5,857,249	5,349,811
1927-8	612,362	5,276,268	5,888,630	5,318,241

The Company inaugurated in 1911 a scheme of fire insurance on goods in storage under custody free of expense to the shippers.

The following table shows the amount thus insured and premium paid by the Company for the last ten years:—

Years	Amount Insured	Premium paid by Company
	Yen	Yen
1917-8	325,432,400	114,116.20
1918-9	274,794,000	103,697.69
1919-20	362,531,000	237,319.51
1920-1	317,488,400	205,229.94
1921-2	347,853,900	194,895.05
1922-3	302,556,800	187,101.78
1923-4	254,616,400	136,100.51
1924-5	358,515,600	162,210.49
1925-6	294,334,900	116,640.27
1926-7	371,620,900	142,378.64

54 Coal Mining

The most important undertaking of the Company, next to the railways, is coal mining, carried on at Fushun and Yentai. The investment in this industry amounted to 102,700,000 yen at the close of the fiscal year ending March 31, 1928. During this fiscal year the product of the mines, amounting to 7,429,624 tons was sold; the gross receipts were 82,787,419 yen and the expenses 73,039,119 yen, leaving 9,748,300 yen as net profit. The annual output amounts to 6,982,870 tons, more than 26,000 tons a day. In the year 1907, when the Company took over this undertaking, the daily output was only 300 tons.

The Company is fortunate in operating a rich coal-bed like that at Fushun, the largest open cut in the world. Fushun lies in the valley of the Hun river, a little over twenty miles east of Mukden. It runs east and west about 10 miles parallel with the river and from north to south $2\frac{1}{2}$ miles, covering 23 square miles. The seam is interbedded in

the tertiary stratum with a northerly dip of about 30 degrees and with an average thickness of 130 feet, the thickest part being 430 feet. The general thickness of coal seams in Germany, Great Britain, and the United States is said to be from two to forty feet. Whatever the facts, the deposit in Fushun is exceedingly large, being estimated at from 952,000,000 to 1,200,000,000 tons. Probably no similar reserve can be found anywhere in the world in such a relatively small area.

The district has a long history. Coal was first worked by Koreans some 600 years ago, and was used for the baking of earthenware. Three hundred years later, further digging was prohibited for the curious reason that it was near the mausoleum of a Manchu Emperor, built in the suburbs of Mukden. Prior to and during the Russo-Japanese war, the mines were operated by Russians on a small scale for their own needs, the daily output amounting to 300 tons. After the war, the Japanese military authorities carried on the mining until it was turned over in 1907 to the South Manchuria Railway Company, together with the Yentai and other minor fields. Then it entered a new era of large-scale production on a scientific basis, equipped with modern machinery, mostly imported from the United States and Germany.

As a first step in the most advanced scientific and technical operation, Dr. Buichiro Matsuda, chief engineer of the Mitsubishi Mining Co., was invited by the Company to occupy the post of Superintendent-General of the Mine in January, 1907. Dr. Matsuda lost no time in applying what was known as the first stage of the program of developing the mine. By this the Company improved three old pits and opened two new pits on a large scale; one of which was named the "Oyama Pit" and the other the "Togo Pit." This program was completed in 1912 at the cost of 9,200,000 yen, and the daily output was increased from 360 to 5,000 tons.

Pressed by the increasing demand, however, the Company, as the second stage in developing the Fushun mine, introduced the open-cut mining method at two places, besides opening three new pits. The new sand-flushing method was adopted, with an electrified sand-carrying railway, supplied with current from a Mond Gas power plant. As the result of this improvement, the average capacity of production increased to about 7,000 tons, or three million tons annually, in 1918. But the demand for coal continued to increase, due to industrial expansion in Manchuria and Korea, and also to the greater use of coal by the natives in place of their former fuel, kaoliang stalks, which necessitated the import of coal into Manchuria to the extent of 150,000 tons in

1908, and 490,000 tons in 1909. To meet the ever-increasing demand from growing industries, particularly that of the Anshan Iron Works, the Company planned another expansion. This resulted in a so-called "Ten Year Program" drawn up in 1919 and modified in 1924 as the third stage of mining development, by which the excavation of a large shaft at Lunfeng, the open cut of the remaining seams extending from Kuchengtze to the Yangpaipu brook, and the extension of the open cut of Chien-chinchai so as to connect with that of Kuchengtze, were to be worked. With the completion of this scheme, the annual output from Fushun Mines, excluding Yentai Mines, is expected to be over 8,000,000 tons in the fiscal year 1933.

The following table in English tons shows the quantity of coal produced and sold:—

Years	Quantity of coal transferred from previous year	Quantity of production	Quantity purchased	Total	Quantity sold
1907-8.....	18,712	233,325	—	233,325	202,320
1912-3.....	367,541	1,513,254	86,046	1,599,315	1,639,955
1917-8.....	134,192	2,389,584	358,492	2,748,076	2,712,301
1922-3.....	682,938	3,921,727	346,470	4,268,197	4,536,004
1927-8.....	466,672	6,982,870	573,858	7,556,728	7,429,624

The table below shows the growth of the mining industry at intervals of five years since 1907:—

Years	Receipts			Total	Expenditure	Profit
	Sale of coal	Sale of other minerals	Other			
	Yen	Yen	Yen	Yen	Yen	Yen
1907-8...	1,318,676	—	215	1,318,891	765,886	533,005
1912-3...	9,156,631	—	37,122	9,193,753	7,347,091	1,846,622
1917-8...	20,030,480	294,042	43,941	20,368,463	15,047,917	5,320,546
1922-3...	51,665,247	202,724	1,271,952	53,139,923	46,424,196	6,715,727
1927-8...	80,509,052	273,113	2,005,257	82,787,419	73,039,119	9,748,300

It is of interest to note the disposal of the coal sold in the fiscal year 1927. Of 7,429,000 tons sold, Manchuria consumed 3,326,000 tons, of which 1,323,000 tons were for account of the S. M. R. itself, 65,000 tons used by employees, and 1,937,000 tons by other consumers. Exports amounted 3,401,000 tons, of which Japan proper purchased 1,695,000 tons, Korea 417,000 tons, Taiwan 4,000 tons, North China 180,000 tons, South China 922,000 tons, while 183,000 tons went to points in the South Seas. More than 703,000 tons were furnished to steamers for bunker coal.

55 Shale Oil Plant

At Fushun Mine, there are also huge reserves of oil shale right above the coal bed. The Fushun oil shale running east and west for ten miles and north and south for one mile, being 450 feet deep in the thickest part, is estimated at as much as 5,300,000,000 tons. This shale contains an average of six per cent. of oil, the upper part of the seam containing 10-12 per cent. and gradually being reduced to 1 or 3 per cent. at the lower level, besides 0.55 per cent. of nitrogen.

The combustible capacity of the oil shale taken from the Oyama shaft, being incidentally discovered in 1911, the shale was sent to the Central Laboratory, Dairen, for test, in the following year. But in those days the utilization of oil shale, however, was regarded as commercially impossible even in Germany and elsewhere, Scotland only excepted. But the wonderful development of the airplane and automobile, and the extensive application of the Diesel engine to ships and to the industries utilizing oil during and after the European war, revolutionized the fuel question, and petroleum has become one of the fundamental bases of the industrial and military life of a nation. The consumption of this product in Japan is steadily increasing.

The annual consumption was about 350,000 tons in 1919; it was increased to 1,000,000 tons in 1928, of which more than two-thirds were imported. Thus Japan herself is confronted with this important oil question.

Meanwhile, the South Manchuria Railway Company was most seriously studying its industrial workability by utilizing oil shale at Fushun. In order to ascertain whether the shale is really suited for industrial operation, several hundred tons of Fushun shale were sent in 1920-2 to the Fuel Research Station of the Japanese Navy, to Sweden, and to Scotland for test. Subsequently, several experts in the Company's service were despatched abroad to investigate fully existing enterprises, in addition to the scientific side of the question. In 1925, a so-called semi-industrial plant was set up, and a process for extracting oil by dry distillation was successfully worked out.

Based on this process, the Company finally decided to establish a shale oil plant at Fushun with the capital allotted of 8,500,000 yen. This plant is to manufacture about 70,000 tons of the crude oil and by-products, 18,000 tons of ammonium sulphate, and 7,000 tons of paraffin. Oil production is to be gradually increased.

56 Iron Works

The South Manchuria Railway Company early contemplated working the iron ore found in great quantities at Anshan. The presence of iron deposits here was discovered in 1909 by the officials of the Geological Institute of the Company. By an agreement signed in 1914 with China, a concession to work this iron mine was given to the Chenhsing Kungssu, a Sino-Japanese company. It was also arranged that the ore produced at the mines owned and operated by this concern should be supplied to the South Manchuria Railway Company.

The original plan was to erect a plant large enough to produce 1,000,000 tons of pig-iron a year, or 800,000 tons of steel. Two blast furnaces, were to be erected as the first stage of the original plan. Construction of the first furnace was set about in May, 1917, and completed in December, 1918. Pig-iron was first produced in May, 1919. When the construction of the second furnace was about completed at the beginning of 1920, the price of pig-iron fell from 440 yen a ton in war-time to 50 yen, owing to the world-wide depression after the war.

With a view to adjusting the enterprise to the new conditions, the second furnace was not put in service, and further construction of the third and fourth furnaces planned as the second stage in the original scheme was stopped. Yet Japan was pressed by the necessity of this product to meet her ever-developing industry, and the South Manchuria Railway Company, therefore, continued to develop this undertaking, although it involved heavy financial loss. With a view to utilizing ore of low percentage and at the same time readjusting and improving the plant, in order to cover expenses, an investigation board was organized in January, 1920. A group of American scientists and practical engineers, headed by Professor Appleby, of the University of Minnesota, were invited in June, 1921 to Anshan, where they spent more than forty days, and made a thorough investigation into the nature of the ore and its possibilities. Meanwhile, more advanced processes, the so-called hematite reducing system and magnetic concentration system, by which the percentage of iron can be increased to 55 on an average, were invented by one of the Japanese experts attached to the plant. In September, the original plant was modified as follows:

- (1) Annual output should be to the extent of 200,000 tons by using two blast furnaces;
- (2) A large concentration plant should be built;
- (3) Plants manufacturing by-products, ammonia sulphate, benzol,

naphthaline, etc. should be augmented. This readjustment was to be carried out within two years from 1924 at an additional expenditure of 11,000,000 yen. The total capital invested from 1919 to March 31, 1927, amounting to 45,900,000 yen, has been spent on this iron works, which contain two blast furnaces, four coke ovens, each with a daily capacity of 700 tons; by-products, plants, gas works, electric plant, etc. There are thirty-five miles of railway connecting the mines with the works.

For the fiscal year ending March, 1928, 203,445 tons of pig-iron were produced, an increase of 38,391 tons compared with the former fiscal year. Expenditure for the same period was enormously decreased. Furthermore, the capital stock being reduced from 45,000,000 yen to 20,700,000 yen, it was anticipated the loss account on this plant would be converted into a profit account in the fiscal year ending March, 1929.

The following table reveals the general condition of the iron works at Anshan:—

Year	Annual Production Tons	Income yen	Expenditure yen	Loss yen
1919-20	31,620	2,796,224	4,283,392	1,487,168
1920-1	75,273	1,580,655	8,003,233	6,422,577
1921-2	57,184	3,606,999	6,480,725	2,873,726
1922-3	66,543	3,386,935	6,585,278	3,198,343
1923-4	72,311	3,703,690	5,944,588	2,240,897
1924-5	94,501	4,430,753	7,386,361	2,955,607
1925-6	88,263	3,986,931	7,706,920	3,719,989
1926-7	162,455	6,896,504	10,703,098	3,806,594
1927-8	203,454	9,223,114	9,380,656	157,542

In 1928, one more blast furnace having a daily capacity of 500 tons was to be set up. By this the annual production of pig-iron can be increased to 300,000 tons.

57 Public Services in the Railway Zone

The Government General of the Kwantung Leased Territory was established in 1906, and its police administration and communications undertakings, such as post, telegraph, and telephone, were extended to the Railway Zone. But the residue of the administration in the Railway Zone was entrusted to the South Manchuria Railway Company. Thus the Company assumed the responsibility of providing the Zone with educational and sanitary undertakings, town construction and other public works, besides various undertakings for industrial and agricultural

encouragement. In these public services, the Company has during the the last twenty-one years expended more than 164,600,000 yen, of which 127,000,000 yen were for city and town construction; 13,400,000 yen for hospitals; 12,000,000 yen for schools and libraries; 6,100,000 yen for houses and land for lease; 2,000,000 yen for the Central Laboratory, model farms, experimental station for agriculture, live stock, and afforestation.

For these public services in education, sanitation, public works, and the encouragement of agriculture and industry, the Company collects house rent and fees from hospitals, schools, and other sources. Any deficit is defrayed by the Company, and such deficit today amounts to more than 13,000,000 yen a year.

The following table shows the growth of expenditure on public services in the Railway Zone:

Year	Fees, Rent, etc.	Expenditures	Deficit defrayed by Company
1907-8	120,794	251,006	130,212
1912-3	633,211	1,401,012	767,800
1917-8	1,930,284	3,538,709	1,267,560
1922-3	3,995,249	10,831,659	6,836,410
1927-8	6,098,233	19,104,444	13,006,210

58 Educational and Hygienic Works

Of the expenditure for the fiscal year ending March, 1928, amounting to 19,104,000 yen, about 3,000,000 yen were allotted to educational expenses and 4,900,000 yen for hospital and other hygienic purposes. The educational and hygienic work undertaken by the South Manchuria Railway Company will be more fully dealt with later in the chapters on Education and Sanitation.

59 Town Construction

As already stated, the Company is entrusted with the management of the Railway Zone, including the towns therein.

In order to promote the prosperity and well-being of the Railway Zone, the Company took a serious step in creating modern towns or improving old towns along the railway to the extent of making them habitable and comfortable. During the Russian regime, Newchwang and Dairen were the only places opened to trade and residence. Besides the stations along the railway, the Russians had established small

settlements at Port Arthur, Liaoyang, Wafangtien, Tashihchiao, and Kungchuling, but these chiefly consisted of residences for the railway employees and barracks for soldiers, and were by no means commercial settlements. After the management of the Railway Zone was handed over from the Japanese Army, the Company planned to build modern cities or towns at Dairen, Mukden, Liaoyang, Changchun, Antung, and other places. In the beginning it followed the Russian plan, consisting of central circles whence streets radiate like a spider-web, but soon the plan of the rectangular block system was adopted. These modern towns had not only to be provided with wide and well-paved streets, parks, market quarters, cemeteries, and other necessities, but lighting and electric power were necessary. Thus electric plants and gas works have been established in Dairen, Mukden, Changchun, Antung, and other places, and the Company has also given aid to private enterprises in the establishment of electric plants and tram systems.

To the waterworks and sewage systems, the Company has paid special attention with a view to the perfection which is a characteristic of the modern town. The waterworks originally built by the Russians at Port Arthur were enlarged and improved. Modern waterworks have been constructed at Dairen, Mukden, Liaoyang, Antung, and other leading towns, while at smaller towns modern wells have been sunk to meet the needs of the inhabitants.

The planning of modern towns undertaken by the Company has involved heavy expenditure, the cost to the Company being over 127,000,000 yen. If investments in electric plants and gas works which have been separated and handed over to independent concerns be included, the total investment in connection with the building of modern towns by the South Manchuria Railway Company amounts to more than 157,000,000 yen.

60 Local Management

In 1907, when the Company took over the charge of the Railway Zone administration, there were settlement councils at several centres along the Railway. The Company caused them to act as its agents, but discontinued their services in October of the same year. The Company established instead district agencies at Liaoyang, Mukden, Changchun, and four other places for the purposes of local administration. These district agencies were gradually increased, and are maintained today at thirteen railway towns, including Antung, Yingkou, Tashihchiao,

Kaiyuan, and Ssuping kai. At Fushun, the General Office of the Collieries undertakes similar local administration. Where there is no district agency or sub-agency, the station-master supervises part of the business of a district agency. Each district agency has a Local Committee, the members of which are elected by the tax payers in the district, and in the fixing of the annual budget of the district, the Local Committee is consulted. The idea is to cultivate the spirit of self-government among the residents, disregarding nationality — Chinese, Japanese, or European.

For the maintenance of the local administration, it is empowered by the Government to collect taxes, fees, licenses, etc., and to make other necessary assessments upon the residents within the Zone, subject to Government sanction, in order to cover its outlays. Any deficit is borne by the Company, and such deficit today amounts in the aggregate to more than 2,700,000 yen per year.

61 Experimental Laboratories, Model Farms, Research Work

With a view to improving and encouraging agriculture and industries suitable to the conditions of Manchuria and Eastern Inner Mongolia, the Company has established a number of experimental laboratories and model farms in Dairen, and at places in the Railway Zone. Other scientific institutions conducting research work on economic questions or in connection with the historical survey of Manchuria, Mongolia, and the Far East in general, were also established.

62 Central Laboratory

The Central Laboratory was originally established in 1908 by the Kwantung Government in Dairen, as an institution to conduct experiments and analytical testing in agriculture, industry, and hygiene. The necessity being felt of founding basic plans for developing the natural resources in Manchuria more by scientific research and practical experiment, this institution was transferred to the South Manchuria Railway Company in 1910 and enlarged. The scope of its activities was divided into eight divisions, namely, analytical chemistry, applied chemistry, textiles and dyeing, pottery, fermentation, sanitary chemistry, electrical chemistry, and clerical work. In addition, the Laboratory renders service to the public at large by conducting on request

general analyses, testings, and estimates with the object of contributing to industrial and hygienic progress in South Manchuria.

Any new idea giving good promise of commercial utilization as the result of these investigations, may be further tested in an experimental workshop or industrial plant, and when the commercial production stage is reached, turned over to a company to operate as a going concern. During past years, a tussah filature, pottery plant, experimental glass factory, brick kiln, sorghum alcohol distillery, dyeing and weaving mill, bean-oil mill, fatty-acid mill, experimental lignoid factory, etc., have been founded. Of these experimental workshops, the bean-oil mill, fatty-acid factory, pottery plant, experimental glass factory, brick kiln, and others were later handed over to independent management or to private corporations.

In June, 1920, the eight divisions of the Laboratory were re-organized and converted into two greater divisions, of Experimentation and Research. The former division chiefly deals with all analyses, experimentation, testing, and estimates, while the latter attends to matters concerning physical and chemical investigation and research. All hygienic chemistry hitherto conducted by this Laboratory was transferred in 1925 to the Hygienic Institute which was newly established. Ever since, the activity of this Laboratory has been directed more toward experimental and research work in regard to the industrialization of products peculiar to Manchuria, such as beans, kaoliang, salt, coal, and other minerals.

It should be mentioned that the Laboratory has secured during the past twenty-one years more than ten patent rights on important manufacturing processes newly discovered, and many applications for patents are pending.

The table below shows the number of tests, analyses, or estimates made on request up to 1925:—

Year	No. of applications by various Departments of S. M. R.	No. of applications by Kwantung Government	No. of applications by general Public	Total
1921.....	4,735	1,455	2,419	8,609
1922.....	4,209	714	2,608	7,531
1923.....	5,233	523	1,705	7,461
1924.....	6,741	2,515	1,919	11,175
1925.....	4,675	1,526	1,941	8,142
1926.....	5,077	1,081	1,906	8,064

63 Geological Institute

This was first established at Fushun in order to develop the coal mines. In October, 1907, the Institute was removed to Dairen, and devoted to geological work and the survey of the mineral resources of Manchuria. One of its important achievements was the discovery of the iron deposits of Anshan, besides the discovery of magnesium in the Kaiping and Haiching districts. A most comprehensive map and a pictorial table of the mineral products of Manchuria are in preparation.

64 Model Farms

The Company has, besides two Agricultural Experimental Farms, respectively at Kungchuling and Hsiungyaocheng, established 22 nursery beds and three cattle feeding stations at different places along the Railway. The fundamental idea is to encourage the native farmers to improve their primitive methods by distributing improved fertilizers and better seeds or seedlings. Further details will be given in the chapter on Agriculture, which deals with the general condition of agriculture in Manchuria.

65 Eastern Asia Economic Research Bureau

The South Manchuria Railway, being one of the largest concerns in the Far East, whose interests are indissolubly connected with the commercial and industrial situation of the East and West, the first President, Baron Goto, considered it an honourable service to create a sort of economic intelligence institution, such as the intelligence offices or archives of large French and German banks. In September, 1908, the Eastern Asia Economic Research Bureau based on Baron Goto's scheme was established in the Tokyo branch office of the Company. Its main work was to collect and distribute all available information covering the subject of economic activities of the leading countries of Europe and America, which would be of interest to the trade, industry, railway and shipping communications of Eastern Asia. The management of this bureau was placed in the hands of one of the directors of the Company, Dr. Santaro Okamatsu, formerly a professor of Kyoto Imperial University; and Dr. Thiess, professor of national economy at the technical University of Dantzig, Germany, who formerly had charge

of a similar institution of the Hamburg-America line, was appointed counsellor for the organization of this Bureau. It was hoped that the work of the Bureau would contribute to the better understanding and co-operation among nations by exchanging all useful information on economic data, domestic and foreign.

During past years, the Bureau has published more than three hundred reports and has done valuable service in the years when similar work was not seriously undertaken by other institutions in Japan, prior to the European war. Today, banks, steamship companies and other industrial corporations in Japan maintain their research bureaux. These research offices and the East Asia Research Bureau co-operating with the Government research office, in 1920 organized a National Research Association with headquarters in Tokyo.

66 Research Work in Main Office

The business functions of the South Manchuria Railway Company are so extensive that they relate directly or indirectly with all economic and social conditions in Manchuria and Mongolia. The necessity of investigation into the history of these great regions, their agricultural and industrial features and other economic questions being keenly felt, a research office was created in the main office of the Company at Dairen in March, 1907. Its objects were to collect materials for the Company's own use and to prepare information for the general public. In the last twenty-one years more than 350 volumes—books, pamphlets, booklets, periodicals, etc. have been published. An Encyclopaedia of Manchuria and Mongolia in six volumes, Report on Customs and Usages of Manchuria in nine volumes, Monthly Reports on Research, Trade Returns of North China, and a Detailed Trade Return of Manchuria, are among the important works prepared by the Research Office of the South Manchuria Railway Company.

67 Affiliated Undertakings

Electric plants, gas works, marine transportation, docking, street-car services, and the hotel business, were in their beginning undertaken directly by the Company as activities subsidiary to its main business. When they had made certain development so that they could independently carry on, the Company took steps gradually to make them independent concerns. Besides these undertakings, the Company is

concerned directly or indirectly with industrial and commercial corporations by supplying the whole or part of the capital, in order to encourage industrial, commercial and agricultural development in Manchuria. The total investment in these affiliated undertakings, amounts to more than 45,000,000 yen; in addition the sum of 16,000,000 yen has been invested in other associated concerns.

68 Electric Plants

The Company originally maintained electric light and power plants at Dairen, Mukden, Antung, and Changchun, while the Fushun and Anshan plants were worked on account of the Fushun Colliery and Anshan Iron Works respectively. Electric tramways were also operated at Dairen and Fushun. These several plants, except those of Fushun and Anshan, were amalgamated in May, 1926, into one corporation, called the South Manchuria Electric Company. The capital was 25,000,000 yen, of which 22,000,000 yen was paid up. The growth of power supply of electrical undertakings in Dairen (including Port Arthur), Mukden, Antung, and Changchun is shown in the following table:

	Dairen	Mukden	Changchun	Antung	Total
	K.W.H.	K.W.H.	K.W.H.	K.W.H.	K.W.H.
1910-1...	6,019,875	509,328	729,107	97,287	7,355,597
1917-8...	14,702,590	1,418,052	3,838,650	1,763,142	21,722,434
1927-8...	60,340,185	16,818,395	8,164,537	22,436,704	107,759,821

An eight per cent. dividend was declared on the paid-up capital of the South Manchuria Electric Company for the working year ending March, 1928.

69 Gas Works

The South Manchuria Railway Company, in order to meet the demand for lighting, heating and industrial purposes, first built gas plants at Dairen in 1910. In 1920, the Anshan Iron Works commenced supplying the surplus gas to Anshan Municipality. Plants were built in Mukden in 1923, Antung in 1924, and Changchun in the same year. The management of these five plants was separated in July, 1925 from the South Manchuria Railway Company, the enterprises being incorporated in the South Manchuria Gas Company, with a capital of 10,000,000 yen, of which 9,300,000 yen was paid up.

Ten years ago the total amount of gas produced during the working year (1917) was 128,945,400 cubic feet, the by-products being 7,671 tons of coke and 169,824 gallons of tar. Today the total amount of gas increased to 431,392,962 cubic feet, coke to 14,108 tons, and tar to 1,361,311 gallons, according to the return for the working year 1927. Ammonium sulphate amounting to 123 tons was produced in this year.

70 Dairen Steamship Company

The South Manchuria Railway Company at the outset felt it a duty to participate in the international railway service between the Far East and Europe. This induced the Company to institute a regular steamship service between Dairen and Shanghai, which was undertaken in August, 1908 by chartering three steamers from the Nippon Yusen Kaisha, thus establishing the shortest route between Europe and Shanghai. In December, 1914, Tsingtao was included in this service as a port of call. Meanwhile the Company built more advanced turbine steamers, which replaced the chartered steamers. In 1915, the Dairen Steamship Company was organized by purchasing steamers engaged in coastal trade in North China, and the operation of the Dairen-Shanghai line was handed over to this company in February, 1918. Five navigation lines are now maintained by the Company. They are the Dairen-Tsingtao-Shanghai line, Dairen-Tientsin-Antung line, Dairen-Hongkong line, Tsingtao-Shanghai line, and Dairen-Lungkou (near Chefoo) line.

The Dairen Steamship Company today owns 24 steamers with aggregate tonnage of 57,229 tons, and charters eight steamers with aggregate tonnage of 23,528 tons. Its authorized capital is 10,000,000 yen, of which 4,750,000 yen is paid up.

71 Manchuria Dock Company

The first dockyard in Dairen was built by the Russians. It was handed over to the South Manchuria Railway Company in 1907 by the Imperial Japanese Navy. Its management was entrusted to the Kawasaki Dockyard Company, of Japan, in July, 1908, and subsequently steps were taken to increase the docking capacity from a 3,000-ton steamer at most to a 6,000-ton steamer with ease. This enterprise was separated from the account of the South Manchuria Railway Company in March, 1923, and incorporated as an independent concern under the

name of the Manchuria Dock Company, with a capital of 2,000,000 yen, of which 1,000,000 yen was paid up.

72 Hotels

The South Manchuria Railway Company from the very beginning having charge of part of the international traffic route, engaged in the hotel business rather for the public service than for profit-making. In fact, the expenses of this undertaking each year have exceeded receipts, except in the year 1919.

The Yamato Hotel at Dairen was opened in August, 1907, but the popularity of the new route between Asia and Europe soon proved the original building to be too small to meet the ever-increasing demand. A new building was therefore planned, and the present elegant structure of the Dairen Yamato Hotel, fireproof, and in modern Renaissance style, with all necessary equipments and comforts, was completed in June, 1914, and was opened on the 1st August. The Yamato Hotels in Port Arthur and Changchun were opened in 1908. The Yamato Hotel in Mukden, which forms part of the railway station, was opened in October, 1910. This station hotel being unable to meet the requirements of increasing travel, the building of a new hotel, of modern type, was begun in 1927, and is expected to be opened in the Spring of 1929.

The hotel undertaking conducted by the South Manchuria Railway Company was in March, 1928 incorporated into an independent concern under the name of the South Manchuria Hotel Company, with the paid-up capital of 3,880,000 yen. The undertaking, as stated before, incurred in most years deficits aggregating about 300,000 yen. Losses, however, have gradually decreased, that for the working year ending March, 1928 being only 31,237 yen.

In connection with the subject of hotel accommodation, it is of interest to mention the summer resorts and hot springs in South Manchuria.

Within a few miles of Dairen is one of the most attractive summer resorts of the Orient—that of Hoshigaura, or Star Beach, which is connected with the city by a fine five-mile motor road. Hoshigaura is becoming increasingly popular among South China residents of all nationalities for the summer vacation, and here, in addition to a summer hotel, the South Manchuria Hotel Co. maintains a number of bungalows overlooking the beach, which each year are

occupied by families from Shanghai, Hankow, and other distant cities.

Foreign visitors generally have a good word for Star Beach, the merits of which are not known as widely as they should be. This, at least, is the view of a distinguished diplomatic visitor from Peking who believes that if the resort were more widely known, it would attract European visitors even from East India and the South Seas. There is no lack of opportunity for golf, tennis, boating, and other sports, while a motor road to Port Arthur, thirty miles in length, built by the Kwantung Government makes motoring a pleasure.

There are, further, several points on the coast between Dairen and Port Arthur where the beach is sandy and the waters in summer clean and cool, so that in the coming years the coast will develop as a residential quarter, the businessman never being far from the city.

In addition to the seaside resorts, South Manchuria has its hot-springs. Three are well known, the principal being that at Tangkangtzu, on the main line, 182 miles north of Dairen and 64 miles south of Mukden; the others are at Hsiungyaocheng, 111 miles north of Dairen, and at Wulungpei, on the Antung-Mukden line, 15 miles from Antung. All are simple thermal springs, i. e., those issuing from the earth at a higher temperature than 98 F., generally beneficial in cases of rheumatism and nervous troubles.



Yamato Hotel at Dairen.



Hoshigaura or Star Beach, near Dairen.



Hot Springs at Tangkangtzu on the Main Line of the S. M. R.

V TRADE

73 General Remarks

The Russo-Japanese war, which marked a new epoch in the history of Manchuria, politically and economically, introduced a most radical change in the tradal situation, especially after the opening of Dairen Port.

Prior to the war, Newchwang was the only port in Manchuria opened to trade with outer countries. Newchwang and Tientsin were opened at the same time as early as 1861, and each had a great hinterland of which it was the outlet, but while the trade of Tientsin markedly increased, maintaining a position next to Shanghai, the increase of the trade in Newchwang was slow, the percentage of this port's trade to China's total trade being less than 10% for many years.

The position of Newchwang, indeed, handicapped its trade. The port is situated several miles up the Liao River, where the fairway is too narrow to admit of navigation by large steamers, and, what is worse, it is ice-bound during four months in the year. Furthermore, the hinterland of Newchwang, Manchuria, was not thickly populated like Chihli Province, with the national capital, Peking, within a few miles, and the purchasing power of Manchuria was consequently much lower. After the Russo-Japanese war, Newchwang ceased to remain the sole open port of Manchuria, and the opening of Dairen to foreign trade brought about a stupendous growth of trade in Manchuria.

As previously alluded to in the chapter on History, China promised Japan and the United States to open Antung and Mukden shortly before the outbreak of the Russo-Japanese war, while Japan secured from China by the agreement of December, 1905, the opening of 16 towns in Manchuria, of which Manchuli, Aigun, and Suifenho, on the Siberian border, Harbin and Sansing, on the Sungari River, Liaoyang, Tiehling, Fakumen, and Hsinmintun, in Mukden Province, were the most important. By the agreement with the Japanese relating the Chientao District in northeastern Manchuria signed in 1909, China undertook to open Langchingtsun, Hunchun, etc. Antung was "opened" on March 1, 1907, and nine other important towns, including Harbin, Mukden, Manchouli, Aigun, etc., were formally opened by 1911.

On August 22, 1906, Japan declared Dairen, in the Leased Territory,

a free port. By the agreement with Japan, signed on May 30, 1907, China established an office of the Imperial Maritime Customs at Dairen, and levied Customs duty on all merchandise passing the frontiers of the Leased Territory into the interior of Manchuria.

The harbor of Dairen, much favoured by nature, naturally deep, well sheltered, and free from ice all the year round, was further improved at a heavy expenditure; and, as the most important gateway of the South Manchuria Railway, the main line which traverses the heart of South Manchuria, the port has come to play the most significant part in the trade of Manchuria as a whole.

In 1908, one year after the opening of Dairen, the total trade of Manchuria increased to 100,707,000 Tls., i. e., 12 per cent. of the total trade of China; the proportion increased to 17% in 1913, 20% in 1920, and 21% in 1927.

The total trade of China aggregating 2,500,000,000 Tls. in 1927, Manchuria's trade amounted to 676,949,000 Tls. of which 376,420,000 Tls. was the share of Dairen. In most years Dairen's share amounted to more than 55% of Manchuria's total trade. Nothing is more remarkable in the history of Manchuria than the development of this port in the short period of twenty-one years, a growth entirely due to the activities encouraged by the comparative peace which has reigned in Manchuria in contrast to the conditions which have prevailed in the great centres of commerce and industry further south.

The supremacy in foreign trade of Dairen, however, did not affect adversely the position of Newchwang, where trade has increased as a whole. The opening of the younger port simply enlarged the opportunities for trade, of which so keen a commercial people as the Chinese took every advantage.

The growth of the foreign trade of Manchuria, including trade with China proper, during the past twenty-one years, is set forth in the table attached, calculated in Haikwan Taels:

	Imports	Exports	Total	Balance
1907	30,685,152	22,042,323	52,727,475	- 8,642,829
1908	53,112,034	47,585,123	100,697,157	- 5,526,911
1909	69,159,331	83,026,018	152,185,349	13,866,687
1910	81,731,940	88,999,422	170,731,362	7,267,482
1911	94,797,846	103,733,492	198,531,338	8,935,646
1912	102,232,018	100,166,041	202,398,059	- 2,065,977
1913	125,683,660	113,041,999	238,725,659	- 12,641,661
1914	112,409,981	109,331,936	221,741,917	- 3,078,045
1915	108,111,646	130,084,502	238,196,148	21,972,856

1916	129,555,872	130,807,129	260,363,001	1,251,257
1917	158,562,010	161,120,501	319,682,511	2,558,491
1918	177,219,156	166,856,166	344,075,322	- 10,362,990
1919	231,303,593	212,008,762	443,312,355	- 19,294,831
1920	205,129,451	225,926,429	431,055,880	20,796,978
1921	218,187,674	234,407,892	452,595,566	16,220,218
1922	196,432,072	274,661,906	471,093,978	78,229,834
1923	207,055,228	293,928,940	500,984,168	86,873,712
1924	200,648,460	269,018,082	469,666,552	68,369,612
1925	244,721,505	312,368,194	557,089,699	67,646,689
1926	276,840,619	370,742,398	647,583,017	93,901,779
1927	268,913,586	408,036,179	676,949,765	139,122,593

In the above table the most encouraging aspect of Manchuria's trade appears in the excess of exports over imports, quite contrary to the trade in China proper, Japan, and Korea, where imports invariably exceed exports. Manchuria has experienced an excess of imports only in those years marked by heavy purchases from abroad — rails, rolling stock, and machinery from America and Europe, mostly by the South Manchuria Railway Company.

74 Trade According to Country

When Newchwang was the sole open port in Manchuria, its trade was the export of Manchurian beans and beancake to the southern provinces of China, where the beancake was extensively used as fertilizer for the sugar plantations. Beans were consumed in southern mills for oil extraction, the product being used as a substitute for groundnut oil. The imports at this port were cotton goods of low grade — sheeting and drills — chiefly from England. Later on, American cheap sheeting and drills entered in competition. The trade with Japan was insignificant until after the Sino-Japanese war of 1894-5. As previously stated, Japan gradually became a heavy purchaser of the Manchurian beans and beancake, and her purchases soon equalled those of the Chinese provinces put together in 1898. In 1903, the year before the Russo-Japanese war, Japanese purchases exceeded those of China proper, and Japan became the largest buyer of Manchurian products.

At Newchwang the Yokohama Specie Bank established a branch as early as 1900, in order to facilitate the development of Japanese trade. In spite of the rapid increase in the export to Japan, imports from Japan were very slow. In cotton goods, which have always constituted the largest item of Manchurian imports, Japan's share was

almost negligible, amounting to 8,205 Tls., out of 2,041,809 Tls., which was the total amount of the cotton-goods trade of 1899. America's share of this represented 1,716,272 Tls., and the British share 25,031 Tls., exclusive of Indian cotton. But early in 1903, just before the Russo-Japanese war, British cottons worked their way up until they held the leadership in shirtings; while the American sheetings, drills, and jeans held the leadership. In those days the Japanese infant cotton industry was not in a position to compete with either the British and American, or the Indian mills. England then held the leading place in shirtings, America in sheetings, drills, and jeans, and India in yarns.

Japan's strenuous but constant efforts to develop this industry, especially after the Russo-Japanese war, were gradually crowned with success. The Chinese Customs Commissioner at Newchwang in his report for 1910, stated that "there has been a big drop in cotton goods of American and English origin, and increased arrivals of Japanese manufactures. American shirtings, sheetings, and drills decreased from 1,057,122 pieces in 1909 to 633,313 pieces; the same goods of English manufactures decreased from 150,462 to 99,062 pieces; while those of Japanese make increased from 297,660 to 408,554 pieces. American jeans fell from 86,301 to 3,440 pieces, but English jeans rose from 240,157 to 293,033 pieces. As to cotton goods imported through Dairen to the same, the Japanese manufactures amounted to more than 30 times as much as those imported from America, England and India put together."

These developments invited the most vigorous attacks on Japan, foreign critics alleging discriminating railway rates in favour of Japanese manufactures made by the South Manchuria Railway Company. It is fair to admit that some discrimination against other than Japanese goods might have been made during the time the railway was operated under the military administration. But since the Kwantung Government confined its administration to the Leased Territory, and since the South Manchuria Railway Company took charge of railways, there has been no actual evidence of such discrimination. On the other hand, the Japanese cotton industry had reached the stage where it could successfully compete with American and European manufactures. Furthermore, Japanese industry could produce a much cheaper staple by mixing raw materials of American higher grade and those of Indian and Chinese lower grades, and Japanese products could be landed in the Manchurian market at much cheaper cost. The natural advantages of the Japanese cotton industry, particularly in the Chinese market, could not be offset by

the American, English, or even the Indian mills.

Before the outbreak of the European war, the Japanese cotton industry so successfully competed with its rivals, that almost all cotton goods, except the finest kind, were supplied by Japan. The war in Europe, crippling the cotton mills in Western countries, and also ocean transportation, gave Japan the indisputable supremacy in this Far Eastern market. But it should be remembered that the more the importation of Japanese cotton goods in Manchuria, the greater the purchase of American and Indian raw cotton. China has also become a great manufacturer. Cotton goods, manufactured in China proper, have gradually increased, and today are valued at about 28,000,000 Tls., against 36,000,000 Tls. of Japanese imports for 1927. Cotton goods valued at 2,331,000 Tls. were also imported into North Manchuria, the Russian sphere, in the same year.

It is worthy of note that the falling-off of imports of English and American cotton goods did not affect the gross value of their trade in Manchuria. Trade was mostly on the increase in other lines. Imports of machinery and other iron manufactures from America and Europe were steadily maintained, particularly when the South Manchuria Railway Company commenced its varied undertakings in railway, harbor, coal-mine, and iron-works developments, involving heavy investments in rails, rolling stock, and machinery. It is a matter of interest that the value of material purchased by this Company during the twenty-one years ending March 31, 1928, aggregated over 504,831,000 yen, of which goods to the value of over 123,113,000 yen were imported direct from the United States as shown in the table below:

Fiscal Year	Material imported direct from the U.S. Yen	Total of Material bought by the Company Yen	Proportion of the U.S. Per cent
1907-8.....	18,917,580.93	28,430,902.82	67
1908-9.....	959,321.17	6,350,381.10	15
1909-10.....	642,723.57	12,995,215.52	5
1910-1.....	582,815.38	10,677,077.44	5
1911-2.....	865,005.34	9,290,849.11	9
1912-3.....	548,711.40	5,255,170.91	10
1913-4.....	946,601.21	9,095,438.54	10
1914-5.....	781,836.96	5,694,479.53	14
1915-6.....	2,275,230.48	9,629,502.81	24
1916-7.....	3,099,585.54	18,036,199.53	17
1917-8.....	13,775,597.86	39,650,411.70	35
1918-9.....	26,460,773.36	70,165,326.10	38
1919-20.....	16,152,885.07	50,544,421.97	32
1920-1.....	6,421,764.97	21,327,928.68	30
1921-2.....	5,639,343.72	25,364,169.77	22
1922-3.....	3,289,842.06	21,233,690.89	15
1923-4.....	5,135,030.12	33,231,825.72	15
1924-5.....	2,645,995.59	28,856,256.80	9
1925-6.....	2,761,606.39	29,205,638.70	9
1926-7.....	3,974,170.18	31,153,214.94	13
1927-8.....	7,237,241.62	38,643,748.06	19
Total.....	123,113,662.65	504,831,950.64	24

The total imports of American products are actually more than the Customs returns, because machinery and railway materials, and other steel manufactures of American or European origin shipped to Japan and reshipped to Manchuria, would not be recorded by the Chinese Customs.

Since the Port of Dairen was opened, the trade of Manchuria has immensely increased. Its total trade for 1908 was figured at 100,697,157 Tls.; for 1927 the return increased to 676,949,762 Tls. The growth during the last two decades according to countries is shown in the following table:

Countries	1908			1927		
	Imports	Exports	Total	Imports	Exports	Total
Great Britain	534,684	355,950	890,634	4,661,460	12,863,955	17,525,415
Hongkong	2,037,838	846,123	2,883,961	10,362,649	4,846,216	15,308,865
India and B. Colonies	21,166	5,469	26,635	2,710,814	1,234,692	3,845,506
Total	2,593,688	1,207,542	3,801,230	17,734,923	19,044,863	36,779,786
Denmark	1,584	—	1,584	30,538	53,328	83,866
Japan	13,553,331	16,769,248	30,322,579	99,137,583	102,358,869	201,496,452
Korea	1,140,562	422,524	1,563,086	11,279,184	53,067,426	64,346,610
Total	14,690,893	17,191,772	31,882,665	110,416,767	155,426,295	265,843,062
Russia	7,490,392	10,499,885	17,990,277	21,326,248	66,998,267	88,324,515
U. S. A.	6,774,292	411	6,774,703	17,583,946	10,338,381	27,922,327
Philippines	1,286	—	1,286	54,548	1,655,298	1,709,846
Total	6,775,578	411	6,775,989	17,638,494	11,993,679	29,632,173
Germany	150,905	256	151,161	5,469,093	1,656,907	7,126,000
Belgium	14,584	18,635	33,219	1,727,676	107,806	1,835,482
Netherlands	—	—	—	1,210,752	16,435,332	17,646,084
Dutch India	244,141	2	244,143	1,018,577	4,860,254	5,878,831
Total	244,141	2	244,143	2,229,329	21,295,586	23,524,915
Other countries	—	278	278	2,981,302	17,552,975	20,534,277
Total	31,964,765	28,918,781	60,883,546	179,554,370	294,129,706	473,684,076
China Proper	21,147,269	18,666,342	39,813,611	89,359,216	113,906,473	153,265,689
Grand Total	53,112,034	47,585,123	100,697,157	268,913,586	408,036,176	676,949,762

During the past twenty years, Japan's trade (including Korea) with Manchuria increased about eight times, but she bought more than she sold in most of these years. Great Britain's share, including Hongkong and other dependencies, increased nine times in the same period, and her purchases were a little greater than her sales in recent years. But, in her exports to Manchuria, Hongkong's share included goods exported from other countries, the place of origin not being recorded in the Customs returns. If the imports of other countries be deducted from Hongkong's share, the British share might be much lower. The trade of China proper with Manchuria increased a little over five times. The Russian trade increased four and a half times but more than half of Russian export from North Manchuria went to Japan, and to some extent to China, Denmark and other European countries in most years. This is particularly true in regard to the export of beans through Vladivostok. The share of the United States, including the Philippine Islands, increased a little more than four times. Her purchase of Manchurian products was negligible for many years, but has increased in recent years. Her share of importation amounting to 17,638,494 Tls. might be increased, if American goods reshipped from Japanese ports or from Shanghai were calculated. Of the total import, kerosene and other oils amount to 5,875,000 Tls., steel and iron, including machinery, vehicles, etc. to 4,513,000 Tls., tobacco and cigarettes to 2,050,000 Tls., flour 1,382,000 Tls., and so on. The Netherlands and Dutch India bought in 1927 in Manchuria about 21,295,090 Tls. worth of goods, and sold 2,228,000 Tls. Germany sold her products to the value of 5,469,000 Tls., and purchased Manchurian products valued at about 1,656,000 Tls.

75 Trade According to Ports

In the commercial history of Manchuria, the growth of Dairen as a world port, and the creation of a great export trade in beans, are the most significant features.

In 1907, when Dairen was opened to trade, its position in the trade returns of the Imperial Maritime Customs was tenth in rank, its total trade amounting to 12,542,883 Tls. Newchwang was ninth in the same year. Dairen soon passed Newchwang, and rose to fifth rank in 1910, third in 1912, and second since 1917; that is, next to Shanghai, the position of which has always been first, and is apparently unsurpassable by any other port in China.

As far as trade in Manchuria itself is concerned, Dairen has occupied the supreme position since 1910. Its share has been more than 55% of the total trade of Manchuria for many years. The trade for 1927 aggregated 676,949,765 Tls., the Dairen share being 55%. Antung, being the junction of the Antung-Mukden line and the Korean railways, its trade relations with Korea have been growing year after year. Antung's trade surpassed that of Newchwang in 1918; for 1927 it amounted to 107,018,768 Tls., representing more than 15% of the total trade of Manchuria. In the same year the returns for Newchwang aggregated 82,218,150 Tls., representing about 12% of Manchurian trade.

In North Manchuria, i. e., at Harbin, Manchouli, and Suifenho, on the Chinese Eastern Railway, and at Aigun, near the Amur river, commerce was slowly increasing before the European war. Their aggregate trade amounted to 34,715,000 Tls. in 1913. But as a result of the war, and later by the Russian political disturbances, trade gradually decreased until it was only 20,000,000 yen in 1922. After peace and order were restored in North Manchuria, conditions in this region gradually improved. The returns for Harbin, Manchouli, Suifenho, and Aigun in 1927 aggregated 99,495,994 Tls. or 14.70 per cent. of the total Manchurian trade. The table in the following page shows the growth of the trade of Manchuria according to ports:

	1908			1918			1927		
	Import	Export	Total	Import	Export	Total	Import	Export	Total
Dairen	20,276,649	12,841,258	33,117,907	97,435,621	108,152,497	205,588,118	146,389,484	230,030,606	376,420,090
Newchwang	21,827,810	19,848,245	41,676,055	25,286,531	16,424,976	41,711,507	49,036,410	33,181,740	82,218,150
Antung	3,692,452	4,352,901	8,051,353	29,438,708	15,718,704	45,157,412	42,626,291	64,392,477	107,018,768
Lungchingtsu	—	—	—	1,582,425	1,187,690	2,770,115	5,080,686	4,352,846	9,433,532
Hunchun	—	—	—	585,921	659,110	1,245,031	1,334,401	1,028,830	2,363,231
Total	45,796,911	37,048,404	82,845,315	154,329,206	142,142,977	296,472,183	244,467,272	332,986,499	577,453,771
Harbin	—	—	—	15,443,512	20,654,701	36,098,213	23,037,818	73,842,791	96,880,609
Manchouli	3,064,654	1,263,137	4,327,791	—	—	—	—	—	—
Suifenho	4,250,469	9,273,582	13,524,651	—	—	—	—	—	—
Aigun	—	—	—	7,446,438	4,058,488	11,504,926	1,408,496	1,206,889	2,615,385
Total	7,315,123	10,536,719	17,851,842	22,889,950	24,712,189	47,603,139	24,446,314	75,049,680	99,495,994
Grand Total	53,112,034	47,585,123	100,697,157	177,219,156	166,856,166	344,075,322	268,913,586	408,036,179	676,949,765

76 Trade According to Principal Commodities

Like Shantung and Korea, the exports of Manchuria are mostly agricultural produce.

Beans and their products, beancake and bean-oil, today command the world's markets. For many years the export of these products constituted more than half of the total exports of Manchuria. Total exports in 1927 amounted in value to 408,036,179 Tls., of which 219,696,938 Tls., or over 52% of the amount represents the value of beans, beancake and bean-oil. Japan became the heaviest purchaser of beans and beancake after Sino-Japanese war, and her purchase of these products for 1927 amounted to 928,820,000 Tls. Since Messrs. Mitsui & Co. made the first considerable trial shipment to England in 1908, Manchurian beans and bean-oil have become popular in European countries and to some extent in America. The growth of this remarkable trade is shown in the following figures:

Year	Beans	Bean Cake	Bean Oil	Total
	U.S. Tons	U.S. Tons	U.S. Tons	U.S. Tons
1909	977,431	717,222	38,056	1,732,709
1910	831,467	637,843	46,077	1,515,387
1911	821,937	911,882	67,321	1,801,140
1912	650,106	727,131	58,606	1,435,843
1913	532,570	907,292	73,200	1,513,062
1914	672,400	804,846	49,077	1,526,323
1915	928,901	1,073,349	82,929	2,085,179
1916	575,637	992,592	103,530	1,671,759
1917	651,696	1,255,642	128,024	2,035,362
1918	512,243	1,332,628	152,385	1,997,256
1919	771,987	1,504,596	153,350	2,429,933
1920	701,104	1,500,674	138,888	2,340,666
1921	855,298	1,658,553	131,697	2,645,548
1922	1,148,557	1,790,926	131,707	3,071,190
1923	1,322,407	2,048,272	173,057	3,543,730
1924	1,509,560	1,879,708	152,036	3,541,304
1925	1,614,111	1,747,422	168,736	3,530,269
1926	1,577,471	2,129,225	199,285	3,905,981
1927	2,034,645	2,192,317	180,597	4,407,559

The important export next to beans is millet. For 1927 this trade was valued at as much as 31,397,978 Tls., of which about 28,603,035 Tls. was purchased by Korea, and the balance shipped to the Maritime Province of Asiatic Russia, where numbers of Koreans have settled, and China proper. Of the export of kaoliang, valued at 18,708,034 Tls., about 16,172,000 Tls. in value goes to China proper, 1,716,000 Tls. to

the Maritime Province, where numbers of Chinese have settled, 570,000 Tls. to Japan, 284,000 Tls. to Korea, and 70,000 Tls. to Europe and America. The export of other cereals, such as wheat, wheat-bran, maize, barley, etc., was valued at 18,000,000 Tls., Japan and Korea being important purchasers.

With regard to mineral products, the export value of coals was 35,265,708 Tls., of which, 16,080,000 Tls. represented the value of exports to Japan, 3,441,000 Tls. to Korea, 11,858,000 Tls. to China and 1,607,832 Tls. to the Philippines. The exports of pig-iron, scrap-iron and other iron were valued at 6,150,399 Tls., of which Japan purchased more than 85 per cent.

Cotton goods are still the most important item of import. Including cotton yarn, valued at 12,900,000 Tls., total imports aggregated 67,324,000 Tls., or more than 25 per cent. of the whole import trade for 1927. More than 60 per cent. of cotton goods was imported from Japan, but 80 per cent. of cotton yarn from Chinese ports. The value of imports of steel, machinery, vehicles (including automobiles, locomotives, etc.) was more than 27,665,000 Tls., almost 20% of which were direct imports from the United States, 50% from Japan, less than 10% from Germany, and the balance from England, Belgium, France, Italy, Canada, etc. Kerosene oil valued at 6,037,000 Tls. was imported in the same year, more than 70 per cent. being United States products. Imports of woolen goods amounted to about 6,800,000 Tls., in value, of which 1,187,000 Tls. were imported direct from England, 1,923,000 Tls. from Japan, 3,200,000 Tls. from China, and 851,000 Tls. from Germany. Some of the woolen goods from China, however, must be considered English or German goods transshipped at a China port.

The table in the following page shows the important imports and exports for 1927 in South and North Manchuria, excepting East Manchuria and Aigun, the trade of which was insignificant.

PRINCIPAL COMMODITIES OF EXPORTS AND
IMPORTS FOR 1927

Exports			Imports		
	Hk. Tls.	% of Total		Hk. Tls.	% of Total
Soya Beans	98,068,170	25.62%	Cotton Piece Goods	54,424,198	20.84%
Beancake	84,958,824	22.20%	Bags & Gunny ...	13,658,429	5.23%
Coal	35,265,708	9.21%	Cotton Yarn.....	12,900,092	4.34%
Bean Oil	32,928,739	8.60%	Other Piece Goods.	12,625,142	4.83%
Millet.....	31,397,978	8.20%	Iron & Steel	11,854,865	4.54%
Kaoliang	18,814,957	4.92%	Cigars, Cigarettes & Tobacco	11,731,647	4.49%
Other Cereals	18,708,034	4.89%	Machines & Ma- chinery	8,941,238	3.42%
Iron & Iron Manu- factures.....	6,150,399	1.61%	Sugar.....	8,818,582	3.37%
Timber, Bamboo, etc.....	6,112,757	1.60%	Leather, Hides & Skins	8,498,973	3.25%
Unclassed Mer- chandise	50,350,250	13.15%	Flour	7,598,125	2.91%
			Vehicles	6,570,847	2.51%
			Paper.....	6,325,824	2.42%
			Kerosene Oil	6,091,957	2.33%
			Medicines.....	6,037,327	2.30%
			Cotton Raw	5,979,702	2.29%
			Unclassed Mer- chandise	79,033,055	30.33%
Total	382,755,816	100%	Total	261,090,003	100%

VI AGRICULTURE

77 General Features

Manchuria is often described as the "granary of Asia," as possessing "one of the richest soils in the world," or as "the land of opportunity." The fame of Manchuria was established in the political and diplomatic senses in connection with the Sino-Japanese war, the Russian railway penetration, and the Russo-Japanese war. But its agricultural destiny was not generally realised until the South Manchuria Railway Company, running through the valley of the Liao river, brought large supplies of Manchurian beans to Dairen, whence they were shipped to waiting markets in Europe. Today Japan purchases a greater proportion of the agricultural produce of Manchuria than China proper, or any Western country. Indeed, Manchurian produce constitutes an important share of the national foodstuff of Japan and raw material for Japanese industries.

The most extensive mass of level land between two great mountain-ranges, Khingan and Changpai, extending over the greater part of northern Manchuria and the whole of central Manchuria, and comprising the basins of the Liao, Sungari, Nonni and Hulan rivers, constitutes the main arable area. The chief feature of the south-western part of this area, which comprises the entire valley of the Liao river and reaches out into Eastern Inner Mongolia, is the broad, level surface and a soil well suited for agriculture. But this region is cultivated and thickly populated, with the exception of the upper reaches of the rivers and parts adjacent to Mongolia, so that there is little room left for further exploitation. The central part, which occupies the middle area of Manchuria and is watered by the Hurka river and the upper and middle reaches of the Sungari, is possibly the best agricultural region in Manchuria, and there is still room for further development. Furthermore, the lands around Changchun, Kirin, and Harbin have ample railway facilities for transporting their products. The northern part, comprising the whole of the northern region, watered by the lower Sungari, the Nonni, and the Amur, is generally rich in soil and largely virgin. As this region is sparsely populated, there is plenty of room for immigrants and for development. Lastly, the south-eastern part of Manchuria, comprising the whole valley of

the Yalu river on the Manchurian side, and Liaotung Peninsula, including the Japanese Leased Territory of Kwantung, is mountainous, and in general, contains a sterile soil mixed with gravel. The Leased Territory is rather hilly, and its soil is poor. As it is most densely populated, every yard of arable land, even the hill-sides and the river-beds, is under cultivation. The same condition prevails in the valley of the Yalu with the exception of the district along its upper reaches. In Manchuria as a whole, the better or best farm-lands are found in North Manchuria rather than in South Manchuria.

The following table shows the total area of cultivated lands, and the percentage to the total area of Manchuria as estimated in 1927, according to province:

	Area		Cultivated Land in acres	Percentage of cultivated land
	Sq. miles	Acres		
Mukden	90,224	57,743,360	9,909,900	17.8
Kirin	81,018	51,851,520	11,853,100	22.8
Amur	211,385	135,286,400	8,981,100	6.6
Total	382,627	244,881,280	30,744,100	12.3

The area of cultivated lands has been considerably increased during the last twenty-one years. In 1919, it was estimated at 17,788,100 acres, of which 6,374,100 acres were in Mukden, 7,547,000 acres in Kirin, and 3,867,000 acres in Amur province. The cultivated lands, though amounting to over thirty million acres today, could be greatly increased, as is obvious from the above figures.

78 Agricultural Produce

The principal agricultural produce of Manchuria is the world known soya bean and kaoliang, the staple food of the native. These two are followed by millet, maize (Indian corn), wheat, barley, and rice. Among other products are hemp, flax, ramie, tobacco, cotton, and wild silk cocoons. Of live stock, cattle, horses, donkeys, mules, sheep and hogs are important. The quantities of production of these varied products are difficult to ascertain because of the lack of reliable statistics furnished by the Chinese authorities. According to a statistical estimate made in 1915 regarding cereals, the total amount of annual production aggregated 404,493,000 bushels, of which kaoliang figured as high as 183,491,000 bushels, beans 86,849,090 bushels, millet 30,505,000 bushels, maize 34,429,000 bushels, barley 28,038,000 bushels, wheat 25,301,000 bushels, and rice 7,407,852 bushels. A statistical report on these pro-

ducts for 1927 made by the Research Office of the South Manchuria Railway Company, gives the aggregate figure of 786,789,338 bushels. During the last twelve years, the annual return of cereal products in Manchuria has doubled. The following table gives the details of production of Manchurian cereals as existing in 1927:

	Mukden	Kirin	Amur	Total (Figures in parenthesis in American tons)
	Bushels (1,464,100)	Bushels (2,076,800)	Bushels (1,791,200)	Bushels (5,332,100)
Soya beans	52,167,601 (1,464,100)	73,999,879 (2,076,800)	63,824,793 (1,791,200)	189,962,273 (5,332,100)
Other beans.....	5,008,958 (155,100)	5,847,027 (181,000)	2,684,687 (83,100)	13,540,672 (416,200)
Kaoliang	97,587,646 (2,688,500)	56,640,031 (1,560,500)	29,880,195 (823,200)	184,107,872 (5,072,200)
Millet.....	48,210,196 (1,210,300)	54,478,049 (1,367,800)	40,453,581 (1,015,700)	143,141,826 (3,593,800)
Maize	42,735,360 (1,206,300)	19,360,052 (546,500)	10,683,968 (301,500)	7,277,938 (2,054,300)
Wheat	4,918,854 (139,900)	28,033,065 (797,000)	29,193,153 (830,000)	62,145,072 (1,766,900)
Paddy-field rice	5,495,314 (113,600)	5,027,389 (103,900)	384,990 (8,000)	10,907,693 (225,500)
Upland rice	4,906,055 (92,300)	4,469,871 (84,100)	541,648 (10,200)	9,917,574 (186,600)
Other cereals	35,344,792 (704,900)	31,270,663 (623,700)	33,641,521 (670,900)	10,025,697 (1,999,500)
Total	296,374,778 (7,775,000)	279,126,024 (7,341,300)	211,288,536 (5,533,800)	786,789,338 (20,650,100)

79 Kaoliang

Kaoliang, or sorghum, being not only the staple food of the native population, but the principal grain food of numerous animals engaged in farm work, the major portion of the cultivated land of Manchuria has been devoted for centuries to the cultivation for this grain, and its production surpassed even the celebrated Manchurian bean. But the tremendous growth of demand for beans in the world market caused bean cultivation gradually to encroach on the premier position held by kaoliang, and today about 33 per cent. of the cultivated area is devoted to beans, and 26 per cent. to kaoliang. Less than ten per cent. of the annual production of kaoliang is sold outside Manchuria. The export of this product in 1927 amounted to about 8,200,000 piculs, ninety per cent. of which went to China proper and the rest to Japan and Europe. This cereal is largely used in China for foodstuff, spirit distilling, and cattle-feed. In Japan, the import of this Manchurian cereal is

gradually on the increase as raw material of foodstuff manufacture, especially for cornstarch, and live stock feeding.

80 Soya Beans

The story of the Manchurian bean is a striking romance in economic history. The Japanese, though naturally regretting the loss of the Liaotung, the "legitimate fruit" of the Sino-Japanese war, found some compensation in the discovery of the Manchurian bean, which revolutionized the fertilizer industry and became a substitute in the Japanese rice field for the dry herring fertilizer then extensively used. Ever since, the Japanese has been the heaviest purchaser of the Manchurian bean. The first trial shipment of this legume was made in 1908 by the Mitsui Firm, being sent from Dairen to Liverpool, and this was the beginning of a new industry in England, Germany, Denmark and Holland. The major portion of the beans destined for England was for the mills at Liverpool and Hull; for Copenhagen, Denmark, and Rotterdam and Amsterdam, Holland. Germany's consumption subsequently became greater than all, and this, though interrupted during the European war, will soon recover. At the time of the universal shortage of food during the European war, the Manchurian bean played a very important part in the world's food supply.

The demand for the Manchurian bean is ever increasing. Beans and beancake imported by Japan, as foodstuff or fertilizer, are today helping in the solution of the national food problem.

The influence of the Manchurian bean on national economy is remarkable. Denmark was more than self-supporting in the production of cereals, specially wheat, until thirty years ago. But Danish products found themselves unable to compete with American large-scale production, even in the home market. Aided by the Manchurian bean, the Danes turned extensively to live stock breeding. The bean is imported, the oil extracted and used for manufacturing margarine (vegetable butter), soap, etc., while the residue of cake is extensively used as feed for live stock, which totaled as many as 18,524,000 head in 1926, besides many million head of poultry. The consequence was the development of an enormous export trade in animal products, butter, cheese, bacon, ham, eggs, and also live stock. The value of this great trade is some 1,027 million kroner, or more than 70 per cent. of Denmark's total export. Holland, to some extent, is in a similar position.

Regarding the quality and quantity of the beans, the Manchurian

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product possibly surpasses that of any other country. Beans can be grown in the central and northern parts of the temperate zone, in which lie North America, the northern part of Japan, Korea, and North China. That the Manchurian beans have come to occupy such an enviable position is due entirely to the suitability of Manchuria, South and North, for bean cultivation, in regard to both climate and soil. The average production per acre is 20 bushels in Manchuria, while it is 18 bushels in Japan, 18 in the United States, 13 in Korea, and 14 in China. The aggregate return of world production was in 1925 estimated at 251,796,000 bushels, of which the Manchurian product amounts to 130,548,000 bushels, or 52 per cent. of the total. While bean production in other parts of the world is rather at a standstill, production in Manchuria is increasing each year, and the annual return for 1927 was estimated 189,992,272 bushels. That is to say, the production of Manchurian beans may now be over 54 per cent. of the world production. The following table shows production in the world's bean zones in 1925:

Country	Under cultivation acres	Annual production bushels	Production per acre	Percentage to world production
Manchuria.....	6,460,465	130,548,270	20 bushels	52
China proper.....	5,348,837	76,793,100	14 "	30
Japan	990,033	17,580,026	18 "	7
Korea	1,874,137	23,762,176	13 "	10
U. S. A.	176,512	3,112,680	18 "	1
Total	14,849,984	251,796,252		100

The reason why the Manchurian bean commands world-wide popularity is the actual value of this staple as foodstuff, feed for live stock, fertilizer, and as raw material in various chemical industries. It contains a higher protein content, i. e., 40%, fat 17%, nitrogen free extract 22%, water 8.5%, ash 5.5%. Of course, the constituents vary more or less according to locality of plantation, kind, and years when grown. Manchurian beans are divided into four classes according to colour—yellow, white eye-brow, green, and black. The chemical composition of these beans, according to analyses made in 1927 by the Central Laboratory at Dairen is as follows:

	Moisture	Crude Fat	Crude Protein	Crude Fibre	Nitrogen Free Extract	Crude Ash
	%	%	%	%	%	%
Yellow.....	11.06	18.19	39.94	5.20	21.41	4.30
Black	11.96	14.74	41.00	5.34	23.01	4.20
Green	8.13	18.96	40.12	5.45	22.54	4.80

81 Other Staple Products

Staple produce other than grains in Manchuria are flax, tobacco, wild cocoons, and raw cotton.

Cultivation of flax in Manchuria was primarily to obtain linseed oil, or Tamatzu oil, as it is called by the Chinese. The districts raising flax for the purpose of obtaining its seed are mostly in the level lands of the Liao and Sungari valleys. Flax is grown for the sake of its fibre in the hilly districts of the eastern parts of Mukden and Kirin provinces. From the fibres are made nets, ropes, and coarse cloth, the waste being utilized for making native paper.

Tobacco is cultivated to a fair extent in Manchuria. The aggregate production was recently estimated at 42,000,000 kin, or 56,000,000 pounds a year. The native tobacco is of inferior quality. In the year 1927, Manchuria exported tobacco to the value of 2,500,000 Hk. Tls., and imported tobacco valued at 11,000,000 Hk. Tls.

Wild cocoon culture for making Tussah or wild silk possibly dates back about one hundred years, when sericulture was first introduced by immigrants from Shantung province. The southern part of Mukden province, in particular, the so-called Liaotung Peninsula, is noted as the most flourishing center of this industry, Antung and Kaiping being the principal distributing markets. No reliable statistics are available concerning wild cocoon production. The annual output in Mukden province is estimated at about 230,000 baskets, or 7,600,000,000 cocoons, valued at about 11,000,000 yen.

82 Live Stock

The fame of Manchuria and Mongolia was originally based upon horse-breeding, the staple industry of the people who achieved almost a world-wide empire under the great Kublai Khan. While the early Manchu people dominated the country, stock-farming was their chief occupation. With the entry of the Chinese, the rich pastoral lands were gradually put under the plough, particularly in South Manchuria. Yet today, a shadow of the old pastoral age is visible in the western part of Amur province and on the Mongolian frontier, where the inhabitants are still devoted to cattle breeding. The Chinese farmers in Manchuria, however, generally keep large numbers of oxen, horses, mules, and donkeys, for their farming and

carrying-trade. Sheep and pigs are also extensively raised in Manchuria and Mongolia. The following table is an estimate of the number of live stock in Manchuria in 1927:—

	Mukden	Kirin	Amur	Total
	head	head	head	head
Cattle.....	516,370	369,630	605,400	1,491,400
Horses	754,000	706,600	964,600	2,425,200
Sheep.....	429,000	161,100	1,789,800	2,379,900
Swine.....	3,813,500	1,926,600	1,478,700	7,218,800
Total	5,512,870	3,163,930	4,838,500	13,515,300

In addition, there are 810,000 horses, 1,120,000 cattle, 2,000,000 sheep, and 1,000,000 swine in Eastern Inner Mongolia.

The following are rough estimates of domestic animals slaughtered annually in Manchuria and Mongolia:—

	Manchuria	Eastern Inner Mongolia	Total
	head	head	head
Cattle	62,000	220,000	282,000
Sheep	93,000	50,000	143,000
Swine	2,645,000	140,000	2,785,000

The quantities of the hides and skins marketed annually are estimated as under:—

Cattle hides	245,800
Horse & mule hides	339,700
Donkey hides	34,600
Sheep skins	350,000
Goat skins	470,000
Total	1,440,100

83 Model Farms and Other Improvement Enterprises

Farming methods in Manchuria have changed little in many centuries. The native farmers are slow in selecting better seeds or seedlings, improving the method of manuring, breeding improved cattle, or reclaiming virgin lands.

Since the Japanese advent in Manchuria, the most energetic steps have been taken to improve agriculture by the establishment of model farms, live stock breeding stations, and seedling nurseries in the Railway Zone and Leased Territory. This has stimulated the Chinese in some degree, and agricultural experimental farms have been established in the suburbs of Mukden, Kirin and Tsitsihar, where provincial govern-

ments are located. Chinese schools of agriculture were also established in Mukden and Kirin, in addition to a botanical garden and seedling station in Mukden. The Russians also have established agricultural experimental farms in Harbin, Anda, and Jeh-hu, along the Chinese Eastern Railway.

Soon after the establishment of the Kwantung Government, organic regulations relating to the creation of the Kwantung Agricultural Experimental Farm were issued in November, 1906 with the object of improving agriculture, cattle breeding, the distribution of better seeds and seedlings, sericulture, etc. The first Experimental Farm was established in 1907 in the present Central Park of Dairen; it was moved to Shakako in 1918, and again shifted in 1924 to Chinchou, where the farm was much enlarged, and now occupies 206.73 acres. The directors first paid attention to the improvement of fruit trees and vegetables, which were degenerated. Seeds and seedlings of peaches, apples, pears, grapes, cherry and other fruit trees of Japanese or American origin were experimented with, and apples specially were found well adapted to the Leased Territory. The work of the Experimental Farm gradually stimulated fruit cultivation among the Japanese and Chinese. The demand of the large population of Dairen, Port Arthur and other cities along the railway for fruits and vegetables further encouraged the cultivation of fruit trees. From 1910 to 1926, more than 590,000 apple, pear, peach, grape, and cherry seedlings were distributed among these cultivators. Today more than 9,615.38 acres of orchard are under cultivation in the Leased Territory, and the annual product is valued at over 300,000 yen. By the establishment of a sericultural experimental station and sericultural training school, these industries have been encouraged. More than 4,000,000 improved mulberry trees, and more than 20,000 sheets of silkworm eggs were distributed during the past fifteen years. Today more than 800 families engage in sericulture, and the output amounts to 1,224.63 bushels.

The South Manchuria Railway Company also participated in the agricultural improvement of the Railway Zone. In 1913, an agricultural section was created in the Public Works Department, and ever since experimental stations and nursery farms have been established at several points along the railways. The experimental station established in 1913 at Kungchuling, 400 miles north of Dairen in the heart of Manchuria, has appropriated 522.69 acres, and more than 500,000 yen has been invested in buildings, equipment, implements, etc. Work is continually conducted to ascertain what possibilities lie in improving the



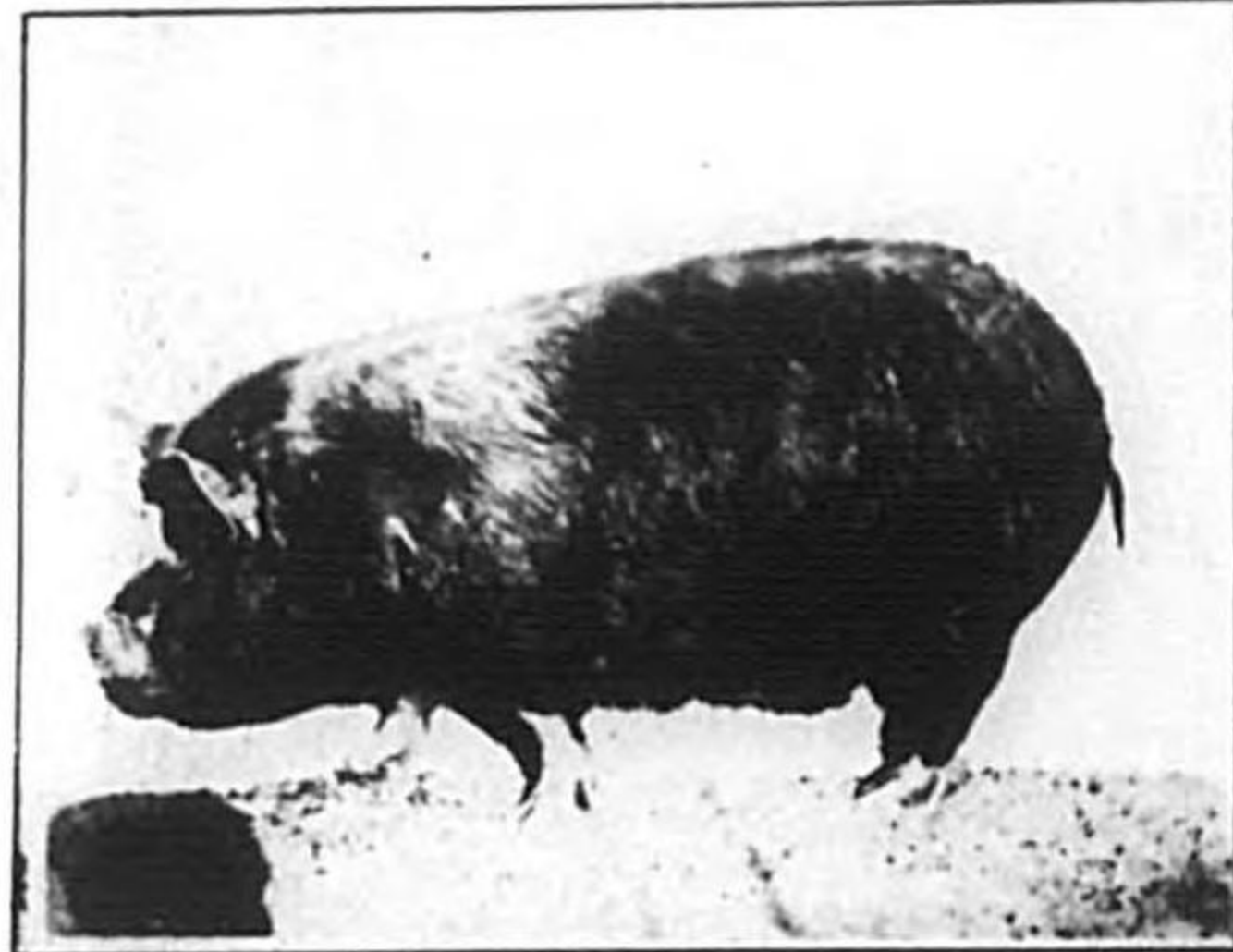
Agricultural Experiment Station at Kungchuling, South Manchuria.



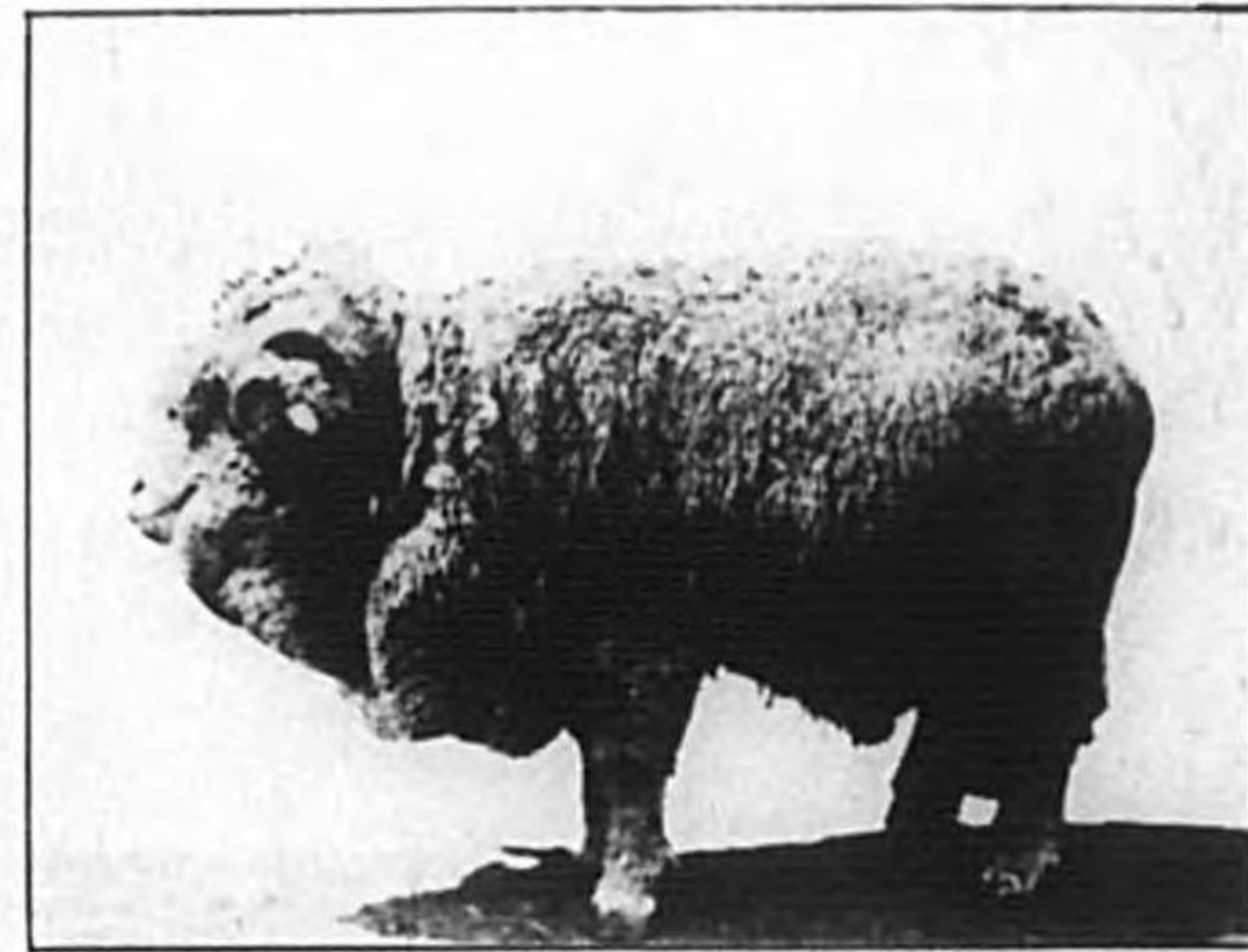
Experimental Tobacco Plantation at Fenghuagcheng Model Farm.



Experimental Kaoliang Plantation at Kungchuling.



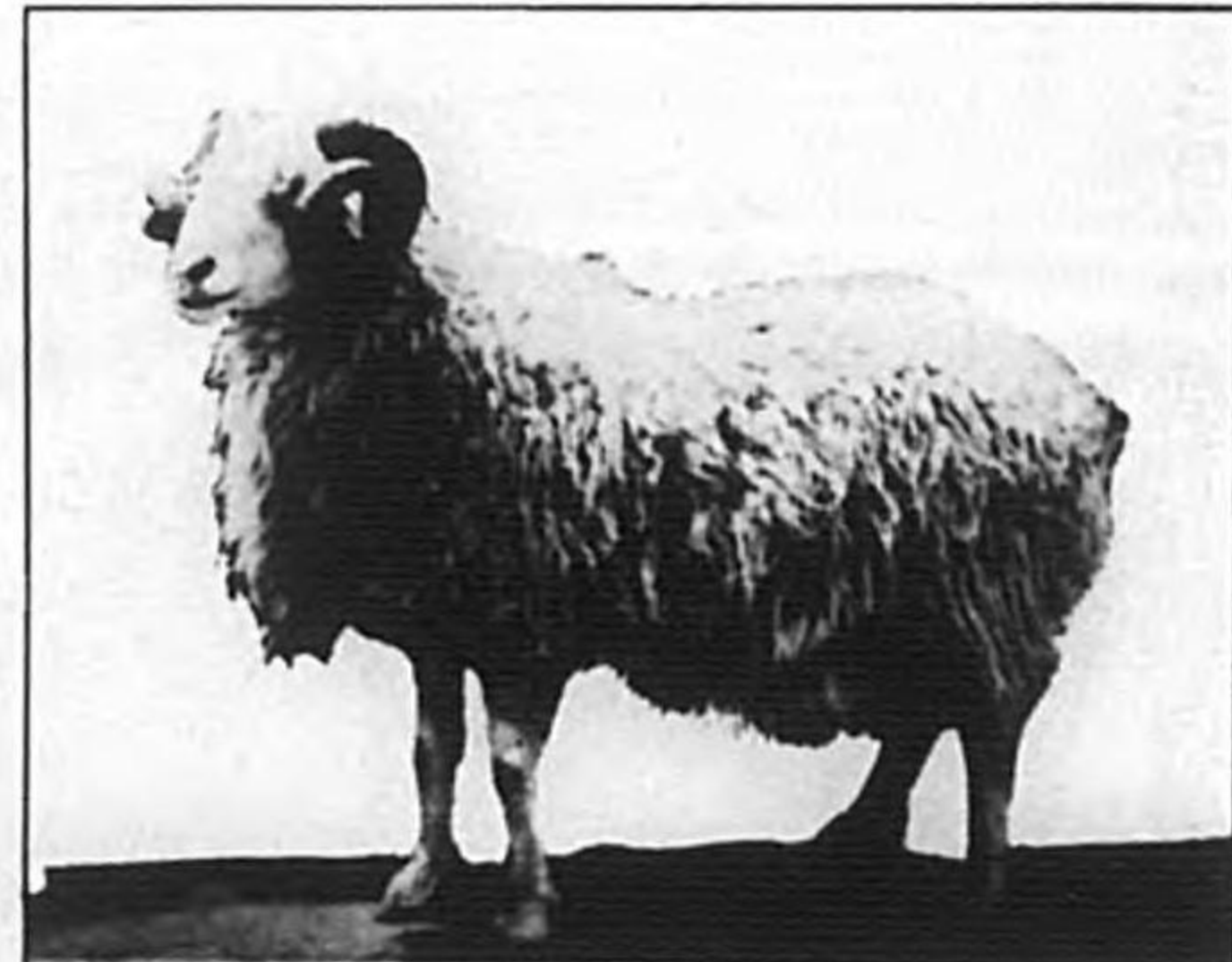
The Berkshire Pig brought to Manchuria for Breeding Purposes.



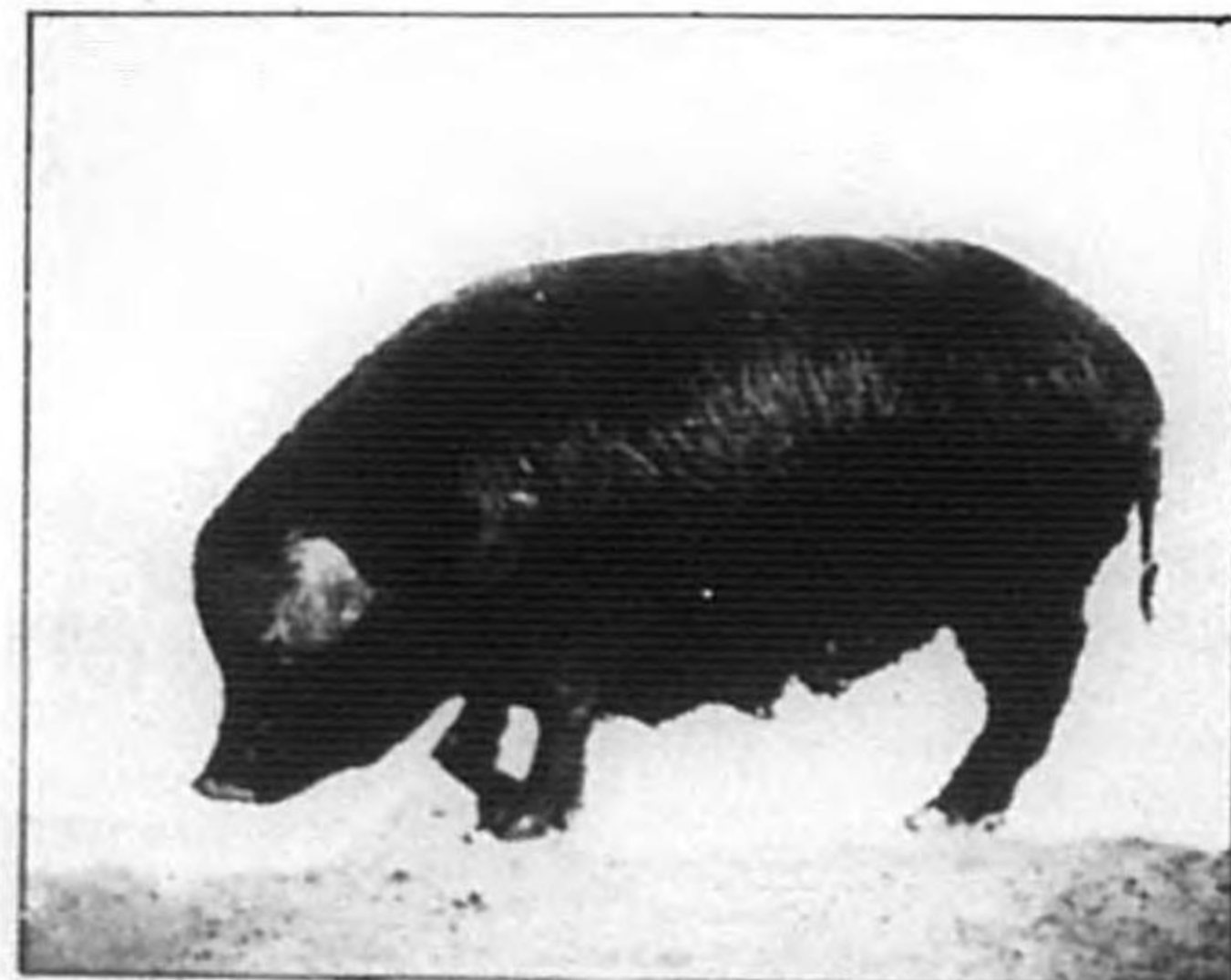
The Merino Sheep imported for Breeding Purposes.



Native Pig of Manchuria.



Mongolian Sheep.



Cross-Bred of native Pig with the Berkshire.



Cross-Bred of Mongolian Sheep with the Merino.

breeds, and increasing the propagation of, the principal agricultural products and live stock.

Among many experiments, most serious attention has been paid to improving the Manchuria bean. After a series of experiments, this station succeeded in obtaining, by means of selection, four superior kinds of beans, up to 1921. Experiment further continued, and it has been finally advanced to two best kinds which have been adopted as the standard of the improved beans. By the adoption of the improved seed-beans, an increase by 10 per cent. or more, it has been ascertained, can be gained in production. From these beans, more than 8 per cent. of oil can be obtained. In 1922, a nursery farm for the improved seed beans, about 174 acres in area, was laid out at Changchun and Kaiyuan, with a view to supplying the improved seed to a more extended area further from the Railway Zone, eventually to cover the whole of Manchuria.

The main station has conducted experiments in the selection of wheat since 1915. Through more than ten years' efforts, the improved breed did not increase more than four per cent. in production. Experimental work in this cereal still continues. The station has found there are greater prospects for improving wheat in North Manchuria than in the South.

Rice cultivation on paddy land in Manchuria is comparatively new, and there is very limited cultivation of upland. Cultivation has become very popular since the Japanese arrived in Manchuria; specially as the Koreans are migrating in great numbers and are now playing an important part in paddy cultivation. Seed transferred particularly from the northern part of Japan, was tested at the station, and finally seven kinds of seed rice were selected as the standard of the improved rice. The improved rice yields 30 per cent. more than the native variety. In districts where paddy land is limited on account of the difficulty of irrigation, experimental work has also been conducted for the improvement of upland cultivation. With several kinds of seed from the northern part of Japan, experimental tests in this line have been conducted since 1915. Four improved kinds were finally selected, and they yield 40 per cent. more than the native variety.

With regard to stock farming, the station set about improving sheep and hog breeding, the native breeds of which were in a degenerated condition. By crossing a superior Merino breed imported from abroad with the native Mongolian a fixed cross of the superior stock has been obtained, yielding wool of better quality and larger

quantity. Similarly with improving native hogs by crossing with the superior Berkshire breed. Improving the Mongolian pony and cattle has also been effected at this main station.

The branch station was established in 1913 at Hsiungyaocheng, where the cultivation of rice, fruit, cotton, and vegetables is carried on. Sericulture is also tested at this station. Experimental tobacco cultivation of American (specially yellow Orinoco), Japanese, and native leaf proceeds at the Experimental Farm in Fenghuangcheng on the Antung-Mukden line. It was proved the American breed especially can be acclimatized in these localities and yield greater production than the native plant.

Another experimental farm was established in 1916 at Paiyintala, the gateway to Inner Mongolia, a distributing center for Mongolian products. The work consists of improving beans, kaoliang, millet, native flax and medical plants, and hogs by crossing with foreign breeds. Several years after the establishment of these stations, they were able to distribute improved breeds and seedlings.

Distribution was commenced in 1924 by various experimental stations and farms of the S. M. R., with the following results up to 1928:

Improved soya bean seed	17,100 bushels
Improved paddy rice seed.....	6,850 "
Improved sheep	608 head
Improved hogs.....	261 "
Improved fruit-tree seedlings	200,000 saplings
Improved mulberry tree seedlings	1,386,000 "

In addition, over 32,500,000 saplings were distributed free of charge for afforestation purposes.

To the Experimental Station at Kungchuling and its branch station at Hsiungyaocheng, agricultural schools for Chinese students are attached. These students are educated and trained free of all charge for tuition and boarding.

VII MINING, FORESTRY, FISHERY

84 Natural Resources

Manchuria as a whole is still rich in natural products. Mineral, timber, and marine products may be found more abundantly in this region than in other parts of China. While most of the mountain ranges and hills in China proper were denuded many centuries ago, even before the Christian era, Manchuria was "virgin land" until very recently. It was in the distant past the hunting field of Manchuria tribes and its possession later became a continuous cause of conflict among the tribal kingdoms which fought for supremacy. After the Manchu Dynasty had unified China proper, their rulers treated this region as extramural and kept it as "forbidden land," the exploitation of which, not only to the outside world, but more particularly to the Chinese themselves, was denied.

The aggregate forest areas in Manchuria have been roughly estimated at as much as 36,235,268 cho or 88,798,872 acres—the standing timber at about 149,918,085,300 cubic feet. Among mineral products, coal is most important. The deposits of this important mineral in South Manchuria are estimated at 1,200,000,000 tons, in addition to several hundred million tons in North Manchuria. The coal deposits in Chihli, and specially in Shansi province, are said to be far surpassed by those in Manchuria. Iron deposits in Manchuria are roughly estimated at 400,000,000 tons, mostly in South Manchuria.

Manchuria, though it constitutes a part of the Asiatic continent, has a comparatively long coast line, extending 976 miles, or 855 nautical miles, from the mouth of the Yalu in the east to Shanhaikwan, where the Great Wall of China joins the waters of the Gulf of Chihli. Its southern part being a large peninsula exposed to the Gulf of Chihli and the Yellow Sea, it should be favoured with marine products. Furthermore, several large rivers—specially the lower reaches of the Sungari and the Hurka in the north, and Liao and Yalu in the south, have fresh-water fish. Although fish products do not amount to significant figures as yet, the salt production today totals more than 900,000,000 pounds a year.

Japanese and Chinese Governments, for the purpose of exploiting the Upper Yalu forests on the Chinese side. A sequel to this understanding was another agreement concluded on May 14, 1908, by which a company called the Tsai-mu Kung-ssu was organized with a capital of 3,000,000 Chinese dollars. The term of the company's rights was to extend for twenty years, which period might be extended if agreeable to the Chinese Government. The company, maintaining its head office at Antung, came into the existence in September of the same year, and soon engaged in felling, rafting, and trimming lumber.

Chinese officials exploited the forests about the eastern branch of the Upper Sungari, south of Kirin prefecture and extending to the Changpai range. Japanese capitalists at first participated in this business. Quite a number of Japanese corporations, in the post-war boom days, entered this field, occasionally in partnership with Chinese concerns at Kirin and Changchun. Most of them, however, met failure through financial difficulties and occasional floods and other calamities.

Exploitation of the Khingan forests was first carried out in 1914 by a Russian concern, the Shefchenko Brothers. In 1921, it became a joint enterprise with Japanese, its capital being increased to 4,000,000 Chinese dollars. This Russo-Japanese concern was again extended in 1922, with Chinese, Japanese and Russian capital, under the name of "Cha-mien-tsai-mu Kung-ssu," the capital stock amounting to 6,000,000 Chinese dollars.

The following table in cubic feet shows the estimated lumber output in Manchuria, the export of Manchuria lumber, import of foreign lumber, and the amount of consumption in Manchuria, for the four years ending 1926:—

	Output and Import		Total	Export	Balance or Home consumption
	Output	Import			
1923	47,713,140	9,354,640	57,067,780	29,315,100	27,752,680
1924	48,663,810	5,197,650	53,861,460	25,388,090	28,473,370
1925	49,984,410	7,359,440	57,343,850	20,618,620	36,725,220
1926	33,766,960	7,852,220	41,619,160	11,215,190	30,403,960

88 Mining

Minerals in Manchuria, though limited in variety, are abundant. According to the survey of the Geological Institute of the South Manchuria Railway Company, "coal, iron, magnesite, fire clay, and talc are most important in quantity of deposits; and second to these are gold, copper, lead, barytes, felspar, and asbestos."

89 Coal

Coal is the most important mineral product in Manchuria. Deposits are roughly estimated at 1,700,000,000 tons. About 500,000,000 tons are in North Manchuria, and 1,200,000,000 tons in South Manchuria, the deposit at Fushun being estimated at 950,000,000 tons. The Fushun and Yentai mines are operated by the South Manchuria Railway Company, and the gross annual output of both areas is now 7,000,000 tons. Fushun coal, belonging to the tertiary period, is bituminous, containing much volatile matter, and is best fitted for the production of gas. Penhsihu coal mine is located on the Antung-Mukden line of the South Manchuria Railway Company, about forty-seven miles east of Mukden. This is operated side by side with iron mining by a Sino-Japanese undertaking with the capital of 7,000,000 Chinese dollars. Its annual output is in the neighbourhood of 400,000 tons, of a quality suitable for coke for the ironworks. Coal-fields at Patao-kou and Pe-piao, along the Takushan-Paiyintala Railway, are worked by the Mukden Government, each mine producing about 7-80,000 tons a year.

Regarding to deposits in North Manchuria, there are several mines along the Chinese Eastern Railway. Zalainor, Mu-ling, and Ho-li-kwang, are important. The Zalainor coal-field is to the northwest of Zalainor station between Manchuli and Hailar stations on the Chinese Eastern Railway. This has been operated by Russians since 1903 under contract with the Chinese Eastern Railway, which owns it. The mine formerly produced 468,000 tons a year, but today the output is 200,000 tons. About 80 per cent. is taken by the Railway for its own use, the balance being supplied to the markets along the line. Mu-ling coal-field is located in the eastern section of the Chinese Eastern Railway. It was recently improved with railway connection, and today produces about 200,000 tons a year. Both the Zalainor and Mu-lin mines supply their product chiefly to the Chinese Eastern Railway. Ho-li-kwang coal field located 500 kilometers north of Harbin, produces 12,000 to 15,000 tons a year. This coal is possibly the best and the only coal which can be coked in North Manchuria, where most of the deposits are of inferior bituminous grade.

90 Iron Mines

Iron ore in Manchuria is mostly found in Mukden province, where the total deposit is estimated at over 400,000,000 tons. Iron in Manchuria

mostly exists in ferruginous rock. The ores are generally hematite, and the proportion of iron they contain is 68-70 per cent. in the richer ore, while the poorer runs to 34-40 per cent. The iron mine is not new, and was worked by natives on a very small scale, wood being used as fuel. But two mines today stand out prominently, Penhsihu and Anshan. The former produces about 50,000 tons of pig-iron a year and the latter 200,000 tons. The modern industry at Anshan has been already treated in the chapter headed The South Manchuria Railway Company.

The iron mine at Penhsihu is not new. The Chinese worked it in a primitive way as early as 1833, and the Russians planned operations just before the outbreak of the Russo-Japanese war. After the war the late Baron Okura took control, and this firm is now working it in co-operation with Chinese interests. The mine is operated side by side with the coal mine.

91 Gold

Gold was possibly the only metal extensively mined before the entry of foreigners and foreign capital into the Manchurian mining field. As Manchurian gold is principally alluvial, it can be mined with little effort and capital. This mineral was very abundant in North Manchuria, especially in Amur province, which has been known among Chinese under the name of "Gold-Producing Land" for centuries. Especially are rich deposits found in the far north, along the reaches of the Amur and the Sungari. In Kirin province extensive alluvial gold deposits are still found along the tributaries of the Yalu river and the upper reaches of the Sungari. In Mukden province, there are few beds which justify working on a large scale. On the whole, it may safely be said that gold no longer exists in any significant amount in South Manchuria. Most of the important gold mines were government enterprises, but concessions were often granted to Chinese private individuals. During the Russian regime, a number of concessions were given to Russians in the Amur and Kirin provinces. A gold mine concession in Hailung prefecture, Mukden province, was given in 1911 to an American, English, and Chinese joint undertaking. But as the result of investigation made by the experts of this syndicate, it was decided to abandon the concession. By the exchange of notes of May 25, 1915, the Peking Government gave the Japanese a gold mining concession at Huatien, Kirin province. For the development of gold mining and forestry in Amur and Kirin provinces, a loan of 30,000,000

yen was furnished to the Chinese Government in August, 1918 by a Japanese banking syndicate on the security of mining and forestry property. But actual work has not yet been started. It is a matter of regret that it is impossible to give figures of gold production in Manchuria owing to the entire absence of reliable statistics.

92 Fishery

Although the coast line of Manchuria from the mouth of the Yalu on the east to Shanhaikwan extends 976 miles, and faces the Gulf of Pechihli and the Yellow Sea, fishery had not developed until the Japanese came to South Manchuria. On the sea near Hsiungyaocheng, 110 miles from Dairen, several hundred Chinese fishing junks used to swarm after the "yellow flower fish" in May, each year. Their catch for a season of 31 days is said to have amounted to more than 5,000,000 pounds, valued at 300,000 yen. During the Russo-Japanese war a number of Japanese fishermen worked the coast of Dairen and Port Arthur in order to supply the army. Since the Japanese administration was started in Kwantung, the industry gradually developed, specially with the introduction of improved appliances. Today, men engaged in the fisheries in the Leased Territory number 21,029 Chinese and 285 Japanese (figures for 1927), and the annual catch was valued at 3,514,144 yen, of which 2,693,194 yen was the Chinese share. Figures relating to the industry outside the Leased Territory can not be obtained. As shown in the Customs returns, Manchuria exports marine products, except salt, to a negligible amount, i. e. 528,000 Hk. Tls., but imported more than 2,590,000 Tls. in value chiefly from Japan and Korea. As to fresh water fisheries, numbers of natives work all the large rivers, notably the Liao and Yalu in South Manchuria, and the lower reaches of Sungari and its tributary the Hurka in North Manchuria. The annual catch in North Manchuria is estimated at as much as 1,100,000 lbs.

93 Salt Manufacture

The manufacture of salt is one of the important industries in South Manchuria.

All along the coast of Mukden province, districts around Newchwang, Kaiping, Fuhsien, and the Japanese Leased Territory of Kwantung are noted for the industry. The old method of salt manu-

facture was by boiling. It is said the method of solar evaporation was first introduced into China by a Roman Catholic priest in the early part of the 18th century. Along the coast of the peninsula of Mukden province, commonly called Liaotung Peninsula, washed by the Gulf of Pechihli and the Yellow Sea, where the sea-water is much brinier, the rainfall is small and the dry wind from Mongolia makes evaporation speedy, the product here being particularly fit for manufacture by the evaporation method. Manufacture outside the Leased Territory has been conducted by the Chinese Government and individuals for many years. The total area used as brine pans was estimated at about 14,000 acres, and the annual production from 250,000,000 to 400,000,000 pounds. Salt being a sort of monopoly of the Chinese Government, it is forbidden to import into Manchuria and to export outside, except to Mongolia and the Jehol district.

Salt manufacture in the Leased Territory was at one time very extensively conducted. But maladministration and warfare caused the industry to wane, and at the time of the Russo-Japanese war most of the salt fields were waste. Under the Japanese regime this industry has made remarkable development as the annual production was increased to 498,561,700 kin or 648,130,210 pounds in the fiscal year ending March, 1927, from 45,971,400 kin in the fiscal year 1907, i. e. more than ten times during twenty-one years. The following table shows the salt production in the Leased Territory and exports:—

Year	Manufactured by Japanese	Manufactured by Chinese	Total
1919	150,740,280	112,177,860	262,918,140
1920	171,614,400	137,015,460	308,629,860
1921	123,218,580	107,359,900	231,078,480
1922	181,279,740	142,609,620	323,889,360
1923	140,657,520	107,556,816	248,214,326
1924	250,100,880	172,499,700	422,600,580
1925	256,514,700	159,922,620	416,437,320
1926	317,040,860	181,520,860	498,561,720
1927	264,315,300	127,773,600	392,088,900

The greater percentage of this product is exported to Korea and Japan proper.

VIII MANUFACTURING INDUSTRY

94 Industrial Development

Before the building of railways by Russians and Japanese, the Chinese in Manchuria were engaged almost entirely in agricultural pursuits, or primitive manufacturing industries of which agriculture was the basis. They pressed oil from the soya bean for food and light, distilled alcoholic drinks from kaoliang, ground flour, made coarse silk from the wild cocoon, and produced other necessities of life as a by-product of farming. In those days Mongolian horses, mules, and donkeys were the power utilized for manufacturing these staples.

The Russians first introduced to North Manchuria modern manufacturing methods in flour-milling, sugar-refining, the dressing of lumber, etc. Similarly, it was the Japanese who opened up South Manchuria industrially with their capital and skill. The Chinese, always alert to their own interest, were gradually stimulated by the rise of new industries in the foreign concessions, and their industry made a certain degree of improvement. The industrial development in Manchuria, specially in the Japanese Railway Zones and Leased Territory being fostered by the South Manchuria Railway and the Kwantung Government through the Central Laboratory, the Geological Institute, Agriculture Experimental Stations, Model Farms, Research Offices, and similar institutions, the growth of manufacturing industries was significant, particularly during the latter part of the European war. But the general depression after the war seriously, though temporarily, affected the industries in all Manchuria, particularly those established during the war. The depressed industries, however, are now gradually on the road to recovery.

The following table taken from the statistical return of the Kwantung Government will give some idea of the industrial progress made during the last twenty years within Japanese jurisdiction in Manchuria, including Railway Zone and Consular districts:

Year	No. of Factories	No. of Workers by Day	Capital Investment	Value of Products
1909	152	—	16,132,101	6,138,792
1914	244	—	24,536,830	20,799,196

1919	450	—	123,571,509	242,882,798
1923	633	8,550,045	200,827,607	136,261,877
1924	658	10,155,288	192,936,596	139,900,726
1925	673	10,805,857	283,546,878	158,765,427
1926	685	13,000,903	301,679,138	174,068,554
1927	750	12,937,316	292,002,302	140,378,528

So far as the manufacturing industry in North Manchuria is concerned, regarding which accurate data are not available, it is reported that there about six hundred factories and mills, of which 147 are bean-oil mills, 62 liquor distilleries, and 52 flour mills.

Dairen is the largest manufacturing centre in South Manchuria, while Harbin is the chief centre in North Manchuria. The former is particularly the centre of bean-oil mills and the latter of flour mills.

Manchuria as yet furnishes only raw materials or semi-manufactured products for further use in manufacture by more advanced countries. As a manufacturing country, however, it possesses certain advantages. It has natural resources in abundance in the form of agricultural and mineral products, besides live stock and other staple products; fuel in the form of coal; and excellent labor in the sturdy coolie type. Furthermore, with its increasing population, and with China proper and Siberia on the South and North, it has markets easily accessible on all sides. Still it is far from being an industrial country in the modern sense, possessing organization, enterprising spirit, technical skill, and backed by ample capital.

95 Bean Oil Mills

Bean milling is one of oldest manufacturing industries in Manchuria, and still today ranks foremost. There were about 447 mills in 1927, and their aggregate product, bean-oil and cake, amounted to over 2,200,000 tons, including 200,000 tons of oil.

The oil mills, called "yufang" by the Chinese, originated several hundred years ago in South China, and were introduced to Manchuria in the middle of the nineteenth century, when hemp seed oil mills at Tiehling and Changchun, then the centre of bean production, commenced bean-oil extraction by adopting the hemp seed oiling process. The crude bean oil, made by primitive processes, was extensively used for cooking and lighting purposes, while the bean cake, the residue of the bean after the oil has been squeezed out, was used as cattle-feed and very little as fertilizer. After the port of Newchwang was opened,

Manchuria bean-cake was sent to South China, where it was extensively utilized as fertilizer for the sugar-cane plantations. As before stated, Manchurian bean-cake after the Sino-Japanese war, found a growing market in Japan. In those days, a number of small mills was established at Liaoyang, Mukden, Tiehling, and Newchwang, the last being the chief market for this product. An Englishman first introduced a steam plant into this industry, installing it in Newchwang in 1896.

After the Russo-Japanese war, bean-oil mills were established by Chinese at Dairen, and several large modern factories were set up by the Japanese. A more efficient scientific method was developed by the Central Laboratory of the South Manchuria Railway Company—the chemical extraction by benzine or benzol—but to date the Honen Bean Mill is the only factory operated on this system. By the improved method practically all the oil in the bean, or more than 14 per cent., can be extracted, while only 10–12 per cent. can be obtained by the expressing system. Old native mills still squeeze out the oil by the wedge process with animal or human power. The screw process, though originated by Chinese, has been improved and fitted for large scale production, steam or electric power being used. Still another process utilizes hydraulic pressure. The Nisshin Oil Mills (Japanese), Dairen, and other Japanese mills, and the Kabalkin Mill (Russian), Harbin, have adopted the hydraulic pressure system.

Among the bean mills in Manchuria, Dairen and Harbin have plants equipped with a comparatively advanced type of machinery, the others being almost entirely old fashioned.

96 Alcoholic Liquor

The distilling of the native kaoliang spirit is reckoned one of the important manufactures. The industry is said to date back to the close of the 17th century, when the civilization of South China made its entrance into Manchuria.

Mukden and Liaoyang were the centres of the distilling industry. The more the population increased, the less profitable became the industry, since a limit was placed by the authorities on the quantity of kaoliang spirit, the object being to preserve the cereal as foodstuff. The industry was then driven to the North, where kaoliang could be obtained more cheaply, and it is now very active in Kirin province.

The annual production in Manchuria is estimated in value at over

2,500,000 yen, of which spirit to the value of 1,000,000 yen is exported to China proper. While the Russians maintain several vodka distilleries and beer breweries in North Manchuria, specially in Harbin, several sake breweries have been established by Japanese in South Manchuria.

As to sake manufacture, the total output for 1927 was 3,626 koku (172,666 American gallons) valued at 250,341 yen. This amounts to 16 per cent. of the total import, which is valued at about 1,500,000 yen.

97 Flour Mills

Wheat flour being the important food of the natives next to kaoliang, flour mills, called "mofung," or grinding houses, are found everywhere in Manchuria. These mills, employing coolie and donkey labor, work on a small scale, but none the less are only next in importance to the bean-oil and distilling industries. Modern flour mills are called "huomo" or fire-mills by the Chinese, as they are provided with machinery and use steam and electricity for motive power. Three modern mills were first established in Harbin by the Russians in 1902, chiefly to supply Russian settlers and soldiers in Manchuria and East Siberia. Modern mills in South Manchuria were first started by Japanese soon after the Russo-Japanese war, but the chief customers were the Chinese. Stimulated by the Russian and Japanese activities in milling, the Chinese gradually entered the industry in co-operation with Russians or Japanese. Russian mills formerly suffered from the competition of the mills in South Manchuria, but the world-wide shortage of foodstuffs during the European war more than enabled them to recover their former prosperity. This favourable condition, however, did not last long, and the industry was unable to resist the American and Canadian product, which found a market in Manchuria after the European war. In 1927, Manchuria imported flour in the value of 7,598,000 taels.

98 Beet Sugar

The climatic conditions and soil in Manchuria are suitable to the sugar-beet plantation. The Mukden Government, when General Chao Erh-sun was Governor, established in 1906 an experimental farm outside Mukden, in which a beet plantation was tested. Encouraged by the satisfactory results, the Governor conceived the idea of establishing a large Sino-Japanese concern for the manufacture of beet-sugar, to which project Mr. Chozo Koike, then Japanese Consul-General at

Mukden, gave support, but the scheme was not consummated owing to the opposition of an anti-Japanese party. Meanwhile, a factory was established in 1909 by Poles at Ashiho, near Harbin, with a capital of 1,000,000 roubles. Two refining machines were installed, which at one time produced several million pounds of refined sugar annually. A Chinese factory was established in 1910 at Hulan, also near Harbin, with a capital of 3,000,000 Chinese dollars, largely through Government aid. During the world-wide shortage of sugar owing to the European war, a large factory organized by Japanese capitalists, including Baron (now Viscount) Shibuzawa and Mr. Magoshi, with a capital of 10,000,000 yen, was established at Mukden in 1916. Beet was to be cultivated over an area of 6,000 acres, from which some 13,000,000 pounds of crude sugar was expected annually. This company enjoyed fair profits for the first few years, but owing to the world wide depression after the late war, it incurred loss, and finally in 1927 suspended operations, as did other factories in Manchuria. Foreign-made sugar imported into Manchuria is on the increase. Imports were valued at over 8,800,000 taels in 1927.

99 Tobacco

As before stated, tobacco is one of the staple products of Manchuria. The annual production of leaf today is estimated at over 42,000,000 kin (56,000,000 lbs.), distributed as follows:—10,000,000 kin (13,000,000 lbs.) in Mukden province; 24,000,000 kin (32,000,000 lbs.) in Kirin province, and 8,000,000 kin (10,666,666 lbs.) in Amur province. The better leaf is raised around the City of Kirin, but most Manchurian leaf is hardly suitable for cigarette making without first being blended with foreign leaf. Cigarette manufacture was introduced by Russians at Harbin, where two firms, "Robert" and "Chiulin," had factories in the days before the Russo-Japanese war. Soon after the war, the British-American Tobacco Company, having factories in Shanghai and Tientsin, invaded Manchuria with their products. In December, 1906, the Tō-a Tobacco Joint Stock Company, organized by Japanese with a capital of 1,000,000 yen (later increased to 10,000,000 yen) established a factory at Newchwang. The British-American Tobacco Company established a factory in Mukden in 1919 and two years later a factory at Harbin. Another Japanese tobacco company, called the Asia Tobacco Corporation, also established a factory at Mukden in 1921, which was later on amalgamated with the above-mentioned Tō-a Tobacco Company. In 1922, a Chinese tobacco factory was

established at Mukden, with capital chiefly furnished by Chinese officials, bearing the name of the Three Eastern Provinces Tobacco Company, which, however, went out of existence in 1924. In the same year another Chinese factory, called the Hua-hua-yen Kung-ssu, was established outside the city of Mukden. Thus Mukden has become a centre of tobacco manufacture. The aggregate sale of cigarettes per year in Manchuria is estimated at over 7,600,000,000 pieces, the greater percentage of which is said to be products of the British American Tobacco Company.

It should be noted that Manchuria exported, in 1927, tobacco leaf and cigarettes in the value of 2,670,000 taels, and imported leaf, cigarettes and cigars in the value of 11,731,000 taels.

100 Fabric Industry

Coarse spinning and weaving of wild silk, cotton, and hemp was an old cottage industry. The modern fabric industry was first introduced in 1919 by a Japanese at Antung, where a wild silk spinning and weaving factory was established. This became later a branch of the Fuji Cotton Spinning Company of Japan. About a hundred wild silk filatures are operated by Chinese on a small scale on the Antung-Mukden line and the main line south of Mukden; Antung, Hsiuyen, Huangfengcheng, Kaiping, Haicheng, and Liaoyang, being centres of this industry. The total output per year is estimated 92,760,000 kin (124,050,000 lbs.), valued at 46,540,000 yen, as shown in the following table:

Manufacturing Districts	Annual Output in Kin	Value in Yen
Antung	12,700,000	6,330,000
Hsiuyen	13,800,000	6,900,000
Kuanhsun	10,300,000	5,230,000
Huangfengcheng	7,310,000	3,755,000
Penhsihu	6,800,000	3,400,000
Kaiping	15,500,000	750,000
Haicheng	9,710,000	4,855,000
Liaoyang	8,750,000	4,375,000
Fuchou	7,480,000	3,740,000
Kwantung Leased Territory	410,000	205,000
Total	92,760,000	46,540,000

Regarding the hemp industry, there are two factories. One is the Manchuria Hemp Manufacturing Company at Dairen, the other the Mukden Hemp Manufacturing Company at Mukden. Their main products

are bags for packing soya beans, kaoliang, etc., and the annual output is about 4,000,000 bags. This, however, is only one-fourth of the total import of gunny bags which number annually 20,000,000.

As to the cotton industry, the first modern spinning mill was put up in 1921 by Chinese at Mukden, with 10,480 spindles. Subsequently, three cotton mills were established in South Manchuria by Japanese—the Manchuria Cotton Spinning Company (31,360 spindles), at Liaoyang in 1923, a branch mill of the Naikai Cotton Company of Osaka (24,000 spindles), at Chinchou in 1924, and a branch mill of the Fukushima Cotton Spinning Company of Osaka (17,664 spindles), in a suburb of Dairen in 1925. There are more than 170 cotton mills on small scale in Manchuria, chiefly run by the Chinese. The total output of cotton goods and yarn per year is valued at 6,500,000 yen, but this is less than one-tenth of the total imports.

In Manchuria and Mongolia, there are abundant supplies of wool and camel hair—practically all being exported through Tientsin. Export of wool from this port in 1924 amounted to 437,486 piculs, valued at 14,457,840 taels, and camel hair 37,821 piculs, valued at 1,801,944 taels. No woolen industry existed until the Manchuria-Mongolia Wool-Weaving Company was organized in December, 1918 at Mukden, with a capital of 10,000,000 yen—a Sino-Japanese joint undertaking.

This mill unfortunately was damaged by fire in June, 1924. Its capital was reduced to 3,000,000 yen, and its activities a great deal checked. During 1927, however, 134,993 yards of woolen cloth, 16,784 blankets, 114,090,500 lbs. weight of carpets, and 17,000 lbs. of woolen yarn were produced. It is of interest to note that Manchuria imports woolen goods and wool and cotton mixed goods to the value of 6,800,000 taels.

101 Ceramic Industry

Activities in civil engineering and building construction, with the development of railway construction and other undertakings in Manchuria after the Russo-Japanese war, stimulated an ever-increasing demand for cement, brick, glass, and other such commodities. The abundant presence of limestone and clay, material necessary for cement manufacture, induced the Onoda Cement Company, of Japan, to establish a branch factory in Choushuitzu, a suburb of Dairen, in July, 1911. The annual output was 149,000 casks in 1910, and this increased to over 750,000 casks in 1927. The Dairen Dolomite Cement Factory

manufactures the better quality of cement, similar to the Portland brand. There are several factories manufacturing lime in Penhsih, Dairen, and Chinchou, the annual production amounting to over 100,000 tons.

In brick making the Chinese use a gray brick of unchangeable design. The modern brick kiln was introduced by Japanese, and a number of kilns were established during the war-time boom at Dairen, Antung, Mukden, Fushun, Newchwang, etc. Although the activity in this trade was checked by the post-war depression, as in other industries, there are more than 46 factories, including small concerns, and the output is valued at over 1,000,000 yen.

Silicious stone and limestone suitable for the manufacture of glass are abundant in South Manchuria. The Central Laboratory of Dairen has conducted elaborate tests in ceramic manufacture, establishing a special plant for the purpose. Tests proving satisfactory, the plant was handed over in 1918 to the newly-established Dairen Ceramic Factory, which manufactures soda glass, crystal and plate glass. Another factory manufacturing window glass was established in 1925 with a capital of 3,000,000 yen, as a joint undertaking of the Asahi Glass Company, of Japan, and the S. M. R., which uses the Lubbers' cylinder process. The factory has a capacity of about 300,000 cases of sheet glass a year.

IX CURRENCY AND CREDIT

102 Chinese Currency

There are two or three dozen kinds of currency circulating in China proper, and Manchuria is no exception to the evil created by the absence of a uniform system.

The central administration was never strong enough to establish a stable currency. The Central Government, the provincial governments, and private guilds or persons, have each constituted themselves an issuing authority. All issues have circulated indiscriminately side by side, with no fixed rate of exchange. In addition, foreign currencies have prevailed in all the open ports. Moreover, some of the issues are on a copper basis, some on a silver basis, and others again on a gold basis. Confusion reigns. More recently, the indiscriminate issue of inconvertible bank-notes under the authority of military leaders (tuchun) has but added to the currency confusion. In Mukden province alone, the circulation of such paper as that popularly called the Mukden note, in the vernacular, Fengpiao, was estimated in December, 1927 to reach the enormous total of 1,300,000,000 Chinese dollars. Its rate, at that date was 1390 against a hundred silver dollars.

That the Chinese currency "system" is the most complicated in existence needs no emphasis. Many attempts at reform have been made—the first in 1890, when an effort was made to place the coinage on a Western basis. But such schemes in the past simply resulted in additional issues of new currency, since no effective steps were taken to withdraw the old ones. Such a chronic state of monetary confusion is not only prejudicial to the economic welfare of the Chinese themselves but inimical to the interests of all peoples trading with China. Great Britain took the initiative by suggesting the creation of a proper coinage system in the Anglo-Chinese Agreement of 1902, and similar proposals were made by Japan, the United States, and other countries in their commercial treaties with China. Several plans for a gold standard were accepted by the Chinese Government to make these promises good, but so far without success. Among these, the adoption of the gold standard was proposed in 1903 by Sir Robert Hart, Inspector-General of the Imperial Maritime Customs, and by Professor Jeremiah Jenks, of the Cornell University, in 1905, by Dr. G. Vissering in 1911, and by Tsao

Ju-lin, Minister of Finance in 1918, but none of them was acted upon. Dr. Vissering's plan was to be carried out, if China could have secured from American, British, French and German banking groups the so-called Currency Loan amounting to £10,000,000, 70 per cent. of which was to be used for currency reform, and the remaining 30 per cent. for development in Manchuria. This loan never materialized, nor was the plan for currency reform acted upon. Tsao Ju-lin's scheme was announced in August, 1918, when the Government issued what is known as the Gold Note Regulations. "Japan was to furnish a loan for currency regulation purposes to China. The proceeds of the loan were to be deposited in the Government banks in China and Japan, and gold-currency notes were to be issued against this reserve, to be used as official Government currency within China." This scheme invited bitter opposition in China, and was finally dropped.

An attempt to adopt a currency reform on a silver basis was made in 1910. But the first Revolution took place in the following year, and the reform measure could not be carried into effect, except for the issue of new coins, the unified "Dragon Dollar," which were soon drawn into the whirlpool of the older currencies and disappeared. Upon the establishment of the Republic, Yuan Shih-kai, the first President of the new regime, caused the creation of a monetary commission with a view to investigating the system which might be adopted to best advantage. The decision was made to adopt a measure of reform on a silver basis, and new National Currency Regulations were promulgated on February 7, 1914. The Regulations vested the Government with the "right of minting and issuance of national currency." The unit of the national coin called the yuan (元) was to contain 6 chien, 4 fen, 8 li (Kuping weight) or 24.17 grammes of pure silver. The circulation of the money should be based on the decimal system, one-tenth of one yuan being called one chiao (角), and one-hundredth one fen (分). The regulations also provided for exchange of older coins, mintage allowance, etc. China expected to carry out this currency reform measure by securing funds through foreign loans, but she was cut off from these sources as the great European war broke out in August the same year. The currency regulations in consequence have ever since remained pigeon-holed, except that the new coin, bearing Yuan Shih-kai's effigy, often called the Yuan Shih-kai dollar, was minted and issued, but could not serve for exchange with older coins, as did its predecessor. In short, all reform measures in the past resulted rather in complicating the currency by adding new issues to the old.

103 Currency in Manchuria

The situation in Manchuria presents no exception to the general disorder characteristic of the currency as existing in China proper.

Each province has currency peculiar to it, or attaches a different value to the same currency. No port or city in the same province has a currency exactly the same as its neighbour's — Antung, Mukden, Newchwang, and Dairen each has a different currency. Harbin, Kirin, and Changchun, in Kirin province, have different currencies respectively. The money circulating today in Manchuria is shown in the following table:—

Native Currency	Coins	{ Copper Cash (Chihchien 制錢), Copper coin (Tungyuan 銅元) Silver coin (Yangchien 洋錢), Sycee (Yinting 銀錠)
	Notes	{ Government notes (Kuantieh 官帖) Copper coin notes (Tungyuanpiao 銅元票) Silver coin notes (Yangchienpiao 洋錢票) Mukden notes (Fengtienpiao 奉天票)
	Book currency	{ Kuping tael Haikwan tael Transfer tael
Foreign Currency	Coins	{ Japanese silver yen, Mexican dollar Japanese subsidiary coins
	Notes	{ Bank of Japan gold notes Bank of Chosen gold notes Yokohama Specie Bank silver notes

Of the native currencies in Manchuria, the hard money, particularly subsidiary or smaller silver coin of less fineness than the standard silver was issued in immense quantities for nearly ten years up to 1916. Since the latter year, when the price of silver rose owing to the European war, the issue of the smaller silver coins was decreased, and the note issue, nominally based on the silver coins, came into prominence. Although measures for removing the financial disturbance in Manchuria caused by chaotic currencies were introduced in 1917 with the co-operation of the Japanese Chamber of Commerce at Mukden, nothing could be carried into effect. Meanwhile one civil war after another took place between North and South, and the note issue was accelerated year by year. The

following table gives an estimate of the varied currency circulating in Manchuria at the end of December, 1927:—

Name of Currency	Amount of Issue	Value in Silver Dollars
Mukden Notes.....	1,300,000,000 Dollars	93,530,000
Harbin Silver Notes	38,000,000 "	26,600,000
Government Notes of Kirin Province	3,300,000,000 Tiao	19,520,000
Government Notes of Amur Province	3,700,000,000 "	11,200,000
4% Bond issue of Amur Province...	10,000,000 Dollars	3,640,000
Silver Dollar Bank Note of Kirin ...	6,000,000 "	3,540,000
Small Silver Coin Bank Notes of		
Kirin Province	1,500,000 "	89,000
Sycee kept in Antung	2,500,000 Taels	3,350,000
Transfer Account in Newchwang ...	2,000,000 "	760,000
Silver Dollar.....	500,000 Dollars	500,000
Small Silver coin.....	5,500,000 "	4,580,000
Total		167,309,000

In addition to the above, Japanese currency, chiefly bank notes issued by the Bank of Chosen and the Yokohama Specie Bank, which circulate principally in the Leased Territory and the Railway Zone, were estimated at over 49,000,000 yen.

104 Copper Cash

Among native coins, copper cash (Chihchien), round in form with a square hole in the centre, is the oldest coin of China, and is recorded as existing at the beginning of the Chou Dynasty (B. C. 1122-781). Manchu peoples of the Tribal Kingdoms in the twelfth century used copper cash minted by Chinese during the Sung Dynasty. Since the Manchu Dynasty came into existence, this cash bore the characters of the calendar name of each Emperor. Cash first bore two characters — one the Chinese and the other the Manchu. Since the period of Emperor Yung Cheng (1723-36) only two Manchu characters were imprinted on each cash. Chihchien itself signifies official money. Meanwhile Ssuchien, cash made by private guilds or persons, came into existence, besides those brought from China proper, and the old Korean and Japanese cash which were exchanged in the barter trade. In the middle of the nineteenth century, many varieties of cash circulated in Manchuria. The Peking Government issued an order in 1852 to each province to readjust its cash, but the Mukden and Kirin Governments, not easily finding access to copper ore, minted silver coins and printed

silver notes. In 1901, the Kirin Government first started to coin cash on a large scale by establishing four mints to meet ever increasing demand. Since the Kirin and Mukden Governments established official mints and began to produce copper coins after the Western fashion, the circulation of cash has gradually diminished. The closing down of the mints in China proper and later in Manchuria, the exportation of the cash abroad in consequence of the high price of copper, and the inconvenience of cash as money, caused this currency practically to disappear from the towns along the railways except in out-of-the-way places. But the new copper coin and the Government note were originally issued on the basis of this cash, and are still calculated in terms tiao (吊) and wen (文).

105 Copper Coinage

Copper coins, or Tungyuan in the native term, were soon turned out in large amounts by the Government mints of Mukden and Kirin. Amur province received its supplies of copper coin from the Mukden and Kirin mints. The value of this new coin is measured by the old cash, and has inscribed on it 5 cash, 10 cash, or 20 cash according to size. The coin, being more regularly minted than the old cash, soon became popular. At one time it circulated in large amounts and constituted an indispensable currency in Manchuria. But it was not long before the greed for mintage profit resulted in debasing its value. The Peking Government in February, 1908, ordered the closing of the provincial mints with a view to putting an end to the evil practice. Subsequently the Mukden and Kirin Governments stopped the further minting of the copper coin. But the Mukden Government resumed the minting in September, 1908, and held a monopoly of it, supplying the whole to Manchuria, particularly after the Republican regime was inaugurated. Up to 1917, the Mukden Government issued 232,000,000 of these coins. But large quantities were taken home each year by coolies from Shantung in the form of savings, and, further the Tungyuan-piao (note) nominally based on this copper coin and issued by the Amur and Mukden Governments, resulted in reducing the supply of the coins in Manchuria to an extremely small amount. Today they are used as small change.

106 Silver Coins

Among the native currency the silver coin called the Yangchien, is the most important in Manchuria. This coin, which is made after the western model, closely resembling the Mexican or Japanese coin, was first minted in 1889 in Canton by the Viceroy Chang Chih-tung. In the following year the Peking Government issued an edict, by which the Provincial Governments were permitted to mint silver coins and in which the denomination, fineness, and weight were defined. There are coins of five denominations, e. i. 1 yuan (元) (one Chinese dollar), 5 chiao (角), 2 chiao, 1 chiao and 5 fen (分). The yuan, which should have the fineness of 900, was regarded as the standard coin, while the rest, of finenesses of 860-820, were regarded as subsidiary.

In Manchuria, the minting of new silver coins was commenced by the Kirin Government in 1901 and by the Mukden Government in 1905. As in the case of China proper, the provincial governments in Manchuria, with an eye to the greater profits accruing, were anxious to mint the subsidiary rather than the standard coin. The following table shows the number of coins minted up to the end of 1917 by the above-mentioned provincial governments:—

Denomination	No. of coins minted at Mukden	No. of coins minted at Kirin	Total	Minted Amount in Yuan or Dollars
1 Yuan (一元).....	11,709,259	4,734,717	16,443,976	16,443,976
5 Chiao (五角).....	—	12,719,553	12,719,553	5,781,615
2 Chiao (二角).....	249,219,912	22,508,562	271,728,473	49,404,995
1 Chiao (一角).....	1,078,450	953,875	2,032,325	184,847
Total				71,815,433

From the above table it will be seen that 55,000,000 dollars of subsidiary coins have been minted against 16,000,000 dollars of the standard. Indeed, the relationship of standard and subsidiary coinage originally intended for the different grades of the silver coins could hardly be maintained under such circumstances. Having its own quotation in the market, each gradually became an independent currency. Of these new silver coins, yangchien, one yuan silver, is called tayangchien (大洋錢) signifying large yangchien, and the rest of smaller denomination hsiao-yangchien (小洋錢) signifying small yangchien. The tayangchien has circulated but little in Manchuria owing to the smallness of its issue, having been driven out of circulation by the smaller coins. Those which circulate in Manchuria are mostly the hsiaoyangchien, especially of the 2 chiao denomination; these are extensively used in Mukden province.

But the financial embarrassment of the Mukden Government and the world-wide appreciation in the price of silver, made it impossible further to issue even these small coins, and naturally prepared the way for the issue of more paper notes, nominally based on the hard coins, but actually without reserve.

107 Sycee

The sycee is a silver ingot that passes as money by weight. It is often called "shoe" or "shoe silver" (鞋銀), as it is modelled after the shape of a shoe. This silver ingot is said to have come into existence in the later period of the Sung Dynasty (960-1280). Modelling bar silver or coined silver into sycee is entrusted to a few reputable private concerns, called Loofang. Every shoe bears the firm name of the melter, with the particulars of weight and fineness stamped upon it with a die. The weight and value of sycee vary according to province or locality. Shanghai shoes weigh very closely to 50 taels, while Newchwang shoes weigh on an average 53½ taels. Shoe silver, though rudimentary and inconvenient as money, is a very important medium of currency, as it is often used in the settlement of interport trade balances in China. This sycee was once widely used in Manchuria. Transactions of a large amount were often conducted by means of this silver ingot especially in Newchwang, Antung, Mukden, and Kirin. But the introduction of the so-called "transfer" or "book transfer" in the settlement of mercantile transactions at Newchwang, the financial chaos following in the wake of the civil war after the Revolution of 1911, and the rise in the price of silver as a consequence of the war in Europe, were the chief factors bringing about the gradual diminution of circulation of sycee. Today it has practically disappeared from all marts in Manchuria except Antung, where transactions in Yalu river timber and other staples are still conducted in sycee, known as the Chin-ping-yin (鎮平銀).

108 Paper Currency

As alluded to in the chapter on Trade, Manchuria is primarily an export country, so far as its trade with the outside is concerned, and it might be expected consequently that various forms of hard currency would remain in Manchuria. But they were gradually diminished or done away with, one by one, as stated in the preceding section. Paper currencies were not only gradually taking the place of the hard moneys,

but overwhelming all currencies without the backing of substantial reserves. They flooded the market beyond control.

109 Cash and Copper Notes

As in case of China proper, the provincial governments in Manchuria used often to issue the Government note, Kuantieh (官帖), while individual concerns issued paper currency in the form of a promissory note called Tiehtzu (帖子). These Government notes were first issued in 1898 in Kirin and Amur provinces based on cash, with the object of replacing the obnoxious private notes then in circulation. In their earlier days, they were readily converted into cash, and naturally maintained credit. As time went on, however, the financial disorders of these governments made conversion difficult and their value gradually declined. Yet, in the absence of better money, they circulated widely in these two provinces, but at a large discount.

There is another Government note in the Amur province issued on the modern copper coin, and called Tungyuan-piao (銅元票) or copper note. As already stated, the Amur Government, possessing no mint, had this coin supplied by the Mukden and Kirin Governments. But not having a steady supply of the copper coins, the Amur province started to issue copper notes, nominally on the copper coins. The copper note was issued in enormous quantities, also, by the Mukden Government, and it amounted to 75,000,000 Yuan in 1927.

110 Silver Notes

Silver notes are called Yangchien-piao (洋錢票). Notes issued on the Chinese silver dollar are called Tayang-piao (大洋票) and those to be issued on smaller silver coins Hsiaoyang-piao (小洋票).

The hsiaoyan-piao is not necessarily limited to the smaller denomination. For example, the 5 yuan (dollar) note, if the issue bank promises to pay bearer fifty ten-cent pieces, is called the hsiaoyang-piao, or smaller silver coin note. This note was issued by the Government Three Eastern Provinces Bank, Mukden Industrial Bank, and Mukden Commercial Bank, at Mukden; by the Kirin Yung-heng (Government) Bank, at Kirin; and by the Amur Government in Tsitsihar, capital of Amur province. It was also issued by the branches of the Bank of Communications, and the Territorial Bank, each having its main office in Peking. This note was current in the early years of the establish-

ment of the Republic throughout Manchuria, except Kwantung Peninsula, where the Japanese currency dominated. But it circulated most extensively in Mukden province, where it formed the principal currency, while in Kirin and Amur provinces, the cash note or copper notes circulated more commonly, as already stated. This currency was originally a note convertible into small silver coins. But the wanton issue of the note by these banks in Mukden especially by the (Government) Bank of the Three Eastern Provinces, Mukden, made their conversion into specie or coin impossible. The disorder resulted in financial disturbances in Manchuria, the interest of the Japanese communities being also seriously affected. To remedy this financial chaos, six great banks in Manchuria made an agreement which came into force in August, 1917. By this agreement, the tayang-chien, or Chinese silver dollar, was to be adopted as the standard; the issuing of the hsiaoyang-chien (smaller silver note) was to be stopped, and those in circulation were to be exchanged for the new tayangchien, with the exception of the small notes under 10 chiao; and the exchange ratio of hsiaoyang to tayang was to be 10 to 12. The issue banks enjoyed such little public credit that as soon as the new notes were on the market not only were the old hsiaoyang notes presented for exchange for tayang notes, but the new tayang note itself was presented for conversion into cash. The result was that the tayang note became as inconvertible as the hsiaoyang note.

The original aim of putting a stop to the indiscriminate note issue thus resulted in failure. On the contrary, other issues of inconvertible notes came in succession under other names, such as the Huitui-piao (匯兌票) or exchange note, which, together with the copper note issued by Mukden Government, is popularly called the Mukden note.

111 Mukden Note

This exchange note was first issued in December, 1917, by the Bank of the Three Eastern Provinces by order of the Mukden Government. The privilege was extended to the Bank of China and the Bank of Communications in 1919, each to the extent of 5,000,000 dollars. By the compulsory use of this note, it circulates extensively side by side with the tayang and hsiaoyang notes. It has become a most common practice of the provincial governments to relieve their financial embarrassments simply by the issue of new bank-notes through these official banks, little trouble being taken about the reserves to cover the issues. In the year 1922 when civil war broke out between the Chihli and Mukden

parties, the issue of these Mukden notes increased to 300,000,000 dollars. When Kuo Sung-ling revolted against Chang Tso-lin in December, 1925, the Mukden notes were further augmented to about 490,000,000 dollars. It is said that huituipiao, or tayang notes in the form of exchange notes, which were printed in America to the amount of 50,000,000 yen, were brought to Newchwang in the same year. During the civil war between the North and South (1926-28) more of these Mukden-notes were issued, and these were estimated from 800,000,000 dollars to 1,300,000,000 dollars at the end of 1927.

Mukden notes are bank notes not backed by specie reserve, but dependent upon the goodwill and credit of the Mukden Government. Any movement of the political situation at Mukden has most keenly affected these notes. Their value has steadily declined since 1918, and dropped to 167 dollars against 100 silver dollars at the time of the civil war, 1922. When the Kuo Sung-ling's rebellion took place in December, 1925, it fell to 290 dollars. Although it recovered to 260 when the revolt was crushed in January, 1926, it dropped to 600 in July, 1926, when Chang Tso-lin marched to Tientsin. It further dropped to 614 in January, 1927, after Chang entered Peking, and while the big campaign against the South was going on, the Mukden note gradually went down to 1,390 in December.

112 Book Currency

In Manchuria, as in the rest of China, there is a system of book or accounting currency, the units of calculation being known as the Kuping tael, Haikwan tael and transfer tael. None of them exist de facto, either as coins, notes, or in the shape of ingots.

Of these imaginary currencies, the Kuping tael, or the Treasury tael, was originally adopted for the collection of taxes under the regime of the Manchu dynasty. This tael is supposed to be 1,000 fine and to weigh 575.8 grains.

The Haikwan or Customs tael is another fictitious arbitrary financial unit. This tael is the standard by which the Chinese Maritime Customs levies all duties on imports and exports. But all Custom dues are collected in local money at the rate of exchange fixed by the Customs authorities. This tael is supposed to be 1,000 fine and to weigh 583.15 grains troy.

Another book currency is the transfer tael peculiar to Newchwang. But this tael is somewhat different from the above-mentioned fictitious taels in that "it does not pretend to have a certain fineness or weight."

At Newchwang, as in most Manchurian cities, the good sycee, in consequence of financial disturbances since the Boxer trouble and the rise in the price of silver, gradually disappeared from circulation, and became transformed into a mere transfer system of yangchien notes.

113 Foreign Currency

Mexican and Hongkong dollars circulated at Newchwang after its opening to foreign trade in 1860, as in Shanghai or Tientsin. When the construction work of the Chinese Eastern Railway was commenced in 1897, Russian gold roubles circulated along the railway zone in Manchuria. In the same year, the Russo-Asiatic Bank established a branch office at Newchwang, which financed the huge transactions in railway materials. During the Russo-Japanese war (1904-5) both belligerents issued enormous amounts of Military notes. The Japanese military notes alone at one time went up to 150,000,000 yen, and the Russian issue was probably greater. Although the military notes were in circulation all over Manchuria, they were gradually withdrawn. But the growing economic interests of Japan and Russia in Manchuria caused the two countries to circulate their currencies in ever-increasing amounts.

114 Russian Currency

The Russian rouble note was formerly the most powerful foreign currency in Manchuria. They circulated all over the three provinces, as freely in Newchwang, Port Arthur, Dairen, and Mukden, as in Harbin and the northern areas. But after the Russo-Japanese war, the sphere of their circulation was limited to the North. Prior to the great war in Europe, the total amount of Russian currency circulating in Manchuria was estimated at over sixty million roubles.

After the outbreak of war in 1914, the ever-increasing issue of paper regardless of specie reserve caused the rouble note to become inconvertible, and the situation was aggravated by the outbreak of the revolution in 1917 in European Russia, which was followed by political chaos in the Chinese Eastern Railway Zone in the North. At this time the area was flooded with notes of dubious quality — Romanoff and Kerensky notes, the Russian Treasury note, notes issued by the Russo-Asiatic Bank, Harbin Municipality notes, and paper issued by the Chinese Chambers of Commerce at Harbin, Manchouli, and other centres.

Russian subsidiary coins were superseded by postal and savings stamps overprinted with kopek denominations.

Financial disorder of this character continued for several years, until the establishment in 1922 of the state bank of Soviet Russia, and the issue of a new gold rouble note named the chervonetz. This gradually restored credit, and has been adopted as the unit of freight payments by the Chinese Eastern Railway. Subsequently, however, Russian influence being overshadowed by the vigorous policy of Chang Tso-lin, Chinese paper currency, and to a certain extent Japanese currency, penetrated the Railway Zone; the Russian chervonetz fell off, and today its circulation is limited to the Russian community in Harbin. In July, 1927, it was estimated the notes in circulation were no more than 700,000 roubles.

115 Japanese Currency

Japanese currency circulating today in Manchuria, particularly in the Railway Zone and the Leased Territory, are auxiliary coins and silver yen minted in Japan, and notes issued by the Bank of Japan, the Bank of Chosen, and the Yokohama Specie Bank.

The military notes issued by the Japanese Government during the Russo-Japanese war for the use of the armies in Manchuria amounted to 150,000,000 yen. It was a convertible note, payable in Japanese silver yen, and of six denominations, namely, 10 yen and 1 yen, and 50, 20 and 10 sen. Soon after the conclusion of the war, the redemption of the note was entrusted to the Yokohama Specie Bank. It was steadily redeemed, and the amount still outstanding is negligible.

116 Yokohama Specie Bank Silver Note

When the Manchurian trade of Japan, particularly the purchase of soya beans, was growing, the Yokohama Specie Bank opened a branch office at Newchwang in 1899, and commenced business in exchange. Following the practice of other foreign banks in the open ports of China, this office of the Yokohama Specie Bank, in 1903, began to issue silver notes payable at sight in the Japanese silver yen. One year after the conclusion of the Russo-Japanese war, the Japanese Government gave orders to the bank to redeem the military notes issued during the war, and, in consideration thereof, granted the bank the privilege of the note-issue in Manchuria.

This bank-note is of four denominations, of 1, 5, 10, and 100 yen, all payable in Japanese silver yen, and called by the Chinese yin-piao (silver note), or chao-piao (鈔票). The note must be issued only by the branch office in Dairen, and is payable only at this branch. This practice still continues. The note-issue progressed favourably for the first several years, and amounted to over 7,000,000 yen at the end of the year 1911. But the fluctuation in the price of silver was so acute, that the Kwantung Government had to adopt in 1908 the unit of the gold yen in the valuation of its revenue and the South Manchuria Railway in payment of wages, especially for the Japanese employees. In the meantime, the Japanese population gradually increased in the Leased Territory of the Kwantung Peninsula and in the Railway Zone, where the Japanese gold notes issued by the Bank of Japan and its auxiliary currency naturally circulated. In 1913, the Yokohama Specie Bank was finally authorized by an Imperial ordinance to issue notes on gold coins or notes of the Bank of Japan. For this reason the circulation of the Yokohama Specie Bank silver notes steadily declined, until at the close of the year 1915 the amount of those in circulation was but 2,257,000 yen. The gold note-issue of this bank was continued until 1917, when this privilege was transferred exclusively to the Bank of Chosen. By discontinuing the issue of gold notes, the note issue on silver by this Bank did not increase. On the contrary, the note based on silver became more and more difficult owing to the rise in price of silver. Moreover, the Japanese and other foreign dealers in Manchurian beans preferring the gold unit in their transactions, the Produce Exchange of Dairen adopted the gold unit account in 1921. This movement also affected the silver notes issued by the bank, which fell off to 1,037,000 at the end of 1922. Meanwhile the acute fluctuation in the price of silver stopped, and the Produce Exchange of Dairen re-adopted (in 1923) the silver unit in its settlement account. Ever since the note issue of the Yokohama Specie Bank has been on the increase.

The following table shows the movement in value of the Yokohama Specie Bank silver note issue for the last twenty-one years:—

Year	Amount	Year	Amount
1907.....	4,905,000	1913.....	4,049,000
1908.....	3,999,000	1914.....	2,984,000
1909.....	2,856,000	1915.....	2,257,000
1910.....	3,604,000	1916.....	4,121,000
1911.....	7,198,000	1917.....	3,074,000
1912.....	3,439,000	1918.....	2,366,000

1919.....	2,938,000	1923.....	1,484,000
1920.....	1,761,000	1924.....	1,496,000
1921.....	1,037,000	1925.....	3,088,000
1922.....	1,231,000	1926.....	3,305,000
		1927.....	5,460,000

117 The Bank of Chosen Gold Note

The bank-note issued by the Bank of Chosen is practically the same with the gold yen note issued by the Bank of Japan, since it is issued on gold coins, bullion, or the Bank of Japan notes. It was originally legal tender in the Peninsula of Chosen (Korea) only, but the extension of trade in Antung and in the Manchurian frontier districts resulted in its extended use beyond the Korean border; and with the completion in 1911 of the Antung-Mukden Railway, which connects with the Korean Railway, trade between Korea and Manchuria steadily increased, and the gold notes of the Bank of Chosen were found circulating all along the new railway in 1913. The establishment of branches by the bank at Mukden, Dairen, Changchun, Ssuningkai, Kaiyuan, Harbin and Newchwang — important centres along the railways, widened the circulation of the note. In June, 1916, the Bank began issuing fractional notes to serve as subsidiary money to its standard note. The Government of Japan felt the advisability of unifying the gold notes issued by the two banks in Manchuria — the Yokohama Specie Bank and the Bank of Chosen — and it was finally decided in December, 1917, by Imperial ordinances Nos. 217 and 218, that the bank-note issued by the Bank of Chosen should be the sole legal tender in the Leased Territory of Kwantung Province and the South Manchuria Railway Zone. Simultaneously the Yokohama Specie Bank gold-notes amounting to 4,538,340 yen were transferred to the Bank of Chosen to be withdrawn as speedily as possible in favour of the notes of the latter. The amount of the note issue of the Bank of Chosen and the amount of the notes in circulation in Manchuria estimated at the end of each year up to 1927 are shown in the following table:—

Year	Amount of Issue	Estimated Amount in Circulation in Manchuria
1917.....	67,364,000	—
1918.....	115,523,000	19,089,000
1919.....	163,600,000	37,066,000
1920.....	114,034,000	42,342,000
1921.....	134,360,000	46,775,000

1922.....	100,544,000	34,251,000
1923.....	110,233,000	39,174,000
1924.....	129,113,000	45,190,000
1925.....	120,540,000	42,190,000
1926.....	110,939,000	33,829,000
1927.....	124,527,000	43,584,000

There is no means of ascertaining exactly the proportion of notes issued by the Bank of Chosen in circulation in Manchuria, owing to the constant movement of notes to and from Chosen, but the above estimate is the result of careful calculation.

X EDUCATION

118 Education in Manchuria

It is said that, prior to the Boxer outbreak of 1900, there was no real public school system in Manchuria, nor any institution for giving modern education except the few maintained by foreign missionaries. For many years, the village literati gave lessons to boys in the writing and reading of Chinese characters and in domestic etiquette, this kind of school being known as Shuyuan (書院), or Shufang (書房). The higher education was limited to the few persons preparing for the most exacting civil service examination, called Kochu (科舉). A peculiarity of the old Manchu system was the privilege of the military caste to receive the form of instruction called the "Eight Banners Military Learning" (八旗義學). This was given to young men of the military caste of the Eight Banners.

In the later part of the nineteenth century, stimulated by Western civilization, the Chinese began to improve the educational system. Soon after the Boxer trouble, a Government University was established in Peking. On November 26, 1903, regulations governing the new school system, chiefly modelled after the Japanese school system, were promulgated. Subsequently, the old-fashioned civil service examination which had existed for more than a thousand years, since the Tang Dynasty, was abolished. More comprehensive school regulations were promulgated in the first year of the Republican regime, 1911. In November of that year, the Mukden Government issued regulations under which the modern school system was to be gradually evolved.

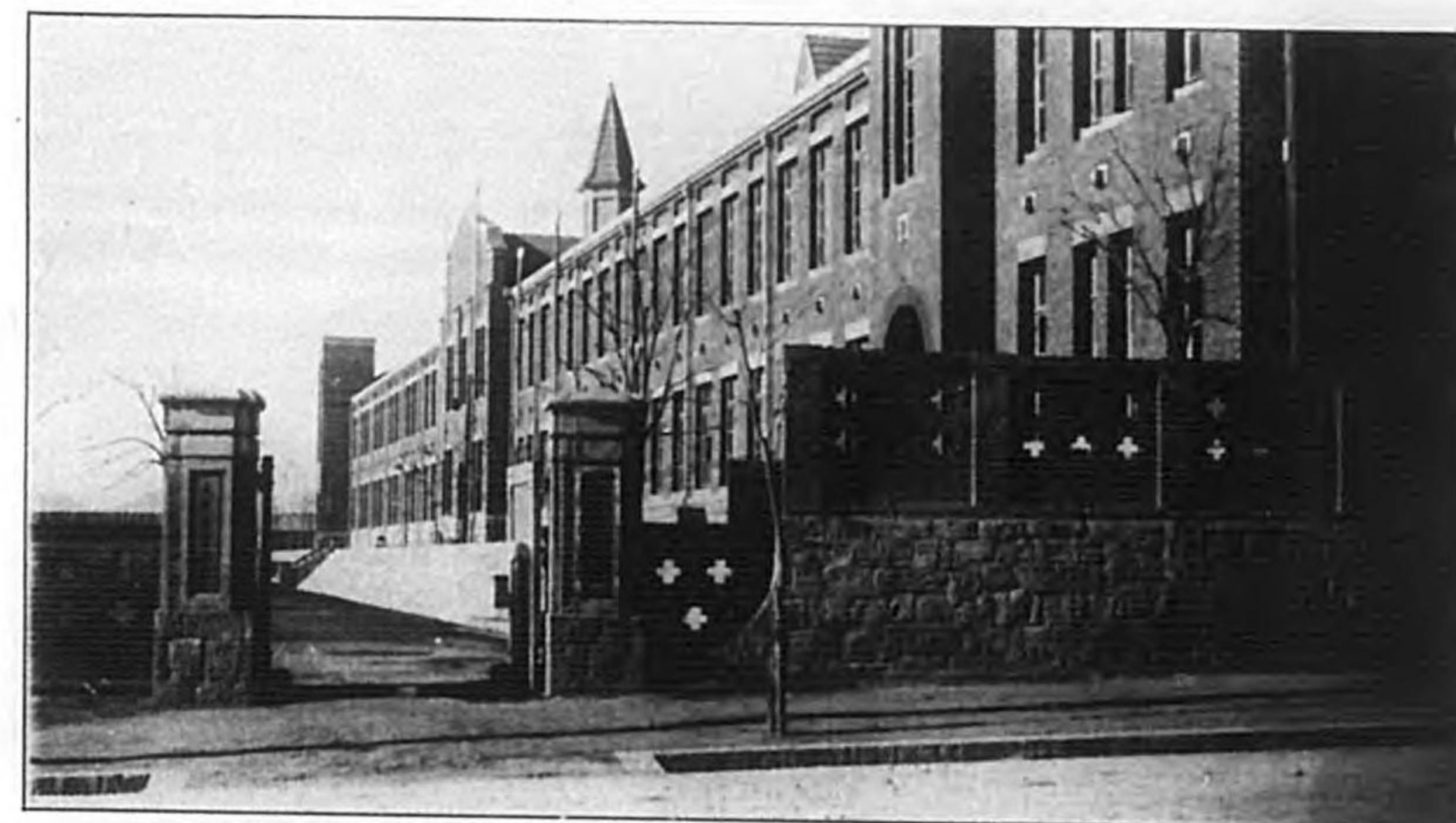
It was the Russians who first brought some sort of modern education into the railway zone of Manchuria. After the Russo-Japanese war, the Japanese educational system was established in the Leased Territory and the Zone of the South Manchuria Railway.

Today, in Manchuria, the Japanese are spending about 7,000,000 yen per year on the educational service in South Manchuria; the Chinese Eastern Railway under Chinese and Russian management defrays about 2,400,000 roubles for educational work; and the Mukden, Kirin, and Amur provincial governments are said to have spent about 5,100,000 Chinese dollars on educational work.

Besides the educational services maintained by the Chinese, Japa-



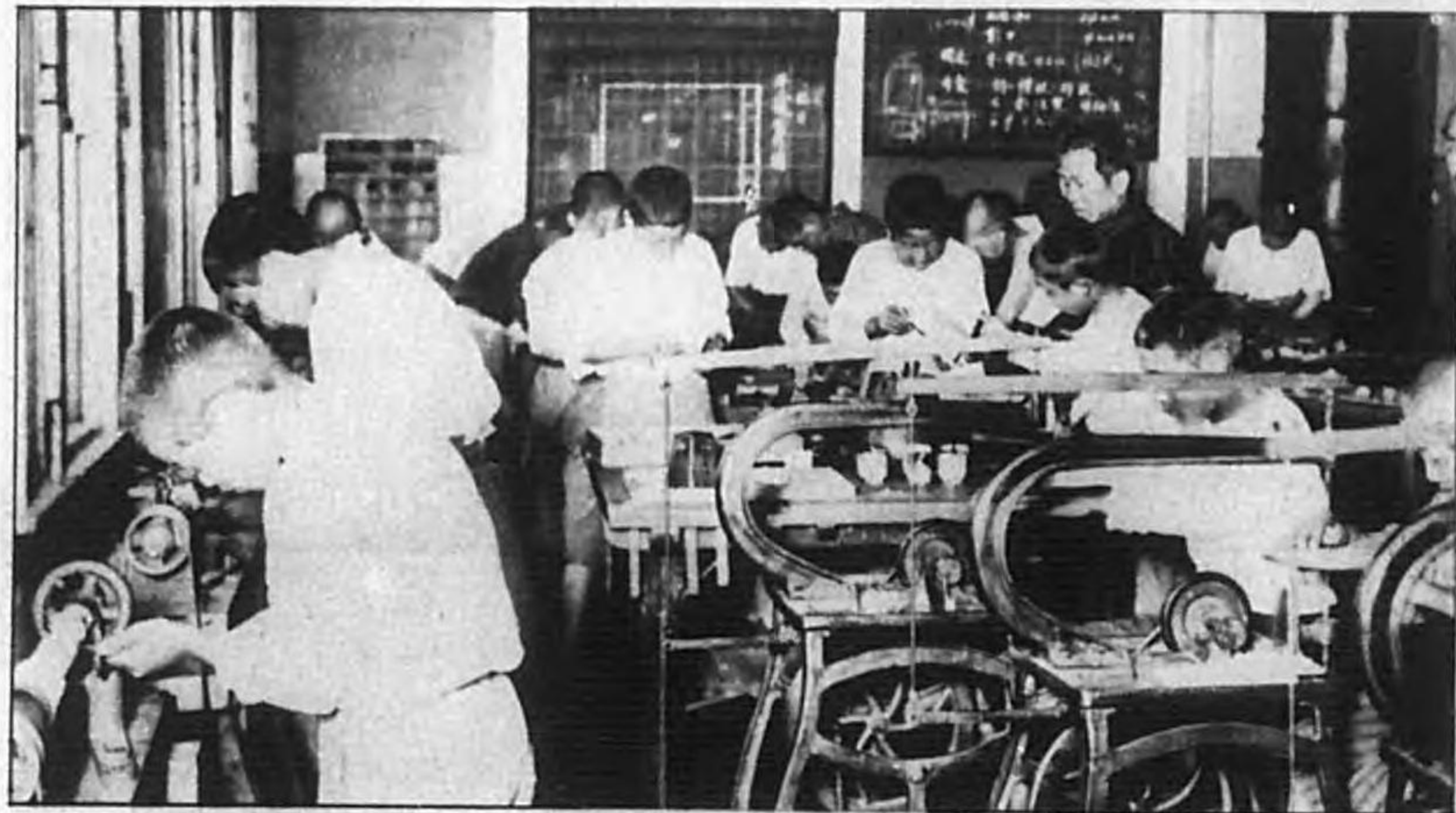
Modern Public School, maintained by the Mukden Government.



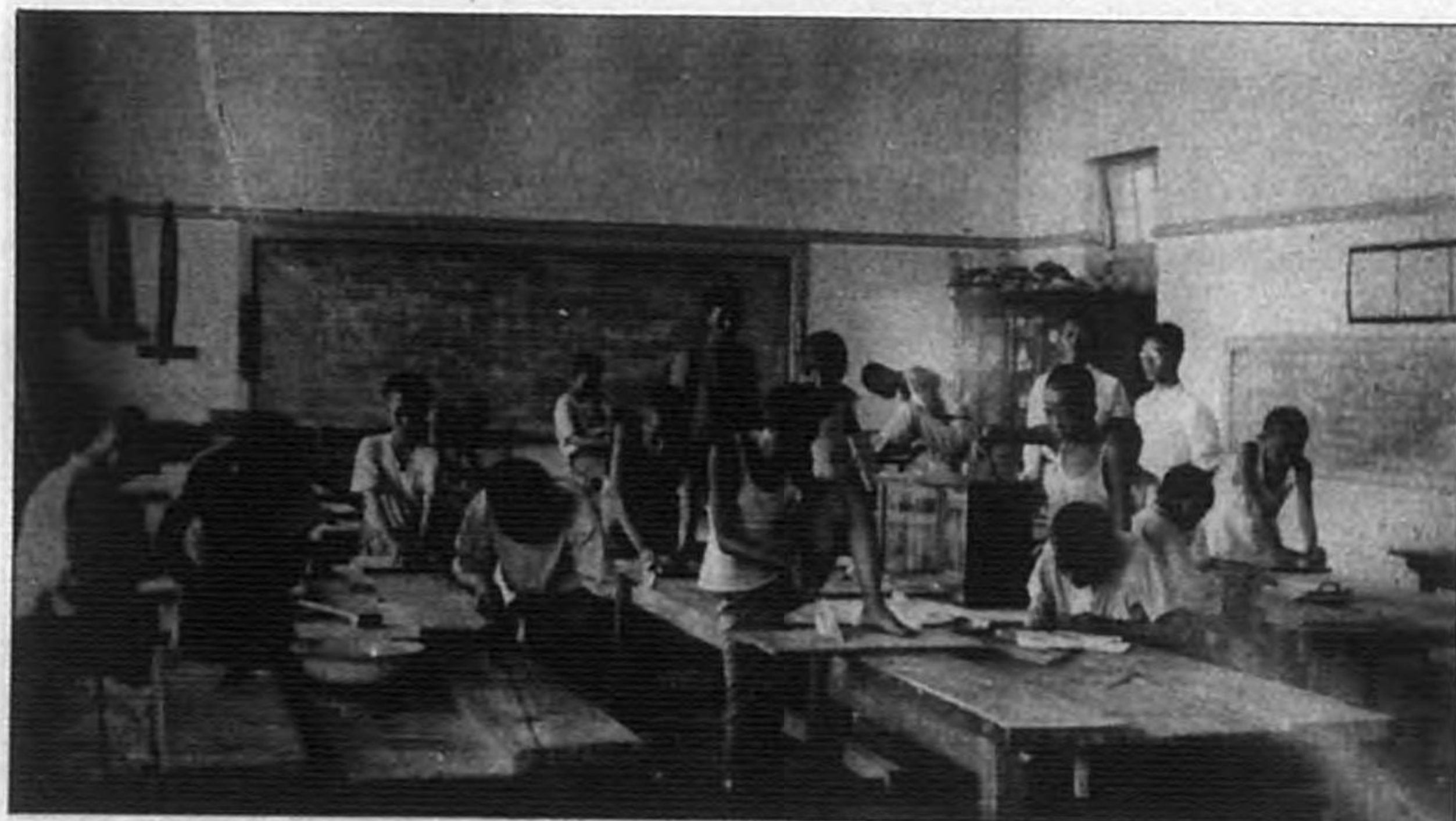
Public School for Chinese, maintained by the S. M. R. at Dairen.



Middle School for Chinese, maintained by the Chinese Eastern Railway at Harbin.



Manual Training given by Public School for Japanese at Antung.



Manual Training given by Public School for Chinese at Fushun.



Dining Hall of Fushun Public School.

nese, and Russians, it should be mentioned that the Irish, Scotch, French, and Danish missionaries for many years participated in educational and medical work in Manchuria.

119 Japanese Educational Service

The educational system maintained in Manchuria by the Japanese, though fundamentally similar to that of Japan proper, is modified so as to meet the conditions peculiar to Manchuria. Schools of the grammar school and high school grades are provided separately for Chinese and Japanese, while co-education for Chinese and Japanese is maintained in the higher professional schools of university grade.

a Schools for Chinese

The public schools (公學堂) of grammar school grade and the middle schools (中學堂) of high school grade, were established and maintained by the Kwantung Government in the Leased Territory and by the South Manchuria Railway Company in the Railway Zone.

The first public school for Chinese in the Leased Territory was that established as early as 1904, in Chinchou, when the area was in military occupation. The public school in the Railway Zone was first established in Kaiping in 1909. They were gradually increased in this region, so that today they number twenty, and the pupils 11,118, as shown in the table below:—

	March 31, 1928			
	No. of Schools	No. of Instructors	No. of Students	Running Expenses
Public Schools in Leased Territory	10	226	8,136	¥406,406
Public Schools in Railway Zone	10	92	2,982	165,429
Total	20	318	11,118	571,835

Instruction is given in the Japanese and Chinese languages, and includes moral teaching, arithmetic, simple physics, and manual training. Besides these schools, the schools of lower grade called common public schools (普通學堂) are maintained by the village communities in the Leased Territory. They were 122 in number, with 472 teachers and pupils aggregating 19,083 as existing on March 31, 1928. Their annual expenditure aggregated 286,352 yen.

With regard to middle school education for Chinese, a school was established at Mukden in 1917 by the South Manchuria Railway

Company, and another at Port Arthur in 1924 by the Kwantung Government. At these institutions are taught the Japanese and Chinese languages, English, history, geography, mathematics, natural history, drawing, physics, chemistry, and manual training. The staffs of these schools, the number of students, and maintenance expenses are shown in the table below:—

	Teachers	Students	Expenses
Port Arthur Middle School	17	189	71,672
South Manchuria Middle School	22	392	102,948
Total	39	581	174,620

The Kwantung Government and the South Manchuria Railway Company have paid as serious attention to the encouragement of industrial education for Chinese boys as to elementary education. The industrial schools, giving necessary instruction to native boys wishing to engage in agriculture, commerce, or mining, according to the local requirements, may be classified as agricultural, commercial, and mining schools. Commercial schools were established in the commercial centres, such as Dairen, Liaoyang, and Yingkou (Newchwang); agricultural schools in the agricultural centres, Hsiungyuehcheng and Kungchuling; and a mining school in the mining town of Fushun.

Further details of these schools are given in the following table:

March 31, 1928				
	Maintained by	Teachers	Students	Expenses
Dairen Commercial School.....	Kwantung Government }	8	84	14,682
Chinchou Agricultural School.....				
Liaoyang Commercial School.....	S. M. R.	7	62	29,353
Yingkou Commercial School	"	11	113	61,710
Fushun Mining School.....	"	7	48	22,828
Hsiungyuehcheng Agricultural School	"	9	81	40,370
Kungchuling Agricultural School ...	"	9	47	41,676
Total.....		51	514	210,619

In order to provide a sound teaching force for native elementary schools, a normal school (師範學堂) was established at Port Arthur by the Kwantung Government.

For training Chinese teachers, a normal school course originally was attached to the middle school at Port Arthur. It became an independent normal school in 1918. Graduates of the higher grade of

the public schools are eligible as students. There are 29 instructors and 216 students. The annual maintenance expense of this school amounts to 163,000 yen.

b Education for Japanese

As Japanese residents were on the increase after the Russo-Japanese war, the Kwantung Government first established two elementary schools for Japanese children as early as 1906, one at Port Arthur and the other at Dairen. In the following year, the South Manchuria Railway Company established similar schools in Liaoyang and Fushun. As the Japanese population increased, the schools increased to 48 in number, with 29,933 pupils, as they existed at the end of March, 1928. The curricula of these schools, though similar to the schools in Japan proper, include the Chinese language and a course of elementary industry in order to fit pupils to the local conditions existing in Manchuria. In addition, there are Japanese elementary schools in Chinchou (錦州), Hsinmintun, Chientao, Manchouli, Hunchun, and Tauerhkou.

Regarding high school education, the necessity of establishing middle schools was soon felt for the benefit of public school graduates. A middle school was first established at Port Arthur in 1909 by the Kwantung Government. Several years later, two middle schools were established in Dairen. Since 1919, four middle schools have been established in the Railway Zone by the South Manchuria Railway Company, one each at Mukden, Anshan, Fushun, and Antung. Subsequently seven girls' high schools were established — at Port Arthur, Dairen, Mukden, Antung, Fushun, and Changchun. The standing of these Japanese middle schools and girls' high schools today is practically as advanced as those in Japan proper.

The following table shows the general features of public schools, middle schools, and girls' high schools in the Leased Territory and the Railway Zone:

March 31, 1928					
	Location	Schools	Teachers	Students	Expenses
Public Schools	Leased Territory ...	19	357	12,517	930,056
	Railway Zone.....	29	398	13,416	910,401
	Total	48	755	25,933	1,840,457
Middle Schools	Leased Territory ...	3	114	2,118	359,700
	Railway Zone.....	4	88	1,706	315,470
	Total	7	202	3,824	675,170

Girls' High Schools	Leased Territory ...	3	101	2,051	273,380
	Railway Zone.....	4	82	1,485	275,864
	Total	7	183	3,536	549,244

As to commercial training for Japanese, a commercial school was established at Dairen in 1910 by the Oriental Association, of Tokyo, while another was established at Changchun in 1920 by the South Manchuria Railway Company. In their curricula, which are practically the same as those of similar schools in Japan proper, the teaching of the Chinese and Russian languages is much emphasized. The following table shows the number of instructors and students and running expenses of these schools:—

March 31, 1928				
	Founder	Teachers	Students	Expenses
Dairen Commercial School.....	Oriental Association	30	1,148	152,560
Changchun Commercial School	S. M. R.	24	371	91,700
Total		54	1,519	244,260

For advanced education in the professions, the higher professional school system of Japan proper has been introduced to South Manchuria. There are three colleges, the South Manchuria Technical College, the Manchuria Normal College, and the Russo-Japanese Association's College. The Technical College was established by the South Manchuria Railway Company at Dairen, and consists of two departments: Constructive and Mechanical Engineering. The former is divided into four sections: Architecture, Civil Engineering, Mining, and Agricultural Engineering, the latter being divided into four sub-sections: Electricity, Machine-Making, Railway Machinery and Mining Machinery.

In order to foster skilled labour, an elementary training course is attached to this College. The Normal College, established in 1924 at Mukden by the South Manchuria Railway Company, has two Departments: Literature and Science. The Russo-Japanese Association's College was established in 1920 at Harbin by the Russo-Japanese Association, of Tokyo. The staffs, etc. at these institutions are:—

March 31, 1928				
		Instructors	Students	Expenses
South Manchuria Technical College	Dairen	52	228	211,418
Manchuria Normal College	Mukden	25	115	146,034
Russo-Japanese Association's College.....	Harbin	20	124	151,138

c University Education

Chinese and Japanese graduating from the middle schools, desiring advanced work in science and professional training, usually had to go to Japan or other countries. In order to give every possible advantage to these young men, the Kwantung Government first established in 1910 a technical college at Port Arthur, and the South Manchuria Railway Company founded a medical college at Mukden in 1911. In order to meet the trend of the times, especially after the great European war, these colleges were advanced to university grade, providing a three-year course, to which was added a three-year preparatory course. For Chinese students, a year's course in the Japanese language is provided before their entrance to the preparatory course. The medical university at Mukden will be treated more fully in the section on Medical Education in the following chapter dealing with Sanitation. The Technical University maintains three departments, i. e., Mechanical Engineering, Electrical Engineering, and Mining and Metallurgy.

The table below shows the numbers of the faculties and students at these universities and running expenses as they existed at the end of March, 1928:—

	Professors	Studies	Students	Expenses
Technical University.....	68	{ University Course 18 Preparatory Course 210 }		634,484
Medical University	80	{ University Course 195 College Course 102 Preparatory Course 231 }		579,294

d Education for Koreans

Korean migration into Manchuria has a long history. Since the Sino-Japanese war, and specially after the Russo-Japanese war, immigration has been on the increase particularly in the Chientao districts, and in the suburbs of Harbin, Changchun, Kirin, Mukden, and Antung. The Korean population in Manchuria is estimated at between 750,000 and 1,000,000, and most of the settlers are engaged in rice and millet cultivation.

In the education of Korean children in the Railway Zone, the South Manchuria Railway Company is also participating. There are eight common schools for Korean children with 1,853 pupils, as they existed at the end of March, 1928. Some of these schools were built and are maintained by the Company, and the others by its help. The Government-General of Korea also extends pecuniary assistance in the

Chientao districts. In the fiscal year 1928, 47,581 yen were allocated in this way by the South Manchuria Railway Company and 21,196 yen by the Government-General of Chosen. In addition, there are about 440 Korean common schools maintained outside the Railway Zone by the Korean village communities or associations. The home Government at Seoul, the Government-General, affords pecuniary assistance if such be applied for.

The following table shows the distribution of Korean schools in Manchuria:

	Schools	Pupils
S. M. R. Zone	8	1,853
Harbin District	21	238
Changchun District	3	228
Antung "	6	160
Mukden "	40	1,601
Tiehling "	21	1,173
Chiengchiatun "	3	170
Kirin "	21	587
Chientao District and Honchun	443	22,086
Total.....	566	28,096

120 Chinese Educational Service

Concerning modern education in Manchuria, the Mukden, Kirin, and Amur provincial governments are endeavoring to improve their systems. The Mukden Government promulgated in December, 1922 the summarized regulations of the educational system, in which the first article declares that the fundamental object of education should be moral teaching and industrial training. The second article provides the school system—the public school, middle school, and university, besides the normal school and professional college. One or more public schools must be established in each prefecture, district, and village. There are a number of modern schools today. The middle school of primary grade must be maintained by the prefecture, and the higher grade of this school by the province.

Seven middle schools of higher grade have been established, and there are 7,800 students. Six normal schools have a total of students estimated at about 4,000. There are schools of higher education, i. e. the Chinese Literature College, the Technical College, and the North-Eastern University. Of these, the latter is the most important. It was established in April, 1923 at Mukden, at the cost of 2,800,000 dollars, when Mr. Wang Yung-chiang was the Governor of Mukden

province. The Governor himself was the first president of the institution. The University has six Departments—Literature, Pure Science, Law, Commerce, Agriculture, and a Post Graduate course. The course of study is between three and four years, and graduates of the higher grade of middle school are eligible as students. There were 198 students in the several courses, and 377 students in the preparatory course, making the total 575, according to returns for 1926. The university was originally established by the co-operation of the Mukden and Kirin Governments, but the running expenses, amounting to about 400,000 Chinese dollars per year, are said to be defrayed chiefly by the Mukden Government.

121 Russian Educational Service

Since the building of the Chinese Eastern Railway, a number of primary schools, high schools, commercial schools, language schools, besides technical and medical schools, have been established in the Russian Railway Zone. Some of them were maintained or supported by the Railway, while others were maintained or supported by the municipalities and private associations. Since the Revolution, however, educational activities in the North have been a great deal checked.

Subsequently, after the Railway had been brought under the joint management of Russia and China, the administrative power in the Railway Zone being restored to China, the Chinese authority claimed to control all schools in the Zone. A compromise agreement was made in December, 1927. By this agreement, the Chinese Eastern Railway Company is to defray annually 2,400,000 roubles as school expenses of both the Chinese and Russian sides. According to the Annual Report of the Chinese Eastern Railway of 1926, there were 16 Chinese primary or common schools with 1,477 pupils in 1925. Russian common schools numbered 47 with 8,065 pupils in the same year, besides one having a nine-year course at Harbin. In addition, there were 19 common schools supported by the Railway, and seven Russian middle schools partly supported by the Railway.

For professional education, there are a law school, commercial college, normal school, Sino-Russian technical university, and a medical university, all at Harbin. Of these, Harbin Law School maintains several courses of law, economics, commerce, railways, and Oriental economics. This school provides a preparatory course in the Russian language for Chinese students. Its faculty numbered 33 and students 662 in January, 1927. The Sino-Russian Technical University

was originally a technical college, established in 1920, but was advanced to university grade in 1923. It has three departments, i.e. civil engineering, electricity, and mechanics. The main course of study requires five years, including a preparatory course of three years for Chinese studying the Russian language.

122 Missionaries in Educational Work

Europeans of the Roman Catholic faith, coming from North China missions are reported to have established themselves in Manchuria in the beginning of the 19th century. After Newchwang was opened to trade, the Scottish Mission and the Presbyterian Church of Ireland started missionary work at this port, and gradually expanded to Mukden, Kirin and Liaoyang. The Danish Missionary Society (Danske Missionselskab) commenced work soon after the Sino-Japanese war, at Port Arthur, and later penetrated to Fenghuangcheng, Antung, and North Korea. With the Boxer trouble, and up to the end of the Russo-Japanese war, the work of foreign missionaries was checked, but they resumed activities after the war.

Foreign missions are also participating in educational and medical work. It was reported in 1917 that there were several kindergartens, 200 grammar schools, 36 grammar schools of higher grade, and 20 middle schools in existence. Of schools of college grade, the Theological College, Manchurian Christian College (College of Literature), and Mukden Medical College were maintained by the missionaries.

XI SANITATION

123 Sanitary Condition in Manchuria

Contrary to conditions in a tropical country, Manchuria, lying in the temperate zone like the northern part of Europe in which climate, humidity and rainfall are very similar, should be a healthy country. Various plagues and infectious diseases, however, have often threatened both human beings and cattle. Until very recently, even important towns and crowded quarters everywhere were left in filthy condition and proper hygienic care was often completely neglected.

With the Russian advent, modern systems of hospitals and water-works were introduced in the Railway Zone. During the Russo-Japanese war, the Japanese army at once set up with characteristic thoroughness the most complete hygienic measures in South Manchuria, then under military occupation. With the restoration of peace Baron Goto (later Count), the first President of the South Manchuria Railway Company, then acting as Adviser to the Kwantung Government, being himself a physician, took the initiative in adopting thorough sanitary measures in the Leased Territory and the Railway Zone. In these regions, the public hygienic system has made great progress in the last two decades. It is a happy omen that the Chinese authorities in Manchuria, stimulated by the example in sanitary measures set by the Japanese and Russians, have begun to adopt sanitary measures at least in the big cities, such as Mukden and Harbin. They have also shown a conciliatory spirit, when co-operative measures in preventing plagues and cholera were required by the Japanese and other nationals.

124 Japanese Hygienic Services

a Administration

The hygienic administration in the Leased Territory and Railway Zone is controlled by the Police Bureau of the Kwantung Government, but administrative measures in the Railway Zone are entrusted to the Local Affairs Department of the South Manchuria Railway. Quarantine and other hygienic matters in the harbors of Dairen and Port Arthur come under the jurisdiction of the Marine Bureau of the