## CHAPTER XIV

## INDUSTRIALISM IN CHINA

China is as yet only slightly industrialized, but the industrial possibilities of the country are very great, and it may be taken as nearly certain that there will be a rapid development throughout the next few decades. China's future depends as much upon the manner of this development as upon any other single factor; and China's difficulties are very largely connected with the present industrial situation. I will therefore first briefly describe this situation, and then consider the possibilities of the near future.

We may take railways and mines as the foundation of a nation's industrial life. Let us therefore consider first the railways and then the mines, before going on to other matters.

When railways were new, the Manchu Government, like the universities of Oxford and Cambridge (which it resembled in many ways), objected to them, and did all it could to keep them at a distance.[99] In 1875 a short line was built by foreigners from Shanghai to Woosung, but the Central Government was so shocked that it caused it to be destroyed. In 1881 the first permanent railway was constructed, but not very much was accomplished until after the Japanese War of 1894-5. The Powers then thought that China was breaking up, and entered upon a scramble for

concessions and spheres of influence. The Belgians built the important line from Peking to Hankow; the Americans obtained a concession for a Hankow-Canton railway, which, however, has only been constructed as far as Changsha. Russia built the Manchurian Railway, connecting Peking with the Siberian Railway and with Europe. Germany built the Shantung Railway, from Tsingtau to Tsinanfu. The French built a railway in the south. England sought to obtain a monopoly of the railways in the Yangtze valley. All these railways were to be owned by foreigners and managed by foreign officials of the respective countries which had obtained the concessions. The Boxer rising, however, made Europe aware that some caution was needed if the Chinese were not to be exasperated beyond endurance. After this, ownership of new railways was left to the Chinese Government, but with so much foreign control as to rob it of most of its value. By this time, Chinese public opinion had come to realize that there must be railways in China, and that the real problem was how to keep them under Chinese control. In 1908, the Tientsin-Pukow line and the Shanghai-Hangchow line were sanctioned, to be built by the help of foreign loans, but with all the administrative control in the hands of the Chinese Government. At the same time, the Peking-Hankow line was bought back by the Government, and the Peking-Kalgan line was constructed by the Chinese without foreign financial assistance. Of the big main lines of China, this left not much foreign control outside the Manchurian Railway (Chinese Eastern Railway) and the Shantung Railway. The first of these is mainly under foreign control and must now be regarded as permanently lost, until such time as China becomes strong enough to defeat Japan in war; and the whole of Manchuria has come more

or less under Japanese control. But the Shantung Railway, by the agreement reached at Washington, is to be bought back by China--five years hence, if all goes well. Thus, except in regions practically lost to China, the Chinese now have control of all their more important railways, or will have before long. This is a very hopeful feature of the situation, and a distinct credit to Chinese sagacity.

Putnam Weale (Mr. Lennox Simpson) strongly urges--quite rightly, as I think--the great importance of nationalizing all Chinese railways. At Washington recently, he helped to secure the Shantung Railway award, and to concentrate attention on the railway as the main issue. Writing early in 1919, he said[100]:--

The key to the proper control of China and the building-up of the new Republican State is the railway key.... The revolution of 1911, and the acceptance in principle of Western ideas of popular government, removed the danger of foreign provinces being carved out of the old Manchu Empire. There was, however, left behind a more subtle weapon. This weapon is the railway. Russia with her Manchurian Railway scheme taught Japan the new method. Japan, by the Treaty of Portsmouth in 1905, not only inherited the richer half of the Manchurian railways, but was able to put into practice a new technique, based on a mixture of twisted economics, police control, and military garrisons. Out of this grew the latter-day highly developed railway-zone which, to all intents and purposes, creates a new type of foreign enclave,

subversive of the Chinese State. The especial evil to-day is that Japan has transferred from Manchuria to Shantung this new technique, which ... she will eventually extend into the very heart of intramural China ... and also into extramural Chihli and Inner Mongolia (thus outflanking Peking) unless she is summarily arrested. At all costs this must be stopped. The method of doing so is easy: It is to have it laid down categorically, and accepted by all the Powers, that henceforth all railways on Chinese soil are a vital portion of Chinese sovereignty and must be controlled directly from Peking by a National Railway Board; that stationmasters, personnel and police, must be Chinese citizens, technical foreign help being limited to a set standard; and that all railway concessions are henceforth to be considered simply as building concessions which must be handed over, section by section, as they are built, to the National Railway Board.

If the Shantung Railway Agreement is loyally carried out, this reform--as to whose importance I quite agree with Putnam Weale--will have been practically completed five years hence. But we must expect Japan to adopt every possible means of avoiding the carrying out of her promises, from instigating Chinese civil war to the murdering of Japanese employees by Japanese secret agents masquerading as Chinese. Therefore, until the Chinese actually have complete control of the Shantung Railway, we cannot feel confident that they will ever get it.

It must not be supposed that the Chinese run railways badly. The Kalgan

Railway, which they built, is just as well built as those constructed by foreigners; and the lines under Chinese administration are admirably managed. I quote from Mr. Tyau[101] the following statistics, which refer to the year 1919: Government railways, in operation, 6027 kilometres; under construction, 383 kilometres; private and provincial railways, 773 kilometres; concessioned railways, 3,780 kilometres.

Total, 10,963 kilometres, or 6,852 miles. (The concessioned railways are mainly those in Manchuria and Shantung, of which the first must be regarded as definitely lost to China, while the second is probably recovered. The problem of concessioned railways has therefore no longer the importance that it had, though, by detaching Manchuria, the foreign railway has shown its power for evil). As regards financial results, Mr. Tyau gives the following figures for the principal State railways in 1918:--

Name of Line. Kilometres Year Per cent, earned
Operated. Completed. on Investment.

Peking-Mukden	987	1897	22.7
Peking-Hankow	1306	1905	15.8
Shanghai-Nanking 327		1908	6.2
Tientsin-Pukow	1107	1912	6.2
Peking-Suiyuan	490	1915	5.6

Subsequent years, for which I have not the exact figures, have been less prosperous.

I cannot discover any evidence of incompetence in Chinese railway administration. On the contrary, much has been done to overcome the evils due to the fact that the various lines were originally constructed by different Powers, each following its own customs, so that there was no uniformity, and goods trucks could not be moved from one line on to another. There is, however, urgent need of further railways, especially to open up the west and to connect Canton with Hankow, the profit of which would probably be enormous.

Mines are perhaps as important as railways, for if a country allows foreign control of its mineral resources it cannot build up either its industries or its munitions to the point where they will be independent of foreign favour. But the situation as regards mining is at present far from satisfactory. Mr. Julean Arnold, American Commercial Attaché at Peking, writing early in 1919, made the following statement as regards China's mineral resources:--

China is favoured with a wonderful wealth in coal and in a good supply of iron ore, two essentials to modern industrial development. To indicate how little China has developed its marvellous wealth in coal, this country imported, during 1917, 14,000,000 tons. It is estimated that China produces now 20,000,000 tons annually, but it is supposed to have richer resources in coal than has the United States which, in 1918, produced 650,000,000 tons. In iron ore it has been estimated that

China has 400,000,000 tons suitable for furnace reaction, and an additional 300,000,000 tons which might be worked by native methods. During 1917, it is estimated that China's production of pig iron was 500,000 tons. The developments in the iron and steel industry in China are making rapid strides, and a few years hence it is expected that the production of pig iron and of finished steel will be several millions of tons annually.... In antimony and tin China is also particularly rich, and considerable progress has taken place in the mining and smelting of these ores during the past few years. China should jealously safeguard its mineral wealth, so as to preserve it for the country's welfare.[102]

The China Year Book for 1919 gives the total Chinese production of coal for 1914 as 6,315,735 tons, and of iron ore at 468,938 tons.[103] Comparing these with Mr. Arnold's figures for 1917, namely 20,000,000 tons of coal and 500,000 tons of pig iron (not iron ore), it is evident that great progress was made during those three years, and there is every reason to think that at least the same rate of progress has been maintained. The main problem for China, however, is not rapid development, but national development. Japan is poor in minerals, and has set to work to acquire as much as possible of the mineral wealth of China. This is important to Japan, for two different reasons: first, that only industrial development can support the growing population, which cannot be induced to emigrate to Japanese possessions on the mainland; secondly, that steel is an indispensable requisite for

imperialism.

The Chinese are proud of the Kiangnan dock and engineering works at Shanghai, which is a Government concern, and has proved its capacity for shipbuilding on modern lines. It built four ships of 10,000 tons each for the American Government. Mr. S.G. Cheng[104] says:--

For the construction of these ships, materials were mostly supplied by China, except steel, which had to be shipped from America and Europe (the steel produced in China being so limited in quantity, that after a certain amount is exported to Japan by virtue of a previous contract, little is left for home consumption).

Considering how rich China is in iron ore, this state of affairs needs explanation. The explanation is valuable to anyone who wishes to understand modern politics.

The China Year Book for 1919[105] (a work as little concerned with politics as Whitaker's Almanack) gives a list of the five principal iron mines in China, with some information about each. The first and most important are the Tayeh mines, worked by the Hanyehping Iron and Coal Co., Ltd., which, as the reader may remember, was the subject of the third group in the Twenty-one Demands. The total amount of ore in sight is estimated by the China Year Book at 50,000,000 tons, derived chiefly from two mines, in one of which the ore yields 65 per cent. of

iron, in the other 58 to 63 per cent. The output for 1916 is given as 603,732 tons (it has been greatly increased since then). The Year Book proceeds: "Japanese capital is invested in the Company, and by the agreement between China and Japan of May 1915 [after the ultimatum which enforced the revised Twenty-one Demands], the Chinese Government undertook not to convert the Company into a State-owned concern nor to compel it to borrow money from other than Japanese sources." It should be added that there is a Japanese accountant and a Japanese technical adviser, and that pig-iron and ore, up to a specified value, must be sold to the Imperial Japanese works at much below the market price, leaving a paltry residue for sale in the open market.[106]

The second item in the China Year Book's list is the Tungkuan Shan mines. All that is said about these is as follows: "Tungling district on the Yangtze, 55 miles above Wuhu, Anhui province. A concession to work these mines, granted to the London and China Syndicate (British) in 1904, was surrendered in 1910 for the sum of £52,000, and the mines were transferred to a Chinese Company to be formed for their exploitation." These mines, therefore, are in Chinese hands. I do not know what their capacity is supposed to be, and in view of the price at which they were sold, it cannot be very great. The capital of the Hanyehping Co. is \$20,000,000, which is considerably more than £52,000. This was the only one of the five iron mines mentioned in the Year Book which was not in Japanese hands at the time when the Year Book was published.

Next comes the Taochung Iron Mine, Anhui province. "The concession which

was granted to the Sino-Japanese Industrial Development Co. will be worked by the Orient Steel Manufacturing Co. The mine is said to contain 60,000,000 tons of ore, containing 65 per cent. of pure iron. The plan of operations provides for the production of pig iron at the rate of 170,000 tons a year, a steel mill with a capacity of 100,000 tons of steel ingots a year, and a casting and forging mill to produce 75,000 tons a year."

The fourth mine is at Chinlingchen, in Shantung, "worked in conjunction with the Hengshan Colliery by the railway." I presume it is to be sold back to China along with the railway.

The fifth and last mine mentioned is the Penhsihu Mine, "one of the most promising mines in the nine mining areas in South Manchuria, where the Japanese are permitted by an exchange of Notes between the Chinese and Japanese Governments (May 25, 1915) to prospect for and operate mines. The seam of this mine extends from near Liaoyang to the neighbourhood of Penhsihu, and in size is pronounced equal to the Tayeh mine." It will be observed that this mine, also, was acquired by the Japanese as a result of the ultimatum enforcing the Twenty-one Demands. The Year Book adds: "The Japanese Navy is purchasing some of the Penhsihu output. Osaka ironworks placed an order for 15,000 tons in 1915 and the arsenal at Osaka in the same year accepted a tender for Penhsihu iron."

It will be seen from these facts that, as regards iron, the Chinese have allowed the Japanese to acquire a position of vantage from which they can only be ousted with great difficulty. Nevertheless, it is absolutely imperative that the Chinese should develop an iron and steel industry of their own on a large scale. If they do not, they cannot preserve their national independence, their own civilization, or any of the things that make them potentially of value to the world. It should be observed that the chief reason for which the Japanese desire Chinese iron is in order to be able to exploit and tyrannize over China. Confucius, I understand, says nothing about iron mines;[107] therefore the old-fashioned Chinese did not realize the importance of preserving them. Now that they are awake to the situation, it is almost too late. I shall come back later to the question of what can be done. For the present, let us continue our survey of facts.

It may be presumed that the population of China will always be mainly agricultural. Tea, silk, raw cotton, grain, the soya bean, etc., are crops in which China excels. In production of raw cotton, China is the third country in the world, India being the first and the United States the second. There is, of course, room for great progress in agriculture, but industry is vital if China is to preserve her national independence, and it is industry that is our present topic.

To quote Mr. Tyau: "At the end of 1916 the number of factory hands was officially estimated at 560,000 and that of mine workers 406,000. Since then no official returns for the whole country have been published ... but perhaps a million each would be an approximate figure for the present number of factory operatives and mine workers." [108] Of course,

the hours are very long and the wages very low; Mr. Tyau mentions as specially modern and praiseworthy certain textile factories where the wages range from 15 to 45 cents a day.[109] (The cent varies in value, but is always somewhere between a farthing and a halfpenny.) No doubt as industry develops Socialism and labour unrest will also develop. If Mr. Tyau is to be taken as a sample of the modern Chinese governing classes, the policy of the Government towards Labour will be very illiberal. Mr. Tyau's outlook is that of an American capitalist, and shows the extent to which he has come under American influence, as well as that of conservative England (he is an LL.D. of London). Most of the Young Chinese I came across, however, were Socialists, and it may be hoped that the traditional Chinese dislike of uncompromising fierceness will make the Government less savage against Labour than the Governments of America and Japan.

There is room for the development of a great textile industry in China.

There are a certain number of modern mills, and nothing but enterprise is needed to make the industry as great as that of Lancashire.

Shipbuilding has made a good beginning in Shanghai, and would probably develop rapidly if China had a flourishing iron and steel industry in native hands.

The total exports of native produce in 1919 were just under £200,000,000 (630,000,000 taels), and the total imports slightly larger. It is better, however, to consider such statistics in taels, because currency

fluctuations make the results deceptive when reckoned in sterling. The tael is not a coin, but a certain weight of silver, and therefore its value fluctuates with the value of silver. The China Year Book gives imports and exports of Chinese produce for 1902 as 325 million taels and 214 million taels respectively; for 1911, as 482 and 377; for 1917, as 577 and 462; for 1920, as 762 and 541. (The corresponding figures in pounds sterling for 1911 are 64 millions and 50 millions; for 1917, 124 millions and 99,900,000.) It will thus be seen that, although the foreign trade of China is still small in proportion to population, it is increasing very fast. To a European it is always surprising to find how little the economic life of China is affected by such incidents as revolutions and civil wars.

Certain principles seem to emerge from a study of the Chinese railways and mines as needing to be adopted by the Chinese Government if national independence is to be preserved. As regards railways, nationalization is obviously desirable, even if it somewhat retards the building of new lines. Railways not in the hands of the Government will be controlled, in the end if not in the beginning, by foreigners, who will thus acquire a power over China which will be fatal to freedom. I think we may hope that the Chinese authorities now realize this, and will henceforth act upon it.

In regard to mines, development by the Chinese themselves is urgent, since undeveloped resources tempt the greed of the Great Powers, and development by foreigners makes it possible to keep China enslaved. It

should therefore be enacted that, in future, no sale of mines or of any interest in mines to foreigners, and no loan from foreigners on the security of mines, will be recognized as legally valid. In view of extra-territoriality, it will be difficult to induce foreigners to accept such legislation, and Consular Courts will not readily admit its validity. But, as the example of extra-territoriality in Japan shows, such matters depend upon the national strength; if the Powers fear China, they will recognize the validity of Chinese legislation, but if not, not. In view of the need of rapid development of mining by Chinese, it would probably be unwise to nationalize all mines here and now. It would be better to provide every possible encouragement to genuinely Chinese private enterprise, and to offer the assistance of geological and mining experts, etc. The Government should, however, retain the right (a) to buy out any mining concern at a fair valuation; (b) to work minerals itself in cases where the private owners fail to do so, in spite of expert opinion in favour of their being worked. These powers should be widely exercised, and as soon as mining has reached the point compatible with national security, the mines should be all nationalized, except where, as at Tayeh, diplomatic agreements stand in the way. It is clear that the Tayeh mines must be recovered by China as soon as opportunity offers, but when or how that will be it is as yet impossible to say. Of course I have been assuming an orderly government established in China, but without that nothing vigorous can be done to repel foreign aggression. This is a point to which, along with other general questions connected with the industrializing of China, I shall return in my last chapter.

It is said by Europeans who have business experience in China that the Chinese are not good at managing large joint-stock companies, such as modern industry requires. As everyone knows, they are proverbially honest in business, in spite of the corruption of their politics. But their successful businesses--so one gathers--do not usually extend beyond a single family; and even they are apt to come to grief sooner or later through nepotism. This is what Europeans say; I cannot speak from my own knowledge. But I am convinced that modern education is very quickly changing this state of affairs, which was connected with Confucianism and the family ethic. Many Chinese have been trained in business methods in America; there are Colleges of Commerce at Woosung and other places; and the patriotism of Young China has led men of the highest education to devote themselves to industrial development. The Chinese are no doubt, by temperament and tradition, more suited to commerce than to industry, but contact with the West is rapidly introducing new aptitudes and a new mentality. There is, therefore, every reason to expect, if political conditions are not too adverse, that the industrial development of China will proceed rapidly throughout the next few decades. It is of vital importance that that development should be controlled by the Chinese rather than by foreign nations. But that is part of the larger problem of the recovery of Chinese independence, with which I shall deal in my last chapter.