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**THE SPIRIT OF  
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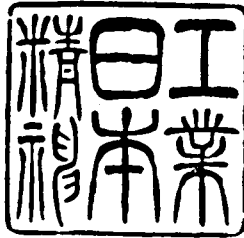
THE AUTHOR

# THE SPIRIT OF JAPANESE INDUSTRY

BY

GINJIRO FUJIHARA

MEMBER OF THE HOUSE OF PEERS  
PRESIDENT OF THE OJI PAPER COMPANY



Tokyo

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## FOREWORD

The Japanese book entitled "Kogyo Nihon Seishin," of which this is a translation, was an outcome of a series of lectures given in 1934. It was written for my own countrymen, whom I wished to inspire with confidence in the future of Japanese industry. Since the book was published in the latter part of 1935, it has enjoyed a large circulation, and suggestions for an English version have come to the author from a number of friends. It has been pointed out to me that the position of Japanese industry will be understood better abroad, if the book is made accessible to the English-reading public. The world is beginning to realize that the industrial structure of Japan is not a mushroom phenomenon, but only those who come to Japan and see with their own eyes can understand why articles of excellent quality are produced in Japan at a cost so low as to seem inconceivable.

It is in the humble hope of enabling a greater number of people to form a more adequate idea of Japanese industry that I have made up my mind to present my little book in new garb. I have known the translator for a number of years, and have confidence in his ability to render my thoughts into English.

GINJIRO FUJIHARA

Tokyo  
August, 1936

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## THE TRANSLATOR'S PREFACE

The author is so well-known among our own people that he needs no introduction in Japan, but I hope that a few words about his position in Japan's industry of the present day may interest some readers of the English edition.

Mr. Fujihara is not an old man, but his able administration for a quarter-century as Chief Executive of the Oji Paper Company is preceded by a brilliant record of important positions held in Mitsui & Co., which is a huge trading concern with branches in all the principal commercial centres of the world. The author is an optimistic industrialist, but has never been either an opportunist or a visionary. He formulates all his projects on the soundest principles, and carries them out no less conservatively. Yet Mr. Fujihara believes in forging ahead, and the dominating position of his company is an outstanding achievement.

When Mr. Fujihara was invited to reorganize the Oji Paper Company in 1911, the capital was 6,000,000 yen, and his predecessors had not paid any dividend for several years. Under his distinguished leadership the corporation has grown stronger financially, while the business has expanded from year to year, the capital today being 300,000,000 yen. This book is not a piece of scholarly work, but it is hoped that what a captain of Japanese industry has to say may be of interest to those who care to have a deeper insight into the economic life of the Japanese nation.

Mr. Fujihara has a seat in the House of Peers as a life member, which is an imperial appointment for men of distinguished services. He does not take an active part in politics, but keeps in close touch with all the important affairs of the State.



I have had the privilege of working under Mr. Fujihara for many years, and the work of translation has all along been a genuine pleasure.

It is with sincere appreciation that I acknowledge my indebtedness to Prof. William Bradford Smith of St. Paul's University, Tokyo. In addition to undertaking the tedious work of revising the manuscript, he made several suggestions which I found helpful in publishing this book.

YASUNOSUKE FUKUKITA

Tokyo  
August, 1936

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*(Specially painted by Arisuné Hattori.)*

**PART I**  
**THE PHENOMENAL DEVELOPMENT OF**  
**JAPANESE INDUSTRY**

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## CHAPTER I

### THE STRUGGLES OF EARLIER DAYS

THE introduction of European machinery into Japan dates back to the pre-Restoration days. The earliest date of imported machinery is 1863, in which year the equipment for Prince Shimazu's cotton mill in Kyushu arrived from England. This was followed by the introduction of the Occidental way of paper-making. The bark of *kozo* (*Broussonetia papyrifera*) and *mitsumata* (*Edgeworthia papyrifera*) have been used for centuries in Japan for the high-grade hand-made paper which is well known all over the world. It was realized, however, in the second half of the nineteenth century that the ancient art of making paper by hand could by no means compete with the western method of manufacture by machinery. In order to cope with the situation, it was considered necessary to launch the new industry by importing the necessary machinery. The Meiji Government, interested in the industrial development of the country, succeeded in inducing the two wealthy houses of Mitsui and Shimada to organize a firm, each party putting up 125,000 yen. This is the nucleus of the Oji Paper Company, with which I have been connected for a number of years. The mill site selected was in the village of Oji, which is today one of the wards in the northern part of Greater Tokyo. The principal reason for its selection was the existence of a little stream, on which the mill could depend for an abundant supply of the pure water so essential to paper-making.

The company was organized in 1872, and the necessary equipment arrived from England in 1874 ready to be set up

in the plant at the foot of Asukayama, a hill noted for its cherry blossoms. Not only bricks and cement, but also all the materials required for erecting a modern industrial plant had to be imported from England. Marquis Asano's small paper mill in Kakigaracho, Tokyo, may be mentioned as another pioneer plant, but the mill in Oji has the distinction of having produced the first machine-made paper in Japan.

When the port of Yokohama was opened to foreign trade in 1859, raw silk, which has since constituted the most important commodity for export, was not of sound quality. The product lacked technical control and had a bad reputation owing to its uneven quality. The use of machinery was therefore strongly recommended in order to produce raw silk of superior quality in large amounts. The Meiji Government imported the necessary equipment from France, as well as all the building materials. French experts were also engaged, and a silk-reeling mill was established in 1872 at Tomioka, Gumma Prefecture, as a model plant of the Government. The authorities concerned took a deep interest in its development, and foreign experts were called to train Japanese operatives. Similar mills were erected in various parts of the country, and the small-scale domestic industry of silk-reeling began to develop into an independent industry organized on modern lines. The raw silk plant of the Government, which was later taken over by the Mitsui firm, is now operated by Hara & Company, a foremost export concern in Yokohama.

The need of cement was felt more keenly as modern equipment was adopted in one line after another of manufacturing industry. The Government took the initiative in establishing in 1874 a cement factory in Fukagawa, Tokyo, which was later taken over by the late Mr. Soichiro Asano. The prosperity of the Asano Cement Company owes its success to the founder's vision. The woolen mill in Senju,

Tokyo, which is operated by the War Department, has been a government enterprise since it was established in 1876. A glass factory was established in the same year in Shinagawa, Tokyo, and the following year saw the advent of a plant for treating waste cocoons in Shimmachi, Gumma Prefecture. In 1878 the construction work for two cotton mills was commenced in Hiroshima and Aichi Prefectures, each with a capacity of 2000 spindles.

Experimental stations and training schools for various lines of industry were organized, while foreign experts were engaged to train Japanese technicians. Japanese specialists trained abroad were also in great demand. In addition to paper, cement and other products mentioned above, our people began to take a deep interest in learning how to make porcelain, soap, movable types, tin-plate etc. The policy of the Government to encourage private enterprise was not much of success in the earlier stages in spite of the generous offer of selling government factories by installment. But those in power as well as private individuals were inspired by intense patriotism to make Japan a rich and powerful nation. Step by step, private enterprises were launched in different parts of Japan following the examples set by the Government. A set of regulations promulgated in 1884 for the sale of government factories inaugurated a new era in the industrial development of Japan.

For the Japanese people of the present generation, the struggles of their industrial pioneers would be beyond imagination. In the Oji Paper Company, for instance, an Englishman was engaged as paper-maker, and there was an American mechanical engineer. The mill was erected, and all the machines were set up by these two foreigners in accordance with the specifications sent from England. They were, of course, expected to be able to make paper. The necessary stock was prepared, and the paper machine began

to run, but paper did not come out in a continuous sheet as anticipated. The late Viscount Shibusawa, who had given up his position in the Finance Ministry, had to work hard as the first president of the company. The patient president waited day after day for a better performance. When he could no longer stand the disappointing situation, the two foreign experts were sent for. President Shibusawa was very indignant and said he had no use for experts unable to make a decent sheet of paper. The English and American engineers were, of course, very much ashamed and had no excuse for their lack of ability, but their petition for leniency to let them continue the effort for a few more days was granted. It was, therefore, a matter of great satisfaction for everybody in the mill when, after several days, paper ceased to break on the machine and came out in a continuous sheet for some time.

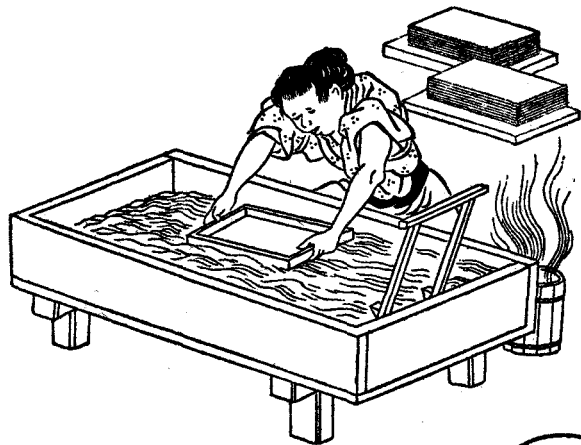
Japan's modern industries, which are from fifty to seventy years old, have all made phenomenal progress. The attainment is almost a dream to the people of the present generation. The pioneer industrialists and statesmen, whose motives were highly patriotic, never expected to see this day.

How was the phenomenal progress achieved in such a short period? What is the cause of this state of things? What has the future in store for industrial Japan? A rational way would be to make a comprehensive survey of all lines of industry starting from the first year of Meiji (1868). But that is beyond the scope of this little book, and I propose to address myself to a general survey of a few principal lines.

The raw silk mill of the Government established in 1872 as a model plant in Tomioka has a history no less interesting than paper-making. A circular was issued by the central government to invite the Samurai in various prefectures to

**Primitive handicraft, the forerunner of Japan's  
modern paper industry.**

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send their daughters for training in silk-reeling. The privileged class of Samurai had just been abolished, and the idea of training their girls was to solve the unemployment problem. Numerous girls did come from different parts of the country. They came, not as working girls, but as aristocratic young ladies escorted by retainers or maids. The mill authorities, as well as the French experts, who had been looking for ordinary factory girls, were greatly amazed to see these graceful Samurai ladies coming to work in a factory.

## CHAPTER II

### JAPAN'S SUCCESS IN COTTON SPINNING

PRINCE SHIMAZU, the influential Daimyo of Satsuma, was a pioneer of cotton spinning in modern Japan. When he first saw samples of cotton yarn imported into the Loochoo Islands from Europe, he is said to have been astonished at the fine quality, and wondered if silk was not mixed in the process of spinning. The imported yarn was so superior to the crude product of primitive hand-spinning, in which peasant girls had been engaged for ages, that the far-sighted feudal lord is reported to have expressed the fear that the life-blood of the nation would eventually be sucked up by cotton yarn from Europe. He made up his mind to import the necessary equipment, and the order for 6000 spindles was placed with Platt Bros., Ltd., Oldham, England. The cotton mill erected in 1863 in Kagoshima, the capital city of Prince Shimazu's province, was the first of the kind in Japan. A small mill with 2000 spindles was erected in 1870 by the same daimyo in Sakai near Osaka. A still smaller plant with only 700 spindles was erected two years later in Takinokawa, which was at that time a suburban district of Tokyo. This is said to be the first cotton mill operated as a private enterprise. It has not been ascertained how these earlier mills were operated, but there is every reason to believe that the industry was in a very crude state. According to the trade statistics covering a period of ten years ending 1878, the annual imports of cotton yarn averaged approximately 89,000,000 yen, representing 36 per cent of the total imports of all commodities which amounted to approximately 240,000,000 yen. It will thus be seen that



cotton spinning was far from being an important line of manufacturing industry.

In 1878 the Government established two mills in Aichi and Hiroshima Prefectures, the capacity of each being 2000 spindles. The Government endeavored to encourage cotton spinning by offering, among other things, to sell cotton mill machinery to the public on an installment plan. In spite of these efforts on the part of the Government, the aggregate capacity was only 84,000 spindles in 1887. The modern method of cotton spinning had, up to that time, been carried on just to take the place of hand-spinning. Japanese yarn therefore had to go through desperate struggles against Indian yarn, and it was not until 1893-4 that Japanese mills began to succeed in exporting their products in defiance of Indian yarn.

Japan's cotton spinning, which had just emerged from the cradle, so to speak, was dealt a severe blow in the earlier stage of the Chino-Japanese War (1894-5). Various enterprises took a favorable turn when Japan came out victorious. Cotton mills with an aggregate capacity before the war of half a million spindles increased in number and capacity. In 1896 there were 67 plants with 1,150,000 spindles. Technical progress was achieved, and considerable improvement was shown in mill operation. By this time the cotton industry made a long stride, the volume of trade both at home and abroad having increased considerably. Prosperity was, however, very short-lived, for an acute set-back was experienced in consequence of the currency reform of 1897 and the decline of the China trade. The Boxer Rebellion in 1900 was another factor unfavorable to the Japanese cotton mills. This state of things was, however, not altogether without its blessings. The necessity of curtailing the output and promoting the export trade taught the mills a useful lesson. Smaller plants were absorbed by powerful ones,

while in many cases a thoroughgoing reorganization was effected. The result was that those better operated were placed on a firm basis with resources for expansion. During the period of depression, progress was shown in the production of finer yarn, the imports of which declined from 10,000,000 yen in 1892-3 to 1,000,000 yen in 1900. When the Russo-Japanese War broke out in 1904, the demand for cotton yarn became greater than the supply, and immediately after the war the demand was twice as much as before. In 1907 the cotton mills were subjected to another depression, which they managed to get over again by curtailing the output and promoting the export. In 1909 orders began to come from China, which country had not bought from Japan for a long time, thereby stimulating the home market favorably. The two million spindle mark was reached by 1910, but from that year on the export of cotton yarn began to show a declining tendency. It was however more than compensated for by the increasing export of textiles, the

### SPINDLES IN OPERATION AND OUTPUT OF YARN

#### YARN FOR HOME CONSUMPTION AND EXPORT

*(From Statistics compiled by the Federation of Japanese Cotton Mills)*

YEARS	Spindles in Operation	Output of Yarn	Yarn for Textiles	Yarn Exported	Yarn for Home Market	Yarn Imported
	Spindles	Bales	Bales	Bales	Bales	Bales
1926.....	5,002,000	2,607,000	740,000	203,000	1,663,000	2,000
1927.....	4,831,000	2,530,000	732,000	115,000	1,682,000	2,000
1928.....	4,843,000	2,451,000	757,000	70,000	1,624,000	3,000
1929.....	5,784,000	2,792,000	840,000	67,000	1,884,000	5,000
1930.....	5,897,000	2,524,000	741,000	59,000	1,723,000	9,000
1931.....	5,904,000	2,567,000	753,000	31,000	1,782,000	115,000
1932.....	6,304,000	2,810,000	814,000	89,000	1,906,000	28,000
1933.....	6,737,000	3,099,000	905,000	48,000	2,146,000	58,000
1934.....	7,502,000	3,472,000	962,000	64,000	2,445,000	54,000

weaving and finishing of cotton cloth having made remarkable progress. The foregoing statistics will give a general idea of Japan's cotton industry during the past decade.

The outbreak of the World War in 1914 ushered in an epoch of prosperity. When Europe and America ceased to supply cotton goods owing to the disturbed conditions, the cotton yarns and textiles produced in Japan found a ready market everywhere. The dual policy of spinning and weaving enabled Japanese mills to place their business on a firmer foundation. Thus they creditably stood the depression caused by the lifting of the gold embargo in 1929 and the retrenchment policy of the Hamaguchi Cabinet. The cotton mill owners managed to get over the world-wide depression, from which Japan could not remain unaffected, while, since the latter part of 1931, the second gold embargo and the exchange rate favorable to the export trade have continued to contribute much to the further expansion of our world commerce. Japanese goods have since been introduced not only to the Leased Territory of Kwantung, British India and the Dutch East Indies, but also to Africa, Australia, Central and South America and countries along the Mediterranean coast. In fact, articles made in Japan have found their way to all parts of the world. The consuming public all over the world welcomes commodities put on the market at lower prices, and Manchester desperately struggles against Japanese competition. For reference, let me give a few interesting statistics.

EXPORTS OF COTTON TEXTILES

years	QUANTITIES		VALUE
	...	yards	yen
1931	...	1,413,780,000	198,731,000
1932	...	2,031,722,000	288,712,000
1933	...	2,090,228,000	383,215,000
1934	...	2,577,233,000	492,351,000

The following analysis of figures cited above will give a clear idea of the phenomenal expansion shown in the export of cotton textiles. In value, the figures for 1933 and 1934 show striking increases of 100% and 150% respectively over those for 1931. Marked increases are shown in quantity, the percentage for the same periods being 20% and 22.6%. Raw silk no longer heads the list of Japan's export trade, and more cotton goods are sent overseas than any other commodity.

## CHAPTER III

### THE COTTON INDUSTRY (Continued)

THE cotton industry is now so important in Japan that I hope it is not out of place to add two more chapters. The industrial expansion of Japan achieved after the World War is due to the steadfast efforts of the Japanese people. Of all lines of manufacturing industry that have advanced since the War, the prominent position of Japan's cotton industry is most conspicuous. Cotton mills have to surmount one obstacle after another and have survived many bitter experiences. Japan's victory over Russia in the War of 1904-5 enhanced her prestige and credit abroad so much that foreign loans were floated without difficulty and greatly aided her economic expansion, the cotton industry being one of the many lines of business that enjoyed prosperity. But the expansion of plants which followed the period of prosperity was not always a success. The economic world has cycles, and the cotton industry is not an exception. Prosperity is followed by adversity, and vice versa. An acute slump came after two or three years of post-bellum boom, and concerns burdened with loans or those whose expansion was not financially sound suffered most pitilessly in consequence of over-production.

The experiences of the late Mr. Sanji Muto, who died a few years ago, are interesting on account of his outstanding position in the cotton industry of Japan. He is still idolized and will be long remembered as a cotton magnate for his success in making the Kanegafuchi Spinning Company what it is today. When he went to Kobe to take charge of the company's new plant there, he had to work hard to

carry on the business, fighting the depression that followed Japan's war with China (1894-1895). When a boom came at the time of the Russo-Japanese War (1904-1905), he was sure that a reaction would come, and had an idea that the safest way to tide over any depression would be not to deal with too many banks. Mr. Muto feared that, if his company had accounts with more than one banking institution, they would be eager to finance his business when prosperous, but would vie with one another in collecting their loans when business was dull. He therefore adopted the policy of dealing with one bank, which, he was confident, would stand by him in time of adversity. Mr. Muto realized too late that he was wrong. His bank would charge a higher rate of interest when business was good, there being no competitor. He hoped, however, that the same bank would be more friendly in time of financial reaction. He was again greatly disappointed. The bank always had some excuse for refusing a loan, and he was helpless when the hard-hearted banker wanted to collect previous loans. Indignation was of no avail, and he made up his mind to become financially independent of bankers.

In addition to his strenuous efforts to increase efficiency and replace old machinery with equipment of the latest design, Mr. Muto adopted a most conservative financial policy, whereby he succeeded in maintaining the lowest possible rate of dividend. For a number of years he steadily endeavored to increase liquid reserve in the shape of bank deposits.

Like all other lines of industry, cotton spinning enjoyed prosperity at the time of the World War. Under Mr. Muto's able presidency the Kanegafuchi Company became the greatest and most successful spinning company in Japan, but he was careful not to expand the plants too much or to yield to the temptation of paying a dividend too



**Finishing plant of Japan's leading spinning and weaving concern.**

liberally. Other cotton mills followed the good example, and they all have to-day ample reserves ranging from 10,000,000 yen to 80,000,000 yen each.



## CHAPTER IV

### THE COTTON INDUSTRY (Concluded)

LET us now turn to Lancashire and see how the cotton mills fared during the World War. They were not prosperous then, nor have they since been so. The trade unions, whose growing power raised the wages, prevented employers from lowering the rate when the depression came. In addition to the numerous causes responsible for the depression, Japanese competition made the adversity still more acute. Generally speaking, the cotton mills of Lancashire are not strong financially, and the bankers there are not much interested in financing them, cotton spinning not being a profitable business in England. Lancashire is thus in the unenviable position of not being able to effect the necessary improvements.

When representatives of the cotton industry came from Lancashire a few years ago to investigate the actual conditions in Japan, it was a revelation to them to see with their own eyes machinery more up-to-date and operated more efficiently than in their own mills. Thanks to financial independence, the cotton mills in Japan can buy cotton and sell yarn advantageously, there being no need to depend on agents or banks for the necessary funds.

Cotton mills in Japan, being rich in financial resources, can buy raw cotton advantageously at any time. For instance, what will a mill do that buys raw cotton today at 20 yen per 100 kin, if the market falls to 18 yen to-morrow? If the mill does not take any step, the discrepancy of 2 yen will have to be borne. So the mill buys more at 18 yen, 16 yen, 15 yen, 13 yen and so on, buying more as the market

falls. The mill pursues the same policy of buying as the market advances from 18 yen to 25 yen and so on. When all these purchases are averaged, it is always found that the raw cotton stocked in advance for a year or a year and a half is at a favorable level of price.

This is a simple matter understood and practised by any businessman, but how many English cotton mills can do as the Japanese mills are doing? If the British bankers are not keen about financing the Lancashire mills, it is difficult for the latter to buy raw cotton at the right moment. If the mills go to their sales agents, an arrangement may be made for stocking the requirements for three months, but perhaps not for six months. It is natural that the bankers should avoid the risk of financing for a longer period when the cotton mills are not profitably operated. It will be seen that cotton mills without financial resources cannot do what those in a stronger position can do easily. The latter can at any time improve their plants and can buy raw cotton for requirements a year or two in advance. Their financial strength enables the Japanese mills to pursue the same sound policy in selling yarn. If the yarn sold today at 35 yen per bale goes up by 5 yen to-morrow, how is the loss made up? The mill will keep selling at 45 yen, 50 yen and so on. The average selling price for the year will prove advantageous as in the case of buying raw cotton. Japanese cotton mills are often highly spoken of for their ability to buy and sell advantageously. They may indeed deserve the commendation, but, as a matter of fact, there is no mystery or trick. Japanese mills are doing what any merchant will do under the same circumstances. The whole secret is that the Japanese manufacturers are financially independent of their bankers and agents.

When I was connected with Mitsui & Co. many years ago, the cotton industry of Japan was in about the same

position as that of England. The Japanese cotton mills, whose raw cotton was purchased through Mitsui & Co., had to pay a high commission, while the same agents charged a commission in a similar way for selling the yarn. For promissory notes, which, for instance, were discounted by the banks at the daily interest of two sen, the agents would charge the mills two sen and a half. Times have changed since, and today Manchester seems to follow the same general practice that prevailed in Japan about thirty years ago.

Japanese children have been taught, since my boyhood days, that the nation is strong in war but has the serious drawback of being poor, the country not being rich in natural resources. There is, however, no ground for pessimism, and I, for one, am highly optimistic, although there may be a good deal of truth in the above statement. Take the cotton industry for instance. Are there many cotton mills in other parts of the world as financially strong as ours? Few cotton mills abroad can beat the Japanese in up-to-date equipment and efficient operation. The cotton industry is on a more profitable basis in Japan than in any other country. I would not sing my own praises, but the plain fact is that paper-making is in the same sound condition as the cotton industry. In America, England or Germany, I do not know of large concerns whose many plants are so efficiently operated as those of the Oji Paper Company. In America some paper companies are larger in capital investment, but I hardly think that any of them can beat us in profit-making. When a large corporation is formed with watered stock by merging many plants, it is natural that the new organization should be financially weak. The consequence would be failure to pay a dividend, the business eventually passing into the hands of receivers or bankers. In the paper industry, at least, the Japanese



**A section of an up-to-date cotton mill.**

need not be ashamed of their country as poorer and weaker. I am confident that Japan, which has steadily advanced industrially since the country was opened to foreign intercourse, will continue its sound development along the same lines.

## CHAPTER V

### SHIP-BUILDING

TOWARDS the end of the feudal regime, the "black ships" paid visits to our shores so frequently that the Tokugawa Shogunate began to give up the traditional policy of isolation, and the ban on building large ships was gradually lifted. In addition to encouraging the Daimyos to build ships in their provinces, the central government of the Shogunate took an active part in building ships for the purpose of coast defense. A shipyard was established in Uraga, while the project of a plant for repairing men-of-war at Ishikawajima, Tokyo, was carried out. The Tokugawa government also established an iron works at Nagasaki. This is the origin of ship-building in Japan. For four or five years following the Imperial Restoration of 1868, ship-building scarcely made any headway under the new regime, but in 1872 all the shipyards of the Government were consolidated by the Navy Department, which had just been organized. Naval construction, which had in the earlier days been in the hands of French and other foreign experts, has been under the full direction of Japanese engineers since 1890. The actual experiences of the wars with China and Russia, which proved highly useful, revolutionized the building of warships in Japan. The World War has also taught us valuable lessons, and today Japan can build war-craft not inferior to that built in other countries.

Turning to the merchant marine, history tells us about the building of wooden ships of the European type in Ito, Province of Izu, and Tsukinoura, Province of Mutsu, away back in the seventeenth century. But it was not until 1855

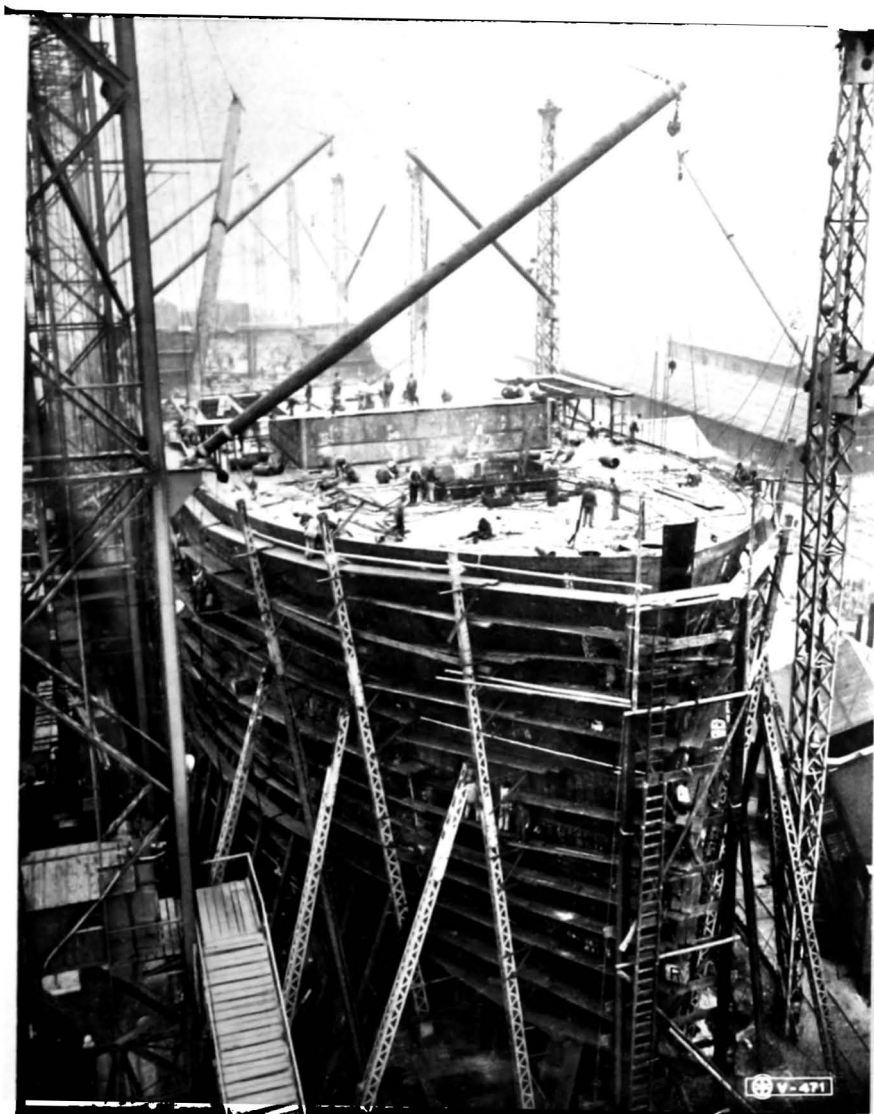
that the Occidental way of ship-building had a more definite influence upon Japan. When the Russian ship *Diana* was wrecked off the coast of Izu in that year, the permission to build a new ship at Kimizawa was granted the Russians by the Shogunate. The Japanese carpenters engaged by the Russians to assist them learned the trade cleverly, and what is known as the Kimizawa type is the pioneer in Japan's modern ship-building.

In the earlier days of the Meiji Era, the progress of ship-building and navigation was slow in Japan, the steamship companies not being strong enough financially to invest much in new ships. Wooden and iron ships had long been discarded in Europe, where the shipping business was revolutionized by the advent of steel ships. Unable to cope with the progress in Europe and America, Japan had to be content with buying old and obsolete ships built abroad. The policy of the government to encourage ship-building, which was adopted soon after the Chino-Japanese War (1894-5) bore fruits ten years later. Considerable progress was shown in ship-building and shipping after the Russo-Japanese War (1904-5), and the launching at Nagasaki of the two steamships *Tenyo Maru* and *Chiyo Maru* in 1907 ushered in a new epoch. These ships, 13,500 tons each, designed for 20.6 knots, were the fastest and largest ones ever built in the Pacific. In 1912, Japanese shipyards had no difficulty in launching ships of new types equipped with the Curtis turbine or with the triple steam engine and Parsons turbine. The world has since realized the advanced ability of Japanese ship-builders. A splendid opportunity presented itself when the shortage of bottom was keenly felt all over the world at the outbreak of the European War in 1914. One shipyard after another was newly established and the existing ones were expanded, but the output was quite inadequate for the shipping boom. Ships in the

course of construction were sold at a fabulous premium. Prior to the War, there had been only six shipyards and seventeen stocks with a capacity for building ships of 1000 tons or more. By 1917 the number increased to 57 and 157 respectively. Capital investment increased from 23,000,000 yen to 110,000,000 yen, and the workmen employed increased from 26,000 to 97,000. Remarkable progress was shown in the ship-building capacity, and it was no longer difficult to build more than 600,000 tons a year. In the statistics of ships of 1000 tons or more, we find that 130 ships with an aggregate tonnage of 621,500 were built in 1918. The experience of building stock-boats of the same type as those specially ordered was highly educational. The workmen's efficiency was raised to a high degree. There is an instance of a large cargo boat of 5850 tons, which was launched at the Kawasaki Shipyard in 23 days. It took 30 days to finish the work including 7 days for fitting out. The post-bellum fall in the price of ships, the treaty for naval limitation and the imports of old ships are the principal causes of the ship-building slump, on account of which large shipyards with heavy capitalization have remained idle for a long time. In the meantime, the builders have continued to work hard, improving the combustion equipment, while the second gold embargo has been instrumental in re-vitalizing the ship-building industry. The legislation of 1917 enacted to subsidize ship-building has also proved a blessing for shipyards.

A shipyard may be regarded as an assembling plant, to which various lines of manufacturing industry contribute their products. Steam engines, turbines, furniture, pumps, etc., which are manufactured at different works, are brought to a shipyard to fabricate a ship. The development of ship-building in Great Britain is due to the high state of industrialization in that country. Germany's experiences are





**21,000-ton tender under construction at Kobe for use of Japanese whalers in the Antarctic.**

## SHIPS OF 100 TONS OR MORE LAUNCHED IN JAPAN

YEARS	NUMBER OF SHIPS	TONNAGE
1926 ... ..	32 ... ..	52,922
1927 ... ..	35 ... ..	53,390
1928 ... ..	53 ... ..	112,583
1929 ... ..	79 ... ..	167,365
1930 ... ..	60 ... ..	154,231
1931 ... ..	49 ... ..	84,004
1932 ... ..	66 ... ..	58,763
1933 ... ..	67 ... ..	79,820
1934 ... ..	177 ... ..	154,860

about the same, and Japanese ship-building takes advantage of the all-round progress shown in industrial activities. Japan has another advantage in the exchange rate favorable to her export trade. Formerly, ships built in Great Britain cost less by 10 to 15 per cent as compared with those ordered in Japan. It is just the other way today, Japanese ships costing 10 to 20 per cent less than those built in Great Britain. Japan has also shown much progress in engineering, and even the British would place orders with Japanese builders, if a comparison of estimates were made in an unbiased way. Orders for merchant ships and warships have come from Brazil and Siam, while inquiries have been received from many other countries. The ship-building of Japan seems to be in about the same position as the British of two decades ago.

## CHAPTER VI

### JAPAN'S RISE IN THE SHIPPING WORLD

MARITIME traffic has an important bearing on the prosperity of our island empire as an industrial nation. The shipping business of Japan made a long stride in the course of the half century following her awakening from a long lethargy unbroken for 250 years. The aggregate tonnage, which was only 24,000 in 1870, increased to 79,000 and 107,000 tons respectively in 1877 and 1887. The impetus given to shipping by the Chino-Japanese War is revealed in the statistics for 1897, which give the tonnage as 426,000. The Russo-Japanese War and the World War are likewise responsible for the progress shown later. The figures for 1907 and 1921 are respectively 1,109,000 and 3,160,000 tons. The tonnage has since exceeded 4,000,000, and Japan ranks third in the shipping world today. Ships flying the sun flags of Japan may be seen in harbors all over the world. When we recall the origin of the first steamship company organized in 1871 by the late Viscount Shibusawa, we feel as if we were reading a fairy tale. The modern shipping of Japan dates from the measures adopted by the new central government in Tokyo for taking over the vessels owned by various feudal lords under the old régime. The idea was to facilitate the transportation of rice collected as a land tax.

In the marine transportation of the world, Great Britain occupies the highest rank with 20,000,000 tons, which is a little less than one-third of the aggregate tonnage of 63,000,000. The second in rank is the U.S.A., with 12,000,000 tons, and Japan comes next with only 4,000,000 tons. Japan is

far below Great Britain and the U.S.A. in the shipping business, but we have a bright future. Taking the pre-War statistics of 1914 as the basis of comparison, Japanese shipping has increased by 138 per cent, whereas a very slight increase of 0.4 per cent is shown by the British. If we exclude the figures for the dominions and colonies overseas, a decrease of 6.7 per cent is shown in the statistics covering the home country.

The shipping business of Great Britain has for a long time had the advantage of carrying coal to her own dominions, colonies and naval stations, as well as to other countries in need of British coal. It has been the general practice for these British ships to bring foodstuffs on their return voyages. The demand for coal has, however, gradually decreased owing to the popularity of oil-burning ships, such as those equipped with Diesel engines, which have increased remarkably since the World War. The depression, from which the overseas trade of Great Britain is not free, has also affected her shipping business. The India service, for which the freight rate is high, has been dealt a severe blow by Japan, a new-comer full of energy. British shipping will have to face a more serious situation, when the liquefaction of coal reaches an industrial stage. It was in order to overcome these difficulties that, contrary to the traditional policy of free trade, suggestions were made a few years ago in England to adopt some restrictive measures against ships of foreign nationalities. The policy of ship subsidies in other countries has been criticized by Great Britain, while Mr. Runciman, President of the Board of Trade, has gone so far as to take the unusual step of subsidizing tramp ships to the extent of £2,000,000 a year. It will readily be seen how disconcerted the British Government is in its attempt to improve the shipping business.

As is well known, wages are extremely high in the

United States where the people live a more luxurious life than in other countries. For this reason, they do not care much for seamanship, which is far from being an easy-going life. As the standard of living becomes higher, the freight rates are raised, which makes it more difficult for American ships to cope with foreign competition. The tonnage of idle ships is in the neighborhood of 3,000,000, and barely one-third of the exports is transported by ships flying the American flag. Japanese ships carry 70 per cent of the Japanese goods exported, and those engaged in the shipping business are ambitious to increase the tonnage. In the United States, the Department of Commerce has proposed a measure of protecting American cargo-boats by granting subsidies based on the difference between the American and foreign wages. I understand that the project has not yet been approved by the President.

The demand for Japanese ships, the aggregate tonnage of which is at the present approximately 4,000,000, is so great that a number of foreign vessels are chartered by the Japanese shipping interests. In addition to some old ships that have been imported, the Japanese interests seem to be able to operate 1,000,000 to 2,000,000 tons more. In short, the actual requirements of Japanese shipping will be in the neighborhood of 8,000,000 tons.

We have seen that the shipping business is not prosperous in the United States and Great Britain. Let us now see why Japan is an exception in this line of business. The simple mode of living and low wages in Japan are two important factors. The business can therefore be operated economically, while the Japanese seamen's habit of conscientious and industrious work constitutes a great advantage. The following table will give an idea of a seaman's income in Japan as compared with that in the United States and Great Britain.

	JAPAN ¥	U.S.A. \$	GREAT BRITAIN £
Chief Mate ... ..	135	163	102
Second „ ... ..	95	143	72
Third „ ... ..	75	128	56
Boatswains, No. 1 Oilers and Others of Similar Rank ... ..	65-70	65-69	49-62
Ordinary sailors ... ..	45	38-42	27

It will thus be seen that, according to the current rate of exchange, Japanese seamen get from one-third to one-fourth of the American salary, and less than one half of the British. Food costs less for the Japanese, who also work harder, and a crew smaller by 10 per cent accomplishes the same amount of work as that done by American or British sailors. Also I am given to understand that in ships manned by Japanese seamen the repair cost is far below the average European standard. As pointed out in the chapter on ship-building, Japan can now have vessels of superior workmanship built at a more reasonable cost, which fact may be traced to the low wages, technical progress and the low rate of exchange, as well as to general progress shown in various lines of industry. I have made clear what advantages Japanese shipping enjoys. Like Japanese goods of superior quality produced at lower cost, the shipping business of Japan is in a favorable position.

Geographically, the sphere of influence of Japanese shipping comprises the Pacific and Indian Oceans and the South Sea. The vast expanse of the South Pacific may also be included in the same sphere. Competition prevails in Europe, where the countries are contiguous to one another, whereas Japan is the only shipping country in the Orient. It is interesting to note that the Panama Canal in the East and the Suez in the West place Japanese shipping in a highly advantageous position, since vessels from the West must pay a high toll in order to get out to the Orient.

We have looked at Japanese shipping from various angles, and find that it is in a very favorable position. It is the manifest destiny of the Japanese nation to export manufactured goods by importing raw materials from abroad. The margin between the cost of materials and the price of finished articles will contribute toward the people's prosperity. We should, however, be more ambitious and endeavor to use Japanese ships both for exports and imports. Let us make marine insurance and freight a source of Japan's own revenue. It will also be a matter of intense gratification to see Japanese ships all over the world successfully competing with ships of other countries. The United States is handicapped by high wages, nor is British shipping in an enviable position. Our people have racial traits making us excellent seamen, which I hope will be fully developed to make Japanese shipping more successful.

The fact that there is no special banking institution in Japan for the shipping business is a serious drawback for us. When influential capitalists or large corporations want to have new ships built, they experience hardly any financial difficulties. It is for those who are enterprising but not very strong financially that adequate banking facilities are necessary. Younger men with distinguished ability are needed for shipping perhaps more than for any other line of business, and it is my sincere hope that financial facilities may be extended to them so that Japan can compete successfully with other nations older in the business.

All lines of industry have of late shown considerable development in Japan, and the profits realized amount to billions of yen a year. Abundant capital has been accumulated, and the so-called "red-ink bond issue" is not serious financial burden for the public. It is an opportune time for us to have a banking institution that can furnish Japanese shipping with the necessary funds at a low rate of interest.

I make this recommendation in view of the fact that the progress of maritime traffic has an important bearing on national prosperity. With an adequate measure of protection adopted, it will be easy for Japan to outrank the United States in shipping. Nor will it be so very difficult a decade or two hence to wrest the crown of supremacy from British shipping.



## CHAPTER VII

### ELECTRICAL ENTERPRISES: LIGHTING AND POWER

ASIDE from the telegraph, the first use of electricity in Japan was in 1885, in which year a cotton mill in Osaka and the Bureau of the Official Gazette in Tokyo adopted small lighting systems for their own plants. Two years later, the Tokyo Electric Light Company, capitalized at 200,000 yen, started a modest business for the public. Similar enterprises were tried in a few other cities, coal having been used in all these cases for generating electricity. The oldest hydro-electric plant in Japan is in Kyoto, where the water of the Lake Biwa Canal constructed for the double purpose of irrigation and transportation was utilized to generate electricity for lighting. It was not until 1899 that hydro-electricity was used for power, if I am correctly informed. In that year, the transmission of power at 11,000 volts over a distance of more than ten miles was successfully carried out in Koriyama and Hiroshima. As the demand for power at industrial plants increased, the abundance of water power in Japan was realized, and hydro-electrical enterprises sprang up in many localities. This was indeed an epoch-making event in the history of industrial Japan. Long distance transmission of high tension electricity progressed until the Inawashiro Power Company revolutionized the problems of power transmission in 1914 by their success in sending electricity at 115,000 volts over a distance of 140 miles. In localities where water is not abundant, steam turbines were introduced to generate electricity, while many smaller cities adopted Diesel engines for power plants

**ELECTRICAL ENTERPRISES: LIGHTING & POWER 31**

on a small scale. The power business continued to expand until as late as 1920, the year of financial panic. Reorganizations and amalgamations have since been effected on a sound basis, while the enterprises of large corporations for long distance transmission have been completed. The following statistics will give a more concrete idea of the development.

**ELECTRIC POWER CLASSIFIED ACCORDING TO SOURCES**

YEARS	WATER	COAL	INTERNAL COMBUSTION	TOTAL
	kw	kw	kw	kw
1912.....	204,596	180,219	10,451	395,266
1916.....	424,247	252,599	26,326	702,175
1921.....	852,822	461,144	45,782	1,359,749
1926.....	1,654,970	1,205,667	30,977	3,202,614
1930.....	2,797,637	1,553,071	48,606	4,399,314
1931.....	3,056,938	1,547,046	52,542	4,656,524
1932.....	3,105,930	1,761,364	65,767	4,933,064
1933.....	3,168,705	1,861,647	150,340	5,080,742

**CAPITAL FOR ELECTRICAL ENTERPRISES,  
LIGHTING AND POWER**

YEARS	SUBSCRIBED CAPITAL OF ELECTRIC Co.	PAID-UP CAPITAL OF ELECTRIC Co.	ASSETS OF ELECTRIC Co.
	Yen	Yen	Yen
1907.....	56,668,000	37,690,000	34,586,000
1916.....	299,662,000	224,456,000	276,514,000
1921.....	866,634,000	546,295,000	590,535,000
1926.....	1,116,278,000	768,487,000	1,111,672,000
1930.....	1,422,403,000	1,015,782,000	1,458,494,000
1931.....	1,437,425,000	1,010,051,000	1,523,424,000
1932.....	1,386,547,000	1,043,489,000	1,553,087,000
1933.....	1,543,130,000	1,116,845,000	1,856,542,000

According to the statistics for 1933, the enormous sum of 5,190,000,000 yen is invested in electrical enterprises including lighting, power, railways and allied industries. As

shown above, the investment in lighting and power amounts to 1,856,542,000 yen, which puts electricity in the highest rank of Japanese industries. I now propose to make some remarks about the future.

In the field of hydro-electricity, there still remains a good deal of undeveloped water power, which will be exploited gradually. But on the other hand, the steam engine, which has been greatly improved in Europe since the World War, is playing an important rôle in generating electric power. Steam pressure, formerly in the neighborhood of 120 pounds, has gradually been raised and has recently reached 1200 pounds. Electricity can thus be generated to-day quite economically at a steam plant. A paper mill, which needs electric power for making pulp, has to use steam for drying paper. If electricity is generated at a low cost by high pressure steam, the steam left over can be used advantageously at lower pressure for drying paper. Both steam and electricity are also required at plants where dyestuffs and chemical fertilizers are made. Electricity can to-day be generated at a low cost even when coal is high. As it becomes necessary to go deeper into the mountains for water power, the construction of a hydro-electric plant costs more. Water power used to be cheaper, and a coal-burning plant was only an auxiliary. But conditions have changed, and to-day electricity is generated in some places by coal at a more reasonable cost than by water power.

A hydro-electric plant depends on rainfall for the water supply, which compels the plant to reduce the output of power in the droughty season. The electric company can not curtail the supply of power to the customers or reduce the number of lamps when the water supply is low. It was for this reason that, in the earlier days, a power plant was projected on the minimum basis of water supply. If water was available for 10,000 H.P. during eight months and only

5,000 H.P. during the rest of the year, the surplus water was thrown away for two-thirds of the year, the plant being designed for 5,000 H.P. It has since become customary to utilize the surplus power whenever available for chemical industries, which do not have to depend upon steady power. This practice is more satisfactory than the former way of throwing away undeveloped water, but the earnings are smaller than on a steady supply of power. The latest practice is to operate a power plant at the full capacity when there is abundant supply of water, and have a steam plant as auxiliary to operate in the low water season. This is one of the reasons why electrical enterprises have recently become more profitable in Japan.

Keen competition among the power companies resulted in reckless expansion, which in turn brought about unsound administration embarrassed by heavy debts. The conversion of domestic loans into long-term external loans did not prove a success when Japan went off gold, as the exchange rate became unfavorable to those concerns which had to pay interest in a foreign currency. However, the exchange market has improved since, while the recent industrial expansion has stimulated the demand for electric power. The re-conversion of external loans into domestic loans at lower interest has also been helpful, and the power companies have received their dividends, which had been passed for several years. The five largest power companies of Japan have, of course, to continue their efforts in order to put their business on a firmer basis, but all lines of industry are in the ascendent now, and there is no reason why electrical enterprises should not flourish.

The Japanese Government has adopted the policy of placing the power business under its control. It is contended that such public utilities as electric light and power should be conducted as state business. The impractica-

bility of floating an enormous domestic loan for this purpose is realized at the same time, while those in favor of the scheme are not blind to the fact that some lines of state business are beset with difficulties. The Department of Communications, under whose jurisdiction come electrical enterprises, is likely therefore to carry out a compromise policy in the course of a year or two. The sale of power and the rate of electric light will then be subject to government control, and the power companies are likely to be administered as a line of quasi-state business.

## CHAPTER VIII

### ADVANCE IN CHEMICAL INDUSTRIES

WE have seen how, in the earlier days of the Meiji Era, the new Japanese Government took the initiative in encouraging the manufacture of cement, glass, paper and other lines of chemical industries. Experimental stations were established for soap, movable types for printing, and pottery, while specialists were engaged by the Government to train technicians and operatives. Along the same lines of industrialization, a beer brewery and a flour mill were established in Sapporo in 1876 and 1879 respectively. These two plants originally operated by the colonial authorities of Hokkaido became private enterprises in 1886. Sulphuric acid, which was made for the first time in 1872 at the Government Mint in Osaka, began to be produced on a larger scale in 1885 by the Printing Bureau attached to the Department of Finance. It will be seen that many lines of chemical industries in Japan owe their present state of prosperity to government protection and encouragement. There are, however, some industries which have received no aid from the government, but have achieved eminent success after desperate struggles.

Japan's match industry dates back to 1876, in which year a modest corporation was organized in Tokyo. In 1879-1880, Japan ceased to import matches, and has since been successful in competition with foreign products in the world market. According to the statistics for 1883, there were 143 corporations engaged in chemical industries with a capital investment of 1,967,000 yen. Accurate data are not available, but chemical industries do not seem to have

made much progress during the eventful years toward the close of the nineteenth century. By 1907 soon after the Russo-Japanese War, the statistics record 2,431 plants engaged in chemical industries with 92,000 people employed. The government policy of protection and the intense efforts of those engaged in chemical industries have contributed much towards the phenomenal development shown after the World War. The following figures are cited from the statistics for the close of 1933.

Factories ... ..	4,013
Working People Employed ... ..	163,000
Companies ... ..	2,431
Capital Invested ... ..	¥ 1,190,803,000
Value of Products ... ..	¥ 1,288,000,000

Unlike mechanical industries, the technical side of chemical industries is highly complicated, which makes their operation more difficult. However, the latter has the advantage of requiring less capital. If operated successfully, the rate of earnings is higher for chemical industries. These characteristics lend themselves to our people, and chemical industries have recently made wonderful progress in spite of hardships in the earlier days. The present stage of chemical industries in Japan compares favorably with that in Europe and America, some senior nations from whom Japan had to learn formerly having already been outstripped. In chemical industries, Japan ranks now next to Germany.

In some special lines, France leads the world, while the United States is proud of some chemical products considered superior to those produced in other countries. Speaking generally, however, Japan is not behind any of the European and American countries except Germany. In fact, some Japanese products are of better quality. Modern chemical

**industries are highly diversified and complicated, and I would not attempt to dwell on each line at length. Let me devote a few chapters to some that are outstanding.**



## CHAPTER IX

### THE DYESTUFF INDUSTRY

VARIOUS useful substances are contained in the smoke and gas which coal emanates when it is burned. Coal is burned primarily for the purpose of generating heat, but today we do something to recover the useful substances without letting the smoke escape from the chimney as waste. It is the aim of the dry distillation of coal to recover and separate all the useful substances when coke is manufactured. The processes of making valuable by-products constitute important industries.

The Furukawa Mining Company began the manufacture of coke in 1885, and by 1898 the concern was operating several coke plants, in which there was no system of recovering useful by-products. It was in 1898 that the first recovery system was adopted by the Osaka Chemical Industry Company with sixteen Solvay Kilns. Various other types, which have since been adopted, are successfully operated at coke plants, whose number has increased with the development of the iron industry. When dyestuffs ceased to come from Germany owing to the World War, the pressing need of benzol and other substances was keenly felt in Japan. In order to obtain these substances, which constitute important materials for dyestuffs, the system of recovering benzol direct from the coke ovens was adopted, and a considerable increase was shown in the output. I would not go into the technical details of recovery systems. Suffice it to say that the manufacture of ammonium sulphate is simpler than that of any other by-product of coal. Benzol, naphthaline and carbolic acid come next. With the progress

of by-product recovery, Japan has attained the more advanced stage of manufacturing dyestuffs.

The dyestuffs used in Japan in olden days were all of vegetable origin, alum, vinegar and lime having been used only as mordants. The increasing demand for artificial dyestuffs, which began to be used in the early days of the Meiji Era, was met by Germany and France. The imports of dyestuffs into Japan amounted approximately to 6,000,000 yen in 1912, up to which year the problem had only been studied by scientists, and no dyestuffs had been produced in Japan on an industrial scale. Benzol and coal tar, by-products of the coke plants, had by this time been used at the Miike Colliery of the Mitsui concern to make dyestuffs for the first time, but the operation was still in an experimental stage.

At the time of the dyestuff famine in 1914 due to the World War, the Japanese Government felt the necessity of fostering the dyestuff industry, and took an important part in the formation of the Japan Dyestuff Company by granting a generous subsidy. Mitsui's dyestuff works at Miike, on which a large sum was invested for the purpose of thoroughgoing researches, succeeded by 1919-1920 in producing sulphate dyestuffs in large quantities, the surplus of which was exported to China. Considerable progress was later shown in the manufacture of direct and acid dyestuffs, the principal grades of which were found satisfactory for domestic consumption. More than one half of the requirements for basic dyestuffs is now supplied by Japanese plants, while artificial indigo and mordants are no longer imported.

The aggregate output of synthetic dyestuffs and derivatives amounted to 36,200,000 yen in 1934, and a considerable increase is expected in 1935. About 9,000,000 yen worth of dyestuffs imported in 1934 represents those high grade products which have not yet been manufactured in Japan.

Mitsui's dyestuff plant, which has heretofore been producing those of less value in large quantities, is now increasing the investment in the installation of the necessary equipment for high grade dyestuffs. The export of indigo to China is on the increase, while the Japan Dyestuff Company, subsidized by the Government, is showing excellent results in the manufacture of dyestuffs of finer grades. It is confidently expected that in the course of a year or two, high grade dyestuffs will cease to be imported, while there will be an abundant surplus for export. The following statistics will give a general idea of the production of synthetic dyestuffs and derivatives in recent years.

YEARS	SYNTHETIC Yen	DERIVATIVES Yen
1926 ... ..	3,336,000	—
1927 ... ..	6,324,000	—
1928 ... ..	7,045,000	—
1929 ... ..	8,924,000	6,931,000
1930 ... ..	7,891,000	4,655,000
1931 ... ..	8,378,000	4,333,000
1932 ... ..	15,369,000	6,802,000
1933 ... ..	23,983,000	10,057,000
1934 ... ..	20,960,000	15,306,000

The manufacture of dyestuffs is considered a most difficult chemical industry, and the trying experiences which Great Britain had during the World War are well known. Prior to the War, Germany had been almost the sole supplier of dyestuffs, in the manufacture of which a foremost industrial nation like Great Britain had to work hard. In order to have its own source of supply, the British Government took the initiative in organizing a large corporation and engaged the best British specialists for intensive researches. The enterprise is now a success, but the Government had to pay dearly for it. In Japan, Mitsui's dye-

stuff plant, which has spent an enormous amount of money for experiments and equipment, is now ready to compete with Germany, which has long been the greatest nation in the production of dyestuffs. Japan is now independent so far as the supply of dyestuffs is concerned.

Dyestuffs made in Japan, which are cheaper in price and of excellent quality, are popular in China, India and the Dutch East Indies. Germany is becoming alarmed at the increasing imports of Japanese dyestuffs into Europe, and the dyestuff manufacturers of that country are said to have proposed an agreement, whereby Germany will consider China as Japan's sphere of activity, and Japan is expected to promise not to export her dyestuffs to Europe. The German proposal, which is said to have been accepted recently as a provisional measure, will give a fairly good idea of the recent development of Japanese industry.

## CHAPTER X

### DEVELOPMENT OF NITROGENOUS FERTILIZERS

THE Nippon Jinzo Hiryo Company, which was organized in 1887 with a modest capital of 200,000 yen, is the oldest firm for the manufacture of chemical fertilizers. When the late Dr. Jokichi Takamine returned from the World's Fair held in New Orleans, U.S.A., he brought a few tons of Charleston phosphate rocks and some phosphate products exhibited there. The new fertilizer made in Japan by adding certain organic matters proved a great success, and prominent businessmen including the late Viscount Shibusawa and Baron Masuda took deep interest in the project of starting the manufacture of super-phosphate fertilizer. Of course the public had no idea of fertilizer made by a chemical process. When the new fertilizer was first advertised in the newspapers in 1888, the company had to answer many amusing inquiries, of which the following is highly interesting. A sailor attached to the Yokosuka Naval Station wrote to the company asking about the weekly cost of the new product. Evidently he was not in sound physical condition, and was anxious to know how much flesh he could expect to put on after taking the new medicine.

In the course of ten years the demand for artificial fertilizer increased to such an extent that one company after another launched into the new enterprise. Toward the close of the Meiji Era (1868-1912), the annual output of chemical fertilizers amounted to 30,000,000 yen, which constituted the most important of chemical industries in Japan. It may be remarked here that the artificial manures pro-

DEVELOPMENT OF NITROGENOUS FERTILIZERS 43

duced in Japan in the earlier days consisted chiefly of super-phosphate fertilizer. The manufacture of sulphate of ammonia, calcium carbide and other fertilizers containing nitrogen is of comparatively recent origin in Japan.

Sulphate of ammonia was produced for the first time in Japan in 1901 as a by-product by the Tokyo Gas Company. The gas companies in Osaka and Nagoya followed the example, but the output was so insignificant that the supply was quite inadequate to the requirements in Japan, and represented only a small tonnage. The imports of sulphate of ammonia showed a phenomenal increase year after year as indicated by the statistics cited below.

Years	Yen
1900 ... ..	209,000
1907 ... ..	8,227,000
1911 ... ..	10,000,000
1912 ... ..	12,160,000

In 1911 the annual output of sulphate of ammonia in Japan was approximately 67,000 tons, while the demand was over 90,000 tons. Sulphate of ammonia manufactured in Japan was still largely a by-product, the figures for 1912 being 860,000 yen. Calcium carbide produced in the same year was worth only 520,000 yen.

It was about twenty-six years ago that Dr. Fritz Haber, the noted German chemist, invented a synthetic process of manufacturing a fertilizer by the fixation of nitrogen contained in the air. Ten years later Suzuki & Company of Kobe bought a French patent for an improved process invented by Georges Claude. A new plant was erected on the island of Hikoshima near Shimonoseki to manufacture sulphate of ammonia by the Claude process, which was taken over by the Mitsui interests in 1928, the large plant in Mûike being a recent development. The synthetic processes have since been improved in Italy and Germany.

There are plants in Japan for working the processes bearing the names of such inventors as Casale and Fauser, and the industry has made great strides in the course of eight or nine years.

As might be expected, those engaged in the manufacture of sulphate of ammonia had to overcome some difficulties in the beginning. When the Claude process was first adopted, the Japanese technicians worked hard to master the ins and outs of the new method, but they have since succeeded in making it an industrial success. In addition to engineering skill, the Japanese have the advantage of abundant water power at low cost, while coal is also comparatively cheap. For these reasons, the sulphate of ammonia industry has made a rapid progress. The increased production has been more conspicuous since 1930 in Korea, where over 240,000 tons were produced in 1933. For reference, I give below the statistics of production compiled by the Department of Commerce and Industry, in which Korea's share is included only in the figures for 1934. The domestic consumption, which is estimated today at 1,000,000 tons a year, is almost entirely supplied by the factories in Japan, and in the course of a year or two there will be some surplus for export. Germany, which has heretofore been the greatest producer of sulphate of ammonia, realizes that she has now to meet Japanese competition. The recent development of agriculture in Korea will considerably increase the demand for sulphate of ammonia in that part of the Japanese Empire, while Manchukuo is expected to require the same fertilizer more and more in the near future as the new régime becomes stabilized. It will thus be seen that there is a bright future for sulphate of ammonia.

In the manufacture of calcium carbide, Japan is no longer inferior technically to Germany or France. In addition to a high degree of technical efficiency, the Japanese

**DEVELOPMENT OF NITROGENOUS FERTILIZERS 45**

manufacturers have the advantage of utilizing cheap electricity. Power stations, which have to take care of their regular clients, whose requirements are fixed, have a surplus which varies from day to day. It is this irregular source of power made available at low cost that is used at carbide plants. The process of manufacture is simple and the cost of production is low, which factors will contribute much to the future development of this industry. It is difficult to export calcium carbide to the United States on account of the tariff barrier, but there is a hopeful opening for markets in the South Sea region.

**PRODUCTION OF NITROGENOUS FERTILIZERS**

YEARS	SULPHATE OF AMMONIA		CALCIUM CARBIDE	
	QUANTITY	VALUE	QUANTITY	VALUE
	metric tons	Yen	metric tons	Yen
1926 .....	106,783	21,036,000	97,107	8,353,000
1927 .....	139,722	20,583,000	64,981	6,146,000
1928 .....	212,402	27,087,000	65,190	6,311,000
1929 .....	235,187	28,064,000	211,593	17,355,000
1930 .....	269,067	22,446,000	305,572	16,649,000
1931 .....	376,977	25,316,000	195,018	9,747,000
1932 .....	415,073	31,923,000	283,386	16,700,000
1933 .....	454,472	38,939,000	278,825	19,934,000
1934 .....	799,379	79,937,000	—	—

N.B. Korea's share of production is included only in the statistics for 1934.



## CHAPTER XI

### JAPAN'S SUPERIORITY IN THE RAYON INDUSTRY

THE manufacture of rayon yarn in Japan dates from 1908, in which year was organized a company financed by the Mitsubishi interests of Tokyo, Iwai & Co. of Osaka, and Suzuki & Co. of Kobe. German experts were engaged for the new plant, which was erected in Aboshi near Kobe. The company had not yet commenced to make rayon when it was absorbed by the Sakai Celluloid Company. Precisely speaking, the Teikoku Rayon Yarn Company established in the city of Yonezawa by Suzuki & Co. of Kobe in 1913 may be regarded as the real pioneer of the industry. In 1920 there were six companies with eight plants employing 1223 operatives. The manufacture of rayon being a difficult industry, experts had to come from Germany and Italy. The infant industry, which was not free from the post-war depression, suffered from technical and financial hardships during the first decade. As in the case of other lines of modern industry, the Japanese have gradually grasped the intricate technique, and have even introduced some improvements characteristic of the Japanese love of precision. In 1930, Japan produced 26,000,000 pounds of rayon, ranking sixth in the world. A more phenomenal progress has been achieved during the past two or three years. In 1933, the aggregate output excluding companies not affiliated with the Federation of Rayon Manufacturers reached the 90,000,000 pound mark and Japan became the greatest producer of rayon next to Italy. 137,000,000 pounds reported for 1934 may be brought to 150,000,000 pounds, if we add

the output of the unaffiliated plants. The production in 1935 is expected to be over 200,000,000 pounds, and it is anticipated that Japan will soon become the greatest producer of rayon—advancing ahead of the United States, whose production in 1934 was 210,000,000 pounds. As indicated in the statistics cited below, the greater part of the output is exported. In value, rayon textiles exported in 1933 and 1934 amounted to 77,000,000 yen and 113,000,000 yen respectively. Rayon yarn exported during the same period increased from 9,000,000 yen to 22,000,000 yen.

PRODUCTION AND EXPORTS OF RAYON

(Compiled by the Japan Federation of Rayon Manufacturers)

YEARS	PRODUCTION	TEXTILES EXPORTED		YARN EXPORTED	
		QUANTITY	VALUE	QUANTITY	VALUE
	lbs.	sq. yards	Yen	lbs.	Yen
1928 .....	16,500,000	18,030,000	8,329,000	—	—
1929 .....	26,368,000	48,480,000	28,168,000	—	—
1930 .....	35,959,000	89,835,000	34,934,000	—	—
1931 .....	46,764,000	139,520,000	39,713,000	2,555,000	2,244,000
1932 .....	64,382,000	241,719,000	60,539,000	7,294,000	5,860,000
1933 .....	90,428,000	260,054,000	77,365,000	8,862,000	9,483,000
1934 .....	137,795,000	345,655,000	113,484,000	22,177,000	22,399,000

If I remember correctly, it was Thomas Edison who once startled the world by stating in an article that in the course of fifty years natural silk would be completely supplanted by rayon in the world market. As the greatest producer of natural silk, the Japanese paid no attention at that time to the prophecy, which sounded more like a foreigner's dream. Only two decades have elapsed since, and the greatest producer of natural silk has already achieved a wonderful progress in the rayon industry. In addition to attaining a high degree of technical skill, the Japanese have the advantage of being clever in handling, packing and

shipping the products. In the art of weaving, the superiority of the Japanese is recognized all over the world. Japanese manufacturers do not have to pay high wages to skilled laborers as in Europe and America for the reason that even little girls make excellent operatives owing to the inborn dexterity in handling silk inherited from their ancestors. It will readily be seen therefore that Japan will be able to hold a foremost position in the world as the producer of natural silk, as well as of rayon.

Japan has the drawback of not being rich in wood, which is essential in the manufacture of rayon. It may, however, be pointed out that this is not a serious drawback, all other countries where rayon is produced not being gifted with an abundant supply of wood. Take France and Germany, for instance, not even the United States being an exception. Japan does not have to worry about her poverty of wood for rayon pulp. After all, it is hardly a handicap, wood being easily obtainable in the open market.

## CHAPTER XII

### FORGING AHEAD IN MACHINE-BUILDING

It was at the time of the International Exposition held in Vienna in 1874 that samples of modern machinery were purchased for the first time by the Japanese Government. Exhibitions were held to enable the public to see and utilize these samples, and in 1879 the new Bureau of Engineering began to build European machinery. Operatives were trained to run cotton spinning machines built in Japan. The experiment ended in a failure, but the effort put forth in those pioneer days paved the way for the present state of prosperity enjoyed by Japan's industry of machine-building.

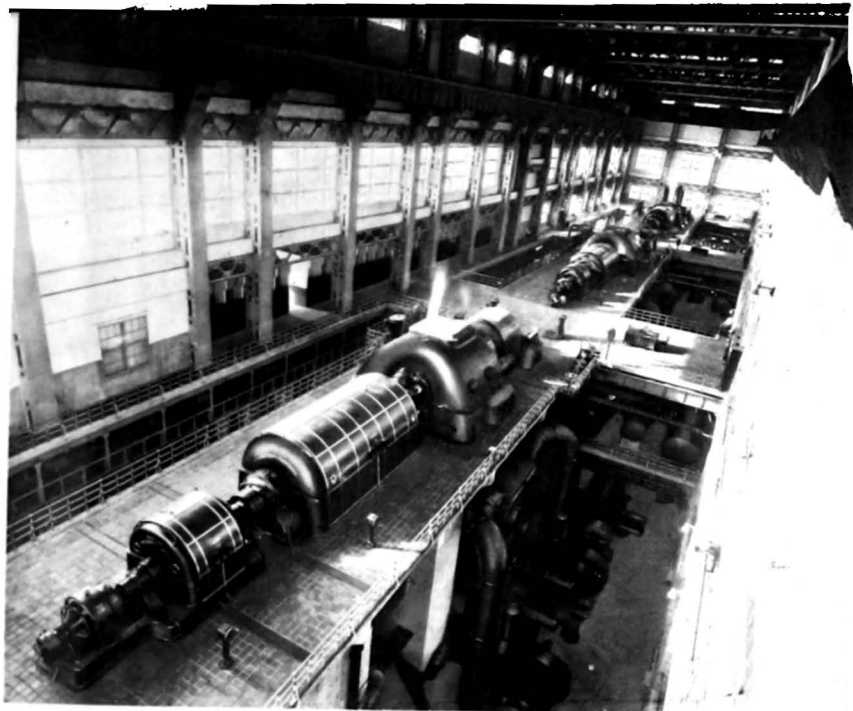
Progress was shown in the early days in ship-building both at the government and private docks. Satisfactory work was done at railway workshops for rolling stock and at arsenals, but otherwise machine-building did not make much headway in Japan. To my mind, the fact does not connote a lack of ability to build machinery. The reason is not far to seek when we realize that in other lines of modern industry it was much simpler to import the necessary equipment urgently required for the rapidly growing plants. When the Tanaka Machine Works (reorganized later as the Shibaura Engineering Works) was established in 1875, it was a plant of considerable size in those days, employing 600 workmen. The Imperial Japanese Navy was the principal client, but a horizontal steam engine of 1300 H.P., which took the engineers three years (from 1893 to 1896) to build for the Kanegafuchi Spinning Company, was a great success. It was considered a bold attempt, both

for the machine-builders as well as for the spinning company which placed the order. In spite of the prediction that the steam engine would break down in three months, it kept running day and night in perfect order for 32 years at the Hyogo Mill of the Kanegafuchi Company. The historic engine, which was only discarded when the mill was electrified in 1928, is preserved there as a souvenir. It is an interesting relic, as I understand that no steam engine of this size has been built again in Japan for use on land.

The traditional ingenuity of our people is an industrial asset, so to speak, while exquisite workmanship so characteristic of our ancient swords and armors is discernible in less artistic articles of every day use in the present generation. These racial traits prove an invaluable advantage in building complicated machinery introduced from the Occidental countries. It was not easy at first for Japanese engineers and workmen to comprehend the intricacies of European and American machines, but they have recently shown progress to such a degree that there is today scarcely any modern machine which cannot be made in Japan. Cotton mill equipment constitutes an outstanding instance. Great Britain, which held for a long time the leading position in the manufacture of spinning and weaving machinery, imports to-day a superior type from Japan. Platt Bros., Ltd. of Oldham bought a Japanese patent and is building for the British market the efficient machine that bears the inventor's name Toyoda. It is gratifying to us that cotton mills in Lancashire are discarding old-fashioned machines to install a more up-to-date type invented by a Japanese.

Electric machines required in Japan used to be imported almost entirely from the United States and Germany, but Japan does not have to import any to-day, and is in a position to export some.

The following statistics compiled at the end of 1933



**Two turbine-generators of 62500 KVA each, largest of the kind manufactured in Japan.**

will throw light on the recent situation of machine-building plants in Japan.

Number of machine works ... ..	7,850
Workmen employed ... ..	249,000
Number of companies ... ..	2,452
Capital invested ... ..	¥775,200,000

Gradual increase in the output may be noted from the figures quoted below.

Years	Yen
1931 ... ..	498,000,000
1932 ... ..	598,000,000
1933 ... ..	888,000,000

Imports increased from 80,000,000 yen in 1931 to 143,000,000 yen in 1934, but exports also increased from 29,000,000 yen to 124,000,000 yen in the corresponding period. Further effort will enable the machine-builders of Japan to take care of the entire requirements of the Orient. It is hoped that they may be able to export their products to other parts of the world. Competition with such leading countries as the United States, Britain and Germany will have to be met in the near future.

## CHAPTER XIII

### THE FALLACY OF THE ARGUMENT FOR NATURAL RESOURCES

It is pointed out from time to time by our own people that Japan, which is poor in natural resources, cannot aspire to be a powerful industrial nation like the United States, Great Britain or Germany. The belief prevails in some sections of the public in Japan. I would not deny the fact that Japan is poor in industrial resources, but I would take exception to an assertion that a country poor in raw materials cannot expect to be an industrial nation. How many industrial nations do not depend on outside sources for their supply of raw materials? Great Britain and Germany are far from being independent. Not even the United States is quite self-supporting. The comparative tables shown below will give a general idea of the position of Great Britain, the United States, Germany and Japan with respect to the raw materials for their principal industries.

#### IRON ORES

(Average for 1925-1929 in long ton)

	PRODUCTION	IMPORTS	EXPORTS	CONSUMPTION
U.S.A. ... ..	65,299	2,592	997	66,894
Britain ... ..	9,987	4,352	8	14,331
Germany... ..	5,736	13,630	164	16,202
Japan ... ..	580	1,275	965	890

#### IRON AND STEEL

(Average for 1925-1929 in long ton)

	PRODUCTION	IMPORTS	EXPORTS	CONSUMPTION
U.S.A. ... ..	37,183	193	522	36,594
Britain ... ..	6,891	989	748	7,132
Germany... ..	11,288	556	1,009	10,835
Japan ... ..	1,281	1,045	137	2,189



COAL

(Average for 1925-1929 in long ton)

	PRODUCTION	IMPORTS	EXPORTS	CONSUMPTION
U.S.A. ... ..	539,722	869	21,717	518,874
Britain ... ..	223,213	4,758	64,045	163,926
Germany... ..	180,464	7,253	40,696	147,021
Japan ... ..	35,120	3,155	5,771	32,504

RAW COTTON

(Average for 1925-1926 and 1929-1930 in bales of 748 lbs.)

	PRODUCTION	IMPORTS	EXPORTS	CONSUMPTION
U.S.A. ... ..	15,286,000	399,000	8,579,400	7,087,600
Britain ... ..	—	3,069,800	—	3,069,800
Germany... ..	—	1,899,800	324,600	1,575,200
Japan ... ..	138,683	3,060,800	—	3,166,483

WOOL

(Average for 1925-1926 and 1929-1930)

	PRODUCTION lbs.	IMPORTS lbs.	EXPORTS lbs.	CONSUMPTION lbs.
U.S.A. ... ..	331,003,000	283,616,000	8,061,000	606,557,000
Britain ... ..	119,357,000	473,061,000	54,037,000	538,381,000
Germany... ..	36,552,000	361,447,000	24,109,000	373,890,000
Japan ... ..	—	93,489,000	—	93,489,000

RUBBER

(Average for 1925-1926 and 1929-1930)

	PRODUCTION	IMPORTS lbs.	EXPORTS lbs.	CONSUMPTION lbs.
U.S.A. ... ..	—	1,002,030,000	57,755,000	944,275,000
Britain ... ..	—	123,992,000	—	123,992,000
Germany... ..	—	87,825,000	6,051,000	81,774,000
Japan ... ..	—	50,307,000	—	50,307,000

I hope I have made it clear that Japan is not the only country which is not self-supporting with respect to raw materials. It may, however, not be out of place to give a few specific instances. Take for example Sheffield, England, noted the world over for steel and iron cutlery, the

raw materials for which are imported from Sweden. Germany, which ranks next to England in cutlery, depends largely upon Swedish steel and iron. Is there any reason then why Japan should not be able to do as England and Germany are doing by bringing iron from China, Manchukuo and the South Sea Islands?

Our own people are apt to be envious of the United States for her singular advantage of being self-supporting. But she has to import rubber, wool and a few other raw materials. Over one half of the world's output of steel is produced in the United States, but some materials required in that industry are imported. According to a report submitted to the Government by the president of a concern affiliated with the U.S. Steel Corporation, forty different materials are imported from fifty-seven countries. I have also been informed that the United States depends upon foreign countries for approximately 40 per cent of industrial materials. There is another interesting fact about the United States, which is a country of vast area. Raw materials produced in the United States are not necessarily advantageous to her own industrial plants. The United States has an abundant supply of iron and coal, but the cost of transportation is an important item in shipping iron to New York from localities where it is produced. The rate of freight by rail per ton is \$3.25 for shipping iron from Pittsburgh to New York, the distance of which is 440 miles. At the current rate of exchange, this is equivalent approximately to 9.70 yen, Japanese currency. Iron can be brought to Japan on steamships from South Seas at 5.00 yen per ton and from China or Manchukuo at 3.00 yen to 4.00 yen. It will be seen, therefore, that, so far as the cost of transportation is concerned, Japan is in a more advantageous position than the United States. It is expensive to ship other raw materials from the Atlantic seaboard to the western States

and vice versa. Lumber is cheap in Oregon, but the freight charges make it expensive when shipped to the eastern States. Owing to the lower ocean freight between Scandinavia and New York, pulp produced in the Seattle area cannot meet the competition of European pulp on the Atlantic seaboard. It goes without saying that the natural resources of a country constitute an important national asset, this being particularly the case in time of war. Let us remember, however, that in time of peace the United States, which is self-supporting in many respects, is not altogether better off industrially.

On the contrary, Japan, which is an island empire, can bring raw materials overseas from any country at lower cost. Japan is poor in natural resources, but she has the geographical advantage of being situated near China, Manchukuo and the South Sea Islands, which are rich in the raw materials needed in Japan. These factors place Japanese industry in a better position than such leading nations as England and Germany. The fact that Japan is not rich in industrial materials should cause no misgivings in regard to our industrial expansion.

**PART II**  
**INDUSTRIAL EXPANSION DUE TO**  
**RACIAL TRAITS**

## CHAPTER I

### CAUSES OF RAPID INDUSTRIAL DEVELOPMENT

WE have seen in the foregoing chapters how the modern industry of Japan has developed in the course of a little over half a century from an infant stage to the present state of prosperity and efficiency. In many lines Japan stands abreast of Europe and America, having already rivalled them in the cotton industry. Manchester's leadership is threatened by the onslaught of cotton yarns and textiles produced in Japan. In the dyestuff business, the German manufacturers, who are alarmed at Japanese expansion, have proposed an agreement for separate spheres of activity. Japan does not have to import chemical fertilizers any longer, and is now in a position to export some. In addition to technical superiority, Japan has the advantage of producing everything at extremely low cost.

Cotton textiles, which constitute one of the most important items in our foreign trade, involve an enormous quantity and a large sum of money. In this business, the cost of production in Japan is lower by about 50 per cent as compared with England. This is the reason why Manchester cannot meet Japanese competition. Europe and America are alarmed at the invasion of bicycles made in Japan. Bicycles, which were very expensive when they used to be imported, were a great luxury in my boyhood days. Today bicycles are available at an extremely low price, and those made in Japan are exported to Europe and America in large quantities. High tariff walls are powerless to stem the influx of Japanese bicycles into Germany,

Great Britain and the Netherlands. In spite of 100% duty charged by the United States, Japanese bicycles are sold in New York at about half the price of those made in America. I am interested in the information furnished by Japanese manufacturers that they are doing business at a profit in spite of the low price. This is the case with many other articles made in Japan. From time to time, the newspapers call our attention to tiny electric bulbs exported from Japan. The fine process of manufacture, which is difficult for the Westerners, is a simple job for the Japanese who can easily put the same bulbs on the market at a price one half or less. Hence the penetration of Japanese bulbs to all parts of the world.

Some time ago an English governess engaged by a certain millionaire in Tokyo bought a pair of rubber shoes for fifty sen shortly after her arrival. She knew that a similar article would cost two yen, Japanese currency in London. Being unable to account for the discrepancy, the governess asked a friend of mine engaged in foreign trade for an explanation. Rubber shoes are not an exception, pencils, neckties, shirts and many other articles being cheaper in Japan.

Japanese travellers going abroad formerly had new suits made in London, and used to return home wearing shoes made in Europe or America. But today all sensible travellers order their suits and shoes before leaving Japan. When a French friend came to Japan a few years ago, I asked him what he would have for a souvenir to take home. He selected a silk suiting, and I was surprised when he asked me to have a suit made by a Japanese tailor. He pointed out to me that a better job is done at lower cost in Japan. This is a situation of which I did not dream about fifteen years ago when I went to Europe.

Now what has made possible the industrial development

#### CAUSES OF RAPID INDUSTRIAL DEVELOPMENT 61

of Japan within 50 to 70 years? Research has been conducted to discover the causes, and the question is discussed in periodicals all over the world. In fact, economists and critics are puzzled at the phenomenal progress of Japanese industry. To me, however, the most important cause is the spiritual element. I mean the mental discipline cultivated by the Japanese for centuries, and technical superiority largely due thereto. I would also point out the diligence of our people and the whole-hearted devotion to their work. The simpler mode of living is another advantage for the Japanese, while the efficient way of organizing their work is an interesting factor. I propose to illustrate what I say by giving a few instances in the succeeding chapters.

## CHAPTER II

### MENTAL DISCIPLINE

IN my opinion, the Japanese are somewhat different from the Westerners and Chinese in their outlook on life. The Japanese people have a characteristic of stressing the spiritual aspect of their work, to which other considerations are subordinate. Generally speaking, the Westerners and Chinese are more materialistic and calculating. I would not say that the Japanese are not at all materialistic and calculating, but the great importance attached by our ancestors to the spiritual elements of their work seems to have given rise to the unique code of ethics known as Bushido. A scholar may indulge in a philosophical analysis deducing a set of theories, but according to my simple interpretation, the ideals and traditions of Bushido were evolved first among the warriors of the feudal age from the racial trait of stressing the spiritual and moral aspects of life. It was considered a disgrace to be too materialistic and calculating, but these characteristics have since spread over the commercial and industrial classes.

Not being a scholar, I would not attempt a philosophical dissertation, which would be interesting in the hands of a competent person. I have selected some stories, which I hope will be understood better although they may not be historically accurate in every detail. Nor is there any necessity of delving into documentary evidence. My idea of telling the stories is to give a more concrete idea of the spiritual elements which are highly important in Japanese industry. In the veins of those engaged in the mechanical and chemical industries of the present generation runs the





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blood of their ancestors who devoted themselves seriously to their work. In the light of this racial trait, it will be seen that there is no mystery in the rapid rise of Japan as an industrial nation.

In the fourteenth century there was a famous swordsmith by the name of Yoshihiro, whose story is typical of an ancient master's serious attitude toward his work. Yoshihiro had so great a confidence in his own ability that he believed there was no swordsmith superior to him. Yoshihiro was appointed by the Mikado as one of the eighteen swordsmiths to make one sword each for His Majesty. Of course he was quite sure that his work would be accorded the highest honor. To his great disappointment, the sword forged by his rival Masamune was selected as the best of all. Yoshihiro conceded that Masamune knew better how to get on in the world, but did not believe in his ability to make a better sword. He came to the conclusion that nothing but bribery could have enabled his rival to win such a distinguished honor. In order to see Masamune and find out how he got the honor, Yoshihiro made a long journey from the Province of Etchu to the Province of Sagami. He set out on the trip prepared to die, for he wanted to kill his rival with a single stroke of the sword in the event of no satisfactory answer being given. As vigorous hammering on the anvil became audible at the end of his long journey, Yoshihiro knew he was in the neighborhood of his rival's forge. He stole up to the work-shop and, peeping through a window, looked intently at Masamune in the midst of his work. Yoshihiro was dumbfounded at the strange sight, and his violent temper suddenly gave way. Pushing the door open, he went up to his rival and humbly begged on his knees to be taken as a pupil. "I confess" said Yoshihiro to Masamune, "I came all the way from Etchu to kill you, but am ashamed to realize that I am no match for you.

Being fond of saké (rice wine), I drink it as I work, and strip myself to the waist when it is sultry in summer. But I find that your place is more like a sacred shrine, every nook and corner having been purified." Yoshihiro was impressed with the ceremonial skirts worn not only by Masamune, but also by his assistants. The secret of Masamune's success was revealed to Yoshihiro when he saw with his own eyes the solemn way of forging a sword, Masamune putting his heart and soul into each stroke of the sledge. "I am ashamed of my self-conceit," said Yoshihiro kneeling before his rival. "I had no idea of the spiritual factor in the art of sword-forging. Mere skill cannot produce a masterpiece." Yoshihiro's name has come down to us in history as one of the three greatest sword-makers.

Let me quote another story of an ancient master, in whose self-confidence there was a solid foundation of the highest workmanship. In the sixteenth century there was a celebrated armor-maker, Ikkansu Harima by name. He was noted for making what was widely known as bullet-proof armor. He was ordered by Oda Nobunaga, the famous war-lord, to make armor for him, and this was a great honor. The order was therefore most painstakingly executed, and the artist came to the palace with the armor. "Do you mean to say," demanded Nobunaga, "that this armor is really bullet-proof?" "Yes, Your Excellency," answered Harima with an air of self-confidence. "Then put this armor on and stand there," said the war-lord sternly, "Let me fire at you and test the armor with my own gun." The armor-maker, with no sign of nervousness, put the armor on. Nobunaga's officers and men were at the height of excitement when he was about to pull the trigger, pointing his gun at the artist standing before him as serenely as a statue. The sight of a mere craftsman standing with imperturbable calmness staggered the veteran soldier,

and dropping the gun he said, "I know what you mean by bullet-proof armor. I will pay any price you propose." Had not Harima put his heart and soul into his work, he would not have been sure that his new armor was bullet-proof. The intense concentration with which the ancient masters of Japan devoted themselves to their work was almost akin to religious zeal.

## CHAPTER III

### HONOR ABOVE LIFE FOR ARTISTS AND CRAFTSMEN

THE ancient masters of Japan, whose masterpieces have come down to the present generation, were indifferent to material gain. Whole-hearted devotion to their work was proverbial. The highest aspiration of young artists and craftsmen was to become foremost in their respective professions, thereby elevating their family reputation. The concentration of their effort on this sole objective in disregard of material gain was on the same general principle as the samurais' lofty devotion to their profession. I hope it is not out of place to give a few selections from popular tales often told by professional raconteurs.

Masks worn by actors of the No drama are usually works of art, and there are some legendary tales about mask-makers. Once upon a time there lived in the city of Yedo (now Tokyo) a celebrated mask-maker, Gengoro by name. He was highly temperamental like all artists, and would not work when he did not feel like doing so. He was, however, far from being devoid of artistic conscience and would not resort to make-shift work even in the depths of poverty. Gengoro was a thirsty soul, and would not heed his wife's remonstrances when steeped in saké. One day his wife reminded him of the approaching Lantern Festival of Bon. She said she was sorry she could not buy a new kimono for their eight-year-old son, whose name was Gennosuke. She also called his attention to the fact that a mask ordered three years ago by the Kanze school of No actors, which had been partially paid for in advance, still

remained unfinished. This time the mask-maker became serious even though still under the influence of liquor, and he began to work on the half-finished mask, brushing the dust away. After a few days of steady concentration, the mask representing a demoness burning with jealousy and anger was finished. The wife was even happier than the artist and sent the mask by the little boy to the Kanze school. The veteran actor, who was in the midst of a banquet, was pleased with the work, but he wondered if the mask had not been finished hastily in order that payment be made before the Lantern Festival. It would indeed be a disgrace for an eminent actor to wear a mask of crude workmanship, and the mask was smashed to pieces in the little messenger's presence. Gengoro killed himself soon afterward by cutting his throat with one of his favorite chisels. He left a letter in which he said that he had to die on account of the humiliation to which his work had been subjected by the actor. The memorable chisel was left as a memento to the son, to whom a pathetic message was addressed encouraging the little boy to work hard and become a great mask-maker worthy of the father. After twelve years of steady apprenticeship, Gennosuke, the young artist, became suddenly famous all over the city on account of a figure of Emma, the King of Hell, which he had carved for a Buddhist temple. One day a messenger came from the actor who had humiliated his father, and the young man complied with the request to make a mask representing the same demoness. It was to be used at the opening performance on the new stage built in the Shogun's Palace. Gennosuke set to work immediately by purifying himself and his father's old chisel. When the work was finished to his satisfaction, the young artist worshipped before his father's mortuary tablet and took the mask to the actor, now an old man with grey hair. Gennosuke was pleased when the actor invited him to be

present at the rehearsal. When the actor wanted to take the mask off after the rehearsal, it remained stuck to his face. Repeating the posthumous Buddhist name of his father, the young man stripped the actor of the mask with both hands. The actor's face was found streaming with blood.

The aged actor prostrated himself before the young artist, who was asked to relate how he had attained his ambition. The actor, deeply touched with the impressive narrative, made up his mind to wear the mask in atonement at the public performance, at the risk of having it stick to his face permanently. The performance was a great success, and from that time on the aged actor did everything he could to improve the young man's standing.

In Gengoro's life as a mask-maker, the spiritual elements were more important than anything else, and he actually sacrificed his life to uphold his professional honor. Honor was indeed above life even for a mere craftsman, and in the pathetic story of his wife and son we get a glimpse of their professional honor.

When a special mission came from Korea in the earlier part of the nineteenth century, the Shogun Iyenari decided to send some folding screens as souvenirs to the King through the Envoy. Yusen, whose pupil Hokusai is known better today, was one of the foremost artists selected to paint the screens. Yusen worked hard, of course, and his screen bearing "the Eight Views of Omi" was brought to the palace for inspection by high dignitaries. The picture was beautifully done with gold dust applied artistically to indicate the distance. Gold dust was thicker for the foreground, while the composition was perfect with houses and trees exquisitely distributed. Abe, the Lord of Bungo, who was examining Yusen's work, bent his head a little to one side, and remarked that the gold dust was not used gener-





ously enough. Yusen, displeased with the criticism of an aristocratic amateur who expressed his opinion with such conceited air, stepped forward and said calmly, "I have done some little thinking in my attempt at giving a better idea of the distance. I applied more gold dust for the foreground and less for the background." The critic replied that the value of a painting depended on the on-looker's view, to which the artist retorted boldly, "Yes, but it also depends on the person who looks at the picture." In those feudal days it was extremely impudent for an artist to talk back in that way to a high dignitary of the Shogunate. The sarcastic remarks of the humiliated artist incensed the critic, and the verbal duel had to be continued. "What did you say?" demanded the infuriated aristocrat, "Do you mean to say that I am not a competent connoisseur?" "Pardon, My Lord," responded the artist calmly, "I would not say so, but I have nothing further to do with this painting." Yusen had made up his mind to sacrifice his life in order to uphold his professional honor. The Lord of Bungo then gave his verdict. "You are self-conceited. This picture as it is will not be accepted. Work promptly on another painting. Submit the new one to our inspection as soon as finished. Take this as my official order." The artist would not obey the command, and said "In all ages, vulgar Philistines are incapable of appreciating the works of a foremost artist." Burning with anger, the official connoisseur told the artist to repeat what he had just said, for the insult was unpardonable. The stormy scene was finally over when Yusen adjusted his dress and made his exit, saying that he was suddenly taken ill and was unable to stay longer. On his way home, he committed harakiri in the palanquin. Yusen the artist was not afraid of high government officials when his professional honor was at stake, and had the courage to sacrifice his life in a true Bushido fashion.

I have one more selection, in which the same spirit is manifested in a different form under different circumstances. Toward the close of the Tokugawa Shogunate in the middle of the nineteenth century, there was in the city of Yedo a first-class carver, whose name was Hamano Kyo-zui. His family was noted for carvings of small size in ivory and wood. In spite of thorough practice for ten years subsequent to his father's death, which had taken place when he was twelve years old, young Kyo-zui was not worthy of succeeding the distinguished father, not being ingenious by nature. Kyo-zui's carvings were not popular, and Yoro-zuya Shimbei was the only dealer in the city who was generous enough to buy his works. One day the young artist took to the dealer a comical piece of work which was supposed to represent a badger in the midst of Zen meditation. The figure did not look like a badger at all. In fact, it was nothing, and Yoro-zuya was so disgusted that he said a carving such as this was really a disgrace to Kyo-zui's father. Yoro-zuya told the young man to kill himself instead of continuing to reflect discredit upon the family name. The idea was, of course, to brace him up, but Kyo-zui who was of conscientious disposition, took the admonition too seriously. When he came home, the young carver asked his invalid mother for a leave of absence for a couple of years. The mother, who sensed what was in the son's mind, did not care to dissuade him. "Go and die, my dear," said she, "a fellow of weak will that intends to leave a sick mother would not be of much use, even though he were alive."

Realizing that he was forsaken even by his mother, the faint-hearted carver went into the kitchen to suspend a rope from the main beam. The mother, who made her appearance when the young man was about to hang himself, asked him to carve as a memento an image of Kwan-

non, the Goddess of Mercy, in whom she believed. He began to work early in the morning the following day, and worked steadily for three days and nights without stopping. The sacred image, into which Kyozi put his heart and soul, was a splendid piece of work. "Well done!" said the mother with tears in her eyes, "This work is worthy of your father." She told the son to take the image at once to Yorozuya and ask the dealer to buy it for forty pieces of silver.

The old man Yorozuya, who wondered if he had to pay for another carving supposed to represent a badger, was surprised to see a wonderful image of Kwannon. The work was so exquisite that Yorozuya suspected the image was a carving left by the young man's father. When the whole story was told, the price as named was paid ungrudgingly, and Yorozuya told the carver to go home immediately, adding that he might not find the mother alive.

Kyozi's mother, who was found dead upon his return had left a letter reading as follows: "I was pleased with your new image of Kwannon. Please work harder and elevate our family name by improving your art."

## CHAPTER IV

### MODERN INSTANCE OF THE SAMURAI SPIRIT

SOME readers may wonder if there is any modern instance reminding one of the stories of ancient masters given in the foregoing chapters. Times have changed much since the feudal days when steam engines and electric motors were unknown. In many respects, Japanese customs and manners have undergone radical transitions, but the people as a whole retain their racial traits essentially intact. Of many contemporaries whose experiences are just as interesting as those of the ancients, let me introduce a veteran paper-maker, whom I have known for a number of years. This man is not highly educated, but he holds an important position in my company, and in a way is more valuable than a university graduate owing to his practical ability. He is an expert on newsprint paper, which is made on a high speed machine. It was an exceptional honor for this paper-maker to be sent to America about twenty years ago, for his lack of general education was a great drawback. Except a few technical terms he did not know a word of English. Preparations had therefore been made previously with a paper mill in America, where he could stay long enough to learn the American mill practice. Our company did everything to make his work easier in America, a university graduate having been appointed to accompany him on the trip. He had no special instructions from me except to do his best in America, but nevertheless he must have felt extremely uneasy. We can imagine the intensity of his misgivings about the result of the mission. In fact, not a

few fellow-workers were jealous of him. In America he went to the mill day after day, but he did not take part in any actual work. He had only the privilege of observing the mill operation. One day it so happened that a high-speed machine, which he was watching, was not running quite smoothly, and wet paper breaking in the course of the drying process caused a most serious confusion. The machine-tender, whose position in the mill is more like a ship's captain, and all his assistants were utterly at a loss to locate the trouble. Meanwhile the machine was running at the same speed, and the heaps of wet paper thrown out kept accumulating. The little Japanese observer could no longer remain calmly looking on the exciting scene. Taking his coat and vest off, he jumped onto the fast-running machine, and suddenly dry paper began to come out smoothly. His ability was recognized at once, and thereafter he was asked from time to time to assist when the mill was short-handed. Of course he was offered regular American wages, but he would not accept a single cent on the ground that he was generously paid by his company at home. In spite of his linguistic drawback, he became so popular that everybody was willing to teach him anything he wanted to know.

When our paper-maker returned from America, he told us about his experiences, and we were glad to know that he was in excellent health in spite of the strenuous life there. One time he casually spoke of the dagger which he had taken to America. Of course his friends did not have the slightest idea of it at the time of his departure for America. When asked what the dagger was meant for, the paper expert merely smiled. But when pressed for an answer, he said that previous to his departure from Japan he had made up his mind to kill himself in case of failure to fulfill his mission. His failure would be a serious matter

of humiliation to his company, he thought, and in addition a disgrace to Japan. The memorable dagger which returned to Japan unused with the owner will remain a family treasure as a souvenir of his American days. Our newsprint expert is still in active service, and when he retires it will be difficult to fill his place.

## CHAPTER V

### FINE TRAITS OF JAPANESE CRAFTSMEN

I HOPE I am not indulging too much in story-telling, but a recent case may not be quite superfluous. In the spring of 1935 two carpenters of Tokyo went to Sweden to erect a tea ceremony house in the grounds of the Royal Ethnographical Museum in Stockholm. The house, which had been temporarily set up before shipping to Sweden, was inspected by Their Imperial Highnesses Prince and Princess Chichibu. On that occasion the carpenters were presented to the Prince and Princess, whose gracious words of encouragement deeply touched the two men. This was the highest honor for men of their standing, and the carpenters made up their minds to do their utmost in order to fulfill the important mission. They must not do anything that might reflect discredit upon Japan.

Nothing being more important than health for their work in a strange land, the two men decided before sailing not to take any alcoholic drink, although they had been accustomed to it every evening in Japan when the day's work was over. It also required strong will-power for the master-carpenter, who was quarrelsome like many members of the guild, not to lose his temper. They went on a Swedish cargo-boat with the shipment, and it took them 80 days to reach their destination. When they left the ship at Gothenburg, the firebrand carpenter and his more peaceful companion were glad that they had managed not to pick a quarrel during the voyage.

The two men became very popular when they commenced the work of construction, although it was not easy

for the older man to adapt himself to Swedish customs. Everybody took an interest in the younger carpenter, who is handsome and more open-hearted, and he is said to have been entertained evening after evening. His Japanese songs and dances were quite an attraction.

The contact of the Japanese carpenters with their professional brothers in Sweden fostered a most cordial friendship between the two nations. Chiefly due to the linguistic barrier, the two men from Japan did not get along quite peacefully with their Swedish assistants in the earliest stage of the work. But bearing in mind the sacred vow not to quarrel, the Japanese carpenters managed beautifully to teach the Japanese way patiently to the Swedish helpers. On the day of their departure for Japan, many Swedish friends came to the railway station in Stockholm to see them off, and all the Swedish assistants who had taken part in the construction work are said to have been choked with tears.

Those who have no adequate idea of a Japanese house for the tea ceremony may be interested to know that although small and simple-looking, it is, as a rule, a highly artistic structure, all the carpenters being specially trained for the work. When the house was successfully set up after about 100 days, thanks to the untiring effort of the two men, the opening exercises were held in the presence of Their Royal Highnesses the Crown Prince and Princess of Sweden. The Japanese carpenters, who were privileged to participate in the function, were going to wear the proper ceremonial dresses, which they had brought from Japan. But they were told to come in the ordinary working suit, of which the traditional happi coat was conspicuous. They were presented to the Crown Prince and Princess, whose gracious words of commendation they will never forget.

When the two carpenters returned from the memorable



function to their lodging, they were completely free from care, and in a peaceful frame of mind thought of the Japanese custom of drinking saké on all felicitous occasions. It is not known how they expressed their desire for an alcoholic beverage, but the thoughtful director of the museum furnished them with two bottles of brandy. I have not inquired how the content was emptied by the carpenters, who had not had a decent drink for 180 days.

I was greatly interested in their way of disposing of the Japanese tools. The director of the museum, who was anxious to have the complete outfit as a permanent exhibit, told the carpenters to name a price. The carpenters would not sell anything, not even a single chisel. The master-carpenter said that he would be pleased to donate all his tools, if the director considered them useful for the museum. European carpenters might have tried to take advantage of the offer and propose a price as high as possible. The director is said to have been deeply impressed with the indifference to pecuniary matters on the part of the Japanese carpenters. The gift, which was gratefully acknowledged by the museum authorities, will remain there forever as the tools actually used in setting up the tea ceremony house, whose simple style embodies what is best in Japanese architecture.

Upon their safe return to Japan in the latter part of 1935, a rousing reception was tendered the two men at the central railway station in Tokyo. This is what they expected to have, and the arrangement made was greatly appreciated. I was deeply moved in recalling their request not to have any send-off at the time of their departure from Japan. They feared that they might not be successful, for in case of failure they would not dare come home alive. The two men had asked their friends instead to arrange an elaborate welcome in case of success. Over one hundred people com-

prising many carpenters, friends and neighbors, came to the railway platform each armed with the sun flag of Japan. The exciting scene reminded us of a reception for triumphant soldiers returning from a battle-field. Instead of going home straight from the station, the two carpenters proceeded to the Double Bridge in front of the Imperial Palace, where they raised the flags and gave three "Banzai" for His Majesty the Emperor.

Those who are familiar with the more materialistic and calculating laborers in Occidental countries may be interested to know that this is by no means an isolated case. Foreign observers of Japanese industry, who are often baffled at our success, will find a key to the riddle in this phase of the emotional life of the Japanese people.

## CHAPTER VI

### TECHNICAL ACHIEVEMENT AND THE JAPANESE SPIRIT

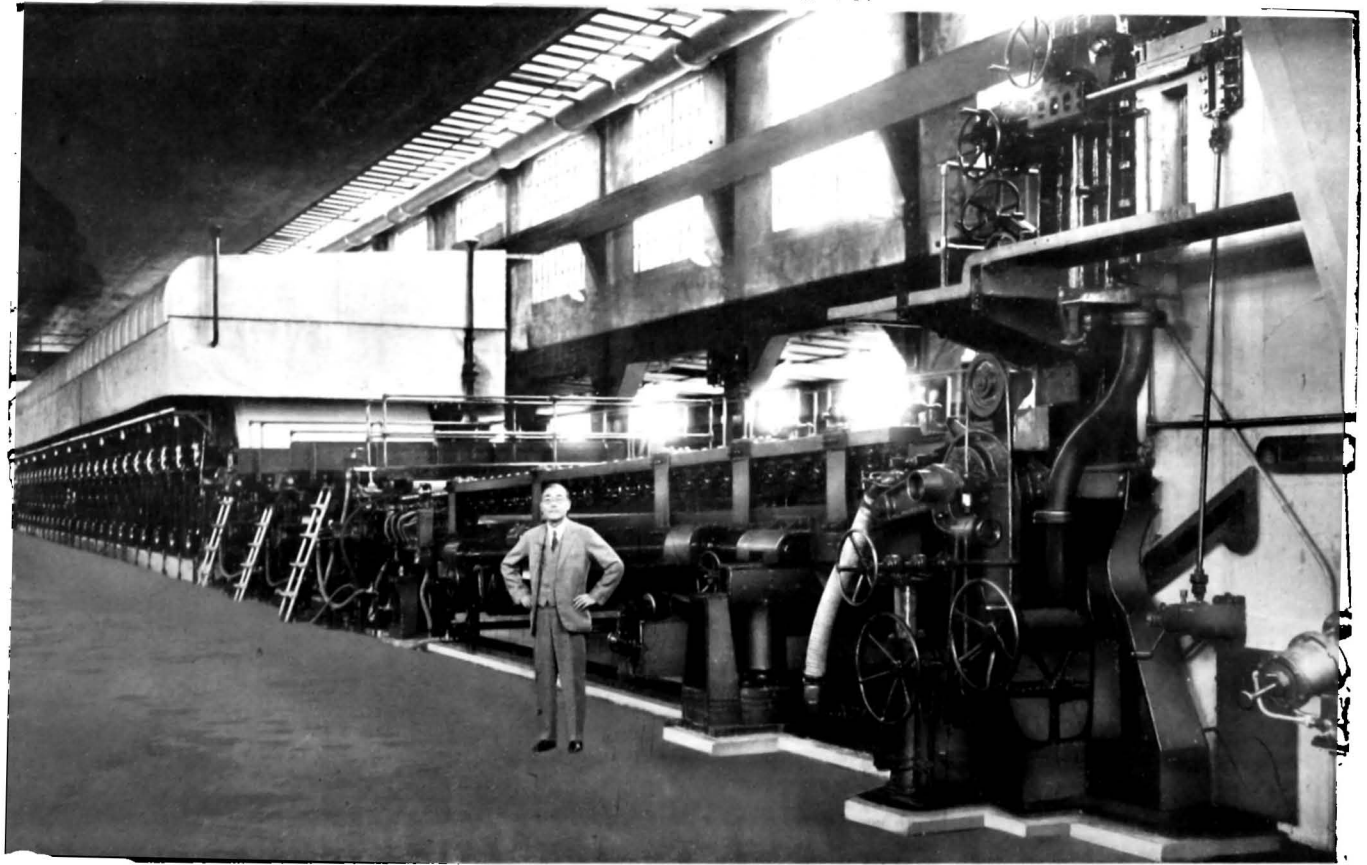
ABOUT ten years ago my company placed an order with an English firm for a paper machine designed to run at 1000 feet per minute. It was a large machine 142 inches wide and about 360 feet long, requiring engineering skill of a high order to set it up without a flaw. A modern paper-machine of such length is really a combination of various machines, and the slightest error in the alignment of all sections when erecting the machine will make it impossible to make paper at a high speed. It was for this reason that the English firm which built the machine insisted on despatching their own erection engineers accompanied by a few assistants. The English machine-builders did not have confidence in Japanese engineers, as might be expected, and wanted me to consent to paying for the service of erection in addition to bearing the travelling expenses. I was about to accept the proposal and accordingly notified the plant where the new machine was to be installed. Contrary to my anticipation, the plant manager replied that the Japanese engineers under him were confident that they were capable of setting up the machine. It was also pointed out to me that the whole thing was an important matter of honor and prestige for Japanese engineers. The English firm would not accept my counter-proposal to turn the job over to Japanese erectors, but our attitude was so uncompromising that they finally acquiesced. My cable message to the English firm was conclusive. On our side, I had my own proposal to make to our engineers who said that they were undertaking

the work at the risk of their lives. Above all, I emphasized the necessity of consecrating themselves to the work as in the case of the ancient masters, whose stories have been told in the foregoing chapters. I insisted on a clean life, and told all those engaged in the work to abstain from alcoholic drinks and other forms of loose living.

Shortly before the conclusion of the erection work at the mill, an English engineer and his assistants came unexpectedly to see me in my Tokyo office. In reply to my inquiry, they confessed that they had to come over to Japan in spite of my cable message, because it was feared in England that the Japanese engineers might not do a decent job. Should the new machine fail to turn out paper at 1000 feet per minute as designed, the poor performance would certainly reflect discredit upon the machine-builders in England. The representatives of the English firm were anxious to see how our erectors were getting on, and I greatly appreciated their thoughtfulness and conscientiousness. They left immediately on their trip to the paper mill situated several hundred miles north of Tokyo.

Upon their return to Tokyo, the English engineer shook me feelingly by the hand and confessed that he was completely free from anxiety. "The work of the Japanese erectors is perfect," he said, "and there is not the slightest flaw in the job." I was, of course, greatly pleased to know that English erectors could not have done better. The English engineer was now confident that our paper-makers would be capable of operating the new machine perfectly. His passage on a trans-Pacific steamer was immediately booked, and he was to have a wireless from me during the voyage about the successful operation.

On the eve of their departure from Japan, I had a dinner for the English engineer and his party. In the course of our conversation, the engineer, who was somewhat



The author at the inauguration of a new machine built in Japan which turns out newsprint paper at 1300 feet per minute.

gloomy, remarked that Japan would not buy any more paper-machines from England. The Japanese are so clever, sighed my guest, that similar machines of splendid workmanship would soon be built in Japan. A decade has elapsed since, and I recall the English engineer's prediction with mixed feelings.

The men in our mill were greatly pleased with the Englishman's comment on their work, which they had undertaken in the same spirit as that of the ancient masters engaged in the execution of their masterpieces. The success was appropriately celebrated; but if they had failed, our men would certainly have killed themselves. This is far from being an isolated instance, for Japan's modern engineers will do as their ancestors have done for their work.

People of the present generation are often criticized for being too calculating or flippant in dealing with various problems, political, legal and social. For educational purposes it may be advisable, in a way, to praise the ancients at the expense of the moderns. But there is no sense in speaking disparagingly of the present generation without discrimination. The moderns are offsprings of the ancients, whose blood has run for hundreds of years in the veins of those in the succeeding generations. It is this invaluable heritage that has enabled Japan to develop her modern industry in less than a century. In adopting any line of European civilization, the Japanese people endeavor to assimilate and improve it. The Japanese are successful not only as soldiers, but also in other fields of peaceful activities such as industry and commerce. The indomitable spirit of our forefathers is discernible in all phases of our national life in the present age.

## CHAPTER VII

### JAPANESE DILIGENCE

GENERALLY speaking, the Japanese are more diligent and industrious than other races. Laborers in the Occidental countries work only as stipulated in the contract, and do not seem to think of working longer hours.

Japanese office-workers begin their work at nine o'clock in the morning and continue to work till five in the afternoon with the exception of one hour for lunch. In addition to the regular business hours, there is in Japan a universal system of night-duty, for which office-workers take turns. They do not complain at the inconvenience of being on duty after the day's work is over. In some companies those on duty stay overnight in the office, while in many cases they remain on duty until 11 or 12 p.m. This system proves highly efficient in case of an emergency. If a fire breaks out in a factory at midnight or 2 a.m., it is reported at once by telephone or telegraph to the head office, where those on night-duty are always on hand to receive the news. The message immediately reaches the President or somebody in a responsible position, who loses no time in taking necessary measures. In Europe and America, where the system of night-duty is not in vogue, it is highly difficult to take prompt action in such a case. Should a serious accident in a factory be telephoned or telegraphed, there would be nobody to take the message in the head office. The factory might succeed in getting in touch with the President at home, but he would have to wait for the necessary step until the following morning when all office-workers come for the day's work. In addition to the system of night-

duty, the willingness of Japanese laborers and office-workers to work longer hours whenever necessary contributes much to industrial efficiency. Another factor worth noting is the simple but efficient mode of living. The inexpensive "miso-shiru," or bean soup, with rice and fish, gives the Japanese all necessary nourishment. The Japanese have also the advantage of being clever in the organization and administration of industrial plants.



## CHAPTER VIII

### LIVING CONDITIONS

In this chapter I shall enlarge upon the simple life of the Japanese, to which I alluded briefly in the preceding chapter. Our simple mode of living has an important bearing on the industrial development of Japan. The simple life is inexpensive, food not being costly among other things. The wages are low, and the cost of production is consequently low.

The commonest way of attacking Japanese industry is to refer to the low rate of wages. It is argued by foreign observers that the standard of living is low in Japan because the wages are low. In order to account for the low cost of production, the charge of "sweated" labor is brought against the Japanese industrialists. How can Japanese articles be sold so cheap, contend the observers, without exploiting the laborers? This charge comes from those who are not familiar with the real situation in Japan. The same thing happens year after year at the international labor conference in Geneva. The Japanese capitalists are criticised not only by European delegates, but also by the representatives of Japanese labor. It was in order to gather first-hand information on the spot that Mr. Fernand Maurette of the International Labor Office came to Japan in 1934. In the course of my conversation with him, I had to answer many interesting questions, and a brief summary is given below in the hope that the actual condition of Japanese industry may thereby be better understood.

When a study of Japanese industry is made abroad, cotton mills are brought into discussion more than any

other subject, and Mr. Maurette is not an exception. The average rate of 70 sen per day for girls puzzled Mr. Maurette, who pointed out that it was one-fifth to one-eighth of the European rate. I conceded that the Japanese rate is extremely low judging from the European standard, and made a statement to the following effect in answer to Mr. Maurette's query as to how the Japanese girls could live on such low pay.

Cotton mills in Japan furnish the operatives with food, for which they charge 15 sen per day, which is much less expensive than when the girls buy their own food. Other expenses of the dormitory are borne by the mill, and 15 sen is all that the girls have to pay for their living. There are some incidental expenses, such as hair-dressing, foot-gear and the car-fare on holidays. Allowing generously 15 sen more for these items, the girls can save at the rate of 40 sen per day. The savings may be reserved for their wedding expenses or sent home from time to time in aid of their parents who are usually needy peasants.

We came next to what a cotton mill operative could have to eat for 15 sen a day, and the following is substantially what I answered. In addition to rice, which constitutes the staple food, the girls have fish and vegetables. They also usually have a kind of thick soup made of bean paste known as "miso." These food-stuffs cost the mill management more than 15 sen. Of course, such items as fuel, water, utensils and kitchen equipment are borne by the mill. In short, the food, for which the girls pay only 15 sen a day, does not lack the necessary nourishment. Some people have no adequate idea of the food value of rice, which contains abundant vitamins. Rice-eaters do not need much meat in order to generate the necessary human energy. It is for this reason that those Japanese laborers who are expected to work strenuously insist on having the

best grade of rice. Firemen, whose work requires alert and quick action in the midst of confusion, are known for their fastidiousness in selecting good rice. Lumbermen, for whose work the development of physical strength is essential, cannot work if their employers furnish them with rice of inferior grade.

Formerly I had an idea that these laborers were too fastidious, but they are right according to the latest research conducted by scientists including those connected with the Dietetic Laboratory in Tokyo. It has been ascertained that Japanese rice is rich in vitamins. The laborers are incapable of explaining the matter theoretically, but they know by experience what they need for storing up vitality. I suggested to Mr. Maurette a visit to the Dietetic Laboratory, where he could get first-hand information from the specialists. The Japanese are very fortunate to have rice as the staple food. We do not eat so much meat as the Westerners, but rice gives us the necessary vitality for our strenuous activity, physical and mental. The Japanese eat more fish, and in this respect we have another advantage over the Westerners, for whom the supply of meat constitutes an important problem. Stock-farms for raising sheep and cattle require a vast area of land. In addition to providing hay, a considerable amount of human labor is necessary for stock-farming. Fish feed themselves and thrive prolifically in the seas with which Japan is surrounded, the labor of catching fish being the only item of expense. Whenever there is a large haul of fish, they may be salted or dried for storage. In these days of advanced transportation and refrigeration, fresh fish are available in the mountainous regions of Kai and Shinano, where today the operatives of silk mills can have fresh sardines. If, in case of stormy weather, fresh fish are scarce, only well-to-do people will have them regardless of the price, while laborers will con-

tent themselves with salted and dried fish. Fresh vegetables, in which Japan is rich, are always available at very low cost.

Having thus finished my remarks, I hoped I had made the matter clear to Mr. Maurette, but I added that the dormitory life of cotton mill girls would enlighten him more satisfactorily. He followed my suggestion, and saw everything with his own eyes in the course of inspection. The following is the gist of what he said on his return from the trip.

Mr. Maurette confessed that he did not quite believe in my remarks made prior to his inspection of the cotton mills in Nagoya, Osaka and Kyoto. He thought that a Japanese industrialist was cleverly defending his position to a foreign observer. Wherever he went, Mr. Maurette was courteously conducted through the mills and dormitories. He was particularly impressed with the dormitory life, and told me that the dormitories looked more like girls' school in Europe. Mr. Maurette also spoke of gramophones and other facilities for amusement, of which the girls were availing themselves to the fullest extent. He said there was no doubt as to the happy life the girls were living. There was no sign of malnutrition among the mill-hands, added Mr. Maurette, and he showed me a printed report on the food value of rice, which he had received from a specialist on the occasion of his visit to the Dietetic Laboratory.

Mr. Maurette, who is more familiar with the gloomy life of factory-workers in Europe, was greatly impressed with the cheerful and contented atmosphere prevailing in the Japanese cotton mills which he visited. If the Japanese industrialists were exploiting laborers as they are charged, declared Mr. Maurette, the dormitory life would never be so happy as he actually saw it with his own eyes. Also he spoke highly of the attention paid to sanitation with special

references to the well-ventilated and sunny rooms provided for the girls.

I confess I was not quite sure of Mr. Maurette's honest opinion. He had said nice things to me out of politeness, I suspected, but in his official report he might be more outspoken and publish observations somewhat different from what he had said while in Japan. I now find I was wrong, for in his report, which I have carefully read, Mr. Maurette shows a thorough understanding of factory life in Japan.

## CHAPTER IX

### SIMPLE LIFE AND EXCELLENT ADMINISTRATION

I WAS in close touch with the British Economic Mission, which came to Japan in 1934 under the leadership of Lord Barnby. I understand that Lord Barnby was created a peer in recognition of his distinguished service to the British Government during the World War. We find in him a combination of statesmanship and industrial ability.

It was with great pleasure that I personally conducted Lord Barnby on his tour of inspection when he came to see one of our paper mills near Tokyo. At lunch time we came to a plant where paper-makers' felt is manufactured. It is operated by one of our subsidiary companies, and I was pleased to show Lord Barnby over the plant, furnishing any information which he cared to have.

The dining hall was in operation, and our British visitor was greatly interested in our way of serving lunch. The mill-workers had not yet come, but everything including steaming rice and hot tea was neatly placed on the tables. This sight seems to have surprised Lord Barnby, who was more used to seeing factory-workers eating their cold lunch in a corner of the engine-room. He had the curiosity to try the rice, fish and vegetables, about which he had some interesting questions to ask. When, in answer to his question about the cost of lunch, I said that the workers paid 8 sen per meal, Lord Barnby wanted to know how much that would be in British currency. Being unable to convert off-hand at the current exchange rate, I said 8 sen would approximately be equivalent to the price of the London

Times. It is quite natural that Lord Barnby should have wondered how a decent lunch could be served at such a low price. It will be a puzzle even to the average Tokyoite that a lunch such as that served at our felt mill could be had at the price paid for a copy of one of the leading newspapers in Tokyo. The British visitor did not seem to have fully understood how it was possible for the mill to furnish such a decent meal at so low a price, but he confessed that his country was no match for Japan in industrial competition.

Lord Barnby took deeper interest as we went on, and I complied with his request to show him the dwelling houses provided for mill-workers. At one place, he took his shoes off in order to inspect the interior. Our houses are smaller and are furnished in a simple style, but the rooms are covered with clean matting. As in other places, our visitor was impressed with the sanitary conditions. The sunny well ventilated rooms are somewhat different from the dark and gloomy rooms in houses for the factory-workers of Europe.

I next had to tell the visitor something about the house rent. Twenty sen per tatami is a rate so low that Lord Barnby seemed at a loss to understand it, but we came next to the cost of lighting, and I said that the company was charging 15 sen per bulb. The figures I gave about lunch, house rent and lighting charges convinced Lord Barnby that the low wages paid Japanese laborers were not low properly speaking. He realized how it was possible for factory-workers in Japan to live on wages which are extremely low according to the European standard.

Another institution that attracted the attention of Lord Barnby was our bath-house for mill hands. The Japanese habit of daily bathing is proverbial, and exhaust steam from the mill is utilized for heating water in the bath-house. All



**Typical dormitory for cotton mill operatives.**



**Factory dining hall where meals adequately satisfying and nutritious are served at nominal charges.**



**Factory management encourages indigenous sports by providing special hall for Jujitsu.**



the laborers can have a hot bath free of charge when the day's work is over. Lord Barnby was also interested in the bath-house for women built close to that for men. The laborers' families do not have to go to the public bath in town where there is a regular charge. This is one of the many things which the British industrialists do not think of doing for laborers, but Lord Barnby seemed to realize how much these arrangements for the workers' welfare contribute to their efficiency. The Japanese know how to live inexpensively, concluded the British representative, but their standard of living is far from being low. Lord Barnby's report published soon after his return to England contains his observations on the Japanese mode of living, which he finds simpler but more efficient and rational as compared with the European way.

The reports on industrial conditions in Japan by these prominent representatives, who saw our factories with their own eyes, have convinced intelligent critics abroad that there is no ground whatever in the charge that the industrial expansion of Japan is due to "sweated" labor and a low standard of living. Westerners interested in the subject are now studying it from a different angle in order to account for the low cost of production, which is considered the chief cause of Japanese success.

It is not only Westerners who lay too much stress upon the low rate of wages in discussing the industrial development of Japan. Not a few of our own scholars and statesmen make the same mistake of comparing the Occidental and Japanese rate of wages without taking other important factors into consideration. It should always be borne in mind that in this land of low wages the cost of living is also low. A girl who is paid 70 sen a day can live in the dormitory of a cotton mill on 15 sen as explained in the foregoing paragraphs. Those who have families pay very little for

house rent. In the paper mills operated by my company the houses provided for mill hands are rented at a nominal rate of 30 to 50 sen per month. I have no definite idea of the house rent paid by American laborers, but I presume the rate is from \$20 to \$30. Even in cases where a paper mill in America rents its own houses built in the mill premises, the rent is not usually low, the contention being that the rent does not have to be reduced specially for laborers who demand high wages. Is the high cost of living for those paid higher wages more conducive to happiness after all than the low cost of living as in the case of Japanese laborers? I would not discuss at length the problems of wages, but the plain fact is that the cost of living is higher in Europe and America, and the wages are correspondingly higher than in Japan. The higher cost of production which is the logical consequence, handicaps the Occidental manufacturers in their competition with the Japanese.

## CHAPTER X

### CHANGING OPINION ABROAD

I HOPE I have made clear how the phenomenal development of Japanese industry has been achieved. It is gratifying that the Westerners are realizing more and more that there is no ground in the charge of social dumping. As the actual condition is understood better, foreign critics cease to speak of Japanese industry as if it were built on a system similar to slavery. At the same time, the Westerners are trying to get at the true cause of Japan's industrial expansion. Of a number of recent books and magazine articles on the subject, a few paragraphs may be quoted from "Clashing Tides of Colour" by Lothrop Stoddard.

"Foreign critics often assert that this highly centralized industrial system rests upon the backs of oppressed, 'sweated' workers. Now it is true that Japanese wage-scales are very low, judged by Western standards. It is likewise true that bad working conditions and abuses exist. Japanese labour leaders have long agitated for reforms, and bitter strikes have taken place. Nevertheless, the labour situation must be understood in Japanese terms. The Japanese worker is content with very little and has an ingrained aptitude for continuous labour which amazes foreign observers. As a French resident of Japan puts it: 'Even in the enervating heat of summer the industrious Japanese keep on working. Their life is regulated by a slow but constant rhythm that would exhaust a European in a few days . . . . Rising at the break of dawn, the Japanese work far into the night without stopping. Labour and

life are so intimately interwoven that they can never be separated.'

"Relations between workers and employers are still tinged with the old feudal attitude of mutual loyalties and responsibilities, while capital and labour are alike inspired by a common devotion to 'Great Japan.' Not long ago, as part of the great drive to capture world-trade, the Japanese textile workers were officially informed that it was their patriotic duty to take a drastic wage-cut. The cut was taken without a murmur.

"All this proves that Japan's commercial successes are due to several factors, only one of which (her recently depreciated currency) is a temporary advantage, the rest being long-term or even permanent in character. Certainly, 'cheap labour' is far too simple an explanation for the amazing growth of Japanese foreign trade during the last three years. At the very depth of the world-depression, when other nations saw their exports dwindle away, Japan launched an intensive, world-wide sales-campaign."

I have a high regard for the author, whose excellent analysis of the situation goes a long way to clarify the matter for his countrymen and enables them to form a correct idea of Japanese industry. In this connection it may not be out of place to quote a passage from the Trade and Engineering Supplement of the London Times for June 1935.

"What many otherwise well-informed commercial men at home seem to underrate is the driving force exercised in all matters of business by the white-hot patriotism that underlies all Japanese effort to-day. Nippon Seishin, which may be translated roughly as 'the spirit of Japan,' is a cult; something regarded as an ever-present aspiration or ideal state of mind in which even the humblest coolie can participate if he does but carry out his work in what one can

only describe as a religious frame of mind. The wharfinger who, buying an Irish sweepstake ticket, replied, 'I would present an aeroplane to my Government,' when asked what he would do if he won, and the important business man who a few months ago in Singapore took poison while on his way to be questioned by the secret police in regard to the suspected activities of certain compatriots, are in this respect wholly at one. Japan and her greatness stand first and last. 'Made in Japan' is, through this spirit, being lifted as a trade description to a higher level; whether profitably or the reverse, regarded in a purely financial light, time only can show."

This is another instance of a foreigner's keen insight into the characteristic traits of the Japanese people. It is highly interesting to note that the expansion of Japan is being correctly understood abroad.

**PART III**

**OPPORTUNITY FOR EXPANSION .**

## CHAPTER I

### JAPAN'S POSITION IN WORLD TRADE

THE signal development of Japanese industry attained in the course of half a century has been traced in the foregoing chapters. I now propose to make a general survey of Japan's foreign trade in order to give an adequate idea of her position in the world and also to forecast the future.

According to Table 2, in which Japan's export trade in 1925 is given as 100, the percentage for 1934 is 94. Taking 1925 as the basic year, Great Britain fell from 100 to 48 in the same period. The export trade of the United States, France, Germany and Italy dwindled to 41, 38, 47 and 28 respectively. It is noteworthy that Japan alone almost recovered her former position in 1925 as shown by the following table.

1926	...	...	...	...	...	...	88
1927	...	...	...	...	...	...	86
1928	...	...	...	...	...	...	85
1929	...	...	...	...	...	...	93
1930	...	...	...	...	...	...	63
1931	...	...	...	...	...	...	49 (year of the most acute depression in Japan)
1932	...	...	...	...	...	...	61
1933	...	...	...	...	...	...	80
1934	...	...	...	...	...	...	94

In terms of value, the figures for 1934 show an increase of 1,000,000,000 yen, 760,000,000 yen, 310,000,000 yen respectively over 1931, 1932 and 1933. Statistics are eloquent in indicating the advantageous position held in the world by the export trade of Japan.

Unlike other countries of the world, whose foreign

trade is not free from the depression, Japan has been successful in her export trade, which is expected to make further progress in the future. It is natural that other nations should marvel at the long stride which Japan is making in her export campaign. In my childhood days several decades ago, our people were anxious to introduce anything from the Occident, and I remember well how strenuously my elders worked to make Japan a strong and prosperous nation. Conditions have changed recently, and today the Westerners make a serious study of Japan endeavoring to learn something from our institutions.

There are various ways of studying the rising tide of Japan's foreign trade in order to form a general idea of her position in the world market. Let us, however, take the simpler way of using the current exchange rate as the basis of comparison.

Referring to Table 4, the aggregate volume of Japan's exports was 2,171,924,000 yen in 1934. In the same year, the British goods exported to various countries were worth 7,600,000,000 yen calculated at the current rate of Anglo-Japanese exchange. The figures for the United States, France, Germany and Italy in the corresponding period are 7,300,000,000 yen, 3,900,000,000 yen, 5,500,000,000 yen and 1,500,000,000 yen respectively. The following comparison in terms of index numbers will give a better idea.

Japan...	...	...	...	...	...	100
Great Britain	...	...	...	...	...	353
U. S. A.	...	...	...	...	...	336
France	...	...	...	...	...	182
Germany	...	...	...	...	...	256
Italy	...	...	...	...	...	70

The fact that in the course of 50 to 70 years Japan has attained the fifth grade in the world's export trade may indeed be noteworthy, but we cannot yet be very proud of



our present position. The Japanese people entertain higher aspirations.

Japan is one of the great Powers with respect to Navy and Army, and she is demanding parity at the Naval Conference in London, not being content with the 5-5-3 ratio. There is no problem of ratio for the army, but I think the same sentiment prevails. If the Japanese Navy is fighting courageously for parity with Great Britain and the United States, the present position of our export trade, ranking the fourth or fifth in the world, is certainly far from satisfactory for our industrialists. This is indeed a splendid opportunity for the Japanese to attain long-cherished aspirations. Should we fail to avail ourselves of the advantage, another opportunity may not come for a long time. Let us work hard therefore and strive for success at any cost.

TABLE 1

## COMPARISON OF FOREIGN TRADE FOR 1925-1934

COUNTRIES YEARS	JAPAN		GREAT BRITAIN		U. S. A.		FRANCE		GERMANY		ITALY	
	EXPORTS	IMPORTS	EXPORTS	IMPORTS	EXPORTS	IMPORTS	EXPORTS	IMPORTS	EXPORTS	IMPORTS	EXPORTS	IMPORTS
	(¥1000)	(¥1000)	(£1000)	(£1000)	(\$1000)	(\$1000)	(Fr. 1000)	(Fr. 1000)	(M. 1000)	(M. 1000)	(Lira 1000)	(Lira 1000)
1925	2,305,589	2,572,657	(927,417)	(1,320,715)	(4,909,848)	(4,226,589)	(45,754,933)	(44,095,362)	(8,798,497)	(12,362,055)	(18,274,261)	(26,200,484)
1926	2,044,727	2,377,484	(778,541)	(1,241,361)	(4,808,660)	(4,430,888)	(59,677,930)	(59,598,321)	(10,414,459)	(10,001,443)	(18,664,519)	(25,878,856)
1927	1,992,317	2,179,153	(832,034)	(1,218,341)	(4,865,375)	(4,184,742)	(54,924,759)	(53,049,878)	(10,801,053)	(14,228,061)	(15,633,986)	(20,374,800)
1928	1,971,955	2,196,314	(843,862)	(1,195,598)	(5,128,356)	(4,091,444)	(51,374,729)	(53,435,552)	(12,279,000)	(14,001,300)	(14,998,981)	(22,313,112)
1929	2,148,618	2,216,240	(839,051)	(1,220,765)	(5,240,995)	(4,399,361)	(50,139,151)	(58,220,622)	(13,482,700)	(13,447,000)	(15,235,976)	(21,664,759)
1930	1,469,852	1,546,070	(657,590)	(1,043,975)	(3,843,181)	(3,060,908)	(42,835,221)	(52,510,812)	(12,035,593)	(10,393,149)	(12,119,181)	(17,346,624)
1931	1,146,981	1,235,672	(454,489)	(861,252)	(2,424,288)	(2,090,635)	(30,435,794)	(42,205,830)	(9,598,608)	(9,727,078)	(10,209,503)	(11,643,058)
1932	1,409,991	1,431,461	(416,045)	(701,670)	(1,611,016)	(1,322,774)	(19,705,465)	(29,808,375)	(5,739,169)	(4,666,500)	(6,811,913)	(8,267,561)
1933	1,861,045	1,917,219	(416,989)	(675,016)	(1,674,975)	(1,449,208)	(18,433,154)	(28,425,410)	(4,871,405)	(4,203,812)	(5,979,657)	(7,412,784)
1934	2,171,924	2,282,530	(447,371)	(732,330)	(2,134,000)	(1,855,000)	(17,821,000)	(23,060,000)	(4,166,678)	(4,451,036)	(5,232,000)	(7,565,000)
			4,473,710	7,323,300	2,528,363	1,960,844	1,400,730	1,812,516	1,991,767	2,127,595	654,592	812,490

N.B. Figures in brackets represent value in the currency of each country.

Figures not in brackets represent value converted into Japanese currency at the par rate of exchange.

Figures for U.S.A. covering 1934 are based on new devaluation.

TABLE 2

## COMPARISON OF FOREIGN TRADE IN TERMS OF INDEX NUMBER

(Par rate taken as basis for conversion)

COUNTRIES YEARS	JAPAN		GREAT BRITAIN		U. S. A.		FRANCE		GERMANY		ITALY	
	EXPORTS	IMPORTS	EXPORTS	IMPORTS	EXPORTS	IMPORTS	EXPORTS	IMPORTS	EXPORTS	IMPORTS	EXPORTS	IMPORTS
1925 .....	100	100	100	100	100	100	100	100	100	100	100	100
1926 .....	88	92	83	93	97	104	130	135	118	80	102	98
1927 .....	86	84	89	92	99	99	120	120	122	115	85	77
1928 .....	85	85	90	90	104	96	112	121	139	113	82	85
1929 .....	93	86	90	92	106	104	109	132	153	108	83	82
1930 .....	63	60	70	79	78	72	93	119	136	84	66	66
1931 .....	49	48	49	65	49	49	66	95	109	54	55	44
1932 .....	61	55	44	53	32	31	43	67	65	37	37	31
1933 .....	80	74	44	51	34	34	40	64	55	34	32	28
1934 .....	94	88	48	55	41	39	38	52	47	36	28	29

TABLE 3

## EXCHANGE TABLE

	At Par	Average for First Half of 1934	Average for Second Half of 1934	Average for Whole Year 1934
British currency to ¥1.	s d 2-0.582	s d 1-2.09375	s d 1-2.03675	s d 1-2.0652
U.S. currency to ¥100.	\$ 49.846	\$ 29.847	\$ 29.176167	\$ 29.51158
	Dollar devaluation (from February 1934)			
	\$ 84.396			
French currency to ¥1.	Fr. 12.722	Fr. 4.5798	Fr. 4.3983	Fr. 4.48905
German currency to ¥1.	M. 2.092	RM. 0.763607	RM. 0.73067	RM. 0.746837
Italian currency to ¥1.	Lira 9.470	Lira 3.492	Lira 3.3828	Lira 3.4374

TABLE 4

COMPARISON OF FOREIGN TRADE IN 1934 IN  
VALUE AND INDEX NUMBERS(Converted into Japanese Currency at the average  
exchange rate for 1934)

COUNTRIES	EXPORTS		IMPORTS	
	Value in ¥1000	Index Number	Value in ¥1000	Index Number
Japan .....	2,171,924	100	2,282,530	100
Great Britain...	7,667,938	353	12,552,136	549
U. S. A. ....	7,316,992	336	5,607,150	245
France .....	3,969,805	182	5,136,845	225
Germany .....	5,575,282	256	5,955,486	260
Italy .....	1,521,988	70	2,229,748	97

## CHAPTER II

### EXPANDING UNDER PRESSURE

JAPAN has to overcome abroad more than one adverse influence which besets the course of her expanding trade. When British India and the Dutch East Indies adopted restrictive measures against the influx of Japanese goods, our government had to send delegates to make a better arrangement. Great Britain, Germany, the United States, Canada and many other countries have also set up high walls to keep out goods made in Japan. Doors are closed wherever we go, say my compatriots, and there is no way open for us no matter how hard we work. The same pessimistic views are expressed on the platform, as well as in the newspapers and magazines. I would not contradict them flatly, but I am more optimistic.

When a man of humble origin works his way up, he has to go through desperate struggles before he becomes a millionaire or a captain of industry. Nor is it smooth sailing for a man to become a foremost statesman or an eminent scholar. The same general principles are applicable to a nation aspiring toward greater expansion. Nations may have to overcome obstacles and calamities of more serious nature than individuals. Japan is sailing before a favorable wind in spite of the fact that all the nations of Europe and America lay obstacles to thwart the development of her foreign trade.

Japan has heretofore been regarded abroad as a poverty-stricken country. Japan has a powerful army and navy, but it is believed that she is financially weak. The people are poor, we are reminded, because the country is not rich

in natural resources. It is on account of this wrong notion, which is shared by a large section of our own people, that our trade rivals think of beating us economically whenever they are annoyed by Japanese competition.

Japan, which had been regarded prior to the World War as a second or third-rate nation, has since become stronger, notably in armaments. At the time of the Washington Conference, Great Britain and the United States cooperated to curb Japan's aspiration for parity. Japan had to accept reluctantly the 5-5-3 ratio, and in addition was subjected to coercion resulting in the retrocession of Shantung to China. Japan was powerless to have her own way in opposition to Europe and America, and the treaty concluded by our statesmen under the circumstances was resented as humiliating by the public at large. The Japanese people, who have never got over the resentment, have expressed their feelings in more than one form.

Since the retrocession of Shantung, China has been making light of Japan and has come to believe that the Japanese can easily be forced out of Manchuria repudiating the Twenty-One Points. The anti-Japanese agitation, in which the Chinese Government took the initiative, has grown rampant owing to measures of encouragement taken by some countries. The figures given below will give a good idea of the extent of losses sustained by Japan. Japan's exports to China, which amounted to 447,000,000 yen in 1919, gradually dwindled, falling to 117,000,000 yen in 1934. This is a fall from 100 to 26 per cent. It was believed at one time in Europe and America that Japan would be completely beaten on account of the disastrous blow dealt her in China.

The situation took a turn contrary to the general anticipation. Japan under pressure in China found a way out in India, where she made inroads with overwhelming force.

Japan's exports to India, which amounted in 1919 to 116,000,000 yen, increased to 258,000,000 yen in 1934. This is an increase from 100 to 220 per cent. Japan's exports to the Strait Settlements increased from 29,000,000 yen to 63,000,000 yen in the corresponding period, which means an advance from 100 to 212 per cent. The value of Japanese goods for the Dutch East Indies increased from 57,000,000 yen to 158,000,000 yen showing a gain of 101,000,000 yen. In percentage, it is a rise from 100 to 276. Kwantung Province shows an increase of 145,000,000 yen over 150,000,000 yen, the figures for 1934 being 295,000,000 yen. The Japanese goods for the new state of Manchukuo amounted to 107,000,000 yen in 1934. It will thus be seen that, subjected to anti-Japanese agitation in China, Japan has expanded elsewhere. Our trade lost in China has been more than made up in other countries.

The Westerners may be interested to know the reason for the phenomenal increase of Japan's exports to Kwantung Province. The Chinese people, who are generally poor, are anxious to buy Japanese goods which are cheaper than those made in Europe or America. In order to get round the anti-Japanese boycott enforced by the Government and the Kuomintang for political reasons, the Chinese smugglers buy Japanese goods in Dairen or Ryojun (Port Arthur), which transactions are legitimate. Junks loaded with these goods go to Tientsin, Tsingtao or any other Chinese ports accessible to junks. It may be that some Japanese are taking part in the smuggling. I would neither encourage nor justify smuggling from the moral or legal standpoint, but it may be regarded as an instance of measure for measure. A treaty of commerce and amity between Japan and China is in force, while there are ambassadors properly accredited by each. Has China any good excuse for boycotting Japanese goods? As explained above, Japan's

exports to Kwantung Province increased approximately by 150,000,000 yen due to smuggling. Taking the increase shown in other regions into account, Japan's gain of 530,000,000 yen more than covers the loss sustained in China amounting to 350,000,000 yen. The net gain of 180,000,000 yen may therefore be traced to the boycott of Japanese goods in China. When the Japanese are subjected to pressure in one region, they know how to expand elsewhere.



## CHAPTER III

### RAW MATERIALS FOR JAPANESE INDUSTRY

THE Japanese are not daunted by obstacles thrown in the way of trade expansion. The higher the pressure, the intenser grows their endeavor for expansion. It is as a result of persecution to which Japanese goods were subjected in British India and the Dutch East Indies that they have found their way to Africa, South America, Asia Minor, and even to Europe. Remarkable progress has recently been shown in the volume of our foreign trade in this direction. Japan's exports to Europe, which amounted to 127,000,000 yen in 1932, increased to 227,000,000 yen in 1934. The idea of exporting Japanese goods to Europe to such an extent was inconceivable a few years ago, and the result must be attributed to the undaunted efforts of Japanese traders. In the corresponding period, the exports of Japanese goods to Africa increased from 85,000,000 yen to 182,000,000 yen. Small countries in South America and Asia Minor, the names of which were scarcely known to us formerly, have recently been penetrated by the hard-working Japanese traders. The trade lost in India, Java and the Philippines, where the doors are closed to Japanese goods, has been made up by new markets opened in Europe. We have seen how Great Britain, which subjected Japanese goods to pressure, has ended in gripping her own throat. The Japanese traders know how to resort to retaliation in regions which have long been regarded by European nations as their sphere of influence. Should they fail to realize that no amount of pressure can beat Japan completely, they will simply be harming themselves more and more.

Among European scholars who have a correct idea of the situation in Japan is Prof. Gregory of London University, whose observations, originally published in the London Times, may be summarized from a Japanese publication.

It is futile to take repressive measures against Japanese goods. If too much pressure is brought to bear on Japan, the professor points out, she may be prevented from selling her goods, but in that case she will cease to buy raw materials abroad. Japan is poor in raw materials, which she imports from abroad if she can sell her manufactured goods. It is therefore impossible, concludes the English scholar, to try to take concerted action against Japan. Those countries which have to sell raw materials to Japan cannot afford to force her not to sell the output of her industrial plants.

Going over the statistics of Japan's foreign trade, we find that, as a general rule, the imports exceed the exports by 100,000,000 yen to 200,000,000 yen. Japan buys more than she sells abroad, and it is natural that she should choose not to buy from those countries which refuse to buy Japanese goods or charge a prohibitive tariff on them. The retaliatory tariff directed recently by Japan against Canada is an instance. In Australia, which has to sell wheat and wool to Japan, the public is urged to buy Japanese goods as much as possible. When the Australian Economic Mission came to Japan a few years ago, the pledge not to exclude Japanese goods was reiterated, while the Mission expressed the earnest hope that Japan would continue to buy wheat, wool, etc. from Australia. On the occasion of Ambassador Debuchi's return visit, preparations were made for concluding a treaty of commerce between Japan and Australia. For more than one reason, Australia realizes that it is not to her best interest to quarrel with Japan. She is afraid of losing her important trade with Japan. Not only Australia, but also South America and the South Sea Islands have to

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buy Japanese goods in order to sell their raw materials to Japan. Prof. Gregory is quite right, therefore, in contending that it is impossible to beat Japan by refusing to buy her goods.

## CHAPTER IV

### REVOLUTIONARY UNREST IN ORIENTAL COLONIES

THE natives of India and the South Sea region, as well as those of European colonies in Central Asia and Africa, prefer almost without exception the cheaper goods made in Japan. High grade articles from England and America are not suitable for the natives, whose standard of living is low. If the natives buy cheap Japanese goods, which is most logical, the industrialists of the home countries in Europe suffer thereby. It is in order to protect the interests of Manchester that the British Government tries to exclude Japanese goods from India, the interests of the native population being sacrificed thereby. It is not difficult to see why the natives of the Dutch East Indies prefer Japanese goods worth two or three yen to similar articles from the Netherlands costing five yen, for example. It is natural that this policy of protecting the home countries at the expense of the colonies should be keenly resented by the natives.

Prior to the World War, the colonies were powerless to protest against any repressive measures that might be taken by the home countries in Europe, but the situation has since undergone a radical change. Let me quote again from Lothrop Stoddard's book.

"Communist efforts have notably increased the difficulty of maintaining Western control over colonial dependencies in Asia and Africa. The gravest aspect of Red propaganda is its building up of disciplined, strongly backed Communist groups to fight the well-trained colonial officials

who have hitherto ruled Oriental lands more by skill and prestige than by armed force. In this way the 'moral imponderables' of Western rule are being insidiously undermined. India, French Indo-China, the Dutch Indies, the Philippines—everywhere it is the same story.

"A French writer explains very well what is going on. 'The methodical organisation of colonial revolts,' he says, 'is of recent origin. Before the war, it was non-existent; since the war, not a month has passed without some such revolt in some part of the globe. And not an hour passes, but what thousands of professional revolution-makers work toward the achievement of their large ends.'"

The same author has the following to say in regard to the future of the Orient.

"The gravest questions for the Orient's political future arise in connection with the immense regions under Western control. Many of these lands are today clamouring either for full autonomy or absolute independence. Few informed students believe that any of these lands would be capable of running an efficient, orderly government—let alone a government truly democratic in character. On the contrary, most qualified observers are convinced that, in almost every case, independence would spell misgovernment, acute civil strife, and perhaps chaos. A free Philippines would presumably soon turn into a bear-garden of warring factions, whilst it is well-nigh certain that India, left to its own devices, would quickly degenerate into the most frightful welter of racial and religious passions that the modern world has ever seen.

"Nevertheless, the power and prestige of the West is waning so rapidly throughout the East that the emancipation of these Asiatic dependencies from Western control seems to be inevitable in the near future, regardless of consequences. To point out the disastrous results of immediate

independence, not only to the West but perhaps even more to the Orientals themselves, is a mere waste of breath. The classes who really count in Asia, the men who mould public opinion and guide the ignorant masses, want the white rulers to get out, no matter what happens afterward. As one Filipino politician pungently expressed it: 'We would rather be governed like hell by ourselves than like heaven by the Americans!'

It will be seen that, as Stoddard says, the independence of colonies in Asia may not necessarily prove beneficial to them. However we cannot be blind to the fact that unrest prevails in the colonies, and that they will eventually cast off the Occidental yoke.

Tadasuke Imamura of Japan, who has recently returned from an extensive trip of observation, may be quoted on the same subject.

"In granting independence to the Philippines, the American Government reduced to 50 a year the number of Filipino immigrants to the mainland of the United States, which had formerly been 2000 to 3000 a year. The imports of Philippine sugar were reduced to two-thirds, while the prohibitive duty of five cents per pound is charged on coconut oil from the Philippines, the value of which is only three cents. The ratio of one American dollar to two pesos is maintained, and a specially high tariff is in force for Japanese goods imported into the Philippines. The fine name of independence is meant to cover the trick of exploiting the Filipinos economically. It is in protest against the American policy of exploitation that the Sakdalist Party was organized in Luzon. Mr. Ramos, the leader, has been in Japan as a political refugee for some time, and it will be interesting to watch how the conflict between the pro-Japanese and pro-American politicians will develop in the future.

"In the Dutch Indies about 4000 natives connected with the movement for racial welfare were arrested at the time of the Japanese-Dutch conference. When a young man by the name of Hatter came to Japan on a tour of observation, a newspaper in Osaka spoke of him as a patriot of the Dutch Indies. The attention of the Dutch authorities was called to the newspaper article, and he was arrested on his return from the trip and is said to have been exiled. The area of the Dutch Indies is fifty-six times as large as that of the Netherlands, and the colony with a population of 60,000,000 is exploited for the benefit of 7,000,000 people in the home country. When the native population makes a little more progress in intelligence, it will not be difficult to organize an independent nation.

"When the Crown Prince of Kedah in the Malay Peninsula was getting ready for a trip to Japan which he had long wished to make, the British authorities are said to have interfered with the preparations in more than one way. The trip had to be given up, and the native Prince died in a hospital after a short illness. It was at that time sensationally commented on as a case of mysterious death. The native population of the Malay Peninsula is awakening, and is courting Japanese friendship."

Side by side with unrest prevailing in the Asiatic colonies of European countries, Japan has risen to the position of a first-class Power. The native population of these colonies, realizing that Japan is wrestling on an equal footing, so to speak, with Great Britain and the United States in the world's arena, is ceasing to obey the Westerners blindly. The self-determination of nations, as advocated by the League of Nations, is also responsible for new activities among the natives. Would it be advisable at this juncture to interfere with their desire to buy Japanese goods? The idea of forcing the natives to buy high-priced articles

**in order to protect the industries in the home countries is indeed a policy of doubtful wisdom.**



## CHAPTER V

### LEADING CHINA ON THE WAY TO PROSPERITY

AS has already been remarked, Japan's export trade showed an increase of 170,000,000 yen within three years in the small province of Kwantung, the figures for 1932 and 1934 being 126,000,000 yen and 295,000,000 yen respectively. Our exports to Manchukuo, now over 100,000,000 yen, are expected to increase this year to 200,000,000 yen. This gives a good idea of the upward tendency of Japan's export trade in Eastern Asia. If China is left unaided in the present state of anarchy, the purchasing power of the Chinese people will scarcely increase. China needs a stable government organized and administered under able leadership, which would prove a boon for the foreign trade of Japan, as well as for that of any other nations. We are commercially interested in her teeming population and abundant natural resources.

Cheap Japanese goods are more popular in China than European goods. The China trade of Japan will show a remarkable increase if a policy of leading the people on their way to prosperity can be carried out by a decent government under able guidance. The exports of Japanese goods to China dwindled from 450,000,000 yen in 1933 to 110,000,000 yen. But it is not difficult to bring the annual total up to 500,000,000 yen or 1,000,000,000 yen, China being a land of enormous population. Should Japanese goods be forced out from India and the South Sea region, China alone would be sufficient as an outlet for Japanese goods, provided that the necessary steps are taken to make that country pros-

perous. Japan cannot do as she pleases with China, it may be pointed out by critics, but Manchukuo has made steady progress since it was organized a couple of years ago, and an interesting state of affairs prevails in North China. The Japanese will forge ahead somewhere, should Europe continue its attempt to subject Japan to indiscriminate oppression. I hope it is not out of place to quote once more from Mr. Stoddard's book.

"The Japanese could not live by taking in one another's washing. They had to look abroad for the means to support even those then alive. So Japan continued to industrialize herself and became increasingly dependent upon foreign trade. The Great War was a godsend. Japan's foreign trade grew by leaps and bounds. When peace ended the war-time boom, Japan concentrated on China, logically her chief market. How vital that had become to Japan's economic life was seen in 1931, when the great Chinese boycott temporarily disrupted Chino-Japanese commercial relations. Then it was that Japan went off the gold standard and, using her devalued yen as the spearhead, launched her world-wide export drive.

"By almost superhuman exertions, Japan just manages to give a meagre living to her present population—now swollen to 66,000,000. But how about the future?—perhaps the very near future? The Japanese are now spawning at the rate of over 1,000,000 per year. How are all those extra millions to be taken care of through further extensions of foreign trade in a world ridden by economic nationalism; threatened with new wars and revolutions?

"Present-day Japan is thus stung to action by the sharpest of life's instincts—that of self-preservation. Now add to this primeval urge a burning faith in 'Great Japan' and the peculiar excellence of the Yamato Race; add to that again the Bushido code glorifying self-sacrifice and welcom-

ing heroic death, and we can realise the fierce longing in Japanese hearts to cut the Gordian knot of their difficulties and hew out a great destiny with the Samurai sword. Against that grim emotional background, the trend of Japanese foreign relations can best be appreciated."

The Japanese have to seek an outlet somewhere to keep themselves alive. Too much pressure brought to bear upon Japan by Europe, America and China exploded in Manchuria. Should Japan be subjected to the same obstacles in British India, the Dutch East Indies, or South Africa as in other regions, what would the Japanese do then? Japan's existence as a nation would be jeopardized, should there be no sufficient means of feeding the increasing population. The Japanese people cannot sit still and wait for death by starvation. They must expand somewhere in order to continue to live.

In this connection, I think of numerous workers employed in the many plants operated by my company. Under no circumstances, can I let them starve to death. As an employer, I am under the obligation to help them and give them livelihood. Like individuals, a nation has the right to exist, and can not starve to death due to oppression. Explosion will take place somewhere when a nation desperately tries to avoid starvation.

## CHAPTER VI

### SUCCESS OF PIRATICAL ENTERPRISES

LARGE colonies acquired in Asia made generous contributions to the wealth of the home countries in Europe. The wealth thus accumulated in turn laid the foundation for powerful armaments. The history of these colonies is particularly interesting to our people of the present day.

The trade between the Occident and Orient in the sixteenth century was almost monopolized by the Spaniards and Portuguese. Not even the Dutch could handle Oriental goods, specially Indian, except through the Portuguese. But when the Netherlands declared their independence from Spain, Philip II of Spain who conquered Portugal in 1580 strictly prohibited the Portuguese to trade with the insurgent Dutch. The only way open for the Dutch to carry on the Oriental trade under the circumstances was to go over to India and deal direct with the native population. The Indian route of shipping was, however, completely controlled by the Portuguese interests, and ships flying flags of any other nationalities were regarded as pirates liable to confiscation. The Dutch realized that it was impossible for them to carry on the India trade as individuals. A navy powerful enough to cope with the Portuguese opposition was found necessary, while armed forces were required in order to engage in the trade by intimidating the native chiefs. The outcome was the formation in 1594 of the Dutch East India Company, the capital for which was put up by those individuals interested in the enterprise. It was a strong organization with a large fleet of ships. The idea was to conduct the India trade under the protection of the

company's own army and navy. It was in 1602 that the company succeeded in concluding treaties with the native chiefs, and the charter for engaging in the India trade was granted by the home government. No profit was realized until 1611, while the company had to pass its dividend for the greater part of the two subsequent decades. Thanks to the indomitable effort of the Dutch, their colonies were gradually extended, the Molukka Islands, Malakka, Celebes and other important points along the Malabar Coast having been wrested from the Portuguese.

The Dutch were at the zenith of success toward the latter part of the seventeenth century, having monopolized the Japan trade in the meantime. From the eighteenth century on, the Dutch influence began to wane owing to British aggression. In 1795, the Dutch East India Company was disbanded, and the colonies still in the hands of the company, which were taken over by the Dutch Government, constitute the present Dutch possessions in Asia. France also organized in 1604 the French East India Company, which, however, did not prove a successful enterprise owing to a vacillating policy. The French were no match for the British, who gradually took over all their Asiatic colonies.

We have seen how the Dutch, oppressed by the Spaniards, launched into the India trade for themselves. By 1598 when the Dutch had firmly established themselves in the Oriental trade, they raised the price of pepper for the British from three to six shillings. British merchants were so panic-stricken at the further advance of two shillings later on that they held a conference at which the Lord Mayor of London presided. Realizing the necessity of an organization to engage in direct trade with India, the British East India Company was established in 1600. The British who had their base of operations in Surat, succeeded in cleverly

subjugating the Mogul Emperor and other native princes. On the other hand, the proverbial steadfastness of the British gradually drove out the Portuguese, Dutch and French, bringing the whole land of India completely under their direct sway in 1859. Highly interesting as its history is, I have to forego the pleasure of reviewing the development of British rule in India.

We have seen how the Dutch took too great an advantage of their paramount position in selling pepper and other spices at an excessive profit. The decline of the Dutch East India Company may therefore be traced to their shortsighted policy, in which there was no place for imperialism on a large scale. The British came later on the stage, but were successful in driving out their predecessors, the Dutch and French. Their success in subjugating the native princes is an outcome of concentrated endeavor. It is interesting to note that both the Netherlands and Great Britain had to brace themselves up in combating the injustice of other nations in foreign trade. These two enterprising nations launched into the India trade in the course of commercial warfare, in which the British came out victorious, finally driving out all their antagonists.

The Philippine Islands were originally discovered by Magellan, the Portuguese navigator who was murdered by the natives. When the surviving members of his party returned, they reported on the expedition, and the Spaniards came in 1569 to occupy the Islands. At the time of the Spanish-American War, the Archipelago was occupied by warships of the United States, which later paid \$20,000,000 to take it over under the terms of the peace treaty.

We have traced the origin of Occidental colonies in the Orient which were encouraged by the urge for trade expansion. The world trade meant something different in olden days, when it also covered acts of depredation and

**military occupation by the powerful Europeans. The weaker natives, powerless to defend themselves, were their victims. The East India Company may therefore be regarded as an enterprise of organized piracy.**

## CHAPTER VII

### OCCIDENTAL COLONIZATION IN THE ORIENT AND JAPANESE PIRATES

HISTORICAL books written in Japan have only meagre accounts of Japanese pirates or adventurers known in history as "Wako," who raided the coasts of China and Korea, and went further down to Annam, Kochin, Siam, Luzon and Borneo. According to interesting sources of information from China, Korea and Europe, the activities of Japanese buccaneers in olden days are in many respects analogous to the aggressive advance of the Westerners in the Orient.

For a period covering more than one hundred years from the fifteenth century to the earlier part of the seventeenth, one group after another of our people ventured out to sea from the western part of Japan, their nearest destinations being the Chinese and Korean coasts. These Japanese adventurers who, with their characteristic intrepidity and superior arms, overwhelmed the inhabitants of the regions where they landed, are generally known as pirates. They had long been sea-rovers since their ancestors' days, when there was no restriction on ship-building, but they were most rampant in the fifteenth and sixteenth centuries. Their advent on the Chinese coast was a constant source of menace to the inhabitants, but there are evidences that they were far from being pirates indulging only in pillaging. Even the smallest party seems to have consisted of 30 to 40 ships, each manned by 100 men or more. It was not unusual for one party to consist of 150 to 350 vessels, and an expedition of the largest size may be estimated at 30,000 men. Flying flags bearing the name of Hachiman Daibosatsu, or



the Japanese Mars, from the mast-head, the buccaneers triumphantly raided the coastal regions. Their primary object was to obtain articles of daily necessity and they did not care to occupy the land. It was only when their purpose of engaging in peaceful transactions was thwarted that the Japanese pirates resorted to arms. There are familiar descriptions of their raids, in which trumpet-shells were blown and Japanese swords were brandished like a whirlwind. The Japanese pirates, armed with deadly weapons while carrying on commercial transactions, may be regarded as a kind of armed merchant marine.

As early as the second half of the fourteenth century, the Chinese and Korean Governments sent emissaries to the Ashikaga Shogunate requesting that the activities of Japanese pirates be stopped. The Shogunate, which was incapable of exercising any controlling power, tried at one time to replenish the impoverished exchequer by concluding a treaty of amity with the Ming Dynasty of China. However, the audacious and independent pirates took no notice of the government policy and kept raiding the continental coast. Yoshimochi, fourth Shogun in the Ashikaga line, who, under the cloak of a divine oracle, declared a policy of non-interference, was responsible for the greater activity of the pirates. The Korean Government at last decided to be friendly with the Japanese buccaneers, whom they began to treat as guests rather than raiders. A treaty of commerce and amity was concluded with the Japanese pirates at their headquarters on the Island of Tsushima. Among other things, it was stipulated that fifty vessels a year would be allowed to engage in the trade and that rice and other necessities of life would be furnished by Korea. It will thus be seen that the high-handed terms proposed by a band of adventurers were accepted by the Korean authorities.

In the fourteenth century there was a pirate leader, Murakami Saburozaemon Yoshihiro, whose influence was likened to that of a feudal lord. His grandson Masafusa, who organized a powerful expedition and went over to China, came back with his fleet heavily laden with treasures of great value, as well as rice and other grain. Masafusa had to undergo trial for piracy, but was acquitted. Moreover, he was appointed to take charge of the defenses in the south-western part of Japan, and the position became hereditary for the Murakami clan. It should be borne in mind that these so-called pirates were more than plunderers, for they also worked for national defense in the same way as a modern navy. In the Inland Sea there were several pirate headquarters strongly fortified. An influential Chinese pirate, known by his Japanese name Ochoku ("Wang Ti"? in Chinese), who directed his operations from the west coast of Kyushu, carried on his trading activities extensively in China and the South Sea region. He was eventually naturalized in Japan and transferred his headquarters to Hirado, which was destined later to become a flourishing port for Occidental vessels. The existence of three-storied buildings there in 1602 will give a good idea of the prosperous conditions. A formidable combination with the Murakami clan was effected for overthrowing the Ming Dynasty, but Ochoku's romantic scheme ended in failure. The greater part of the silk goods, porcelains, spices and incenses, which the Japanese adventurers brought in their ships and disposed of in the Loochoo Islands and Formosa are said to have been sold to the Chinese and others from the south who came to the islands for that purpose.

The Japanese pirates, whose activities had been prohibited by Hideyoshi four years before launching the Korean expedition in 1592, did not cease to raid the coasts of Annam, Luzon, Siam and other countries. It was on account of



the rigid measures of restriction to which the Tokugawa Shogunate subjected shipping and ship-building that the activities of Japanese pirates were gradually curbed. The drastic interdiction of Christianity proclaimed in 1636 by the Shogun Iyemitsu coupled with his policy of national isolation dealt Japanese piracy a fatal blow.

Is there not something analogous between the trading activities of the Dutch, French and British in India and adjacent regions and the organized piracy of Japanese adventurers? The Japanese colony in Siam under the leadership of Yamada Nagamasa is a by-product of Japanese piracy, so to speak. His distinguished services rendered the King of Siam in putting down a rebellion were recognized by a royal appointment as grand tutor to the Crown Prince. A principality was later created for Yamada, and it is a great pity that his brilliant career was cut short by sudden death. An enterprising trader known as Luzon Sukezaemon, who made several trips to the South Sea region in a large pirate ship, amassed a fortune, but in his greater ambition for Japan's expansion overseas he was unable to interest the feudal lords to whom he appealed for support. Brief references may also be made to Zeniya Gohei and Takadaya Kahei, whose names are still remembered as daring pioneers of Japan's foreign trade under the Tokugawa regime of strict prohibition. Gold and silver coins amounting to 365,800 ryo,\* which were confiscated by the feudal lord of Kaga in addition to numerous treasures when Zeniya Gohei was imprisoned will give an idea of the enormous wealth accumulated by these dauntless traders.

We have seen that in addition to promoting their trad-

\* "Ryo"—a unit of the ancient Japanese currency. When it was abolished in 1868 by the new Imperial Government, one ryo was converted at the rate of one yen. But the coins confiscated represent a far greater value which the extremely variable gold and silver content makes it impossible to estimate exactly.

ing interests, Spain, Portugal, the Netherlands and Great Britain succeeded in acquiring colonies in the Orient. But the Japanese failed completely in colonization, and I am interested in the cause. One scholar may differ from another, but in my opinion as a practical layman, the European nations, particularly Great Britain, were more far-sighted than the Japanese.

While not losing sight of commercial advantages, the British had in mind what today we call imperialism. In winning over the native princes, Great Britain had aimed at territorial aggrandizement ever since the earliest days. The Dutch, who cared more for commercial advantages, succeeded in raising the price of spices, in which they enjoyed a monopoly. But they were finally driven out by the British.

The Japanese adventurers were very powerful, and there are interesting accounts of this fact in Japanese and foreign books. Japanese settlers were found in great numbers in many parts of Eastern Asia. Their failure to make colonies of a permanent nature may be ascribed to the antagonistic policy of the Government, which regarded as dangerous their activities-abroad.

The isolation policy of the Tokugawa Shogunate included such measures as prohibiting Japanese ships to go abroad and executing Japanese subjects who returned from foreign countries. The Shogunate authorities were highly suspicious of Christian missionaries from Europe, who interfered with politics and kept in touch with discontented feudal lords. There were political reasons for the famous rebellion of the Catholics in Amakusa. The policy of abolishing Christianity was adopted by the Tokugawa Shogunate which traced the political activities of Catholic missionaries to the instigation of their home governments. Formerly Christianity only was prohibited, but it was

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**realized later that unless foreign trade was forbidden, the root of the evil could never be eradicated. The enterprising activities of Japanese pirates were thus finally doomed to complete failure owing to the lack of support at home.**

## CHAPTER VIII

### A MODERN VERSION OF ANCIENT PIRACY

IN the preceding chapter I dwelt at length on the Japanese pirates of a few centuries ago, for their dauntless activities remind me of our enterprising traders of the present day who find their way to the remotest corner of the world. No matter how trying the climate may be, these modern pioneers go wherever they can sell Japanese goods. No region is inaccessible to them, if articles made in Japan can be introduced there.

I was greatly interested in Mr. Ryozo Asano's account of his recent trip back from Europe. He flew to Singapore via the interior of Persia and India. Flying over the hinterland of these countries, Mr. Asano's aeroplane stayed overnight at a few places, and he was surprised to find Japanese traders in localities poor in the ordinary facilities of communication. These are Osaka men trying to introduce Japanese cotton fabrics. The vanguard of Japan's foreign trade is found all over Asia Minor, in South Africa and even in the interior of South America. Without any support from the government, these traders go from one place to another introducing Japanese goods, the expenses being borne by their home organizations in Japan. An enormous increase is shown in the quantity of articles made in Japan which are thus being introduced into a number of small countries, whose names were not familiar to us before. Even our own people are surprised at the extent of Japanese penetration, which no nation of the world seems able to thwart.

As pointed out elsewhere, the isolation policy of the

Tokugawa Shogunate is responsible for the short-lived success of Japanese pioneers abroad. Had such powerful war-lords as Hideyoshi and Nobunaga or the Tokugawa authorities backed the activities of Japanese pirates by adopting a more positive policy, the Japanese would have been able to accomplish something in India before the Dutch and British came there. The world today might have a map quite different from that which we have now.

The best way to feed our increasing population is to develop our industries and sell the products abroad. This is a national policy which I ardently hope the whole Japanese nation will endeavor to carry out. No matter what form of government may eventually be adopted, Japan under any ministry should take measures to provide employment for the people, whose number keeps increasing. In the limited area of Japan which is not rich in natural resources, the only way is to promote foreign trade by developing manufacturing industries.

It is the duty of the Japanese Government under any leader to foster industrial expansion in order to carry out the national policy as outlined above. I wish to point out in this connection the necessity of a powerful army and navy. These two arms of national defense constitute an important source of strength in our economic expansion.

I am far from recommending the use of armed forces for economic expansion in an aggressive way, but I rely on the army and navy for the protection which our foreign trade needs. No nation in the world can curb the progress of Japan's foreign trade if it is supported by the whole nation and by all branches of the government. We have a splendid opportunity to expand abroad; it is the manifest destiny of the Japanese nation. Let us make up our minds to overcome any obstacles and to move forward under any circumstances.



## CHAPTER IX

### ARMAMENTS AS A NATIONAL INVESTMENT

MUCH has been said and written about the so-called "red-ink bonds," which our government has been issuing during the past few years to cover the financial deficit. It is denounced as an unsound policy which will eventually undermine the financial structure of Japan. As an industrialist who stands for economic expansion abroad, I differ slightly from those who object to the red-ink bond issue.

Manchukuo has come into existence. It is an independent State in friendly relations with Japan, and of course we cannot do as we please in that country. Speaking economically, however, Manchukuo may be regarded as an asset for Japan, or as an arena for the economic activity of our people. If Manchukuo is an asset for Japan as I believe, is it not perfectly sound to issue bonds or float loans on the new State amounting to hundreds of million yen? Those who are engaged in any line of business are familiar with the general practice of preparing a balance sheet, in which there are columns for Liabilities and Assets. Should there be no assets to cover liabilities, the finances would certainly be unsound. There would, however, be no reason for worry, should liabilities and assets be adequately balanced. My company, for instance, has recently increased its bonded indebtedness, but we have some new plants financed by fresh loans. My company is in a sound condition financially because there is nothing wrong in the relations between the plants and loans. Should there be any corporation burdened with heavy debts without adequate properties in the shape of productive factories, its finances would have to be con-

sidered highly unsound. Any enterprise is sound if it has debts that are adequately covered by assets. When viewed in this light, there is nothing dangerous in the recent increase of the red-ink bond issue. I still have confidence in Japan's finances as a whole. Although the liabilities have increased, it is true, by hundreds of million yen, yet the items on the asset column have correspondingly increased in a sound way.

Let me now turn to the volume of Japan's foreign trade, which has reached 2,100,000,000 yen. Some of our people are rejoicing at the progress shown, but we must remember that the amount is one-third to one-fourth of British foreign trade. Let us be more ambitious and aspire to increase our foreign trade at least to 3,500,000,000 or 4,000,000,000 yen, which is approximately one half of the British figures. I am confident of success, for our foreign trade has increased at the rate of 400,000,000 to 500,000,000 yen during the past several years. I expect that the statistics for the current year will be somewhat below the average, but Japan's foreign trade is bound to expand, and it will not be too ambitious to try to increase it to 4,000,000,000 or 4,500,000,000 yen a year. Only it should be borne in mind that the object cannot be attained solely by the efforts of industrialists without protection or support. If the Japanese Government of the present generation adopts a policy similar to that of the Tokugawa Shogunate, Japan will never be successful in trade expansion, no matter how strenuously those engaged in business may exert themselves. The success of Great Britain in India, where the East India Company actively promoted her interests, was due to the combined efforts of the people and government for national expansion. That adventurous corporation, which may frankly be called a piratical enterprise, enabled the Britishers to act fearlessly abroad, while the British

Government stood staunchly back of all the projects of the company. I see no reason why Japan's trade expansion should not succeed, if the government and people cooperate earnestly in their support of the traders.

Nothing is more important than force in achieving this ambition. Diplomacy without force is of no value. No matter how diligent the Japanese may be, or no matter how superior their technical development or industrial administration may be, there will be no hope for Japan's trade expansion if there is no adequate force to back it. Now the greatest of forces is military preparedness founded on the army and navy. We can safely expand abroad and engage in various enterprises, if we are confident of protection. In this sense, any outlay for armament is a form of investment. I hope I shall not be misunderstood, but in my opinion preparedness is an investment whose object is to provide the force necessary for national expansion which would otherwise be impossible.

My advocacy of increased armaments is subject to a reservation. It should be an investment that maintains an adequate balance with the national resources. And it is up to statesmanship to decide whether the right equilibrium is maintained. It has been pointed out that no other nation spends so much money for armaments as Japan, which devotes one half of the state revenue to armaments. The average in Europe is from one-third to one-quarter. There is, however, no hard and fast rule that can be applied to the armaments of all nations, each one of which has its own requirements. Japan has come later into the world's arena and cannot afford to be so easy-going as the European nations. To take plain examples, such financial magnates as Mitsui and Mitsubishi with unlimited resources can succeed in any enterprise without working strenuously. Modern Japan in the earlier days may be likened to a man

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of obscure origin, who launches into business empty-handed. Japan to-day is like a young man who has to overcome one difficulty after another. It requires statesmanship of high order to enable Japan to steer her course safely.

## CHAPTER X

### SPLENDID OPPORTUNITY FOR EXPANSION

IN newspapers and periodicals we often come across the term "Japan-Manchukuo economic bloc," while a section of the public recommends a tripartite bloc to be composed of Japan, Manchukuo and China. I am not in favor of the suggestion for the reason that the idea, if carried out, will restrict Japan's expansion. It may be wise for a nation like Great Britain to form her own economic bloc composed of Canada, Australia and others that belong to the British Empire. It is argued in Great Britain that her economic interests cannot be protected unless there is a solid bloc consisting of the homeland and the colonies. The Japanese are quick to imitate any novelties, and have a fancy for new ideas introduced from abroad. The imperial economic bloc as recommended in Great Britain has given rise to the suggestion of a Japan-Manchukuo or Japan-Manchukuo-China bloc. I would not object to the idea so long as it is discussed, but I hope those in favor of an economic bloc for Japan will not be so bold as to try to carry it out. Japan is different from the vast British Empire, whose people can shut themselves up without much inconvenience in their own house, as it were. If Japan were to imitate Great Britain and confined her activities within the sphere covered by the Japan-Manchukuo bloc, she would have to give up her aspiration for expansion. The Japanese cannot afford to stand on the defensive and adopt a negative policy. Japan, whose manifest destiny is to exploit the world market for her industrial products, should assume the offensive. She has no use for an economic bloc of narrow scope.

The position of Japan's foreign trade in the world today reminds me of Takeda Shingen, a valiant warrior of the sixteenth century, who was renowned for having had no fortified castle for himself. He had no use for a castle, for he never thought of taking the defensive. In a similar way, Japan has no use for an economic bloc, for in her aspiration for trade expansion the offensive is the only policy to adopt. It may be advisable to have an economic rapprochement participated in by Japan, Manchukuo and China. I do not believe in an economic fortress that rigidly binds Japan and Manchukuo. Japan, which does not have to defend herself in foreign trade, should adopt Shingen's tactics and aim at positive expansion.

It is deplorable that even our own people are not quite free from apprehension that Japan will break down economically owing to unsound finances. It is natural therefore that foreigners should be confident of success in their attempt to crush Japanese expansion by setting up high walls of prohibitive tariff. However, the situation has recently taken a new turn, and the folly of a boycott such as that directed against Japanese goods in China is gradually being realized. Japan's foreign trade is bound to expand regardless of tariff walls or any form of obstacles. When the world realizes that the trade expansion of Japan is backed by the government and people, the stupidity of hurting Japanese susceptibilities by excluding Japanese goods will not be repeated.

For Japan's trade expansion, this is indeed a splendid opportunity, and one which seldom presents itself. I have been in business for many years and realize that for an individual a golden opportunity for success comes only once in a decade or two. Opportunities knock but once or twice in one's lifetime. Otherwise we live a commonplace life, gaining and losing alternatively in busi-

ness. I am interested in the brilliant career of Oda Nobunaga, one of the most influential war-lords in the sixteenth century. He commanded many campaigns, but none was so favorable to him as the famous Battle of Okehazama. Nobunaga's masterstroke in taking full advantage of the enemy's unpreparedness is well known to those familiar with the history of Japan. The signal victory won at Okehazama paved the way for a more brilliant success in his career as Dictator. I find that in our lives a Battle of Okehazama comes but once, and this is the same for nations.

Japan has put to sea on a favorable tide, with a splendid opportunity to accomplish something in competition with the nations of Europe and America. Should the Japanese become conservative and vacillating, conditions at home may take an unfavorable turn. The rate of interest may rise, while laborers may demand higher wages, the consequence being higher commodity prices. Europe and America may improve their industrial organization and succeed in producing articles at lower prices, which will enable them to cope with Japanese competition. The exchange rate may not remain favorable to our export trade much longer, while events unforeseen may alter internal conditions in Japan. Let us strike while the iron is hot, for the present situation so favorable to Japan's foreign trade may take an untoward turn at any time. China, British India and the Dutch East Indies are markets for Japanese goods. The South Sea region and other countries of Asia may be regarded as our own sphere of trading activities. If we now succeed in doubling the volume of our foreign trade and get closer to that of Great Britain's, Japan will really become a stronger nation. It will be easy for Japan to have better armaments as her industries achieve further development and the nation's wealth is thus increased. It

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**is my ardent desire to make Japan a foremost Power of the world in the true sense.**

**THE END**



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