The New Japan

Being a Student's Survey of General Conditions in Modern Japanese Industry and Commerce.

by

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Almost every treatise on Japanese civilization emphasizes the remarkable growth of Western ideas and institutions in that country, during the short period that it has been opened to world intercourse. Industry, commerce, government, education, and in fact almost every sphere of human activity in the Occident, have invaded the feudal state of old Japan, and have become deeply seated there. But still, in spite of the contact of three-quarters of a century with the outer world, Japan remains fundamentally Oriental. Beneath the veneer of its new-found culture, the nation has retained intact its traditions of centuries. No gradual evolution can affect appreciably the age-old customs of the Japanese, the works and daily life of whose forefathers remain the basis for their very religion.

But the conditions are changing, and a superstructure of the West is growing rapidly. In industry, primarily, the greatest change has taken place. Through industry, Japan has risen from a small, unimportant archipelago to a powerful modern empire. To-day it stands as a leading member of the nations of the world.

1. "The world's gaze turns politically, economically, artistically, towards Japan, where Oriental charms are preserved midst the most advanced Occidental civilization."

Excerpt, slightly exaggerated, from the Japan Year Book, 1925.
However, it is beyond the scope of this essay to touch more than briefly upon the metamorphosis of Japanese civilization. The main purpose involved is to describe conditions of its industry and commerce, as seen during several months' observation. With this object in view, the following pages are designed to present the social and economic conditions of modern Japan, in summary form, with a final presumptive estimate of future relationships. Many of the sources of the material included are not original, as likewise many of the ideas expressed are second-hand. It is hoped that this will not detract from whatever worth the paper as a whole may possess.

This essay is largely the result of a six-month's study of conditions in Japan, made possible through the generosity of Mr. H.R. MacMillan, to whom the writer is greatly indebted.
PART I
Chapter I

INTRODUCTION

"Things are changing in Japan, try as Imperialism will to stop them - "

From "Japan Real and Imaginary," by Sydney Greenbie.
EAST AND WEST IN JAPAN.

We on this side of the Pacific are prone to think of Japan as the land of quaint Oriental traditions with a charm unique to its self-centred world. But in reality, the Japanese, in their struggle to adopt the manners of the West, are throwing into discard much of their former culture. The old order is changing, and there is growing up a Western modernization of the old civilization. Commercial achievement is the shining goal which the New Japan is striving to attain, by fostering occidental methods. And so, the immediate consequence has been a throwing together of one civilization, the product of centuries' growth, with another, which, being also the product of immemorial time, is wholly incongruous.

For the past fifty years Japanese educators and administrators have periodically picked out what they deemed the best elements of European progress, and have grafted these onto Japanese life. By their "mental readiness to discern and assimilate the culture of other races," the Japanese have united in their new Empire a miscellany of European institutions.

No.1. "Two Exotic Currents in Japanese Civilization by I. Nitobe, see p.2. The author on p.10 of the same pamphlet, states, "I am tempted to doubt whether progress is possible at all without an impetus from without." The above mentioned administrators, doubtless, followed the same reasoning, which would help to explain the indiscriminable imitation of Occidental institutions, which often fitted the subject of their speculations none too well.
As a start, the then-existing constitution of Prussia was chosen as most adaptable to Japanese organization. From France, Germany, and England, were drawn together sources for a modern procedure in the law courts, and the legal science of western justice. The army was quickly revised after the fashion of the German system. In the schools also, the German model was duplicated in its essentials.

In the field of industry and commerce, likewise, Japan early sought to introduce the methods of the most progressive nations. Trade began yearly to show a marked tendency to increase. And finally, with the outbreak of the world war, the country saw its opportunity to realize its fond but far-distant dream of becoming an industrial nation. The war years produced an enormous expansion of business in every direction. Industries which at that time had been established, showed an unprecedented increase in output, and new "war babies" grew apace with the abnormal foreign demand. To-day the marks of this war time expansion are obvious everywhere. The business sections of all the chief centres throb with activity. Many factories have developed our system of mass production with far-reaching success. The rikisha, the symbol of the Orient, is doomed to perish in the path of the street-car and the automobile. Modern buildings have grown up midst the maze of standardized Japanese houses. Department stores are displacing the old housefront "shops."

It is not surprising that with all these new movements the style of dress is changing. But it seems ironical that
the Japanese, with a national attire so suited to their climate, would wish to adopt the uncomfortable clothes of our country. Nevertheless, many men already wear our clothes with the ease of long use. Although few of the women have passed the stage of wearing their hair in the simpler fashion, the appearance of the "moga," or "flappers" of Modern Japan, with their high heels and short skirts, is significant.

But to-day, many of the evils of too rapid a change are becoming oppressive. In the trend of the new capitalistic spirit, the "narikin" or "nouveaux riches" of this enlightened age are as objectionable in Japan as their prototypes have been in our own country. And at an opposite pole, there is still much remaining of Oriental individualism that cannot keep up with the modern trend. The peddler continues to hawk his "tofu" or bean curd along the main streets. The polite habit of the Japanese of stretching the truth to make it pleasant rather than exact, is awkward in modern business. And in many other directions Japan has far to travel to become a well-rounded economic unit. The slums of the large industrial towns too plainly show the lagging of social reform behind industrial development.

1. "The rule of these newly influential commercial classes has borne bitter fruit along with the war prosperity which engendered them. ... The gaps in Japan's economic structure, great as her progress has been, are still vital enough to imperil any adventurous course."
However, many of the traditions of the old regime are breaking down. "The conspiracy of the powers that be to deceive their own public on the one hand and the world at large on the other by mendacities carefully timed and calculated," is gradually losing its force. The recent exposures of political scandals are sufficient evidence of Japan's attempt to adopt democratic ideas. When the country fully realizes how much its welfare depends on world confidence, and that the source of its wealth to-day lies to a great extent in foreign commerce, it will then understand the importance of international cooperation. It will see that only through this means, only through a development from mere imitation of foreign ideas, many of which the uneducated regard as their own, to a more original and dependable economic activity, can Japan continue to progress as it appears to have done in the past.

CLIMATE, TOPOGRAPHY AND POPULATION.

Japan proper consists of three main islands, Hokkaido to the north, Honshu, and Kyushu. These three islands, lying in a north-east and south-west directions cover a wide range, from 31° to 45° north latitude. With a distribution so widespread, no generalized statement can be made regarding the climate of Japan. However, from south of the 38th parallel to the southern extremity of Kyushu, climatic conditions are more or less uniform. Beginning in January, and continuing to

1. Ibid.
the end of March, cold northerly winds and occasional snow are prevalent. April and May bring the fine weather and the short-lived cherry blossoms. In June comes the nyubai season with its drenching monsoon rains and sultry heat, in anticipation of the torrid months of July and August. September weather, though frequently rainy, and broken by typhoons, is a relief from the "dog days" of a humid August. Then follows the late fall, which is the most beautiful season of the year, and so deceptive to casual tourists.

The topography of Japan is even more unfavorable than its climate. Most of the land is mountainous and volcanic. The rivers, being short and precipitous, are rushing torrents during the heavy rains, and dry stony beds throughout the hot season.

But although only one-seventh of the land is arable, Japan proper at present supports approximately sixty-three million inhabitants within its limited bounds. And in spite of the maritime character of the people, and the ever-closing limits of available land, emigration does not suit the Japanese bent. The people do not seem to be able to adapt themselves either to a colder or a warmer climate. The food of the

1. The Japan Year Book for 1929, Y. Takenohu, published in Tokyo, 1928, give on p.42 the following population statistics for Japan Proper:-
   1915 - 54,955,755
   1926 - 63,006,595

See also Appendix A.
Japanese is unique to Japan, as is the paper house, and the many different elements which go to make up the social life of the people. The grand total of Japanese living abroad, even to-day, is something less than 700,000. With the population increasing at the rate of nearly a million annually, the means of supporting its nationals is the most serious problem which faces the nation to-day.

GENERAL LIVING CONDITIONS.

Authorities state that Japan has the highest standard of living of any country in the Orient. But even with this consideration, its wage level is less than one-quarter that of Canada. Industrialization, although it has enhanced greatly the aggregate wealth of the country, has done little, as yet, to promote the well-being of its inhabitants. In spite of the fact that the purpose of the constitution was to set up a benevolent, enlightened, autocracy, the condition of the laboring classes has been one of unrest and dissatisfaction ever since the first general uprising in the 1918 rice riots. It is probable that if labor were organized as in Europe and America, outbreaks, such as the recent 1929 strike of tram and bus conductors in Tokyo, would be even more numerous.

One of the chief reasons why the level of wages is so low in Japan is to be found, perhaps, in the preponderance of

1. Ibid., p.46.
2. See Appendix B.
female labor in that country. Over half the factory workers, and nearly a million in total, are women, or young girls taken from rural homes to earn their dowry in unhealthy city surroundings. Although attempts have been made in the larger concerns to make the life of the factory girl more endurable, much misery still persists. It is the lot of the average girl to toil for nine or ten hours a day over a machine, with few holidays to break the monotony. The low wages and poor living conditions with which she is recompensed are frequently the butt of attack by social workers. Sanitation is a secondary consideration, and recreation is almost non-existent. It is to be hoped that the model plants installed by the large cotton spinning companies will lead to a better factory environment.

To this condition persisting in the factories, many Japanese welfare organizations ascribe the increasing menace of immorality in the cafes and poorer sections of the large cities. Upon the industrial system in general they lay the blame for the extreme poverty in the city slums, "such as in our understanding of the word, do not, and could not exist in the west ... The squalor and untidiness are even more real than apparent." No complete picture can be painted of such sections as the outskirts of industrial Osaka, where the foul air mingles with an unhealthy, clinging, sulphur vapor, and

where the dirty, ill-clad people eke out a meagre existence over the stagnant canals, which are a cess pool for all their filth.

Although the country as a whole seems remarkably unique as an Oriental land in its freedom from beggars and outcast pariahs, Japan, too, possesses its human scavengers. Few of the large cities show the signs of the existing poverty, for the Japanese, "proud, trying to maintain appearances, ... are loath to let the outsider look into that side of their life which is likely to jeopardize their fame." But get away from the large metropolitan centres, go into the poor sections, or better still into the country districts that are off the worn track of tourists, to see the true existing situation. There, the people are living in elemental fashion, with little or no break in their monotonous toil. Young and old slave daily to subsist. The neat tile roofs of the city houses are changed to the thatch coverings over tiny country dwellings. The overtaxed farmers are fighting a losing battle in the struggle to provide for the sustenance of an ever-increasing rural population.

THE FAMILY.

It is a fact worthy of praise that the average family in Japan can maintain a happy front, in the face of such adverse conditions. In the delightful simplicity of their standardized

1. Ibid., p.318
houses, there is little to mark the distinction of class. The quarters of rich and poor alike present a plain exterior of wood, glass, and paper. Inside, none of the rooms, separated by their sliding paper doors possesses a thing to indicate the station of its inmates. All the floors are covered with straw "tatami" or mats in uniform oblong sizes. No furniture is visible other than the low table in the corner, and the "hibachi" or large bowl of burning charcoal which serves as a heater in this household. During the day, the "futon" placed on the floor as a bed, is rolled up and put into a convenient cupboard with the round, hard pillow, and the mosquito net. There is no paint on walls or ceiling to take away the effect of extreme naturalness in the Japanese home. In the back of the house is the square wooden bath which is a requisite in every Japanese dwelling. The people are heralded lovers of bodily cleanliness, and it is one of the few luxuries in which the nation as a whole indulges, soaking away the strain of daily labor in simmering water too hot for any western skin. In their daily bath, the Japanese fully live up to their reputation for cleanliness, even if the much used water of the hot bath is not always of the purest.

The average home of the Japanese stands as a living symbol of the patriarchal system which still envelopes the country. From the Emperor to the most lowly coolie, the people live as one large family, and it is in this belief that Japan boasts to-day of being the most democratic nation on the earth. The Emperor is the divine Father, whose ancestors were
the Adam and the Eve of the whole populace. All his subjects, therefore are his children, whose filial duty it is to obey him implicitly, which, indeed, they do. The veiled schoolhouse photograph of the Emperor, so sacred that it is uncovered but once a year, has been the cause of the loss of many lives during fire. Great is the respect for the policeman, who, as the Emperor's representative, has more authority than material reward. Great is the rejoicing when a son is born to the Emperor, a son who will carry on the illustrious line for one more generation.

Within the family itself, we find monarchy in miniature. The oldest male has power over the property, marriage, and interests in general, of the lesser members of his household. It is his primary duty to beget numerous sons to carry on his name and execute his will. Japan indeed is the Paradise of children, where the boy is the ruler whose every wish is fulfilled. Everywhere small boys and girls shout at play, on the street, in the gutter, across the main highway, at the railway terminus, on the train. Japan is organized to delight the child, the joining link of a patriarchal state.

Far different is the lot of the woman in the family. Her life is one of continual obedience, to a father while unmarried, to every whim of a husband when married, and as a widow, to

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1. "The Japanese boy is seen to best advantage with his family as a background." Ibid., p.111.
her oldest son. Between man and woman there is a broad gap, which must break down with the disappearance of feudal organization. Then the geisha system, by which the Japanese man gets his only form of feminine entertainment, will change to the equality of sex which now pertains in the west.

The religion of the family likewise finds its source in the patriarchal system. Even if at heart the Japanese retain their Buddhist teachings, Shinto ancestor-worship to-day has a strong hold on most of the people. The Japanese father is not an individual, but rather the living representative of his ancestors. This idea has been readily harmonized with the Buddhist beliefs of the people, to form the basis of Japanese religious doctrines. In it the Japanese display their fondness for ceremony, and through it they extend their ceremony to daily life. Politeness with many bows and hisses, moon viewing, tea ceremonies, and the great show of the Japanese as true lovers of nature, are often little more than a modified form of ritual. This analogy can be carried even farther. The peddler on the street proclaims his wares by a distinct bell or horn. The coolie chants as he works on the railroad. Even the offica

1. "Shintoism is the pivot on which the whole life of the Japanese nation revolves." Excerpt from a pamphlet distributed at the Conference of the Institute of Pacific Relations held in Kyoto, 1929 - "A Short Remark on Shinto." Prof. Tomoeda, p.1.

2. "In place of what I should call a real love of nature, there exists in Japan a sort of native ritual." "Japan Real and Imaginary." p.309.
boy accompanies his "Soroban" calculations with a singing murmer.

This religion of the Japanese, carried so far into ordinary life, and treated most lightly as such, has brought about one evil which is a sore point to the particular type of sensitivity of the Occident. In their treatment of animals the Japanese show a callous cruelty wholly foreign to their nature, for which Buddhism may be justly blamed. The Japanese refuse to kill animals, yet they will throw young kittens into the gutter to die. This practice, happily, is dying out with the continued rapid assimilation of Western culture. From these, Japan must come, in Western ideas, within the bounds of Western ideals.

EDUCATION.

It was through the far-sighted progressiveness of Emperor Meiji Tenno that Japan first began to adopt western educational methods. To fulfill his desire of creating in his dominions a new material civilization, he made it his express command that "knowledge and learning ... be sought for throughout the world." He saw that Japan, from its long exclusion, though far advanced in the development of its native arts, was sadly lacking in the commercial and industrial growth that marked

1. A peculiar type of Oriental calculator made of beads strung on wire.
the West. The Emperor's early policy, therefore, urged the adoption of a system of pragmatism and utilitarianism, to fill the nation's most pressing needs.

Japanese educationalists regard the French as their first instructors along these lines. Later, with the great influx of missionaries, the schools soon came to follow English and American practices. But when the government took it upon itself to unify the whole educational system, the German schools became regarded as the most suitable models for the national plan. To-day, German methods have retained the most lasting influence on organized education.

It must be remembered that with the acceptance of all these foreign ideas, "the attitude uppermost was that Japan had nothing to learn from the occident in morals, religion, refinement, and modes of life generally. The only tolerable change was to be in a material sense." Herein lies the greatest weakness of modern education in Japan. Learning cannot become refined learning, with utilitarianism as its sole motive.

Education in Japan has always been sponsored by the ruling bodies. With Emperor Meiji's Imperial Rescript in 1872,

1. "The Oriental mind was naturally lacking in the scientific, experimental, and inductive approach." Western Influences in Modern Japan No.3 - "A Survey of Philosophy in Japan 1870-1920" - U. Kaneko, p.4.

the modern era first began. And to-day, the State, in most part, has assumed control. This control it delegates in part to certain local public bodies, which it feels are better fitted for the ministration to local needs, but the general policy throughout is uniform. Schooling is compulsory from the ages of six to twelve. The division of classes according to age and intended occupation varies little from that of the

1. The Rescript is translated freely as follows:—

"Know ye, Our Subjects:—

"Our Imperial ancestors have founded our Empire on a broad basis and everlasting, and have deeply and firmly implanted virtue: Our subjects, ever united in loyalty and filial piety, have from generation to generation illustrated the beauty thereof. This is the glory of the fundamental character of Our Empire, and herein also lies the source of Our Education. Ye, Our Subjects, be filial to your parents, affectionate to your brothers and sisters; as husbands and wives be harmonious; bear yourselves in modesty and moderation; extend your benevolence to all; pursue learning and cultivate arts, and thereby develop intellectual faculties and perfect moral powers; furthermore, advance public good, and promote common interests; always respect the Constitution and observe the laws; should emergency arise, offer yourselves courageously to the State; and thus guard and maintain the prosperity of Our Imperial Throne coeval with heaven and earth. So shall ye not only be Our good and faithful subjects, but render illustrious the best traditions of your forefathers.

"The way here set forth is indeed the teaching bequeathed by Our Imperial Ancestors, to be observed alike by Their Descendants and the subjects, infallible for all ages and true in all places. It is Our wish to lay it to heart in all reverence, in common with you, Our subjects, that we may all attain to the same virtue."

West in principle. One notable feature of the Japanese system is the prominence which it gives to commercial schools. In certain sections, such as Kobe and Tokyo, higher commercial schools have been granted the standing of Universities, and have developed excellent methods of instruction. This characteristic is directly in line with the goal on which Japan is striving in permitting its complete Westernization. English is the language of commerce, and English is the most common foreign language taught in the schools. Students take every opportunity of practising their fluency on the unsuspecting foreigner.

This, in brief, will serve to describe the present condition of education in Japan. The Japanese are rapidly approaching a point where they feel they have nothing more to learn from the foreigner, and instruction by Westerners in the schools is dwindling. Only a few of the better-educated fully realize the large gaps that still exist in a too rapidly assumed psuedo-Western culture. The Japanese have not yet learned a full appreciation of the minute detail necessary for original research, and the imaginative powers of meta-physical speculation. In many directions, they are inefficient, yet unwilling to learn, as a consequence of the official

1. "The educational system of present-day Japan is one that has been built on foundations modeled after the systems of Europe and America, and then gradually improved and changed upon the basis of our own experience."

discouragement of individual action. The Emperor continues, in theory, to be the only free member of the land. Newspapers are censored, to reflect only the will of the government. And with a show of benevolence, the ruling body suppresses any thing it regards as prejudicial to itself. "Dangerous" thoughts must remain submerged. When a true liberty of the press is permitted, education will be able to overcome many of the obstacles which face the people to-day.

PRESSING SOCIAL NEEDS.

Japan has become industrialized too quickly, and the evil effects of such a course, which have been growing yearly, are now becoming oppressive. Within the last generation, owing to the accumulation of wealth and the rapid rise in the standard of living, the increase in population has been enormous. But the government, too busily engaged in fostering an even greater industrial growth, has paid little attention to the welfare of this new populace, to which its industrialization has given birth. Most of its numbers have gone to swell the masses of the cities, where discontented labor always finds an outlet to its troubles.

With the post war depression, the first real blow was dealt to the working classes, and from the 1923 earthquake to the present day, conditions of the proletariat have steadily grown worse. The superficial prosperity of the reconstruction period was soon spent in aggravating the financial panic of 1927. This crash ultimately brought the government face to face with the problem, to be solved only by means of the
severest of measures.

Meanwhile the conditions of the laboring class were going from bad to worse. First signs of a growing class consciousness had been seen in the rice riots of 1919. In 1919, a pioneer movement to organize national unions of workers, in spite of the disfavor with which the government countenanced this new departure, planted the seed for later developments. The student body, in Japan as it has been elsewhere, was the first to attempt to stir up amongst the people a feeling of personal rights for the working class. Finally, after the outbreaks of 1925, although the government dissolved Student Associations as centres of discontent and progenitors of "dangerous thoughts," it maintained its authority only by taking immediate steps to improve the condition of the masses. With the first election by universal manhood suffrage in 1928, labor at last came into politics, and unemployment became a political issue. New improved labor laws were passed, hours and conditions of labor were made better and the social bureau became an active body rather than a mere name. Labor at last was coming into its own rights.

1. "The obedience and servility in which the people of Japan had been trained for hundreds of years under the feudal regimes provided fertile soil for the growth of social thoughts and social movements, germinating as they do from the idea of self-consciousness and self-respect. "Western Influences in Modern Japan." No.15 - "The Development of the Social Movement and Social Legislation in Japan." - J. Asari, p.1.
But there are other problems evolving from the industrial system, which cannot be solved by such simple and direct means as government measures. The predominance of women in the labor force of the country makes it impossible to expect a great increase in the wage level. Industry at present is finding it difficult to place even the graduates of higher educational institutions in positions for which their training qualifies them. And this class, sinking into the mass, will inevitably be a menace to peaceful conditions. Meanwhile the outbreaks continue. Since the panic of 1927, the numbers of strikes and violent demonstrations have increased, and persist to the present day.

Perhaps the main cause of unrest, which the Japanese themselves see, but are unable to correct, is the increasing difficulty that Japan is having in supporting its population. Rice has always been the national food, and the rice of Japan has distinct local characteristics which no imported product can possess. Thus, with a localized production, and a demand far greater than the land can supply, the price of Japanese rice, in spite of the efforts of the government toward

1. "Education without rights, knowledge without opportunity, is like the generation of steam in a flask, a dangerous experiment."
"Japan from Within" - J. Ingram Bryan, p.141.

2. "As yet there is small evidence of any public conscience able to perceive the close connection between the uplift of labor and the permanency and efficiency of the nation's industrial power ... "The Japanese as a class are indifferent to labor interests or even labor questions, while the universities are more concerned with the economic than the human aspect of labor."
Ibid., p.137.
stabilization, has fluctuated widely, with a tendency steadily upward. And as the price of rice mounts to higher levels, the condition of the tenant farmer, whose rent is paid in rice, is becoming steadily worse, causing outbreaks similar to those of the city.

There have been several suggestions for the solution of this food problem, of which the most general is birth control. But to ask Japan, with its patriarchal organization, to adopt birth control, is to ask the impossible. In the country districts a complete ignorance of the subject is not only widespread but officially maintained. It is a question of the conflicting interests of national necessity and national religion, and so far religion has dominated. A start has been made in the cities where the poorest classes are urged to seek advice from authorized medical clinics. This, however, is a far cry from adopting birth control as a national relief program.

1. "Considering the conditions of demand and supply of rice in Japan proper, we find little possibility of attaining to a condition of self-sufficiency as long as the country remains under circumstances like those at present. The very fact that in spite of a constant increase in the population, there is little or no actual increase in the per tan yield of rice or the area of arable land, accounts for the noisy discussion of the 'food problem' nowadays."

"Land utilization in Japan." Prepared for the Third Session of the Institute of Pacific Relations by S. Nasu, Tokyo, 1929, p.177.

1 tan = .245 acres.
Other methods of supplying more food to the nation, such as better utilization of agricultural products, protection and reclamation of arable land, have been strongly advocated and weakly practised up to the present. How Japan, with restricted emigration, will solve this problem, is mere speculation of theorists. But the time is drawing near when some answer must be found to relieve the task of trying to fill a million new mouths every year.
Chapter II

Primary Extractive Industries

"The strangest thing withal is to what a slight extent westernization has really affected Japan."

From "Japan Real and Imaginary,"

by Sydney Greenbie.
JAPANESE AGRICULTURAL CONDITIONS.

Japan, in spite of her industrial progress, is still essentially an agricultural country. More than half her population is employed in agricultural pursuits, and more than half her export trade consists of agricultural produce. The backbone of the country is still the homely peasant, little affected by the new foreign influences.

Japanese agricultural methods are a revelation to Westerners of the efforts of the people in adapting their natural surroundings to the forces of necessity. With scarcely 16% of the total area of land cultivable, and with even this portion only moderately fertile by nature, the rural population has crowded its members into the short valley plains, which are broken up into myriads of tiny holdings of a few square yards each. From the mountain tops, the valleys look like patch-work quilts, with their edges extending as far up the hillsides over the valleys as the ground is tillable.

Farming methods in Japan are as primitive as they were during the feudal period. The typical family of six works its small holding of two or three acres most arduously by hand methods, in this land where few sections are adaptable to modern agricultural machinery. The hand plow, the short sickle, and other implements of a most rudimentary nature are the only tools that are used to facilitate hard labor. Fertilizer is applied to the overworked soil abundantly, weeds are kept down by constant toil, and irrigation, retained by
the terraces which surround every small plot, is carried on by crude water wheels and buckets. Thus, labor power is used to offset the inadaptability of machinery to the present system of Japanese agriculture. But, although the intensity of land productivity has been increasing in the past few years, agricultural authorities feel that the limit will soon be reached, when no further profit can be made by the additional application of labor and capital to the land.

In spite of the high productivity of the cultivated areas, as a whole the returns to the individual, even to-day, are very small. In this respect, the capitalistic system, although affecting but little the methods of agricultural production, has wrought many hardships upon the rural classes. With the enormous increase in population, the intensity of the demand for land has greatly enhanced the price, so as to make it available to a very limited group. On their small holdings, the tenant farmers, absorbing the new population, are finding

1. "By far the largest portion of the population of Japan is engaged in production from the land, and owing to a shortage of arable land, its ownership and management are on a very small scale."
"Land Utilization in Japan." - S. Nasu, p.31.

2. Classification of land holdings has been the subject of many discussions. One popular estimate gives the following groupings:
   1. Peasant farmers, totalling 62% of the rural population, who cultivate, but do not own, less than 2½ acres of land.
   2. Middle Class - 33% - own and cultivate from 2½ to 7½ acres.
   3. Petty landlords - 4% - own and cultivate from 7½ to 25 acres.
   4. Landlords - 1% - own and cultivate over 25 acres.
   Taken from "Present Day Japan," Special English supplement of the Asahi, Osaka and Tokyo, 1929, p.120.
it impossible to make a profit. What little they do set
aside is soon eaten up in payment for the debts which they
are forced to incur at exorbitant interest rates.

At the same time, there are many natural elements
against which the farmer must wage daily combat. Frost often
works havoc in the interior crops. Wind is a constant menace
to the matured rice. Even rain, which is so welcome for the
young shoots in the "Tsuyu" season, is a destructive force
at a later period. Yearly washouts, particularly in the west
coastal plains, result from the typhoon storms. It is small
wonder that the tenant farmer, faced with a probable deficit
under ordinary conditions, should rise in revolt when his
year's work is completely wiped out.

As it happens, these hardships have led already to
class strife. Although the Government has made genuine efforts
for their relief, by splitting up the large estates, consolid-
at ing each holding into a uniform contiguous series of strips,
and by various means of finance and patronage, the farmers
are still forced to send their daughters to city factories.
Still they are forced to find further means of increasing
their income to sustain the family group. For the sake of
Japan, it is hoped that this condition is merely temporary,
and that, like England of the 19th century, she will recover
with the passage of time from the immediate effects of her
rapid industrialization.
THE RICE CROP.

Rice, in which over half the cultivated land is planted yearly, is the staple product of the Japanese farmer. With the heavy spring monsoon rains, and the hot, humid summer, climatic conditions are ideal for the growth of a most luxurious crop. In early spring the soil is tilled with patient thoroughness, and the fields are levelled and banked to hold the coming rain. Seeds are planted in a small patches, and are nursed carefully through the precarious stage of early growth. After the rains, the time for setting the plants is at hand, when family and friends wade in a foot of water, transplanting the young shoots, from their nursery-bed, in even rows covering all the available land. Labors do not then cease, however, for, from the time of transplanting to the harvest, the rice land demands most intensive cultivation. A steady flow of water coming from nearby streams and passing from field to field, right up to the harvest, is necessary for the greatest yield. With weeding, fertilizing, and destroying insect pests, the farmer's work is never at an end, during the period of growth of the rice plant. Harvest time comes at last in the fall, when the water is drained from the fields, and the plants, cut near the roots with a sickle, are hung on racks, to dry for several weeks. Then the straw is removed by flails and combs, and the grain, after being polished, is ready for the market. This final polishing process the Japanese demand, even if the removal of this outer covering of grey takes away a large part of the nutritive value of the rice.
Japanese rice has several distinctive characteristics found in the rice of no other country. Although its production expenses are heavy, from the high cost entailed in irrigation, drainage, and fertilizer, the domestic rice yield is far superior to foreign rice in gluten content. Rice growing, because of this, has become an inseparable feature of Japanese civilization. It is the money crop of the farmer, constituting over 60% of the total value of agricultural produce. It is also the basis of rent paid by the tenant to his landlord. In fact, rice is the pivot about which the commerce of the agricultural population, and indirectly that of the whole nation, turns.

Hence, to-day, a vital problem of rice production lies in finding the means of a proper relationship of supply and demand. Owing to its local peculiarities, Japanese rice is subject to severe fluctuations in price, with a tendency steadily upward, as the demand increases uniformly with the population. In 1921, the "Law for Adjusting the Supply of Rice" established State granaries to control marketing, and checked to some extent the causes of fluctuation; but little can be done to hold the price at a low level. For along with the growth in population, an increased individual consumption, brought about by a higher standard of living, is forcing the

1. "Land Utilization in Japan"- S. Nasu, p.75.
   See also Appendix C.

2. See Appendix D.
further cultivation of rice into less suitable soils. The added demand cannot be offset even by the expansive reclamation schemes of the government, or by the more scientific methods introduced through central and local experimental farms. Production must fall still farther behind consumption, and the difference made up by the imported rice of Korea, Formosa, and Saigon.

At the same time, the diet of the poorer city workers and the tenant farmers, to whom rice is now becoming a luxury, is changing. Wheat, barley, millet, or sweet-potatoes, in various forms, constitute their daily meal, in place of their domestic rice.

OTHER CEREALS.

The Japanese farmer is forced to be an exacting economizer of time and space. As soon as the rice is harvested, he plants a second crop of barley, rape, beans, or peas, which will mature before the spring tillage. In the upland sections, useless for rice production, he grows wheat, barley, rye, sweet potatoes, or vegetables. There is no land in Japan, where cultivation is possible, that is not utilized to the full.

After rice, the largest crop is barley, which, besides being the most common secondary cereal of the paddy-field, is the most successful product of the uplands, followed by naked barley. These two cereals, however, raised both for grain, and for animal fodder, are falling off in favor of a cereal more suitable for human food. At present, Japan is growing just enough barley and naked barley to supply her own needs.
From the necessity of finding a cereal cheaper than rice and more nutritious than barley, Japanese production of wheat, in the uplands, and in sections north of the rice belt, has developed rapidly in the last few years. Wheat has a wide variety of uses, in the form of flour to be mixed with rice, or in the production of "soy," the Japanese Worcester sauce.

Lately, with an increasing importation of cheap foreign wheat, the Japanese growers have suffered considerably at the expense of the millers. But nevertheless, in wheat there remains one product which may supply, in time, the deficiency of rice. Oats, along with wheat, are being grown to a lesser degree.

TEA.

For many centuries, green tea has been an important product in Japanese agriculture, and an essential in Japanese civilization. The method of cultivation in a series of hilly clumps is unusual, and peculiar to all Japan. The Japanese tea plant, a perennial, reaches its best growth from five to ten years after planting. The leaves are picked by hand, mostly by the women of the household. Although neither climate nor soil is ideal for tea, a large yield is made possible through fertilization.

With the opening of Japan to world trade green tea early became an important item of exportation. The United States has been, and still is, the greatest consumer of Japanese tea, buying, through Shimizu, the port of shipment, over 80% of the total production. This stimulus to the industry caused many
families to raise tea in small quantities, as a secondary line. But with this system of many widely separated small household areas, the cost of production of Japanese tea is very high, as compared with that in the black tea plantations of India, Ceylon, and China. To-day, the tea production of Japan remains stationary, with no prospect of an increased foreign demand. The future of Japanese green tea rests with the possibility of an increased local consumption. The likelihood of this, with the hard labor necessary for tea cultivation and marketing, and the spreading taste for black tea, is very remote. Authorities are of the opinion that the ancient industry will steadily sink into an insignificant position.

OTHER AGRICULTURAL PRODUCTS AND INDUSTRIES.

Japanese vegetables are localized product, and are grown mainly for home consumption. The most common among them are beans, potatoes, sweet potatoes, and the native Daikon. The disposal of vegetables throughout Japan has been improved vastly by the establishment of large central markets, in Tokyo and Osaka particularly. The peculiarly tasteless and insipid domestic fruits such as the Japanese persimmon, pear, and apple, also are consumed only in the domestic market.

Japan is surprisingly lacking in animal husbandry. Cattle are raised in small number, less for meat, as in the West, than for draught animals, side by side with the domestically bred horses. Sheep and goats are very scarce, owing to religion, custom, and the poisonous effects of Japanese

1. Similar to enormous white radishes in appearance, and in spite of their odor, when cooking, relished by every Japanese.
bamboo grass. Swine and poultry alone, raised as a subsidiary to farming, have proven suitable to the damp climate, the small farms, and the intensive cultivation in Japanese agriculture.

Of the remaining purely agricultural pursuits, the only ones worthy of mention are the tobacco industry, which is a government monopoly supplying all domestic needs, and the working of mulberry plantations, discussed more fully under the heading of "Sericulture."

SERICULTURE.

The silk industry, although in one respect not agricultural, is bound up completely with the rural life of Japan. Through this subsidiary occupation, the farmer finds a further means of livelihood, as well as employment for the other members of his household.

Silk culture is an art, which the Japanese have mastered through centuries of effort. The eggs of the silkworm come to the farmer, set out on cardboard, in circular discs. These eggs are hatched in all of the three seasons of spring, summer and early fall. From the time of hatching to the formation of the cocoon, a period of twenty to thirty-two days, a most painstaking vigil must be maintained over the voracious larvae. Even with the utmost care, a large casualty daily occurs. After the cocoon is formed, it is put into a basin of hot water, and the silk strands are reeled off, ready for shipment. These operations, which seem so simple, all require the most exacting
care and attention. And the success with which the whole
nation has adapted itself to the various processes of the
silk industry is due, in greatest measure, to the dexterity
and unflagging energy of the countrywoman, with the experience
of centuries which she has inherited.

Side by side with silk-worm culture is the mulberry
industry. With the growth of the silk industry, the
cultivation of mulberry trees has developed accordingly, and
to-day mulberry plantations cover almost one-twelfth of the
total arable land. Like most of the farms in Japan, mulberry
plantations require abundant supplies of fertilizer, to give
to the leaves the luxuriant growth required for the feeding
of silk worms.

These two industries, silk worm culture, and mulberry
farming, though widely divergent in method, are both indispen-
sable in the final output of raw silk. And although the
distribution of silk-worm eggs can be curtailed with little
difficulty or loss, the effects of this policy are such that
they work great hardship on the mulberry planters. A better
balance, and a closer cooperation of these two branches of
the silk industry must be introduced to ensure real stability
in raw silk production and price.

However, up to date the cultivation of raw silk has been
a source of vast wealth to the people. In some sections, it
is true where the large silk interests have become too powerful,
the poor condition of the peasants has been exploited by large
capital. Here, in spite of the fact that the silk industry

1."Land Utilization in Japan" - S. Nasu, p.76.
remains for the most part a household occupation, and must remain so from its inherent characteristics, capital has forced specialization of process. The farmer feeds the worm, but his daughter goes into a factory to reel the raw silk. Hardships are endured in the factory, which before had been endured in the home. But the people feel that the evils of factory work are counterbalanced by improved methods of reeling. The reeling of silk is not the only industry of modern Japan where the human aspect of labor counts for little. And in the face of this, it must be admitted that those prefectures, such as Nagano, where sericulture has been most successful, the people seem the most prosperous and happy of any in the land. Even the animals have a contented, cared-for look, which is unusual in Japan.

The 20th century has brought about many changes in Japanese sericulture. America has found out that Japanese silk, though inferior to that of other countries in quality, fully meets the requirements of her market. To-day from 60 to 70% of the total production is shipped to the United States. This growth in demand has been so rapid that the industry is not yet sufficiently modernized to supply this great foreign market. But the government yearly adds something to diminish the technical defects of grading, reeling, and rearing. Now, eggs are distributed only from authorized centres, and in many places are hatched artificially. Colleges and schools

1. See Chapter V under "Exports."
have been equipped to train a new generation of sericulturalists along scientific lines. And finally, the whole industry is subject to rigorous government inspection, to prevent the spread of disease in both the mulberry and the silk worm.

But another problem one of even greater importance than the technique of these primary stages, is before the people. They must realize that in building up this vast industry upon which the success of Japan's foreign commerce depends, they have greatly increased the risks of the individuals engaged in the industry—risks from competition and speculation. The price of raw silk is dependent too closely on conditions in America, and is uncertain at the best of times. The existence of the Japanese farmer is subjected to the luxurious tastes of the American. It is certain that with artificial silk already encroaching more and more on the silk market, any increased price of raw silk through the much urged production restriction method will be difficult to sustain. Rayon, with better scientific improvements, may be a strong competitor to silk even at its existing level. And there is always a potential development of Chinese silk which is stronger, more even, and in every way superior in quality to the Japanese product. Too great a specialization in one industry is not without its dangers, as the cotton growers in the Southern States have learned in recent years.
FORESTRY.

Japan, with a moist, warm climate, is well suited to natural, woodland growth. Even to-day, with the exhaustion that her centuries of civilization have made inevitable, over 48% of the total area of the country is forest land. With a wide stretch of latitude and temperature, the varieties of forest growth are very numerous. In general, there are three zones in which the commonest trees are:—coniferous evergreens in the north; cryptomeria and pine in the centre; and bamboo to the south. For all these species, Japan has many domestic uses, as footwear, building materials, matches, and various forms of wood work. Many Japanese industries depend on the production of the forest areas which rank second only to agricultural land as a source of wealth to the people. The government, in the capacity of paternal overseer, continues to guard jealously its forestry resources, of which over 40% are still owned publicly. The remaining 50%, although in private hands, are supervised by the Department of Agriculture and Forestry, to prevent the waste of industrial exploitation.

In 1920, for the first time, Japan was forced to become an importer of lumber. The output of cryptomeria and pine was found insufficient to meet the demand for building materials,

2. Ibid., p.XXIV.
brought about by industrialization of the war period and the consequent drift of the population to the cities. This demand found further increase with the devastation caused by the earthquake in 1923. The lumber of America, longer, wider and cheaper than the domestic cuts, was soon preferred by builders, who consumed over half the total volume of wood output. The foreign suppliers have remained in the market ever since, and the Japanese are looking for other ways of utilizing their own product. A start has been made in using the cheaper grades of pulp, which although unable to compete, as yet, with foreign pulp, in quality or price, may go to provide, in part at least, the raw materials for the large domestic manufacture of paper.

FISHERIES.

Chronologically, fishing is among the first of the industries of Japan. To-day, in order of production, it comes only after agriculture and forestry as a source of wealth to the country. Buddhist Japan, with its religious antipathy for meat eating, employs over a million men in the fishing industry, which, as well as supplying from 80 to 90% of the nation's animal food, provides a large surplus for export.

Japan is fortunate in possessing the natural advantages which make it the best fishing ground in the world. With its many islands, bays and inlets giving it an extremely long

coastline, and with waters varying greatly in their currents and temperature surrounding its widespread latitude it finds around its shores almost every known species. And in spite of the quantities of bonito, tunny, yellowtail, salmon, mackerel, herring, and cod, caught yearly, this source of supply shows no apparent signs of being exhausted.

Fishing methods in Japan have changed with the modernization of the country. And although some of the ingenious contrivances of a past age still are in use, the industry has equipped itself, to a great extent, with various labor-saving devices brought in from Norway. Fishermen now use seines in place of the old primitive nets. Deep sea fishing, which now supplements the coastal catch, has been made possible by the installation of engines in boats. Salting and refrigeration, also, have made possible a much larger annual haul.

While the fishing industry is most necessary to Japanese life, those thus engaged find it a hazardous and poorly remunerative form of employment. Many of the fishing hamlets have an unkempt, shoddy appearance which is unusual in Japan. And even though hand-propelled boats still greatly outnumber those with engines, the glut on the market, caused by large-scale company operation of steam seine trawlers, is creating a great deal of unrest amongst the already impoverished.

1. Such as the cormorant fishing at Gifu.

2. In 1927, 6% of the boats were equipped with engines - Statistical abstract of the Ministry of Agriculture and Forestry, p.52.
fishermen. The immediate result has been a steady decline in the total number of boats. But this must continue only as a temporary situation. The people have, in the fishing industry, one source of increasing food production and alleviating the population problem. Any increase in efficiency, in the long run, will be a benefit to the whole nation. The government, unlike the fishermen, realizes that better methods are the only course, and are striving to put these into effect, with small bounties, international agreements, and by means of fishery control. Other moves, such as encouragement of the use of herring more as human food than in the past, and the installation of new plants for the salting, freezing, and canning of fish, are receiving due consideration. The Japanese fishing industry, if put on a completely modern basis, has unlimited potentialities.

MINING.

Buddhism brought to Japan many of the Oriental arts of metal working, and consequently the people have known, for centuries, the uses of many of the earth's minerals. But with the value that certain ones of these minerals have assumed in modern industry, Japan has found herself to have a totally

1. If the necessary capital were forthcoming, and better equipment provided, the sea harvest of Japan could be made infinitely more economically popular. "Japan From Within." - J. Ingram Bryan, p.129.

2. In 1928, the last agreement was made between Japan and Soviet Russia, whereby Japanese subjects were given indiscriminate rights of participating in Soviet waters. "Japan To-day and To-Morrow" - Osaka Mainichi Publishing Company, Osaka, 1928, p.84.
inadequate supply of mineral wealth. Almost all the world’s commercial and industrial powers to-day are prosperous in direct proportion to their coal and iron deposits. Japan, to whom this advantage is noticeably lacking, must find a steady, cheap, source to supply her deficiency.

Coal is the chief mineral in Japan, the value of its output constituting approximately 70% of the total production of the mines. The entire coal product, mined almost wholly from the deposits in Kyushu and Hokkaido, is of a poor to medium quality of bituminous or lignite structure. Efficiency of coal mining in Japan is estimated at only two-thirds that of Britain and one-sixth that of the United States. And even with the relatively cheap labor supply, production costs are double that of the Pennsylvania mines. The coal seams in general are deep and thin, and unsuited to mechanical appliances. Japan is not organized, like England, with its industrial centres at the chief mining centres, and the high cost of mining coal, together with poor loading facilities and the expenses of a long haul, are causing many factories to turn to some other source of power. The output of coal, as a result, is steadily declining.

1. The Japan Year Book, 1929, p.532.
2. "In General Japan is poor in coal reserves, and her coal is of inferior quality." "Coal, Iron and Oil in the Far East." Boris P. Torgasheff - Institute of Pacific Relations, Honolulu, 1929, p.22.
In her lack of iron reserves, lies Japan's greatest handicap to industrial growth. The needs of war brought a short-lived stimulus to the few Japanese iron mines. But to-day, in spite of the efforts of the government, through tariffs and subsidies, and through state operation of the Yawata Iron Works, Japan turns out less than one-tenth of her import of iron or iron products. This deficiency of iron ore, becoming greater with the development of her protected industries, can be supplied only by permitting a large importation from Chinese and Manchurian Mines.

Copper is one of the few metals with which Japan is richly endowed. Under war conditions, the output of Japanese copper mines increased to second in the world, and for a few years Japan followed the United States as an exporter of copper. But recently, with more normal demands, and with the domestic consumption of copper in the hydroelectric industry doubling, exports dropped sharply. To-day Japan fluctuates periodically as both a copper exporting and importing nation.

In deposits of gold and silver, and the baser metals, such as lead, zinc, and nickel, Japan is poorly supplied, and is dependent upon foreign sources for supplying the greater part of her increasing demand. In fact, of all metals, in only coal and copper does Japan approach any degree of self-sufficiency.

In the non-metallic mineral group, sulphur and petroleum are of most importance to Japan. Sulphur deposits are quite extensive, owing to the volcanic nature of the islands, and are sufficient to supply present domestic needs. Petroleum
reserves, on the other hand, have been exploited quite fully, but show only a moderate supply. In 1921, Japanese oil fields supplied about 60% of the private demand. Production since then has declined steadily, while consumption is increasing. At present, Borneo and California are furnishing most of the crude oil that passes through Japanese refineries, as well as supplying the navy with its heavy annual requirements.

It is obvious, from this brief summary, that Japan must continue to remain dependent on foreign countries for a large part of her mineral needs. It is a matter of dire necessity for her to have at hand, under any conditions, a steady supply of the materials required in her industrial organization. For this reason, it is little wonder that she looks hopefully to the rich coal and iron fields of Manchuria and North China, as a safeguard to her future prosperity. Japan desires to become the clearing house and the foundation of the Industrial Orient, to be the entrepot of shipping and commerce between the East and the West. Whether she can accomplish her end, in spite of her lack of natural resources, is a question which only some permanent form of cooperation between Japan and China will answer.
"Thus does Japan hope to ensure for itself the hegemony of the Far East, and avert the congestion of overpopulation."

"Japan From Within" - J.Ingram Bryan.
GENERAL REMARKS ON INDUSTRY IN JAPAN.

The Japanese pride themselves, not without some degree of justification, on the rapid growth of their industrial development in the last few decades. But to foreign countries due credit must be given for starting them on the right path to their present position of supreme commercial power of the Orient. Foreign capital provided the financial skeleton for the rising industries. Foreign experts laid down the foundation for a new economy. And simultaneously, the government, fortified by foreign advisers, projected its sphere into the industrial field, to lay the first stone in many of the present manufacturing enterprises of Japan.

Industrially, Japan is still a young country, and cannot afford to adopt the short-sighted policy of wholly severing itself from foreign advice and experience. Mere adoption of foreign ideas is not sufficient, as Japan has learned in the upheavals throughout industry during the last ten years. By her indiscriminate imitation of everything Western, she has encountered many of the evils of the West, along with unique ones of her own. To the problems of family effort, she has added the complexities of factory production. Her people cannot get accustomed to doing things in the direct reverse

1. One author says that "To-day Japan is recognized as one of the most advanced countries in the world." New Japan Year Book, 1928, p.11. This highly optimistic belief is also echoed by a foreign writer, who states that "Japan is at present able to supply all her most pressing domestic needs, and make almost everything as well as it can be made elsewhere." "Japan From Within," J. Ingram Bryan, p.41.
from what they have done for centuries. They prefer to work
twelve hours a day rather than eight hours but more rapidly.
They are industrious, but they have no definite plan of
organization, and attack difficulties with far more zeal than
method. These are a few of the things that Japan must teach
its nationals, before industry in the country can stand on its
own feet without fear of the foreigner.

In a country such as Japan, where careless methods are
tolerated throughout industry, quality manufacture is impossible.
The quantity of goods of poor finish and shoddy workmanship
which Japan continues to put on the market is still large.
Examples of cheap products in the past are so numerous that
they are scarcely worth mentioning. Some manufactures to-day,
while not so glaringly inferior, continue to be irregular in
quality and even in quantity. But many of these experiments
may be forgiven on the plea of inexperience and poor organiz-
ation. From the overabundance of female labor in every
branch of manufacture, and from a scarcity of skilled artisans,
a more solid growth of industry has been greatly handicapped.
Success, under these conditions, could not be uniform.

1. Greenbie, in "Japan Real and Imaginary," p.133 describes
the people as "unyielding in their adherence to the
'Japanese way' as the "summum bonum" of human ingenuity."

2. "One reason why, in certain industries, efficiency is
so difficult to attain, is because the operatives are
engaged in making what they do not know the use of
and in which they take no intelligent interest." 
"Japan From Within" J. Ingram Bryan, p.42.

3. "Japan's material success has been widely advertised,
and considerably exaggerated." "Japan Real and
But Japanese industry is improving gradually, through a process of trial and error. After the failure of several large and influential banks, as a result of an inadequate correlation of economic and political interests, amalgamation is building up a better organization of credit. Company management is being put on a sounder basis through a development of large scale enterprise. Cooperation of producers is curtailing, at last, the latent overexpansion, which has pervaded Japanese industry and has worked as a canker upon national prosperity.

The serious defects which remain in Japanese industry can be corrected only with the passage of time. A nation-wide knowledge of finance cannot be acquired in a few years, and the Japanese, as a nation, are not yet financiers. Companies continually neglect to provide for depreciation and fixed assets, preferring to feed on their temporary resources. Enterprise morality is not fully established in the business community. The family system, which persists in small business, is the source of an even closer entity in the big corporations. The danger of a few large communities of interest restraining trade and unduly influencing the government, is one of the disadvantages of Japan's unified reorganization. All these imperfections, however, are preferable to the past inefficiency, which has prejudiced foreign buyers against Japanese products.

Manufacturers are gradually improving the quality of their output, and the efficiency of their processes. The weaker limbs, mushroom parasites which grew up during the war, are
falling off, and Japan is reaching its goal of becoming, in relation to the Far East, what England has been to Europe. Industry and commerce have become centralized in economic zones. Tokyo remains the stamping ground for the political and financial organs. Osaka and Nagoya are the large manufacturing communities. Yokohama and Kobe are bottle-necks of trade contacts with the outer world. The next few pages contain a brief summary of the principal industries which support these five large cities.

POWER INDUSTRIES.

a. The Hydro-Electric Industry.

The hardship that Japan suffers from a lack of cheap mineral fuel is eased considerably by her wealth of hydro-electric power resources. Her mountainous topography, with its numerous lakes and rivers, together with a heavy seasonal rainfall, is an excellent foundation for the extensive development of electric power.

In 1887, the Government took the first step in sponsoring the Tokyo Electric Light Company, which generated its power from coal. Soon after, in 1891, the first hydro-electric plant was opened. Since that time, a further development of electric power has been rapid, and progress unhampered. With the foreign war demand for coal, many industries, turning to hydro-electricity for power, served to stimulate the exploitation

1. See Appendix F.
2. See Map in Appendix G.
of power sites to such an extent that to-day several large private companies have extended their operations throughout the Empire. Although most of the available sites for hydro-electrical development now have been occupied, conservative estimates state that fully five times the existing capacity of present plants can be generated, as necessity demands. The Japanese look for marked progress and greatly increased utilization of this source of power, in the future. Most of the present concentrated development naturally centres around the large industrial zones. In those sections, the danger of occasional droughts of the dry season cutting off a large part of the available supply, has been avoided by wide extension of dams and inlets.

With the development of hydro-electric power, dependent and subsidiary industries have progressed in parallel. The five big electrical companies, who monopolize the field, are increasing yearly their output of motors, fans, insulators, and batteries. Already Japan has developed a self-sufficiency in telegraph, telephone, and minor electrical appliances, and has found a foreign market for her surplus production of electric lamps. As most of the big companies have affiliations with large foreign electrical concerns, the fear of competition from the west is reduced to a minimum. In the extension at

2. Tokyo Electric Light Company - cap. Y 407,149,000
   Toho Electric Power Company - " 144,321,200
   Daido Electric Company - 173,000,000
   Nippon Electric Power Company - 106,115,000
   Ujigawa Electric Power Company -
home of an electrified railway system, Japan is among the world's leaders. Her electro-chemical industry, also, is producing large supplies of ammonium sulphate, used extensively as fertilizer. Taken as a whole, the Japanese electrical industry represents one of the country's most valuable industrial assets.

b. The Gas Industry.

Closely allied to the electrical industry, but, in comparison playing an insignificant part, is the gas industry. The uses of gas are restricted almost entirely to fuel in the large cities, which alone possess tanks. Rates for gas are very high, owing to a poor utilization of, and an insufficient market for, the waste by-products. Although a survey of the industry has shown a steadily increasing rate of consumption, less than 7% of the houses have pipes installed. There is need for much improvement before the use of gas as a fuel can become widespread and general throughout Japan.

MANUFACTURE OF VEGETABLE PRODUCTS.

a. The Flour-milling Industry.

The taste for wheat flour in Japan was acquired only after the opening of the country to intercourse with the West, and consequently, has spread very slowly. Even to-day, the Japanese do not find, in bread, a substitute for their own native rice, but consume most of the domestically milled wheat by mixing it with rice flour.

The first wheat grown in the uplands of Japan was ground in the homes, or in rural establishments. A small importation of foreign flour served to supply any additional demand which wheat growers found they could not meet. But as consumption increased, the government saw, in the milling of wheat, the requirements for a profitable enterprise, and made haste to stimulate home production by placing a tariff on foreign flour. Since that time, a strong domestic flour industry has been built up, which mills a large quantity of both the home-grown and foreign lowgrade wheat, readily marketed amongst the poorer classes.

The Japanese flour-milling industry at present shows a marked tendency toward concentration of capital and monopolistic control. Two large companies, the Niishin and the Nippon Seifun, the most progressive in the field, have almost exclusive possession of the flour market. This position of power, however, has not caused them to halt their program of cutting operating expenses. Their mills, conveniently established in coast ports, are installed with modern machinery facilities, which enable them to maintain their large relative volume of output. It is probable, with the lowering costs of production in these mills, that the tariff on imported flour has outgrown its protective purpose. This guess is substantiated by the fact that the two large concerns are now producing flour with a yearly surplus, and finds a market in China in competition with the most efficient of foreign flour-mills.

b. Sugar and Confectionery Manufacture.

China's ceding of Formosa to Japan, following the peace settlement of the Sino-Japanese war, provided the victors with a source of cane-sugar far greater than their needs. Since then, with Japanese capital developing the industry sugar production has increased, through the improved conditions in the cane plantations, and new refining methods. Both these stages in the final output of refined sugar have been combined by the fourteen Japanese refiners owning and operating their own Formosan plantations.

But in spite of the vertical combination of process, Japanese refining companies are not meeting with much success. The signing of the treaty of Versailles immediately restored the temporarily restricted beet-sugar industry of Europe, bringing to the world a general oversupply. Those branches of the cane industry which had risen to fill the gap during the war years were the first to suffer. The cost of production of cane sugar in Formosa, even with the improvements introduced by the Japanese, is much higher than that of Java, and cannot compete with the beet sugar prices of Manchuria and North China, and its own territory, Korea. It is not unlikely that some of the land of Formosa, at present planted in canes, will be turned, in future, to rice production, for which it is equally suitable.

Sugar, moreover, does not play the same importance in the Japanese diet as it does in the food of other countries. The per capita consumption, though considerably greater than it was
thirty years ago, is still relatively small. The main use to which the Japanese put sugar is in confectionery, which is still very crude, and which is manufactured to satisfy the most unsophisticated tastes.

c. Rubber Manufacture.

The raw materials for the Japanese rubber industry are imported almost entirely from the Malay Peninsula. Along with their small holdings and invested capital in Malay, the Japanese factories have to depend to a great extent upon the product of English plantations to supply their needs. India, also, sends a small quantity of rubber to Japan, where it is used in the manufacture of materials of a higher quality. In the production of cheap goods, Japan has become the melting pot of large quantities of the used rubber of Western countries.

The Japanese rubber manufacturing industry is one of the few in that country where foreign capital has retained its original prominence. The English firm of Dunlop still finds it possible to withstand, chiefly in the production of tires, the competition of the rising Japanese firms. Foreign companies abroad, however, are finding that, with the aid of the tariff, the home producers are now sufficiently powerful to supply all the needs of the home market.

d. Brewing Industry.

Sake is well known to foreigners as the native drink of Japan, and a beverage which only the Japanese can appreciate. Few people of the West however, know the complicated process
by which this light, rice wine, which is from 10 to 14% alcoholic, is made. The yearly brew has now become localized in a few sections, of which Hyogo Prefecture is the largest single producer. As sake is one of the few luxuries in which the whole nation, from coolie to prince, indulges, the annual consumption is enormous. But since the total export trade is with Japanese residents abroad, the only growth that can be expected in the industry will come wholly as a result of a further increase in population. Recent developments of sake brewing by synthetic methods will tend to diminish future costs of production considerably.

After sake, beer is next in importance as a Japanese drink. When the people acquired the taste for beer, at first produced in Japan to supply only the early German and English settlers, they started an industry which has since grown to enormous proportions. To-day, Japan has become a beer-drinking nation, with factories all over the country to supply the large annual consumption. The manufacture, or brewing, of beer has kept pace with the increased demand to the extent that the Japanese are not only self-sufficing in their own country, but can compete successfully with the Germans and English in selling their surplus in China and the South Seas. Although the five largest companies, established near the centres of population, use imported hops for their raw materials, one northern company at Sapporo finds the growth of hops in Hokkaido quite sufficient, and suitable to supply all its needs for brewing the best quality of Japanese beer.
Soy is the Japanese Worcester sauce, and not unlike it in flavor and composition. To the Japanese, however, soy is not merely one of many condiments, but is a daily necessity, the essential flavor to many of their dishes. Its manufacture, requiring the distilling of beans and dried cereals, is an art which has long been an indigenous industry of Japan. In spite of the modern trend, the brewing of soy still continues to be a household task, widespread to supply the large daily consumption.

MANUFACTURE OF ANIMAL AND MARINE PRODUCTS.

It has been mentioned that the Japanese, owing in part to their religion, and in part to the organization of their intensive agricultural system, have little room for the growth of animal husbandry in the country. But with the increasing city consumption of meat, the raising of cattle for local as well as for draught animals, has grown slightly. Of the other animals, sheep are still scarce, with little prospect of ever becoming a landmark of rural districts. But the fattening of swine, which for a long time have been raised in neighboring China, is becoming a popular means of serving the native thrift in utilization of waste. Animal husbandry as a whole may be stimulated by the plans of the Government for settling the sparsely populated sections of Hokkaido, in the north, where bigger holdings are more suited to raising animals.

1. See Chapter II, under "Other Agricultural Products and Industries."
Two industries, dependent on animal husbandry, namely, the dairy industry and the leather industry, must be mentioned as a modern outgrowth.

a. The Dairy Industry.

When the importation of milk from the United States was suddenly cut off at the outbreak of the world war, the Japanese were forced to depend, from that time, upon their own resources. This cutting off of supplies of milk seemed negligible as compared with the effect upon other industries, as the Japanese used it only as medicine and baby-food. But the seed was planted and soon bore the fruit of a modern dairy industry in Japan. Although milk is still used only slightly in its original form, and though the people have yet to acquire the taste for butter, dairy farming is being encouraged by the demand for milk for cooking purposes, especially in milk chocolate. The means of a further increase lies in improving the quality of the product by stricter government control. But, in spite of present government inducement, it is doubtful if dairy farming, finding operation difficult on the limited extent of good pasture land, will ever develop into a large domestic industry.

b. The Leather Industry.

The manufacture of leather goods has met with unusual success in Japan. The native artisan, with his patience, industry, and willingness to toil long hours for little
remuneration, now works leather instead of carving wood, and in the output of a hand-made product, can compete with the machine-made leather goods of the West. As long as hand-made goods are preferred to those from machines, and the Japanese wage-scale remains low, the Japanese leather industry will flourish. At present, leather manufacture is centred in Osaka, which imports a large quantity of hides and skins yearly. The main exports of finished products, go, of course, to the nearer Oriental countries, which have not developed a large leather industry of their own.

c. The Manufacture of Marine Products.

It has been stated above that fishing is one of the largest single enterprises in Japan. Of increasing importance to the country, therefore, is the modern phase of bottling and canning in the fishing industry. At present, sardines, salmon, and crabs are the most important of prepared Japanese marine foods.

The salmon-canning industry, still in its infancy, shows great promise of success. With a satisfactory agreement between Russia and Japan over respective fishing rights, and with a Russo-Japanese combine operating in competition with the powerful Mitsubisti and other interests, the prospects are excellent for the development of an efficient and prosperous industry. Although most of the other varieties of fish are

1. See Chapter II under "Fisheries."
preserved either by drying or by salting, the success achieved in the salmon-canning may lead to a further extension of this process to other fish suitable for canning.

The canning of crabs, unlike salmon, has been carried on for many years in Japan and is recognized as the most economically effective method of preserving the large annual haul. As an item of export, mostly to America, canned crab comes first among the many Japanese marine products. With the installation of floating canneries and the closer proximity to the crab supply, efficiency of canning has been greatly increased, and the field of operations has been widely extended.

Lately, in the crab-canning industry, friction has arisen through unsound operation of the largest company in the industry. The present upshot is a proposal to combine capital from America, English and Japanese investors, to break the existing monopoly of the Nichiro Company, and to put this prosperous industry on a more businesslike basis.

Under the general heading of marine products, the extraction of fish oil must be mentioned as an active enterprise in Japan. Herring in great quantities are the chief source of both fish oil and fish cake. But the extraction of herring oil, carried on in many small fishing villages, is still in a very primitive state. Producers depend on the cheap labor of the remote districts, to provide the small profits with which they content themselves. Although domestic agricultural needs provide a steady market for fish cake as fertilizer, over three-quarters of the oil product is shipped to foreign markets.
When the farmer finds out how much more economical and efficient the modern artificial fertilizers have proven, the relative importance of fish cake, at present by far the most profitable part of the oil extraction industry, will become of less significance.

Other marine products which Japan, at the present time, manufactures, include isinglass, cuttlefish, and iodine, all produced in large quantities, with a steady foreign market. Salt, the output of which is a government monopoly in Japan, is extracted from sea-water in sufficient amounts to supply the home demand. Japanese culture pearls, which have become famous in the last few years, are raised in the large oyster hatcheries at Toba. Natural pearls are found in lesser numbers in and around the Bay of Nomura, near Nagasaki.

MINERAL PRODUCTS INDUSTRIES.

a. The Iron and Steel Industry.

The early economic development of Japan along Western designs was dependent almost entirely upon a European and an American supply base. English rails and German structural steel played an important part in the building of a new Japan. But with the prosperity that the war, and the continuing boom days of 1919 and early 1920 brought to the country, a domestic steel industry, manufacturing the ore from the few existing iron mines in Japan, arose in competition with foreign producers. The Government, besides protecting the home industry with a high tariff, itself commenced to operate, on a
large scale, the several plants which it had directed for thirty years. To-day the Government Yawata Iron Works turn out nearly 55% of the total domestic production, sending, at the same time, large quantities of finished steel to nearby foreign countries. In spite of the low rate of profit that even the highly efficient Government works can earn, numerous other small companies manage to exist, thanks to the liberal Government subsidy of from three to six yen per ton, and the privilege of tariff exemption on imported machinery. In spite of this, strong competition has forced them to improve their methods of production, and to link their fortunes in selling through a Joint Sales Guild, after the fashion of the German cartel.

Prosperity in the steel industry, in spite of an efficiency far above that of many other Japanese enterprises, has not been maintained, except under strict abnormal conditions as those during war and the reconstruction period after the earthquake of 1923. Most of the private companies are family concerns, in which outside investors are neither encouraged nor anxious to participate. On account of Japan's poor coking coal, and paucity of iron ore, in few items can the Government support its avowed aim at self-sufficiency of the home market. Japan's demand for steel is still not as large as that of most Western countries. But even to-day, the foreign supply of pig iron from Korea, Manchuria, China and India, and of finished

1. Their latest large contract is to supply the Japanese-owned South Manchurian Railway with 25,000 tons of steel rails, albeit at a decidedly depressed price.

2. See Appendix H.
steel products from the United States, Germany, and Britain is coming in over the high tariff wall, to undersell the domestic products. It is not surprising that many of the iron and steel works have been the first to close their doors, at the outbreak of any financial crisis. The possibilities of the Japanese steel industry to become in future a bulwark of the country, as in England, Germany, and the United States, are very remote.

In the utilization of scrap-iron, the Japanese works are more fortunate. With a low tariff, large quantities of scrap have been redeemed at low cost, by the cracking up of old ships in Osaka. But even though such reputable firms as Mitsui and Mitsubishi have been the agents for this Japanese dumping ground, foreign shipping lines have found it advisable to have a contract that their old ships in reality will be dismantled and not put on the seas under a new flag, in competition with the new ships that have replaced them.

b. The Machinery Industry.

The machinery industry is growing in Japan along very similar lines to those of any other young industrial country. The first essential in the making of machinery is a wide knowledge of machine processes. Until Japan, through this means, has greatly enlarged its present small body of highly skilled mechanics, progress will continue to be slow, and experiments many. At present, most advance has been marked in those particular types of machines most commonly used in Japan.
This is especially true in the electrical industry, which with its major foreign interests involved, turns out a large percentage of the total machine products. In the production of locomotives, both electrical and steam, Japan is self-sufficient. The bicycle industry, still prospering in Japan, has already supplied the country with over five million machines, with few foreign appliances, and has an abundant annual surplus for export.

But, outside these few specialties, foreign machinery is still predominant in the Japanese market. Most of the motor cars, although assembled in the Japanese branches of Ford and General Motors, are manufactured in America, uninfluenced by the present agitation for a strictly Japanese make. Cotton mills depend on England for their spindles and looms. Large ship engines are brought in from Germany or Scandinavia. It is probable that machinery will continue to be a large item on the import list, even after Japan has passed beyond its present transitional stage of industrial development.

c. The Ship-building Industry.

Japan's first interest in the building of ocean-going ships came with the opening of the country to foreign commerce with the West. Since that time, in no field has the Government, with numerous subsidies, played a greater part, than in its program of encouragement to Japanese shipbuilding. But the desire of the country to control the carrying trade of the
Pacific so far outreached its ability to construct a sufficient number of ships, that importation of vessels constructed abroad continued to outnumber those assembled in domestic dockyards. The essential weakness that has persisted in the Japanese Merchant Marine, has been the indiscriminate importation, not of new ships, but of the cast-off vessels of foreign lines, regardless of classification. Japan quickly became the third shipping nation in the world, but the average quality of her deep-sea tonnage was so low as to lessen greatly the advantages the country derived from shipping prominence.

The war, however, brought with it a modern constructive phase to shipbuilding in Japan. The importation of all ships, both old and new, came to an end, and new ships, built in the expanding dockyards, began to replace many of the country's antique designs. To-day, there is a movement on foot by the Japanese Shipowners' Association, to urge the Government to place a bounty of ten yen per ton on the scrapping of old vessels. The shipowners feel that by this means, the present gradual rejuvenation of the nation's carrying fleet will be accelerated greatly.

Meanwhile, in spite of the current oversupply of ships in the world, Japanese yards, according to Lloyd's Registry, are steadily increasing their activities. In 1893, all large ships were built abroad, while in 1928, fifty-three deep-sea vessels were launched in Japan, with foreign finished materials only in engines and in interior furnishings. In the space of a very few years, Japan, as a shipbuilding nation, has risen
to third in the world, following only Great Britain and
Germany.

The Japanese admit that this progress has not been
without its difficulties, as for example, the failure of the
Kawasaki Dockyards in 1927. The building of ships in Japan
requires the importation of almost all the raw materials.
Technical skill in constructing from these materials is not
yet as widespread as it is in other large shipbuilding
nations. Besides these practical disadvantages, Japanese
shipbuilding finance has not reached the fine degree of completenes
that characterizes the enterprise of Norway, Germany, and
England. The people have not developed the sufficient faith
in maritime operations that is necessary for success.

Japan's advantages as a shipbuilding nation, however,
far outnumber these few difficulties. Japan alone, among all
the countries in the Orient, can combine the industriousness
of a large population with an innate national sea-consciousness
to make such an industry possible. It is to be expected that,
in future, shipbuilding will continue to be one of the large
industries of the country.


2. The financial panic of 1927, causing the bankruptcy
of the Suzuki Company, also forced the Kawasaki
Dockyards even with their large naval contract, to
cease operation. The Dockyard, closely connected
financially with Suzuki, was opened only after
receiving a loan of ¥11,000,000 from a large banking
syndicate.

See Japan Year Book, 1929, p.427.
d. The Non-ferrous Metals Industries.

In metal-working, Japan has inherited from its Oriental neighbors, China and India, the art of minute detail and exquisite workmanship. From the Chinese directly, it has acquired the knowledge of bronze-cutting, inseparable from Oriental culture. In the many Buddhist temples of Japan can be seen the enormous bronze bells that mark the centuries of experience in metal-carving. Vases and lanterns of religious design are characteristic of the old artisans. But the most picturesque symbols of this age of bronze are the gigantic castings of Buddha, of which the finest example is the famous "dai-butsu" at Kamakura. Of the other innumerable works of art of a past age, noteworthy are the old metal armor headpieces and the delicately carved swords of the feudal period.

Most of the arts of old Japan are dying out, in the scramble for a modern civilization. But some of the learning of the age gone by has remained to preserve the fame of the Japanese metal workers. In damascene inlay of gold and silver, and in the moulding of simple trinkets for a modern demand, the artisans continue the work of their forefathers. And in one direction at least, the manufacture of cloisonne ware, the Japanese of to-day have far excelled both their ancestors and their Chinese masters. The various processes, such as setting the cloisons, or wires, on the brass, silver, or copper base, and applying between these minute wire moulds, enamels of pleasing colors and shades, require a skill of
workmanship that cannot be duplicated by any of the modern machine methods. The centres where Japanese cloisonne manufacture is carried on most extensively are Kyoto, Tokyo, and Nagoya, each turning out designs unique to its locality. Making cloisonne-ware is a very tiring procedure, and due credit must be given to the Japanese for the industriousness with which they have perfected their own product, and excelled that of any other country.

Among the few metal industries involving handicraft, which Japan has acquired from the West, the making of clocks and watches has been the most successful. The Japanese artisan, industrious and tireless, is exceptionally well suited to the minute detail involved in this work. This fact gives assurance that the watch and clock-making industry will become of increasing importance in the future.

e. The Non-Metallic Minerals Industries.

The porcelain industry is another of Japan's inherited arts which has found a place in the new organization. In its designs, Japanese pottery shows the marked influence of Chinese teaching, with Japanese variations. The rare products of such places as Kutani and Satsuma are fine examples of the point of excellence which the art of making pottery, handed down for centuries, had reached in Japan. But the modern age has demanded a manufacture of foreign style products greatly to the prejudice of the old work. Although hand methods, such as the potter's wheel, painting, and finishing, are still widespread, most of the new pottery is turned out hurriedly for an unappreciative foreign market. Nagoya has become the
centre for the manufacture of much of the inferior ware that is exported from Japan.

Closely connected with the pottery industry is the glass industry, which has found Japan well equipped with the experience and technique of centuries. It was a small thing for the Japanese to turn from making household pottery to the manufacture of the new, and more convenient, glass utensils that the West brought in its train. The post-war crisis showed how firmly the glass industry had become planted in Japan, outliving as it did the many mushroom industries of a brief season of prosperity. Osaka, to-day, is the largest centre for glass manufacture, the cheap products of which have become an important item in that city's many articles for export.

The rise of the cement industry in Japan came as a result of the building demand in the large city business sections. The Government once again was the first enterpriser to commence replacing the early imports with a domestic product. The development of the cement industry since then has been very rapid, and to-day, Japan, besides supplying a large home demand, has gained possession of overseas market of China and the Dutch East Indies. The most prosperous time for the cement industry came immediately after the earthquake of 1923, when reconstruction replaced the old-type wood and brick structures with buildings of reinforced concrete. Now, with the Government program for rebuilding Tokyo and Yokohama nearly completed, the future demand for cement, in the course of contractors' normal needs, will cause a sharp decline in the present output.
However, since the Asano Portland Cement Company controls the market, and has a production agreement with the only other large company operating, there is no doubt that restriction of cement manufacture can be carried out most economically. It is quite possible that the cement industry may become an important factor in the future industrialization and export trade of Japan.

MANUFACTURE OF WOOD AND PAPER PRODUCTS.

a. The Lacquer Industry.

The Lacquer industry of Japan is one of the oldest in the country, and the craftsmen possess a hereditary skill unexcelled by any other people. The industry has remained so much a part of the country that the two names have become synonymous for this most durable varnish. Although lacquer can be applied to almost any material, the Japanese use native wood mostly as a base. Much of the juice they still import from China, but the workmanship, with its varying designs and excellent finish is entirely their own. Unfortunately, foreigners do not possess the discriminating taste of the Japanese in detecting good lacquer workmanship. Fifty coats look just the same as one hundred and fifty to the unpractised eye. The result is that the lacquer worker is neglecting his art in supplying an inferior product to ignorant foreign demand. The time may come when Western tastes will force the products of the lacquer industry made for export, to the high level shown in the quality of those wares marketed at home.
b. The Match Industry.

The production of matches, though carried on extensively in Japan, is now almost entirely in the hands of foreign capitalists. The advent of a powerful foreign company, coming as it did when the prosperity of the match industry was dwindling, proved a great benefit to the country. The new owners quickly cut out the oversupply, and consolidated the whole industry, now controlled under its monopoly, into a highly organized economic unit. As a result, to-day Japan is regaining many of her war-time overseas markets in China, Hong Kong, and the Straits Settlements. Osaka has discovered that the match industry is gradually becoming one of the most important manufacturing enterprises of that rapidly expanding industrial centre.

c. The Production of Building Materials.

Lumber is of primary importance to the building industry of Japan, where wood is the essential substance of the houses and other small structures. Sawmills, therefore, play a paramount part in the production of Japanese building materials. Modern methods of lumber output have come in with all the other Western improvements. And although, until recently, efficient Japanese plants depended on foreign suppliers for the machinery of the modern mills, the progress of the industry

1. In 1920, the match industry suffered from the dwindling of domestic consumption, the lessened export to India and China, the high price of raw materials and the advance in domestic wages. As a result the Swedish match Company broke into the market, and soon gained control of the weakened industry.
has been so marked that domestic machinery makers now can supply such necessary equipment as gang saws and planes.

But in spite of machine efficiency, the modern Japanese sawmill still neglects economy of labor. Even with the machinery overworked as it is, uncut logs are rolled into place by hand. Everywhere labor is sacrificed to the economizing of materials. There is no waste to supply a burner in the electrically run mills. Instead, the smallest sticks that cannot be used otherwise are carefully bundled and carried away for household fuel. Knot holes are refilled by hand, even in the cheapest boxwood. It is still a question, in the Japanese lumber mills, of balancing increased efficiency of machine production against the cheapness of labor and the high cost of materials. Up to date, machinery has only in part replaced the labor force.

Although the earthquake of 1923 acted as a strong stimulant to the lumber industry of Japan, a large importation of foreign lumber was required to meet the sudden demand. The final result, however, was a gradual growth in the number of domestic mills to supply the home market. And now that reconstruction is nearing completion, the Japanese sawmills are equipped to provide most of the domestic lumber, and import only logs or roughly finished squares. In addition, they have already built up a large export trade to near Oriental countries in such finished products as box shooks, tea boxes, and railway sleepers.
d. The Manufacture of Pulp and Paper.

The only large domestic supply of pulp, is in the Japanese Saghalien (Karafuto). So far, this source has been tapped only slightly owing to the cost involved, in all probability it will find a profitable market in the future, only in supplying the Japanese artificial silk producers. For the cheaper quality of pulp used in paper manufacture, the country depends almost wholly upon imports from Sweden and North America. The present tendency is for the importation of foreign pulp to increase, along with the greater use of foreign-style paper in Japan.

Although Japan imports a large quantity of pulp, she has made a policy to build up a high degree of self-sufficiency in the manufacture of paper. Paper is one of the few staple products that the West owes to the Orient, and it is probable that Japan carried on paper manufacture after the native fashion long before the West was civilized. The production of a native Japanese paper has survived the Western invasion, and the output still serves the people in many ways, whether in the form of writing paper or as a casement for the sliding framework of their houses. The chief material sources for this native paper are rice straw and the bark from the paper mulberry.

Foreign style paper is gradually superseding the native product. Japan has become one of the world's largest consumers of newsprint, and this item alone has made the manufacture of Western paper one of the most profitable
enterprises of modern Japanese industry. New machinery has placed the paper industry on a high plane of efficiency and has enabled factories to turn out any style of paper except the very highest Kraft grades. In even these latter lines, new experiments are meeting with some success. The two large centres of paper production are Tokyo, with its factories concentrating on book paper, and Osaka, the main producer of business paper. From these two cities there is a steadily increasing paper export trade to China. The marketing of the finished product both in the domestic and the foreign market is facilitated greatly by a nation-wide Paper League, embracing as it does over 90% of the total Japanese companies.

MANUFACTURE OF CHEMICALS AND ALLIED PRODUCTS.

a. The Artificial Fertilizer Industry.

Fertilizer, constituting, in one form or another, the largest annual item of expenditure of the agrarian population, has become essential to the system of intensive cultivation in Japanese agriculture. The farmers have long been accustomed to applying to their exhausted lands such natural waste products as bone meal, bean cake, herring cakes and night soil. But with the spread of learning amongst the rural classes, artificial fertilizer is being recognized as cheaper and conducive to a far more luxuriant crop.

The most commonly used artificial fertilizer in Japan to-day, is sulphate of ammonia. Although domestic manufacture
of this product began as early as 1908, progress since then has been very slow, and development is still in its infancy. In spite of the war boom, the present capacity of domestic plants, less than 300,000 tons annually, is far surpassed by the volume of imports of sulphate of ammonia from abroad. Even in this industry, necessary to primary production, there is a strong movement for high protection, to support the Japanese factories, and encourage competition with Western producers, throughout the Orient. It is argued that new methods of nitrogen extraction from the air, combined with plentiful hydro-electric power, are all that would be required to build up a strong artificial fertilizer industry in Japan. But against this, the Government is faced with the prevailing poor condition of the peasants, who can stand little, if any, increase in their working costs. It is unlikely that under these circumstances, protection and subsidy will be used to further the industry at the expense of the country as a whole. It is probable that the Government will content itself with its tentative plans for supervision, and regulation of production. After the industry is established on a rational basis, with control over reserves and depreciation, grossly neglected by many companies in the past, there may come a time when domestic manufacture of sulphate of ammonia can stand on its own feet, and meet home demands on an equal basis with foreign producers.
In the production of superphosphates, Japan is self-sufficient, and exports about 30% of its annual output to Europe. The main difficulties the industry encounters arise mainly through seasonal demand. Lately, a move to regulate the seasonal fluctuation of prices has resulted in a tentative agreement of the involved companies, to control in common 30% of the volume of production. It is hoped that this will minimize the periodical vacillations of prosperity and depression to which the industry has been subject.

b. Miscellaneous Chemical Industries.

Many other chemical industries, including the manufacture of soaps, oils, fats, and dyes, have been developed in Japan along western lines. Raw material, such as fish and beans, are sufficiently abundant in the country to supply the needs of the different producers. As a subsidiary to the large spinning and weaving industry, many of the minor chemical concerns find a steady and profitable market for their various products.

With the Japanese possessing in Formosa a monopoly on the world's source of natural camphor, the manufacture of celluloid products has become an important branch of the chemical industry. Tokyo and Osaka are the two large centres of output of the numerous different celluloid products that enter into both domestic and foreign commerce.

SPINNING AND WEAVING INDUSTRY.

The Japanese spinning and weaving industry has become so
prominent that, in all its phases, as a domestic enterprise, an importer of raw materials, and an exporter of finished goods, it far surpasses any other in industrial Japan. An accurate estimate of the spinning and weaving industry will be a very close index of the well-being of the industrial community as a whole.

a. The Cotton Industry.

Cotton spinning has been exceptionally successful in Japan. Combining the factors of foreign machinery and raw material with cheap female labor and a large market nearby Japanese cotton mills have become the stronghold first and last of the Oriental business world. The cotton industry must support the many other less efficient enterprises that have been built up around it. In fact, it is largely on account of the success that followed the first cotton spinning undertakings, that Japan has turned to the development of other home manufactures, some of which have not been as well-advised or as appropriate as the cotton industry.

For some time, the Japanese have been self-sufficient in the weaving of cotton textiles. The business of supplying the home market with cotton cloth, unique in its narrow width and native pattern, was more or less restricted to domestic producers. With the war, Japanese cotton spinners found the opportunity to extend their domestic market into

1. See Appendix 5.
foreign fields. Competition of English and American goods was eliminated most conveniently and Japan found itself admirably suited to supplying the enormous demands of China, India, and the East Indies. The secret of Japan's success in cotton textile production lies in the large consumption throughout Asia, as well as the benefit of a considerable home market. In spite of the stimulus to the industry coming through abnormal world conditions, the manufacture of Japanese cotton goods has become very well organized, and has been able to retain, under normal conditions, the markets in which it became established.

Osaka is the centre of the Japanese cotton spinning industry. In that city, the Japan Cotton Spinners' Association, numbering as its members over 90% of the mills, has a controlling influence over the importation of raw cotton, and the exportation of the finished product. Many mills to-day are turning to a specialization of output, and through this, are reaching a position of efficiency comparable with that of the best of Western factories. Even though the cotton industry has never been benefitted by a subsidy, the present tariff on cotton goods is almost ineffectual, and the only cotton cloth that enters the country is of a very high quality, with a limited negligible demand. The cotton industry has been most fortunate in never having suffered from the indolence and submerged initiative which government interference so often fosters.

The best of industries in any country, however, always has room for improvement. The Japanese cotton industry, though
the only enterprise which, through its excellent financial organization, came through the post-war period unimpaired, has other difficulties to face. The Indian market for Japanese cotton has always been uncertain at best. The recent Indian tariff revision, though met with strong protests on the part of the Japanese spinners, has brought a check to the Indian imports of Japanese cotton goods, in spite of the efforts in Japan to counteract the tariff by an increased number of spindles, and improved technique. In the long run, the Indian tariff bill may be decidedly beneficial in forcing greater efficiency in Japanese cotton mills. China, the other large market for Japanese cotton, continues unsettled. Peace in China is necessary for the promotion of stable business. But as a counterpart of future stabilization in China, there arises, as in India, the potential competition of domestic mills. China already possesses over half the number of spindles that Japan itself works, and Japanese investors, foreseeing this, have gained control to-day of nearly 40% of the Shanghai mills. Japanese cotton spinners have good cause to fear the cheaper labor and the recent signs of a higher efficiency in Chinese cotton mills.

Several handicaps inherent in the Japanese industry itself make the problems of the cotton manufacturers even more complex.

1. The number of spindles in China is estimated at 3½ million, with 6½ million in Japan.
And the Japan Year Book, 1929, p. 547.
Building and installation of mills in Japan are expensive items of initial costs. Improvements on machinery are adopted slowly, owing to the long distance from the English shops. In the face of this, recent legislation cutting down the working day, and abolishing night work in the mills, has caused an advance in overhead expenditure, which has not been fully met by the installation of more spindles. But the most serious defect of the industry lies in the fact that labor itself is lacking in the technical skill of the workers in the older industrial countries. With 80% of the operatives consisting in girls from the ages of fourteen to twenty, who spend, on the average, only two to three years in a mill, skill of workmanship necessary for continuously efficient production, cannot be maintained. This semi-skilled operation of sweated machinery often causes uneven filaments, to the detriment of the finished article.

But in spite of all these minor handicaps, cotton spinning and weaving must be regarded as the most highly efficient enterprise in the new industrial Japan. The larger plants have been pioneers in the movement to improve the welfare of their employers, in order to receive the maximum results. Hospitals, theatres, dormitories, and small houses are included in the complement of the modern mill. Meals are provided on the premises at very low rates. And wages, in the cotton industry as a whole, are the highest in the land, a situation which seems to hold in the most efficient industries of any country.
b. The Silk Textile Industry.

Although silk manufacture is one of the oldest industries native to Japan, most of the output of silk tissue is exported in the raw state to be made up abroad. In spite of the fact that in silk rests the only large industry in which Japan produces all the necessary raw materials, the spinning of silk is still in a transitional stage of development, and is carried on mainly as a subsidiary enterprise of the more powerful cotton mills. Great progress is needed in the technique of weaving, dyeing, and making for the demands of fashion, before the Japanese silk textile industry can supply varied foreign tastes. It is essential that there be a better coordination of the diverse processes of the industry, and a more direct relation between the mills and the reelers, to gain a maximum of efficiency between the different stages in the production of silk cloth.

However, self-sufficiency in the home market has always been maintained with little or no difficulty. And whereas, but a few years ago the sole export of finished silk materials consisted in "Habutae," a thin undyed silk of the plainest texture, fancier types of silk manufacture are now finding foreign markets. The government is becoming active in its efforts to study at first hand, the tastes of foreign buyers. The future of the silk textile industry in Japan, under these conditions, has prospects rivalling those of the present cotton industry, as a profitable domestic enterprise.
c. The Manufacture of Rayon, or Artificial Silk.

The rayon industry came into being as a product of the war in every manufacturing country, and as a result, Japanese factories did not face the disadvantage of relative inexperience that they have felt in other lines. In spite of this, they are not able, at present, to fill home demands, and Italian and English artificial silk products linger in the market. It is expected, however, that Japanese producers soon will be able to meet all domestic requirements. Foreign producers are finding it difficult to supply the Japanese market, peculiar in its demand of color combinations, and narrow widths. Also, the mixing of rayon with silk, the usual combination for the Japanese kimono, can be carried on with greater ease close to the source of the more expensive materials.

At present, Japanese plants use the viscose process almost entirely, in their production of artificial silk. Costs are being greatly reduced by recent improvements in technique and mass production. If there can be added to this a greater sense of team work, and better methods of training the workers, the rayon manufacturers should have little difficulty in competing with foreign producers throughout the Oriental market.

d. The Manufacture of Woolen Products.

The spinning of wool in Japan is of small importance yet, as compared with either cotton or silk manufacture, but its relative value as an industry is increasing every year. As the
raising of sheep in the country has proven to be more or less of a failure, most of the present supply of wool is brought in from Australia. Judging from the current tendencies, it seems quite likely that the Japanese will be forced to look in future for an even greater supply of raw wool from foreign sources. Even now, Nagoya, which is the centre both for the import and the manufacture of wool, finds that this product has become the most important item in its commerce.

The growth of the manufacture of wool in Japan is one of the many results of her program of Westernization. The army and the navy, the school, modern business, are adopting Western styles in clothes, and a mixture of wool and cotton is supplementing silk in the native costume. With the outbreak of the war, and the cutting off of supplies, Japan took its first step in the manufacture of serge and muslin. But the crash that followed an era of national prosperity showed how backward were their methods of wool spinning and weaving, lacking as they did the raw materials, modern machinery, and a large body of skilled workers. It is only through the paternal support of the Government, and the provision in a revised tariff for a 100% luxury duty on woolen textiles, that this weak industry has existed up to the present. It is unnecessary to state that only the highest quality of woolen textiles can come in over this effective protecting barrier. But in spite of this, the Japanese industry does not prosper. Quality of domestic manufactures is improving only very slowly, and is still far inferior to that of foreign grades. The
fostering of the manufacture of woolen goods in Japan is proving an expensive experiment in more ways than one.
Chapter IV
DOMESTIC TRADE

"In no place in the world do people live so utterly under the influence of barter."

From "Japan Real and Imaginary."
by Sydney Greenbie.
VOLUME AND CHARACTER OF DOMESTIC TRADE.

In spite of the apparent ease with which Japan revolutionized its industrial organization, and adopted trading methods of the West, the spirit of the people, as reflected in their domestic commercial relations, has not kept pace with the modern trend. It is one thing to bring in foreign machinery and to imitate foreign production processes, and quite another to acquire, as a nation, characteristics which have become habitual actions in the daily life of another people. The Japanese cannot avoid having difficulty in breaking away from the barter system of a long feudal era, and in establishing the complex credit institutions of Western commerce. The Japanese shop persists as the market place, where buying and selling are carried on in the same way, year after year.

The shop in Japan, is the most striking Oriental landmark of an old regime. With its open front and its domestic wares piled on top of one another in the one-story wooden structure, it presents a marked contrast to the Western store, with its immaculate show-cases. In the large cities, every family seems to have something to sell. If the head of the house is employed elsewhere, his wife is extremely capable of carrying on the business of the home. This institution of the Japanese shopkeeper will be the last to go under pressure from the West. It will survive that of the hawker, the wandering "geta" mender,

the "tofu" man and of all the other numerous street-sellers who still are common sights and sounds with their various distinctive bells and horns.

There is one other very old method of merchandising in Japan, which may persist after modernization of the country is completed. This method of selling, which has been common to all nations the world over, is the fair. In Japan, the New Year, the mid-summer Bon season or any time when a particular temple is celebrating one of its numerous anniversaries, is sufficient reason for a fair. In the temple grounds, stalls are erected overnight, and stocked with every variety of cheap trinket, balloons, candy, and toys. It is both amusing and instructive to see the people flock to the fair in great herds, few paying any attention to the religious purpose of the festival.

Nevertheless, old customs are falling into decay. Barter is of no interest to the modern factory worker, who wants everything at the lowest possible price. The wage he receives, based in the long run on his standard of living, must provide at least the bare necessities of life. And to maintain a set price in staple products, Tokyo and Osaka have established central markets, which handle food products at the lowest cost. Department stores are coming into prominence in all the large cities, and sell their goods at carefully calculated prices.

1. Bean curd.

2. A religious festival in August, when the dead return to this earth.
There is no place for barter and haggling over small amounts in the modern system of goods exchange. So with Japan depending more and more on foreign supplies for food, the department store, organized to handle large shipments, is forcing the old-fashioned merchant from business. Ultimately, Japan will lose her bargaining habits, and will raise the standard of domestic marketing to the plane of her industrial organization, where time and rapid turnover are at last becoming important factors in Japanese business.

The goods that are retailed in this new system of trading, however, are not indicative of great progress to a higher standard of living. Western products, on the whole, are imitated with a desire of reproducing their appearance rather than attaining a similar quality. Japan follows the short-sighted policy, generally received with favor in most other countries, of patronizing home products, even if the quality of the domestic goods is far inferior. In no country is the fallacy of seeking at any cost to give preference to all products manufactured at home so forcibly exposed as in Japan.

Considering the length of time that Japan was completely isolated from outside influences, it is inevitable that a full appreciation of quality in the things, the use of which they are just learning can come only gradually with a growth of

1. "In the woolen industry, as in all Japanese industries, (we find) the production of an inferior article of similar appearance to the more expensive imported article."
   Freda Utley in the "Manchester Guardian."
technical education which is being strongly encouraged by an enlightened Government, the appearance of shoddy goods undoubtedly will be checked. The people are demanding, more and more, the true value found in Western products, and in time, quality will force quantity from the market.

Not wholly unconnected with this phase of Japanese manufacture, in sacrificing quality to appearance, is the element of misrepresentation that has been too prevalent in the Japanese business world. But because the first traders, who doubtless learned their bad practices from Western contacts, have had an unfortunate influence on Japanese business ethics, there is no basis for the too common accusation in the Occident that the Japanese are fundamentally dishonest. To the contrary, the people, with an awakening of national consciousness, have proven themselves to be exceptionally able and astute businessmen. What questionable tactics they employ are readily accounted for by too rapid expansion of their commercial ties. When competition has brought home to them the value of time and binding force of contract, there is little reason to doubt that the reputation of the Japanese will rise above its present level.

Present tendencies of trade show that business in Japan already has taken great steps toward better methods of undertaking and transaction. The last few years in the Japanese commercial world have seen the rise to enormous power of several outstanding families. The present operation of department stores, shipping, banking, and all the important
industrial enterprises, has fallen into the hands of several small powerful groups, who now stand alone in directing the movements of the Japanese financial scheme. To trace the connections of such firms as Mitsui, Mitsubishi, Sumitomo, and Yasuda through all their ramifications is as complex a procedure as it is with the large interests of America. Suffice it to say that these four firms have a finger in almost every industrial and commercial pie of the land. Several other families, such as the Okura and the Wakao, follow the leaders closely in the holding of large stock. It has yet to be shown whether enlightened self-interest of these virtual rulers will be beneficial, in the long run, to the country as a whole.

COMMUNICATIONS IN JAPAN.

a. Old and New Methods of Conveyance.

The typical street scene in Japan displays a motley mixture of Eastern and Western modes of conveyance. The rikisha, although a Western invention, is out of place in most places except the Orient. Carts heavily laden with such bulk commodities as coal, iron or night-soil, clank ponderously along the streets, pulled by horses, oxen, men, or even women. No one is in a hurry except the taxi-driver, who weaves his way through the throngs clattering along the pavement on their wooden clogs, and travels with a recklessness of one ignorant of the dangers of this new means of transportation.

1. See Appendix K.
None of the others hurry, because the roads will not permit it. Many of the highways are of ancient structure, and mainly for military communication. As they are made of clay and dirt only, even in the steepest gradients of the hilly country, washouts are frequent during the rainy season. In spite of the new needs of business, city roads, winding in every direction, often are little better. Certain improvements, it is true, have been forced by the expansion of industry, and particularly by the advent of the motor-car. To-day, concrete highways connect Tokyo with Yokohama, and Kobe with Osaka, while the main arterial road from Tokyo to Osaka is excellent. Also, the reconstruction of Tokyo and Yokohama after the earthquake brought about a great improvement in the condition of the streets in those cities, following new methods of town planning and road building. But there are few signs of improvement in the roads of the outlying districts. Automobile traffic is still confined to the large metropolises. It is unlikely that the condition of roads will be much better until a wider use of cars demands it.

The main reason why Japan has not had, in the past, a more complete network of highways through the country, is the extreme cheapness and facility of water transportation. All the large cities, with the exception of Kyoto, are situated on the coast. And through most of these cities, there has developed a maze of canals, built originally for defensive purposes, but used later for carrying goods to all the different points in the vicinity. Tokyo to-day has fifteen canals
grouped in circles around it, and connecting almost all the important industrial sections. Barges, propelled by long poles through the muddy streams, are a common sight at any time of day. The canals in Japan, even now, play an important part in the transportation of produce to and from industrial centres.

But with the modern age, new methods of conveyance have superseded, to some extent, the old system. The bicycle has become a necessity of modern Japan, and the precarious load that the Japanese messenger boy can carry safely through the crowded streets, is a revelation to the people of the West, who regard the bicycle as a thing of the past. Hydroelectricity has given birth to the electric tramway, which has become even more important to the workers of Japan. All the large cities, and many of the smaller ones, have street railways connecting even remote suburbs. The importance of the street car to modern business was shown by the inconvenience which the recent strike of motormen and conductors in Tokyo caused. The latest acquisition in the field of transportation, is, of course, the motor car. The development of the use of motor cars, which, including trucks and buses, now number nearly 80,000 in Japan, has passed the transitional stage. In spite of the fact that almost all the cars operate as taxis, their

1. In December, 1929, the bus drivers and street railway operators went on strike, objecting to the proposed cut in their annual New Year bonus. Business was temporarily handicapped, until traffic was resumed, after arbitration of the parties concerned.

number has shown a large increase every year. A continued drop in the price of gasoline tends to make motor transportation by far the cheapest and most convenient. Although accidents are still too numerous, the establishment of bus lines throughout the country is causing serious competition to the government railway and local tramways.

b. Railways in Japan.

The first Japanese railway was completed as early as 1872, under English direction and supervision. Since that time, many additions have enlarged the system to its present stage of completeness, extending as it does to the most remote districts of the country. At the end of 1928, railway lines, including those of local tramways, covered 14,000 miles, of which 8,455 were owned by the State. All the railway lines in Japan are narrow gauge. In spite of the high cost of materials and natural obstacles of climate and topography, the cost of laying the excellent road beds has not been excessive. Many lines, particularly local branches, have been electrified, and operate very efficiently.

Railway finance has always received close official attention. To-day, along with the extensive nationalization of railways, the State guarantees to the private local lines a minimum return of 4.5%, thus assuring a widespread and


3. Ibid.
inclusive development of the whole system. In spite of the numerous employees, numbering 200,500 on the Government lines alone, rates are kept exceptionally low, through efficient operation. The trains are not fast, but the promptness and dexterity of movement result in a surprisingly large daily mileage per car. The railways have had no strikes to face, and prosper under Government management. At the same time, they have been a vital factor in the growth of large cities, and in the rapid development of Japanese industry.

In Japan, one unusual feature of railway transportation is the greater importance of passenger traffic. Bulk commodities of freight are carried mostly by the cheaper water route, and as a result of the diversity of parcels carried as railway freight, in place of the large carload lots seen in America, freight cars are very small. Passenger cars, on the other hand, are little different from our Pullman, in their structure. Not that train-travelling is pleasant in Japan. To the contrary, the people, once aboard a train, seem to lose all their sense of neatness that characterizes the home. Lunch boxes, orange peels, paper, and rubbish are strewn on the floor, giving forth an odor peculiarly offending to foreign noses. Many of the main runs, also, have become congested from the slow speed of Japanese trains.

Closely identified with the Japanese Government Railways is the Japan Tourist Bureau, which has become a very active


2. Ibid.
organization since its establishment in 1912. The Government Railways also own and operate more than half the foreign-style hotels, to accommodate the yearly influx of 25,000 tourists.

c. Telephone, Telegraph and Postal Services.

The functions of regulating telephone, telegraph and postal services have all been assumed by the Government, but are still too new to operate smoothly. Translation of cable codes has taxed the patience of foreign traders, who do not resent the curiosity of the slow-moving officials nearly as much as they grudge the time involved as such an unnecessary procedure. Local telegraph offices are often tardy in forwarding messages. It is not unusual for an express telegram, charged a double rate, to require five hours in passing from Kobe to Yokohama, a distance less than four hundred miles by rail. The postal service, also, has been slow to develop, and even to-day, is somewhat irregular. Telephones are still regarded as a considerable capital expense of modern business. The Government, inaugurating telephone installation, now handles the business of providing new instruments, through a brokerage agency. The demand for telephones has forced the current price to over one thousand yen, in addition to relatively high rental charges. So in spite of these innovations, the "chit" system is still common in Japan, and every office has its "boy san" who, besides performing his duty as licker of stamps, has the added burden of delivering local messages.
FACILITIES FOR PROMOTION OF DOMESTIC COMMERCE.


In banking, as in many industries, the State was the first to operate in Japan. The Japanese Government followed, as closely as was feasible, the old American National Banking system, and to this day banks in Japan possess many of the defects which the United States Federal Reserve Act eradicated in that country in 1913. However, Japanese banks are now mostly in the hands of private individuals, who, through combination, and a growth in their knowledge of finance, should be able to overcome many of the faults of the system.

Early in the history of growing financial institutions of Japan, the Government adopted the policy of "division of powers," giving to each defined branch of banking, limited functions of enterprise. The integral parts soon became little more than the instruments of separate departments of the State. Even to-day, we find no parallel to the diverse operations of a single Canadian bank, in the private members of the Japanese System. The Bank of Japan, an adopted form of the continental central bank, is the State organ of finance. Although it is in theory a private corporation, its policy is subject to the strict supervision of the Government, whose approval is necessary in the selection of both its governor and its vice-governor. In return, besides being the government's financial agent, it has complete control of the note issue, and, in time of stress,

1. See "Japan's Banking System" - G.C. Allen, Japan Chronicle Press, Kobe, 1925.
may make emergency loans and discount certain commercial bills. The note issue of the Bank of Japan is limited at present to Y 120,000,000 and is secured by Government bonds. Any further issue must be backed yen for yen by bullion, of which not more than one-quarter may be silver. From the character of all these operations, it may be seen that this so called central bank has little connection with the other banking industries of the country. Few of them maintain reserves in its vaults and as a result, the only weapon the Bank of Japan can hold over credit expansion, is the sale of Government bonds. It is not difficult to understand why the Government, with its greatly inflated note issue, has found it expensive to keep the monetary unit close to its gold par.

The one other important official institution of financial circles is the Yokohama Specie Bank, whose function it is to control foreign commercial credit. As such, it alone has a direct relation with the central bank, and is likewise subjected to very close official supervision. The Yokohama Specie Bank, through whose organization almost all the foreign trade of the country passes, is sufficient evidence in its perfected state of the importance which the Government attaches to the export and import activities of the country.

A third division of finance includes the several agricultural and industrial banks, authorized to make long term

1. Commercial bills discounted by the Bank of Japan require three signatures. It is only in times of financial panic that the Bank exercises this function.
loans to farmers and manufacturers, holding mortgages and bonds as security.

The right to pay interest on accounts deposited, is confined in Japan only to those concerns defined as savings banks. The savings bank must maintain a minimum paid-up capital of Y 500,000. Interest rates both on loans and savings are very high in Japan, and the savings bank has proven a profitable source of income for all concerned.

Japanese commercial banks are of course the most numerous, including in 1928, 1031 of the total of 1,164 banks in the country. Commercial banks, basing their activities on Western financial practices, find themselves severely handicapped by local conditions. There is no reliable bureau of information, such as Dun's or Bradstreet's, to guide them in extending credit, and if these loans are advanced too optimistically, there is no strong bulwark of finance to avert bankruptcy and its consequent evil effects. With the lack of uniform action and a standard policy, the banks, during every panic, and sometimes even in the best of times, are in distress. The crisis of 1927 carried away over one hundred of the commercial banks, while many of the others survived only because of the check that the Government order of a three weeks' moratorium put on business.

The modern tendency, wisely urged by the Government, is toward amalgamation of various banks into stronger units. But although the new movement should prove very beneficial to the whole economic world in Japan, there is one danger in the policy, which must be controlled. At present, the soundest banks, those which will be most greatly interested in any move towards concentration are those which have come to be known as the Big Six. Of these, five are controlled by powerful industrial and commercial families, who already exert enormous influence in Japan's political organization. The Government, even to-day, is forced to consult these financial kings on matters of State. The danger of extending farther this monopolistic control over both industry and finance, is one which the Government must weigh fully, before permitting amalgamations to be carried to an extreme.

The greatest weakness in the Japanese banking system as a whole is summed up in the statement that the nation does not yet fully understand the proper use of banking and credit facilities. Notwithstanding the abnormal expansion of business during the most prosperous days during and immediately after the war, the use of cheques has been developed only slightly, as shown by the relatively small clearings in Tokyo and Osaka. Note circulation is still the predominant medium of exchange throughout the country.

1. Mitsui, Mitsubishi, Sumitomo, Kawasaki 100th, Dai-Ichi, Yasuda.
One other class of banks, including branches of foreign concerns, completes the system in Japan. These banks, obviously, follow the same system as that of their head offices, and so nothing that has been said above applies to them. They handle most of the business of the foreign middleman in the country, and are getting an increasing clientele among Japanese business men.

b. Insurance in Japan.

The uniting effect of the traditional Japanese family system, as well as the great losses of life and property caused by periodical fires and earthquakes, make insurance a natural and necessary enterprise in Japan. And although a knowledge of the purpose of insurance was instilled in the minds of the people very slowly, they now recognize its many merits, and find this method of protection and investment very desirable.

As foreign trade was the means of showing the country its industrial potentialities, so marine insurance in the early shipping enterprises showed the way to the many types of protective measures employed in the country to-day. Marine insurance developed as rapidly as shipping increased, until war losses caused domestic underwriters to turn to London for a further safeguard of reinsurance. In 1927, however, a ten years' contract lapsed, and when British firms began to require higher premiums on the many old ships in the Japanese Merchant Marine, the companies at home formed

1. The Hong King and Shanghai Banking Corporation, the Chartered Bank of India, Australia and China, and the National City Bank of New York, are the representative branches of banks of the English-speaking world now operating in Japan.
within themselves a pool, which now takes it upon itself to reinsure the ventures of most of the large domestic Marine Insurance Associations.

Life Insurance, in the past few years, has become even more prominent as an enterprise in Japan. The plan which the Government of 1916 set forth, to include Post-office Life Insurance as a part of its social welfare program, greatly stimulated the growth of private companies. To-day, an Association of Life Insurance Companies unites the various concerns, with a combined capital of more than six and one half billion yen.

The business of insuring against fire developed much more slowly than Marine or Life Insurance, owing largely to the lack of accurate statistical data in a country where fires are numerous. But to-day, it has become an important branch of insurance in Japan. Other types of insurance, such as protection against accident and theft, have grown proportionately, as subsidiary enterprises of the large companies. Some of the big industrialists, notably Mitsubishi and Sumitomo, have adopted measures of self-insurance to protect their extensive operations.

Insurance companies of all kinds are subject to strict government control, regarding the proper utilization of their funds. The Government also conducts a school for the specialized training of actuaries and insurance executives. The earthquake

inevitably caused an enormous loss to almost all the companies established in the zone when damage was greatest, but since then the State has supplied those in greatest distress with large loans, and by this and other means, is generously assisting them in their gradual return to a dividend-paying basis.

c. The Japanese Exchange Facilities.

The western system of exchange, and knowledge of its use is not as widespread yet as it is in our country. The forty-eight exchanges in Japan are of two types, one kind dealing exclusively in securities, including government bonds, and the other handling only merchandise certificates. But unlike our system, the Japanese merchandise exchange completely obscures the stock exchange. With the outbreak of the war, however, and with the large subsequent movements in international finance, securities exchanges in the country received a great stimulus from the handling of foreign paper. Future development in methods of finance will doubtless make the stock exchange a more popular institution.

Merchandise exchanges handle such commodities as rice, raw silk, raw cotton and cotton yarn, sugar, bean cake, and beans. The yearly turnover of these commodities which are the staple products passing to and from the country, is enormous.

The usual organization of exchanges in Japan is based on the Continental joint stock plan. Some, however, have adopted a voluntary system similar to that of New York, with a security

of Y 50,000 and responsibility of every member. The business
in all the exchanges is carried on by signs, which have their
counterpart in most of the exchanges of foreign countries.

d. Warehousing in Japan.

In even an incomplete summary of commercial facilities
in Japan, warehouses must find some place, important as they
are to the increasing amount of domestic trade dependent on
foreign importations. At present there are ninety-six warehouses
1 in Japan, a number which must soon grow, to handle the enormous
imports of raw commodities in bulk form. The three largest
and most complete warehousing companies in regard to their
facilities for handling goods, are the Mitsubishi, Toshin,
and Sumitomo, situated in the large cities at the cross-roads
of Japanese trade. All large warehouses have been built close
to central markets. It is now a question whether new storage
companies will follow the early lead and build their plants at
the waterfront, or whether they will establish their business
in the manufacturing cities, which are already demanding more
efficiency and regulated speed in the movement of goods to
and from the factories.

e. The Chamber of Commerce.

Concluding remarks on Japanese trading organization require
a description of the Chamber of Commerce, which has become a
very active body in the fostering of domestic trade. At present

1. Japan Year Book, 1929, p.593.
there are seventy-seven member associations, established in almost every prefecture, with the central unit in Tokyo. But the most important and influential branch of the whole system is in Osaka, where manufacturers have cooperated with the local government in building up one of the most influential organizations of industrial Japan. The Chohin Chinretsu-sho, as it is called, has become the guiding star of many businessmen. It sends out agents, yearly to gather information for its members, concerning foreign markets and competitors. It also makes a laborious study, in one of its many departments, of labor conditions, industrial risk, standards of production, and efficiency of machinery in industry, with reference to the particular problems of Japan. It carries on extensive industrial projects, as well as instructing its members in theoretical solutions to practical problems. Not a small part of its activity is the advertising of both domestic and foreign goods by means of periodical displays. All the other Chambers of Commerce throughout Japan are following the methods of the Osaka branch to a lesser degree, according to their industrial advancement. It is for these reasons that the Japanese Chamber of Commerce has become so prominent in domestic and foreign trade, and is regarded most highly by a benevolent Government, eager to expand commerce to the farthest limits within its powers.

1. Ibid., p.589.
PRESENT CONDITIONS IN THE DOMESTIC TRADE OF JAPAN.

Japanese financiers at last are being aroused to the fact that their methods are not perfect, and must be improved if business in the country is to be maintained on the scale of the past fifteen years. In spite of the enormous profits coming to Japan during the war, its credit machinery has proven totally inadequate to handle unprecedented gains, and its new position as a creditor nation was lost as early as 1919. Further setbacks to industry in the crisis of 1920, and the earthquake of 1923, created havoc in the financial resources of the country.

But all through these troubled years there was no panic in the country sufficient to check the pyramiding of inflated conditions. The final blow came at last, when, after the superficially prosperous period of the earthquake reconstruction the exposure of the real financial condition of the reputable and powerful firm of Suzuki and Company forced it into bankruptcy. In its wake, it carried away the Bank of Taiwan with which it had established call loans amounting to some Y 341,000,000. The Fifteenth (Peers') Bank soon followed its sister bank into insolvency, as a result of the bankrupt state of its chief debtor, the Kawasaki Dockyard Company. With none of the banks trusting each other, and all being refused help by the Bank of Japan, many concerns failed, causing the downfall of dependent industries. During these reverses, the

1. Ibid., p.444.
Wakasuki Government was replaced by the Tanaka Cabinet, which immediately declared a three weeks' moratorium, compelling all banks to suspend their business, and by this means were able to check the widespread panic.

When the storm subsided, even with the many bankruptcies, certain benefits began to show themselves in business. Banks immediately started a movement toward amalgamation, which brought them together into closer units, more capable of dealing, in future, with extraordinary conditions. These banks led many firms, in making a drastic cut in dividends, and in building up larger reserves. Overproduction was cut down, and industries, as a whole, were put on a more rational basis, particularly in the direction of management. Throughout this period of general readjustment, the year 1928 showed a decrease of 1.8% in the current interest rate, and the speculative craze which had gripped the people since the beginning of the war, received at least a temporary check.

But conditions throughout the country have been slow to recover. The long adversity of depression during 1928-29 was reflected in the increasing number of dishonored bills that passed through the exchanges. The international value of the yen fluctuated widely, and was kept close to its gold equivalent only at great expense. In spite of the high prices which persisted with an inflated currency, money was slack, and bank credits remained as frozen assets. The large extraordinary loans which the Government had incurred after the earthquake,
and had increased in 1927, were growing even larger. In 1929, the statistics in trade and industry showed a falling off of exports in every line, and a sharp curtailment of output throughout. Price agreements were made in every direction, as a last resort, to maintain the existing small profits. But with business at a standstill, and showing no signs of improvement, the Tanaka Government fell, and that of Premier Hamaguchi took its place in July 1929.

The new Hamaguchi Government saw that the only way to cut down the long-existent inflation that was choking the country was to adopt a rigorous policy of retrenchment as a means of reestablishing progress. They made the first move in reducing public loans and forcing a contraction of the currency, and soon instilled in the minds of the people the necessity of economizing in luxuries. The inevitable result of the reorganization has caused the banks to become cautious, and has brought about increased unemployment, and a further drop in wholesale prices. But it is felt that, in the long run, a continued policy of thrift will be the means of putting the country back on a stable basis. All the movements made by the Government have been directed toward one end, the long-postponed removal of the embargo on gold, and the stabilization of foreign exchange, even at the expense of continued depression and unemployment. The return to gold was made possible at last in January 1930.

It is unfortunate for Japan that after a long period of adversity, the recent slump in world markets should come at
such a bad time. Owing to her internationalized business
relations. Japan cannot help but suffer from this additional
burden. Recent reports from Japan confirm this, and indicate
few prospects of improved conditions in the near future.
Trade has fallen off even farther, and general business is
stagnant. Raw silk exports for 1930 show a decline of from
30% to 40% as compared with those of a similar period in 1929.
With the large stock on hand, the domestic price on silk has
dropped from Y 1,250 to Y 840 per bale. The new Indian tariff
on cotton goods, and the steady fall in the value of the
Chinese silver dollar, have caused a curtailment of activity
in the cotton spinning industry. Prices on the Japanese stock
market have slumped in sympathy with the movement. Even many
of the foreign firms are feeling the pinch of bad times in
the country. If the Japanese industries survive the present
depression, which is the worst they have encountered in modern
business, the country will have received a lesson in finance
which no other reverse has been able to teach it.
Chapter V

INTERNATIONAL COMMERCIAL RELATIONS

"Japan's sudden rise to a foremost position in the comity of nations is, of course, remarkable, but in no way miraculous."

From "Japan from Within,"
by J. Ingram Bryan.
GENERAL REMARKS ON THE FOREIGN TRADE OF JAPAN.


It is natural that trade between Japan and the outer world, the established of which marked the era of the great Emperor Meiji, should be carried on in the first instance by foreigners. The Government, seeing in foreign trade the means of vastly increasing the defensive and offensive forces of the country, were willing, even, to subject their people to all the ignominies attached to the granting of extra-territorial rights, in order to attain their end. But to-day, extra-territoriality is a dim memory in the past history of Japan. Foreign capital has been displaced by that of the Japanese. Almost the last stronghold that remains to the Westerner in Japan is in international commerce, and even in that field his interests are becoming smaller. The Japanese people are wont to forget, in their present resentment of foreign firms doing business in Japan, that these same enterprises were in many cases the procreators of their much vaunted commercial expansion. The participation of the Westerner in the modernization of Japan is far greater than that for which he generally receives credit.

Early traders brought finished products to Japan, and carried away with them the raw materials and crudely manufactured articles of the local industries. But with the development of a larger scale of general manufacturing, and with the parallel improvement in the living conditions of the people, the fundamental character of Japan's commercial relations was
changed radically. The war gave to Japan the opportunity of passing quickly through the intermediate stages which all manufacturing countries encounter in their development. In the last fifteen years the trade of Japan has advanced 93%, making it now the sixth country in the world in industrial prominence. The modern trade policy is that of an advanced commercial nation, namely, to import provisions and raw materials, and to export only finished products. How far Japan has succeeded in this direction is seen at a glance of relative trade statistics.

The advance in the volume of Japanese trade has been accompanied by the growth of large firms, as discussed above. It is estimated that at the present time approximately 60% of the nation's commerce passes, at least once, through the hands of Mitsui, Mitsubishi, Sumitomo, or the Government.

b. The Geography of Japanese Trade Relations Abroad.

Japanese foreign trade has always more or less centred around Asia. With its paucity of natural resources, Japan has found, in China, a sufficient source of abundant and varied raw materials. Since its industrial growth, it has developed, all over the Orient, a large market for its surplus production. But to-day, with the increasing importance of foreign trade, the Asiatic market is assuming the position not of a buyer of surplus goods, but as a rival to the home market in the value

1. See Appendix L.

2. See Chapter IV, under "Volume and Character of Domestic Trade."
of its purchases. The future is expected to make this relation between Japan and its nearest buyers even more important as a supporting factor in Japanese industry.

The trade relationship of Japan to Asia has been somewhat modified, however, by the effects of the world war. Although Japanese foreign trade continues to be a balance of raw silk on the one hand, as against raw cotton and machinery on the other, the sources of the latter imports have been changed greatly. America still buys most of the silk, and in return sends cotton, which formerly was supplied almost wholly from India, and machinery, over which European makers had complete control before 1914. With this new connection which has sprung up across the Pacific, Japan must add to her participation in the Orient, a great interest in commercial conditions in America. At present the trade with Japan has reached 7.6% of the total foreign trade of United States, while Japanese trade statistics show that one-third of the total volume of its foreign trade is with America. It is evident that although the Orient still remains of greatest interest to Japan commercially, her relations with the United States have become a large factor in her national prosperity.

c. Trade Ports of Japan.

The Japanese Government, in consequence of its desire to build up its foreign trade, has been assiduous in its

1. One writer maintains however that "Japan will probably continue to import less manufactures from the West and continue to depend on eastern countries for her raw materials." "Japan From Within" - J.Ingram Bryan, p. 60
encouragement toward the development of certain seacoast towns as the terminal points of commerce. Yokohama has long been the historical centre of Japanese shipping and foreign trade. From a small fishing village it was destined to rise to its present eminence, owing to its natural harbor facilities, and its proximity to the many industries of the capital city, Tokyo. Although silk has always been the mainstay of its export it has recently increased to a considerable figure the shipment of cotton yarn. Imports passing through Yokohama to-day include raw cotton, sugar, flour, iron, coal, and other products consumed in the manufacturing hinterland. Although the earthquake of 1923 destroyed the harbor facilities, the importance of the city as a trading zone soon caused them to be restored, and a large volume of the trade which was temporarily lost to such ports as Kobe and Osaka, has since been regained. In 1928, Yokohama returned to second place in the volume of its trade, valued at Y 1,356,639,000. Of this total, raw silk exports, 75% of the whole raw silk shipped abroad, amounted to Y 551,420,000.

Kobe, which has become the great rival of Yokohama as a port of prominence in Japan, received most of the trade which Yokohama lost after the earthquake, and among other things, became, for a time the centre of raw silk shipment. Kobe first rose to importance as a result of the shift of the

1. Present Day Japan, 1929, p.112.
2. Foreign Trade Directory of Yokohama, 1929-1930 - Published by the Yokohama Chamber of Commerce and Industry, in Yokohama, - p.3.
economic industrial centre to Osaka, and in 1925, with silk, her total trade reached the sum of nearly two billion yen. Since that time, this value has fallen just by the amount of silk trade which has returned to Yokohama. It still retains its large exports of cotton goods, silk fabrics, knitted cloth, and marine products, while it imports mostly raw cotton, wool, iron, bean cake, rubber, and timber.

Kobe, unlike Yokohama, is not the sole port of entry in the district. Osaka has recently enlarged its shipping facilities, and shows promise of becoming as large as the first two ports of the country. Its trade, similar to that of Kobe, had already risen to a value of ¥707,312,000 in 1928.

Of all the other trading centres, mention must be made of the new port at Nagoya, which has dreams of vast expansion, but few possibilities; Moji, the chief port of Kyushu, possessing an excellent natural harbor; and Nagasaki, of historical interest as the oldest port, and for centuries the only means of communication with the outer world. As a centre of commerce, however, Nagasaki with few nearby industries, is declining rapidly, and is marked now only as a coaling station, and as the location for the large Mitsubishi Dockyards.

THE EXPORT TRADE OF JAPAN.

Japan, as a direct result of her industrialization, exports a large percentage of manufactured products. But the largest single item shipped through her ports continues to be raw silk, 90% of which is shipped to America in its semi-finished state. Raw silk is still the basis of the Japanese purchasing power
abroad, in spite of the natural limitation in the production of cocoons. It is uncertain whether future prospects of Chinese cocoon raising, and further improvements in the rayon industry will encroach seriously on the American market. It is apparent, however, that the present adverse conditions in the United States have cut down the profits of the raw silk exports severely, in spite of the Government plan to maintain the price by taking large quantities off the market.

The Japanese themselves are beginning to manufacture a larger proportion of the raw silk in domestic mills, and export the product in its finished form. Pongee, Fuji (waste) silk, and crepe have been added to the long-standing "Kai" and "habutae" fabrics on the list of exports of manufactured silk goods to foreign countries.

Cotton goods head the list of manufactured goods for export, and come only after raw silk in the total value of their various forms finding foreign markets. The Japanese cotton trade developed largely through the incapacity of European mills to supply the Far East during the war period, and the spinners of Japan have so far improved their technique that they are able to retain their large Oriental market. The main article for export is shirting, 65% of which was brought in China and India in 1929. The mills of these two countries also take some Japanese cotton yarn for manufacture according to local needs. Although the 1929 export of cotton products reached a new high figure, owing to the lifting of the Chinese boycott, and the Bombay cotton mill strike, the
prospects for 1930 are not very encouraging. The new Indian
 tariff and the silver slump in China have increased the domestic
 production in both these countries. In the future, more even
 than in the past, the conditions in the Chinese and Indian
 markets are going to be the important turning point of the
 Japanese cotton-spinning industry.

The next items in value of Japanese exports, although of
 far less significance than those above, are pottery and
 porcelain products. The old Japan received international fame
 through its decorative porcelain which was among the first
 articles it sent abroad. But the new Japan has changed the
 old home industry of the artisan into a factory enterprise,
 and the yearly output of porcelain for household use in the
 West has increased to a large figure. The market for pottery
 and porcelain made in Japan is worldwide, with the United
 States the largest buyer.

Of the many other goods that Japan exports, such manufactures
 as marine products, glass, paper, tinned and bottled foods,
 vegetable oil, and wood products, are the most important, and
 are sold mostly in China, the Straits Settlements, the East
 Indies, and as far west in the Orient as India. Some of them,
 including glassware, paper, and certain wood manufactures, will
 probably become increasingly important items of the Japanese
 export trade. Tea is still shipped in large quantities to the
 United States, but is diminishing in its relative importance
 as a product of Japan.
The export trade of Japan has always received the particular attention of the ruling classes. In 1925, with the support of the Government, an Association of Exporters, to be regulated by law, came into being. This body set itself up with the international aim of being a distinct judicial organ for the control of exports. Its activities to-day with this in view, are extended to encouragement of export, the avoidance of useless competition, and the correction of many of the other defects of trade, by a proper association of export houses.

In addition to establishing this organization, the Government has lately taken upon itself the strict supervision of all ports and their export facilities. Kobe and Yokohama, as the centres for the shipping of raw silk, are provided with conditioning Houses, which regulate the quality of that portion of raw silk entering into foreign trade. Other goods, under the rigid inspection which is enforced by the Trade and Industry Associations to whom the Department of State for Industry and Commerce delegates its authority, are subjected to strict standards. It is hoped, by these means, to maintain both the volume and the quality of exported products, and to improve the impaired reputation that certain earlier Japanese exports of inferior grade have brought about.

The Government has further fostered the country's export trade by following Canada's pioneer movement in establishing trade agents in important foreign centres. The main purpose of this policy is similar to that of other countries, to assist exporters and to increase the volume of Japanese shipments to
various foreign markets.

THE IMPORT TRADE OF JAPAN.

Equally important to the well-being of the people, but not held in such high regard by the Government, is the Japanese importation of foreign produce. It is with this aspect of the foreign trade of Japan that Westerners are now most deeply concerned. The most striking feature of Japanese imports is the rapidly increasing proportion of foodstuffs and raw produce coming into the country. The growing volume of food imported is the natural result of a larger population and of the development within the nation of more refined tastes. Raw products from foreign sources are becoming increasingly necessary to supply the demands of greater industrialization.

Japanese imports as a whole fall easily within four distinct divisions. Under the heading of foodstuffs, rice and paddy, sugar, wheat, beans and peas, in order of value, are the most important. Raw materials include raw cotton, timber, wool, oil cake, rubber, sulphate of ammonia and coal. The principal semi-finished products are iron products and woolen yarn. Among fully manufactured goods, Japan is still dependent on foreign countries for machinery specialties, including automobile parts, and woolen fabrics of a high quality. Only a word is necessary to explain the position which all these imports play in modern Japanese economy.

1. See Appendix L.

2. Japan Year Book 1929, p. 529.
a. Foodstuffs.

It has been mentioned above that Japan has found it necessary, to support its already overcrowded population, to bring in a large annual supply of rice. Rangoon and Saigon are the chief exporting points of this inferior grade of rice which goes to sustain the lower classes in Japan.

Japanese sugar imports come mostly from its own possession, Formosa, both in a refined and a raw state. With the establishment of preferential trade, and the increasing standard of living in Japan, the volume of sugar exported from the colony to the mother nation has reached a large figure in recent years.

The main source of supply of foreign wheat shipped to Japan has always been North America. It is noteworthy that Canada's share, one-third in 1927, had risen to one-half by 1929, at the expense of the United States, and now amounts to nearly half the total produce which Japan buys from Canada. The increasing demand for wheat in Japan and the growth of the domestic flour industry will probably make the quantity of wheat imported even larger in the future. At present, there is a movement on foot to stimulate this advance, by abolishing completely the duty on foreign wheat, which is working a great hardship on the large Japanese flour exporters. In spite of the protective tariff on flour, which is double that on wheat, Canada still sends a small supply of her finer grade used in Japan for mixing purposes, before reexport to China under a drawback clause of the tariff schedule. Most of the Canadian
shipments of both flour and wheat are handled through Japanese agents.

Beans and peas, in large quantities yearly, come to Japan from Manchuria and China. The main use to which beans are put is in the manufacture of Japanese "soy," described above.

b. Raw Materials.

Raw cotton, 90% of which comes from the United States and British India, and the rest from China and Egypt, is by far the largest single Japanese import. Cotton has become the most important material for clothing in Japan, and spinners, facing the demand of improving tastes, are turning to America instead of India for their supply of cotton of a better quality. India however, must continue to provide cheap cotton of a coarser grade, as long as Japan possesses, as well as her domestic market, a large foreign demand throughout the Orient for her production of cotton shirting and other low grade textiles.

Japanese forests contain no trees of wide diameter and the cost of logging and transportation, through the thicketed mountain regions is very high. For this reason, and from commendable plans of conservation of state forestry preserves, importation of foreign timber has been fostered. The havoc caused by the earthquake, increased normal demands for the timber of other countries to an enormous figure. To-day, even though the Government reconstruction program has been completed, the demand of private individuals, though lessened, is still considerable. Certain types of foreign wood, such as cedar,
are becoming necessary in the Japanese building industry, and it is felt that, in spite of the 1929 tariff revision, raising the duty on timber from abroad, domestic needs will maintain a steady importation. Foreign lumber has been the mainstay of the Japanese tramp steamers, amounting to almost one quarter of their total tonnage carried in the past. If the large timber cargoes that have come from the United States, Canada, and Russia, annually are cut off with one blow, the Japanese shipping industry, the Government's particular pet, is bound to feel the effects. For them, as much as for foreign lumber exporters, it is to be hoped the present decline and cautious buying of lumber from abroad will be checked when the present stagnant conditions and widespread retrenchment throughout Japanese industry as a whole take a change for the better.

Wool in its raw form is the product of greatest value coming to Japan from Australia. Australian wool-exporters have been able to monopolize the Japanese market ever since the birth of a wool-manufacturing industry in the country, in spite of the efforts of wool dealers of other countries to break in. But the present poor condition of the Japanese wool industry is shattering any hopes which Australians or any others may have of materially increasing this commerce. Yarns from Germany and Poland, and serges and other fabrics from England continue to surmount the tariff wall which is the last weak support of the Japanese wool manufacturer.

Rubber, unlike wool, finds a growing market in Japan, a market which should open up even more rapidly with the successful
acquisition of a new automobile industry. Most of the rubber imports are in a crude form, material for the manufacture of a wide variety of products both consumed at home, and exported.

The development of more efficient farming methods has greatly prejudiced the importation of bean cakes in favor of artificial fertilizer, produced both at home and abroad. In spite of the growth of the domestic artificial fertilizer industry, the enormous demands of agriculture have caused Japan to bring in a large annual supply of sulphate of ammonia and sulphate of Potash from Germany, Britain, and the United States. The recent drop in fertilizer prices, through an increase in foreign efficiency and a general world slump, has increased the volume of these imports. The natural reaction is a strong clamor on the part of domestic producers for greater protection to the home industry.

c. Semi-finished Products.

With Japan's lack of a sufficient supply of the essential minerals, her industrial development necessitates a large annual importation of iron from China. Japan also must turn to the harder Kwantung coal, which far surpasses her own as a coking fuel in steel production. Even in finished steel, the activities of the Government Yawata Iron Works in turning out over half the steel produced in Japan, are insufficient for the country's needs. Steel imports from Belgium, Germany and the United States amount to 35% of the steel manufactured in Japanese plants. The insufficiency of the domestic steel

1. Ibid., p.636.
industry is one of the greatest handicaps to Japan's industrial success.

d. Manufactured Goods.

Of the few finished products which still gain admittance into the Japanese market, machinery is by far the most significant in its importance to the country. Machine manufacture has shown remarkable success as a home industry, but Japan still depends on such foreign countries as Scandinavia, Germany, England, and the United States for certain specialized machinery imports. Construction of machines at home has never been able to catch up with the industrial growth of Japan during the war. Although the value of machinery imports has since declined, it is almost an assured fact that Japanese manufacturers will continue to demand the improved methods continually introduced by new Western machinery. The recent growth in the use of automobiles assembled in Japan from parts imported from the United States, is added evidence of this tendency.

Woolen fabrics, brought in mostly from England, are the only other manufactured goods which still find a large market in Japan.

INVISIBLE ITEMS IN THE JAPANESE TRADE BALANCE.

a. Credit and Debit Items.

The following lines are only a brief consideration of the main items in the invisible commerce account of Japan. On the debit side, we have interest paid abroad on foreign investments
in the country; payment for foreign shipping services, building of ships, and marine insurance; and the investment by Japanese in foreign enterprises. Concerning the first item, the activities of the past few years have brought about a liquidation of many of the assets which foreigners formerly held in Japan. Interest paid abroad to foreign investors is rapidly declining in relative importance as a national debit. The many fields of Japanese industry open before the war to outsiders have now been restricted to a mere handful, with the Japanese filling almost all the positions held for so many years by Westerners introducing new commercial and industrial schemes. The present tendency is even more marked by the expulsion of foreign concerns from their last stronghold of import and export. In shipping, Japan is gradually becoming self-sufficient, carrying most of the outward, and an increasing percentage of the inward trade of the country. Shipbuilding, and insurance of Japanese vessels are also extensively carried on through companies at home. The largest remaining item of the debit balance, Japanese investments abroad, mostly in North China and Manchuria, tends yearly to be offset by the income received from similar investments of a former period.

In the credit account, the most important items include the income from Japanese enterprises in other countries, insurance and services extended by Japanese to their own ships abroad, and shipping services to other countries. This last source of income has become so important in the Japanese trade balance, that it calls for special mention.
b. **Shipping.**

The Japanese people, surrounded by water on all sides, have always been sea-conscious, and have been brought up with a knowledge of the sea common to all maritime countries. But shipbuilding of modern ocean-going vessels has met with great difficulties in Japan, owing to the high cost of imported materials, and the dirth of technical skill. Early Japanese shipping companies were forced to buy most of their ships second-hand from British lines. From this start, progress was rapid, and by 1897, one-fifth of the total exports of the country were being carried in Japanese ships. The Government restricted coastal trade to the domestic fleet of small vessels, and projected its influence in the establishment of ocean-going tramps and liners.

The big opportunity for Japanese shipping came during the war, and the long-continued British coal strike which followed. The Government was now subsidizing Japanese vessels, and giving them first claim on space for exports. The result was that Japan quickly became in total tonnage the third shipping nation in the world, a position which she has maintained up to the present. But this rapid rise to prominence is not without its handicaps, among which the most burdensome is the old age and small capacity of many of the Japanese ships. The leaders of the shipping industry hope that the present Government
subsidy, as well as the growth of motor ships, will cause a rejuvenation of the merchant marine, and the replacement of the persisting preponderance of old ships by a fleet of large, fast, up-to-date vessels.

The post-war development of the Pacific trade between Japan and the United States has had a marked influence on the growth of tonnage in Japanese shipping. To-day, from 60 to 70% of the ships of Japan are tramps, plying between these two countries. And in spite of the overbuilt condition of the world's ships, particularly in those types used most commonly in the Pacific trade, Japan continues to enlarge her shipping, which now has a tonnage capacity almost double that which it possessed in 1917. Even under present conditions, the larger companies have most optimistic plans for continued expansion in the near future.

THE JAPANESE BALANCE OF INTERNATIONAL INDEBTEDNESS.

From the time Japan developed into a large commercial nation, up to the year 1919, Japan had as a general rule,

1. On ships over 3,000 tons, with a speed of 12 knots or greater, built and registered in Japan, and under 15 years in age, the Government will pay a sum not greater than 50 sen per 1,000 miles per ton, with an increase of 15% for every added mile of speed. The only conditions are that the company receive the approval of the ministry for its tariff schedule, and that the vessel carry mail free of charge - Japan Year Book, 1929, p.416.

2. Japan's tonnage: 1914 - 11,942 ships - 2,420,029
   1917 - 14,314 " - 2,755,047
   1927 - 19,174 " - 4,990,383

Principal Lines are the Nippon Yusen Kaisha, with 600,000 tons, and the Osaka Shosen Kaisha with 450,000 tons. Principal Tramp Companies are the Kokusai Kisen Kaisha, the Kawasaki Kisen Kaisha, and the Mitsui. Note:- The Japanese unit of measurement for ships is the gross ton.
what she was pleased to call a "favorable" trade balance, with the export of her commodities greatly exceeding imports from abroad. Prior to 1914, it is obvious that this condition was bound to exist, with the large amount of foreign capital invested in the country's industries, and with the volume of Japanese commercial securities held abroad. Again, during the war, although holdings abroad were quickly liquidated by the belligerent countries, the abnormal war-time export was counter-balanced by an influx of gold into bank reserves, and large specie holdings abroad, which even the rising value of the yen on New York could not check. In 1919, however, for the first time imports exceeded exports. By this time, shipping receipts were expanding rapidly, and had already become important in the country's international trade balance. With the signing of peace, Japanese gold holdings fell, owing to the inflated condition of the country, and the appearance of an "adverse" trade balance was the inevitable result. Since that time, the earthquake has caused a renewed influx of foreign capital yearly, accomplished only by increased imports.

But the Japanese, not alone in this belief, think that this condition of larger imports is a detriment to their national prosperity. Many advocate that a tariff on steel be used as a measure to relieve this undesirable situation. Others, in the face of the gold embargo removal, have urged the Government to prevent by a high tariff, the importation of foreign goods that this step would stimulate. Fortunately,
however, the present cabinet is averse to high protection, and it is hoped that the country will be able to settle down to normal conditions of trading, and let the free movement of gold determine automatically the balance of international indebtedness between Japan and the outer world.

FOREIGN EXCHANGE.

On September 12, 1917, the Japanese Government followed the lead of the United States, in putting an embargo on the exportation of gold. In spite of war profits, this condition continued until January, 1930, when the 1917 bill was finally abolished, and Japan became the last nation to permit the free movement of gold.

The reasons for this continued prohibition of gold exportation for so long a period are well known. Deflation came very slowly to Japan, even after the world wide panic of 1920. The war had brought about an enormous influx of gold, with a banking system incapable of absorbing it. With this gold, and a resulting wide expansion of state finance, the people continued to live on the past profits of their war prosperity. Prices remained highly inflated throughout the nation. And under this condition with the gold gains of the war shrinking rapidly the cost of keeping the exchange value of the yen at par was increasing all the time.

When the earthquake forced the Government to rediscount relief bills through the Bank of Japan, activities on the

1. See Appendix M.
exchange had to be stopped, with the result that the yen immediately dropped in New York and London to a figure more closely approximating its real domestic value. From that time commenced a widespread movement for the removal of the gold ban, but the Government considered that the time was not propitious. The year 1927, with its panic and moratorium, although bringing in its footsteps the 1928 depression, forced the country into a healthier condition, with a further drop in the yen exchange rates, and a gradual diminution of inflation.

The present (1929-30) Hamaguchi government was the first one to introduce into Japan a drastic reduction in expenditure, similar to that adopted in other countries ten years before. But unlike the movement in foreign nations after the war, the most urgent calls for this policy came from the Japanese industrialists themselves. The severe fluctuations of the exchange and the heavy burden of taxation, increased by periodical Government expenditures abroad, had been a greater hardship of prolonged bad times than the single financial depression extending from 1927 to 1930. The Hamaguchi cabinet wisely focussed its greatest attention on the final removal of the gold embargo as the main issue to ensure better times in the near future. They saw that the only means of maintaining a condition of free gold movement was by thrift and economy, with the whole nation cooperating to this end. Japan cannot continue to establish credits of Y 50,000,000, as it has done both at London and at New York to bring about the final removal of the gold ban.
The immediate results of taking away the embargo on gold have been even more severe than anticipated, owing to the general world depression. Wholesale prices have fallen to a low level. Shipping, and the raw silk industry have suffered, but the removal of uncertainty should compensate this loss. Such domestic industries as cotton spinning, steel and rubber manufacture, and others dependent on foreign supplies, however are not responding as their directors had hoped. The electrical industry, at least, has benefitted greatly, and now is in a much stronger position. The burden of interest of loans incurred abroad in 1923 has been lightened considerably.

One question which faces the Government to-day, after the gold embargo removal, is the tariff. Many manufacturers already are urging that the stimulus to imports, resulting from the value of the yen, be offset by a higher duty. They point out that a lessened demand for home products will aggravate the temporary depression and unemployment, and will necessitate an even greater cut in dividends. However, if the Government maintains its present policy, and causes the nation to write off this unsound business brought about by industries which can survive only under inflation, Japan will return more rapidly to normal, and the people as a whole will be more prosperous.

1. After the earthquake, the electrical industry was forced to establish loans from abroad to the total of ¥ 343,000,000.
THE JAPANESE TARIFF POLICY.

The Japanese Government of modern times has always been interested in foreign trade, and in many cases has actually initiated international trade relations. English, as the Japanese medium of foreign commerce, is the second language taught in the national schools. The Yokohama Specie Bank continues as a semi-official financial institution supervised by the State with direct control over Japanese international trade. The growth of a powerful merchant marine has been accomplished as a Government policy. In some of the weaker industries, the granting of subsidies has developed a foreign market for export. In foreign trade alone, and above all, in export trade, the Government feels that there lies the means of improvement and expansion of the country's prosperity. It is with this object in mind that the ruling body, in addition to all its other activities, has developed the present tariff schedule of Japan.

The Japanese tariff system follows closely the French General and Conventional plan, with all items dependent on Government measures for revision. The year 1920, with its financial slump, brought about the first step in the raising of an effective tariff wall, when Japan followed the lead of other nations in protecting her "war babies" and in preventing the "dumping" of foreign manufactures on the domestic market. The items on this first schedule were very similar to the English "key" industries. In 1924, as a last measure to check a further increase in the standard of living, a temporary "luxury" duty, ranging from 100% to 355%, was imposed on many foreign
goods of a relatively high grade. This temporary condition seems to persist, however, in spite of the fact that many of the included articles are no longer luxuries, even to the Japanese. The 1926 session of the Diet instituted a higher duty on foreign goods, with ad valorem replacing former specific rates. One feature, however, was the clause permitting a drawback duty on articles reexported in any form within a year after importation. Most Western nations also benefitted by the moderating influence of a most-favored-nation clause, although the only Asiatic country included was Siberian Russia. Since 1926, the general tariff level has been gradually raised by an increased duty on certain specific commodities, such as lumber in 1929.

But taken as a whole, the tariff schedule of Japan has not yet reached a high mark, and does not impose too heavy a burden on the people, with their simple domestic needs. The foreign residents, it is true, suffer from the luxury tariff which includes many items that we find indispensable. The real burden of protection however, is falling on those industries producing for foreign markets. The growth of silk and the spinning of cotton are handicapped to build up the many inefficient industries which the Government has fostered. Most raw materials, at least, are admitted free of duty, and Japan is reaching that much vaunted, if questionably economical state of a nation of diversified industries. It is now becoming evident that this indiscriminate encouragement of many industries by artificial means, has been accomplished
only at the country's expense. The farming class was the first to suffer and since then the high cost of living has made itself manifest throughout the nation. The tariff is one of the many obstacles that have kept Japan from a quicker recovery since 1920.

Many Japanese are beginning to feel that tariff movements in future must be in the direction of freer trade. Japan, with its small territory and its lack of extensive natural resources, cannot afford a protectionist policy. The Association for the Liberty of Trading, formed in 1928, sees this, and is exerting all its efforts to lowering the tariff level. The present Government favors the tariff only as a means of revenue, to shift the land tax to business. Though even this tariff is a questionable method of taxation, the prospects are that in the near future, the movement of foreign trade into Japan will be made easier.

JAPANESE TRADING METHODS.

The foundation of business practice in Japan has many obscurities which the foreigner finds difficult to penetrate. The glaring conflict of Oriental and Occidental ideas is the unavoidable result of rapid change, and the Japanese have not been able to assimilate certain elements that are essential features of trade in the West. The most important difference of the two hemispheres, in this respect, has been, and probably will continue to be, the relation of time to business. The Japanese market for foreign manufactures is decidedly one of price on cheap-quality goods, and for the slightest
advantage in price, the buyers will forego a more rapid turnover. Labor is relatively cheap, and is often employed at the expense of speed and efficiency. Thus, with labor, the biggest overhead expense, at a low figure, time enters as a far less important factor in Oriental business. It is sufficient to say, then, that goods must be quoted at their bottom price to retain a steady market in Japan.

Complementary to this factor of time, is the element of personal contact entering in Japanese business. The methods that foreign importers in Japan are forced to use almost uniformly, are sharply opposed to our expansive advertising schemes. Personal visits by the importer to his customer are of utmost necessity, even if an interpreter must be found to make conversation possible. After a preliminary introduction is consummated by the exchange of cards, conversation of a most general nature is carried on over the inevitable tea-cup. The particular business in hand may or may not come up that day. But the all-important thing is that a contact has been made, which may prove most valuable for future business. If satisfaction is received on both sides, the personal touch will be the deciding factor. It is of great importance that foreign sellers cater primarily to Japanese tastes, and follow persisting Japanese customs in establishing good-will.

Japan has become a world competitive market, with almost every country participating. Trade in Japan has become so dynamic as to demand constant attention to varying local conditions. With the low incomes and purchasing power of the
people, as well as the high tariff and cheap domestic manufacture, the first consideration of any imported article must be price. The Japanese have not fully found out the difference between the quality of two things which may look the same, and yet are far different.

As a rule, foreigners have found that the old-fashioned methods of the better class of Japanese traders, though tedious, are strictly honorable. The well-born Japanese is a fine gentleman, unless crossed in trade. He wishes to take a long time to decide and refuses to bargain, but he abides by his word once given. To-day, many of the younger generation, however, have been trained to carry on business along Western lines, buying in the cheapest and selling in the dearest market, and making the largest profit they can by legitimate means. A third class, which unfortunately has had most dealings with foreign firms, includes many of the same sly, unscrupulous dealers that are found amongst the nationals of any country. Because the Japanese smile can be far more deceiving than the placidity of the Chinaman, this form of politeness is no basis for the widespread reputation of deceptiveness that a few of its unprincipled countrymen have given the nation.

There are other difficulties which beset the foreigner, difficulties which are hard to understand from afar. Cable, mail, and telephone facilities need improvement. Bankrupt companies are permitted to start up immediately under a new name, with no proper agency to check their business standing. Too much time is spent in bargaining, even in the orders of
big business. In many directions the effects of Government patronage have proven undesirable, as in most countries where officialism extends too far beyond the sphere of administration and public utility management into the field of industry.

Peculiarities of language, race, and custom are small difficulties as compared with the claim. Claims made by Japanese buyers are varied and numerous, and even the most reputable company must maintain its claim department. Japanese persist in buying under a lower specification than the order calls for, and when the product is rejected by the final buyer, the first move is to institute a claim. Claims also often arise out of speculation and an unanticipated fall in the market price. Meanwhile, the foreign seller, with poor chance of getting a court action, stands to lose his small profits. It is small wonder that Western firms sell almost entirely on a C.I.F. confirmed letter of credit basis. Even with this safeguard, the possible loss of future business must be balanced against the claim loss.

It is predicted, however, that soon foreign companies will not have the privilege of facing these difficulties, in their position as middlemen in the Japanese market. Japanese are being trained in their own schools, in foreign firms, and abroad, to perform the functions that the European has done in the past. Large domestic concerns are expanding rapidly in foreign commerce, and are building up an efficiency comparable to the powerful companies in the West. The Japanese, in their own country, are able and willing to work harder and
more industriously than the Western residents there. The average for the European executives of a foreign office is six hours, as contrasted to the nine to twelve-hour day of their Japanese assistants. These Japanese profit from their training, and set up later in a competitive business, paying far less to their own staff than they themselves received as clerks. For the Japanese employed by foreign firms are the highest paid in the country. How long it will be before the Japanese have forced out all the foreign firms is hard to say. Such, however, is the present tendency.
Chapter VI

FUTURE TRADE RELATIONS OF CANADA AND JAPAN.

"Japan can afford to borrow Cromwell's word and say, 'Paint me as I am.'"

From "Things Japanese" by Basil Hall Chamberlain.

The possibility of enhancing in future the value of our export trade with the Orient, including Japan, is the subject of common speculation in Canada. It often is remarked that the Japanese, within the period of sixteen years, have risen from the position of seventeenth to fourth as customers for the various goods which Canadian industries produce for export. The actual volume seldom seems to enter into this comparison. Canada is undoubtedly the nearest source, exploited on a large scale, to supply many of the commodities which industrial Japan needs to supplement her own poor resources. Foreign lumber and minerals have already found a large market there, and to-day, the annual share which Canada has received, as an exporter of these products, includes almost all the aluminium, nickel, cobalt, and asbestos, in raw form; nearly half the zinc and lead; and a yearly lumber shipment which, though not as large relatively, is of even greater value as an individual product of Canada's export trade. Pulp, also, is becoming a predominant feature among Japanese imports, as the domestic paper industry develops yearly. Canada already possesses over half this trade, and should increase both its relative and its absolute volume in

1. See also, the Canada Year Book, 1929, p. 483.
   Canada Year Book, 1913, p. 238.

2. See Appendix N.
proportion to the new growth in the manufacture of paper in Japan.

Of even greater significance to Canada's future export trade is the growing demand in Japan for wheat. Although this demand has not risen to the extent that the growth of industry, and an increasing population, warrant, more refined tastes and a rising standard of living should bring about a substitution of wheat for an inferior grade of imported rice, which now goes to supply a large part of the restricted population. Wheat already is becoming important as an item in the Japanese diet, and Canada, in future, will be the natural supply base of Japan's greater wheat imports. Manchuria and Siberian Russia, at close proximity to the market, loom up as potential rivals to Canada in this field. But at present, both these countries are handicapped by the uncertain delivery, their lack of handling facilities, transportation deficiencies, and a general state of disorganization. It is highly improbable that either Manchuria or Siberia will overcome these hindering physical forces sufficiently, to make it a serious competitor to Canada, in the near future at least, in the Japanese wheat market.

It is a striking feature of the export trade of Canada to Japan, that all the commodities shipped in large quantities to-day, and all the goods which are likely to find a large market there in the future, consist of food or raw materials.

1. For the above figures see the Japan Year Book, 1929, p.634-7.
In spite of this fact, it is common knowledge that the commodities which this country wishes, and is exerting its strongest efforts, to supply, are not those particular unworked materials, but rather the goods manufactured from them in our own country. In this direction, as an exporter of manufactured goods to Japan, there is small hope of a great increase in our present volume. The Japanese market has become so organized as to include, on a very competitive basis, only those cheap low grade goods which satisfy the depressed standard of living of the people. The domestic industries, with an abundant supply of cheap labor from which to draw their working energy, are well equipped to supply these inferior products on a large scale, and to undersell foreign producers. Japan can, and will, copy any manufacture that finds a wide market in that country, and temporary success alone is met by importation of a new line of goods. The tariff, as a final barrier, is quite effective in maintaining diverse Japanese manufactures for home consumption.

If, in face of all these adversities, Canadian manufacturers find the means of breaking into the tight market, they must be willing to cater to the Japanese tastes and requirements. Far-reaching success can be obtained only at the expense of intensive, personal study of the ground. Goods must be quoted at their bottom commercial price, but not dumped periodically, to find even a semi-permanent market in Japan. Local peculiarities, also, are such that they need special attention and recognition. In most lines, it has been stated that price is the first consideration and any quotation has first to meet
the current competitive rates. Even after orders are received, proper shipment is an essential which many Canadian exporters have neglected in the past. Japanese ports of entry have not reached the stage of efficiency where they can dispense with the handling of goods fewer than three or four times at the least. Moreover the Japanese longshoremen, no doubt in part from the international flavor of their occupation, are ignorant, insubordinate, and wilfully reckless. It is not without just cause that importers have constantly urged that all goods shipped to Japan be carefully and strongly packed, with unmistakable marks of origin. Even the most sturdy packing cases are subject to abuse. As a secondary concern, goods injured by moisture need special safeguards against the humidity of the Japanese climate.

It is obvious that, under existing conditions, Canadian manufactures, and for that matter, the manufactures of any foreign country, will find, only with the greatest difficulty, a large market in Japan. The future of Canadian exports to that country must lie predominantly in Japan's physical deficiency of natural resources, and in the demands which her further industrialization will make upon a foreign food supply. Among food products, Canada can send large quantities of wheat, and to a lesser degree, high grade flour, at competitive world

1. "As time goes on, Japan will doubtless become still more independent of foreign countries as regards all manufactures except, perhaps, machinery."
"Japan from Within." - J. Ingram Bryan, p.62.
prices. Butter and cheese are likely products in future trade movements to Japan, although the people have not yet acquired a widespread taste for either. But with them, and with milk, prepared in cans or in powdered form, with which Japan must supplement the output of domestic cattle on her limited pasture land, Canada may find the means of providing in part the food supply of a new generation. Salt fish and meat are already minor items of Canadian exportation to Japan, and may show comparable development.

Canadian raw products, outside the category of foodstuffs, include materials which hope for a considerable increase in supplying the growing needs of Japanese industry. Lumber and pulp already are large items of export trade, and Canadian pulp at least will continue to be of increasing importance to Japan. Of the minerals, a demand for zinc, lead, asbestos, aluminium, and their products, will undoubtedly cause Japan to make further calls on Canadian mines. Of all other raw products, wool from Canada may find a market in Japan in competition with the Australian product, but it is doubtful whether the volume will ever be large. Paper, either high grade or wrapping, is the only Canadian manufacture which the Japanese buy extensively to-day. The importation of Canadian paper will probably decrease in proportion as the domestic industry becomes organized on a more efficient scale of operation.

This hasty summary professes to show, in brief only, the actual potentialities of Canada increasing her export trade to Japan. But in spite of the recent establishment of a
Canadian diplomatic service in Tokyo, not even the most enthusiastically optimistic observer can state with absolute confidence that Japan, or even the Orient as a whole, for the next twenty-five years at least, will approach, in importance of trade, the place which the United Kingdom and the United States assume as markets for Canadian goods. The United States, say what we will in national antagonism, is our natural market, and the United Kingdom is still the clearing house of the world, and particularly of Europe, for the staple products of our country. The Orient, on the other hand, is unsettled and uncertain at best. Japan may be the financial agent and the entrepot for the Far East, and the Far East, with its teeming millions, may be the centre of future world trade. But it will be a long time before Oriental civilization will be adapted to make demands, in comparable measure to those of the English-speaking world, upon the output of Canadian resources and manufactures.

1. The Canada Year Book, 1929, p.481 gives the following Statistics(In million dollars).

<table>
<thead>
<tr>
<th>Imports for Consumption.</th>
<th></th>
<th></th>
<th></th>
<th>Exports.</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1926</td>
<td>1927</td>
<td>1928</td>
<td>1926</td>
<td>1927</td>
<td>1928</td>
<td></td>
</tr>
<tr>
<td><strong>Europe:</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.K.</td>
<td>163.7</td>
<td>163.9</td>
<td>185.9</td>
<td>508.2</td>
<td>446.9</td>
<td>410.7</td>
<td></td>
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<tr>
<td>Rest</td>
<td>59.7</td>
<td>78.1</td>
<td>85.8</td>
<td>140.3</td>
<td>155.9</td>
<td>164.1</td>
<td></td>
</tr>
<tr>
<td><strong>North America:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S.A.</td>
<td>608.9</td>
<td>687.0</td>
<td>719.5</td>
<td>474.9</td>
<td>466.4</td>
<td>478.0</td>
<td></td>
</tr>
<tr>
<td>Rest</td>
<td>34.9</td>
<td>34.7</td>
<td>30.6</td>
<td>41.3</td>
<td>39.8</td>
<td>41.1</td>
<td></td>
</tr>
<tr>
<td><strong>South America:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asia</td>
<td>17.1</td>
<td>20.0</td>
<td>32.4</td>
<td>27.4</td>
<td>32.9</td>
<td>27.4</td>
<td></td>
</tr>
<tr>
<td>Oceania</td>
<td>32.7</td>
<td>32.0</td>
<td>32.4</td>
<td>77.2</td>
<td>63.5</td>
<td>65.7</td>
<td></td>
</tr>
<tr>
<td>Africa</td>
<td>8.7</td>
<td>12.5</td>
<td>18.3</td>
<td>32.6</td>
<td>33.2</td>
<td>26.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.8</td>
<td>2.7</td>
<td>4.0</td>
<td>13.3</td>
<td>13.5</td>
<td>14.9</td>
<td></td>
</tr>
</tbody>
</table>

In the value of exports to Canada, Japan at present ranks eighth among those countries with whom we have commercial affiliations. Silk textiles, and to a lesser extent raw silk, are the commodities of greatest value which they ship to our market. Tea, oranges and canned fruit are among the food products of a local nature which we buy from Japan. Japanese pottery and porcelain products of all kinds are being used more extensively in Canadian homes.

The essence, and the very meaning of the word "trade," signifies reciprocity, whether direct or indirect. We, fostering hopes of increasing our export to the Orient, must find some products that we are willing to take in return. As far as Japan is concerned, the commodities mentioned directly above are reaching the point of saturation on the Canadian market, and their volume can increase only with the normal needs of a larger population. On the other hand, the future export trade of Canada to the Orient will undoubtedly be in those large bulk commodities of relatively low value per unit. Ships even to-day leave our ports loaded to capacity, to return in ballast. Some reciprocal arrangement of goods exchange can make the overhead costs much lighter, and can act as a strong stimulant to trade expansion. Every country bringing in bulk commodities from abroad, and reshipping them

2. See Appendix N.
in their manufactured state, faces this problem of balancing shipments. England, in the past, has profited by her large Mediterranean coal cargoes. Both Japan and her trade connections would derive great benefit by a greater equilibrium of her load index.

Comparisons are often erroneous in their incompleteness, but Canadian commerce must recognize certain marked fixtures of similarity between Japan and England. Each possesses a dense population restricted to a small island territory. Each places great importance on the operation of its mercantile fleet. And each is dependent almost wholly upon a foreign source for many of the goods which we consider essentially domestic products, confined to individual domestic industries.

As time goes on, Japan, in her physical outlines, undoubtedly will become even more closely parallel to her ideal England, with the one marked exception that her poor natural resources will prohibit any large exportation of bulk products. Canada, desiring to increase to an unlimited extent, shipment of food and raw products to Japan, must be prepared to take in return more of that country's domestic manufactures. Japan is

1. In 1927, Japan imported 18,073,184 tons of commodities, and exported 6,193,135 tons. This relation is even more pronounced when the specific gravity of imported products, such as wool and raw cotton, is compared with that of exported raw silk and cotton textiles.

Figures derived from the Japan Trade Review, Yokohama Trade Review Company, Yokohama, issue of July 1929, p.11.
showing that she can compete with the best in the output of manufactures demanding monotonous process. In those goods adapted to household production, including the works of the domestic fine arts, and the commodities with imported Western processes, Japan is rivalling even France in successful enterprise. Canada should gladly accept products of this nature, in the manufacture of which Japan gives promise of becoming prominent. If commerce be truly the backbone of international intercourse, Canadians can soon draw a far more accurate estimate of the Japanese than either the products or the methods of early traders have shown. American trading influence, and the facilities of the Panama canal, are the means of making this as widespread in the Eastern Provinces, as direct contact can do in Western Canada.

TRADE CONFLICTS OF JAPAN AND CANADA.


It is a well-known maxim of economics that the productive efficiency rather than the general wage level within a country is the determining factor in successful competition of the goods of that country as against foreign commodities. Artificial barriers such as tariffs, bounties, and rebates, merely modify, but do not change, the underlying truth of this statement. And

1. "The Japanese have learned much from the Occidentals; the latter in their turn still have much to learn from the Japanese." - "Japan: The Rise of a Modern Power." R.J. Porter, Clarendon Press, Oxford, 1918, p.262. Needless to say, twelve years later, this statement still applies.
in spite of the widespread dogma of fortification against a
"Yellow Peril," it is a peculiar fact that direct competition
seldom occurs between the goods of two countries with widely
divergent wage levels and living conditions. It is true that
Japan has displaced both England and the United States as a
supplier of Oriental cotton textile requirements. The Japanese
cotton spinning industry, however, represents the high peak of
that country's industrial efficiency, even though wages are
depressed in it to the level of those in other lines of endeavor.
And in the production of the finest quality of cotton materials,
English mills are still supreme, and find a market over a high
tariff wall even in Japan. In a discussion, therefore, of the
possibility of Japanese manufactures competing with Canadian
goods, particularly with those made up from Canadian raw products,
the present and future efficiency of those particular branches
of Japanese industry must be estimated.

Authorities remark upon the fact that the past twenty years
have brought to Japan a steady improvement of business methods,
and a gradual growth of technical knowledge. Japan is not the
first country that has been forced to live down a reputation
with which she has been shrouded by her early traders and
manufacturers, for cheap, inferior products. Now, however, the
merchant class as a whole has assumed an important place in the
social scale, and is beginning to command, as it does in the
West, the respect of the populace. To sustain this reputation,
it must carry the nation's ideals into the business world.
But on the side of purely technical efficiency, there is still much improvement needed in the facilitation of regular business. Industry became paramount, and industrial Japan became truly nationalized, during the world war. Since that time, readjustment to normal conditions has been very slow, and the country has been content to live upon its vast accumulated surplus war profits. The wage level, though comparatively low, is still inflated above the nation's actual productivity, even though Japan's resources are little enough to support the present wasted energy. With female labor overabundant in almost all fields of factory production, labor costs are extremely high, in spite of the low wage level, and the long working hours.

It has been reiterated too often in these pages that Japan has become industrialized too quickly, and that commercially, she is still a young nation. Wheat is unloaded in Kobe by swarms of men, working two by two to fill, by hand, bags, which then pass to women who sew their tops, and are finally loaded in lighters and carried to the elevators. Examples of inefficient

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1. One author states that - "The foreigner is too apt to confuse working hard with working continuously. Whether much more is done in the time than in the much shorter Western day may be doubted." - "The Foundations of Japan," by J.W. Robertson Scott, John Murray and Son, London, 1922, p.278.

A second makes the statement that - "The Japanese are exceedingly clever at understanding new processes, but lack the stamina of Western factory workers." - "Japan From Within," J.Ingram Bryan, p.43.

The obvious conclusion is that longer hours are required in order that Japanese factories may show the same volume of output as those of similar machine efficiency in the West.
operation in other directions are as numerous as they are natural. Manufacture is still carried on with a view to producing for appearance rather than quality, a condition which is inevitable as long as the workers continue to make products without understanding their utility. Machinery in general is as overworked as labor, to the detriment of its serviceable efficiency.

Apart from these difficulties, the social organization of the country is not properly adapted to face the new era. Many of the peculiarly Oriental ideas persist in modern business. Through the old doctrine of obedience throughout political and social Japan, a bureaucracy, similar to the former German system, has grown up. This top-heavy officialism of governmental control has produced rules and regulations for everything. Private initiative finds small chance of penetrating the "red-tapism" that pervades the country. All must receive authoritative sanction through the government channels and the minute records of the police, kept up to date by an army of officials.

Within individual business also, a virtual clan system has established itself. An employee will not leave to go to another firm, but neither can he be dismissed without just cause. The acceptance of commissions for numerous small services to

1. "All is done with a lack of concentration conducive to idleness and monotony of action." - "Japan Real and Imaginary" - Sydney Greenbie, p.277.

2. Referring to the trains, Greenbie, in "Japan Real and Imaginary," p.198, remarks on the "Lack of sufficient equipment, overcrowding, and a certain carelessness that would not be tolerated elsewhere." Even automobiles, run by the Japanese taxi-drivers, are of little use after the first year's service.
outside interests is common throughout the Orient, not only in Japan. A bonus at the end of the year, of set amount regardless of the past year's business, is expected and as readily granted.

Besides this, an enormous percentage of workers in Japan is employed in unproductive enterprises. Theatres and "tea-houses" are widespread and numerous, and the "geisha" system still maintains this common form of feminine employment. Even in industry itself, the labor supply is oversufficient, and middlemen are so numerous that goods often change hands up to eight times, in passing from the original producer to the final consumer.

Japan to-day is passing through the hobbledehoy stage where she thinks that she is far superior, as she is, in the development of her own indigenous industries, and that she is equal to other races, which she is not, in the imitating of their practices. Japan can still derive much benefit from the acceptance of the counsel of foreign advisors. These advisers, once teaching in the country directly, are now cast aside, and Japan must follow them abroad for information. Fortunately for her, students in foreign countries return to Japan in sufficient numbers to act as a steadying influence, although facing failure in certain directions, as for example in finance, which could be universally learned more readily from a foreign model than by the present methods of trial and error.

Japan can look in many directions for the betterment of her material prosperity. Doing things in the directly opposite way of the West is not absolute evidence of Japanese inefficiency, but quickly becomes so when the people try to apply this to Western processes, both mental and physical. Japan faces a critical natural handicap in the poverty of her resources. To-day she has, added to this unavoidable burden, the handicaps resulting from technical inexperience and imperfect industrial organization and management, which, though diminishing, are still tripping stones in her path. The efficiency of Japanese industry as a whole continues to be far below that of prominent Occidental nations.

b. Present and Future Competition Between Japan and Canada.

In spite of their low efficiency, the Japanese are easily the most productive race in the Orient. Their wage level, although approximately only one-quarter that of Canada, is much higher than that of any other Far Eastern country. Japanese industries are quickly becoming the large providers of manufactured goods to China, India, and the South Seas, and in spite of their relatively low efficiency, will face, on even terms, competition of any others in their present Oriental market.

Japan, as a fully developed industrial nation of the future, is the natural manufacturing centre for the Orient. Geographically, she stands as the gateway to China. She is in a position, both racially and psychologically, to understand
the condition of her former master. Even to-day, she is
gaining the whiphand in China, and controls the transportation,
both maritime and internal, of the Northern Provinces. The time
has come where the pupil of the old arts and handicrafts has
become the teacher of the new Western methods which she has
so readily assumed. Japan realizes that the source of her
prosperity lies in the comparative prosperity of her nearest
neighbors, and that it is to her advantage that China be
restored to national unity and peaceful commercial relations.
Japan's future success must be in the field of industry and
commerce, and to reach her goal of outstanding industrial and
commercial, as well as commanding political nation of the Far
East, her most vital market, and source of supplies, is China.
Commercial domination of Asia, and a harmonizing influence
as the mediator and moderator of East and West, are the means
of raising the prestige of Japan in Asia to the position
England formerly occupied in relation to Europe.

The general scheme of the export trade of Japan at present
is to send manufactured goods to other parts of the Orient, and
raw products to the United States. The nation is faced to-day
with the problem of providing for the welfare of an increasing
population. England was confronted with a similar situation
in the 19th century, which, though less grave, arose from like
causes. And as England solved her problem by industrialization,
so Japan likewise may reach her solution by perfecting and
increasing her present industrial development. The Government
has come upon no concrete remedy for unemployment. A "back to
the country" movement is impossible with the peasant class in an even more critical state than the industrial workers. Greater industrialization must be both the cause and the effect of absorbing the increasing population. Larger imports can be paid for only by the shipment of more manufactures.

With enlarged industry, Japan must enlarge her foreign market. She already has monopolized the shipment of cotton textiles to China, at the expense of Great Britain. She can compete to-day with any other manufacturing country in the production of cheap manufactured goods. The imitation of high grade American and European commodities by Japanese cheap labor, working long hours, has produced articles, which, though inferior in quality, are readily marketed in China and the South Seas. Japanese manufacturers are in a position, with their more complete knowledge from first-hand sources, to satisfy the needs of this market. At present, Japan shows promise of excluding all Western competitors in these lines, with the main potential source of competition at a far distant date, within China itself. Western manufacturers, however, will continue to supply goods requiring skill of machinery operation to produce quality. Japanese imitation, up to the present, has extended little beyond the output of goods of medium or low grade.

Canada, however, must show some concern in the future development of Japanese industries, particularly those engaged in manufacturing for reexport the imported Canadian raw products, including wheat, wood, pulp, and metals. In
the shipment of wheat flour, Japan is, and probably will
continue to be, a serious competitor, throughout the Orient.
Her competition in lumber, at present, is negligible, and
even in the future, will probably be obscured under that of
Siberian Russia. In the manufacture and marketing of paper,
it is likely that Japan will control the Oriental market
before Canada can develop this trade.

There are several products already manufactured in the two
countries both from domestic, and imported raw materials,
which will come into greater conflict in the near future.
Among these, notably, is canned salmon, the production of
which has risen rapidly in Japan. Moreover, Japanese canned
salmon has already found a market not only in the Orient, but
in Italy, Australia, and even England, in competition with
the Canadian product.

In concluding this summary estimate of future possibilit-
ies of Japanese competition in the Orient, a previous statement
can only be repeated and emphasized; in spite of the sales
propagandism that finds its way into publications, there is
little evidence to support the belief that the Orient soon will
develop into an important buyer of Canadian produce, as compared
with the United Kingdom and the United States. Even if it does,
the fact remains that Japan is an industrial country, while

1. In 1925 Japanese canneries packed 477,266 cases of
   salmon, and in 1928, this figure had risen to
   1,036,555 cases.
   "Present Day Japan," 1929, p.133.
Canada is still essentially a producer of agricultural and mineral and forestry resources. Against these products of Canada, in their raw state, Japan cannot compete. If she does reexport them as manufactures in future competition, we can find consolation in the fact that she at least must come to us for her nearest large supplies.

A FEW CONCLUDING REMARKS.

The preceding pages have attempted to present in brief, and at the same time in comprehensive, form, the social and economic conditions, and the various problems therein, of the New Japan. Japan has not yet reached the position of a first-class industrial power. She is finding great difficulty in supporting, from the fruits of her factories, the large army and navy which make her a powerful political unit. The country in general is suffering from an acute attack of industrial indigestion, brought on by a too rapid ingestion of European ideas which the people often discard as easily as they do the Western business suit for the Japanese kimono.

The educated people of the country fully understand these problems before them. Westerners, who criticize, should recognize the many fine points of the Japanese, regardless of the many gaps which they have left in adopting the methods of the West. The nation has as its immediate goal, economic prosperity, with eventual dominion, both commercial and political, over the various races of the Far East. To accomplish this, Japan must be willing to accept, on its side,
constructive criticism. She must fill the gaps which Westerners see in her structure, if she is to attain the far-reaching success of her ambitions. If she can thus gain the world's confidence, her future prosperity is assured.

1. "Japan, desiring the elimination of racial discrimination, should step down from her pedestal and walk proudly among men." - "Japan Real and Imaginary," Sydney Greenbie, p.452.

2. "Japan is capable of storming for great purposes, but also of festering, of growing stagnant." Ibid.p.216.
APPENDICES

Appendix A.

The Japan Year Book, 1929, p. 42, gives the following population statistics for Japan Proper:-

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
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<td>61,081,954</td>
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<td>62,044,649</td>
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<td>1926</td>
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Appendix B.

Average Monthly Cost of Living per Capita

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<th>Industrial Laborers</th>
<th>Salaried Men</th>
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<td>10.06</td>
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<td>Housing</td>
<td>3.52</td>
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<td>6.52</td>
</tr>
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<td>Clothing</td>
<td>1.30</td>
<td>2.07</td>
<td>3.05</td>
</tr>
<tr>
<td>Total</td>
<td>12.36</td>
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</tr>
<tr>
<td>%</td>
<td>74.75%</td>
<td>74.32%</td>
<td>70.04%</td>
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<td>Health</td>
<td>0.46</td>
<td>1.34</td>
<td>1.74</td>
</tr>
<tr>
<td>Amusement &amp; Culture</td>
<td>0.37</td>
<td>0.76</td>
<td>1.37</td>
</tr>
<tr>
<td>Education</td>
<td>0.23</td>
<td>0.67</td>
<td>1.25</td>
</tr>
<tr>
<td>Social</td>
<td>1.30</td>
<td>1.05</td>
<td>1.62</td>
</tr>
<tr>
<td>Sundries</td>
<td>0.22</td>
<td>1.10</td>
<td>0.37</td>
</tr>
<tr>
<td>Picnics &amp; Trips</td>
<td>0.10</td>
<td>0.14</td>
<td>0.32</td>
</tr>
<tr>
<td>Stationary, Transp'n</td>
<td>0.25</td>
<td>0.25</td>
<td>0.72</td>
</tr>
<tr>
<td>Others</td>
<td>1.21</td>
<td>0.71</td>
<td>0.96</td>
</tr>
<tr>
<td>Total</td>
<td>4.17</td>
<td>5.17</td>
<td>8.41</td>
</tr>
<tr>
<td>%</td>
<td>25.23%</td>
<td>25.68%</td>
<td>29.96%</td>
</tr>
</tbody>
</table>

Grand Total                | 16.53   | 20.11               | 28.04        

1 From "Land Utilization in Japan." S. Nasu, p. 203.
<table>
<thead>
<tr>
<th>Occupation</th>
<th>1921</th>
<th>1922</th>
<th>1923</th>
<th>1924</th>
<th>1925</th>
<th>1926</th>
<th>1927</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silk Rulers (Female)</td>
<td>.93</td>
<td>1.02</td>
<td>.93</td>
<td>.96</td>
<td>.97</td>
<td>1.12</td>
<td>.93</td>
</tr>
<tr>
<td>Cotton Spinner</td>
<td>1.04</td>
<td>1.11</td>
<td>1.07</td>
<td>1.10</td>
<td>1.16</td>
<td>1.18</td>
<td>1.15</td>
</tr>
<tr>
<td>Potter</td>
<td>1.98</td>
<td>2.04</td>
<td>1.96</td>
<td>1.93</td>
<td>1.95</td>
<td>2.13</td>
<td>2.07</td>
</tr>
<tr>
<td>Leather maker</td>
<td>2.21</td>
<td>2.04</td>
<td>2.13</td>
<td>2.20</td>
<td>2.19</td>
<td>2.14</td>
<td>2.12</td>
</tr>
<tr>
<td>Flour maker</td>
<td>1.70</td>
<td>1.66</td>
<td>1.63</td>
<td>1.74</td>
<td>1.78</td>
<td>1.78</td>
<td>1.78</td>
</tr>
<tr>
<td>Match maker</td>
<td>1.62</td>
<td>1.91</td>
<td>1.76</td>
<td>1.60</td>
<td>1.52</td>
<td>1.50</td>
<td>1.38</td>
</tr>
<tr>
<td>Saki Breever</td>
<td>1.80</td>
<td>2.30</td>
<td>2.23</td>
<td>2.15</td>
<td>2.25</td>
<td>2.18</td>
<td>1.99</td>
</tr>
<tr>
<td>Lacquerer</td>
<td>2.01</td>
<td>2.10</td>
<td>1.94</td>
<td>2.15</td>
<td>2.15</td>
<td>2.08</td>
<td>2.01</td>
</tr>
<tr>
<td>Stevedore</td>
<td>2.55</td>
<td>2.63</td>
<td>2.62</td>
<td>2.69</td>
<td>2.54</td>
<td>2.43</td>
<td>2.37</td>
</tr>
<tr>
<td>Floor-mat maker</td>
<td>2.25</td>
<td>2.46</td>
<td>2.37</td>
<td>2.59</td>
<td>2.64</td>
<td>2.60</td>
<td>2.54</td>
</tr>
<tr>
<td>Carpenter</td>
<td>2.65</td>
<td>2.91</td>
<td>2.99</td>
<td>3.09</td>
<td>2.98</td>
<td>2.92</td>
<td>2.90</td>
</tr>
<tr>
<td>Painter</td>
<td>2.44</td>
<td>2.67</td>
<td>2.76</td>
<td>2.86</td>
<td>2.85</td>
<td>2.84</td>
<td>2.78</td>
</tr>
<tr>
<td>Cement maker</td>
<td>1.87</td>
<td>2.08</td>
<td>2.11</td>
<td>2.03</td>
<td>1.96</td>
<td>1.99</td>
<td>2.02</td>
</tr>
<tr>
<td>Fisherman</td>
<td>1.63</td>
<td>1.58</td>
<td>1.80</td>
<td>1.54</td>
<td>1.59</td>
<td>1.62</td>
<td>1.66</td>
</tr>
</tbody>
</table>

From The Financial & Economic Annual of Japan, 1928, the Department of Finance, Government Printing Office, Tokyo, p. 87.
Appendix C.

1. Value of Farm Products (in 1927).

<table>
<thead>
<tr>
<th>Crop</th>
<th>Value (1000 yen)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice</td>
<td>1,764,403</td>
<td>57.71</td>
</tr>
<tr>
<td>Barley, naked Barley, Wheat</td>
<td>257,129</td>
<td>8.70</td>
</tr>
<tr>
<td>Other Food Crops</td>
<td>227,714</td>
<td>7.70</td>
</tr>
<tr>
<td>Fruits</td>
<td>75,263</td>
<td>2.63</td>
</tr>
<tr>
<td>Vegetables &amp; Flowers</td>
<td>248,938</td>
<td>8.43</td>
</tr>
</tbody>
</table>

1. Animal husbandry is not included.

From "Land Utilization in Japan," S. Nasu, p. 140.

Appendix D.

1. Production of Rice\(^x\) and Raw Silk\(^\#\).

<table>
<thead>
<tr>
<th>Year</th>
<th>Quant. Rice</th>
<th>Value</th>
<th>Quant. Silk</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1917</td>
<td>54,567,927</td>
<td>1,103,943,811</td>
<td>5,317,568</td>
<td>407,689,093</td>
</tr>
<tr>
<td>1918</td>
<td>54,700,161</td>
<td>1,823,571,604</td>
<td>5,795,542</td>
<td>526,708,280</td>
</tr>
<tr>
<td>1919</td>
<td>60,818,688</td>
<td>2,891,466,193</td>
<td>6,359,761</td>
<td>919,927,170</td>
</tr>
<tr>
<td>1920</td>
<td>63,208,540</td>
<td>2,348,166,840</td>
<td>5,833,854</td>
<td>570,488,816</td>
</tr>
<tr>
<td>1921</td>
<td>55,180,468</td>
<td>2,018,362,196</td>
<td>6,238,796</td>
<td>595,296,219</td>
</tr>
<tr>
<td>1922</td>
<td>60,692,351</td>
<td>1,621,214,257</td>
<td>6,327,704</td>
<td>717,106,204</td>
</tr>
<tr>
<td>1923</td>
<td>55,444,089</td>
<td>1,771,690,626</td>
<td>6,756,040</td>
<td>795,944,563</td>
</tr>
<tr>
<td>1924</td>
<td>57,170,413</td>
<td>2,214,429,026</td>
<td>7,577,170</td>
<td>837,230,677</td>
</tr>
<tr>
<td>1925</td>
<td>59,703,784</td>
<td>2,133,762,377</td>
<td>8,284,317</td>
<td>956,052,187</td>
</tr>
<tr>
<td>1926</td>
<td>55,592,820</td>
<td>1,886,221,505</td>
<td>9,159,648</td>
<td>856,477,276</td>
</tr>
<tr>
<td>1927</td>
<td>62,104,503</td>
<td>1,754,403,292</td>
<td>9,880,358</td>
<td>798,800,571</td>
</tr>
</tbody>
</table>

\(^x\) Quantity of rice in Koku, value in yen.
1 koku = 4.96 bushels.

\(^\#\) Quantity of silk in Kwan, value in yen.
1 kwan = 8.267 lbs.

1. From the Statistical Abstract of The Ministry of Agriculture and Forestry, 1927, pps. 6 and 24.
Graph of The Production of Rice and Cocoons in Japan.

LEGEND
- Price of Rice
- Prod. of Rice
- Prod. of Cocoons
- Price of Cocoons

From the Statistical Abstract of the Ministry of Agriculture and Forestry, 1927.
Appendix E.

1. Mineral Production (in 1000 yen)

<table>
<thead>
<tr>
<th>Year</th>
<th>Gold and Silver</th>
<th>Copper</th>
<th>Lead and Manganese</th>
<th>Iron</th>
</tr>
</thead>
<tbody>
<tr>
<td>1923</td>
<td>15,071</td>
<td>43,488</td>
<td>825</td>
<td>5,303</td>
</tr>
<tr>
<td>1924</td>
<td>16,277</td>
<td>48,541</td>
<td>1,187</td>
<td>-</td>
</tr>
<tr>
<td>1925</td>
<td>19,969</td>
<td>53,467</td>
<td>1,630</td>
<td>7,043</td>
</tr>
<tr>
<td>1926</td>
<td>18,844</td>
<td>50,676</td>
<td>1,581</td>
<td>8,691</td>
</tr>
<tr>
<td>1927</td>
<td>18,616</td>
<td>47,888</td>
<td>1,547</td>
<td>8,198</td>
</tr>
<tr>
<td>1928</td>
<td>21,193</td>
<td>55,272</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Iron</th>
<th>Pyrites</th>
<th>Coal</th>
<th>Sulphur</th>
<th>Petroleum</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1923</td>
<td>2,992</td>
<td>256,594</td>
<td>1,650</td>
<td>5,459</td>
<td>374,243</td>
<td></td>
</tr>
<tr>
<td>1924</td>
<td>3,030</td>
<td>241,611</td>
<td>2,050</td>
<td>-</td>
<td>351,311</td>
<td></td>
</tr>
<tr>
<td>1925</td>
<td>4,212</td>
<td>236,828</td>
<td>2,074</td>
<td>16,835</td>
<td>355,792</td>
<td></td>
</tr>
<tr>
<td>1926</td>
<td>5,938</td>
<td>231,042</td>
<td>2,585</td>
<td>14,972</td>
<td>347,844</td>
<td></td>
</tr>
<tr>
<td>1927</td>
<td>7,373</td>
<td>257,280</td>
<td>3,301</td>
<td>12,466</td>
<td>368,568</td>
<td></td>
</tr>
<tr>
<td>1928</td>
<td>-</td>
<td>254,516</td>
<td>-</td>
<td>12,946</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

1. From the Japan Year Book, 1929, p.532 and Present Day Japan, 1929, p.149.
Table showing comparative values of Mining Products for 1925, when the Total Value was Y 355,972,000.

1. From Present Day Japan, 1928, p.106.
Appendix F.

1 Chart I - The Relative Amounts of Capital Invested in Different Fields at the end of 1925. Total = ¥11,656,000,000.

Chart II - Comparative Values of Manufactures for 1925. Total = ¥7,029,000,000.

By Industries

By Manufactures.

Appendix G.

1. From the Japan Year Book, 1929.

Map of the Principal Hydro-electric Rivers in Middle Japan.
Appendix H.

Progress in the Iron and Steel Industry.

1Percentage of demand related to Domestic Production.

<table>
<thead>
<tr>
<th>Year</th>
<th>Ore</th>
<th>Pig</th>
<th>Steel</th>
</tr>
</thead>
<tbody>
<tr>
<td>1913</td>
<td>27</td>
<td>47</td>
<td>34</td>
</tr>
<tr>
<td>1917</td>
<td>39</td>
<td>67</td>
<td>45</td>
</tr>
<tr>
<td>1918</td>
<td>39</td>
<td>73</td>
<td>48</td>
</tr>
<tr>
<td>1919</td>
<td>28</td>
<td>65</td>
<td>47</td>
</tr>
<tr>
<td>1920</td>
<td>24</td>
<td>58</td>
<td>36</td>
</tr>
<tr>
<td>1921</td>
<td>10</td>
<td>64</td>
<td>50</td>
</tr>
<tr>
<td>1922</td>
<td>4</td>
<td>58</td>
<td>39</td>
</tr>
<tr>
<td>1923</td>
<td>5</td>
<td>59</td>
<td>52</td>
</tr>
<tr>
<td>1924</td>
<td>5</td>
<td>54</td>
<td>44</td>
</tr>
<tr>
<td>1925</td>
<td>6</td>
<td>64</td>
<td>71</td>
</tr>
<tr>
<td>1926</td>
<td>13</td>
<td>62</td>
<td>61</td>
</tr>
<tr>
<td>1927</td>
<td>13</td>
<td>61</td>
<td>65</td>
</tr>
<tr>
<td>1928</td>
<td>9</td>
<td>63</td>
<td>67</td>
</tr>
</tbody>
</table>

1From the Japan Advertiser, Annual Review, 1928-29.

Appendix I.

1Progress in the Shipbuilding Industry.

Number and Tonnage of Ships newly built in Japan.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
<th>Tonnage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1915</td>
<td>8</td>
<td>40,485</td>
</tr>
<tr>
<td>1916</td>
<td>40</td>
<td>141,827</td>
</tr>
<tr>
<td>1917</td>
<td>86</td>
<td>344,917</td>
</tr>
<tr>
<td>1918</td>
<td>171</td>
<td>497,467</td>
</tr>
<tr>
<td>1919</td>
<td>134</td>
<td>619,558</td>
</tr>
<tr>
<td>1920</td>
<td>93</td>
<td>433,265</td>
</tr>
<tr>
<td>1921</td>
<td>41</td>
<td>232,820</td>
</tr>
<tr>
<td>1922</td>
<td>16</td>
<td>58,420</td>
</tr>
<tr>
<td>1923</td>
<td>19</td>
<td>62,926</td>
</tr>
<tr>
<td>1924</td>
<td>20</td>
<td>63,750</td>
</tr>
<tr>
<td>1925</td>
<td>14</td>
<td>49,360</td>
</tr>
<tr>
<td>1926</td>
<td>15</td>
<td>47,539</td>
</tr>
<tr>
<td>1927</td>
<td>26</td>
<td>52,473</td>
</tr>
<tr>
<td>1928</td>
<td>53</td>
<td>109,664</td>
</tr>
</tbody>
</table>

1From Present Day Japan, 1929, p. 115.
### Cotton Statistics (1000 yen)

<table>
<thead>
<tr>
<th>Year</th>
<th>Imports Raw Cotton</th>
<th>Imports Cotton Goods</th>
<th>Imports Cotton Yarn</th>
<th>Exports Cotton Fabrics</th>
<th>Exports Cotton Wadding</th>
<th>Exports Cotton Yarn</th>
<th>Exports Cotton Goods</th>
</tr>
</thead>
<tbody>
<tr>
<td>1914</td>
<td>220,496</td>
<td>5,875</td>
<td>216</td>
<td>-</td>
<td>117,145</td>
<td>354</td>
<td>80,851</td>
</tr>
<tr>
<td>1919</td>
<td>674,562</td>
<td>8,397</td>
<td>5,512</td>
<td>760,576</td>
<td>789,965</td>
<td>1,074</td>
<td>154,982</td>
</tr>
<tr>
<td>1920</td>
<td>927,365</td>
<td>17,075</td>
<td>4,453</td>
<td>676,607</td>
<td>591,427</td>
<td>760</td>
<td>80,568</td>
</tr>
<tr>
<td>1921</td>
<td>438,173</td>
<td>10,039</td>
<td>1,761</td>
<td>484,907</td>
<td>533,578</td>
<td>435</td>
<td>114,723</td>
</tr>
<tr>
<td>1922</td>
<td>427,841</td>
<td>15,394</td>
<td>2,156</td>
<td>537,049</td>
<td>735,218</td>
<td>301</td>
<td>78,512</td>
</tr>
<tr>
<td>1923</td>
<td>513,172</td>
<td>8,889</td>
<td>2,208</td>
<td>569,845</td>
<td>511,971</td>
<td>248</td>
<td>109,611</td>
</tr>
<tr>
<td>1924</td>
<td>605,275</td>
<td>11,867</td>
<td>3,422</td>
<td>644,954</td>
<td>633,426</td>
<td>385</td>
<td>123,117</td>
</tr>
<tr>
<td>1925</td>
<td>923,355</td>
<td>11,889</td>
<td>1,857</td>
<td>781,442</td>
<td>703,024</td>
<td>442</td>
<td>70,716</td>
</tr>
<tr>
<td>1926</td>
<td>725,930</td>
<td>7,785</td>
<td>1,038</td>
<td>658,883</td>
<td>617,284</td>
<td>384</td>
<td>38,794</td>
</tr>
<tr>
<td>1927</td>
<td>624,631</td>
<td>8,586</td>
<td>909</td>
<td>-</td>
<td>-</td>
<td>331</td>
<td>38,851</td>
</tr>
</tbody>
</table>

### Cotton Machinery Equipment

<table>
<thead>
<tr>
<th>Year</th>
<th>Spindles</th>
<th>Looms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1914</td>
<td>2,657,174</td>
<td>25,443</td>
</tr>
<tr>
<td>1919</td>
<td>3,485,262</td>
<td>44,401</td>
</tr>
<tr>
<td>1920</td>
<td>3,813,580</td>
<td>50,588</td>
</tr>
<tr>
<td>1921</td>
<td>4,161,125</td>
<td>54,994</td>
</tr>
<tr>
<td>1922</td>
<td>4,517,612</td>
<td>60,765</td>
</tr>
<tr>
<td>1923</td>
<td>4,197,966</td>
<td>61,421</td>
</tr>
<tr>
<td>1924</td>
<td>4,870,232</td>
<td>64,225</td>
</tr>
<tr>
<td>1925</td>
<td>5,185,632</td>
<td>68,160</td>
</tr>
<tr>
<td>1926</td>
<td>5,410,762</td>
<td>71,719</td>
</tr>
<tr>
<td>1927</td>
<td>5,766,584</td>
<td>71,794</td>
</tr>
</tbody>
</table>

Figures taken from "Cotton Statistics of Japan, 1903-1927, Japan Cotton Spinners' Association, Osaka, Japan."
<table>
<thead>
<tr>
<th>Year</th>
<th>Habutae</th>
<th>Kaiki</th>
<th>Satin</th>
<th>Crepe</th>
<th>Pongee</th>
<th>Fugi</th>
<th>Total (incl. others)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1913</td>
<td>37,447,564</td>
<td>857,149</td>
<td>1,390,058</td>
<td>178,463</td>
<td>-</td>
<td>-</td>
<td>46,605,801</td>
</tr>
<tr>
<td>1919</td>
<td>139,490,156</td>
<td>1,184,442</td>
<td>12,613,505</td>
<td>31,511,999</td>
<td>12,515,564</td>
<td>-</td>
<td>214,745,580</td>
</tr>
<tr>
<td>1920</td>
<td>107,858,995</td>
<td>2,483,209</td>
<td>10,537,856</td>
<td>26,417,489</td>
<td>13,572,713</td>
<td>-</td>
<td>172,298,375</td>
</tr>
<tr>
<td>1921</td>
<td>58,863,904</td>
<td>1,688,750</td>
<td>5,048,282</td>
<td>11,244,382</td>
<td>25,530,811</td>
<td>-</td>
<td>109,015,974</td>
</tr>
<tr>
<td>1922</td>
<td>58,384,373</td>
<td>467,465</td>
<td>8,515,065</td>
<td>11,963,901</td>
<td>17,615,095</td>
<td>4,941,580</td>
<td>107,677,544</td>
</tr>
<tr>
<td>1923</td>
<td>53,256,478</td>
<td>242,462</td>
<td>6,602,614</td>
<td>7,995,999</td>
<td>27,263,889</td>
<td>9,131,220</td>
<td>111,342,545</td>
</tr>
<tr>
<td>1924</td>
<td>62,179,660</td>
<td>368,172</td>
<td>8,777,589</td>
<td>15,959,442</td>
<td>13,226,318</td>
<td>26,396,893</td>
<td>151,360,002</td>
</tr>
<tr>
<td>1925</td>
<td>44,076,780</td>
<td>490,612</td>
<td>10,861,276</td>
<td>19,026,608</td>
<td>23,134,529</td>
<td>42,718,941</td>
<td>145,621,593</td>
</tr>
</tbody>
</table>

1 From "The Industry of Japan" - Section of Foreign Trade, Bureau of Commerce, Department of State for Commerce and Industry, Maruzen Co., Tokyo, 1926, p.36.
Appendix K.

1. Holdings of four of the large interests in Japan.

a. MITSUI.

<table>
<thead>
<tr>
<th>Company</th>
<th>Capital Authorized</th>
<th>Capital Paid up</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Mitsui Holding Co.</td>
<td>¥300,000,000</td>
<td>¥300,000,000</td>
</tr>
<tr>
<td>The Mitsui Trust Co.</td>
<td>30,000,000</td>
<td>7,500,000</td>
</tr>
<tr>
<td>The Mitsui Mining Co.</td>
<td>100,000,000</td>
<td>62,500,000</td>
</tr>
<tr>
<td>The Mitsui Shipping Co.</td>
<td>100,000,000</td>
<td>100,000,000</td>
</tr>
<tr>
<td>The Mitsui Life Assurance Co.</td>
<td>2,000,000</td>
<td>500,000</td>
</tr>
<tr>
<td>The Toshin Warehouse Co.</td>
<td>15,000,000</td>
<td>11,500,000</td>
</tr>
<tr>
<td>The Mitsui Bank</td>
<td>100,000,000</td>
<td>60,000,000</td>
</tr>
</tbody>
</table>

Subordinate Companies.

<table>
<thead>
<tr>
<th>Company</th>
<th>Capital Authorized</th>
<th>Capital Paid up</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Shibaura Electric Works.</td>
<td>20,000,000</td>
<td>20,000,000</td>
</tr>
<tr>
<td>The Hokkaido Colliery Co.</td>
<td>70,000,000</td>
<td>39,625,000</td>
</tr>
<tr>
<td>The Japan Steel Foundry Co.</td>
<td>30,000,000</td>
<td>30,000,000</td>
</tr>
<tr>
<td>The Oji Paper Milling Co.</td>
<td>65,916,000</td>
<td>48,685,000</td>
</tr>
<tr>
<td>The Oriental Cotton Spinning Co.</td>
<td>25,000,000</td>
<td>15,000,000</td>
</tr>
</tbody>
</table>

The Mitsui interests also exert great influence in many other companies, including the Kanegafuchi Spinning Co., the Electro-Chemical Industrial Co., the Formosa Sugar Co., the Tropical Manufacturing Industrial Co., the Gunzi Filatures Co., the Daimippon Artificial Fertilizer Co., the Taisbo Marine Insurance Co., the Daimippon Colliery Co., the Iwaki Coal Mining Co., the Tao Mining Co. and the Oriental Iron Works, and also hold 3,260 shares in the Bank of Japan.
b. MITSUBISHI.

<table>
<thead>
<tr>
<th>Company</th>
<th>Authorized Capital</th>
<th>Paid up</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Mitsubishi Holding Co.</td>
<td>Y 120,000,000</td>
<td>120,000,000</td>
</tr>
<tr>
<td>The Mitsubishi Dockyard Co.</td>
<td>50,000,000</td>
<td>30,000,000</td>
</tr>
<tr>
<td>The Mitsubishi Bank</td>
<td>50,000,000</td>
<td>30,000,000</td>
</tr>
<tr>
<td>The Mitsubishi Mining Co.</td>
<td>100,000,000</td>
<td>62,500,000</td>
</tr>
<tr>
<td>The Mitsubishi Warehouse Co.</td>
<td>10,000,000</td>
<td>10,000,000</td>
</tr>
<tr>
<td>The Mitsubishi Machinery Co.</td>
<td>5,000,000</td>
<td>5,000,000</td>
</tr>
<tr>
<td>The Mitsubishi Electrical Machinery Co.</td>
<td>15,000,000</td>
<td>10,000,000</td>
</tr>
<tr>
<td>The Mitsubishi Trading Co.</td>
<td>15,000,000</td>
<td>15,000,000</td>
</tr>
<tr>
<td>The Mitsubishi Marine Insurance Co.</td>
<td>5,000,000</td>
<td>2,500,000</td>
</tr>
<tr>
<td>The Mitsubishi Iron Works</td>
<td>25,000,000</td>
<td>25,000,000</td>
</tr>
<tr>
<td>The Mitsubishi Trust Co.</td>
<td>30,000,000</td>
<td>7,500,000</td>
</tr>
</tbody>
</table>

The Mitsubishi Company also holds large shares in the Tokyo Marine Insurance Co., the Meiji Life Insurance Company, the Wakamatsu Harbor Works, the Meiji Fire Insurance Company, the Meiji Sugar Refining Company, the Kyodo Express Company, the Tomyo Fire and Marine Insurance Company, the Kyoko Warehouse Company, the Manchuria and Mongolia Industrial Company, the Karafuto Lumber Company, the Japan Raw Silk Company, and others. The Mitsubishi family owns, apart from the holding company, the Mitsubishi Paper Company, the Higashiyama Agricultural and the Asati Glass Company.
c. SUMITOMO.

<table>
<thead>
<tr>
<th>Company</th>
<th>Capital Authorized</th>
<th>Capital Paid up.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Sumitomo Holding Co. Y</td>
<td>150,000,000</td>
<td>150,000,000</td>
</tr>
<tr>
<td>The Sumitomo Bank.</td>
<td>70,000,000</td>
<td>50,000,000</td>
</tr>
<tr>
<td>The Sumitomo Life Insurance Co.</td>
<td>1,500,000</td>
<td>750,000</td>
</tr>
<tr>
<td>The Bes</td>
<td>15,000,000</td>
<td>15,000,000</td>
</tr>
<tr>
<td>The Saka Coal Mines.</td>
<td>2,000,000</td>
<td>2,000,000</td>
</tr>
<tr>
<td>The Kyushu Coal Mines.</td>
<td>10,000,000</td>
<td>5,000,000</td>
</tr>
<tr>
<td>The Sumitomo Copper Smelting Co.</td>
<td>15,000,000</td>
<td>9,000,000</td>
</tr>
<tr>
<td>The Sumitomo Wire Manufacturing Co.</td>
<td>10,000,000</td>
<td>8,750,000</td>
</tr>
<tr>
<td>The Sumitomo Fertilizer Co.</td>
<td>3,000,000</td>
<td>1,850,000</td>
</tr>
<tr>
<td>The Sumitomo Warehouse Co.</td>
<td>15,000,000</td>
<td>15,000,000</td>
</tr>
<tr>
<td>The Osaka Harbor Works</td>
<td>35,000,000</td>
<td>35,000,000</td>
</tr>
<tr>
<td>The Yoshmogawa Water Power Co.</td>
<td>5,000,000</td>
<td>3,000,000</td>
</tr>
<tr>
<td>The Sumitomo Building Co.</td>
<td>6,500,000</td>
<td>6,500,000</td>
</tr>
<tr>
<td>The Sumitomo Steel Works.</td>
<td>12,000,000</td>
<td>9,000,000</td>
</tr>
<tr>
<td>The Sumito Trust Co.</td>
<td>20,000,000</td>
<td>5,000,000</td>
</tr>
</tbody>
</table>
### The Yasuda Bank
- **Capital Authorized:** Y 150,000,000
- **Capital Paid up:** Y 150,000,000

### Subsidiaries
- **The Tokyo Fire Insurance Co:**
  - **Capital Authorized:** Y 10,000,000
  - **Capital Paid up:** Y 2,500,000
- **The Imperial Marine and Fire Insurance Company:**
  - **Capital Authorized:** Y 10,000,000
  - **Capital Paid up:** Y 2,500,000
- **The Oriental Fire Insurance Co:**
  - **Capital Authorized:** Y 5,000,000
  - **Capital Paid up:** Y 5,000,000
- **The Mutual Life Insurance Co:**
  - **Capital Authorized:** Y 300,000
  - **Capital Paid up:** Y 300,000
- **The Japan Paper Milling Co:**
  - **Capital Authorized:** Y 15,000,000
  - **Capital Paid up:** Y 7,500,000
- **The Tokyo-Yokohama Electric Co:**
  - **Capital Authorized:** Y 15,000,000
  - **Capital Paid up:** Y 15,000,000
- **The Chugoku Railway Co:**
  - **Capital Authorized:** Y 4,300,000
  - **Capital Paid up:** Y 4,300,000
- **The Konan Electric Co:**
  - **Capital Authorized:** Y 12,000,000
  - **Capital Paid up:** Y 1,200,000
- **The Manchuria Enterprise Co:**
  - **Capital Authorized:** Y 25,000,000
  - **Capital Paid up:** Y 2,500,000
- **The Awa Railway Co:**
  - **Capital Authorized:** Y 1,813,000
  - **Capital Paid up:** Y 2,500,000
- **The Tokyo Building Co:**
  - **Capital Authorized:** Y 10,000,000
  - **Capital Paid up:** Y 6,500,000
- **The Kominato Railway Co:**
  - **Capital Authorized:** Y 3,000,000
  - **Capital Paid up:** Y 1,870,000
- **The Mito Electric Railway Co:**
  - **Capital Authorized:** Y 2,000,000
  - **Capital Paid up:** Y 200,000
- **The Tokyo Electric Power Co:**
  - **Capital Authorized:** Y 42,250,000
  - **Capital Paid up:** Y 42,250,000
- **The Mukden Hemp Dressing Co:**
  - **Capital Authorized:** Y 1,500,000
  - **Capital Paid up:** Y 1,500,000
- **The Teikokio Hemp Dressing Co:**
  - **Capital Authorized:** Y 31,750,000
  - **Capital Paid up:** Y 31,750,000
- **The Formosan Hemp Dressing Co:**
  - **Capital Authorized:** Y 2,000,000
  - **Capital Paid up:** Y 2,000,000
- **The Yokohama Pier:**
  - **Capital Authorized:** Y 10,000,000
  - **Capital Paid up:** Y 10,000,000

All these companies are supervised by the Hogen with a total capitalization of Y 29,610,000.

### Appendix Η.

**Foreign Trade Statistics of Japan.**

#### 1 Total Foreign Trade (1000 yen).

<table>
<thead>
<tr>
<th>Year</th>
<th>Export</th>
<th>Import</th>
</tr>
</thead>
<tbody>
<tr>
<td>1926</td>
<td>2,044,728</td>
<td>2,377,484</td>
</tr>
<tr>
<td>1927</td>
<td>1,992,312</td>
<td>2,179,154</td>
</tr>
<tr>
<td>1928</td>
<td>1,971,956</td>
<td>2,196,316</td>
</tr>
<tr>
<td>1929</td>
<td>2,148,552</td>
<td>2,216,158</td>
</tr>
</tbody>
</table>

---

#### 1 Foreign Trade by Classes (1,000,000 yen).

**EXPORT**

<table>
<thead>
<tr>
<th>Class</th>
<th>1926</th>
<th>1927</th>
<th>1928</th>
<th>1929</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food and Drink</td>
<td>101.99</td>
<td>106.65</td>
<td>156.30</td>
<td>60.23</td>
</tr>
<tr>
<td>Raw Materials</td>
<td>65.41</td>
<td>53.16</td>
<td>87.57</td>
<td>88.75</td>
</tr>
<tr>
<td>Semi-finished goods</td>
<td>847.01</td>
<td>815.09</td>
<td>823.70</td>
<td>883.78</td>
</tr>
<tr>
<td>Finished articles</td>
<td>746.20</td>
<td>726.70</td>
<td>812.96</td>
<td>936.32</td>
</tr>
</tbody>
</table>

Total (incl. others) 2,044.73 1,992.31 1,971.95 2,148.61

---

1. Figures from "Japan Year Book, 1929, p.626, and other sources."
1. Foreign Trade by Classes (1,000,000 yen).

**IMPORT.**

<table>
<thead>
<tr>
<th>Class</th>
<th>1926</th>
<th>1927</th>
<th>1928</th>
<th>1929</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food and Drink.</td>
<td>304.05</td>
<td>276.17</td>
<td>298.50</td>
<td>271.18</td>
</tr>
<tr>
<td>Raw Materials.</td>
<td>1,248.91</td>
<td>1,116.65</td>
<td>1,165.20</td>
<td>1,232.89</td>
</tr>
<tr>
<td>Semi-finished goods.</td>
<td>268.99</td>
<td>231.15</td>
<td>332.80</td>
<td>355.41</td>
</tr>
<tr>
<td>Finished articles.</td>
<td>212.45</td>
<td>189.40</td>
<td>332.50</td>
<td>345.93</td>
</tr>
<tr>
<td><strong>Total (incl. (others).</strong></td>
<td>2,337.48</td>
<td>2,179.15</td>
<td>2,196.32</td>
<td>2,216.16</td>
</tr>
</tbody>
</table>

2. Graph of Foreign Trade by Classes (1927).

---

1. Figures from "Japan Year Book, 1929, p. 626, and other sources.
2. Derived from the Financial and Economic Annual of Japan, 1928, - The Department of Finance, Government Printing Office, Tokyo, plate IV.
Appendix M.

Rates of Foreign Exchange for Japan on New York.

<table>
<thead>
<tr>
<th>Year</th>
<th>High</th>
<th>Low</th>
<th>Aver.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1918</td>
<td>52.25</td>
<td>51.00</td>
<td>51.47</td>
</tr>
<tr>
<td>1919</td>
<td>52.00</td>
<td>50.00</td>
<td>50.81</td>
</tr>
<tr>
<td>1920</td>
<td>50.75</td>
<td>47.88</td>
<td>49.75</td>
</tr>
<tr>
<td>1921</td>
<td>48.38</td>
<td>48.00</td>
<td>48.15</td>
</tr>
<tr>
<td>1922</td>
<td>48.63</td>
<td>47.63</td>
<td>48.48</td>
</tr>
<tr>
<td>1923</td>
<td>49.12</td>
<td>47.63</td>
<td>48.94</td>
</tr>
<tr>
<td>1924</td>
<td>48.38</td>
<td>38.62</td>
<td>42.10</td>
</tr>
<tr>
<td>1925</td>
<td>43.63</td>
<td>38.62</td>
<td>40.93</td>
</tr>
<tr>
<td>1926</td>
<td>48.88</td>
<td>43.63</td>
<td>47.00</td>
</tr>
<tr>
<td>1927</td>
<td>49.12</td>
<td>45.75</td>
<td>47.55</td>
</tr>
<tr>
<td>1928</td>
<td>48.00</td>
<td>44.68</td>
<td>46.50</td>
</tr>
<tr>
<td>1929</td>
<td>43.75</td>
<td>49.00</td>
<td>46.13</td>
</tr>
</tbody>
</table>

Comparison of Fluctuation of Yen in 1928 & 1929.

<table>
<thead>
<tr>
<th>Month</th>
<th>1928 High</th>
<th>1928 Low</th>
<th>1929 High</th>
<th>1929 Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan.</td>
<td>47</td>
<td>46</td>
<td>46</td>
<td>45</td>
</tr>
<tr>
<td>Feb.</td>
<td>46</td>
<td>46</td>
<td>45</td>
<td>45</td>
</tr>
<tr>
<td>Mar.</td>
<td>48</td>
<td>46</td>
<td>45</td>
<td>44</td>
</tr>
<tr>
<td>Apr.</td>
<td>47</td>
<td>47</td>
<td>44</td>
<td>44</td>
</tr>
<tr>
<td>May</td>
<td>47</td>
<td>45</td>
<td>44</td>
<td>44</td>
</tr>
<tr>
<td>June</td>
<td>46</td>
<td>46</td>
<td>46</td>
<td>43</td>
</tr>
<tr>
<td>July</td>
<td>46</td>
<td>45</td>
<td>44</td>
<td>43</td>
</tr>
<tr>
<td>Aug.</td>
<td>45</td>
<td>45</td>
<td>46</td>
<td>46</td>
</tr>
<tr>
<td>Sept.</td>
<td>45</td>
<td>45</td>
<td>47</td>
<td>46</td>
</tr>
<tr>
<td>Oct.</td>
<td>47</td>
<td>45</td>
<td>48</td>
<td>47</td>
</tr>
<tr>
<td>Nov.</td>
<td>46</td>
<td>46</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td>Dec.</td>
<td>46</td>
<td>45</td>
<td>49</td>
<td>48</td>
</tr>
</tbody>
</table>

From the Daily TT Quotations of the Yohohama Specie Bank.
## Appendix N.

Trade Between Canada and Japan. Principal Canadian Exports to Japan (in dollars - 000 omitted).

<table>
<thead>
<tr>
<th>Commodity</th>
<th>1920</th>
<th>1923</th>
<th>1926</th>
<th>1927</th>
<th>1928</th>
<th>1929</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat and Flour.</td>
<td>5</td>
<td>3,996</td>
<td>17,019</td>
<td>9,661</td>
<td>12,030</td>
<td>20,636</td>
</tr>
<tr>
<td>Rubber tires.</td>
<td>-</td>
<td>139</td>
<td>215</td>
<td>350</td>
<td>437</td>
<td>700</td>
</tr>
<tr>
<td>Fish, dried, salted and pickled.</td>
<td>469</td>
<td>852</td>
<td>1,474</td>
<td>1,014</td>
<td>954</td>
<td>1,203</td>
</tr>
<tr>
<td>Lumber and Timber.</td>
<td>224</td>
<td>1,781</td>
<td>2,939</td>
<td>5,320</td>
<td>5,946</td>
<td>6,813</td>
</tr>
<tr>
<td>Pulp and Paper.</td>
<td>4,343</td>
<td>1,880</td>
<td>2,823</td>
<td>2,626</td>
<td>3,452</td>
<td>3,161</td>
</tr>
<tr>
<td>Aluminium.</td>
<td>-</td>
<td>469</td>
<td>864</td>
<td>1,044</td>
<td>1,342</td>
<td>2,013</td>
</tr>
<tr>
<td>Lead in pigs.</td>
<td>71</td>
<td>1,347</td>
<td>4,270</td>
<td>3,970</td>
<td>3,862</td>
<td>3,278</td>
</tr>
<tr>
<td>Nickel.</td>
<td>119</td>
<td>137</td>
<td>61</td>
<td>92</td>
<td>167</td>
<td>325</td>
</tr>
<tr>
<td>Zinc.</td>
<td>296</td>
<td>1,591</td>
<td>1,668</td>
<td>2,030</td>
<td>1,860</td>
<td>1,429</td>
</tr>
<tr>
<td>Asbestos, raw.</td>
<td>146</td>
<td>229</td>
<td>404</td>
<td>293</td>
<td>379</td>
<td>469</td>
</tr>
<tr>
<td>Films.</td>
<td>1</td>
<td>-</td>
<td>247</td>
<td>365</td>
<td>326</td>
<td>385</td>
</tr>
<tr>
<td>Total (Incl. others.)</td>
<td>7,733</td>
<td>14,510</td>
<td>34,695</td>
<td>29,929</td>
<td>32,968</td>
<td>42,100</td>
</tr>
</tbody>
</table>
## Principal Japanese Exports to Canada. (In dollars - 000 omitted).

<table>
<thead>
<tr>
<th>Commodity</th>
<th>1920</th>
<th>1923</th>
<th>1926</th>
<th>1927</th>
<th>1928</th>
<th>1929</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oranges</td>
<td>217</td>
<td>222</td>
<td>221</td>
<td>288</td>
<td>316</td>
<td>340</td>
</tr>
<tr>
<td>Tea</td>
<td>1,291</td>
<td>696</td>
<td>646</td>
<td>672</td>
<td>644</td>
<td>632</td>
</tr>
<tr>
<td>Silk (raw and manuf. China)</td>
<td>7,321</td>
<td>3,605</td>
<td>5,724</td>
<td>6,911</td>
<td>8,250</td>
<td>8,146</td>
</tr>
<tr>
<td></td>
<td>421</td>
<td>389</td>
<td>302</td>
<td>406</td>
<td>374</td>
<td>374</td>
</tr>
<tr>
<td><strong>Total</strong> (Incl. Others)</td>
<td><strong>12,637</strong></td>
<td><strong>7,211</strong></td>
<td><strong>9,564</strong></td>
<td><strong>11,170</strong></td>
<td><strong>12,505</strong></td>
<td><strong>12,921</strong></td>
</tr>
</tbody>
</table>

From Statistics provided by the Dominion Bureau of Statistics - External Trade Branch (Years ending March 31).
### 5. Invisible Items in Japan's Foreign Trade.

<table>
<thead>
<tr>
<th>Ordinary Receipts:</th>
<th>1928</th>
<th>1929</th>
</tr>
</thead>
<tbody>
<tr>
<td>Int. and Div. in Foreign Bonds</td>
<td>12,848</td>
<td>13,196</td>
</tr>
<tr>
<td>Income from Overseas Investments &amp; Services</td>
<td>120,989</td>
<td>122,125</td>
</tr>
<tr>
<td>Shipping Income</td>
<td>199,470</td>
<td>192,260</td>
</tr>
<tr>
<td>Insurance Income</td>
<td>96,441</td>
<td>92,177</td>
</tr>
<tr>
<td>Foreigner's Consumption in Japan</td>
<td>50,778</td>
<td>47,873</td>
</tr>
<tr>
<td>Government Overseas Income</td>
<td>27,492</td>
<td>24,029</td>
</tr>
<tr>
<td>Others</td>
<td>16,386</td>
<td>17,576</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>524,404</strong></td>
<td><strong>509,236</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Extraordinary Receipts</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign Investments in Japan</td>
<td>153,589</td>
<td>176,772</td>
</tr>
<tr>
<td>Collection of Overseas Invest.</td>
<td>45,546</td>
<td>87,541</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>199,135</strong></td>
<td><strong>264,313</strong></td>
</tr>
</tbody>
</table>

| **Grand Total**                        | **723,539** | **773,549**|

<table>
<thead>
<tr>
<th>Debit Account (1000 yen)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordinary Payments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest to Foreigners</td>
<td>103,846</td>
<td>103,985</td>
</tr>
<tr>
<td>Shipping Payments</td>
<td>67,005</td>
<td>67,201</td>
</tr>
<tr>
<td>Insurance</td>
<td>95,890</td>
<td>90,014</td>
</tr>
<tr>
<td>Overseas Consumption</td>
<td>27,918</td>
<td>25,195</td>
</tr>
<tr>
<td>Government Payments (not Including Bonds)</td>
<td>69,488</td>
<td>66,861</td>
</tr>
<tr>
<td>Others</td>
<td>11,129</td>
<td>15,966</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>375,276</strong></td>
<td><strong>369,222</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Extrordinary Payments</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign collection of Investments in Japan</td>
<td>180,876</td>
<td>153,640</td>
</tr>
<tr>
<td>Overseas Investments</td>
<td>105,931</td>
<td>73,742</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>286,807</strong></td>
<td><strong>227,382</strong></td>
</tr>
</tbody>
</table>

| Grand Total                            | **662,083** | **596,604**|

| Excess of Receipts                     | 61,456     | 176,945    |

---

5 From Present Day Japan, 1929, p. 99.
Chart Showing Variations in Foreign Trade.
(00,000,000 omitted)


Principal Commodities of Export and Import (1000 yen).

<table>
<thead>
<tr>
<th>Commodities</th>
<th>1926</th>
<th>1927</th>
<th>1928</th>
<th>1929</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw Silk</td>
<td>735,152</td>
<td>743,425</td>
<td>732,697</td>
<td>781,046</td>
</tr>
<tr>
<td>Cotton Tissues</td>
<td>419,859</td>
<td>387,425</td>
<td>352,218</td>
<td>412,707</td>
</tr>
<tr>
<td>Silk Tissues</td>
<td>137,870</td>
<td>145,832</td>
<td>134,059</td>
<td>149,955</td>
</tr>
<tr>
<td>Peas and Bean</td>
<td>10,941</td>
<td>10,337</td>
<td>10,401</td>
<td>14,611</td>
</tr>
<tr>
<td>Refined Sugar</td>
<td>28,920</td>
<td>34,032</td>
<td>38,415</td>
<td>29,978</td>
</tr>
<tr>
<td>Tea</td>
<td>12,109</td>
<td>10,897</td>
<td></td>
<td>12,028</td>
</tr>
<tr>
<td>Aquatic Products</td>
<td>24,316</td>
<td>22,297</td>
<td></td>
<td>22,350</td>
</tr>
<tr>
<td>Comestibles in Tins &amp; Bottles</td>
<td>15,976</td>
<td>19,850</td>
<td></td>
<td>25,681</td>
</tr>
<tr>
<td>Wheat Flour</td>
<td></td>
<td>14,260</td>
<td></td>
<td>26,815</td>
</tr>
<tr>
<td>Paper</td>
<td>19,025</td>
<td>19,291</td>
<td>25,672</td>
<td>26,289</td>
</tr>
<tr>
<td>Pottery</td>
<td>33,190</td>
<td>30,495</td>
<td>34,643</td>
<td>36,963</td>
</tr>
<tr>
<td>Iron Manufactures</td>
<td>13,142</td>
<td>12,219</td>
<td></td>
<td>15,194</td>
</tr>
<tr>
<td>Wood</td>
<td>17,979</td>
<td>15,951</td>
<td></td>
<td>21,138</td>
</tr>
<tr>
<td>Rice and Paddy</td>
<td>50,655</td>
<td>78,978</td>
<td>33,673</td>
<td>22,782</td>
</tr>
<tr>
<td>Wheat</td>
<td>93,349</td>
<td>53,925</td>
<td>67,777</td>
<td>70,896</td>
</tr>
<tr>
<td>Beans and Peas</td>
<td>61,381</td>
<td>52,907</td>
<td>67,858</td>
<td>78,746</td>
</tr>
<tr>
<td>Oil Materials</td>
<td>29,484</td>
<td>18,849</td>
<td></td>
<td>30,778</td>
</tr>
<tr>
<td>Raw Rubber</td>
<td>83,672</td>
<td>75,799</td>
<td>64,959</td>
<td>31,160</td>
</tr>
<tr>
<td>Sulphate of Ammonia</td>
<td>44,961</td>
<td>32,750</td>
<td>36,304</td>
<td>48,086</td>
</tr>
<tr>
<td>Raw Cotton</td>
<td>725,935</td>
<td>624,596</td>
<td>549,942</td>
<td>573,016</td>
</tr>
<tr>
<td>Raw Wool</td>
<td>86,062</td>
<td>101,571</td>
<td>111,872</td>
<td>101,816</td>
</tr>
<tr>
<td>Wool Yarn</td>
<td>32,484</td>
<td>45,555</td>
<td>32,107</td>
<td>18,783</td>
</tr>
<tr>
<td>Wool Tissue</td>
<td>25,268</td>
<td>34,672</td>
<td>31,213</td>
<td>19,941</td>
</tr>
<tr>
<td>Coal</td>
<td>27,831</td>
<td>35,492</td>
<td></td>
<td>42,979</td>
</tr>
<tr>
<td>Pig Iron</td>
<td></td>
<td></td>
<td>25,204</td>
<td>25,835</td>
</tr>
<tr>
<td>Machinery</td>
<td>90,686</td>
<td>78,581</td>
<td>82,872</td>
<td>113,608</td>
</tr>
<tr>
<td>Wood</td>
<td>103,978</td>
<td>103,758</td>
<td>111,000</td>
<td>88,838</td>
</tr>
</tbody>
</table>

From Japan Year Book, 1929, p. 628, and other sources.
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