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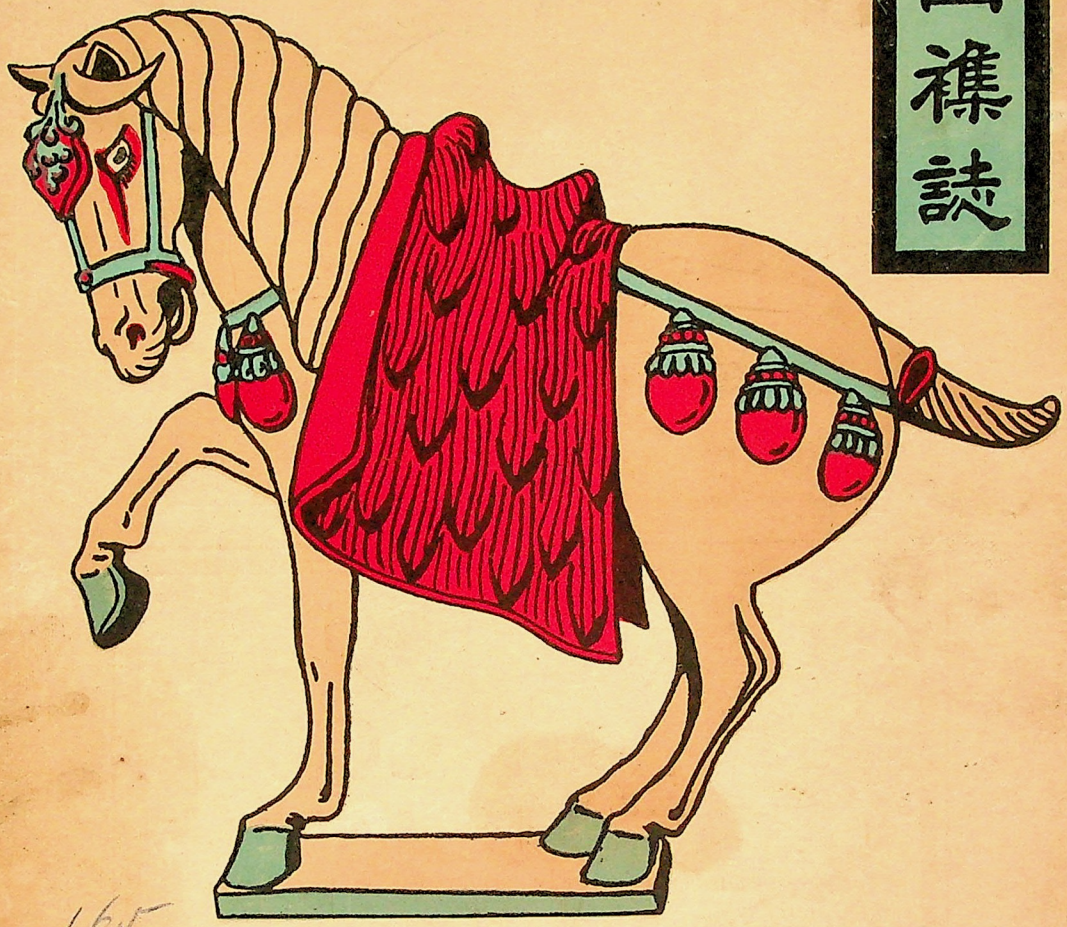

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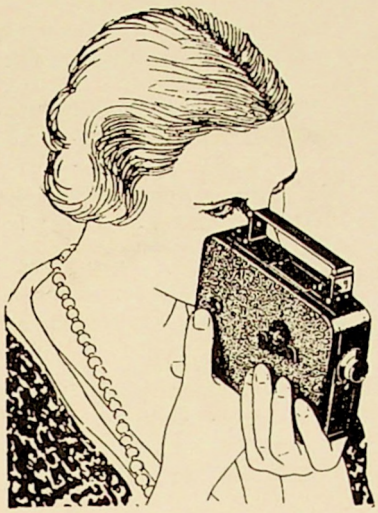

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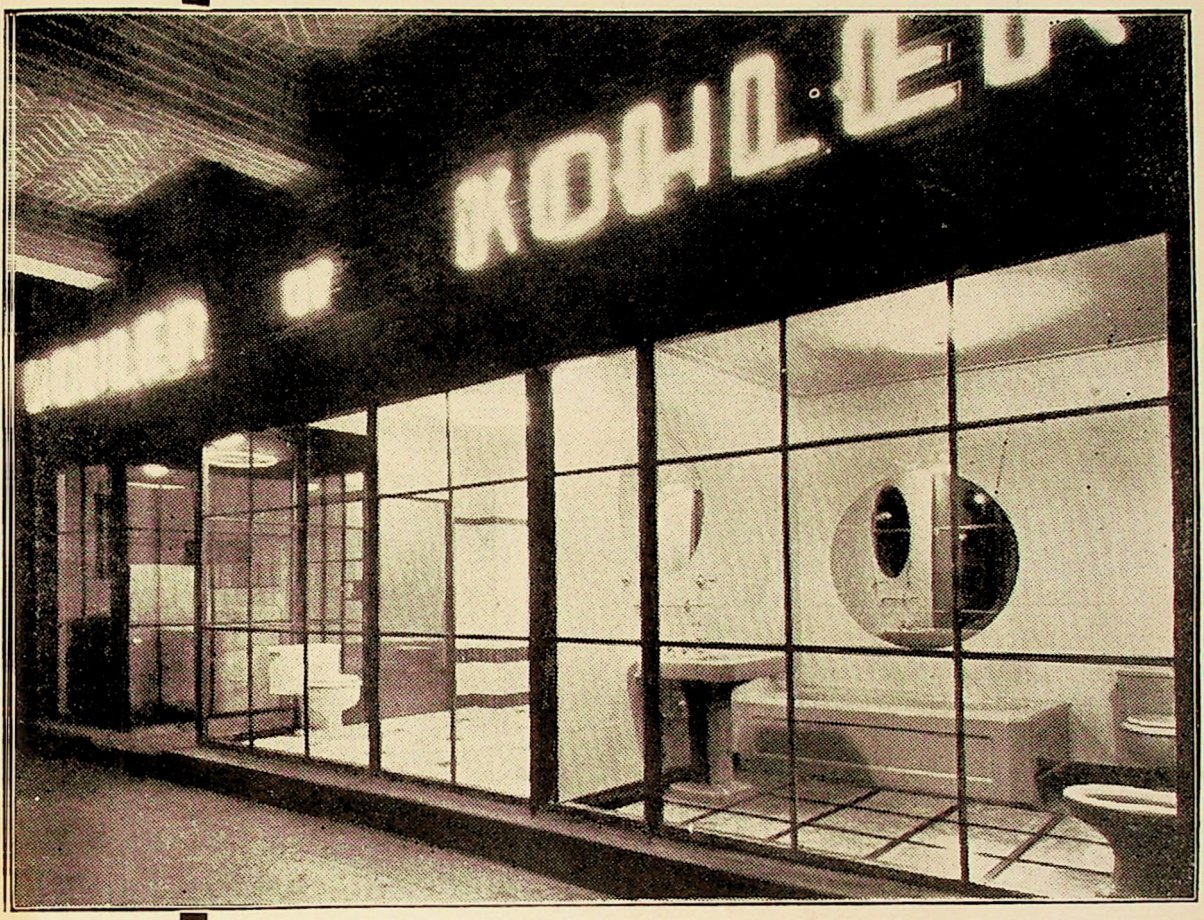

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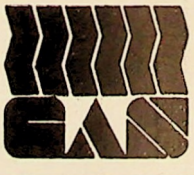

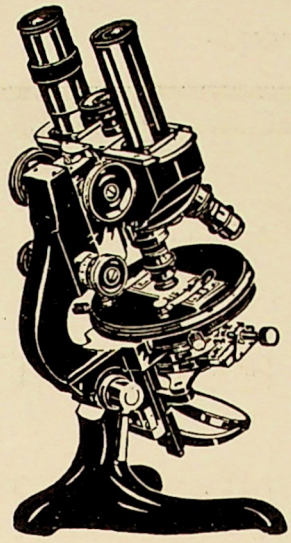

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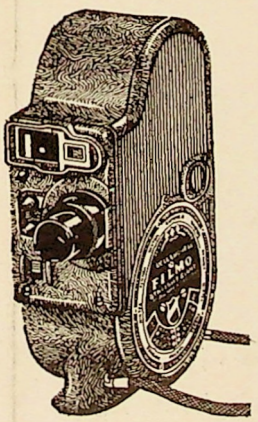

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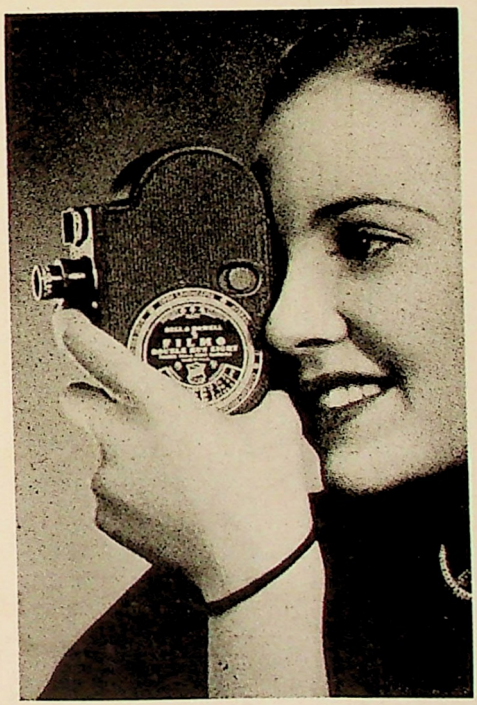

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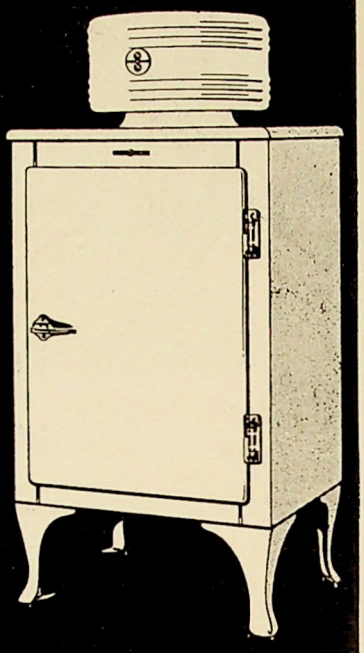

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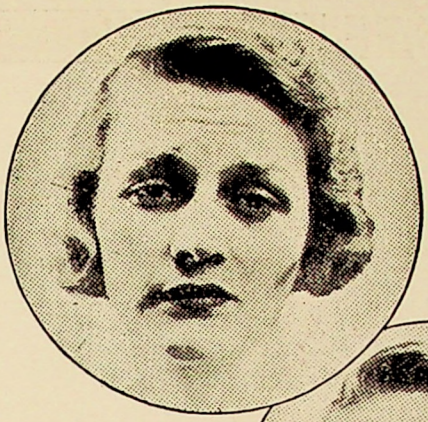

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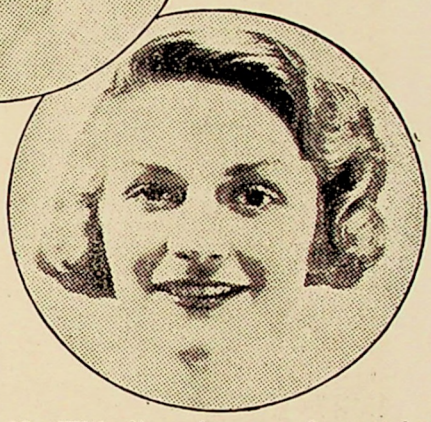

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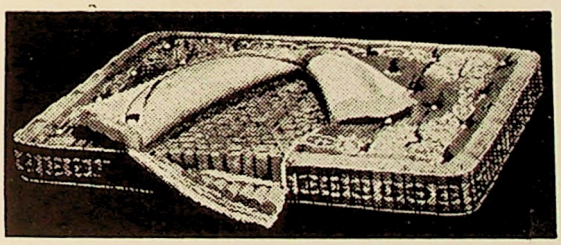

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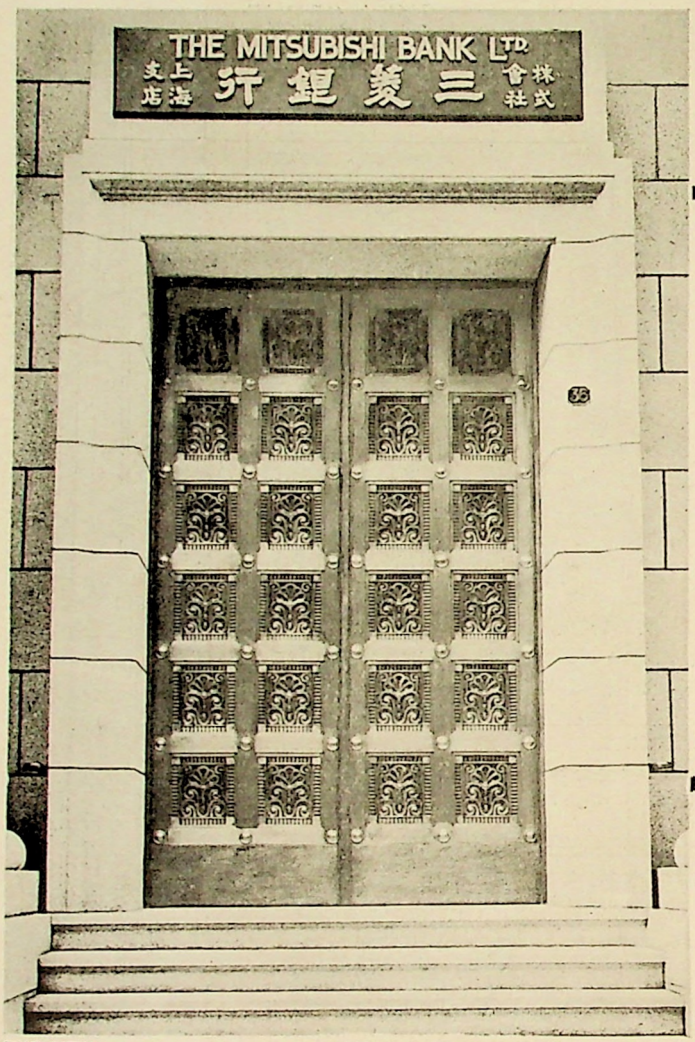

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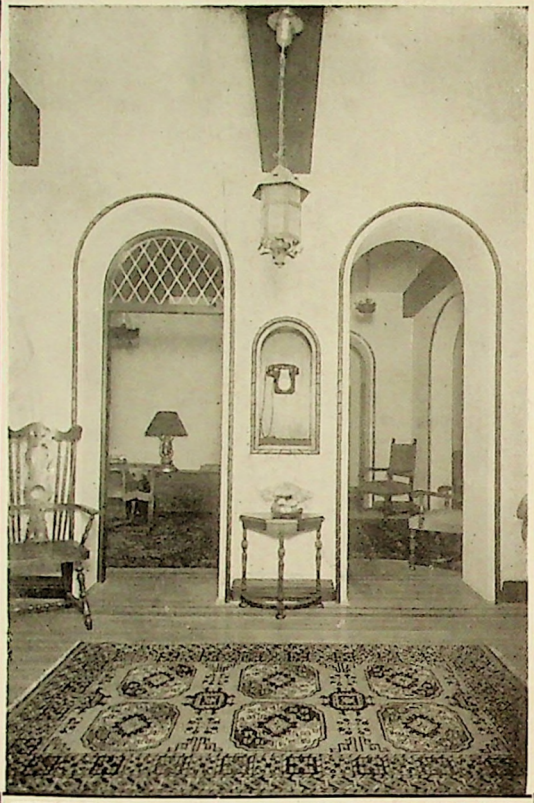

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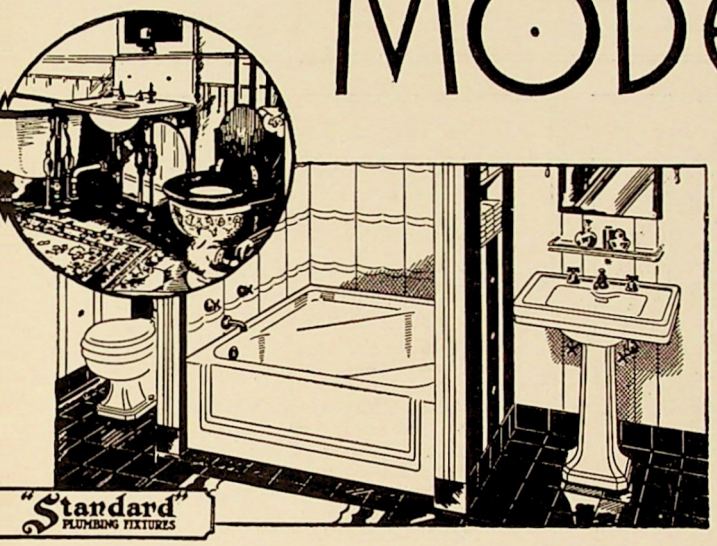

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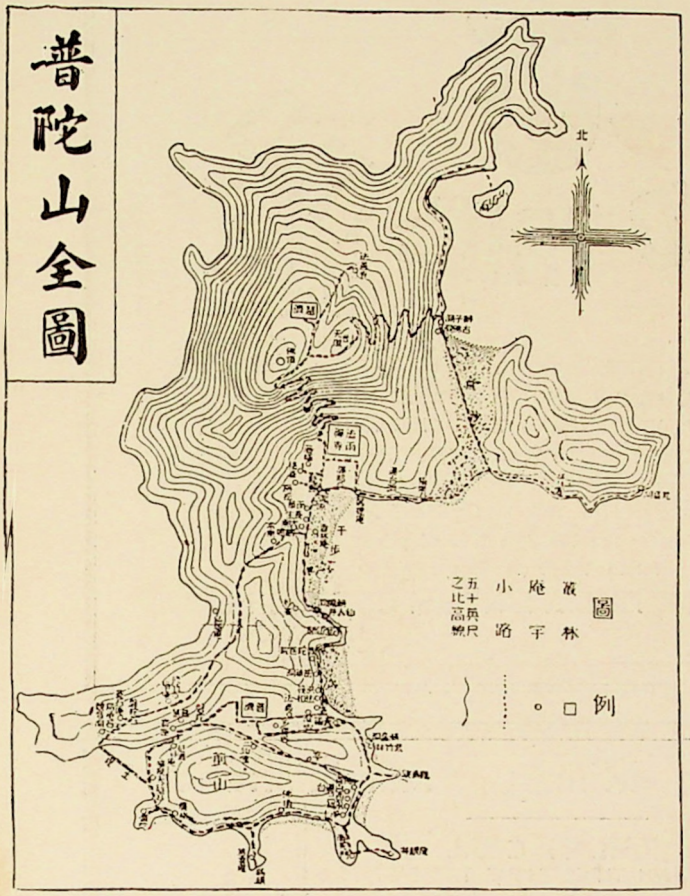

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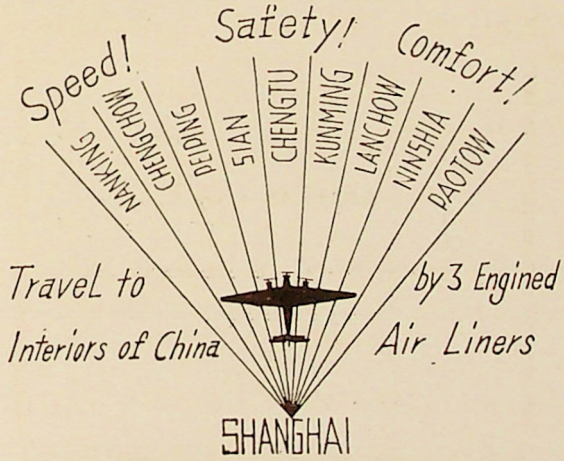

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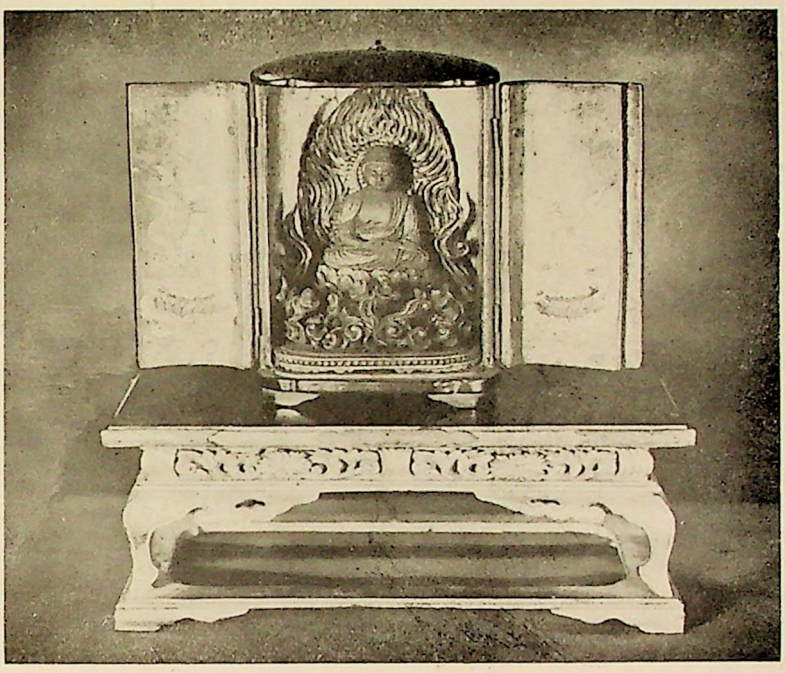

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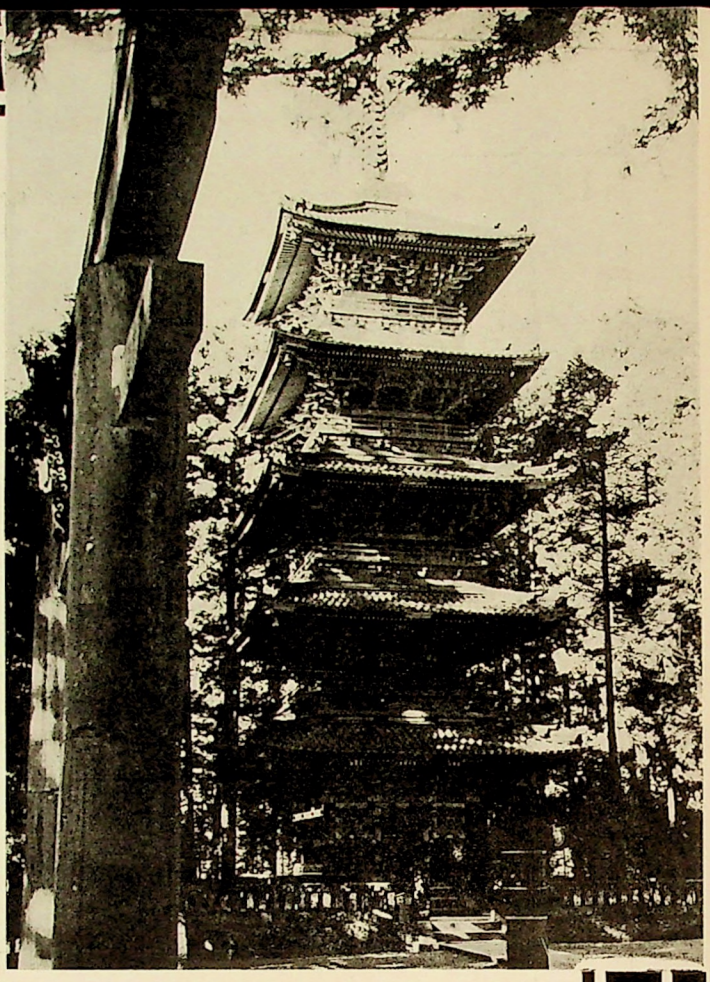

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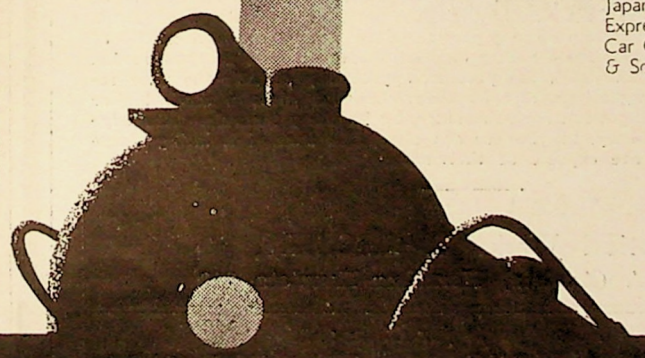

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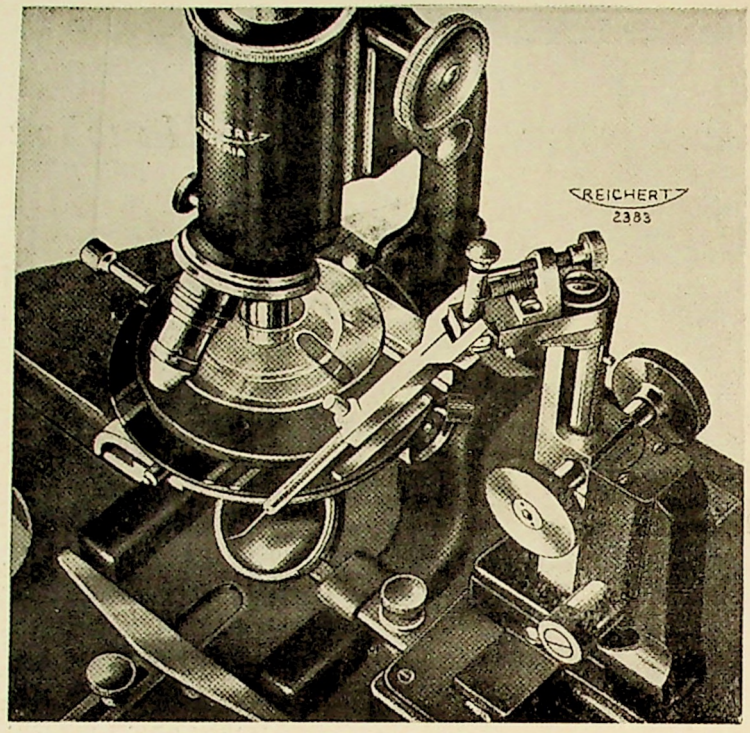

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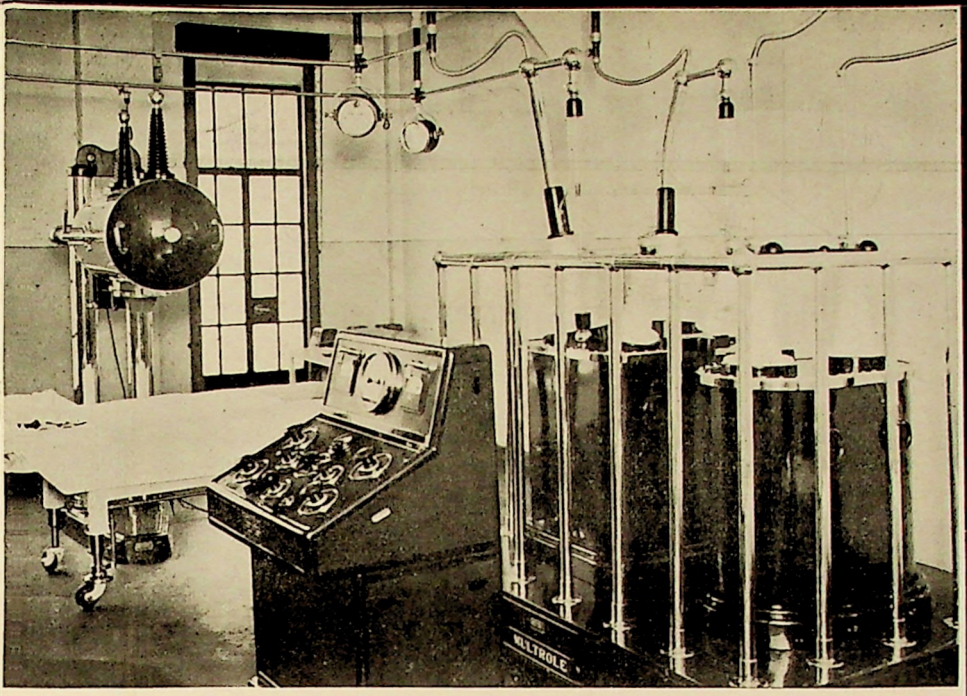

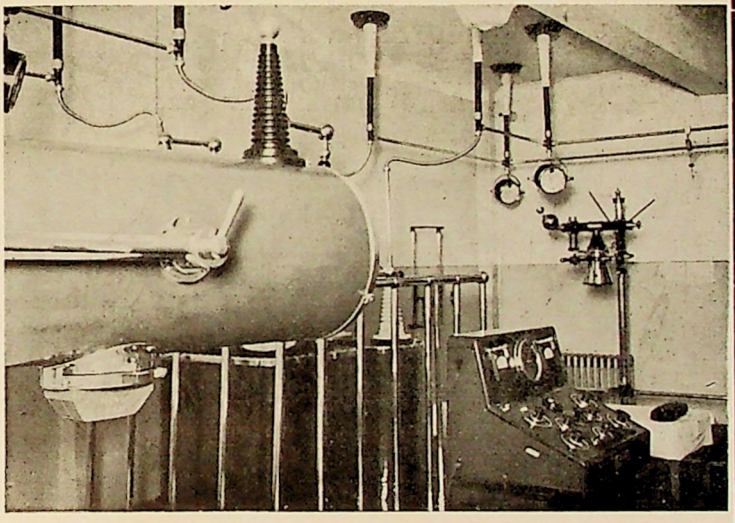

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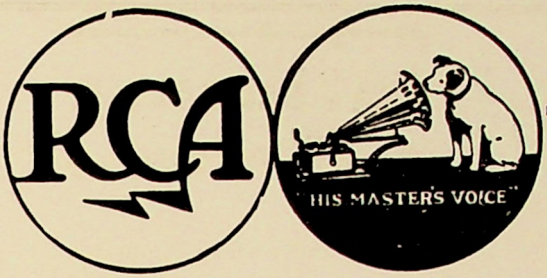

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[ENTERED AT THE CHINESE POST OFFICE AS A NEWSPAPER]

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The Mausoleum of a Wealthy Chinese in Java. Photograph by Courtesy of the Java-China-Japan Line.

THE CHINA JOURNAL
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VOL. XXV JULY, 1936 No. 1

EVENTS AND COMMENTS

The Great Betrayal

A decision vitally affecting the whole world, but especially the smaller nations, was reached by the Council of the League of Nations at its session on July 5. By an almost unanimous vote it passed a resolution requesting the League Coordination Committee to authorize the lifting of sanctions against Italy, rejecting Ethiopia's request for financial assistance, and urging all League members to forward before September 1 suggestions for improving the functioning of the Covenant. In other words, the Council of the League of Nations has admitted complete defeat, and, in so doing, has utterly betrayed its great trust.

The causes of its failure are not far to seek, chief amongst them being the weakness of the terms binding its members to uphold its principles. There should be no choice left to member nations regarding the application of sanctions. These, both economic and military, should come into force automatically on the decision of the Council as to which nation is the aggressor in a dispute leading to a resort to arms. As long as nations retain the right to choose whether or not they will impose sanctions against an aggressor, there will always be some which will deem it in their own interests to refrain from so doing, thereby, not only nullifying the whole proceeding, but also taking a grossly unfair advantage of other nations which have imposed sanctions. Nations which refrain from imposing sanctions against an aggressor should *ipso facto* be considered allies of the latter and so subject to the imposition of sanctions themselves.

Another great weakness of the League is the absence of the United States of America from its membership, while a third is the right of nations to withdraw from membership. As long as big and powerful countries remain outside the League the latter is hopelessly handicapped in its aim to preserve world peace. For it to be effective it must be a

federation of *all* nations bound by unbreakable pledges to uphold its principles. Nothing else can save mankind from the awful doom towards which it is heading, which is self-destruction by means of a universal devastating war.

* * * *

Is War Inevitable?

In a speech made at a dinner of the Royal Empire Society on June 24 Sir Samuel Hoare, First Lord of the Admiralty in the British Government, said it is criminal folly to assume that war is inevitable, although admitting that there is so much inflammable material in Europe (and we may add in the Far East) that, while no country desires war, a spark may start a conflagration, unless great Powers like Great Britain are strong enough to make their influence felt in the cause of peace. For this reason, he said, the British Government is doing its utmost still further to accelerate Britain's naval programme.

In other words, we are back again in the exact position we were in in 1914, when the armaments race in which all the European countries had been indulging precipitated the catastrophe of the World War. We are faced again with the same old problems, on the one hand, as to whether world peace can be preserved without the nations' arming themselves to their utmost capacity, and, on the other, whether the heavy arming of nations is not directly provocative of war.

Unless this vicious circle can somehow be broken war *is* inevitable, and it is useless for Sir Samuel Hoare or anybody else to say it is not.

* * * *

Sinister Influences at Work

Faced with this *impasse* we cannot help wondering if there are not sinister influences at work behind the scenes, just as there were previous to the World War in 1914, and after it in 1920 and succeeding years, influences directed by those whose business it is to sell arms, and to whom world peace and security spells ruin. Are there, in short, some more "Mystery Men" moving from capital to capital, whispering, sowing seeds of fear and hate, preparing a hell's brew of international strife, and reaping rich profits from the fat orders for arms and ammunition that follow? It will be remembered that in the past officials high up in the various Governments were found to be deeply interested financially in the arms business, and when war broke out they received marked honours in recognition of the splendid way they came to their country's aid in supplying big guns, shells, battleships, submarines and all the other engines of war to their own enormous benefit. Are these sinister influences at work again, we wonder, or must we put it all down to man's greed and love of power and conquest? Or is it merely the same economic urge that causes an over-population of rats in a restricted area to fall upon and devour each other? It does not matter much which it is, since the end is the same, and we have the disgusting spectacle of men behaving like animals, beasts, rather, in destroying their fellow men by every means in their power. As a matter of fact animals are less vile, because, in most cases, the means they use to destroy other animals are quick, merciful and decisive. It is only man who resorts to

torture in his warfare on his own kind; only man who knowingly permanently cripples his victims, condemning them to a subsequent life of blasted hopes, physical torment and mental agony. And, it is only man who will accept wealth and honour as a result of his activities in killing, maiming and torturing his fellow beings.

There is and can be only one cure for this worst of all evils, and that is to take the profit out of arms manufacturing and selling by nationalizing the industry. The sooner this is done, the sooner will have been removed one of the most potent factors working towards war. In a truly civilized world men who had been guilty of fomenting hatred and suspicion amongst nations in order to sell them arms, instead of being honoured with knighthoods, would have been publicly condemned as humanity's worst enemies; but we are a very long way from being truly civilized, it seems.

* * * *

America's Attitude

Cain's reply to God when he was asked about his brother Abel was, "Am I my brother's keeper?" and that has been the attitude adopted by certain types of people and nations all down the ages. The criminal tries to hide his crime under it. The selfish justifies his selfishness by it. The callous uses it as his slogan. But in the end none can escape the responsibilities that the mere fact of existence in a world with other people or nations places upon him. Most assuredly we are our brothers' keepers. We cannot shrug our shoulders and repudiate our responsibilities towards our fellow beings.

Recently two telegrams from the United States give indication of America's attitude towards other countries in the world, and, sad to say, it is an attitude of shrugging the shoulders and asking "Am I my brother's keeper?" One was from Dallas in Texas, and it was to the effect that President Roosevelt had declared in an electioneering speech that he intended to keep the United States out of foreign entanglements. The other was from Washington and said that the conspicuous omission of any direct mention in the Republican campaign platform of outstanding Far Eastern problems signified in the opinion of experts that the Republican policy contemplates a studious non-involvement of the United States in Far Eastern affairs. In other words, whether the Democrats or the Republicans come into power at the next elections, the policy of the United States will be to hold aloof from the rest of the world and refuse to be drawn into the problems that are disturbing mankind.

Unfortunately for this policy it will be utterly impossible for America to avoid being drawn into the affairs of either European or Far Eastern nations in the event of war. In spite of every effort to avoid it and remain neutral, she was in the end drawn into the Great War. She had to take a hand in it to save her own interests. And so it would be again if war broke out in either the European or the Pacific regions.

The doctrine of avoiding foreign entanglements may have been both sound and feasible in George Washington's time, but to-day it is neither. The world has become too small, nations are too near to each other, and

their interests too closely interwoven for any one country to remain unaffected by upheavals in any other, and, although America may feel that she is safely separated from her neighbours by wide stretches of ocean, any such feeling of safety is in reality a false one. Willy nilly America *must* have a strong influence on the welfare of other nations, and equally her own welfare is irrevocably linked up with that of other nations.

Her refusing to join the League of Nations has unquestionably been one of the most potent factors in producing the present state of world unrest. It nullified the power of the League, and there can be no denying the fact that a really powerful League would have prevented Japan's action in Manchuria, Italy's action in Abyssinia and Germany from leaving the League and threatening the peace of Europe by some of the actions she has taken independently.

If America wants to avoid foreign entanglements, the sooner she recognises and shoulders her responsibilities towards the rest of the nations of the world the better. We *are* our brothers' keepers!

* * * *

Russian Threat to Japan

The recrudescence of "incidents" on the borders of Eastern Siberia and Manchoukuo once more brings into the limelight the tense situation that exists between Soviet Russia and Japan. These incidents, of which no fewer than eighty-two are reported to have occurred in the first four and a half months of the present year, consist mainly of skirmishes between Soviet and Manchoukuo-Japanese outposts. The most recent was a clash on June 14 near the village of Ta-wu-shih-kou on the Manchoukuo-Siberian border, when Japanese border guards were reported to have been subjected to a withering machine-gun fire by Soviet troops.

The chief significance of these "incidents" lies in the fact that they reveal the state of affairs between Russia and Japan, it being obvious that there is no love lost between these two countries, each of which appears to be only biding her time and watching for a favourable opportunity to attack the other.

The threat to Japan constituted by Soviet Russia's large and well equipped army in Siberia is a real one, and Japanese military officials are endeavouring to have the 1937-8 budget increased sufficiently to allow of an expenditure on army requirements sufficient to bring Japan's forces and armament up to parity with those of Russia. The latter's army now stands at 1,300,000 men, with 5,000 military aeroplanes and 4,000 tanks, while her current fiscal year provides for an expenditure of Roubles 14,800,000,000 for military requirements. There are quite heavy concentrations of Soviet troops along the borders of Manchoukuo, in Northern Mongolia and on the borders of Chinese Turkestan.

With a menace like this hanging over her head it is not difficult to understand Japan's nervousness, which dictates her policy on the mainland, and especially in Mongolia and North China, through which countries she naturally fears that the attack by Russia would come. Even if China wished to do so, she could not keep Russia from passing through Mongolia and the northern provinces of China, any more than Belgium was able to prevent Germany from passing through her territory to

attack France in 1914. From a military point of view it may be argued that the only course for Japan to adopt is to make sure that she and not Russia will occupy North China and Inner Mongolia in the event of war.

But military considerations are not the only ones, and in the long run much more is at stake, namely, the good will of the Chinese people. Never can that be won by using forceful and aggressive methods, and without it Japan can never have the influence she so ardently desires in China and all that comes with it in the way of trade and other advantages.

* * * *

Japan's Relations with China

Thus it behoves Japan to make a friend rather than an enemy of China. This calls for a somewhat different policy from that which Japan has pursued in regard to China for the past five or six years. The various subversive and nefarious activities in which large numbers of Japanese and Koreans, who are Japanese subjects, have been and are engaged constitute a very serious hindrance to amicable Sino-Japanese relations. Whether or not the Japanese Government condones these acts, the fact that Japanese officials appear to be putting forth no real efforts to suppress or even to check them gives an unfavourable impression.

Knowing how quickly and severely Britons, Americans or the subjects of any other Western country would be dealt with by their own authorities were they to indulge in such acts of lawlessness and violence as the so-called Ronins are perpetrating to-day in North China with impunity, we find it exceedingly difficult to believe that the Japanese Government could not if it would put a stop to the wholesale smuggling and widespread distribution of narcotics which its subjects are carrying on in North China.

As a first step towards a rapprochement between China and Japan we would suggest the immediate suppression by the latter of smugglers and narcotic dealers of Japanese and Korean nationality, and the withdrawal of all obstacles which at present prevent Chinese customs officials from performing their duties on Chinese soil and in Chinese waters.

* * * *

China's Plea for a Chance

In a recent Radio broadcast Mr. Hsu Mo, Vice-Minister for Foreign Affairs, said that all China asks is a chance to make further progress and to continue the development of her resources. We have already more than once in our pages pointed out the strides China has made in many directions during the past few years. Always further information reaches us of astonishing progress being made in the interior, and this in spite of the greatest difficulties and in the face of the most adadverse conditions. Famines, floods, communism, banditry—these are some of the more serious troubles with which China has to contend in her endeavour to place her house in order and to achieve social, economic and financial stability. Surely it is not too much to ask that she be spared outside interference, such as wholesale smuggling of goods into the country through areas the control of which has been taken away from her? China should be given a chance, and if she is not strong

enough to ensure this herself, then friendly nations should band together to see that she does get it, and foremost amongst those nations should be Japan, her nearest neighbour. That China will succeed in becoming a great nation if she is given a chance there is not the least doubt, for there is every indication of a new spirit moving her people in the right direction. Undoubtedly she is very much on the upgrade, and we add our voice to that of the Vice-Minister of Foreign Affairs in putting forward a plea that China be given a chance.

* * * *

China's Own Responsibility

China's own responsibility is great, however. There is much that she and only she can do. For instance, only China can put a stop to the growing of opium that is going on, and, if China desires the complete confidence and sympathy of other nations, she will see to it that this nefarious business is brought to an end, even if it involves a heavy loss of revenue. Again, civil wars in China are something only the Chinese themselves can prevent. The recent threat against the Central Government by the war lords of the southern provinces because the revenue formerly derived by them from opium coming from Yunnan and Kueichou has been cut off is a disgraceful thing, and one, we feel sure, all right thinking Chinese deplore. Indeed, there is every indication that the people throughout China condemn the action of the southern militarists, but, unfortunately, the latter hold the power, and under present conditions it is almost impossible to oust them. However, it behoves the Chinese people to find some way of getting rid of such usurpers of authority, which should be concentrated in the hands of the Central Government. There cannot be two masters in one house, and there cannot be two centres of authority in one country. The sooner the Chinese people do away with war lords who can threaten and flout the authority of the Central Government, the better it will be for the country as a whole.

A. de C. S.

OBITUARY

REVEREND DOCTOR FRANCIS X. BIALLAS, S.V.D.

The sudden death on May 28 at the age of fifty-seven of the well known sinologist, the Reverend Doctor Francis X. Biallas, S.V.D., was a severe blow to the Catholic University of Peiping as well as to all those interested in the field of research in which he had so distinguished himself.

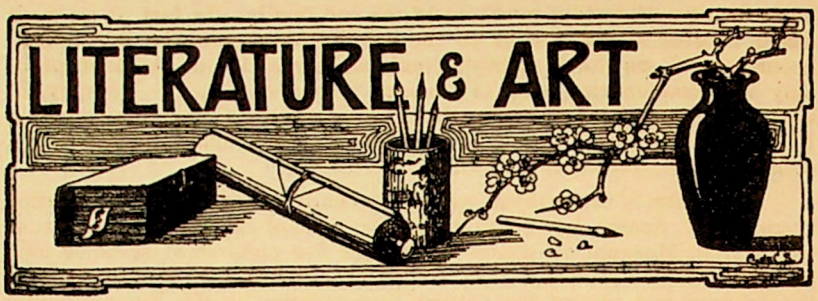
Dr. Biallas, a native of Silesia in Germany, came to China in 1921. During his sixteen years in this country he resided successively in Shanghai, Tsingtao, Yen-chou and Peiping, for the last three years being connected with the Catholic University in Peiping, where he was regarded as one of the outstanding professors. He was Dean of the

Department for Sociology and Economics and a valuable member of the University Council.

To the public he was probably best known as the Editor of the recently founded periodical *Monumenta Serica*, in which, assisted by a number of well known scientists and students of China, he endeavoured to present a picture of both ancient and modern China, her cultural background and modern progress.

Dr. Biallas took the degree of Doctor of Philosophy at Leipzig University, specialising in sinology. Besides his many contributions, in the form of papers appearing in various journals, on things Chinese, he had prepared for publication a number of books dealing with various aspects of Chinese life. But his extreme conscientiousness and the meticulous care he devoted to his studies, coupled with a desire to keep always abreast of the times, prevented his publishing any of this more important work. It is understood, however, that Dr. Biallas entrusted Dr. Koester, S.V.D., with the care of his extensive manuscripts, and it is hoped that these books will soon be made accessible to the general public. A very intimate and cordial collaborator with Dr. Biallas was Professor Shen Chien Shih, Dean of the College of Liberal Arts at the Peiping Catholic University.

J. E.



THE OWL IN CHINESE ART

BY

ARTHUR DE CARLE SOWERBY

In our article on "Birds in Chinese Art," published in the December, 1935, issue of *The China Journal*, pages 326 to 339, we made the following statement:

"Strangely enough the owl does not appear in Chinese art. This is no doubt due to the same reason for which it is omitted from Chinese poetry. The Chinese consider it an evil bird, because it is believed that the young devour their parents. Except for three drawings which we induced a Chinese artist, who was assisting us in collecting birds, to draw, we are unable to recall a single indisputable instance of an owl being depicted in any branch of Chinese art or art-craft, which, even allowing for the superstition just mentioned, is remarkable."

The word "indisputable" was used advisedly, for we had in mind the well known bronze vessel in the Eumorfopoulos Collection in the form of a bird, which has always been looked upon as representing an owl. Earlier in the article already referred to we had called attention to the fact that this bronze bird more nearly resembled a common pheasant in most of its features than an owl. The passage runs as follows:

"A very remarkable instance of this faulty identification of birds in Chinese art is the famous bronze piece in the Eumorfopoulos collection which has always been described as an owl. To any ornithologist this is obviously wrong, for the bird has not a single feature characteristic of the owl. The bill is altogether different from that of an owl, being much too long and not nearly hooked enough. The feet do not remotely resemble those of an owl, which have two toes pointing forward and two pointing backward, and very long claws. In the piece under discussion the feet are definitely those of a bird accustomed to walking on the ground, and have three toes directed forward, and one backward. What might have been mistaken for the discs surrounding the eyes of the owl are obviously meant for the naked patches round the eyes of so many members of the pheasant family, including, of course, the common domestic fowl. The ear-like tufts on the head conform much more closely to those found in several different species of pheasant than to the so-called

horns or ears of certain members of the owl family. In fact, if we were asked to give an opinion as to the species represented by this unique bronze vessel, we should unhesitatingly say some kind of pheasant, probably the common ring-neck (*Phasianus torquatus*, Gmelin), possibly, in view of the curled tail feathers, the eared-pheasant (*Crossoptilon auritum* Pallas). It might even be a mixture of the common pheasant and domestic fowl, but never an owl."

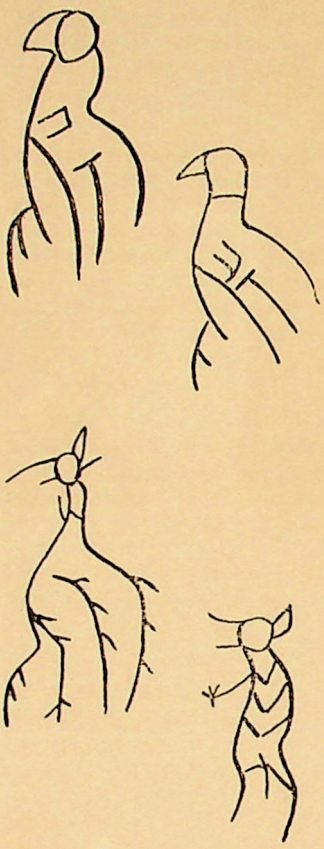
Referring to this subject we have recently received a communication from Mr. R. Soame Jenyns of the Department of Oriental Antiquities of the British Museum, in which he encloses five pictures of so-called owls of early Chinese periods. Two of these are in bronze and three in clay, the bronzes and two of the pottery figures being in the Eumorfopoulos Collection, the third pottery figure in Mr. Jenyns' own collection. One of the bronzes is the bird just discussed, the other being a rather squat wine vessel with four short legs and a cover and decorated with what has been called the owl design. All five of these objects are reproduced here.

Mr. Jenyns also mentions a sculpture of "a large owl-like creature in marble or alabaster," which was excavated recently at the Shang Dynasty site near An-yang in Honan by the Academia Sinica. We presume he is referring to a sculpture in limestone which was figured in the *Illustrated London News* of April 4, 1936, in connection with an article by H. J. Timperley entitled "The Awakening of China in Archaeology." This figure, along with another representing some kind of carnivorous beast, was excavated at the site of what is taken to be a royal tomb of the Shang period at Hou-chia-chuang on the left bank of the Huan River two miles north-east of Hsiao-tung-tsuen in Honan, and it is believed these sculptures were used as guardians of the gate, just as carved stone lions are used in China to-day. The one representing a bird is certainly very owl-like in appearance, but at the same time shows some characters which do not belong to any known owl.

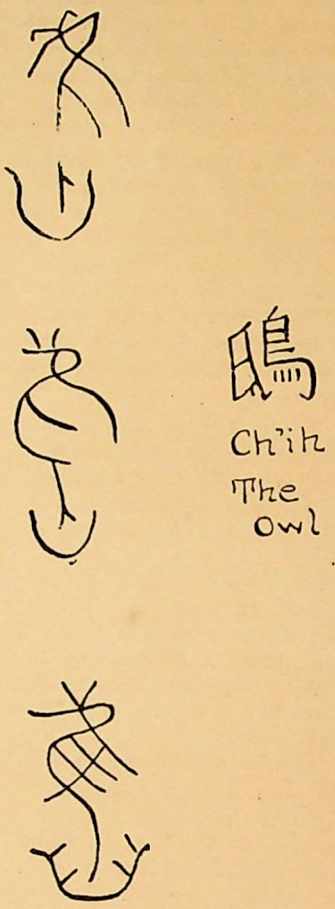
Mr. Jenyns suggests that the pottery figures in the illustrations he sent us might be taken to represent owls, and we are inclined to agree with him, at least in regard to two of them. The third, that on the extreme left of the accompanying illustration, as Mr. Jenyns suggests, might be a pigeon. It is not unlike a jade pigeon pendant of the early Chou period belonging to Mr. Ch'ang Nai-chi of Shanghai, which was shown in the International Exhibition of Chinese Art held last winter in London and was numbered 270 in the official Catalogue.

Mr. Robert W. Swallow of K'ai-feng Fu, Honan, who has been engaged for some years in examining and collecting Chinese art and archaeological objects in Honan, one of the most prolific sources of the latter in China, informs us that in all his thirty odd years' experience in China he has come across only two representations of the owl in Chinese art, and that these two were pottery tomb figures of the Han period which he purchased, but, unfortunately, has since sold.

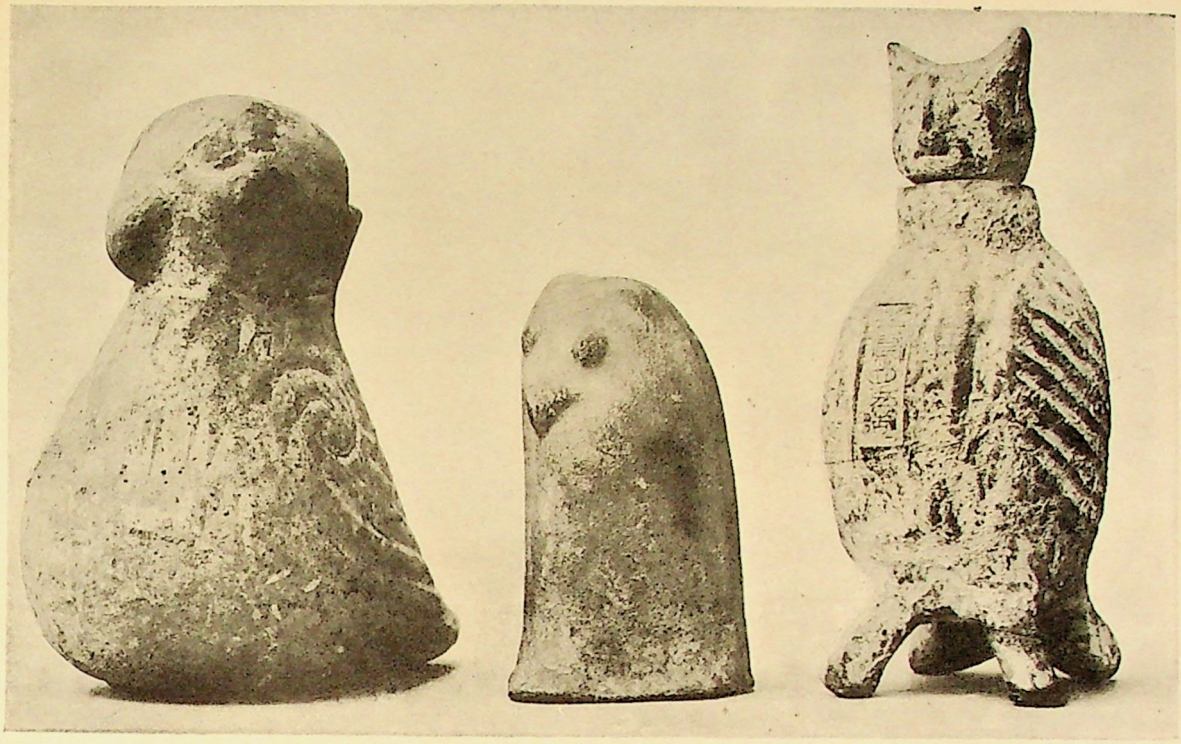
There are what might be meant for representations of owls on a bronze vessel of the Han period belonging to Mr. Paul Ho of Peiping which should be mentioned here. This is figured in Dr. J. C. Ferguson's book "Outlines of Chinese Art," page 47. Four heads occur on a rim



Above are shown Four Shang Dynasty Pictographs representing the Common Pheasant, drawn by H. E. Gibson. Note how much more closely they resemble the Bronze Bird in the accompanying Illustration than do the Pictographs here given representing the Owl.

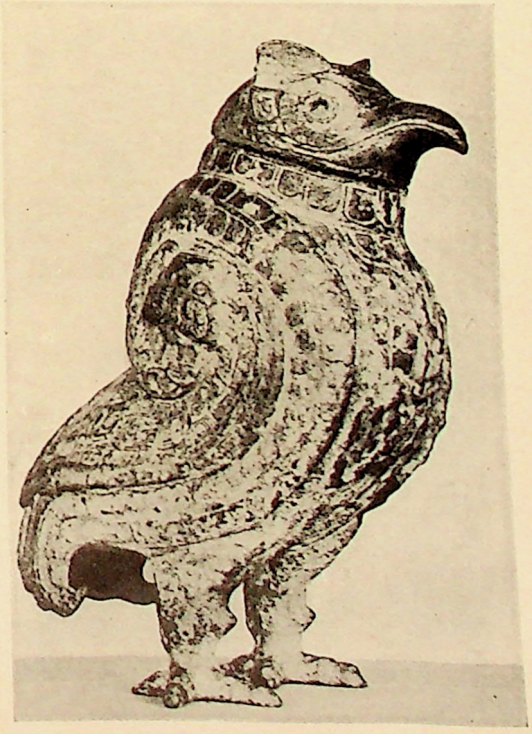


Three Pictographs representing the Owl from Shang Bones and a Chou Bronze Vessel, drawn by H. E. Gibson. These show the Bird in a Hollow, indicating the Owl's Habit of making its Nest in Holes in Trees or Cliffs.



Pottery Tomb Figures of the Han Period (206 B.C.-220 A.D.) showing the Owl *Motif*. The two on the Right are in the Eumorfopoulos Collection, that on the Left belonging to Mr. R. Soame Jenyns.

Two Chou Period (1122-255 B.C.) Bronze Vessels in the Eumorfopoulos Collection supposed to represent Owls. It is here claimed that the Bird on the Right is more probably intended for a Pheasant.



round the middle of the vessel. These have animal-like ears, large round eyes and protruding hooked beaks holding rings. Front view they look like owls, but not so in profile, the beaks protruding in a way altogether unlike that of an owl.

It would seem, then, that the owl figured in early Chinese art, though somewhat rarely, down to the Han period, possibly in the form of pottery tomb figures down to Sui, Wei or even T'ang times. We still maintain that the Chou period bronze bird in the Eumorfopoulos Collection represents a pheasant rather than an owl, and in this connection would call attention to the Shang pictograph for the common pheasant, a reproduction of which was given in our article on "Birds in Chinese Art" (No. 6 in Figure on page 326). It will be seen that it is very like the bronze bird under discussion. Mr. H. E. Gibson, who drew this pictograph, has supplied us with the further pictographs of the pheasant and the owl taken from Shang inscribed bones and bronze vessels and Chou bronze vessels reproduced here. These are very suggestive.

We also see no reason whatsoever for calling the *motif* on the bronze wine vessel mentioned by Mr. Jenyns an owl design.

What was the object of placing the owl-like pottery figures in tombs with the dead is not clear. In this connection Mr. Jenyns quotes the following passage from Professor W. Percival Yetts in Volume I of the "George Eumorfopoulos Collection Catalogue" (page 55) as follows:

"Doubtless these owl vessels are relics of a bird cult in ancient Chinese myth and sacrificial rites. The owl seems to have been the emblem of a royal line of culture-heroes who controlled thunder, ordered the seasons and invented metal casting among other primary elements of Chinese civilization. Chief of these is Huang Ti, and the practice of sacrificing owls to him may be explained by the notion that ingestion of his totem could renew his divine energies....Its connexion with thunder and fire is shown by the use of pottery tile ornaments in the form of owls at the corner of roofs as a protection against fire.....Another example of homoeopathic magic is based on the belief that owls eat their mothers. Owl soup was bestowed by a feudal lord on his vassals. The prince was both father and mother of his subjects, and therefore the soup acted as poison and antidote to purge them of all filial impiety and strengthen their loyalty. This sacramental rite was continued by Han emperors."

Mr. Jenyns further says that "Granet also speaks of a half human half owl race of Chinese mythology associated with the thunder and the forge," while "Doolittle mentions that the Chinese speak of it as the 'constable of the dark land,' " and "Read says in Hupei the scops owl is called 'the bird that carries people quickly away' and mentions Wu Ch'iu as referring to the race as 'chase the soul birds.' " He asks whether we are "sure it is impossible for the Chinese to have buried bronze or pottery owl vessels with the dead either to ensure a safe passage to the spirit world or as relics of some cult of thunder, bronze casting or filial piety?"

Our answer to the last question is, of course, that we are not and cannot be sure that such beliefs as suggested were not held by the ancient Chinese. We only know that in later times at least the owl was

not regarded in a favourable light, which is born out by what Read[1] is quoted as saying. Possibly the pottery owls were placed in tombs as guardians, following the same idea as indicated by the so-called owl from the Shang royal tomb referred to above, which suggestion is given force by Doolittle's reference to the owl as the "constable of the dark land." We do not, however, know the Chinese sources of any of the foregoing statements, and it is significant that the owl is not mentioned in either of Mr. E. T. Chalmers Werner's books, "Myths and Legends of China" and "A Dictionary of Chinese Mythology." As for owl figures being buried with the dead as a relic of filial piety, if the ancient Chinese did this, they certainly held a different conception of this bird from that held to-day in this country, which is that the owl is an evil bird because it is supposed to devour its parents.

In view, however, of the existence of the owl-like pottery tomb figures here discussed we must modify our original statement regarding the non-appearance of the owl in Chinese art to the extent of admitting that the owl, possibly mixed with the pheasant or some other bird or birds, formed a *motif* in early periods down to at latest T'ang times, and that in those times it had some special significance, though just what that was is not as yet clear. One thing seems certain and that is that the owl does not form a *motif* in the art of the Chinese as represented in paintings, sculptures, carvings, embroideries and decorations, generally, from the Sung and possibly the T'ang periods on.

THE ROLE OF YAKUTSK IN EARLY RUSSO-CHINESE RELATIONS

BY

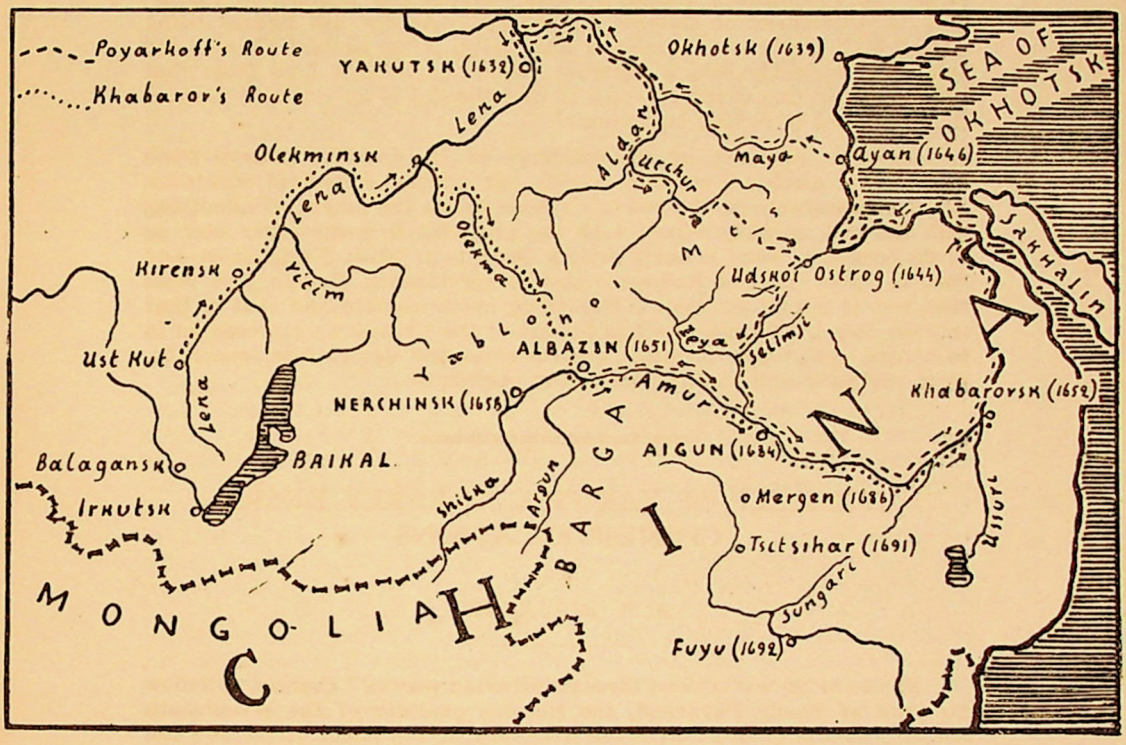
A. A. RIAJANSKY

In one of my excursions through Siberian wastes I chanced to follow the trail of Vasily Poyarkoff, the Russian explorer of the seventeenth century, who is credited with the discovery of the Amur River and the Chinese Empire. Following the route taken by his party, I came to the place called the Soldiers' Rock, on the northern slope of the Yablonoi Mountains, where, according to a legend still surviving amongst the Tungus and Yakuts, lie buried fourteen men of Poyarkoff's expedition, natives about the place. Believing it to be haunted, they never stop at the Soldiers' Rock for the night, but pass it in the daytime. Riding on my reindeer, I was shown the mound which is supposed to be the grave of those unfortunates.

It sounds incredible that far away Yakutsk, my own native place, was the starting point of Russian expeditions which culminated in the who died there from want and exposure. Weird tales circulate amongst

1. Dr. Bernard E. Read in "Avian Drugs," Bulletin of the Peking Society of Natural History.

discovery of what is now the Soviet Far East and the annexing of it on behalf of the Russian Empire. Judging by the present day map of Asia it would have been more natural for Russians to have reached China from the west by way of Central Asia, but history shows that actually they came from the north, namely, from Yakutsk, now the capital of the Yakutsk "Republic."



Map of Eastern Siberia showing the Routes taken by Vasily Poyarkoff and Erophey Kharbarov in the early Days of Russian Contact with China.

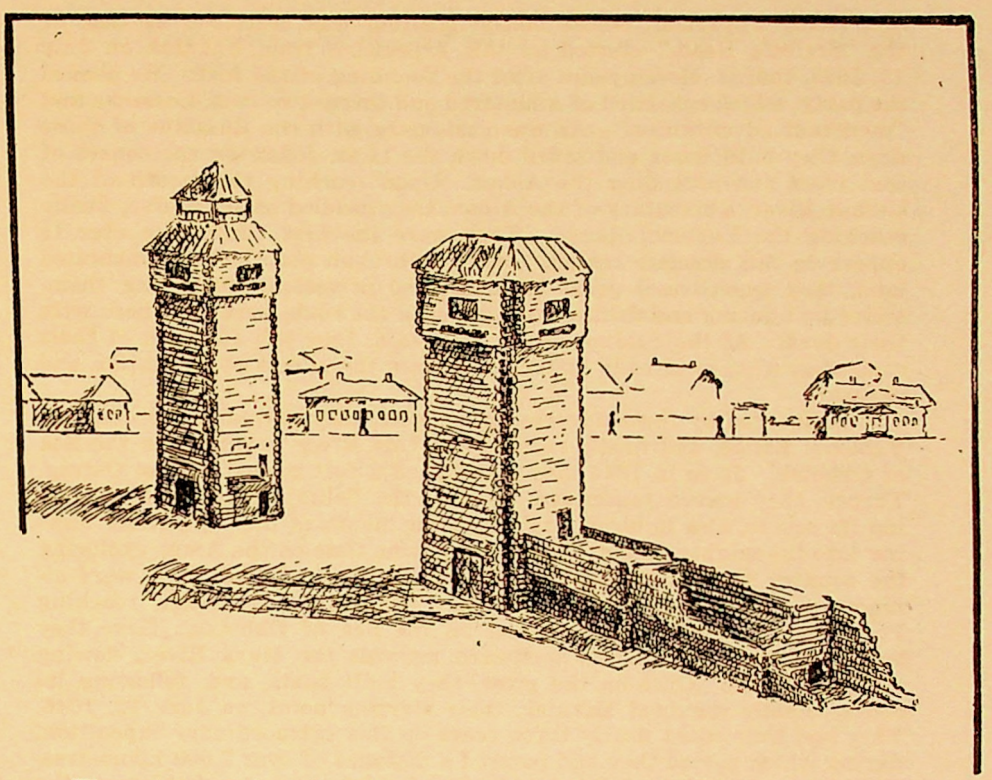
The conquest of Siberia by Russians was rapid. Having commenced it in 1582, in the reign of Ivan the Terrible, by the beginning of the seventeenth century they were already on the banks of the Lena, one of the great Siberian rivers flowing into the Arctic Ocean. In 1632 they built a wooden fort there, calling it Yakutsk, after the name of my tribe, Yakuts, inhabiting the valley of the Lena River and its tributary the Aldan. For over a century this fort served as the easternmost stronghold of the Russians, and from it they undertook long and arduous expeditions to the north, east and south, which resulted in the discovery of the Bering Strait, Kamschatka and finally the Chinese Empire.

Vasily Poyarkoff, whose official position was described as that of the "Scribe's Head," started on this expedition from Yakutsk on July 15, 1643, that is, eleven years after the founding of the fort. He headed the party, which consisted of a hundred and thirty-two men, Cossacks and "merchant adventurers." As was customary with the Russians of those days, they built boats and sailed down the Lena, following the course of that river and ascending the Aldan. Upon reaching the mouth of the Utchur River, a tributary of the Aldan, they paddled up its course, finally reaching the Yablonoi Range. They were the first white men ever to appear in this desolate region. Moving through practically uninhabited land, they experienced great hardship and privation, supporting themselves by hunting and fishing, and strewing the route here and there with their dead. At the Soldiers' Rock, it is said, they left fourteen of their comrades, who, as already stated, died from the effects of starvation and exposure.

Undaunted by these adverse experiences, they moved on, crossed the Yablonoi Range, and finally reached the Uda River flowing into the Sea of Okhotsk. Here in 1644 they established a fort named Udskoi Ostrog. Thence, they moved southward, reached the Selimji River, and, following its course, also in boats, arrived at the mouth of the Zeya River flowing into the mighty Amur. They spent some time on the Amur exploring the country and its population. By the summer of 1646 they were already at its mouth. From there they paddled up the coast, reaching Port Ayan, a small fishing hamlet on the Sea of Okhotsk. Here they left their boats and moved westward towards the Maya River, flowing into the Aldan. Once on the river, they built boats, and, following its course, finally regained Yakutsk, their starting point, on June 12, 1646. They had thus spent nearly three years on this extraordinary expedition, during which period they had covered a distance of over 7,000 kilometres. However, out of the original hundred and thirty-two men making up the expedition only twenty returned, the rest having perished on the way.

It is interesting to read Poyarkoff's account about this journey. In it he describes the Silimbi (Selimji), the Zeya, the Amur and the Shungala (Sungari) Rivers visited by his expedition. "The annexation of that land would profit the Czar," he wrote, "for that land is inhabited by a people engaged in raising various crops and the rivers are noted for their fish." Referring to the inhabitants, he stated, "And those people have many horses, cows, sheep, pigs and hens. They are the subjects of a mighty Khan, said to live in the southerly direction from the Silimbi River, six weeks' travel on horseback." The "mighty Khan," of course, was none other than the Chinese Emperor himself.

Three years passed after the return of Poyarkoff during which period many rumours began to reach Yakutsk about the richness and plenty of "Daurland" discovered by Poyarkoff and his men. However, no one attempted another expedition. Erophey Khabarov, wrongly referred to as a Cossack, but who in reality was one of the many "merchant adventurers" of the period, submitted a petition to the Voevoda (Governor) of Yakutsk "to allow him, the humble slave, Erophey Khabarov, to undertake on his expense and account, an expedition for the conquest of Daurland." He appears to have been a wealthy man, being the owner of a salt distillery at Ust Kut, a village on the upper reaches of the Lena.



These two ancient Log Towers, built by Cossacks in 1632 or thereabouts, were a familiar Landmark in Yakutsk up to 1922, when they were torn down and used for Fuel by Bolshevik Bands.

Permission was granted together with a small sum of money towards financing the expedition, whereupon Khabarov enlisted a small band of seventy loosely disciplined "volunteers." At the head of this band, he sailed down the Lena and up its tributary, the Olekma, in the year 1649. Upon reaching the Yablonoi Mountains his party crossed them, and, discovering the upper reaches of the Urkan River, sailed down it, finally reaching the Amur. Thus Khabarov succeeded in discovering a much shorter route to "Daurland" than that of his predecessor, Vasily Poyarkoff, completing the entire journey from Ust Kut to the Amur in only a month. In May of the following year he returned to Yakutsk, submitted a detailed account of his discoveries, and asked for a further reinforcement. The Voevoda put him in command of another band, consisting of about two hundred "merchants," "volunteers" and Cossacks, with which he again appeared on the Amur. He spent three years there, exploring the region and building blockhouses and wintering stations. In 1651 he founded Albazin (in Manchu language "Yaksi"), a wooden fort near the confluence of the Argun and the Shilka Rivers. Thereafter

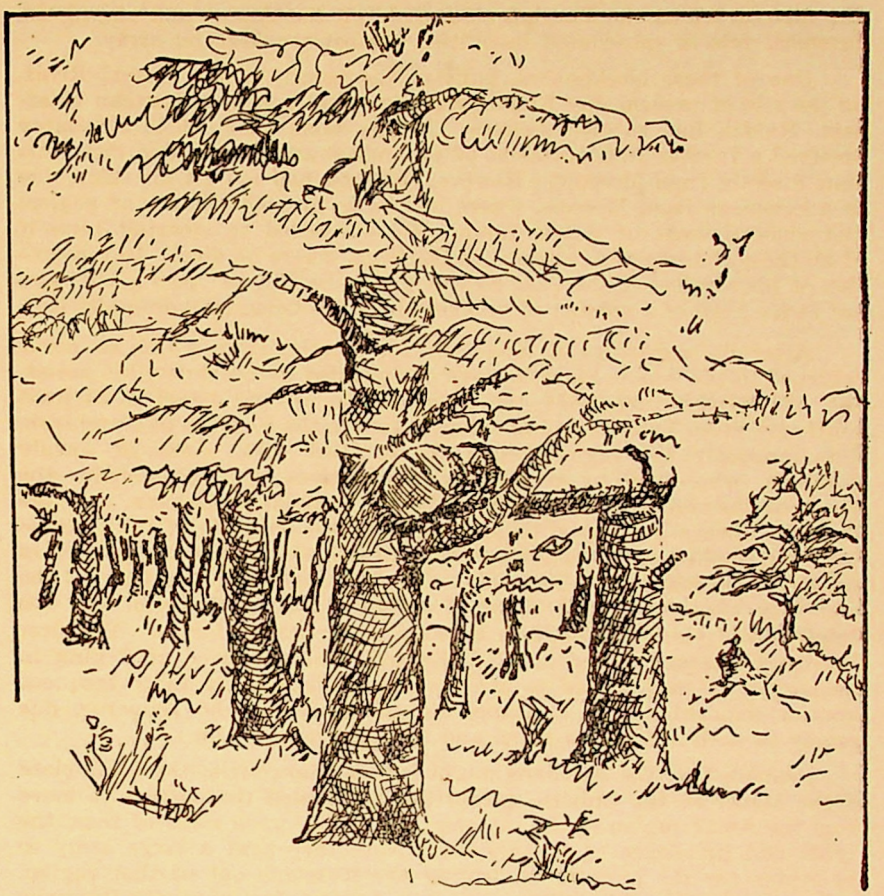
the fort served as the Russian stronghold on the Amur, and played the foremost rôle in subsequent hostilities against the Manchu army.

One of these blockhouses, built at the mouth of the Ussuri River, on the site of present day Khabarovsk, was besieged by a Manchu chieftain, Haidzi, but without success. In the same year, 1652, Khabarov received a further reinforcement of a hundred and twenty-two men, this time directly from Moscow. However, he soon had to quit his office, due to a summons from Moscow, where he had to answer charges of neglect and embezzlement of public funds. He succeeded in clearing himself of all these charges and returned to the Lena, where he died. In recognition of his services to the Czar he was given the title of "peer's son" and put at the head of a number of villages along the Lena, including Ust Kut.

After the departure of Khabarov for Russia, from which he never returned to the Amur, his men were commanded by Stepanov, his assistant. About this time, 1654, the Amur region became detached, at least politically, from Yakutsk, being subordinated to the Voevoda of Nerchinsk. Simultaneously the region began to be filled with bands of unruly Russians, who lived by plundering the natives and occasionally the Russians themselves. The natives, Daurs, Dootchers, Achans, and the like, who always considered themselves to be the subjects of the Chinese Emperor, applied to the Chinese authorities in Manchuria for protection against these marauding Russians. On this account the history of the next fifty years is a long story of constant friction between the two Empires and bloody encounters between their armed forces. The first Russian Embassy, headed by T. I. Baikoff, which arrived at Peking in the spring of 1656, failed to achieve any settlement of these frequent frontier incidents. The Russians did not even see the Emperor, due largely to their refusal to kneel and kow-tow before him.

Fearing that the Russians might invade Manchuria, the birth-place of the Manchus, the Chinese authorities instructed the natives to move from the Amur region to the interior, conferring upon some of them the rights and privileges of Bannermen. Next they sent a large army to the Amur for the purpose of driving the Russians out of that region. Left alone, that is, without the native population to live upon, the Russians began to feel the shortage of food and other necessities. In the winter of 1654 the Manchus laid siege to the fort of Kumar, built by Khabarov in the preceding year. On April 4, 1654, the Manchus stormed the fort, but were repulsed by Stepanov and his men. Three years later this Russian detachment, still commanded by Stepanov, was surrounded on the Sungari by Manchus and perished in the battle. Only a few of the Russians broke through the enemy lines and reached the Amur. This success was followed by others, until the Manchus reached Albazin, stormed it in 1659, and demolished it.

Though nominally under the Government of Nerchinsk, the region continued to feel the influence of the far away Yakutsk, which place kept on sending brigands and robbers rather than peaceful settlers to "Daurland." The most notorious of these men were Sorokin, Krasnoyar and Petrov, and their gang of some three hundred men. On the way to the Amur they plundered the Ust Kut and Olekminsk forts, helping them-



The aboriginal Yakuts, before the advent of Christianity, placed their Dead in hollow Logs which they slung high off the Ground in Trees in the Forest.

selves to the Czar's treasury in these places. In the Amur region they dispersed, however, and were soon exterminated by the natives.

For the next six years "Daurland" remained virtually a No-Man's Land between the Russians and the Manchus. Nicholas Chernigovsky, another outlaw long wanted for the murder of a Governor in Siberia, appeared on the Amur in 1665, and rebuilt Albazin. He also started from Ust Kut and on the way kidnapped Father Germogen of the Kirensky Monastery, bringing him to the Amur. Chernigovsky appears to have been more of an administrator than all of his predecessors, for under his guidance Albazin rose out from ashes once more and took its former eminent position in the Amur region. He tried to settle the Russians on

the land, as a result of which Albazin was soon surrounded by a cluster of villages engaged in farming. About this time Father Germogen built the first Russian monastery near Albazin.

In 1666 Chernigovsky undertook an expedition into present day Barga, conquered it, and persuaded the Tungus Chieftain Gantemur to move to the Russian side of the Amur. Upon learning of this, however, the Emperor K'ang Hsi was greatly enraged, and forthwith started to prepare for war with the Russians. But by this time Chernigovsky had sent a delegation to Moscow with valuable presents for the Czar Alexis Mikhailovitch (father of Peter the Great). He asked the Czar to pardon him for his former crime, the murder of the Ilimsky Voevoda. This was readily granted, together with a sum of Roubles 2,000 for Chernigovsky's personal use.

For the next thirty years the Amur region was a scene of constant warfare between Chinese and Russian armies. Albazin was again taken by the Chinese in 1685, and again reduced to ashes. The Russians arrived back once more and rebuilt the fort, this time under the guidance of Afanasy Beiton, a foreigner, serving with the Russian army. This state of things was brought to an end by the treaty of Nerchinsk, concluded in 1689, whereby Russia recognized Chinese sovereignty over the entire territory of the Amur, now included in the Soviet Far East. Concerning Albazin, it was agreed that the town "be demolished entirely and that all its inhabitants be driven back, together with their valuables, military and otherwise, to Czar's territory."

With the fall of Albazin the influence of Yakutsk in Far Eastern affairs began to wane, the Russians having by this time opened a new and shorter route between Russia and "Daurland" by way of Irkutsk, Baikal and Chita. The last episode was the arrival in 1716 of Father Illarion Lejaisky in Peking from Yakutsk as the head of the Russian Orthodox Mission, which was the first mission to be opened by Russians in China.

LUNG MU, THE DRAGON MOTHER

THE STORY OF WEST RIVER'S OWN GUARDIAN ANGEL

BY

NG YONG SANG

伍 陽 生

Students of Chinese life and customs will perhaps be unanimous in voting the Dragon Boat Festival the most important event in Chinese national life during the Fifth Moon of the Lunar Calendar. And they will be perfectly right except for a small portion of the country, namely, the area through which flows the lower stretches of the West River, the main stream of the Pearl River System.

This is not to say that the Cantonese—for we may refer to the inhabitants of the West River basin by this general term—do not join the rest of the nation in the celebration of one of the country's most picturesque festivals. As a matter of fact, the memory of the great patriot Chü Yuan[1] (about 338-288 B.C.), the story of whose tragic death, too familiar to need reiteration here, gave origin to the commemorative occasion, is honoured in this part of the country as highly and as universally as elsewhere, and the commemoration of his name, complete with boat races, rice dumplings and other appertinences, taken up with equal enthusiasm.

But we were speaking of the Fifth Moon of the Lunar Calendar. And, to the dwellers along the West River, an even more important event falls during this month. We refer, of course, to the birthday anniversary, on the Eighth Day of the Fifth Moon, of Lung Mu,[2] the "Dragon Mother," the special guardian angel of the West River.

The Dragon Mother holds no position, at any rate not one of any consequence, in the pantheon of Chinese religious systems. But on the West River, she is the most reverred, loved and feared goddess. She is the river's own protectress, and her shrine is to be seen on every vessel, of whatever class and size, that plies between Canton and Wu-chou. Several temples are dedicated to this goddess at different points along the river, but the most important one is that at Yueh-cheng,[3] a town some two hundred miles up the river from Canton. The temple stands on the site of her grave.

The woman thus deified to become the greatest goddess in this part of the country lived two thousand years ago. Surnamed Wan, she was a fisherwoman by occupation. One day, whilst engaged in her calling, she found, as the legend goes, an egg the size of a bushel. This she took home and placed in a large bowl. Some ten days later out of the egg came a creature looking like a human palm, but over a foot in length. The woman kept and fed the strange creature which rapidly grew in size. It soon attained a length of five feet, and began to assist the woman in catching fish. It would swim about in the water, but always remained by the woman's side. This went on for years.

One day the woman accidentally chopped off a portion of the creature's tail. It immediately left her and was not seen for many years. When it did come back again, the woman saw that its body shone with the brilliancy of a multitude of colours. She was overjoyed and exclaimed to herself, "This is my dragon son." The dragon remained with her and played about by her side as in the days of old.

Her story, which began to spread far and wide, at last reached the ears of the Emperor Ch'in Shih Huang Ti[4] (221-209 B.C.), who had just then successfully completed the unification of the entire country. His Majesty was highly pleased and said, "The appearance of this heaven-sent dragon at the same time as my subjugation of the entire world is a good omen signifying my divine rights."

Imperial envoys were despatched to the woman whom the Emperor would take as an imperial consort. Though the woman did not want

1 屈原　2 龍母　3 悅城　4 秦始皇帝

to leave her native soil, she had, nevertheless, no choice but to accompany the Emperor's envoys, and the party left for the capital. Each time, however, they had passed well beyond Canton and were over a thousand *li* from her home, the dragon would bring the boat back home, covering the distance in a single night. This was repeated four times, till the Emperor's messengers, became frightened, returned to their lord without her.

In due course the woman died and was buried on the bank of the river. Her dragon-son would now and again cause waves to rise in the vicinity of her grave, so that as time went on the sand tossed up accumulated to form a mound over her burial ground.

It was not long before the woman was deified by the people of the district, who built a temple to her at the place of her burial. Her divine powers were very quickly manifested before her worshippers, and stories of the miracles she worked, and of the lives she saved of travellers in the dangerous waters and of sufferers from plague and pestilence were legion, and many were the cases included in topographical records and other writings. From the days of the Shih Huang Ti until the present time, a period extending to over twenty centuries, the ruling house of every succeeding dynasty has honoured her with official titular designations, and very numerous have these become, though, to the masses, she has always been their popular "Lung Mu," or Dragon Mother. For a considerable period in the past official sacrifices were also offered to her annually.

Popular as the Dragon Mother has become with the people in this area, few worshippers visit her shrine at times of the year other than on her birthday anniversary, the Eighth Day of the Fifth Moon. But, when that date approaches, the small town of Yueh-cheng, where her temple stands, becomes the centre of what is undoubtedly the greatest religious pilgrimage in South China.

For a period of about a week inland navigation on the West River is totally dislocated. Literally all the tow-boats and other sailing craft plying between Canton City and other parts of Kuangtung Province, as well as a number of river steamers which run between Hongkong and Chinese coastal ports, annually suspend their sailings to be used for the transportation of these devout pilgrims.

It is no wonder that so many vessels are required, for the number of these pilgrims to the shrine of the Dragon Mother, according to a conservative estimate, always exceeds 50,000 a year. The size of the pilgrimage may also be gauged from the fact that the keeper of the temple pays annually to the authorities for his office anything between $30,000 and $50,000. This sum he has to recover, with a margin of profit, naturally, solely during the brief span of a few days before and after the goddess' birthday from the visiting devotees, who pay varying amounts for admittance into the shrine and for a sight or a touch of the numerous relics supposed to have been left behind by the Dragon Mother.

ART NOTES

Shanghai Exhibition of Chinese Art: Inspired by the enormous public interest in Chinese art of bygone ages aroused by the International Exhibition of Chinese Art held last winter in London, to which the Chinese Government sent over five hundred objects from the famous Palace Museum Collection, a group of leading Chinese in Shanghai last month organized a similar exhibition in the Bubbling Well Arcade at the corners of Seymour and Bubbling Well Roads. This was thrown open to the public on June 8, and since its opening has been visited daily by large numbers of people interested in the art of this country. It is out of the question to describe this exhibition in detail here, though it may be said that amongst the two thousand or more objects displayed examples of practically every branch of Chinese art and art-crafts is to be found, from wonderful paintings by masters of the Ch'ing, Ming, Yuan and Sung Dynasties, early bronze vessels of the Han and even Chou periods and splendid examples of ancient pottery and later porcelain ware down to specimens of cloisonné, lacquer and other wares of more modern times. The exhibition has been made up mainly from loans from collections belonging to prominent Chinese and foreign business men in Shanghai who have spent much time and money in getting them together.

One of the outstanding exhibits is a large collection of over three hundred Buddhistic images from China, Mongolia and Tibet, mostly in bronze, many gilded or lacquered, all of exquisite workmanship. This collection belongs to Mr. Y. D. Shen.

Painted wooden models of various famous buildings in Peiping, such as the Temple of Heaven, form another interesting feature of the exhibition. Dr. O. Fisher, well known Italian lawyer in Shanghai, has lent his remarkable collection of snuff-bottles, while many exquisitely carved pieces of jade, whole sets of jade bowls and other objects of a similar nature add to the interest of the exhibition.

It is not quite clear what the skin of a large polar bear is doing in the exhibition, especially as it lies almost entirely covering a magnificent rug. Even the fact that it belonged to an Emperor does not make it a Chinese art object.

The exhibition is to last for at least two months from the date of opening, and there is talk of using it as the nucleus of a permanent Art Museum in Shanghai. If this could be arranged it would be an excellent thing for this city, in which such cultural amenities are sadly lacking.

Three Exhibitions of Modern Chinese Paintings Held: No fewer than three exhibitions of paintings by modern Chinese artists have been held in Shanghai recently. The first of these was opened on June 24 at the International Club and lasted four days. It consisted of some seventy pictures by Mr. Kao Chien-fu, one of China's leading painters of to-day, a series of paintings by some of his best pupils and a hundred paintings by old masters selected from Mr. Kao's private collection of a thousand or so such works.

The exhibition was sponsored by Dr. Sun Fo, President of the Legislative Yuan, in the Government at Nanking, Dr. Tsai Yuan-pei, President of the Academia Sinica, and General Wu Te-chen, Mayor of Greater Shanghai.

Mr. Kao is a versatile artist, being a complete master of the brush, deft strokes with which form the essence of the old style of Chinese painting. His work is well exemplified in a picture called "Mice," in which a number of rats posed about a basket of fruit are shown. This is one of his cleverest paintings. Another which called forth much comment is of a group of eagles perched on a rock. The work of his pupils, as shown at the exhibition, is also of a high standard. It is extremely interesting to see that there are so many worthy exponents of the old style of Chinese painting, which is one of this country's greatest contributions to the art of the world, and which for a while seemed in danger of being lost.

From July 1 to 15 an exhibition of the works of Professor Liu Hai-su, another prominent Chinese artist of the old school of painters, was held in the Sun Company building on the corner of Tibet and Nanking Roads. It also was sponsored by Dr. Sun Fo and Mayor Wu Te-chen, who invited a large number of

prominent Chinese and foreign residents of Shanghai to the opening.

Professor Liu Hai-su's work shows definite Western influence, doubtless as a result of his travels and study abroad. Many of his paintings are almost a combination of the styles of Chinese and European artists. He had some three hundred paintings on view, all of which were greatly admired. The doyen of modern Chinese painters, Professor Liu has become known as the "Master of the Chinese Renaissance."

This is the first exhibition of his work he has held since his return last year from a tour in Europe. His first exhibition was held in Japan in 1917. Thereafter in 1919 he went to Europe on a scholarship, studying at important art centres in France, Italy, Germany and Switzerland. He has held exhibitions of his work in most of the capitals of Europe, as well as in the Burlington Galleries in London.

A somewhat smaller though extremely interesting exhibition was held in the New Asia Hotel, Shanghai, opening on June 28, by the well known Chinese artist Mr. Chang Hsang-tse. A painter in the old style, Mr. Chang's work shows unusual strength and vigour, well exemplified in his picture of a tigress with her cub. This was greatly admired at the exhibition, being considered one of his masterpieces.

Chen-Lu Photographic Exhibition: On June 20 in the Sun Company building an exhibition of 146 large photographs by Mr. Chen Chuan-lin and Dr. K. C. Lu Siefug was opened. A very wide range of subjects from all parts of China was shown in these fine pictures, which were greatly admired.

Ferguson Art Collection Shown in Peiping: Marking the anniversary of the opening in Peiping of the exhibition of Chinese art objects in the collection of Dr. J. C. Ferguson, which he has donated to the University of Nanking, a reception was given in the Wen Hua Tien in the Forbidden City on June 30 by Mr. Chien Tung, Director of the Government Museum in Peiping. This fine collection of oracle bones, bronzes, porcelains, jade carvings, rubbings from stone inscriptions and bas-reliefs, ancient coins, brocades, paintings and specimens of calligraphy took Dr. Ferguson over forty years to make. While most of the pieces have been on view in the Wen Hua Tien since the exhibition was opened a year ago, the coins and oracle bones were shown in Peiping for the first time at this reception.

Recovery of Chinese Art Objects Desired: Realizing that a great many of the finest art objects that have been produced in China are now in collections in Europe and America, the National Commission for the Custody of Antiques, whose headquarters are in Nanking, is formulating plans for their recovery. After a thorough survey of collections of Chinese art objects in foreign lands has been made by this country's diplomatic and consular officials abroad, negotiations will be started for the purchase of such pieces as were come by legitimately, while proceedings will be instituted to recover those which were taken out of China by irregular and unlawful means, said a *Central News* message from Nanking dated June 19.

Every precaution is being taken by the Commission to protect and preserve antiquities and ancient relics in China, even including the many extremely old trees adorning monasteries and temples in this country's sacred mountains. A thorough survey of ancient sites and constant inspection of the objects of archaeological interest will be made, it being intended to maintain offices at all strategic points. Restoration of ancient buildings is another project of the Commission.

Art Treasures found in Lo-yang and Peiping: From time to time in China, as in European countries, long forgotten or lost art treasures are found hidden away in obscure places. Recently there have been two such finds. One of these consisted of what was reported by *Central News* to be a million dollars' worth of relics which were found in an ancient temple in Lo-yang, capital of Honan. Included in this find are a pair of jade cranes, some golden bowls and several pieces of ancient bronze. It is believed that these and the other art objects that were found with them had been stolen at some time in the past, hidden in the temple and forgotten. The other find was announced by the Director of the Palace Museum in Peiping, on May 19, according to a *Reuter* message of that date, and consists of ten scrolls of paintings of horses by Castiglione,

some Chou and Han bronzes, manuscripts and specimens of calligraphy by a number of T'ang and Sung masters, including Liu Kung-chuan and Chao Sung-hsueh. This collection was discovered in some dilapidated rooms in a building in the Forbidden City.

A. de C. S.

THE LIBRARY

Libraries in China: Under this title the Library Association of China, located in Peiping, has issued a brochure to celebrate its Tenth Anniversary, which occurred on August 1, 1935. It consists of a series of papers dealing with progress in the development of modern libraries in this country during the past ten years, and forms an extremely useful work for those interested in this important subject. In a Foreword Mr. T. L. Yuan, Chairman of the Executive Committee of the Association, writes that in presenting this series of articles it is intended to bring up some of the problems with which libraries in China are faced with the hope that similar institutions in foreign countries will become better acquainted with these problems and that better and closer cooperation may be established between Chinese and Western libraries.

Dr. A. Kaiming Chiu deals ably with the "Modern Library Movement in China," giving first a brief outline of the status of libraries in China before the introduction of modern public libraries, and then discussing the beginnings of the latter during the period from 1905 to 1916, their development during the years from 1917 to 1926, and their growth under the Nationalist Government's regime. Finally he gives a succinct account of the different types of libraries now prevalent in China, with statistics and details of their growth.

Various systems in use in the classification of libraries in China forms the subject of a lengthy and very detailed discussion by K. T. Wu, Librarian of Ginling College in Nanking, under the title "Ten Years of Classification and Cataloging in China," while "Professional Training of Librarians in China" forms the subject of an informative paper by Samuel T. Y. Seng. Other papers are "Library Legislation in China," by Lincoln H. Cha; "Cooperation between Libraries in China," by W. Y. Yen; "National Libraries in China," by Chiang Fu-tsing; "The Provincial Libraries in China," by Liu I-cheng; "Medical Libraries in China," by Julie Rummelhoff; and "Public Libraries and Adult Education in China," by Ding U Doo.

It will be seen from these titles that the whole subject of libraries in this country is extremely well covered, and the hopes expressed in the Foreword of the book of making it better known to similar institutions in other countries should be realized, provided, of course, the brochure is properly circulated. No one going through its pages can fail to be impressed with the immense strides made in China in the organisation and expansion of libraries on modern lines in the last decade. This is not surprizing, however, for the Chinese are a book-loving people, and fully appreciate the value of well filled and properly conducted libraries.

Public Library in Shanghai widely Used: That the Municipal Public Library of the International Settlement in Shanghai is extensively used is shown by the figures for June. Altogether some 5,132 volumes were taken out by subscribers during the month, 4,222 being fictional and 910 non-fictional. In addition 5,102 people used the Library's reading room, which is well fitted out with periodicals. There are 549 subscribers on the rolls.

Shanghai Civic Centre Library to Open Shortly: It was recently announced that the fine new library at Shanghai's Civic Centre at Kiangwan will be thrown open to the public early in the autumn. Containing thousands of books in the Chinese and foreign languages on every conceivable subject, this institution will undoubtedly fill a long-felt want. According to Mr. K. Hung, the Librarian, the staff has already been chosen, while the necessary

equipment has practically all been installed. A sum of $50,000 annually is to be supplied for the purchase of new books. There are now 30,000 volumes in the library, which, however, has a capacity of 500,000 volumes.

REVIEWS

The Last of the Empresses, by Daniele Varè: John Murray, London, 1936. Price 15 shillings, net.

Those of our readers who enjoyed "The Maker of Heavenly Trousers" by Daniele Varè will welcome this new book describing in intimate detail the life of the famous Empress Dowager, who governed the destinies of China for so many years before the Revolution of 1911 ousted the Manchu Dynasty and changed this country from an Empire to a Republic.

His many years in the Italian diplomatic service in Peking gave the author the opportunity to study this interesting character, who was "thoroughly at home in the sensuous surroundings of the harem," but "could shine also in the Council chamber...." Although generally known to the Chinese and Westerners as Ch'u Hsi, her real name was Yehonala, after the Manchu Banner or Clan to which she belonged, and it is by this euphoneous name that she is referred to by the author throughout this fascinating book.

From her birth in 1835, the place being unknown, to her death in 1909, the story of Yehonala, the daughter of Huei Cheng, a Manchu Bannerman, concubine of the Emperor Hsien Feng, later to be raised to the rank of an Empress, mother of Emperor Tung Chih and aunt of the Emperor Kuang Hsu, is traced in conjunction with the many disturbing political events that crowded the seventy odd years of her life, so that the book is in reality an extremely useful account of one of the most important periods of Chinese history.

In the unfolding of the life story of this remarkable woman, a vivid picture is presented of her complex personality, which is treated sympathetically. Her achievements were great, her dictates for the most part wise, while her mistakes were mainly due to lack of exact information, since she had to rely for the latter on the eunuchs and court officials who were by no means always to be trusted. An iron-handed ruler, she knew, nevertheless, the danger of allowing a woman to govern the country, nor was she blind to the evil influences of such court parasites as eunuchs. Her last words as she lay dying were, "Never again allow a woman to hold supreme power in the State. It is against the house-law of Our dynasty and should be forbidden. Be careful not to allow eunuchs to meddle in Government matters. The Ming dynasty was brought to ruin by eunuchs, and its fate should be a warning to my people."

Unusually frank, not to say positively undiplomatic in places, the author lays bare much that was probably only known in diplomatic circles, telling of what went on behind the scenes, not only in the Forbidden City, but also in the Foreign Legations. And it all makes the most interesting reading, so interesting, in fact, that we cannot refrain from advising the reader of this review to get a copy of the book and read it. It is well got up and printed, being illustrated with drawings and excellent photographs of places and scenes in the old Northern Capital.

A. de C. S.

Annual Customs and Festivals in Peking, as recorded in the *Yen-ching Sui-shih-chi* by Tun Li-ch'en, translated and annotated by Derk Bodde: Henri Vetch, Peiping, 1936. Price $9.

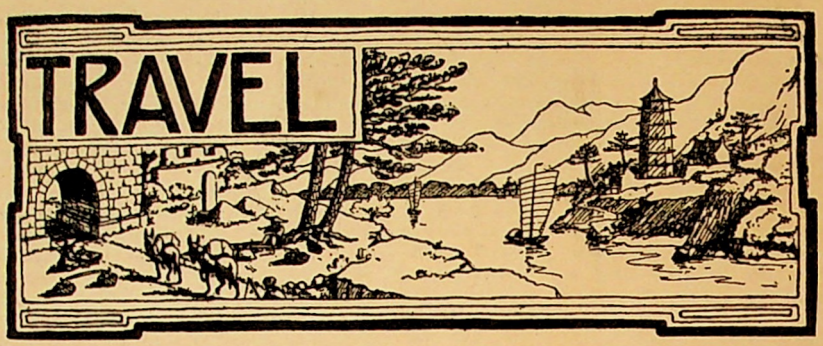
A translation of Tun Li-ch'en's *Yen-ching Sui-shih-chi*, or literally a "Record of a Year's Time at Yen Ching," this attractive volume with its coloured plates and numerous other illustrations should prove to be of great interest to the student of sociology and particularly to the Westerner who desires to know more about Chinese customs and folklore. Though many books have been written in the past on this subject, the translator, Mr. Derk Bodde, explains the publication of another book of this nature as follows: "The answer is that it is valuable because it gives an account, in a concise and straightforward manner, of Chinese life and customs as a Chinese himself would look at them. It avoids those two besetting sins of foreign books on the subject: either a tendency to sentimentalize in a way which is western rather than Chinese, and which tends to throw a wrong coloring on what is described; or to compile a bulky disquisition so learned and profound as to repel the average reader. At the same time it is valuable because it gives a large amount of information culled from earlier Chinese sources, describing the origins of various festivals and antiquities."

The original author, Tun Li-ch'en, is described as being a member of a noble Manchu family and a man of unusual intelligence and literary ability. He was an extremely observant man, as is witnessed by his vivid descriptions of the many Manchu customs and ceremonies which he saw during his years in the Imperial Court. He was also very sensitive to and appreciative of the gifts of Nature. Though he was not a breeder of pigeons himself, nor yet a horticulturalist, he could give a long list of the varieties of pigeons with which he was familiar and could remember a total of one hundred and thirty-three different kinds of chrysanthemums by their poetical names. "Some day," said the author, "when I have leisure, I certainly intend to compile a list of flowers."

Beginning with the New Year's Day celebrations, Li-ch'en traces the seasonal festivals and holidays, completing the cycle with a farewell to the old year. Interwoven with the account of these festivals is a wealth of detail concerning legendary myths, fantasy and unique customs, mostly accompanied by artistic sketches, some of which are reproductions of old Chinese paintings, others the work of a modern Chinese artist. Each discussion in the book is in some way related to the seasons, whether it concerns flowers, toys, clothes, food or the sale of spring chickens and ducks. For instance, the third month, being spring, is the season for changing hats and hairpins, while in the sixth month the officials change into their yellow silk crepe clothes. Toys have the same relationship with the seasons. In the tenth month, when the weather begins to turn cold, the children play with shuttlecocks which they kick about to keep their toes from getting frost-bitten.

Much credit is due Mr. Derk Bodde, an American scholar in Chinese, whose great interest in Chinese philosophy and literature has resulted in this commendable and extremely interesting book. Mr. Bodde is a Harvard University graduate, who, having been sent to China in 1931 on a Harvard-Yenching Institute fellowship, has been spending several years in Peiping studying Chinese.

S.L.Y.



SHIH-LIN, YUNNAN'S "FOREST OF STONE"

BY

JAMES THORP[1]

For more than two years I have had the great privilege of wandering back and forth across the land of Han, visiting nearly all of its provinces in the quest of soil samples and agricultural data that will make possible the construction of a soil map of this great country. It is a land of entrancing interest, and, in many places, of great scenic beauty. China also has a superabundance of what two enthusiastic American auto-tourists called "freaks of Nature." They were speaking then of certain peculiar sugar-loaf and half-dome bare sandstone and conglomerate hills in Eastern Kiangsi. Had they been able to drive their car through the wonderful limestone "Karst" mountains of Kuangsi and Kueichou they would undoubtedly have been still more enthralled with the quaint tricks of Nature in South China.

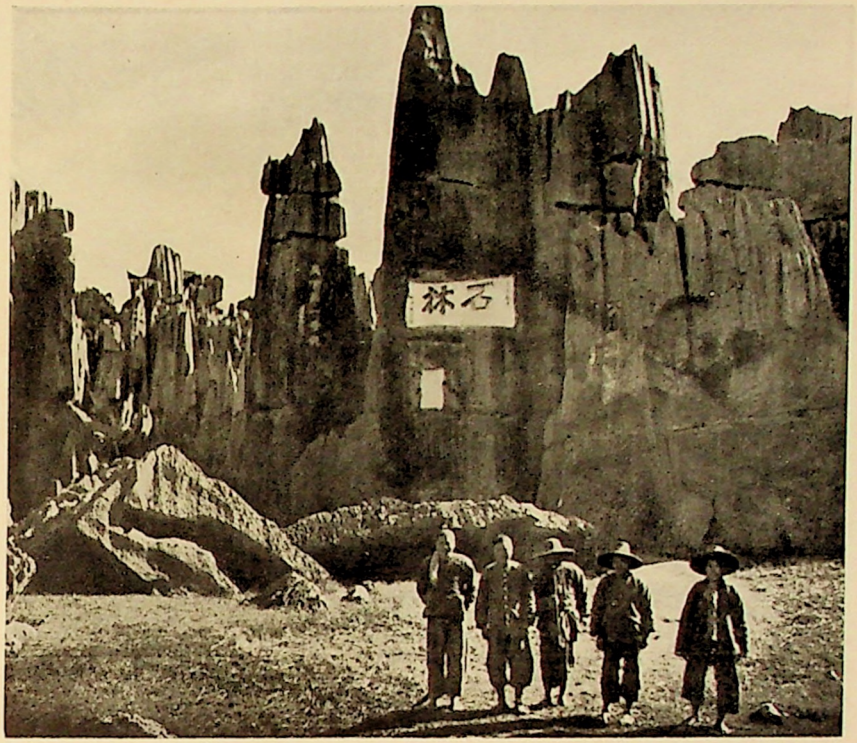
The Chinese have known of and appreciated these wonder spots for centuries, and their poetry and landscape paintings portray them vividly. Westerners are prone to look upon the old Sung landscape paintings as splendid examples of the power of the imagination expressing itself through the media of brush, paper and ink; but, after one has travelled widely in China, one realizes that the Sung artists drew from Nature rather than from their imaginations.

The object of our short pilgrimage out from Kun-ming (Yun-nan Fu) was to visit one of the lesser known, but nevertheless exceptionally interesting, examples of Nature's pranks in China. I say "lesser known" because Westerners seldom hear of it, but it is well-known and thoroughly appreciated in the region around Kun-ming. It is the Shih-lin or "Stone Forest" of Lu-nan County in Yunnan.

When the American Consul, Mr. A. R. Ringwalt, first mentioned the place to me, I immediately thought of something similar to our petrified forests in Arizona, New Mexico, Colorado and Wyoming, but I soon

1. Chief Soil Technologist of the National Geological Survey of China.

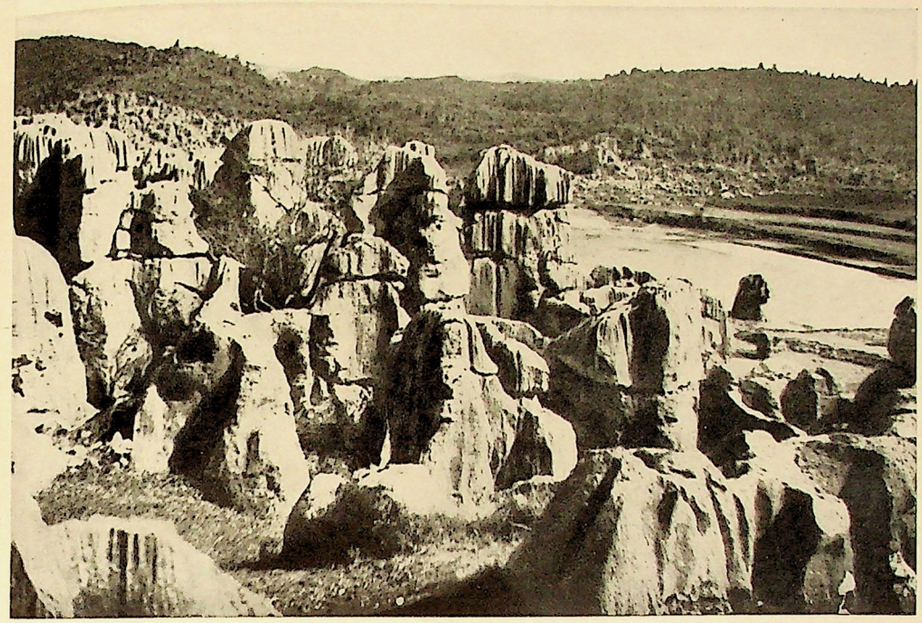
SHIH-LIN, YUNNAN'S "FOREST OF STONES"



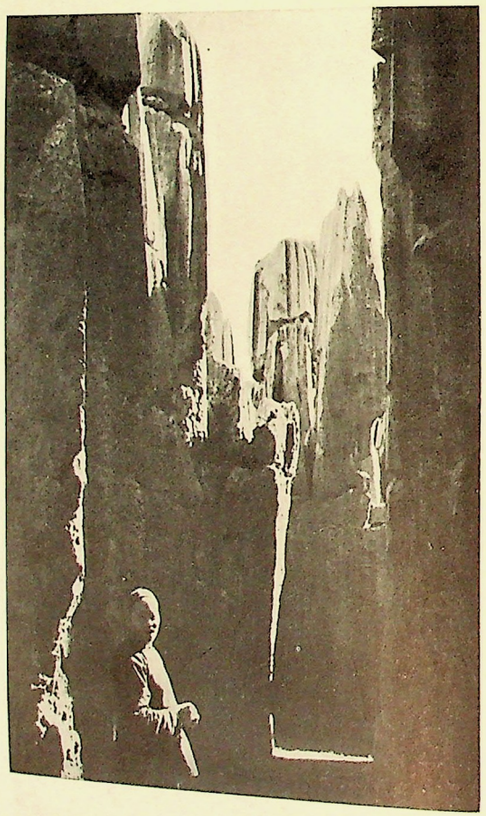
In various Parts of South China are strangely shaped Rocks carved by the Elements out of Limestone. Nowhere are they more remarkable than in the famous Shih-lin or "Forest of Stones" in Lu-nan County near Yun-nan Fu, or Kun-ming, as it is now called. Above is shown the Entrance to this extraordinary Phenomenon of Nature.

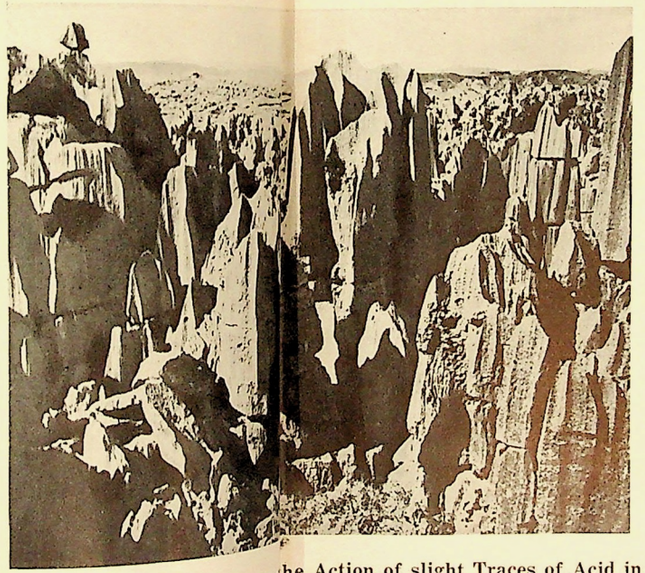
Photographs by James Thorp

A Natural Archway in the Eroded Limestone Rocks in the Shih-lin, which lies within easy Reach of Kun-ming, capital of Yunnan Province, South-western China.



Photographs by James Thorp.





Carved into Fantastic Forms through the Action of slight Traces of Acid in Rain Water through a long Period of Time the Limestone Rocks that form the Shih-lin in Yunnan Province present a remarkable Appearance and attract large Numbers of curious Visitors.

Fluted Columns and Pinnacles, pitted and hollowed Surfaces, Arches and Caves characterize the Rocks of the Shih-lin or "Forest of Stones" of Yunnan.

learned that Shih-lin is really a *forest of stone* and not a *stone forest.* The petrified forests of the United States are trees which have had their former wood cells replaced by stone, while the forest of stone of Yun-nan ....but of that more in due course; we shall see when we arrive!

Kun-ming, the capital of Yunnan, is the best starting point for Shih-lin, for one should first be provided with permission from the authorities and with letters to the police at Kou-kai-tze and Lu-nan; and, while Yunnan is at present (January, 1936) very peaceful, it is always well to be sure that travelling conditions are safe before starting into the country. Kun-ming may be reached by air from Chung-king, Sze-chuan, if one is lucky enough to strike a fair day for flying, and there will soon be motor road connections with the same city; but the surest way, and the one most accessable to the average tourist, is to take the train or the faster weekly "autorail" from Haiphong in French Indo-China. This takes one across the fertile delta plains of the Red River, through the jungled foothills of Northern Tonkin and up, up, up, twisting, turning, over leaping torrents and through stupendous cliffs to the rolling red heights of Yunnan, 7,000 feet above the sea. The autumn and winter season of the Yunnan Plateau is delightfully clear, with warm breezy days and crisp cool nights.

In my case I went to Kun-ming by air from Kuei-yang, Kueichou, as the culmination of my field studies of the soils of China. After visiting the authorities at the capital city and getting letters to local police, we started out at eight o'clock on the morning of December 24, taking the train for Kou-kai-tze (Dog Market Town), which is on the main railway line between Kun-ming and the border of French Indo-China. We soon crossed the beautiful lake plain near the capital, with its extensive rice paddy fields and rows of white "cedar" and eucalypts, and climbed through the hills of grey limestone and red soils. The railway skirts the precipitous slopes far above lovely Lake Yang-tsung and twists and turns its way down through the tortuous gorge of the Ta-shan River to the I-liang Basin, a fertile plain surrounded by red gullied hills and mountains, reaching Kou-kai-tze at about half past eleven.

My Chinese companion, Mr. K. C. Ni, who teaches English in the Young Men's Christian Association at Kun-ming, tried to find *hua-kan*[2] for us, but none were to be had, and so we threw our bedding rolls on a couple of pack horses and started for Lu-nan, fifteen miles south-eastward over the hills. The trail is used by an almost constant stream of horse and mule caravans, which carry coke from the distant coal mines to the railway, and salt from the railway to the interior. Our horses were from one of these caravans. They were fitted with pack saddles and halters without bits, so that they must be guided by a single twisted grass rope and by various methods of persuasion.

Before we had gone five miles, perched as we were on the pack saddles with our legs dangling intimately around the horses' necks, my little horse became more interested in another one of his species than he was in his duty, and the first thing I knew he was following his new

2. A *hua-kan* is a light sedan chair slung between two light bamboo poles and carried by coolies.

friend into the middle of one of those filthy green pools of water which one always finds near the villages. I pulled and hauled at the guide rope until it broke with a suddenness that nearly threw me off backwards from my precarious seat. To the great amusement of the by-standers we waded deeper and deeper into the mire until my horse began to sink and flounder in the mud, which forced me to jump off to keep from being thrown headlong into the slime. When the neglectful driver came up with us I was ready to use vigorous language on him, but, fortunately or otherwise, I lacked a sufficient Chinese vocabulary to do justice to the subject of his negligence and his animal's stubbornness.

We reached the summit of the divide, between the I-liang and Lu-nan Basins, after a 1,500-foot climb, when the yellow afternoon sun was casting long shadows in the ravines and making the white buildings of the distant Lu-nan county seat stand out against a blue and purple background of hills. Our first glimpse of Shih-lin was from here and it could be plainly seen, even though still ten miles distant. The main "forest" was not prominent, but many small outliers of tree-like stone pillars capped the hills of the old dissected peneplain north and east of Lu-nan.

In the city we were most courteously welcomed by Mr. and Mrs. Arthur Johnson, Protestant Missionaries, and we enjoyed a most pleasant Christmas eve with them and their three small children. We were thankful that it was not necessary for us to put up at the public inn, as my experiences have taught me not to expect much comfort in such places. Next morning Mr. Johnson engaged *hua-kan* to take us to the "forest," and we arrived at our destination after two hours of pleasant riding at the quick jog-step so characteristic of burden-bearers all over China.

Shih-lin is a peculiar rock formation consisting of patches of closely spaced rock pillars, knobs and fluted columns of light grey limestone. These peculiarly shaped rocks owe their present form to the work of dripping and seeping water during thousands of years. The beds of limestone lie in a nearly horizontal position in this district, and have been gradually cut into their present shapes by the dissolving action of slightly acidulated water along natural joints and cracks. In places where the solution took place *under the soil,* the knobs of rock are smooth and somewhat pointed irregular pyramids. These subsoil-formed stumps, which have recently been exposed by the extensive soil erosion of the region, lie around the outer edge of the "forest" and occur scattered all through the vast limestone regions of Southern China. It is quite evident, however, that the taller spires and pinnacles of rock were weathered to their present shapes *above ground,* since they bear the rain pits and flutings which are so characteristic of limestone outcrops in humid tropical regions. The dripping waters from trees, long since cut by the country people in most places, and falling rain have patiently worked at their task over the milleniums, and have left us this truly remarkable result. As we passed along the narrow avenues and through the tunnels or caves between the "trees" of rock, I could but be reminded of the pyramided towers of steel and stone in our great American cities, only in Shih-lin everything is on a smaller scale. Barometer measurements indicate a maximum difference in altitude of a little more than 100 feet between the

bottoms and the tops of the highest columns. They stand so close together that many of the rabbit-warren trails between them are almost continually in shadow, even on bright sunny days.

The main part of the "forest" stands in a small natural basin which has no surface outlet, a typical large limestone "solution valley." The highest pillars or "trees" are in the deeper parts of the basin, so that one may look down on them when standing on the valley rim. The pillars and blocks of limestone spread from this basin over a sort of saddle into another similar depression where there are more large pillars, and thus the "forest" covers a total of perhaps 200 acres. From any of the nearby low hills one can see innumerable other patches of stone pillars scattered over the rolling country for several miles to the east and south, and, in all probability, the total area of his type of formation on Lu-nan County considerably exceeds a thousand acres.

The Chinese have known of this place for a long time, and in many places one finds appropriate names and poetic verses carved on the vertical faces of the rocks. There is now a new summer pavilion perched among the knife-sharp pinnacles in the centre of the "forest," where one may rest and enjoy the fantastic panorama.

Ancient legend has it that there is a cave, somewhere within the forest of stone, that is big enough to shelter a thousand men, but to-day no one knows where it is. This legend is most probably founded on fact, since the heavy rains of summer never completely flood the "forest." The water must go downward through underground passages and find its way to the sunlight again in a distant river. The solution valley itself, is evidence of subterranean caverns which partly collapsed to cause its formation.

We might well ask the question why limestone weathers in this peculiar manner here and nowhere else. As a matter of fact the vast area of fantastic "Karst" limestone hills and mountains of Kuei-chou, Kuangsi, Yunnan and French Indo-China, so widely pictured in paintings of the Sung Dynasty, are the same sort of thing as the forest of stone, only on a much larger scale. In Shih-lin we have columns and pyramids on the scale of large trees, while in those other regions are hills and mountains of similar shapes and often proportionally spaced.

The limestones at Shih-lin seem to be too pure to leave much residual soil when they are dissolved, and so the columns stand out clear and clean instead of being buried under a mantle of earth.

Shih-lin is the result of forces which, by the wayward laws of chance, happened to be exactly right in this place to form these most interesting and picturesque "freaks of Nature." With the immense possibilities for different combinations of elements and forces which Nature has provided, we have only to travel far enough and search diligently enough to find almost any strange phenomen of which the human mind can conceive.

We were three or four miles from the nearest village at lunch time, and were so engrossed in our explorations that midday passed without our breaking our fast; and this on Christmas day! A two-hour chair ride in the warm afternoon sun brought us back to the hospitable home of the Johnsons and a good evening meal that compensated well for our

lack of a Christmas dinner at noon. Four hours by *hua-kan* the next morning brought us to I-liang basin and the "Dog Market Town," where we caught the up-train for Kun-ming.

Soon there will be a motor road from the capital city to Shih-lin and Lu-nan, so that it will be an easy one day "Cook's Tour" to see the forest of stone.

TRAVEL AND EXPLORATION NOTES

Round-the-World Motor Tour in 100 Days: Mr. B. J. Prochazka, a Czechoslovakian motorist, arrived in Shanghai last month in the course of his motor journey round the world, which he planned to complete in 100 days or less. Leaving Praha, Czechoslovakia, on April 25, he motored through Germany, Poland, Latvia, Russia, India and Malaya. From Singapore, by necessity, he boarded a steamship, arriving in Shanghai on June 14. Though he was detained in Shanghai for one week owing to difficulties involved in the landing of his automobile, Mr. Prochazka still held high hopes of crossing the North American continent in time to catch the Berengaria at New York and thence to Praha, his starting point, thus completing his tour by motor car round the world in the time specified.

Mr. Prochazka encountered many unusual and unique experiences during his journey overland from Europe to Singapore, being the first motorist to have obtained permission to drive through Soviet Russia and the first motorist to have entered Persia by way of Pahlave. Besides being a member of the Sporting Committee of the Czechoslovakia Automobile Club and the International Sporting Club in Monte Carlo, he is a correspondent for one of the biggest newspapers in Czechoslovakia and editor of a sports magazine called the *Mitteleuropaische Golf Revue.*

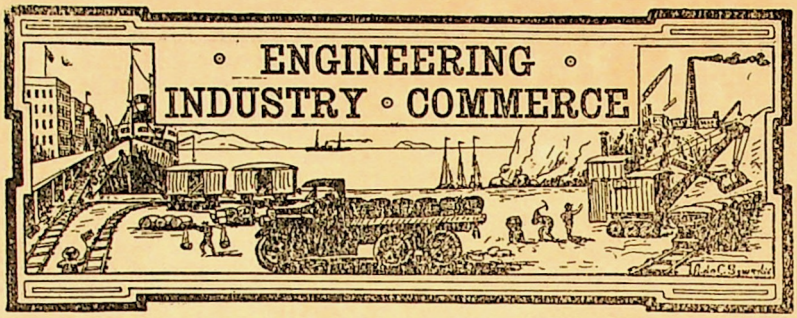
Indian Youth on Cycle Tour: Of an even more ambitious nature is the plan of Mr. Manek K. Vajifdar, youthful graduate of the University of Bombay and a Rover scout, to see the world on a two-wheeled bicycle. No time element being involved, he started his sightseeing tour in 1934, cycling through various parts of his own country and covering 3,000 miles on his first trip. Later he joined a Boy Scout Jamboree in Melbourne, Australia and travelled another 3,000 miles on his bicycle through Canberra, Sydney, Brisbane and various parts of Queensland, paying his way by giving lectures and broadcasting. He arrived in Hongkong last December and continued his journey in February to the interior cities of China. After a short train ride from Canton to Shaokuan, he pedalled through Kiangsi, passing through Chih-sing, Nan-hsiung, Tai-yu, Kan-chou, Chi-an and Nan-chang, then proceeded eastward to Hangchow and along the Nanking-Hangchow highway to Nanking. He was greatly impressed by the progress in highway development in Kiangsi. When last interviewed by press reporters at Nanking he was contemplating sailing to Japan and completing the last stretch of his trip across America and Europe.

Assault on Everest Ends in Failure: Despite the careful planning and exhaustive preparations of the Hugh Ruttledge Expedition for the assault upon Mount Everest, man's fifth attempt to conquer the highest peak in the world has again been frustrated by unforeseen elements. A recent report from Darjeeling stated that an advance party, while trying to reach Camp 4 at an altitude of 21,500 feet, narrowly escaped being swept away by an avalanche. A later report that the party would attempt an ascent by another route has been discounted as this is considered too hazardous and practically impossible. As there are no prospects of an early lull in the severe monsoons, all hope of making the ascent this year has been abandoned.

"Answering Questions on Manchuria 1936:" The South Manchuria Railway

has just issued an attractive and interesting pamphlet entitled "Answering Questions on Manchuria 1936," which covers in its eighty pages various aspects of the political geography, resources and industries, transportation and communications, finance, foreign trade, administration, immigration, extraterritoriality, education and sanitation and hygiene of that country. The booklet has been the result of innumerable questions put forth by Western visitors to Manchuria, and with its maps and illustrations should prove a valuable source of information and help to the inquisitive tourists visiting that country from year to year.

Trips to P'u-t'u: The China Merchants Steam Navigation Company are continuing to run their popular week-end trips from Shanghai to P'u-t'u Island (Pootoo) and back again this summer. Holiday makers may embark on a well appointed steamer on Saturday afternoon, spend the whole of Sunday on the island, where delightful scenery and splendid sea bathing may be enjoyed, and be back in Shanghai on Monday morning in time to go to business. Excellent food and accommodation are provided by the Company.

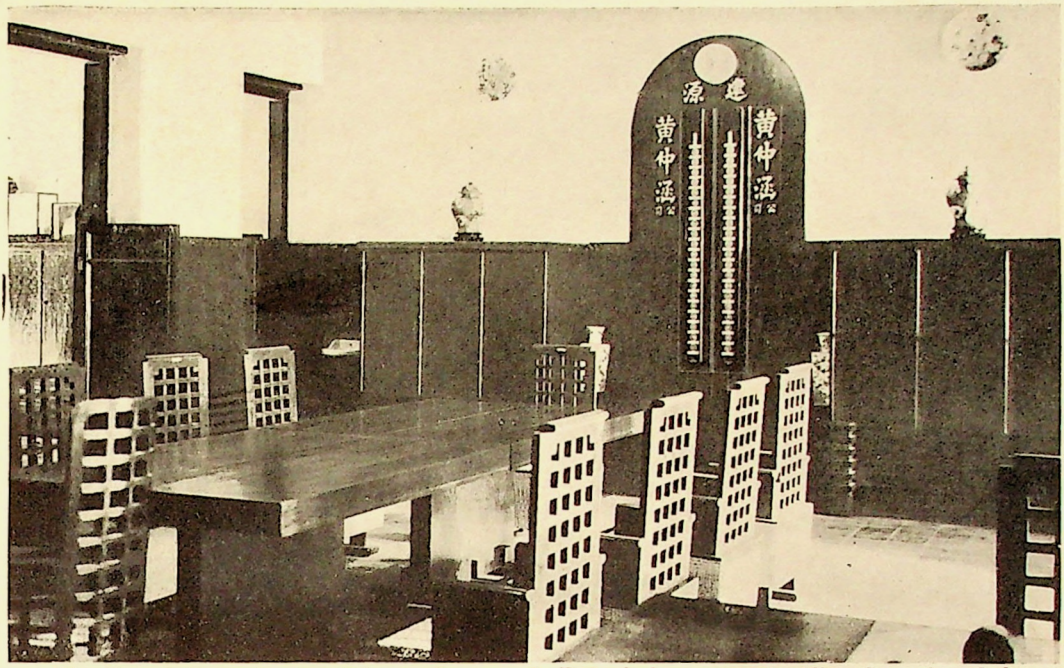


CHINA'S TRADE WITH MALAYA

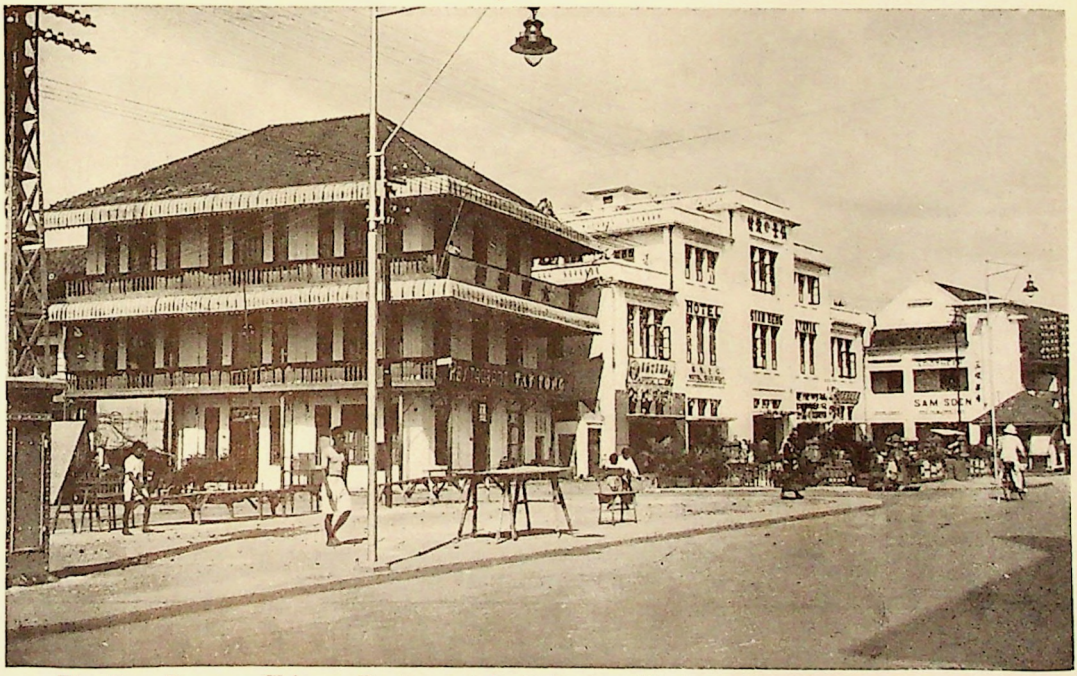
China's trade with the Malayan region has existed for a very long time, exactly how long it is not easy to say. We know from the fact that Sung pottery and porcelain has been excavated in the Philippines, Borneo and other islands of the Malayan Archipelago that the products of China were being shipped overseas as far back as the tenth century A.D., while the travels of various Chinese Buddhist monks indicate that intercourse had already been established between China and India by way of the Nan Hai, or the Southern Sea, at least in T'ang times (618-906 A.D.). Arab traders had reached China in the third century of the Christian era, and had established a trading colony in Canton by the year 300 A.D. It is not unreasonable to assume that Chinese ships had by that time ventured south-westward well along the south coasts of Asia and southward into the Indian Ocean. Long before this the Chinese had developed ships capable of making ocean voyages, for there is the account of an expedition undertaken by a Taoist monk named Hsü Shih on orders received from Shih Huang-ti, the famous Emperor of the Ch'in Dynasty (255-206 B.C.), to certain spirit-inhabited islands in the Tung Hai, or Eastern Sea, in search of the Elixir of Life. It is more than probable that China was trading with Malaya at least in Han times (206 B.C.-220 A.D.).

In later periods we have indisputable evidence of China's trade in the latter region, for we know through the writings of the great Venetian traveller Marco Polo that during the Yuan or Mongol Dynasty (1206-1368 A.D.) Chinese trading vessels were travelling to Java, Sumatra and India, for he tells of a voyage he made in one of these ships to escort a Mongol Princess who was going to Persia to be the bride of Argon, the Ilkhan or Governor of that country, stopping on the way at the places mentioned.

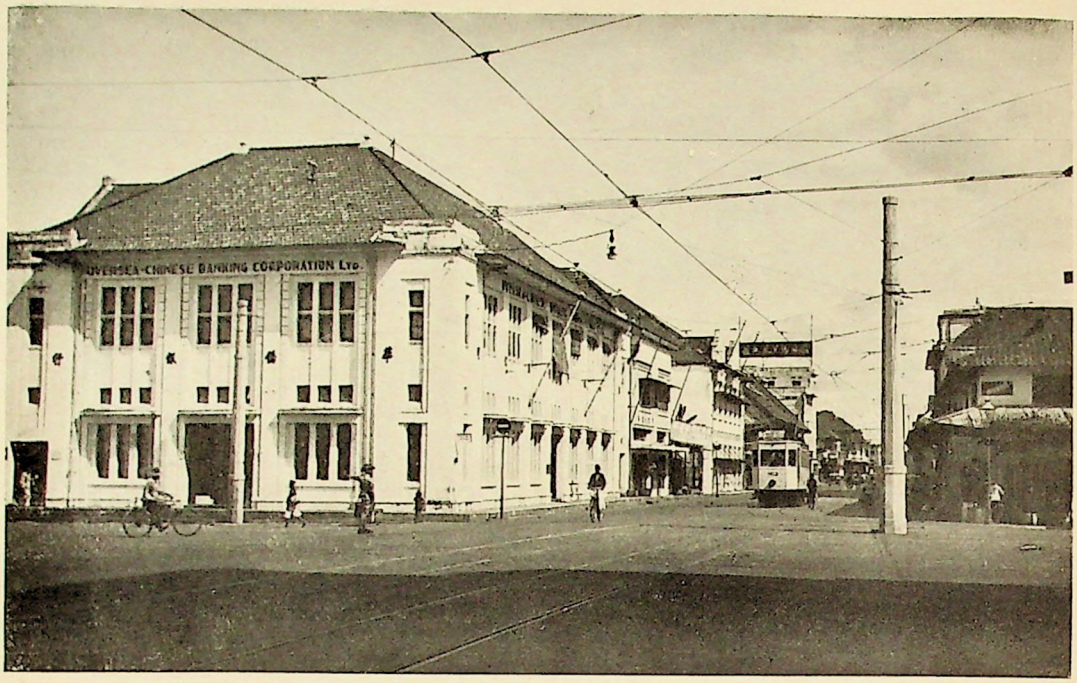
In Ming times there was a flourishing trade between China and various places in Malaya, tales of the fabulous wealth of the different kingdoms in these regions having aroused the enthusiasm of Chinese merchants, while Emperor Yung Lo of the Ming Dynasty (1368-1644 A.D.) had adopted a vigorous maritime policy, sending his armed argo-



The Board Room in the Chinese Concern in Batavia known as the Kian Goan founded by the late Oei Tjong Ham. It has an Office in Shanghai and does a big Import and Export Business.

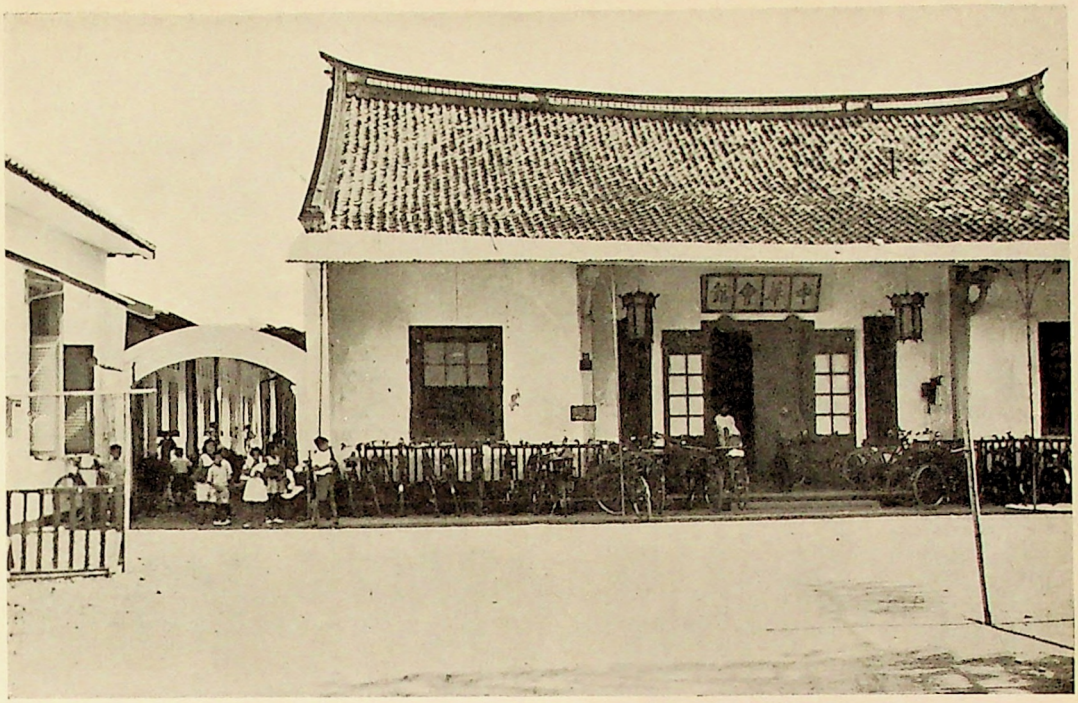


The Tay Tong, a Chinese Restaurant in Batavia. Photographs by Courtesy of the Java-China-Japan Line.



The Overseas Chinese Banking Corporation's Building in Batavia, Java.

The Head Office of the Java-China-Japan Line in Batavia, Java, the Chief Line of Steamers between China and the Netherland Indies.



Tiong Hoa Hwee Koan, the leading Chinese School in Batavia, Java.

The "Chineesch Road," otherwise known as the Chinese Kong Koan (or Kung Kuan) in Batavia. Photographs by Courtesy of the Java-China-Japan Line.

Lee Tjie Sia, one of the prominent Chinese Clubs in Batavia.

A Three Hundred Year Old Chinese Temple in Antjoer near Batavia, Java. Photographs by Courtesy of the Java-China Japan Line.

sies under Cheng Ho as far as Ceylon, and making the Shi Hai, or Western Sea, safe for Chinese trading vessels. Later this forward policy was abandoned, and China's trade with Malaya declined.

Under the Manchu Emperors it seems to have fallen off still further, only to be revived again as a result of the advent of Europeans—Portuguese, Spanish, Dutch and English—who, having established themselves in India and throughout the Malayan Archipelago as far as the Philippine Islands, insisted on opening up trade with China, thus giving Chinese merchants the chance of trading in those countries under their protection. Chinese trading colonies were established in all the more important cities and ports of the Malayan Peninsula, and Sumatra, Java, Borneo, Celebes and the Philippine Islands. They flourished exceedingly, in spite of several terrible massacres of Chinese, when the natives rose against the latter on one pretext or another, but really because they were getting too wealthy and powerful.

To-day Chinese form a very important element in the population of every country and state throughout the whole of Malaya, being looked upon by the British, Dutch and American authorities as their most reliable and useful citizens. Indeed, economically, they are the mainstay of every country in the region, whose commerce is to a large extent in their hands.

Naturally a very considerable part of that trade is with China. All manner of articles and produce are imported from China, not only for the Chinese colonists, but for the natives themselves, who, through contact with the Chinese, have learned to use this country's manufactures and to consume various kinds of food produced in this country. In turn China imports certain products from Malaya, though it may be noted that her exports to these regions far exceed her imports from them. This means that Malaya is economically of the greatest importance to China, for the countries it contains are amongst China's biggest customers. Certainly none of the other countries of the world buy more from China than they sell. In 1935 the excess of exports to British Malaya over imports from the same region was Straits $16,819,000, which is the equivalent in Chinese currency of about $30,000,000, a favourable trade balance of great importance.

A great deal of this trade is financed through Chinese banks, amongst which the leading one in Malaya is the Oversea-Chinese Banking Corporation, Limited, incorporated in the Straits Settlements. It is the successor to the Ho Hong Bank, the Chinese Commercial Bank and the Oversea-Chinese Bank, which were amalgamated in 1932 to form the present banking corporation. The Oversea-Chinese Banking Corporation now has branches at Amoy, Bangkok, Batavia, Batu Pahat, Hongkong, Ipoh, Kelantan, Kuala Lumpur, Malacca, Muar, Palembang, Penang, Rangoon, Seremban and Shanghai, each housed in its own building.

Through the courtesy of the Department of Statistics of the Straits Settlements and Federated Malay States we are able to give here the following tables showing analyses of China's trade with British Malaya.

CHINA'S TRADE WITH BRITISH MALAYA FROM 1930 TO 1935 EXPRESSED IN THOUSANDS OF STRAITS DOLLARS

	1930	1931	1932	1933	1934	1935
Exports to Malaya..	36,235	29,731	22,183	19,882	22,466	20,416
Imports from Malaya	8,829	5,177	3,951	5,827	5,466	3,597
Excess of Exports over Imports	27,406	24,554	18,232	14,055	17,000	16,819

This table, it will be noted, shows a steady decline in exports from China to British Malaya during the last six years, which is something the Government certainly ought to look into with a view to its rectification.

ARTICLES OF CHINA'S TRADE WITH BRITISH MALAYA EXCEEDING STRAITS $100,000 IN VALUE DURING 1934 AND 1935, WITH THE VALUES EXPRESSED IN THOUSANDS OF STRAITS DOLLARS

Exports from China

Article	*1934*	*1935*
Alum	158	7
Artificial Silk Piece Goods	269	161
Bamboo and Rattanware	189	170
Beans	423	765
Books and Printed Matter	237	263
Cotton Yarns:		
Grey Unbleached	164	124
Cotton Piece Goods:		
Grey Unbleached and White Bleached	111	89
Dyed in the Piece	861	652
Crockery and Porcelain	331	171
Earthenware, Other Sorts	125	87
Eggs, Fresh and Salted	232	179
Fish, Dried and Salted	257	214
Fruits, Fresh	714	838
Fruits, Dried and Preserved	866	787
Fruits, Canned or Bottled:		
Other Sorts	155	122
Ground Nuts (Pea and Monkey Nuts)	322	367
Hollow-ware (Cooking and Household Utensils)	111	63
Household Cotton Goods (made-up)	211	160
Joss Stick and Joss Paper	1,248	1,080
Kachang or Groundnut Oil	404	369
Lard	124	105
Leather Boxes and Trunks	376	309
Manuscript and Account Books	128	150
Matches	140	25
Meats Other Sorts	288	281
Melon Seeds	191	115
Oil Cakes	202	138
Other Provisions not elsewhere specified	202	180

Article	*1934*	*1935*
Other Manufactures of Cordage (Fishing Nets, etc.)	276	237
Other Raw Drugs and Medicines	1,433	1,486
Other Manufactured Cereals	356	223
Packing and Wrapping Paper	283	289
Pickles	107	65
Proprietary Medicines	439	407
Rockets and other Pyrotechnic Products (Fireworks)	285	347
Samsoo (Foreign Manufacture)	209	200
Sauces	125	123
Silk Yarn	122	89
Silk Piece Goods	520	358
Soya Beans	905	979
Tea (Black and Green)	744	711
Tobacco, Native Manufactured	218	363
Twine other kinds	156	171
Umbrellas	304	209
Underwear:		
Of Cotton	312	147
Vegetables:		
Canned	155	125
Dry and Preserved	1,309	1,117
Onions and Garlic	331	379
Fresh	501	384
Vermicelli	383	420
Imports into China		
Beche-de-Mer	102	40
Coconut Oil	260	171
Copra	145	305
Fish, Dried and Salted	119	104
Liquid Fuel	118	—
Motor Spirit	1,986	264
Pepper (Black, Long and White)	148	190
Rattans	167	189
Rubber including Sole Crepe	1,315	1,165
Timber, Sawn, large and small dimensions (excluding Teak)	156	129
Tin (Blocks, Ingot, Bars or Slabs)	200	84
Turpentine	—	233

With comprehensive statistics like these at our disposal there is no need to go into a detailed discussion of China's trade with British Malaya. The reader may extract from these tables such information as he may require in the way of what articles are exported to or imported from Malaya as well as their quantities and value. To a very considerable extent this trade is in the hands of Chinese merchants, though naturally much of it is carried in foreign ships. Some of it is still carried in Chinese junks, however.

Turning to China's trade relations with Java, Celebes, Sumatra and other islands of the Netherland Indies, we regret not to be in a

position to present figures similar to those in connection with her trade with British Malaya. However, it is probable that the articles and commodities involved are very much the same, except that China imports large quantities of sugar from Java, either directly, or indirectly through Hongkong. For instance raw sugar is imported into that colony by a well known firm to be refined for the China market.

China also imports a considerable quantity of copra from Macasser in Celebes to extract the coconut oil for use in various manufactures. Java copra, being of a superior quality, is too expensive for the China market. It may here be mentioned that copra is also imported from Manila in the Philippines and Singapore in the Straits Settlements, since the freightage from these places to China is cheaper than from Java.

The Chinese are using more and more coffee, considerable quantities of the lower grades of "Robusta" being imported from Java. Other grades are too expensive for the Chinese market. Sumatra, although finding difficulty in competing with Singapore on account of higher freight rates, sends China a certain amount of pepper, while Macasser sends large quantities of rattan for the manufacture of furniture. This import business is exclusively in the hands of Chinese merchants. A little raw rubber is imported into China from Java, but here, again, the cheaper freight rate from Singapore gives British Malaya the advantage.

Most of the famous birds' nests, from which the Chinese make their most highly prized table delicacy, birds' nest soup, comes from Java, which also sends large quantities of beche-de-mer or trepang to this country. Macasser holds the monopoly for the trade with China in sharks' fins.

China's exports to the Netherland Indies consists mainly of piece goods, including a little silk fabric, considerable quantities of cotton goods and spun silk yarn. The cotton goods include towelling, singlets and handkerchiefs, in which lines, however, Japan is a strong competitor. Indeed, Japan does a considerably bigger business in piece goods in the Netherland Indies than does China, in spite of the latter country's having better connections on account of the large number of Chinese residents there.

Oil paper umbrellas, cheap electric batteries, porcelain, enamel and aluminium ware, canned goods and cosmetics, which are manufactured in various ports in China, such as Canton, Swatow, Amoy, Foochow and Shanghai, are exported to Java in worthwhile quantities.

The trade between China and the Philippines is very similar to that with the Netherland Indies and British Malaya, both as to imports and exports.

One way and another China's commercial relations with the various countries of Malaya are of the utmost importance, and should be fostered by the Government in every way possible.

A. de C. S.

ENGINEERING, INDUSTRIAL AND COMMERCIAL NOTES

AGRICULTURE

Ducks Used to Wipe Out Locust Pests: An interesting war is now waging on Pai-kuo-chou Isle in the Yangtze River near Nanking, in which 2,000 ducks are being used to exterminate locust larvae. It is estimated that the ducks can destroy more than 2,000 catties of larvae daily, so, with 2,000 ducks at work, it is unlikely that many of these creeping larvae will live long enough to become adult flying pests.

An unusual movement has been started in Kuangsi Province by which life insurance for cows has been offered to provide protection to farmers against the loss of their cattle and to encourage the improvement of breeding. According to the *Star Daily News* the farmer pays an annual premium of $1 until the animal dies, whereupon he is given a new one. However, sickly or infected cows are not accepted for insurance.

Encouragement for Cattle-raising Industry: According to a *Kuo Min* report the Ministry of Railways is offering a 25 per cent. rebate to all cattle ranches and animal husbandry stations established by Central or Provincial Government organs for the transport of animals, to go into effect on July 1. This reduction has been offered as a means of encouraging the cattle-rearing industry in this country.

Farm Credit Bureau to be Inaugurated: Plans for the organization of a Farm Credit Bureau designed to give financial assistance to peasant-farmers and to aid in the distribution of agricultural produce are now being studied by the Ministry of Industries. A recent *Central* despatch stated that a five-year plan was being drafted and that the Bureau would be formally inaugurated in July.

AVIATION

Eurasia Prepares for Night Flights: In preparation for night flying the Ministry of Communications has instructed the Eurasia Aviation Corporation to install beacon lights and other equipment at the Nanking Aerodrome. Meanwhile the huge Eurasia hangar, located at the Lunghua Aerodrome in Shanghai and equipped with facilities to aid night flying, is nearing completion.

C.N.A.C. Awaits Arrival of New Aeroplanes: The China National Aviation Corporation, according to *Kuo Min*, has ordered three large aeroplanes equipped with sleeping berths and dining saloon from the United States for night flying. With the addition of a third Douglas DC-2 airliner, which arrived last month, it is expected that there will be three Peiping and three Cheng-tu round trips weekly instead of two.

Canton-Hanoi Line Dispute Settled: The Canton-Hanoi air service which was suspended early this year pending negotiations between the China National Aviation Corporation and the South-west authorities has resumed operation under the South-west Aviation Corporation, a Chinese concern owned and operated by the Provincial Governments of Kuangtung and Kuangsi.

COMMERCE

China Firm Celebrating its Centenary: On July 1 the well known China firm of Gibb, Livingston and Company celebrated the hundredth anniversary of its founding at Canton by the signing of a partnership between Mr. T. A. Gibb and Mr. W. P. Livingston. In 1844 the Shanghai branch was opened, since which time the firm has taken a prominent part in the commercial and financial activities of this city and port. An attractive brochure has been issued by the firm commemorating this auspicious occasion and giving a brief outline of the company's history. In the famous tea trading days of Foochow, Gibb, Livingston and Company were leading exporters of this commodity from that port, where they still are one of the most important firms.

CONSERVANCY

Yangtze Rises above Danger Point: The recent rises of the Yangtze River in the districts of Nanking and Hankow to a point two metres above the danger line again threatens the surrounding areas with inundation. A *Kuomin* despatch announced that the Nanking Municipal Bureau of Public Works has established a Flood Prevention Engineering Committee to take precautionary measures and that the Hankow authorities had telegraphed to the Hupeh Provincial Government for the immediate remittance of $20,000 for reinforcement of the dykes. News from West China is to the effect that in the upper reaches of the Yangtze the waters are the lowest they have been for the past forty years. This must greatly help to counteract the danger of flooding along the lower reaches.

N.E.C. Issues Annual Report on Dyke Repairs: A sum of $10,000,000 was expended in 1935 for dyke repairs along the Yangtze and Yellow Rivers, according to a report recently issued by the National Economic Council. Of the twenty-nine dyke collapses, twenty-seven of which occurred in Hupeh Province, five had been repaired at the time the report was compiled, while work was proceeding on the repairs of the remaining broken dykes. Conservancy experts are now emphasizing the adoption of basic measures permanently to control the rivers of China, though many years must pass before these plans can be realized. In the meanwhile emergency measures have been almost completely carried out.

C.I.F.R.C. Witnesses Completion of Highway: The China International Famine Relief Commission, one of the few if not the only private organization in China working on scientific lines, has just marked another step in its progress in the opening of the 180-*li* highway at Hsu-chou, which was built with funds collected by this worthy organization. The road project was adopted as a means of offering relief to flood refugees through employment. The labourers were carefully chosen, preference being given to those who were most desperately in need of help. Other phases of the Commission's program include seed loans to farmers and free medical treatment for flood victims.

FINANCE

Postal Bank in New Headquarters: The Postal Remittance and Savings Bank has moved into its new offices in the Development Building on the corner of Kiangse and Foochow Roads. Operating on a plan similar to that of the postal savings institutions in America, the Postal Bank has increased its total savings deposits from $12,446,000 in March, 1930, the opening date, to $55,245,938 in April, 1936.

Rural Credit Loans for Peasants: Negotiations are now being made by local authorities for a $1,100,000 loan to be granted by the China Farmers' Bank to the needy peasants of Szechuan, Kueichou, Shensi, Honan, Hupeh and Anhuei for the rehabilitation of the Communist-devastated areas. According to a *Central* report the loan will be distributed as follows: $300,000 to Szechuan, $300,000 to Kueichou, $300,000 jointly to Honan, Hupeh and Anhuei, and $200,000 to Shensi. The first step towards the materialization of this project will be the establishment of agricultural co-operatives in these provinces.

MINING

Hunan Iron Mine to be Exploited: A *Kuomin* despatch stated that the Central Government has decided to allocate $200,000 for the exploitation of an iron mine in Ning-siang, Hunan, which was estimated to contain more than 6,000,000 tons of ore.

Peng-hsien Copper Mines: A recent investigation of the Peng-hsien mines with their centres located at Ta-pao-shan, Mu-shung-ling and Fu-shui-yen revealed that at least 100,000 tons of copper could be produced in twenty years. The initial cost for the exploitation of these mines was estimated at $1,700,000, the cost for the production of one ton being fixed at $130.

INDUSTRY

To Promote Native Industries: The promotion of native industries through consumption of Chinese materials was embodied in a speech made by Mr. Wu Ting-chang, Minister of Industry, during a broadcast on the "People's National

Economic Reconstruction." In order to push forward this movement the Executive Yuan has given instructions to all Governmental bureaux to use only native materials in future building projects. In the meanwhile, it has been learned, the Ministry of Industries is contemplating the establishment of state-owned lumber mills as well as steel foundries with a view to meeting the demand for domestic building materials.

A Survey of the Domestic Match Industry: An article appearing in the June 15 edition of the *Shanghai Evening Post & Mercury* contained interesting information on the match-manufacturing industry and trade in China. The report showed that great progress towards the preserving of the local industry had been made since January of this year, which has resulted in the general improvement of market conditions. This turn for the better is mostly due to the work of the Cooperative Office for the Domestic Match Industry, which has regulated the supply and demand, eradicated competition and readjusted prices by limiting the production of the various match concerns.

RADIO AND TELEPHONE

New Long Distance Telephone Services: Last month marked the inauguration of several important long-distance telephone services. Satisfactory results having been obtained by the Chinese Government International Radio Station at Liu-ho, the Hankow-Changsha line, forming one of the main trunk lines of the nine-province network, was officially opened to service on June 16 simultaneously with the Hangchow-Nanchang line. It has further been announced that a long-distance telephone line connecting Nanking with Kuan-yun is being installed and plans are being completed for the extension of communication facilities in Northern Kiangsu.

China to Britain and America by Telephone: A recent *Kuo Min* report announced that preparations for the projected radio-telephone service between Great Britain and China had been completed, service to be officially inaugurated within the next month. The preliminary trial tests between the United States and China made during the Sino-American Trade Week proved to be so successful that arrangements are also being made for a permanent service between these two countries. Trials are being carried out with Berlin in anticipation of a broadcast of the World Olympic news.

Public Telephones Gain Popularity: Figures released by the Shanghai Telephone Company revealed that there are now 200 public telephone booths in operation as compared with 31 in February. This expansion is mostly due to the public's growing appreciation of a service which has proved to be not only convenient but economic as well. These pay stations are located usually in public buildings, such as banks, department stores, restaurant, parks and public jetties, and the cost per call is only one five-cent coin.

RAILWAYS

Huai-nan Railway Inaugurated: The Huai-nan Railway, stretching from the Huai-nan Mines in Lo-ho-kou across Northern Anhuei to Yu-chi-kou, a distance of 215 kilometres, was opened to traffic last month at a ceremony held at the Chiu-lung-kang Station. Built at a cost of $8,900,000, it is considered to be the cheapest railway to have been constructed in China.

Soochow to Ka-shing: Construction work on the new line between Soochow, on the Nanking-Shanghai Railway, and Ka-shing on the Shanghai-Hangchow-Ningpo Railway is said to be completed. Passenger train service will commence this month.

ROADS AND ROAD BUILDING

Boy Scouts Launch Road-building Campaign: In order to show their community spirit 3,000 Chinese Boy Scouts have started a campaign to build three roads at the Civic Centre in Kiangwan, which, when completed, will be called Chi Jen Yung, Hu Woo and Hsing Hsien, respectively. No actual compensation other than twenty cents a day for car fare is expected, the Boy Scouts all working for their rewards in the form of merit badges and certificates.

Szechuan Linked to Neighbouring Provinces: Development of communications between Szechuan and neighbouring provinces is making great progress. The Szechuan-Kueichou and Szechuan-

Shensi Highways were officially opened to traffic on July 1. Construction work on the Szechuan-Sikong Highway has already been started, while work will commence on the Szechuan-Hunan and Szechuan-Yunnan routes in September.

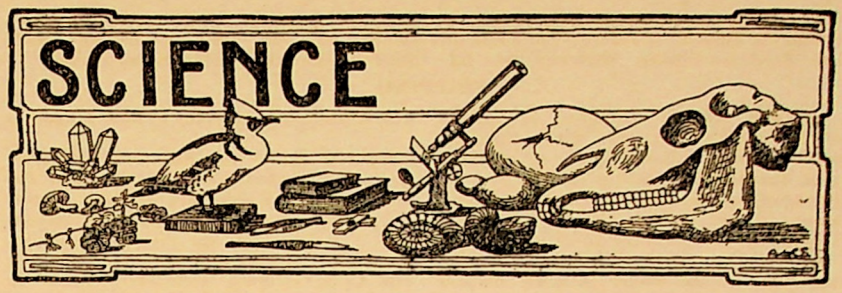
SHIPPING

Jukong Wharf: Designed to be one of the world's best docks with ample accommodations to cater to five of the biggest ocean liners calling at the port of Shanghai at the same time, the cornerstone of the Jukong Wharf at Point Island was laid on June 20 at a ceremony attended by many officials. The construction of the wharf is being divided into three stages, the first stage to be completed in a few months. The wharf will be provided with offices, Customs examination rooms, passengers' waiting rooms and several residences. It will have a frontage of about 3,000 feet and storage space for approximately 15,000 tons.

"Nomenclature of the N.Y.K. Fleet:" The N.Y.K. Line has just issued the second edition by Dr. R. Ponsonby Fane of the "Nomenclature of the N.Y.K. Fleet," which has been brought out at this time to synchronize with the golden jubilee of the company. As its title implies the booklet is an account of the names borne by the principal vessels of the Nippon Yusen Kaisha since the inauguration of its European service in 1896. Colourful reproductions of woodcut prints and illustrations in half-tone add to the attractiveness of this brochure.

Special Rates for Summer Tourists: Both the Nippon Yusen Kaisha and the Dairen Kisen Kaisha are offering special round-trip rates to summer vacationists. The N.Y.K. excursions include Honolulu, the United States and Canada, while the D.K.K. is offering round-trip fares to Tsingtao. The China Merchants' Steam Navigation Company has commissioned *"Hai Yuan"* for a special run between Shanghai and Tsingtao in order to cope with the enormous tourist traffic to that famous resort. In the meanwhile the prediction of the Japanese Tourist Bureau of an unusually busy tourist season is being fulfilled as hordes of holiday makers are deserting their native lands to invade the numerous health resorts of Japan.

N.D.L. and Melchers Celebrate Golden Jubilee: Two well known local German firms, the Norddeutscher Lloyd Line and Melchers and Company, celebrated their golden jubilees last month, the former in commemoration of the inauguration of its Far Eastern service and the latter the fiftieth anniversary of its agency for the Norddeutscher Lloyd Line.



THE DUGONG IN CHINESE WATERS

BY

ARTHUR DE CARLE SOWERBY

In the February, 1935, issue of *The China Journal*[1] was published a brief article by Dr. Glover M. Allen, Curator of Mammals in the Museum of Comparative Zoology at Harvard College, entitled "The Former Occurrence of the Dugong in Chinese Waters." In it Dr. Allen called attention to a passage in an extensive work, published in 1665 and describing the embassy to the Chinese Emperor carried out by Pierre de Goyer and Jacob de Keyser, in which a description of the sea cow or dugong occurs, and he put forward the suggestion that the travellers' "experience with the dugong pertains to the Canton region."

In a note following the article we suggested that there was nothing in the passage to uphold this contention, and pointed out that the Chinese could have come to know about the dugong by encountering it in the waters of Java and other islands in the Malayan Archipelago, which they had long been visiting as traders.

Recently we have received a further communication from Dr. Allen calling our attention to a paper by Professor Kyosuke Hirasaka, published in the *Memoirs of the Faculty of Science and Agriculture, Taihoku Imperial University, Formosa, Japan*,[2] and entitled "The Occurrence of Dugong in Formosa." In this Professor Hirasaka describes the capture of two male dugongs on the west coast of Formosa in 1932. He also says that formerly it was fairly abundant in waters round Riukiu Island and Amamioshima, South Japan, where it was eagerly hunted for its flesh and oil, and that an old fisherman told him of the capture of one of these animals off Abratsu, a port on the eastern shore of Kyushu, about thirty years ago. In another paper, entitled "On the Distribution of Sirenians in the Pacific" (B8.27, Fifth Pacific Science Congress, pp. 4221-2), he says that the *Osaka Mainichi*, a leading Japanese daily newspaper, reported the capture of a dugong off Gunsan, Chosen (Korea), in May, 1932, the report, however, not being supported by scientific evidence. Professor Hirasaka refers to the animal as *Halicore dugong*.

1. Vol. XXII, No. 2, pp. 79-82.
2. Vol. VII, No. 1. October, 1932.

In view of the now definitely established occurrence of the dugong at least as far north as Formosa, Dr. Allen writes that the presumption is again raised that these animals "might occasionally reach the China coasts, or at least may have done so in the not very distant past." We are certainly in agreement with him as to the possible correctness of this conclusion, but must point out that so far as we know no authentic record of such an occurrence is to be found in any foreign publication on China, nor do we know of anything in Chinese literature that can be taken to indicate that dugongs were ever found actually along the coasts of China. This, however, cannot be taken as proof that these strange marine mammals did not at some time in the past belong to this country's fauna, though it suggests that, if they ever did, they must have been exceedingly rare. It is hard to believe that an animal so conspicuous and so highly valued for certain alleged medicinal properties as well as for its fat and flesh could have escaped the attention of Chinese writers if it had occurred in their country.

A possible explanation is that the dugong originally occurred in Chinese waters and along the south and south-east coasts of China, but was exterminated at a very early date by aborigines before the cultured Chinese of the north reached these regions.

As stated by Dr. Allen in his first article, it would be extremely interesting to know whether dugongs at present occur in the seas off the Chinese coasts, and, we may add, whether any of our readers who are familiar with Chinese literature can furnish any passage indicating such an occurrence in historic times.

NOTES ON TREES AND SHRUBS OF NORTHERN MANCHURIA

BY

B. W. SKVORTZOW

12. Genera *CHOSENIA* Nakai and *SALIX* Linnaeus

Willows are the most difficult group of plants in the Manchurian flora to classify. I have spent several years in collecting these plants. Members of the genus *Chosenia*, very similar to *Salix*, are common in the Great Hingan Mountains and in mountainous valleys in Kirin Province. On the Barga steppes are to be found *Salix Ledebouriana, Salix brachypoda* and *Salix dahurica;* along the Sungari River *Salix mongolica, Salix viminalis, Salix triandra, Salix gracilistyla* and *Salix Matzudana.* In mountainous valleys in Kirin Province *Salix koreensis, Salix rorida, Salix viminalis, Salix purpurea* and *Salix siuzevi* are very common. In mountain forests generally *Salix Maximoviczii, Salix caprea* and *Salix depressa,* and in boggy places *Salix myrtiloides* have been reported.

Genus *CHOSENIA* Nakai.

Chosenia macrolepis (Turcz.) Kom. Figures 1, 2 and 2a.

A piramidal tree to 15 m. with rough grey bark. Branchlets red or yellow; leaves short petioled, small, elongate-lanceolate, 3 to 6 cm. long, .5 to .7 cm. broad, dark green above, glauceous beneath, in the lower part entire, at the end serrate, smooth. Pistillate catkins pendulous, 1.5 to 3 cm. long, greenish yellow. Bracts large, obovate, one-flowered, tomentose at margins. Ovary elongate, smooth, short stalked; style double, each with two stigmas. Nectary absent; staminate catkins pendulous, 1.5 to 2.5 cm. long. Scales red, broad, short tomentose at the margin; stamens five on short filaments. Fruiting catkin 7 cm. long. Fruits 5 mm. long, oblong, slightly tomentose or smooth, short-stalked.

Habitat: In mountainous valleys.

Geographical Distribution: Collected in the Great Hingan Mountains near Hingan, Mientuho, Barim and Halasu Stations of the Chinese Eastern Railway.[1] In Kirin Province near Shihtohotze, Lidahetze, Gaolintze, Hengtaohotze and Hailin Stations.

Genus *SALIX* Linnaeus

1. *Salix triandra* L. var. *nipponica* Seemen. Figure 11.

Shrub or tree to 2 to 6 m. with wide spreading head; branchlets smooth, red or brownish green; leaves elongate-lanceolate or ovate-lanceolate, 2.2 to 9 cm. long, 1 to 1.8 cm. broad, cuneate, short petioled, serrate, dull green above, light or bluish green beneath, glabrous; stipules subcordate, dentate Catkins on short leafy branchlets; the staminate flowers, 3 to 4 cm. long three stamens, pilose at base; the pistillate flowers with one gland, stigma bilobed. Fruits broad, somewhat flat, 5.5 mm. long, 2.5 mm. broad. According to Professor O. V. Seemen, the Manchurian plants belong to variety *nipponica* Seemen (=.var. *nipponica* Franch. et Sav.) with two forms, namely, *discolor* Anders, with leaves bluish green beneath and *concolor* Anders, with leaves light green beneath.

Habitat: Very common along river banks.

Geographical Distribution: Grows in Kirin Province, near Harbin, Ashiho, Erhtsengtientze, Maoerhshan, Imienpo, Muling and Suifenho.

2. *Salix pentandra* L.

Shrub to 2 m. Branchlets yellowish or greenish brown; leaves elliptical, elongate, ovate, cuneate, short acuminate, narrowed at the base, glandular-dentivulate; lustrous dark green and smooth above, light beneath, 4 to 12 cm. long, 1.5 to 5 cm. broad; petiole 6 to 8 mm. long, glandular; stipules oblong-ovate, small; stamens 5 to 8, villous to the middle; ovary glabrous; stigma bilobed.

1. Now known as the North Manchuria Railway.

Figure 11. *Salix triandra* var. *nipponica* Seemen.

Figure 12. *Salix caprea* **L. var.** *villosa* **Seemen.**

Habitat: Along rivulets and on the steppe.

Geographical Distribution: Found by me only near Suifenho, Kirin Province, and by T. P. Gordieiev in Barga. Reported by P. V. Siuzev from Harbin, Imienpo, Hengtaohotze and Modaoshi Stations on the Chinese Eastern Railway, Kirin Province.

3. *Salix Maximoviczii* Kom.

Shrub or tree to 10 m. with grey fissured bark and upright spreading branches. Leaves large, elongate, rounded at the base, cuneate and elongate, 3.5 to 8 cm. long, 1.2 to 2.7 cm. broad, serrate; petiole .4 to 1.2 cm. long; scales broad having the form of a crescent; pistillate flowers in long catkins.

Habitat: In mixed forests.

Geographical Distribution: Collected only near Gaolintze and Hengtaohotze Stations. Known from Korea and the Primorsk District of Eastern Siberia.

4. *Salix caprea* L. Figure 12.

Shrub or tree to 7 m. with dark bark. Branchlets yellowish green or reddish, smooth leaves elliptical or oval, rounded at the base, short cuneate obovate; dark green above, lighter and glauceous beneath, 3 to 8 cm. long, irregularly and slightly toothed or nearly entire; petioles smooth or light pubescent; stipules broad, oblique-reniform, serrate. Catkins subsessile with 3 to 6 bracts at base, densely villous; staminate flowers with two stamens, scales lanceolate, villous; pistillate flowers with grey pubescent ovary; stigma bifid.

Several forms are distinguished, amongst them being:

Forma *lanceolata* Anders. A shrub or tree with large elongate leaves.

Var. *villosa* Seem. A tree with branchlets and leaves villous beneath.

Habitat: One of the commonest willows in the forests of Kirin, Heilungkiang and Fengtien Provinces. Var. *villosa* is the more common. Forma *lanceolata* was collected by me near Erhtsengtientze Station on Chinese Eastern Railway.

P. V. Siuzev found near Gaolintzu forma *rotundifolia* v. Seem (= forma *orbiculata* A. Kern.) and forma *latifolia, subcordata* Anders.

5. *Salix depressa* L. Figure 13.

Shrub or tree to 6 m. with reddish bark. Leaves elliptical, cuneate at the base, elongate and short acuminate at the end, 2 to 5.5 cm. long, 2.5 cm. broad, dark green above, glauceous and smooth beneath, entire or crenate. Catkins subsessile, villous; staminate flowers with two stamens; pistillate flowers with grey pubescent ovary; stigma bifid.

Four varieties are recognised:

a. var. *cinerascens* Anders. Branchlets villous, leaves above and beneath villous.

Figure 1. On the Right are shown Examples of the Willow known as *Chosenia macrolepis* (Turcz.) Kom. growing in the Hingan Mountains.

Figures 2 (above). The Fruiting Branch, and 2a (right) the Pistillate and Staminate Catkins of *Chosenia macrolepis* (Turcz.) Kom. (2/3 Natural Size).

Figure 3. Flowering Catkins of *Salix viminalis* var. *Gmelini* Pallas. (Natural Size).

Figure 5. Two Trunks of *Salix Matzudana*, Koitz, growing near Harbin.

Figure 8. Withes of the Mongolian Willow (*Salix mongolica* Franch.) growing along the Sungari River near Harbin.

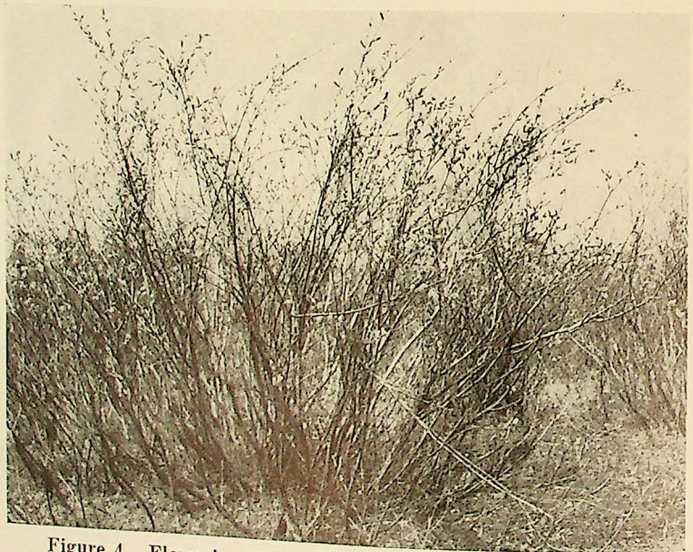


Figure 4. Flowering Shrubs of *Salix gracilistyla* Miq. growing near Maoershan Station, Chinese Eastern Railway, Kirin.

Figure 7. A good Example of *Salix Matzudana* var. *pendula*, Schneider, growing in Kirin.

Figure 6. A fine double Specimen of *Salix Matzudana* Koitz. Growing near Harbin. A close view of the Trunks of this Tree is given in Figure 5.

Figure 9. Above is shown a fine Specimen of *Salix koreensis* Anders. growing in the Open near Maoershan Station, Chinese Eastern Railway, Kirin.

Figure 10. On the Right is the Trunk of the same Tree.

b. var. *livida* Anders. Branchlets and the leaves smooth, not villous.
c. var. *manshurica* Siuzev. Branchlets villous, leaves acuminate, smooth above, villous beneath.
d. var. *Starkeana* Willd. Shrub to 3 m. with reddish bark. Leaves large, elongate-elliptical, smooth.

Habitat: Grows on hillsides and in forests.

Geographical Distribution: Common in Kirin, Fentien and Heilungkiang Provinces.

6. *Salix myrtilloides* L.

Shrub to 50 cm. with reddish bark; branchlets short villous; leaves small, ovale, elliptical, short cuneate, rounded at the base, entire, .5 to 2 cm. long; dark green above, pale glauceous and smooth beneath. Catkins subsessile, short; two stamens.

Habitat: In boggy places with *Sphagnum*.

Geographical Distribution: Found by me only near Yablonaia Station, Kirin Province.

7. *Salix repens* L.

Shrub to 70 cm. with yellow or reddish bark. Branchlets villous. Leaves elongate-lanceolate or elliptical, rounded at base, smooth, greyish green above, villous beneath, 1 to 3 cm. long.

Habitat: Grows on mountain steppes and along streams.

Geographical Distribution: Common in the Great Hingan Mountains near Yakeshih, Mientuho, Irekte, Buhedu and Barim Stations on the Chinese Eastern Railway. P. V. Siuzev reports the following forms from Nikolsk-Ussurisk: Forma *europens* v. Seem. (=var. *vulgaris* Wimm.), forma *rosmarinifolia* Wimm., forma *subopposita* (Miq.) v. Seem. and forma *flavicans* Anders.

8. *Salix brachypoda* Trautv.

Shrub 30 to 70 cm. with grey bark. Branchlets yellowish green, tomentose; leaves small, lanceolate, cuneate from the both sides, 1.5 to 6 cm. long, .3 to 1 cm. broad, short petioled, entire, ciliate, grey-green, villous above, silky villous beneath. Catkins small on short bracted stalks; scale obtuse, black at apex. Ovary villous; stigma short-lobed.

Habitat: Common on mountain steppes.

Geographical Distribution: The Great Hingan Mountains and near Taipinling along the Chinese Eastern Railway, Kirin Province.

9. *Salix rorida* Laksch. Figure 14.

Shrub or tree to 15 m. Branchlets red or yellow-green, glauceous. Leaves short petioled, elongate-lanceolate, dark green above, glauceous cuneate at the base, acuminate, serrate. Pistillate catkins 4.5 to 6 cm. long, 1.2 to 1.5 cm. broad. Ovary 4 mm. long, smooth, short-stalked. Pistil bifid; scales obovate, round at the end. Staminate flowers larger than pistillate flowers. Scales villous, two stamens.

Figure 13. *Salix depressa* **L. var.** *livida* **Anders.**

Figure 14. *Salix norida* **Laksch.**

Var. *pendula* var. nov. Tree with pendulous branches. Branchlets glauceous.

Habitat: Common along rivers and streams in mountainous areas.

Geographical Distribution: Seen near Barim, Halasuana Chalantun in the Great Hingan Mountains; common near Erhtsengtientze, Maoerhshan, Imienpo, Shihtowhotze, Hengtaohotze and near Muling Stations of Chinese Eastern Railway in Kirin Province. Var. *pendula* found near Maoerhshan Station.

10. *Salix acutifolia* Willd.

Shrub or tree with red-brown and glauceous branchlets; leaves lanceolate-linear, long acuminate, narrowed at both ends, 6 to 12 cm. long, serrate, dark-green above, glauceous beneath. Bracts elongate. Stamens two, ovary smooth. Pistil long.

Geographical Distribution: Reported by P. V. Siuzev from Muling Station, Kirin Province.

11. *Salix viminalis* L. var. *Gmelini* Pall. Figures 3 and 15.

Shrub or tree to 10 m. with branchlets fine villous; leaves elongate-lanceolate or linear, cuneate from the both sides, 3.2 to 17 cm. long, .3 to 1.3 cm. broad, short-petioled and with linear stipules, slightly villous above, silky tomentose beneath, nearly entire or obscurely crenate, undulate. Catkins subsessile; stamens long, glabrous; ovary sessile, pubescent. Stigma bifid.

Habitat: Common along the rivers banks.

Geographical Distribution: Heilungkiang, Kirin and Fengtien Provinces.

12. *Salix gracilistyla* Miq. Figure 4.

Shrub or tree to 7 m. with grey villous branchlets. Leaves elliptical, elongate, elongate-obovate, 2.5 to 9 cm. long, .8 to 3.2 cm. broad, cuneate at the base, acuminate at the ends, serrate, dark green above; villous at first, smooth or pubescent beneath along the veins in maturity. Petioles short, villous; stipules broad, fine serrated, acuminate. Pistillate catkins 3 cm. long, 1 cm. broad. Ovary short-pubescent, sessile, elongate in the upper part with lobate stibma. Bracts acuminate, villous. Staminate flowers twice the size of the pistillate flowers.

Habitat: Grows along rivers in mountainous areas.

Geographical Distribution: Common in Kirin Province, found near Ashiho, Erhtsengtientze, Maoerchshan, Shihtochentze and Muling Stations.

13. *Salix Pierotii* Miq.

Shrub with smooth yellow or brown branchlets. Leaves lanceolate, acuminate, enlarged at the middle part, serrate, 4.5 to 8.5 cm. long, 1.8 to 2.5 cm. broad, green and smooth above, glauceous, smooth beneath.

Catkins short. Stigma bilobed. One stamen with two anthers. Bracts rounded, light brown, villous.

Geographical Distribution: Reported by P. V. Siuzev from the environs of Jaomen Station on the Chinese Eastern Railway, Kirin Province.

14. *Salix Matzudana* Koitz. Figures 5, 6 and 7.

Tree to 10 m. with upright or spreading branches. Branchlets fine pubescent, then smooth. Leaves lanceolate or linear-lanceolate, 8 to 16 cm. long, acuminate, cuneate at the base, fine serrate, dark green above, grey green and smooth beneath. Petioles 3 to 5 mm. long. Stipules lanceolate. Catkins 1 to 1.5 cm. long; ovary subsessile, style very short. Two varieties are recognised, namely,

Var. *umbraculifera* Rehd. Tree with a broad umbrella-shaped or semiglobose head.

Var. *pendula* Schneider. Tree with pendulous branches.

Habitat: Common in valleys and around Chinese villages.

Geographical Distribution: In wild state only near Harbin. Var. *pendula* only in cultivation in Chinese towns and villages, Kirin Province.

15. *Salix alba* L. var. *coerulea* Wimm.

Shrub or tree with fine branches. Branchlets villous and dark brown. Leaves lanceolate-acuminate, cuneate at the base, serrate, silvery at first, then smooth or almost smooth.

Geographical Distribution: Reported by P. V. Siuzev from the environs of Harbin in the Sungari River valley. Not collected by me.

16. *Salix mongolica* Franch. Figures 8 and 16.

Shrub or tree to 8 m. with fine branches and yellow-grey bark. Buds small, smooth, bright. Leaves elongate-lanceolate, linear, acuminate, enlarged in the upper part and cuneate at the base, 3.8 to 11.5 cm. long, .4 to 1.5 cm. broad. Petioles short, .3 to .8 cm. long, smooth, green above, pale green often glauceous-green beneath. Young leaves smooth above, villous beneath, mature leaves smooth. Catkins on leafy stalks. Staminate flowers 3 to 4 cm. long; scales darked at the apex, obovate, cuneate at the end; two stamens grown together; pistillate flowers 3 to 4.5 cm. long with villous ovary and with lobed stigma. P. V. Siuzev distinguished forma *gracilior* Siuzev with linear leaves, 7 to 10 cm. long, .4 to .6 cm. broad, cuneate at the base and somewhat enlarged at the end.

Habitat: Along river banks in marshy places.

Geographical Distribution: Common in Kirin Province near Harbin, Anta, Tsitsikar and Jaomen Stations of the Chinese Eastern Railway.

17. *Salix tenuifolia* (Turcz.) Laksch.

Shrub with yellowish branchlets. Leaves smooth, narrow, about .5 cm. broad, linear, sharply serrate; stipules linear, dentate. Scales

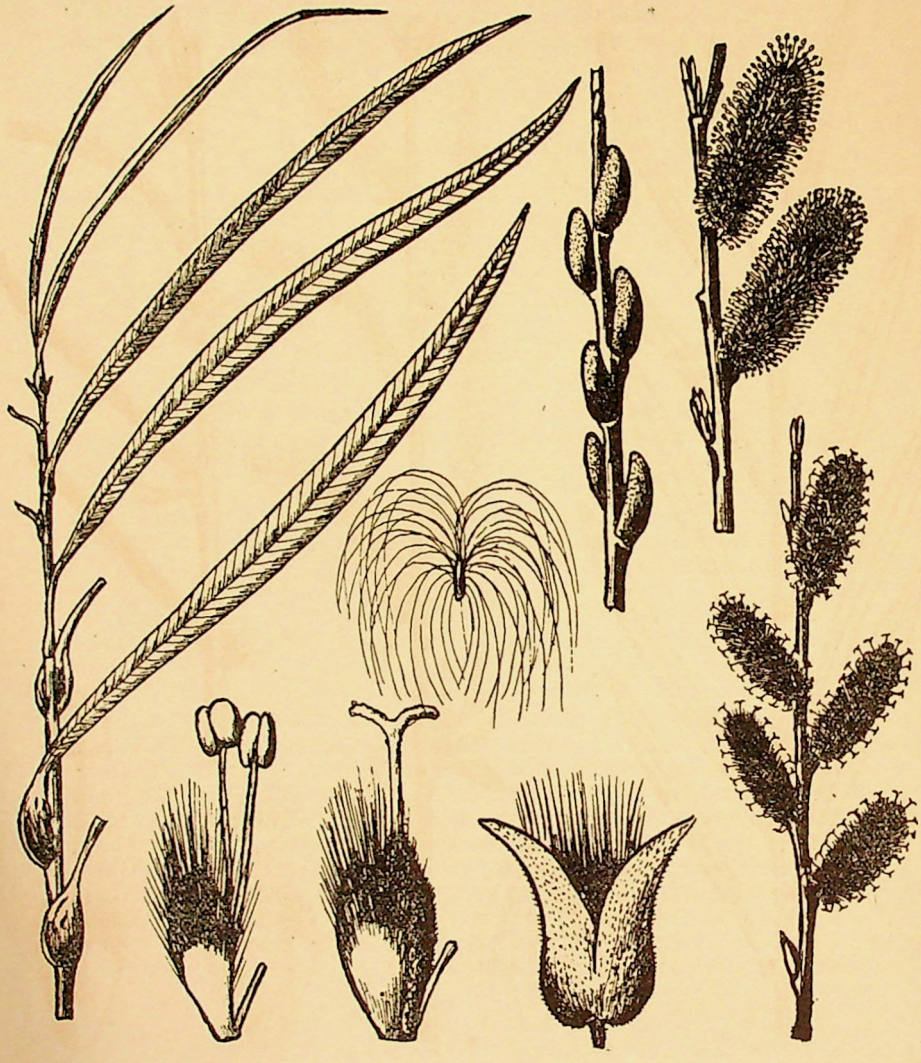


Figure 15. *Salix viminalis* **L. var.** *Gmelini* **Pallas.**

Figure 16. *Salix mongolica* **Franch.**

greenish when fresh, brown when dry, not darkened at the apex. Two stamens grown together; ovary villous.

Habitat: Along river banks.

Geographical Distribution: Reported from Transbaikalia and the Ussuri District, and will probably be found in Northern Manchuria.

18. *Salix dahurica* (Turcz.) Laksch.

Shrub with yellowish bark; mature leaves smooth, grey-green, light, linear-lanceolate, short-acuminate, serrate, 1 to 1.5 cm. broad, crenation flat; stipules linear, long or longer than the petioles, glandular-serrate; two stamens grown together; scales with dark apex.

Habitat: Grows along rivers.

Geographical Distribution: According to V. L. Komarov it is found in Transbaikalia and the Ussuri District. Collected by me from Barga, Northern Manchuria.

19. *Salix koreensis* Anders. Figures 9, 10 and 17.

Tree to 12 m. with upright or spreading branches. Branchlets light villous or smooth, greenish or brown. Leaves short-petioled, elongate, lanceolate, narrowed and rounded at the base, elongate acuminate at the end, serrate-glandular, green above, glauceous beneath, 3.5 to 11.5 cm. long, 1.1 to 2.5 cm. broad. Pistillate catkins small, green, 1.5 cm. long, .5 cm. broad, green. Ovary elongate, villous; style smooth stigma four-lobed, green. Scales ovate, villous; one nectary, yellow. Staminate catkins 1.5 cm. long with brown red anthers. Two anthers, 2 mm. long with smooth filament; two nectaries.

Habitat: In valleys in mountainous districts.

Geographical Distribution: Common in Kirin Province along the Eastern Section of the Chinese Eastern Railway.

20. *Salix purpurea* L.

Small tree to 4 m. with reddish-brown branchlets. Leaves elongate-lanceolate, rarely elongate-obovate, 5 to 10 cm. long, acuminate, cuneate at the base, fine serrate, dark-green above, light green, little glauceous beneath, smooth or slightly villous. Petioles 4 to 8 mm. long. Catkins on leafy branches; bracts obovate, rounded, purple and villous; stamen grown together with four-partite anthers.

Habitat: Along rivers.

Geographical Distribution: Not common. Collected near Erhtsengtientze Station, Kirin Province. P. V. Siuzev reported var. *gracilis* Gren. and Gods. with very narrow leaves, and var. *sericea* W. D. Koch, with young leaves at first villous, later smooth from Imienpo and Gaolintze Stations, Kirin Province.

21. *Salix integra* Thunb.

Shrub with dark bark. Leaves narrow with many lateral veins, rounded at the base and the ends. Flowers very like the flowers of *Salix purpurea*.

Figure 17. *Salix koreensis* **Anders.**

Habitat: In forested districts.

Geographical Distribution: Common near Ashiho, Erhtsengtienze, Maoerhshan, Imienpo, Shitochetze and Hentaohotze Stations in Kirin Province. Collected by P. V. Siuzev near Gaolintze Station.

22. *Salix Siuzevii* O. v. Seemen.

Shrub or tree to 5 m. with brown bark. Branchlets purple or greenish brown, smooth. Leaves lanceolate, short petioled, cuneate at the base, acuminate at the end, dark green, smooth above, glauceous and pubescent along the veins beneath, wavy at the borders, 2.5 to 14 cm. long, 1 to 1.8 cm. broad. Petiole .2 to 1 cm. long. Pistillate catkins 4 cm. long. Ovary villous.

Habitat: Along streams in mountains.

Geographical Distribution: Collected by me near Erhtsengtientze, Maoerhshan and Imienpo, and by P. V. Siuzev near Muling, Gaolintze and Nikolsk-Ussurisk.

23. *Salix mixta* Korsh.

Shrub to 4 m. with fine branches. Branchlets yellowish, smooth. Leaves elongate-lanceolate with elongate ends and with 12 to 15 pairs of side veins, serrate, glandular. Two stamens with two nectaries.

Geographical Distribution: Known only from the Ussuri District.

24. *Salix Kochiana* Trautv.

Shrub with light yellow or whitish branchlets. Leaves obovate-ovate, shovel shaped, cuneate at the base, broad acute at apex. Catkins short, ovary villous.

Habitat: Along streams in mountains.

Geographical Distribution: Reported from the upper part of Amur River; collected in Barga and by me near Eho Station in the Mutankiang valley, Kirin Province.

25. *Salix Ledebouriana* Trautv.

Shrub with yellow bark. Leaves long linear, attenuate from both sides, distinct dentate.

Habitat: On the steppes and in sand dunes.

Geographical Distribution: Collected by T. P. Gordeiev from Barga, near Hailar.

26. *Salix nigricans* Sm.

Shrub to 4 m. with fine pubescent or smooth branchlets. Leaves oval or elliptical, elongate-lanceolate, 2 to 10 cm. long, short or long acuminate, rounded or cuneate at the base, irregularly serrate, dark green, smooth above; glaucous, smooth or villous beneath. Petiole 1 to 2 cm. long. Bracts oval. Flower scales dark, acuminate, tomentose. Pistil smooth, rarely villous with a lobate style. Two stamens.

Geographical Distribution: Reported by P. V. Siuzev from Gaolintze, Kirin Province.

27. *Salix phylicifolia* L.

Shrub to 3 m. with smooth and villous branchlets. Leaves elliptical or obovate oval, lanceolate, 2 to 8 cm. long, cuneate at the base or rounded, acuminate at the end; margins slightly serrate; shining above, glauceous and smooth beneath. Petioles .8 to 1 cm. long. Two stamens; pistil villous with four-lobed style.

Geographical Distribution: Collected by P. V. Siuzev near Nikolsk-Ussurisk on marshy ground.

RECENT ACTIVITIES OF THE NATIONAL GEOLOGICAL SURVEY OF CHINA

BY

W. H. WONG

On the completion of its main building and the chemical laboratory, the National Geological Survey of China moved its Head Office from Peiping to Nanking towards the end of last year. The Peiping office is to be a branch and will continue to occupy its original site. Thanks to the efficient and cooperative working between different departments in the Survey the latter's regular activities were in full swing by the beginning of the present year.

WEEKLY LECTURES. A meeting of the scientific staff is held every week, when some member gives a short lecture on his subject of research. This is followed by discussion. Continuing the regular meetings held in Peiping the ninety-ninth lecture was given at the first meeting held in Nanking in the new auditorium. The speaker was Dr. T. K. Huang, Chief Geologist of the Survey, whose subject was "Methods of Geological Mapping." Following is a list of the lecturers for the present season and their subjects:

No. 100, H. J. Chu: Copper ores at Yang-sing and Ta-yeh of Hopei Province with plans of Prospecting.

No. 101, K. Y. King: What he saw on the Problem of Liquid Fuel Substitute on his European tour.

No. 102, C. H. Pan: On the Oil Geology of Shensi and Szechuan.

No. 103, C. C. Sun: Geology of Chi-lien-shan Range in Chinghai Province.

No. 104, J. Thorp: Soils of China.

No. 105, T. Y. Ma: The seasonal growth of Corals and its Possible Application.

No. 106, W. H. Wong: The Scope of the Work of Geological Survey.
No. 107, T. H. Yin: On the Geology of South-eastern Yunnan.
No. 108, T. H. Yin: On the Geology of North-western Yunnan.
No. 109, Y. S. Chi: Studies in Permian Corals.

FIELD PARTIES. Six parties have been engaged in field work during the past two years. These are:

(a) *Yunnan Party.* Headed by T. H. Yin, this party spent a year and a half in South-eastern and North-western Yunnan. He had the assistance of Mr. C. H. Lu. The work was started in August, 1934. Both Yin and Lu are now back in Nanking with a big collection of fossils and minerals. A general report summarizing the work was given in Weekly Lectures 107 and 108. Mr. Chen is still remaining in Yunnan working in cooperation with Mr. H. M. Meng of the Academia Sinica on the ore deposits along the border of Yunnan and Burma. He will return to Nanking at the end of this year.

(b) *Kueichou Party.* This party, consisting of Messrs. Y. L. Wang, Y. H. Hsiung and H. T. Wu, has been invited by the Kueichou Provincial Government to make a thorough study of the geology, stratigraphically as well as economically, of the province. Starting in October, 1935, its members have completed up to the present an area covering the following districts: Kuei-yang, Lu-shan, Wang-shiang, Chien-chang, Shih-ping, Chen-yuan, Huang-ping and Ping-yüo.

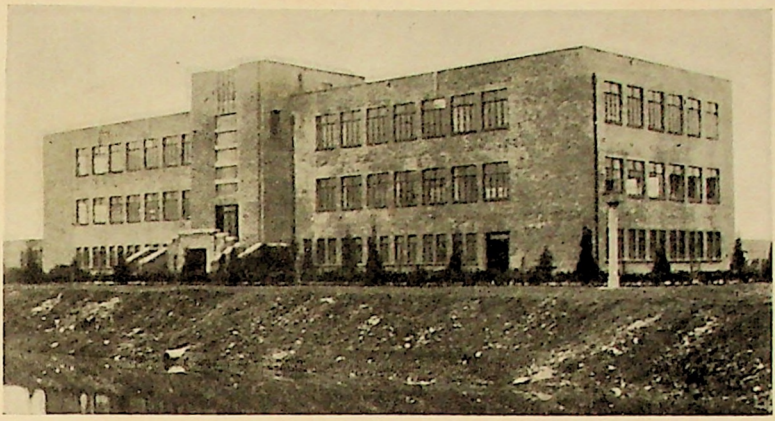
(c) *Kiangsi Party.* At the beginning of October last year Messrs. P. Kao and K. C. Hsu were sent to the western part of Kiangsi. They went to Ping-hsiang from Nan-chang through Kao-an and Shang-kao districts. From Ping-hsiang they travelled in I-chung, Feng-i and Sing-yu districts. After five months they have terminated their work in that region, subsequently proceeding toward Lo-ping to meet Dr. T. K. Huang, who was accompanied by Messrs. W. M. Yen and Y. Wang. Their main work there is to delinerate a topographical map of the Lo-ping coal field, which extends from Lo-ping to Po-yang. This coal field is considered to be of importance as the coal is of peculiar composition. It contains more volatile matter than fixed carbon, which seems to be favourable to carbonization. Dr. Huang, after staying at Lo-ping for three weeks, is now proceeding with Mr. K. C. Hsu to Ping-hsiang for a further survey of the iron and coal deposits.

(d) *Peng-hsien Party.* In collaboration with the National Resources Commission, Nanking, the Survey has sent Messrs. H. J. Chu and T. C. Chow to prospect the copper deposit situated at Peng-hsien, on the North-western corner of Szechuan Province. On his way to his destination, Mr. Chu spent a few days at Yang-sing, Hupei, to assist Mr. C. Shih of the Resources Commission in prospecting work there.

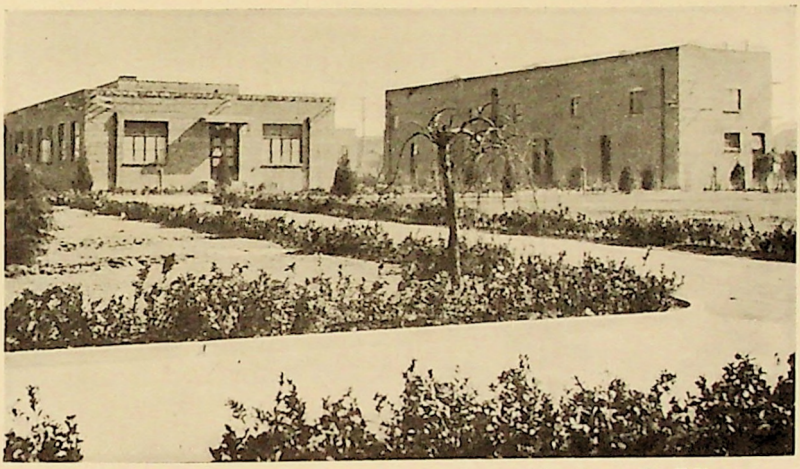
(e) *Lung-tan Party.* Messrs. Y. S. Chi, T. Y. Hsu and S. F. Sheng took short week-end trips to Lung-tan and Tang-shan, near Nanking, to study the stratigraphy of the marine Lower Triassic Chinlung Limestone, from which a good collection of Ammonites and Pelecypods has been made.

(f) *Chang-hsing Party.* With the intention of gaining more light on the geology of Chang-hsing, Chekiang, regarding the coal field and its oil seepage, a party of four, headed by Dr. T. K. Huang, were sent to

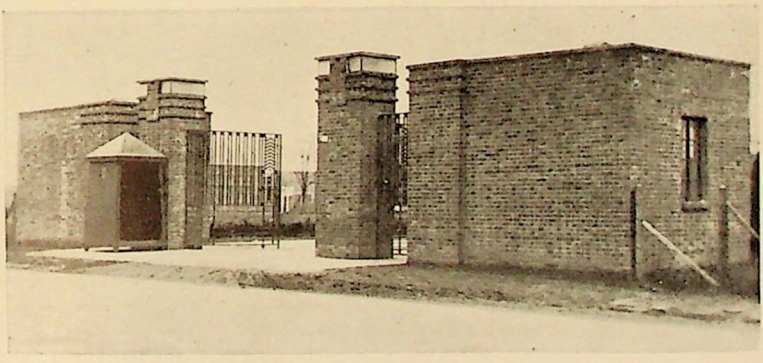
THE NATIONAL GEOLOGICAL SURVEY OF CHINA



Recently the new Buildings for the Headquarters of the National Geological Survey of China were completed in Nanking. Above is shown the Main Building.



The Laboratories of the Survey are housed in these Buildings.



The Main Gateway into the National Geological Survey Compound in Nanking.

The National Geological Survey has explored practically the whole of China, making Maps and taking Photographs of various Rock Formations. Here are shown Granite Cliffs in the Tao-ling District in Suiyuan exhibiting marked Joints.

Another Photograph taken by the National Geological Survey showing Gorges in the Upper Min River between Kuan Hsien and Mou Hsien in Northern Szechuan.

this region, which has already been visited by a number of geologists. It was learned that a slight revision of the previous records would be necessary, basing this on their investigation. Messrs. S. F. Sheng, I. Ting and K. S. Tsui assisted Dr. Huang in this work.

CELEBRATION OF THE TWENTIETH INAUGURATION OF THE NATIONAL GEOLOGICAL SURVEY OF CHINA. The year 1936 marks the twentieth anniversary of the Survey. For the purpose of celebration a memorial brochure sketching the various departmental equipment and work is in preparation and will be issued shortly.

NEW LIBRARY UNDER CONSTRUCTION. The main library is at present temporarily located on the third floor of the Geological Museum. This naturally takes away part of the Museum space open for exhibition purposes. It is, therefore, deemed necessary to build a new library, to be situated on the west side of the Museum. The new building is two stories high and is intended to house all the books on the ground floor on fire-proof stacks. Part of the second floor will be available for the offices of geologists. Construction has been started already and the building will be completed in August. The space vacated in the Museum will be employed for exhibiting dynamic geology, fuel, soil, invertebrate fossils, plant fossils and publications of this Survey.

HONOUR CONFERRED. The Kayserlich Deutsche Academie der Naturforscher conferred on Dr. W. H. Wong, the Director of this Survey, an Honorary Membership in recognition of his achievements in Chinese geology. The diploma was personally conveyed to Dr. Wong by Dr. Trautmann, German Ambassador to China, in February last.

NEW EQUIPMENT OF THE CHEMICAL LABORATORY. Special attention is paid to fuel research. There are different units for hydrogenation, oil distilling, coking furnace, vegetable oil cracking, coal analysis and testing and gas analysis. The most attractive apparatus is the Cooperative Fuel Research Committee's unit for estimating the knocking value of light liquid fuels, which has direct bearing on the efficiency and compression ratio of a spark ignition engine. The hydrogenation autoclaves are also of interest in considering the special property of alloy which stands an enormous pressure, 250 times the ordinary atmosphere at a temperature of 450°C. The laboratory has been very much enlarged and probably is the best of its kind for fuel research in China.

SCIENTIFIC NOTES AND REVIEWS

BLOLOGY

The Fauna of the Australian Region: Owing to the fact that the land in the area of the earth's surface known to naturalists as the Australian Region was separated from the rest of the world at a very early period in what has been called by Osborn the Age of Mammals, the present day fauna of that general region differs markedly from those of other regions. According to Wegener's

theory of continental drift, now generally accepted, the large land-mass known as Australia broke away from that of Asia during that period in the earth's history and drifted southward and eastward, leaving a chain of islands, the Malayan Archipelago, to mark its course, Because of this the animals in Australia and the south-eastern half of those islands became differentiated from those of Asia and the north-western half of the islands, the line between the two faunal provinces having been first noticed by Wallace, whose name it bears. This line lies east of Bali and west of Celebes. To the west of it we have the familiar types of mammals and birds of Asia, Europe and Africa, while to the east of it we find that the indigenous mammals are almost all marsupials, with two other extremely primitive egg-laying forms, the echidnas and the duck-billed platypus. The marsupials also are more primitive than the mammals of Asia, representing an earlier phase in the evolution of these warm-blooded vertebrates. Their young are born when extremely minute and comparatively undeveloped and find their way into a pouch on their mother's abdomen, where they fasten onto one of the mammae, slowly reaching maturity. Strangely enough, the marsupials of the Australian Region show an evolution paralleling that of the placental mammals of Asia, so that we have the counterparts in Australia of many types of Asiatic mammals, that is to say, there are small mouse-like forms, others resembling squirrels, yet others, the flying phalangers, simulating the flying squirrels of China and the Indo-Malayan area, while the carnivores or flesh-eating mammals of the rest of the world are replaced amongst the marsupials by the so-called thylacine or Tasmanian wolf and the Tasmanian devil of the Island of Tasmania. Of course the dingo, a form of wild dog, and therefore a placental mammal, is distributed throughout Australia, but it must have come in with primitive man long after the separation of the Australian Region from Asia had taken place.

The kangaroos and wallabies may be said to take the place of the deer and other browsing ungulates amongst placental mammals, though some forms, having taken to an arboreal existence, may be compared with other types of the latter. The long-snouted phalanger has somewhat the external appearance of the shrews, the common phalanger that of the lemurs. The wombat and the koala remind us of the bears, the former being a terrestrial and the latter an arboreal form. Some of the opossums take the place in the Australian region of the lesser carnivores, such as mustelines and civets, in other parts of the world.

Amongst birds there are also many strange types in the Australian Region differing from anything found in Asia. Such are the brush turkeys, the kiwi or apteryx, the emus and the cassowaries. Other forms, belonging to orders represented in other parts of the world, but of distinct families, are the lyre bird, the birds-of-paradise, the bower birds, the cockatoos and the large laughing kingfisher or laughing jackass.

Amongst reptiles there is less differentiation between those of the Australian Region and those of the rest of the world, since they are an older type of animal than the mammals and birds. It may be noted, however, that there are many more forms of the burrowing snakes (*Typhlops*) and the pythons than elsewhere in the world.

New Zealand is divided from Australia by a very deep chasm in the ocean bed, and was separated from the latter at an even earlier period than that when Australia broke away from Asia. In fact, this took place before the Age of Mammals, with the result that there are no indigenous mammals in New Zealand. Most interesting of all is the presence in a small island to the north-east of New Zealand of the tuatera, a lizard-like reptile which is the only survival of certain reptilian forms of the Permian period. It may thus be looked upon as a "living fossil." It is the only present-day representative of the great dynosaurs of the past, and in many ways is quite different from all other living reptiles.

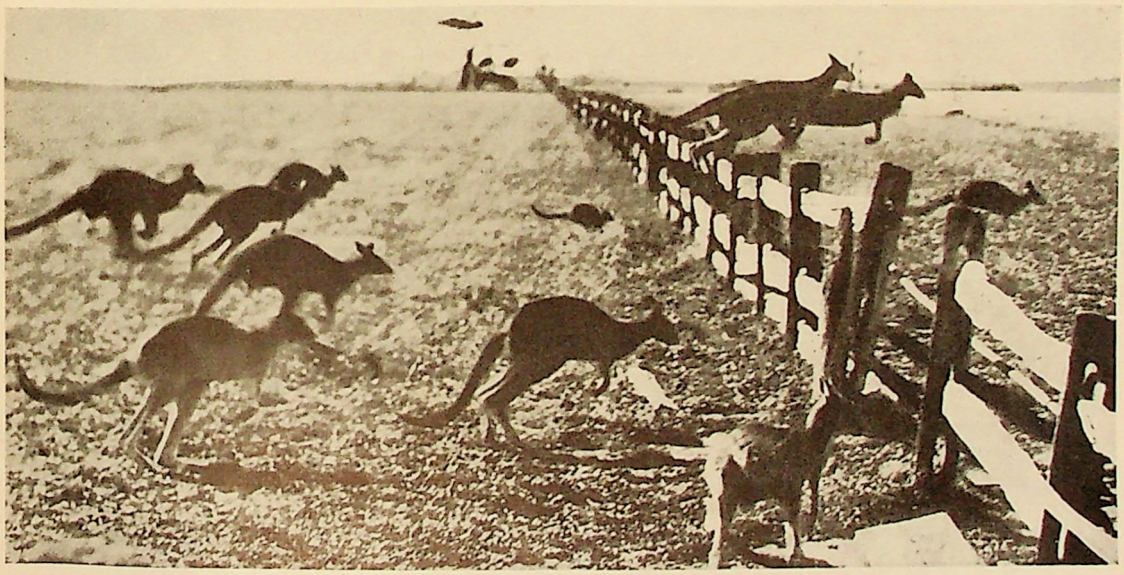
In the great class of fishes Australia again boasts one of the oldest existing types. This is the lung-fish, which is another "living fossil." It is interesting to note that other members of this group of fishes occur in South Africa and South America, while certain forms of marsupial, the American opossums, are found in South and Central America. This indicates that at some remote period South Africa, South America and Australia were connected by land.

Since the advent of man into the Australian Region—first Palaeolithic man, then Neolithic man, later Asiatics and

ANIMALS AND BIRDS OF THE AUSTRALIAN REGION

The Fauna of New Guinea, Australia and New Zealand, which together form the Australian Region of Naturalists, is in many Ways distinct from that of other Parts of the World.

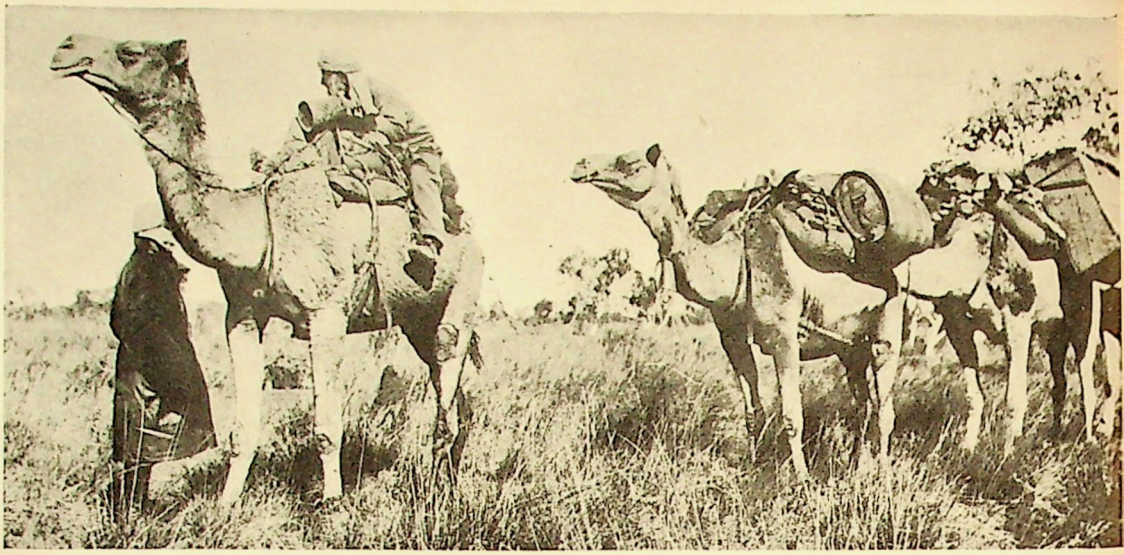
Especially are the Mammals different, almost all of them being Marsupials. In the adjoining Picture are shown fair Visitors feeding tame Kangaroos and Wallabies in rural New South Wales.



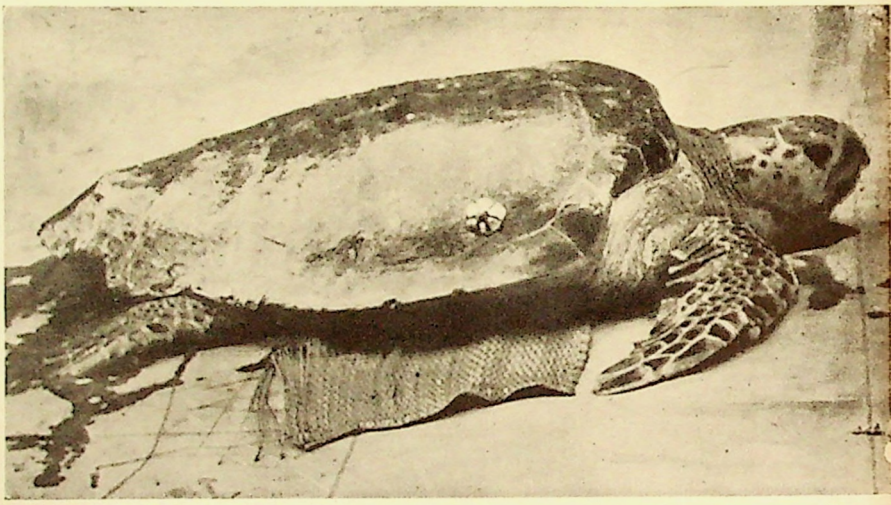
Kangaroos leaping Fences in a Round-up near Melbourne. Wallabies are only small Forms of Kangaroo, and belong to the same genus, *Macropus*.

The Great Bird-of-Paradise (*Paradisea apoda*, Linnaeus). It is the largest and most handsome of this Group of Birds, which range through the Eastern Islands of the Malayan Archipelago. The Great Bird-of-Paradise is found on Aru Island near New Guinea.

Sea Birds, nesting in Hundreds of Thousands through long Periods of Time, are responsible for the well known Guano Deposits of Islands in the South Pacific and South Atlantic Oceans. Here is shown a huge Colony of Australian Gannets (*Moris serrator*) in the Process of nesting and rearing their Young on Cape Kidnappers, North Island, New Zealand.



The Arabian or One-humped Camel (*Camelus dromedarius*, L.) has been introduced into Australia with great success as a Beast of Burden.



A fine Specimen of the Loggerhead Turtle (*Caretta olivacea*) captured recently in the Yangtze Estuary. Photograph by Courtesy of the *China Press*.

Clouds obscured the Sky during the Partial Eclipse of the Sun in Shanghai on June 19, but a few Seconds' Break allowed this Picture to be taken by the *North-China Daily News* Photographer.

finally Europeans—many other kinds of mammal have been introduced, including the dingo, the pig, rodents, rabbits, deer and various domestic animals, including the camel, some of which have become feral, so that to-day at least the mammalian fauna, of this region is undergoing a change, and many of the indigenous forms appear to be doomed to extinction.

The Loggerhead Turtle: Through the courtesy of the *China Press* we here show large specimen of the loggerhead turtle (*Caretta olivacea, Eschscholtz*), one of the great marine chelomans which are to be found in the China seas in summer. It was captured off Woosung in the Yangtze Estuary recently by native fishermen. Some years ago a very fine specimen of the loggerhead was caught in the Whangpoo River just above Shanghai and was purchased for the Shanghai Museum (R.A.S.), where it may be seen mounted amongst the other reptiles. The species is fairly common in the Hangchow Bay, but does not appear to wander much further north than the mouth of the Yangtze.

The Mongol Pony a Wonderful Animal: No one who has had any experience with the so-called Mongol or China pony can fail to appreciate the remarkable qualities of this wonderful little animal. As domesticated horses go, he cannot be said to have much in the way of good looks, but, for sheer endurance and ability to survive under hard conditions, it is doubtful if he has a rival in the equine world. Ever since Europeans living in China first discovered the Mongol pony he has been used for racing in the various cities and treaty ports with sufficiently large foreign communities to make the sport possible. Careful feeding, grooming and training work wonders with the shaggy little fellow down from the plains of Mongolia, and, though his lines at best are far from ideal, he becomes a graceful enough little creature. Carrying weights that would make an owner of race horses in England or America shudder, he runs a magnificent race, is game to the last, and, for his size, shows a remarkable turn of speed. His ancestry is doubtful, probably being a mixture of the diminutive Asiatic wild horse (*Equus przewalskii*), believed to be the only pure breed of wild horse now extant, and various breeds of domesticated horse, specimens of which must have been brought back to Mongolia by the Mongols after their widespread conquests through Asia and Eastern Europe.

Latterly it has been noticed in racing circles in Peiping, Tientsin, Shanghai and Hongkong, the chief centres of this sport in China, that a somewhat more shapely and distinctly faster animal has been coming down in shipments of race ponies from Mongolia, and investigation has shown that the Mongol breeders have been introducing blooded stallions into their herds, these so-called "Z" class of race ponies being the result.

In the accompanying illustrations are shown pictures of one of these ponies, named "Lintik," belonging to Messrs. R. S. Parker and R. Heiss of Peiping, owners of the "H-P" Stables. Purchased in Kalgan on the Hopei-Charhar border north of Peiping on October 22, 1935, from Mr. A. Purpiss, manager of the horse dealing firm of "Vostvag," he was trained by Mr. R. B. Dallas. In the Spring Meeting held in Peiping in May he was ridden by Mr. J. O. Dallas, winning with comparative ease the following races:

May 1, the "Maidens," by two lengths, not pressed;

May 2, the "Derby," by seven lengths, not pressed;

May 23, the "Griffins' Champions," by a neck, with a bad start of ten lengths behind the field.

Our photographs show him as he looked when he arrived in Peiping from Kalgan and seven months later after he had won the "Griffins' Champions."

An Eighteen-Foot King Cobra: Exactly what is the record length of the hamadryad or king cobra (*Naja hannah*, Cantor) we cannot say, but, according to a brief news item in the *North-China Daily News* of May 25, the record length of specimens in captivity was till recently 16 feet, 9 inches. This has now been beaten by a monster hamadryad caught in the Malayan jungle and bought for the Zoological Gardens in Regent's Park, London, by Mr. St. Alban Smith of Peradin Rubber Estate, Johore, which is estimated to measure about 18 feet in length. More like a python in size and thickness than a cobra, this huge reptile was considered too dangerous to measure, and it took seven men to put it into a box for shipment to London. When it is considered that the king

cobra is the fiercest and most aggressive of all the poisonous snakes, always ready to attack, and, unlike other serpents, never willing to give way to an intruder, also that its bite means certain death, it will be realized what a truly formidable creature an eighteen footer must be. That such a specimen as here mentioned was ever caught is something to wonder at.

SPELEOLOGY

First Conference of Speleological Association: The first Annual Conference and Exhibition of the British Speleological Association is scheduled to be held at Buxton in Derbyshire from July 24 to 27, inclusive, under the presidency of the famous scientist Sir Arthur Keith.

Two series of lectures will be delivered, those in Section A dealing with the excavation of caves and the study of their prehistoric contents, and those in Section B covering the exploration of potholes and the study of their structure and formation. Many leading authorities on the caves of Great Britain and other countries are contributing to these sectional programmes.

Excursions to various caves in Derbyshire will be organized, while an exhibition of photographs, surveys, prehistoric remains and geological specimens from caves in the British Isles and countries abroad has been arranged. The Conference is open free to all members of the British Speleological Association, and to the general public on payment of a fee of 5 shillings.

Speleology in China: The science of cave investigation, to which the name Speleology has been given, is very much in its infancy in China, if, indeed, it can be said to have been born yet. Certain temple caves with wonderful Buddhistic carvings dating from the Wei and T'ang Dynasties are well known, and, we believe, Dr. D. C. Graham of the West China University Museum in Cheng-tu, Szechuan, has carried out investigations in some of the famous Han Dynasty caves in that province, but this is all that has been done in this direction. As far as we know not a single cave floor has been excavated for prehistoric remains such as have so richly rewarded investigators in Europe. It is not unreasonable to suppose that prehistoric man in China used caves and cave shelters for his abodes, and, if he did, he must assuredly have left something behind him to tell the tale. The famous Chou-kou-tien site, where the remains of Peking Man have been found, is not a present day cave but a filled in cave of the past. It has, however, yielded just the kind of material one might expect to find in the debris under the floor of any natural cave to-day, of which there must be a great many in China.

It may be suggested that a Speleological Society of China should be formed forthwith in order to investigate these caves. Interesting revelations would certainly be the result of such investigations.

GEMOLOGY

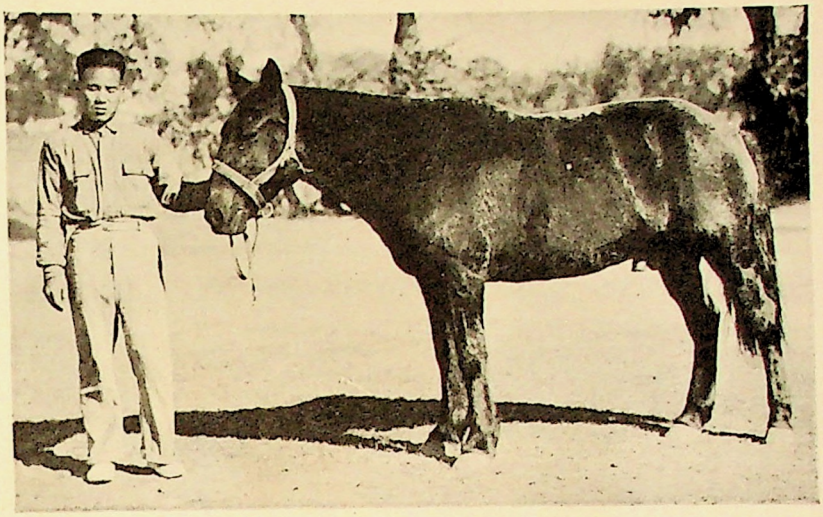
Mammoth Display of Diamonds Scheduled: A display of diamonds worth a king's ransom will be one of the unique features of the Empire Exhibition to be held in South Africa this year. Africa is the home of the world's most priceless gems, and it is planned to show the products of the Kimberley mines and other South African diamond fields.

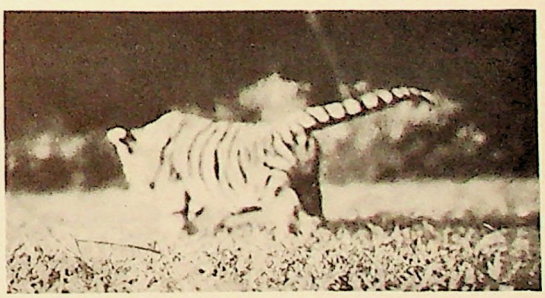
Black glass lining the walls of a windowless hall, to be known as the "Hall of Jewels," and illuminated from hidden places below eye-level will be used to show up to the best advantage the fantastically beautiful diamonds, which will form one of the main sections of the mining exhibit.

Hundreds of thousands of pounds' worth of the choicest gems will be spread out at the end of the hall, while cabinets down either side will contain remarkable geological specimens and diagrams illustrating the occurrence in nature and the natural formation of diamonds. Beyond reach of the spectator, but in his full view, will be various parcels of gems from the Kimberley mines which have not previously been shown to the public, and on a central revolving turret of black glass cut jewels will rotate and glitter under changing lights falling on them from above, affording a spectacle of unbelievable splendour. Individual stones weighing 200 carats or more will be on view.

There can be no question that this display of diamonds will be sensational, since all the vast resources of De Beer's Consolidated Mines, Limited, the Diamond Corporation and other leading producers in South Africa will be at the disposal of those responsible for its arrangement.

"Lintik," a Race-winning Pony owned by Messrs. R. S. Parker and R. Heiss of Peiping, as he was when he arrived from Mongolia. Below he is shown as he looked after winning the Griffin's Champion Cup and other Races in the last Spring Meeting in Peiping.





Two Snaps of a Tiger Cub owned by Mrs. A. J. Martin of Amoy, South-east China.

ETHNOLOGY

Descendants of Albazin Cossack Garrison still in Peiping: With reference to the article in the present issue of this journal on "The Role of Yakutsk in Early Russo-Chinese Relations" by A. A. Riajansky, it is interesting to note that lineal descendants of some of the Cossacks who were taken prisoner by the Chinese when the fort at Albazin on the Amur River was captured and were brought to Peking in 1685 (see page 18) are still living in the latter city. They are to be found in houses in the vicinity of the Pei Kuan, the large compound of the Russian Ecclesiastical Mission, and, although they can no longer be distinguished from the Chinese about them, they still bear Russian names and adhere to the faith of the Orthodox Greek Church. For two hundred and fifty-one years this little community has maintained its own identity, although, as a result of intermarriage with Chinese and Manchu women, no Russian women having been amongst the original prisoners from Albazin, there does not appear to be any trace of the European in their outward appearance. In *The China Journal* of July, 1932,[1] was published an article by J. J. Serebrennikov entitled "The Albazinians," which dealt with this interesting group of Peiping residents, while the *Shanghai Evening Post and Mercury* of May 8 contained a further article on the subject under the title "Peiping Community of Chinese Russians Still Cling to Old Religion."

1. Vol. XVII, No. 1, pp. 10-13, July, 1932.

ASTRONOMY

Total Solar Eclipse Observations Successful: From all accounts most of the expeditions to various points in Siberia, Manchuria and Hokkaido Island to make scientific observations of the total eclipse of the Sun on June 19 were successful, the only one, apparently, which met with failure as a result of unfavourable conditions being the British expedition to Hokkaido. This, however, was to a certain extent made up for by the success achieved by the British expedition to Omsk. The various expeditions from Japan were highly successful, as also were that of the Shanghai Science Institute, a Japanese organization in this city, and that of the Academia Sinica.

In Shanghai a cloudy sky deprived most people of a view of the eclipse, only partial here, though a brief break in the clouds enabled the photographer of the *North-China Daily News*, who was watching from the top of that newspaper's building on the Bund, to secure a good snapshot of the phenomenon.

Astonishing Theory of World Cataclism: In all the Shanghai Chinese newspapers of June 21 an astonishing theory of an impending disaster was published in a special article, stating that a new planet had appeared, which would come into collision with the Earth in September next year, said a news item in the *North-China Daily News* of June 22. The article declares that, according to a number of foreign astronomers, the parts of the earth likely to suffer the greatest in the forthcoming collision will be Hongkong, Canton and South China. It would be interesting to know who is responsible for such a wildly impossible theory, and how it came into being. Had there been the remotest possibility of such a thing happening, astronomers would long ago have found it out and given due warning.

A New Star Discovered: Possibly the theory of a collision between the Earth and a new planet next September discussed in the preceding paragraph may have arisen from the discovery by a young Russian astronomer named Guryev of a new star in the constellation of Cepheus, which was announced in a *Tass* message from Stalinabad dated June 21. The new star is noticeably increasing in luminosity, not having reached its maximum brightness. This makes it an extremely interesting discovery, since it is now in the most important stage of its development.

SEISMOLOGY

Monthly Record of Earthquakes: At noon on June 3 a moderately strong earthquake rocked Honshu Island, Japan, no damage being reported.

A *Havas* message from Stamboul, dated June 21, stated that three severe quakes occurred in the evening of that day in Menemen and neighbouring regions,

slightly damaging the Government Palace and causing terror amongst the inhabitants.

A Han Dynasty Seismograph: According to an article in *The Chinese Digest*, a newspaper printed in English by Chinese in San Francisco, the Chinese in the Han Dynasty (206 B. C.-220 A.D.) had a seismograph. This consisted of a weight suspended over a rigid upright bamboo pole in such a way that a specially prepared surface for writing at the bottom of the weight just came into contact with a piece of chalk fastened to the top of the bamboo pole. Whenever there was any movement of the earth it would be faithfully recorded by the chalk on the bottom of the weight. In this way, it was said, the intensity and direction of earthquakes could be ascertained.

METEOROLOGY

The Weather in China during June: In the Shanghai area the weather during the greater part of June was unusually cool, with a few hot days. Rain fell on June 2, 4, 8, 9, 15, 17, 20, 26, 28 and 29. It began to warm up towards the end of the month, however, the last few days being very hot. Typhoon-like conditions prevailed on June 8. Torrential rains late in May and early in June caused severe floods in Kuangtung and other southern provinces, though the northern provinces experienced a heat wave during the first half of the month, temperatures of over 100°F. in the shade being recorded in several cities. In Tientsin 106°F. was registered on June 15, Peiping recorded 109°F. on June 16, and Lo-yang in Honan 107°F. on June 17. The whole Yangtze Valley experienced great heat towards the end of the month, the temperature in Hankow reaching 101°F. Hangchow, in Chekiang Province, registered 100°F. in the shade on June 25. Very heavy rains were reported in West and North-west China during the last few days of the month.

Tai Shan Meteorological Observatory Completed: It was announced on June 26 that the Meteorological Observatory of the Academia Sinica on Tai Shan in Shantung had been completed. Some 5,059 feet above sea level, this new observatory is the highest in the Far East. It has taken fourteen months to build and cost $30,000.

MEDICINE

Schistosomiasis Reported in Shanghai Area: The discovery of the small water snail *Oncomelania hupensis* in the creek at Hungjao near Rubicon Road has led to a warning being issued to the public by the Municipal Health Departments of Shanghai against bathing or swimming in fresh-water creeks or ponds in the country round this city, since this snail is the animal host of *Schistosoma japonica* in the course of its life-cycle, man being the other. Infection by this germ is the cause of the disease known as Schistosomiasis, a serious complaint widely distributed in low-lying areas in the Far East. The discovery of the snail in the Hungjao area was made by Dr. R. C. Robertson, head of the Pathological Sciences Division of the Lester Institute of Medical Research in Shanghai, in the course of an intensive search for the species. Some time ago snails of this species, heavily infected with *Schistosoma*, were discovered in large numbers in the Henli area, where the Shanghai community holds its annual regatta, and where bathing and swimming have always been freely indulged in.

Plague Manual Makes Appearance: We have received for review a magnificent volume devoted to the dread disease of plague, which has been compiled by Dr. Wu Lien-teh, the well known plague specialist and head of the National Quarantine Service of China, in cooperation with Drs. J. W. H. Chun, R. Pollitzer and C. Y. Wu. It is entitled "Plague, a Manual for Medical and Public Health Workers," runs to 547 pages, and includes 103 illustrations, of which six are in colour. This important work does not belie its title, for it covers every phase of the subject with which it deals, and no medical worker in countries where plague, either bubonic or pneumonic, occurs can afford to be without it.

The history of the disease from the earliest times of which we have any knowledge of it is given in detail by Dr. Wu Lien-teh in Chapter I, some interesting illustrations, in connection with its occurrence in Europe at a very early date being reproduced, the oldest of these being a picture from a work by Culmacher of about 1480. Chapter II deals with plague bacteriology, Chapter III with im-

munology, Chapter IV with pathology and Chapter V with practical laboratory diagnosis, all by Dr. R. Pollitzer, microbiologist of the Shanghai Quarantine Station. In Chapter VI Dr. Wu Lien-teh covers the subject of hosts and carriers of the disease in a masterly way. From the point of view of prevention and control, this is a most important phase of the subject. The help of the naturalist is called in here, for, without a knowledge of the different species of rodents and the fleas that infest them, as well as of their life habits, it is impossible to cope adequately with the spread of plague in human communities. A long list of rodents in all parts of the world that are definitely known to suffer from spontaneous plague infection is given. This contains seventy-two distinct species. The different species of fleas which carry plague germs from rodents to man are thoroughly dealt with, excellent illustrations being given in Chapter VII by Dr. C. Y. Wu, chief technical expert of the National Quarantine Service, while Dr. J. W. H. Chun, senior quarantine officer, covers the clinical features of the subject in Chapter VIII, and therapy and personal prophylaxis in Chapter IX. Epidemiological factors (Dr. Wu Lien-teh), general prophylaxis, the management of epidemics and the problem of ship-borne plague (Dr. C. Y. Wu) are discussed in succeeding chapters, the book winding up with an appendix giving some remarkable plague cases, and another furnishing tables showing the world distribution of rats and fleas.

It will be realized from the foregoing outline of its contents the enormous value of this book, and its authors are to be complimented on this great contribution to medical science.

The printing, plates and binding are excellent, the Mercury Press, Shanghai, also deserving high praise for its share in the production of this volume. The price, $10.00 in Shanghai, $4.00 (Gold) or 15 shillings (post free) abroad, is absurdly low, considering the size of the book and the number of illustrations it contains.

A. de C. S.

SHOOTING AND FISHING NOTES

SHOOTING

The Amoy Tiger: That tigers are much more plentiful in China than generally believed is the contention of Mr. A. J. Martin, British Consul in Amoy, who recently wrote us offering a tiger cub to the "Zoo" in Jessfield Park. It had been purchased by Mrs. Martin from some soldiers who brought it to the port from somewhere in the interior, was being bottle-fed, and was thriving on this diet of milk, having gained appreciably in weight since it was started. It would be interesting to know whether this is the same tiger cub as one mentioned in a news item in the Amoy Chinese newspaper, known as the *Overseas-Chinese Daily News*, of May 28, a translation of which has been forwarded to us, as follows:

"A report from Changchow states that some villagers from the village Siao Kok Ki along the Changchow-Sungsu Motor Bus Road going out to gather fire-wood in the Ten Thousand Banyan Pass on May 26 at 2.00 p.m. saw some tigers in a cave there. They at once reported the matter to the barracks in their village. The soldiers and the villagers arrived at the place at 4.00 p.m. and saw the tigers. They used their machine guns at a distance. When they got close to the place, they saw three small tigers, two of which were killed. The dead tigers were divided between the villagers and soldiers who ate them. The live tiger was taken down to Amoy for sale."

The matter is chiefly interesting as bringing to mind the fact that in years gone by Amoy was famous for its tigers, some of the foreign residents there earning quite a reputation for bagging these large felines. The latter were usually to be found in caves in certain places formed by great boulders, and the method of hunting them was for the sportsman to creep into the cave on hands and knees with a Chinese behind him holding a torch in one hand and a spear in the other. When the tiger was located by the light being reflected from its eyes, the sportsman fired his gun, taking aim between the twin points of light. Usually the explosion extinguished the torch, leaving the hunters to await in the dark the result of the shot. The Chinese was

supposed to hold the spear well in front of the foreigner, so, that if the tiger charged, it would be impaled upon its point. More than one foreign sportsman in Amoy had quite a number of tigers killed this way to his credit. But, as a sport, it would seem a little too nerve racking for most people.

It is now some time since we have heard of tigers being killed in the Amoy district, but Mr. Martin is perfectly right in saying that tigers are more plentiful in China than is generally supposed. Especially in the province of Fukien, in which Amoy is situated, are tigers plentiful, and we have the records of the Reverend Harry Caldwell and his faithful servant Dada, both of whom have a large number of these great cats to their credit. Some years ago Mr. Caldwell's bag was in the neighbourhood of a dozen, while Dada's had reached the twenty mark, the tigers having been shot over kills mainly in the mountains of the Fu-tsing district south of Foochow, though some had been killed in the Yen-p'ing and other districts up the Min River. The Chinese tiger has been described by Mr. R. I. Pocock as a distinct subspecies under the name *Panthera tigris styani.*

A Tiger Cub for the Shanghai Zoo: While on the subject of tigers it may be mentioned that according to recent reports in the local daily newspapers, the Municipal Zoo of the City Government of Greater Shanghai on Wenmiao Road near West Gate in Nantao is to receive a young tiger from the well known Chinese old style painter Mr. Chang Hsang-tze of Soochow, who secured it from Szechuan as a model for his painting of a tigress and her cub mentioned in our "Art Notes" (see page 22). The reports say that Mr. Chang has offered the tiger cub to the Zoo because it has grown so rapidly since he got it that it is no longer safe to be kept as a pet. The officers of the Zoo in question have been trying for some time to secure a tiger to replace one which died early in the year.

Incidentally, it is further reported that the same Zoo authorities have contracted for two elephants from Siam to replace the one they formerly had, which escaped and was electrocuted through contacting with its trunk a high tension overhead cable.

FISHING

New Zealand holds World's Records for Big Fish: Except for the broadbill swordfish New Zealand holds the world's records for all the largest big-game fish. Amongst these is a 976-pound black marlin swordfish, Australia's record for this species being 460 lbs. Sportsmen from all over the world visit New Zealand for the superb deep sea fishing that is to be had in such places as the Bay of Islands. Recently it was reported that Mr. H. White Wickham of London, whose total catch of big-game fish has reached the huge figure of 52,547 lbs., was on his eleventh visit to New Zealand for further sport amongst the monsters of the deep. The present season, according to him, has been the best in his experience for black marlin.

Incidentally it may be mentioned that, beside the broadbill and black marlin swordfishes, New Zealand waters offer the famous mako shark and the thesher or fox-shark, the former being a very large fish and both being extremely hard fighters. In addition to these monsters there are many lesser, though still sizeable, fish, such as kingfish, barracudas and the like, to be had, though, of course, they cannot compare in the sport they offer with the swordfishes and sharks above mentioned.

China's Waters require Exploring: In view of the fact that from time to time large fish of various species appear in local fish markets the suggestion may be made that some of the foreign residents in China who take an interest in sea fishing as a sport might undertake a thorough survey of China's coastal waters in order to discover what they have to offer in this respect. We feel sure that, were they to organize themselves into an association and go at the matter systematically, they would discover that good sport in this direction is to be had in Chinese waters. For instance, specimens of some form of amber-jack or yellow-tail have been caught by anglers at Wei-hai-wei, giving the latter good sport; and there is no doubt that similar fish are to be had elsewhere along the China coast. The late Sir Edward Pearce used to land sharks as well as a large kind of flounder while fishing at Wei-hai-wei, and we have had photographs of a large mackerel, not unlike the Spanish mackerel of European waters, sent to us for identification by

sportsmen who had caught them while sea angling at such places as Amoy.

We have a strong suspicion that really good deep sea fishing could be had in the waters round Formosa. In any case, it seems to us worth a try, all that is wanting being a few pioneers in what may well turn out to be an excellent field for big-game fishermen.

Angling Competition in Harbin: The *North-China Daily News* Harbin correspondent, writing under date of June 20, describes in the June 30 issue of that newspaper a fishing competition held by the members of the Japanese Fishing Society. The meet took place on the bank of the Sungari River at half past two in the morning, and, positions having been drawn, the competition commenced at three o'clock. At a given signal all fishing stopped, when the judges weighed each individual catch. The largest catch was made by Mr. Inouye with just over half a pood, a pood being 36 lbs., of fish. The next largest catch weighed 11.7 lbs. The report did not reveal what the fish were, or whether there was any limit placed on the size of the fish allowed to count in the catch.

A. de C. S.

THE GARDEN

The Seasonal Predominance of Colours in the Garden: Although the average gardener naturally tries to have as fine and varied a display of colours as possible in his garden, and we all admire gardens in which colours run riot, there is something very attractive in one where a single colour note predominates. In attempting to attain this we are to a certain extent assisted by Nature herself. Broadly speaking the year is divided into four colour periods coinciding roughly with the seasons—winter, spring, summer and autumn—in each of which certain colours or groups of colours seem to be more conspicuous than others.

During the winter white is the key note, while in spring pink and white predominate as all the many fruit trees, magnolias, white-flowering shrubs such as *Deutschia* and the spyraeas, syringa and lilac, and later the roses, come into bloom, while borders are filled with campions, pinks, sweet williams, phlox and the like.

The dominant colours during the summer are the varying shades of red and orange, with a fair sprinkling of blue and mauve or purple, such flowers as salvia, zinia, dahlia, geranium, nasturtium, marigold, cockscomb, love-lies-bleeding, delphinium, larkspur, monk's hood and anchusa filling our beds, while the vermilion blossoms of the double pomegranate besprinkle the shrubbery and the flaming orange of the trumpet-like blooms of *Bignonia* or the deep purple of the clematis splash trellis and fence with colour.

Autumn brings the chrysanthemums, whose very name designates yellow as their predominating colour. All the many species of sunflower and related composite flowers are at their best during this season, when also the rich brown and gold of *Coreopsis* fills many a border. The golden rod, too, comes into its own in the autumn.

Of course there are marked exceptions in every case, as, for instance, the blooming of poinsettias with their flamboyant red in winter, the flowering of the laburnum (in England) with its golden yellow, the opening of the fragrant white blossoms of the gardinias in mid-summer and the continuation of red salvia all through the autumn; but, viewing the subject as a whole, the reader will find that the above outline of a seasonal colour cycle in the garden is well substantiated.

July in the Garden: In normal years July is a bad month in the Mid-China garden. The rather dry and hot period between the spring rains and the typhoons of late summer usually plays havoc with lawns and shrubberies, while the annuals planted in the beds and borders in the spring have had their day, and stand long-stalked, blossomless and with withered leaves. They must be torn out, which means that for a time flower beds must remain bare and brown.

This year, however, things are very different. The prolonged cool spell of the spring and early summer, which extended till late in June, and evenly distributed and regular rains, have had a

wonderful effect here. Lawns, instead of looking parched and dry, are green and show a rich growth, while shrubs and trees have put out a wonderful growth of new leaf and branch. All flowering shrubs have bloomed prolificly, especially St. John's wort and the gardinias. Canna lilies which last year stood four or five feet in height, this year are well over six feet, and are blooming profusely, while annuals, coming on rather later than usual on account of the cool weather, are still at their best.

Mr. E. S. Wilkinson in his "Country Diary" in the *North-China Daily News* has called attention to the fact that the common white butterflies appeared too late this year, again on account of the cool weather, to lay their eggs on the young cabbages, with the result that an exceptionally rich and clean crop of this homely vegetable has been harvested. When the butterflies did appear, he says, there were no cabbages, and they have been swarming about looking for some other plant upon which to deposit their eggs.

Other vegetables in the kitchen garden are doing well, while excellent fruit is to be had in the market, peaches and apricots being particularly good this year.

Watering, cleaning up and tending the more delicate annuals in the flower beds constitute the main work in the garden this month; while our native gardeners will be busy cultivating chrysanthemum cuttings for the autumn.

A. de C. S.

SOCIETIES AND INSTITUTIONS

THE ROYAL ASIATIC SOCIETY, NORTH-CHINA BRANCH

Annual Meeting: At the Annual Meeting of this Society, held on June 30 at 5.15 p.m. in Wu Lien Teh Hall in the Society's building at 20 Museum Road, Mr. A. de C. Sowerby, in his address as Acting President for the past year, not only reported a successful season, with fourteen well-attended lectures indicating a definite increase of public interest in the Society, but struck a note of optimism as to the Society's future. The same spirit pervaded his report as Honorary Director of the Society's Museum, as well as the reports of the Honorary Librarian, Miss A. Abraham, the Honorary Treasurer, Mr. W. H. Stewart, the Editor of the Society's Journal, Dr. Esson M. Gale, and the Honorary Secretary, the Reverend E. H. Cressy.

The Museum, it was stated, had been well patronized throughout the year, while a series of twelve informal lectures on natural history subjects, achaeology and art, given by the Director during the spring, had been well attended by children, in some cases, whole classes, from schools and colleges in Shanghai, as well as by many adult members of the community. A long list of acquisitions, mostly donations, including geological, archaeological and zoological material, further inicates a strong public interest in this institution. A fine Szechuan takin, presented by Messrs. Jack T. Young and Quentin Young, has been successfully mounted, making a splendid exhibit, while several new scenic cases, paid for by Mr. Mark L. Moody of Shanghai, and prepared by Mr. A. de C. Sowerby, have been added to those already in the Museum. It was announced that a "Guide" to the Museum, to be published in Chinese and English, and also prepared by Mr. Sowerby, is nearing completion.

The Library has been extensively used, while several hundred books and periodicals have been received during the year.

The Editor announced a bigger and better Journal, and reported that increasing interest was being shown by scholars and learned societies abroad in this publication.

The Treasurer, in presenting the annual Balance Sheet, called attention to a deficit, which, however, it was pointed out, was due to the fact that annual subscriptions had been rather late in coming in. It is confidently expected that before long the deficit will have been made up from overdue subscriptions. The Budget for the coming year, 1936-37, is about balanced.

The Secretary's report, though brief, was very succinct. Stress was laid upon plans to make the Museum more useful to schools and colleges in Shanghai, by

publishing the "Guide" already mentioned and providing facilities for teachers to use the Museum contents in lectures to their classes. Membership in the Society has reached the neighbourhood of nine hundred, and it was intended to make every effort to increase this to a thousand during the coming year.

The list of officers elected for the year 1936-37 is as follows: President, Mr. A. de C. Sowerby; Vice-Presidents, Mr. R. D. Abraham and Dr. Wu Lien-teh; Honorary Director of the Museum, Mr. A. de C. Sowerby; Honorary Keeper of Archaeology, Mr. H. E. Gibson; Honorary Keeper of Conchology, Professor Tengchien Yen; Honorary Keeper of Ichthyology, Dr. Yuanting T. Chu; Honorary Keeper of Ornithology, Mr. E. S. Wilkinson; Honorary Librarian, Miss A. Abraham; Honorary Treasurer, Mr. William H. Stewart; Editor of the Journal, Dr. Esson M. Gale; Councillors, Sir John Brennan, Dr. H. Chatley, Dr. E. Bernard Read, Dr. F. L. Hawks Pott, Baroness Von Ungern Sternberg, Dr. C. T. Wang, Dr. J. Usang Ly, the Reverend J. R. Millican, Mr. A. J. Hughes, Mr. C. Kliene, Mr. C. Grosbois, Mr. J. R. Jones, Mr. G. L. Wilson, Mr. W. H. Way and Mr. Julean Arnold; Honorary Secretary, the Reverend E. H. Cressy.

THE NUMISMATICS SOCIETY OF CHINA

Annual Meeting: The Annual Meeting of this Society was held in the Reading Room of the Royal Asiatic Society at 5.30 p.m. on June 16, when Mr. A. de C. Sowerby was re-elected President, Mr. G. D. Raeburn Honorary Secretary, and Mr. K. F. Mulder Honorary Treasurer, with Mr. H. E. Gibson to complete the Committee.

The Secretary presented the following report:

Membership: The membership at the close of the present year totals twenty (20)—13 local and 7 outport members—against a membership of 21 the previous year. It is to be regretted that no new members were enrolled, especially, as during the past year there has been a very considerable increase in the number of new collectors here, principally of Chinese modern coins. All members are urged to bring the Society to the notice of collectors with whom they are in touch as increased membership is essential if the Society is to progress.

General: The Society went into a three month's summer recess after the Annual General Meeting last June, recommencing it's activities in October, since when meetings have been held monthly. These meetings have been fairly well attended, and have been made the more interesting through the kindness of Messrs. Mulder, Raeburn, and Butrick in exhibiting from time to time, selections of Medals and Coins from their collections. It is to be regretted, however, that the Society up to the present has not been able to issue a Journal, and it is to be hoped that in the future members will assist towards this end by compiling papers to be read at meetings, and which can later he incorporated in a yearly, half-yearly or quarterly Journal.

In October Mr. G. H. Parkes was compelled, owing to ill health, to tender his resignation as Honorary Secretary. This was accepted with much regret, as it was due to his initiative and hard work that the Society came into being, and it is sincerely hoped that better health will soon enable him to resume the position he so ably filled. Mr. G. D. Raeburn was elected to take over the Honorary Secretaryship.

An invitation was received in March from the Royal Numismatic Society, London, inviting the Society to send a representative to the Numismatic Congress to be held in London this year in celebration of their centenary. It was decided to request Mr. Tracey-Woodward to represent the Society.

The Society has once again to express its thanks to the President and Council of the Royal Asiatic Society for their kindness in permitting the continued use of the Reading Room for meetings, and it is hoped that this courtesy will continue to be extended.

Library: Additions to the Library during the past year have been

"Catalogue of Coins in the Colombo Museum" (Presented by Mr. P. D. Raeburn.)

"Auction Catalogue of Roman Coins (Vienna)."

It was also decided to continue our subscription to Spinks Numismatic Circular, and to subscribe to the "Numismatist," the monthly Journal of the American Numismatic Association.

The Society had on hand Shanghai $115.75 on June 30, 1935. The present balance, all on deposit in the Hongkong and Shanghai Bank, Shanghai, is Shanghai $171.53. With one exception membership dues are paid in full to June 30, 1936.

THE ACADEMIA SINICA

Former Minister of Cummunications Heads Institution: It was announced on June 16 that Dr. Chu Chia-hua, former Minister of Communications, has been appointed Secretary-General of the Academia Sinica, China's leading scientific institution under the National Government at Nanking. In an interview accorded the representative of the *Kuo Min News Agency*, Dr. Chu is reported to have said that in consonance with the plans of Dr. Tsai Yuan-pei, the President, he will endeavour to carry on the work of the Academia Sinica and to cooperate with other organizations in research and the application of scientific methods.

Previous to his death last winter as the result of asphixiation by gases from a charcoal fire while on a survey of the mineral resources of Kiangsi and Hunan, Dr. V. K. Ting, the well known Chinese geologist, held the post now taken by Dr. Chu.

EDUCATIONAL NOTES AND INTELLIGENCE

Lectureship Offered to Chinese Scholar: For the first time in the history of British universities a lectureship has been offered to a scholar of Chinese birth, a fund having been established by Mr. and Mrs. Spalding, wealthy English residents, providing an annual gratuity of £400 tenable for three years. The Chinese scholar who is chosen will, besides giving the usual lectures, devote much of his time to the translation and interpretation of important Chinese writings on philosophy and religion. This lectureship should not only provide English students with an opportunity to study Chinese culture and religion, but should promote a greater friendship and understanding between the people of the two nations.

Methods of Teaching Chinese to Americans: One of the most interesting arrivals in Shanghai last month was Dr. George A. Kennedy, lecturer in Chinese at the Yale University and associate of the American Council of the Institute of Pacific Relations, who has come to China for the two-fold purpose of purchasing books for the Yale Library and of making an intense study of recent developments in the teaching of Chinese. Utilizing a three-year Rockefeller Foundation grant under the sponsorship of the Institute of Pacific Relations, Dr. Kennedy will make a thorough study of the improved methods of teaching the Chinese language to foreigners and the technique of learning it. The results of his research will form the foundation for the establishment of a Summer Language School to be held in America in 1937 and 1938.

Summer Training Courses for Teachers and University Students: In compliance with the instructions of Generalissimo Chiang Kai-shek the Ministry of Education is providing summer training courses for primary school, middle school and university teachers in an effort to improve teaching methods and to attain technical efficiency in schools throughout China. Seventeen Government and private universities are offering courses for training of high school teachers, while the various municipal and provincial authorities have been instructed to conduct classes for primary school teachers in convenient localities. All agricultural schools have been required to send from one to three representatives to attend the special courses given at the Central University of Nanking. Shanghai University is also planning a special summer session for teachers.

In the meanwhile Chiao-Tung University has announced a summer course for the study of the cotton, silk and wool industries, which should be of interest, not only to students who wish to specialize in the textile industries, but also to those already engaged in such pursuits. A series of lectures will be given, illustrated by demonstrations in the textile plant of the University, and visits to textile factories will be arranged if a sufficient number of candidates for this course present themselves.

PUBLICATIONS RECEIVED

BOOKS

Key Economic Areas in Chinese History, by Ch'ao-ting Chi, Ph.D.: George Allen & Unwin Ltd., London.

Annual Customs and Festivals in Peking, As recorded in the Yen-Ching Sui-Shih-Chi by Tun Li-ch'en, Translated and Annotated by Derk Bodde: Henri Vetch, Peiping.

The Last of the Empresses, by Daniel Varé: John Murray, London.

The Nomenclature of the N.Y.K. Fleet, by Richard Ponsonby Fane: Nippon Yusen Kaisha.

Annual of the University of Barcelona, 1934-1935.

Ta Hio (The Great Learning), by Ezra Pound: Stanley Nott, London.

The Chinese Written Character, by Ernest Fenollosa, Edited by Ezra Pound: Stanley Nott, London.

Public School Explorers in Newfoundland, by Dennis Clarke: Putnam & Co., Ltd., London.

Minerals and Stones, by Bernard E. Read and C. Pak: The Peking Natural History Bulletin.

PERIODICALS

Asia—Vickers Gazette—Tea and Coffee Trade Journal—Finance and Commerce—Shipping Review — Discovery — Fishing and Shooting—Chinese Student—Totem—Science—People's Tribune—Palaeontologia Sinica—Peking Natural History Bulletin—Anglo-Yugoslav Review—Notes d'Entomologie Chinoise, Musée Heude—Information Bulletin—Chinese Economic Journal—La Revue Nationale Chinoise—New Zealand Journal of Science and Technology—Salmon and Trout—Man—Natural History.

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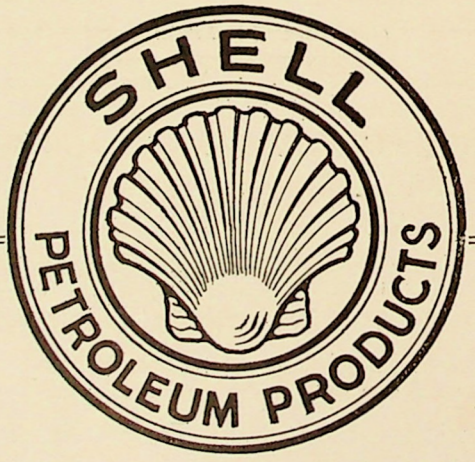

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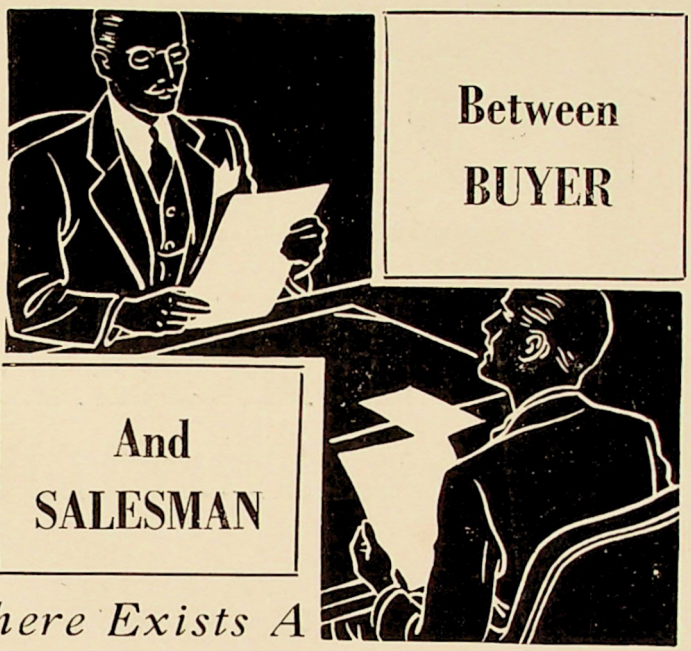

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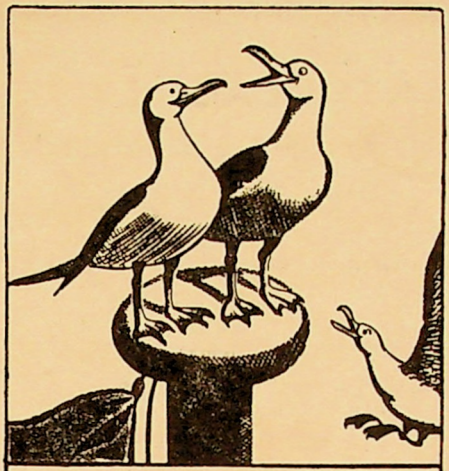

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