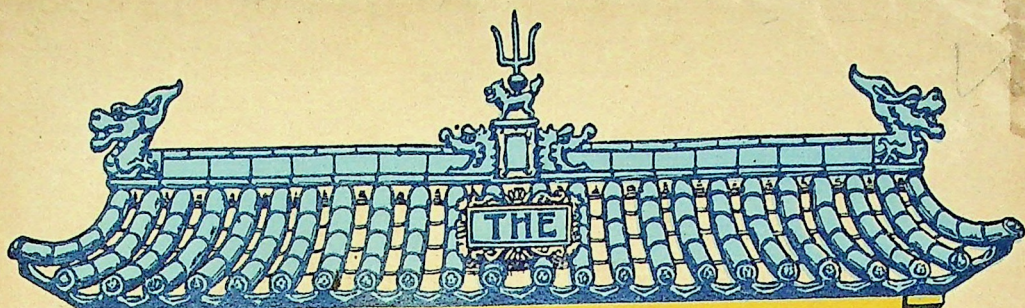
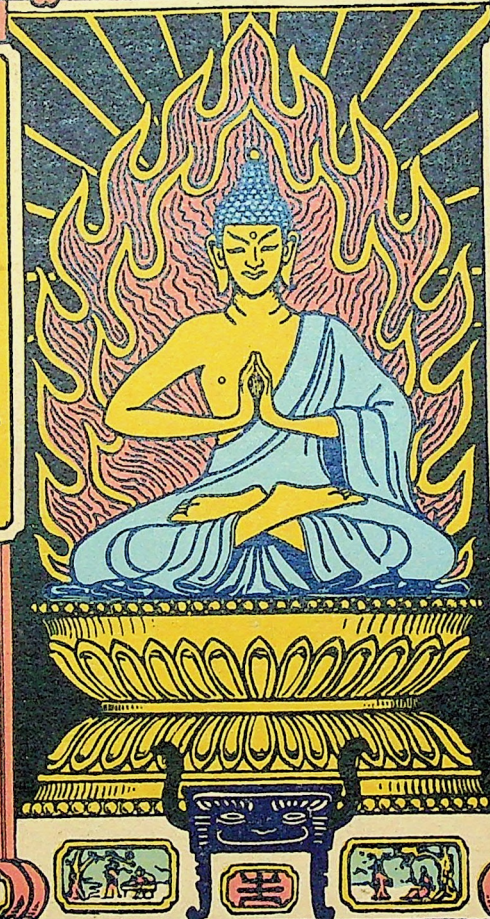




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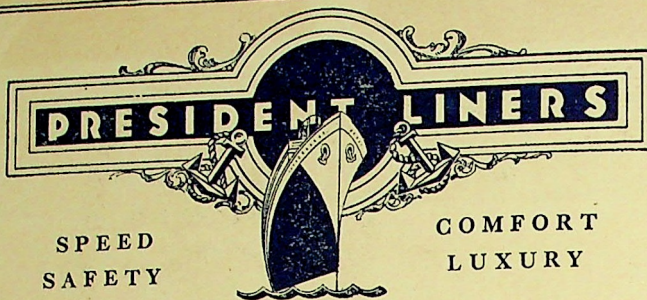
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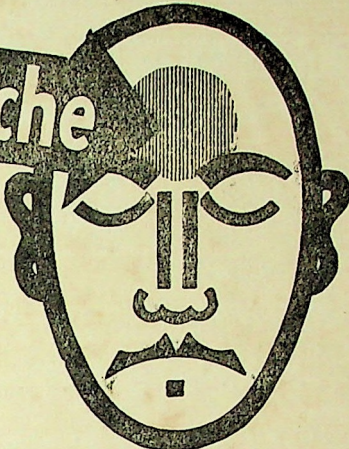
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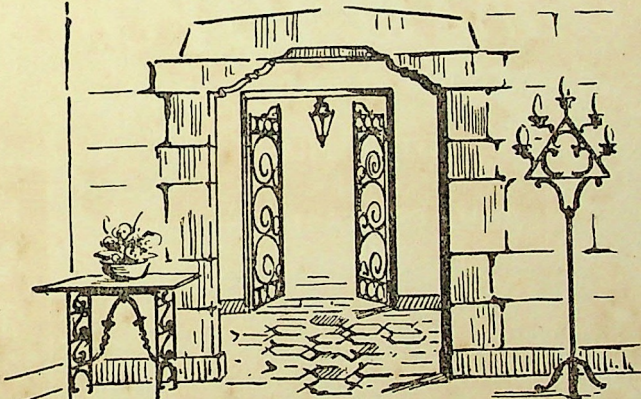
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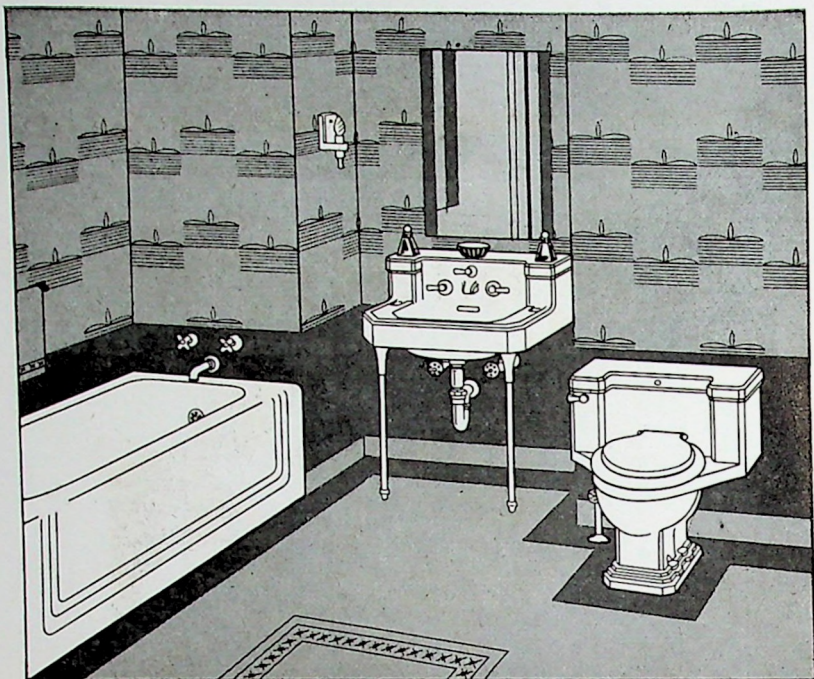
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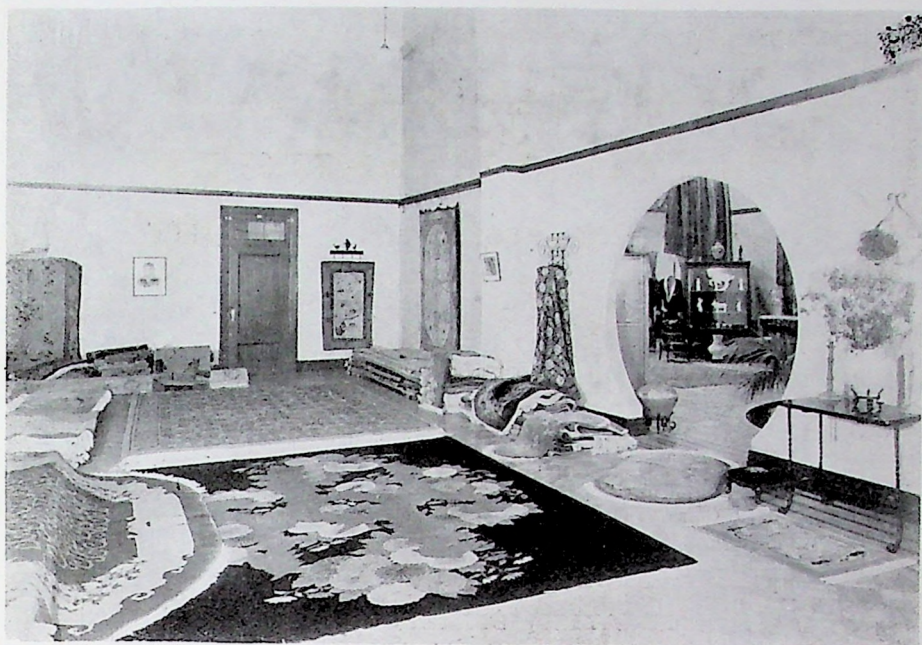
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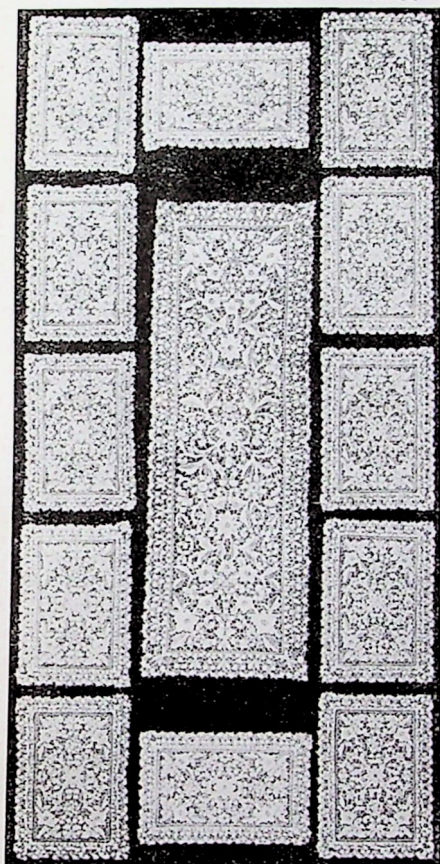
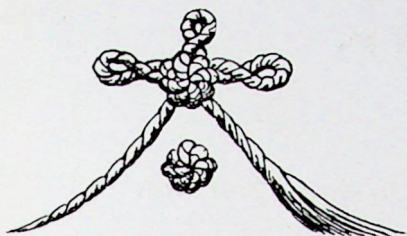
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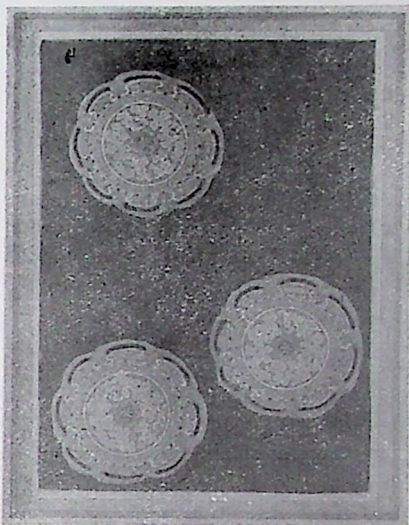
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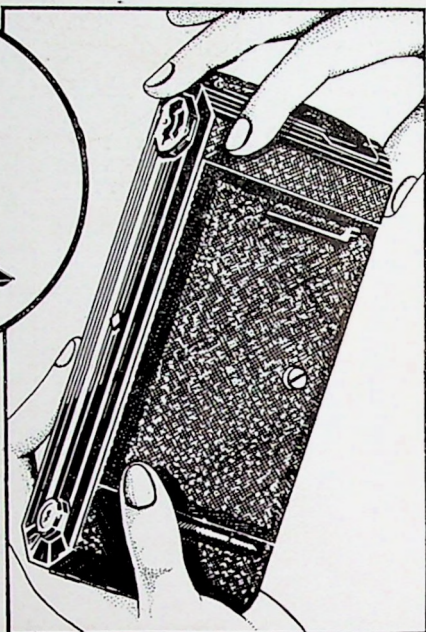
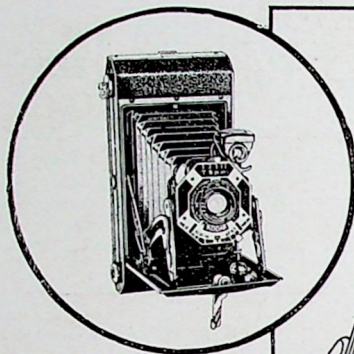
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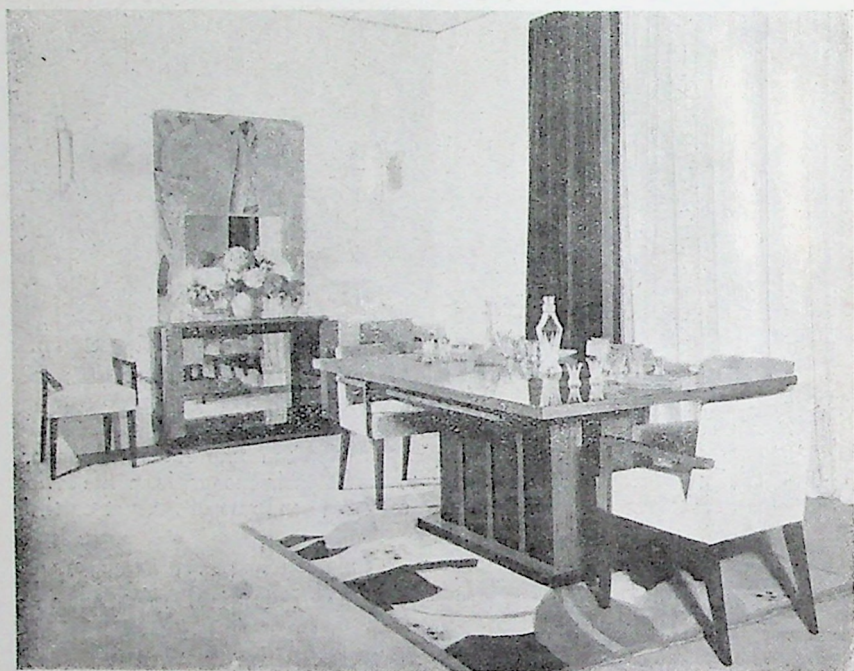
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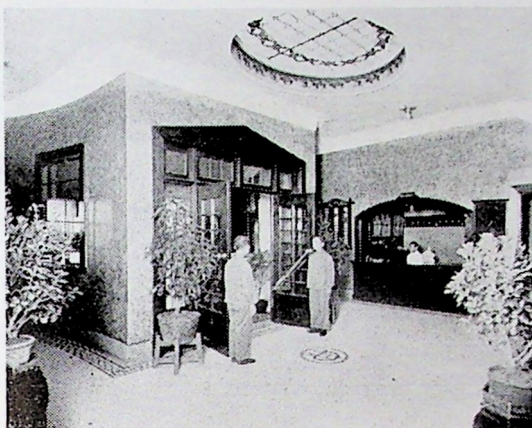


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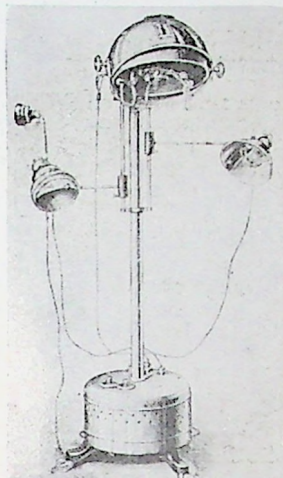
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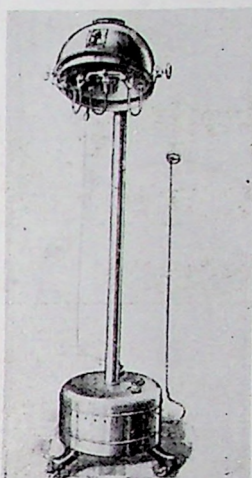
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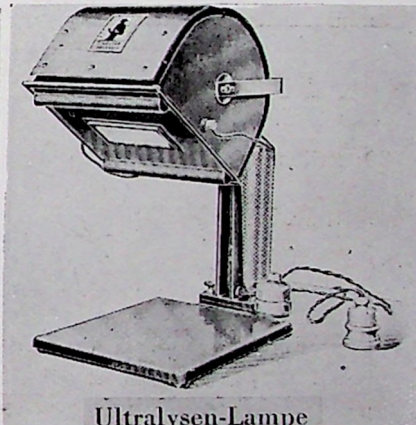
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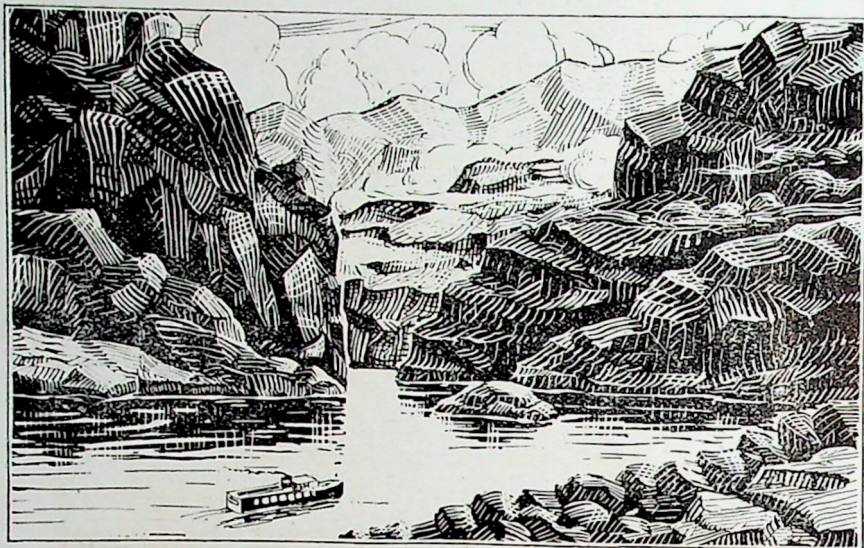
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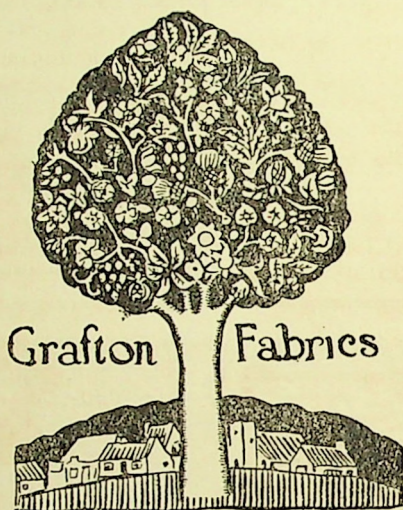
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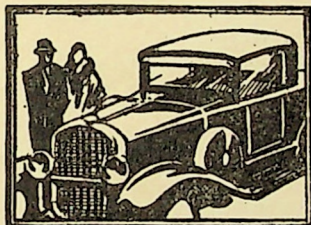
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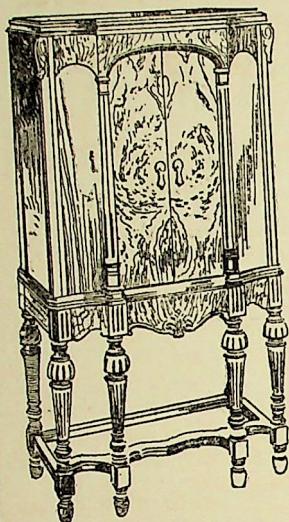
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FEBRUARY 1933

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Books for review should be sent to the Editor as early as possible.

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The Cheo Family, Mother, Son and his Wife, with whom Dr. Albert N. Stewart and Party stayed at Liang-feng-yah, Tsun-yi Hsien, Kweichow, while on a Botanical Expedition in that Province. Note the Turban-like Headdress.

(See page 79)



VOL. XVIII

FEBRUARY 1933

No. 2

THE SANCTITY OF TREATIES

BY

ARTHUR DE C. SOWERBY

A great deal has been heard of late about the "Sanctity of Treaties," albeit more treaties have been broken in the last two decades than in any previous hundred year period. This appears to be in conformity with the Machiavellian spirit of the times, which allows governments, corporations and even individuals actually to carry out a given line of action at the same time that they are loudly denouncing it. One might almost believe that the tongues of the diplomats and high officials of the various governments of the world had become permanently stuck in their cheeks. It seems to have become a maxim that it does not matter much what one *does*, but that one must be very careful what one *says*. Hence the long and laborious hours spent by Geneva committees over the wording of their reports and recommendations. One of the worst things of this state of affairs is that it has brought forth a new horror that is particularly difficult to deal with, namely, the "undeclared war," of which there are two taking place at the present moment.

A treaty is a treaty, and the mere fact that it does not suit one party to a treaty to fulfil its commitments, or to continue with it, is no justification for cancelling or breaking it. The changing of a form of government in a country is no justification for that country's repudiating the treaties entered into under the old régime, although this particular type of treaty violation has been indulged in on a wholesale scale since the world war. And because a treaty was forced upon one country by another as the result of war in times gone by does not render it null and void or subject to cancellation, except by mutual agreement as a result of amicable

arbitration. Nor is one nation justified in breaking one solemn treaty and pledge because some other nation has violated another. Little sympathy can be felt for any nation that cries out against another for breaking a treaty when it is itself guilty of having done so in the past or is in the act of doing so in the present.

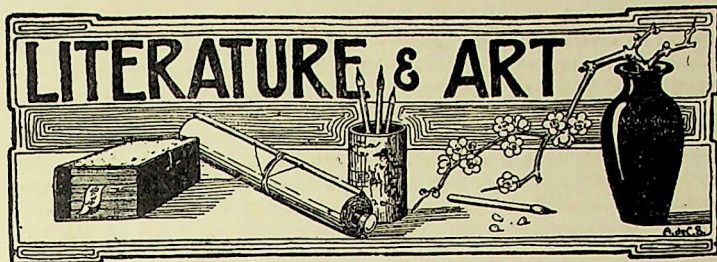
In a cable from Washington of January 16 it was stated that the President-elect, Governor Franklin D. Roosevelt, had issued that day a single paragraph regarding America's foreign policy, the important passage of which was that the United States' foreign policy "*must uphold the sanctity of international treaties.*" Brave words and sound, and words that should find a responsive echo in the Governments of every civilized nation. It is sincerely to be hoped that the future high executive of the American nation means *all* treaties and not only *some*.

Meanwhile suffering humanity is waiting for something concrete to be done whereby the inter-relationships of the different peoples of the world may be placed on a satisfactory basis so that they can live side by side in peace and harmony, and not everlastingly be threatened with the spectre of war, which deep in their hearts none of them wants.

The "Sanctity of Treaties" is at present a mere fiction, and, making a survey of world conditions, we are able to discover few nations that have not contributed to this deplorable state of affairs, either by deliberately breaking treaties themselves or by remaining supine and inactive while others did so.

A treaty between two or more nations is the equivalent of an agreement or contract between two individuals, and the only reason why the one may be broken with impunity while the other may not is because there is no recognized superior power to enforce the carrying out of the one whereas there is invariably such a superior power to ensure the fulfilment of the other.

What the world needs most at the present juncture to stabilize it and ensure peace amongst the nations is a superior power that will be able to enforce the carrying out and fulfilment of treaties entered into between those nations. And just as in the civil life of any group of people the individuals themselves have to and do set up a state power that controls them, voluntarily giving up the right to carry weapons with which they might defy the officers of the state, so the individual states or nations must set up a super-power or state to control them, and, having done so, must deliberately discard any military or naval forces and armaments that might tempt them to try conclusions with that super-power or state. In other words, they must set up an international court backed by an international police force, and then disarm themselves, trusting to that court and police force to see that justice is done, and so to make the "Sanctity of Treaties" a living fact instead of a mouldering fiction.



FLAGELLANTES THE SELF-TORMENTORS OF THE PHILIPPINES

BY

ALEKO E. LILIUS and DAVID T. BOGUSLAV

In the little Philippine town of Angeles, located fifty miles north of Manila, there is a strange brotherhood, the Flagellantes, that can trace its history back to those black mediæval centuries when the mere conception of things unnamed by Holy Script was heresy, and burning stakes with writhing human bodies were lighting the path of the righteous.

The members of this cult are simple minded peaceful farming people. There is no resemblance between them and those of other cults. They are unlike the dangerous Colorums,* who believe that they are God's chosen children, consequently rulers of the earth, and that any authority but theirs must be done away with, by sword and fire if necessary. They are unlike the *Magnunu*,† whose cult was originally pagan, and who do the trick of walking on fire with no apparent consequences to their well being.

The Flagellantes of Angeles are entirely different. As are most Christian Filipinos, they are Catholics and intensely devout. They lead well ordered lives no different from their neighbours. One day of the year, however, their composure abandons them. On this day, Good Friday, they turn their backs on the world of to-day, and, unmindful of honking automobiles on the roads nearby or of roaring airplanes overhead, re-enact in all its gory realism a scene out of the Dark Ages.

The origin of the Flagellantes, that small fanatical sect of self-tormentors which appears as a thread of vermillion in the crimson tapestry of mediæval Europe, is lost in pagan antiquity. Even pre-Christian chronicles mention them. To-day, the mystic Orient is filled with similar sects under one name or another. Ten centuries after the passion of Christ they appeared on the highways of France and Italy. They exercised such an influence in that particular part of the Christian world

* *The China Journal*, Vol. XVII, No. 4, pp. 164-168, October, 1932.

† *The China Journal*, Vol. XVIII, No. 1, pp. 8-12, January, 1933.

that the Church found it necessary to condemn them. Driven and harried by civil arms, they were in constant danger of excommunication, imprisonment or death at the stake. Still they continued along their ensanguined path, a veritable *Via Dolorosa* of their own making.

In all ages self tormenting has been considered the extreme expression of devotion. Man must suffer in this world, it is maintained, to acquire happiness in the next. The scourge and the lash once formed the symbol of the ultimate degree of suffering, and a better method whereby to acquire merit, to do penance for all sins, past and to come, could not be found by those simple people centuries ago. To the outside world it is purely another phase of religious hysteria.

Little is known of the origin of the Flagellantes in the Philippines. The group at Angeles is, perhaps, the largest, but the custom is widespread. There are reports of Flagellante processions from all the provinces, with the exception of the Mohammedan and pagan regions. Until forbidden by the city authorities, the devotees of these barbaric rites could be seen in their horrible processions even on the streets of Manila. Now they have retired to the little town of Balintawak, immediately north of Manila. At Angeles, however, there were thirty-nine Flagellantes who volunteered to suffer self inflicted torments on Good Friday a couple of years ago, while Balintawak had only six.

There is no secrecy observed by the Flagellantes of Angeles. The police power does not exist to control their annual Calvary. Soldiers and officers from nearby Fort Stotsenburg, constabulary soldiers and visitors from the surrounding countryside gather to witness the strangest manifestations of Christian fervor to be found in the Islands.

In the main, they are the descendants of Flagellantes. From father to son the custom has been transmitted from time immemorial. But among the thirty-nine self appointed martyrs were a few, who, through a sense of religious obligation, perhaps in gratitude for a beneficence received, perhaps in fulfilment of a vow, undertook to give this final proof of their devotion.

The voluntary penance begins for the Flagellantes on Holy Thursday. There is, however, no scourging on this day, for, under the rigid code which governs the practice, no blood may be shed on the day which precedes the anniversary of the Crucifixion. The devotees, stripped to the waist and with cords tied in symbolic knots about their shoulders, arms, thighs and legs, their faces covered with hoods that hang down in points on their chests, and with wreaths woven of thorny twigs about their foreheads, pass about the *barrio*, lying down now and again, with their backs exposed to the sun. The day is one of fasting, and it is a tribute to their fortitude and devotion that they can endure the rigour of a foodless, waterless tropic day with constant exposure to the sun.

On Good Friday morning the real sacrifice begins. Before the ordeal the celebrants are careful to hear mass. Then they gather in the jungle beside the road on which they will take their course, and the preparation for the main ceremonies begins.

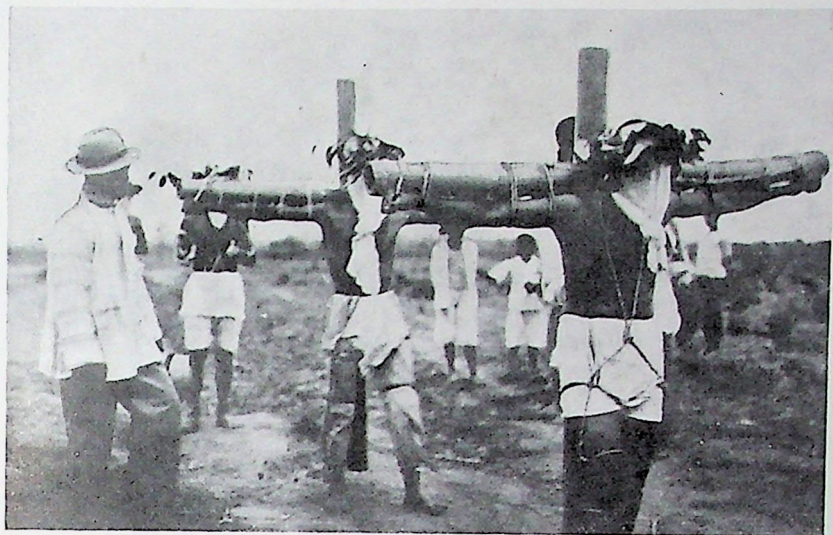
The penitents show their desire to atone in one of three ways. The first, which has been mentioned, consists of being wound about with



A Group of Filipino Flagellantes ready to do their severe self-imposed Penance.



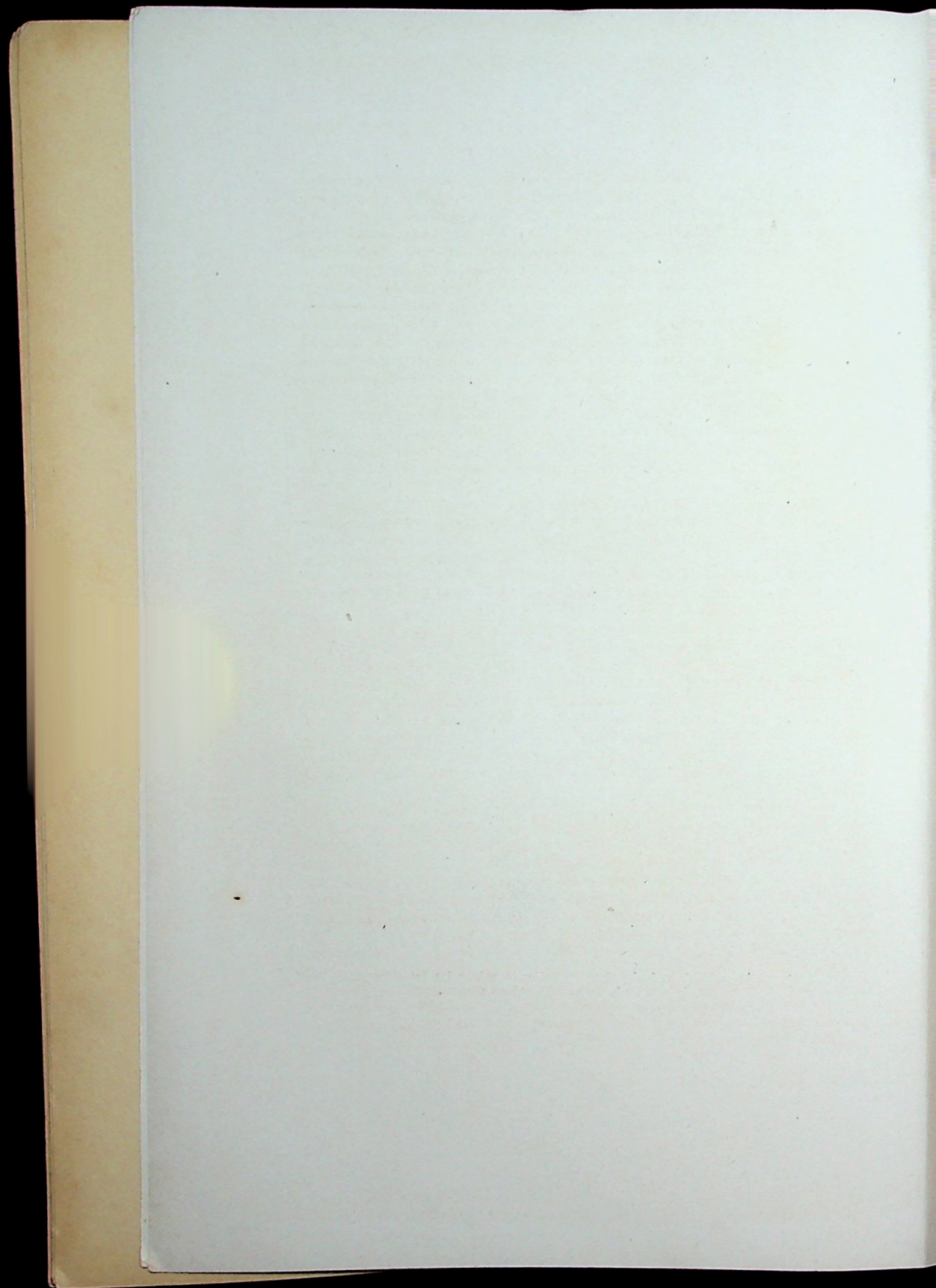
Willing Hands bind the heavy Bamboo Crosses to the Filipino Flagellantes' Backs.



Filipino Flagellantes bound to heavy Bamboo Crosses as a Penance for their past and future Sins.



Not a Hand is raised to help the Flagellante when he falls beneath the Weight of his heavy Bamboo Cross.



ropes, which restrict free, comfortable movement, and exposing oneself to the heat of the sun, refraining the while from food and water. The second, in emulation of the Saviour, is the bearing of the cross. The third is the actual flagellation, in which the devotee lashes himself with a whip, at the end of which is a cluster of thin knife-edged bamboo strips.

As the penitents leave the church where mass has been celebrated they go in a body to the "preparation point." There willing assistants tie the heavy crosses, taller than a man and made of thick bamboos, to the backs of those who would follow the path of Christ. The crown of thorns, symbolic in its significance and real in the blood that it draws from the forehead of the wearer, is placed on his brow. The hood is affixed to the face, and the procession is formed, each penitent usually accompanied by a guide who leads him along the road.

The Flagellantes proper require more detailed preparation. One of the "dressers," armed with a piece of broken glass, incises small wounds in the bare back of the penitent. The latter is then blindfolded, tied with an assortment of knots and given a lash with which he is to scourge himself.

The whip itself merits description. Its handle is of rope, giving leverage for a sharp stinging blow. The lash is composed of a number of bamboo strips, some eight to ten inches in length. These are always odd in number. The reason is obscure. It has always been like this. The whip is carried in the right hand, and, as the slim sinuous cord curls viciously about the man's body, the razor-edged bobbins cut the scored flesh wickedly.

The procession, starting at the point where the crosses were affixed and the wounds were made, makes its way slowly along the dusty road to the small chapel. The cross-bearers, accompanied by their guides, who mark the time of the march with a doleful chant which they read as their heavily laden companions stagger beside them, lead the way. Then come the others, the sharp rattle of the bamboo lashes beating time to the song of the penitents. Oblivious of all but the reality of the penitence, ignoring the curiosity seekers, who, with autocar and camera, have stormed their seclusion, they carry on their march of torment.

From time to time, a guide, taking a mouthful of water, sprays the bobbins of the whips. But the chant continues, the cross bearers stagger on their way and the whips rise and fall in rhythmic cadence as drops of blood spurt out from under the lacerating strips of bamboo. Now and again one of the weaker stumbles and falls to the ground, face downward, the heavy cross to which his outstretched arms are laced almost entirely covering the prostrate body. He is assisted to his feet and returns to his place in the mournful procession.

The march continues until the chapel is reached. Several kilometers, perhaps, have been covered of a trail that is literally one of blood. Then the penitents are relieved of their burdens, and they disperse to resume the normal way of life which they had abandoned for the day, only to return again the following year to re-enact the whole lugubrious ceremonial.

Whatever the reason the number of Flagellantes is said to be steadily growing. The two score men that took the penitence this year included several newcomers to the cult. But the old time fervour and sincerity seem to be disappearing. The penitents this year did not appear to be taking their self-immolation seriously. They laughed, many of them, and jested as the ropes were tied about them. Most of them were of middle age, and their backs bore the scars of other years. These were the men who were following the tradition of a family. For generations their fathers and grandfathers before them had walked in such processions, bore the same crosses, and wielded much the same, perhaps the very same, whips. But with them were a few new arrivals, three or four young fellows, obviously under eighteen, a little concerned about the whole business, perhaps a little diffident, but encouraged by the jests of their elders.

In ancient times flagellation was a symptom of religious hysteria, waves of which followed each other, sweeping over the fanatical masses of Europe. In Angeles the custom has attained the dignity of a tradition. Perhaps in future years the two score of penitents who thus walked the trail of suffering will be increased to hundreds. It is as if the desire to suffer for the faith never grows weaker.

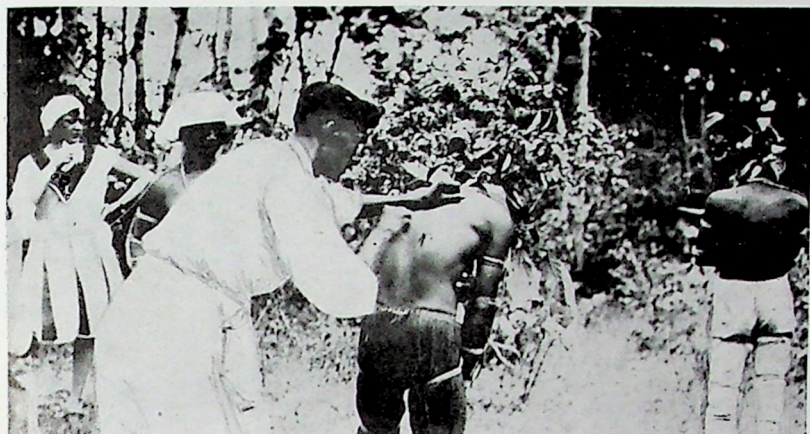
CHINA'S ENCYCLOPAEDIC COLLECTION OF HER BOOKS

BY

D. F. MIAO

In one of the palace buildings in the Forbidden City of Peking, the great metropolis of old China, is stored the largest collection of China's books, collectively known as the Szu Ku Chuen Shu (四庫全書), which contains the records of her civilization of more than four thousand years. It is no wonder that China, the only existing nation of great antiquity and the nation which has produced the culture of eastern Asia, should have hoarded such an invaluable treasury of written records, numbering a little less than eighty thousand volumes. The herculean task of collecting these books is in itself a splendid achievement that adds to the grandeur of this ancient country.

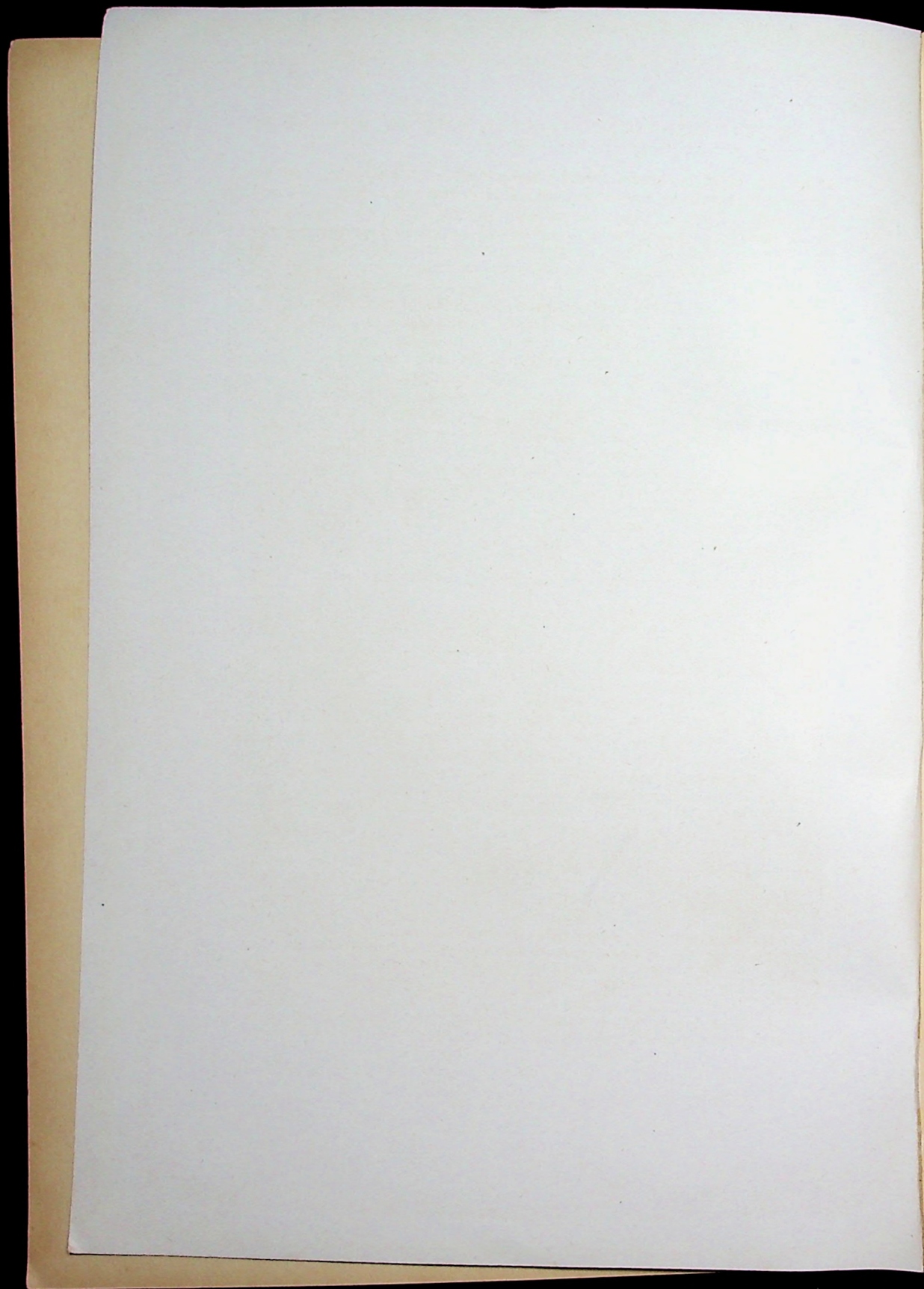
The work of compiling and editing the Szu Ku Chuen Shu was started in 1773, about the middle of the reign of Emperor Chien Lung (乾隆) of the Ch'ing Dynasty. In no other time, perhaps, could such an enormous task have been as expediently and successfully accomplished



Wounds are inflicted on the Flagellante's Body with Pieces of Broken Glass



Filipino Flagellantes flogging themselves with Bamboo Whips as they March along in mournful Procession.



as at this most opportune period, when Emperor Chien Lung, at the pinnacle of his power and success, ruled over the country in peace and prosperity. Emperor Chien Lung, while having often been condemned as a despot for burning books of a satirical or rebellious nature against the Manchus and for imprisoning or putting to death scholars who wrote anything offensive to him and his subordinate rulers, was in some respects a patron of learning. He encouraged the study of literature and art and was himself well versed in these. His own calligraphy can be seen on monuments in many famous places along the route of his imperial visit to South China.

The compilation of the *Szu Ku Chuen Shu* is not the first of its kind ever done in China. As early as the T'ang Dynasty similar works had been undertaken, but on a much smaller scale. During the reign of Emperor Kang Hsi (康熙), 1662-1721, the most famous collection was the *Tu Shu Chi Chen* (圖書集成), which contains, however, only abridged selections and extracts from books classified under different types of learning. This collection is also limited in its scope. A comparatively much more extensive and comprehensive work, broader in scope and encyclopaedic in nature, is the *Yung Lo Ta Tien* (永樂大典)* of the Ming Dynasty, compiled during the first five years of the reign of Emperor Ming Chen Tsu (明成祖), 1403-1407. This remarkable work, however, was soon found to be both incomplete in the collection of material and somewhat inappropriate in its classification and arrangement. These shortcomings, therefore, pointed to the necessity of compiling a greater and fuller collection. Thus, under the glorious reign of Chien Lung, the compilation of the *Szu Ku Chuen Shu* was inaugurated. It was based upon the previous work, the *Yung Lo Ta Tien*, which had, in fact, paved the way for this new undertaking.

Emperor Chien Lung established a special bureau for compiling and editing this grand collection of books, with Chi Chun (Chi Hsiao Luan, 紀昀, 字曉嵐) as the chief editor and compiler and Loh Hsi Yung (Loh Chien Nan, 陸錫熊, 字健南) as his co-editor. Amongst a great multitude of three hundred and fifty-nine workers, who were in charge of different tasks of the enterprise, there were some eminent scholars of great learning more or less connected with it, such as Loh Fei Chih (陸費墀), Ning Ta Ch'un (任大椿), Tai Tsung (戴震, 字東原), Chao Chin Han (邵台涵), Yao Nai (姚鼐, 字姬傳), Chu Chun (朱筠), Wang Yen Sung (王念孫), Ong Fang Kang (翁方綱) and others. The services of these prominent scholars were necessary to the success of this great undertaking, for they were men of great erudition and held a very important position in China's literary history.

* The *Yung Lo Ta Tien*, an encyclopaedic collection of the Ming Dynasty, had three copies, one kept at Nanking and two at Peking. After the expulsion of the Mongols Chu Yuen Chang (朱元璋) founded the Ming Dynasty with Nanking, then known as Chinling (金陵), as his capital, but the third Emperor, Chen Tsu, transferred the capital to Peking. In course of time the *Yung Lo Ta Tien*, however, has been either destroyed by fire or gradually lost, until at present there are only about sixty books left, which are kept in the library of the former Ministry of Education at Peking.

THE CHINA JOURNAL

In connection with the method of collecting it may be mentioned that the books were generally from the following six sources :

- (1) The Imperial Editions, including books edited or revised by the Emperor's special command, numbering not less than two hundred sets.
- (2) Books that had been collected in the Imperial Palace, numbering more than three hundred sets.
- (3) Books that had been collected in the Yung Lo Ta Tien, from which about five hundred sets were selected.
- (4) Books sent in from the provinces. The province of Chekiang sent in the largest number of books, totalling more than four thousand and fifty sets.
- (5) Books that had been collected in private libraries, particularly in the two Kiangnan Provinces of Kiangsu and Chekiang.
- (6) Popular editions including all sorts of books that were widely circulated.

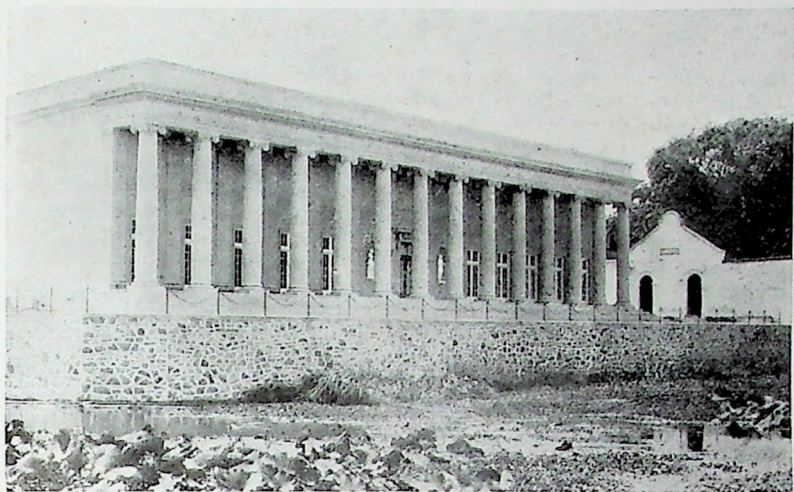
The collection was indeed most extensive, notwithstanding the fact that quite a number of books had been left out through the negligence of the collectors and editors, or destroyed because of their reactionary nature.

In the work of compiling and editing three steps were to be followed : (1) to print the books with movable types (the cost of printing, however, was so expensive that this work had not been carried out) ; (2) to copy the books in handwriting ; and (3) to make a bibliography of those books that had been lost but still had their titles and authors preserved.

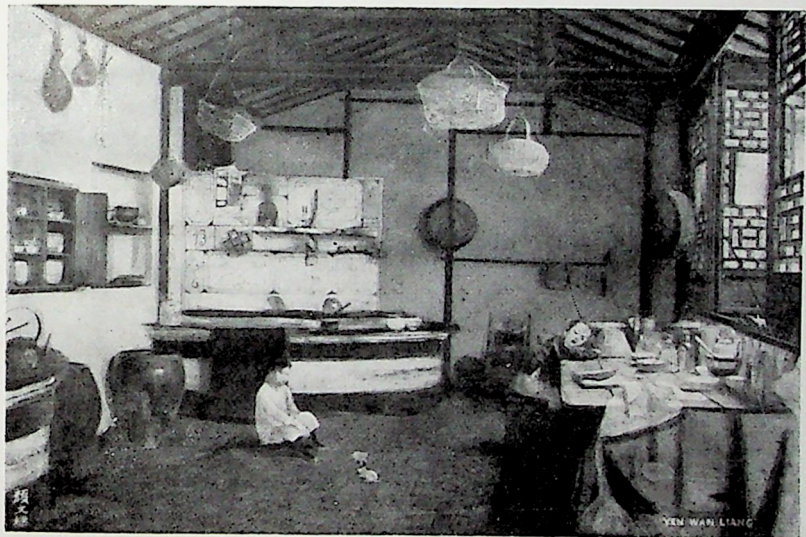
The collected books were then classified under four main heads, *Ching, Shih, Tze, Chi* (經, 史, 子, 集), from which the name of this grand encyclopedic collection is derived. They are :

- (1) *Ching* (經), including ancient classical works and studies, namely, The Canon of Changes, The Canon of History, The Book of Poetry, The Book of Rites, The Spring and Autumn Annals, The Canon of Filial Piety, The General Principles of the Five Classics, The Four Books, and the books on music and philology.
- (2) *Shih* (史), consisting of standard histories of different dynasties, chronological histories, historical episodes and miscellanies, historical criticisms, biographies and sketches, and various books on the seasons (時令), geography, official systems, politics and bibliography.
- (3) *Tze* (子), comprising works of different schools of philosophy, science, art, religion and so on. (Here it is necessary to mention that novels also come under this heading).
- (4) *Chi* (集), including general as well as special literary works and literary criticisms of different authors. All forms of poetry, essays and literary sketches are included in this part.

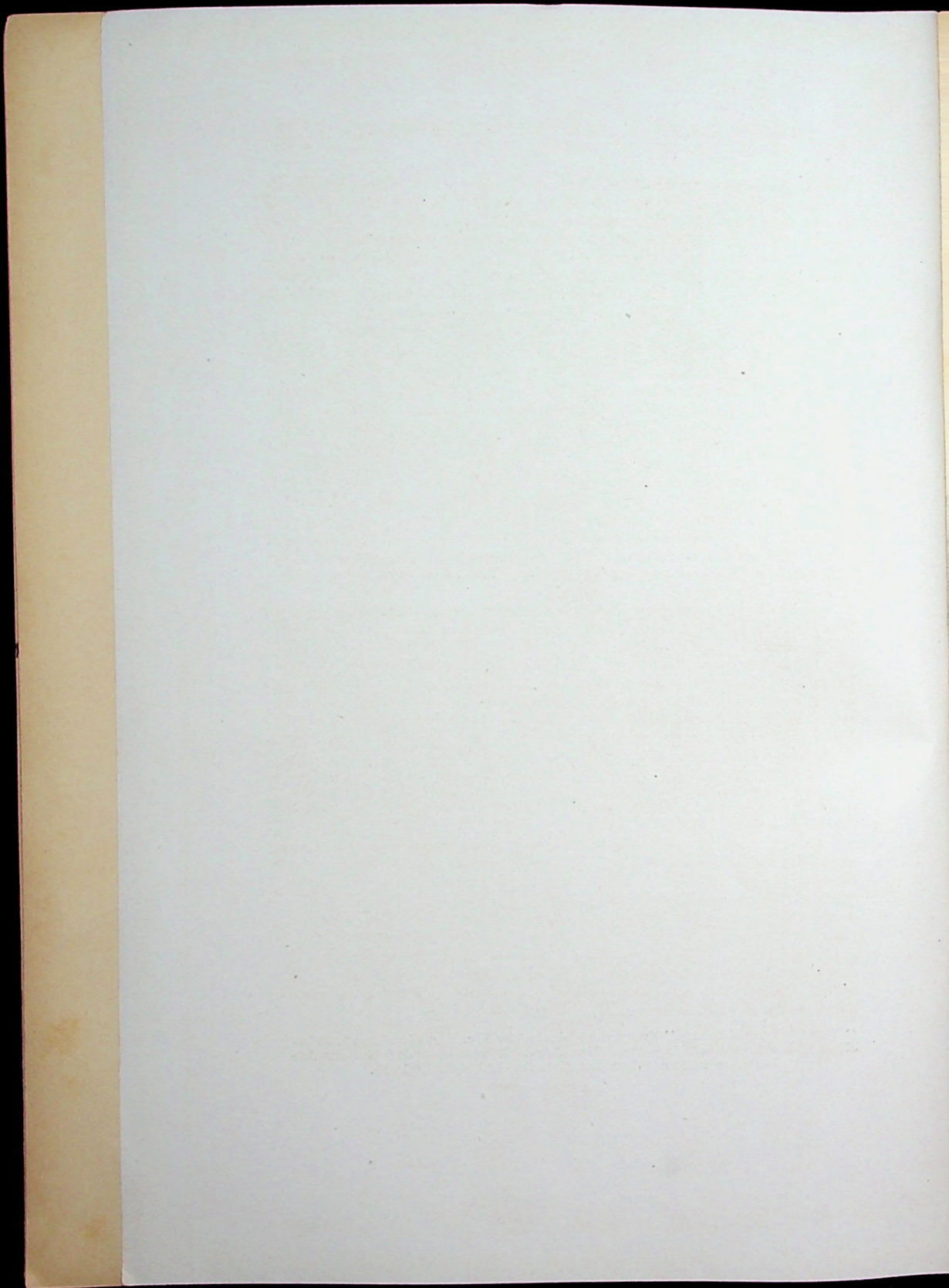
This great undertaking of compiling and editing, which was commenced in the thirty-eighth year of the reign of Emperor Chien Lung



Front View of the New Art Gallery on the Campus of the Soochow College of Fine Arts at the Ts'ang Lang Ting, Soochow.



"The Chinese Kitchen." From the Painting by Mr. Yen Wen Liang, Principal of the Soochow College of Fine Arts. It was awarded Honourable Mention at the Salon des Artistes Francais in 1929.



(1773), was accomplished in about ten years' time. The whole collection numbers 3,457 sets of books, totalling 79,070 volumes. Unfortunately, however, there was an even greater number of books that were no longer available at the time of compiling, and thus had only their titles and authors preserved. The number of these lost books amounts to 6,766 sets in about 97,346 volumes.

After the completion of the collection a special library, known as Wen Yüan Ko (文淵閣), was built in the Imperial City to store the books. Later two other buildings were erected, one at Jehol, named Wen Tsin Ko (文津閣) and the other in the Imperial Garden, Yuen Ming Yuen (圓明園), named Wen Yuan Ko (文源閣). In Manchuria, the home of the Manchus, another edifice, the Wen Su Ko (文溯閣) was put up at Mukden, which was then the second capital of the empire. Still later, as the two Kiangnan provinces of Kiangsu and Chekiang formed the centre of learning with a mighty concourse of brilliant minds, three buildings were erected, one at Yangchow, one at Chinkiang and one at Hangchow, known respectively as Wen Hui Ko (文匯閣), Wen Tsung Ko (文宗閣) and Wen Lang Ko (文瀾閣). How immense the collection is and how tremendous the work of compiling and editing it can readily be imagined from the very names of the buildings where the books have been kept, meaning either the source or the concourse of learning, and further from the fact that these seven copies of the collection were all in manuscript.

Since the reign of Emperor Chien Lung, however, China has suffered from the devastation of the Taiping rebellion and more recently from foreign wars. The two copies of the Szu Ku Chuen Shu at Chinkiang and Yangchow were destroyed when the Taiping rebels overran Kiangsu Province; the copy at Hangchow has been partly lost; and the copy in the Yuen Ming Yuen was burned during the attack on Peking by the allied forces of England and France in the second Anglo-Chinese war (1856-1858). So, of the seven complete copies, there are now only three and a half copies that have been preserved till the present day. In 1924 an attempt was made by the Commercial Press at Shanghai to have the complete set that has been kept in the Imperial City transported to the south to be printed, but for one reason or another the plan was frustrated.

In the work of compiling and editing there was another most remarkable accomplishment done by Chi Chun, the central figure of the Bureau of Szu Ku Chuen Shu. A man of extraordinary genius and erudition, he perused every set of books that was sent to the office and wrote a synopsis at the beginning of each. Thus, in something over ten years of hard study in this stupendous work he had undertaken, he compiled a Complete Bibliography with Synopses (四庫全書總目提要) and a Simpler Bibliography (簡明目錄), containing the names of the books, the authors and the number of volumes. Both of these are the keys to the immense treasury of the Szu Ku Chuen Shu.

With this great source of books learning flourished in the Ch'ing Dynasty, particularly that which is generally known as Han Hsüeh

(漢學), or, in modern terms, the logical study of various branches of learning. It was from that time onward that scholars began to make historico-critical inquiries in order to determine the true text of an ancient manuscript, to raise questions as to the age, correct text, authorship and purpose of the books, and to seek evidences for verification. This revival of learning, like the European Renaissance, centered upon the study of ancient classics in a systematic way. The Szu Ku Chuen Shu is the richest field of study from which this new spirit of learning has reaped its harvest and filled many brilliant pages in China's literary history. It is a treasury that still awaits the exploration of seekers of knowledge.

ART NOTES

The Soochow College of Fine Arts: Among a few of the best art schools in China, the Soochow College of Fine Arts deserves public attention. The school was founded in 1922 by some educators and the members of the Soochow gentry, and during the past ten years it has maintained a steady growth. Its present location is at the T'sang Lang Ting (滄浪亭), an ideal site for an art school on account of its beautiful surroundings and its being connected with history and learning. In December, 1932, a new and elegant art gallery of Greek style was erected on the bank of a stream in front of the T'sang Lang Ting. The curriculum of the school consists of Occidental and Chinese painting, Chinese calligraphy and seal-carving and modelling. Mr. Yen Wen Liang (顏文樸), a famous modern artist who has spent some time in France, is now the principal.

D. F. M.

Samples of Chinese Art: The two accompanying illustrations and the following letter explaining them have been received from a correspondent in Soochow who writes:

DEAR MR. SOWERBY:

Herewith I am sending you two pictures. The notes for the larger one are as follows:

"A curious picture of the wedding procession of Chung Kuei's sister, in which the ghosts take part instead of human beings. There is an interesting Chinese play in Quin Chi (昆劇) that bears the same title."

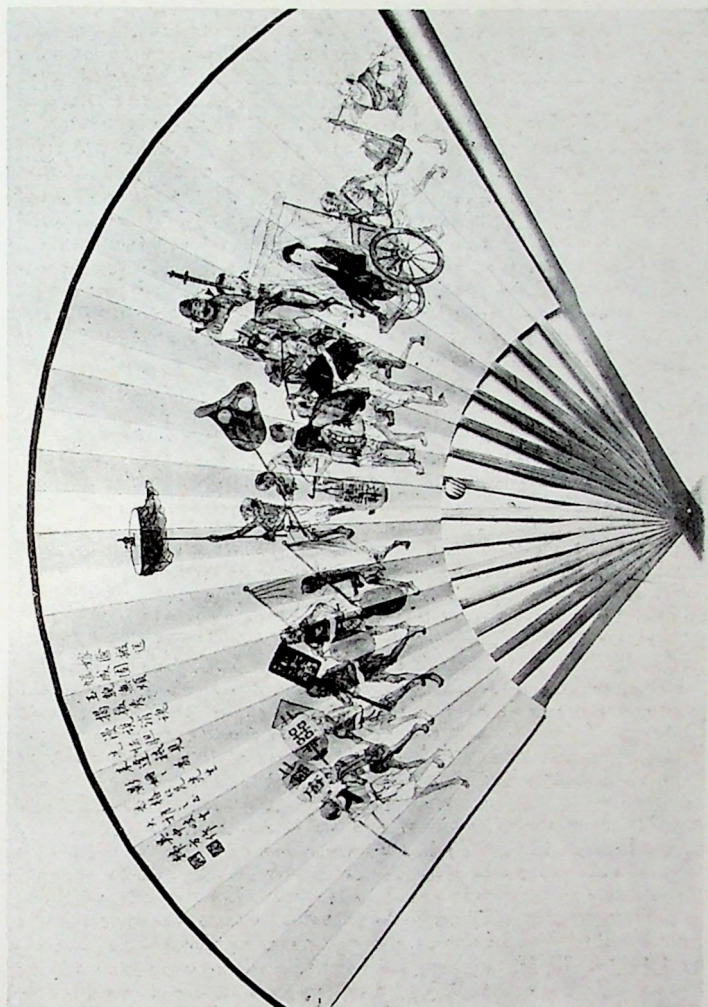
The second picture is a specimen of calligraphy by King Nun (金農, 字冬心) of the Chin Dynasty. It is a typical specimen of hand-writing known as Ch'i Shu (漆書) or writing with varnish brushes.

Yours faithfully,

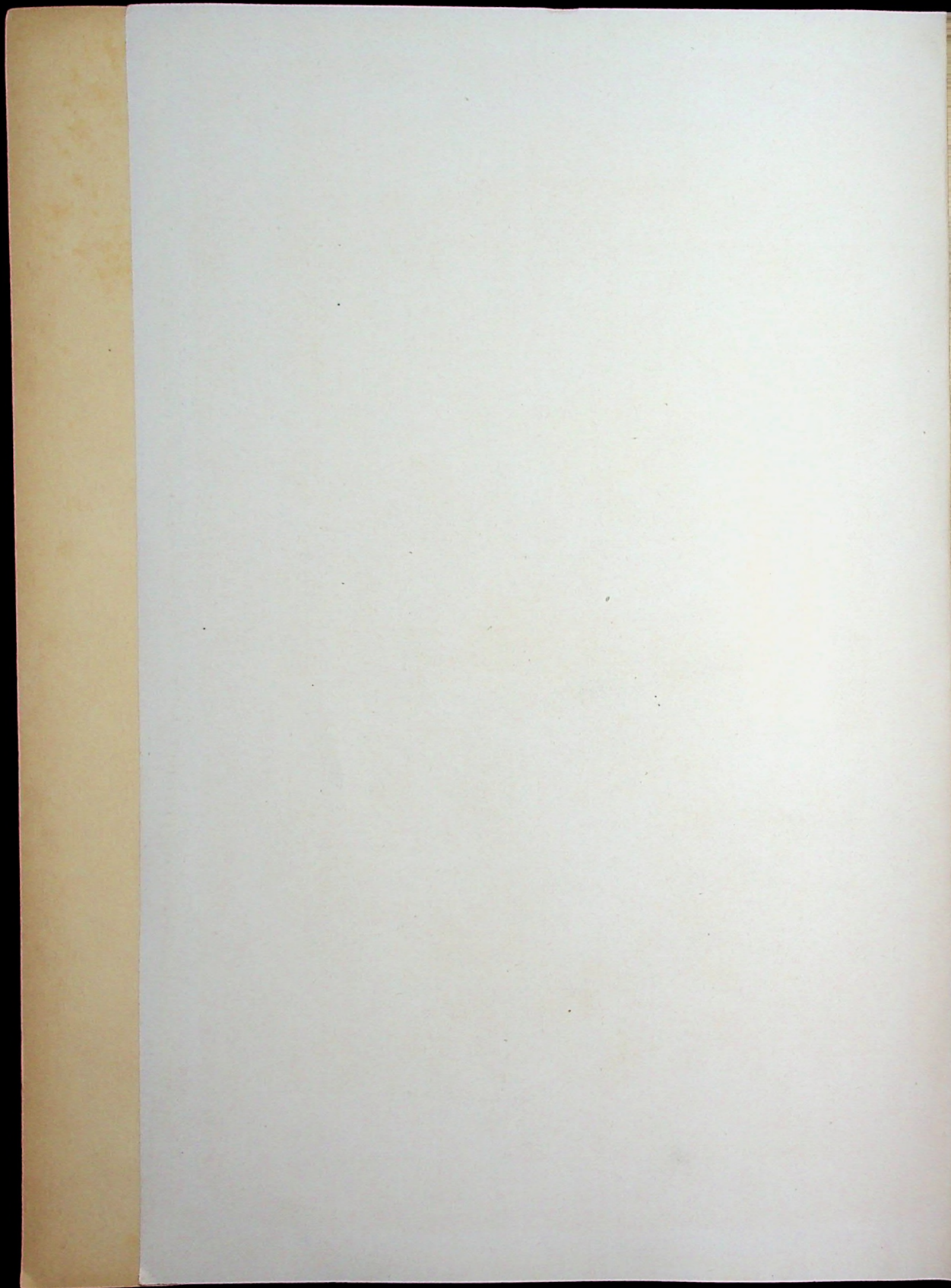
D. F. MIAO

Soochow University,
November 7, 1932.

High Price for Chinese Antiques: According to a *Reuter's* message of January 19 from London a pair of Chinese porcelain pheasants of the Ch'ien Lung period were sold at Christies for 430 guineas, or about \$7,000, Shanghai Currency.



A Fan Painting of the Wedding Procession of Chung Kuei's Sister, in which Spirits take the Part of Human Beings.



CORRESPONDENCE

Houses for the Dead: Our readers may remember the correspondence referred to in the following letter, which was received by us some time back. Since this correspondence was published we have received verbal information from one of our subscribers to the effect that he remembered on one occasion while travelling in Honan seeing a sick man lying on a bed just outside the large front gate of his house, and he was informed that he had been placed there because they did not want him to die inside the house.

Dear Sir:

Some months ago, in your interesting Journal, you printed a letter from Singapore or the Southern Malay States, concerning the custom among the Hainanese there of using "dead Houses" and asking if the custom were found anywhere in China. The custom of using such houses here in Hainan is very common. Many, possibly one might say most, towns have them. I believe I am correct in saying that their use arises because of a superstition which does not allow a person to die in a rented house. A dying person is taken to one of these houses to expire. Sometimes several days pass before death occurs: in such case I do not know what care, if any, he receives.

Yours truly,

CAROLINE MCCREERY

American Presbyterian Mission
Hoihow, Hainan Island.
November 22, 1933.

The Origin of the Feng Huang and the Ki-lin: Just what, if any, connection exists between the mythical animals and birds of one country and those of another is always a question that puzzles the student. Mr. Jenyns of the Department of Ceramics and Ethnography of the British Museum in the following letter has asked some questions which are by no means easy to answer. Personally we see no reason to suppose that the *feng-huang* has any connection with the phoenix or the *ki-lin* (called Kylin in

Mr. Jenyn's letter) with the unicorn of the West. Some authorities, however, appear to believe that there is a connection and that Mesopotamia was the place of origin of the myths. We prefer to leave it to such as hold this belief to substantiate it. From a purely zoological point of view we would suggest that the *feng-huang* (always two birds, *feng* being the male and *huang* the female) were modelled mainly on the common cock or rooster with some attributes drawn from the peacock and other birds. It is highly improbable that they have any connection with the argus pheasant. In Loudon's "Entertaining Naturalist," dating somewhere early in the 19th century, occurs the following passage "Herodotus, Pliny, and nearly sixty other classical authors have related marvellous stories of this bird, all of which are of course fabulous. The Phoenix, they say, inhabits the plains of Arabia, and is about the size of an eagle, with gorgeous plumage of purple and gold."

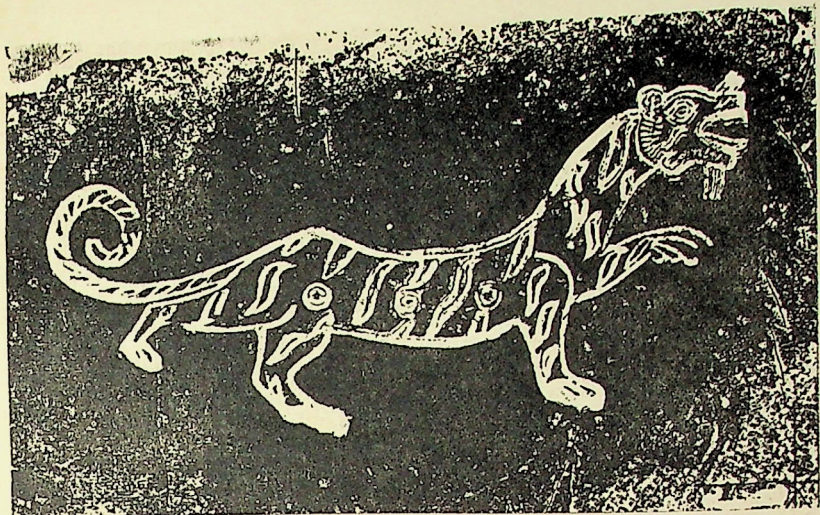
In the accompanying reproduction of a rubbing from a tomb brick or tile from Honan of the Ch'in or earlier period will be seen two mythical birds which are obviously *feng-huang*, or at least the prototypes of the *feng-huang*. In one the ends of the tail feathers do not show, while the other has lost its head. They afford valuable data as regards the date of origin of the conception of these mythical birds, and it will be noted that they were well established as a myth at a time when the Ancient Greeks were speculating as to the identity of a strange bird called a phoenix that was said to live in the Arabian Desert.

The other pheasant-like bird called the "Heavenly Chicken" which appears on Chinese porcelain is probably an adaption of the golden pheasant (*Chrysolophus pictus*) and very probably of its near relative Lady Amherst's pheasant (*C. amherstiae*).

In view of the fact that the rhinoceros occurred in China almost certainly as late as human times, it is conceivable that it was the origin of the *ki-lin*, just as it appears to have given rise to the Western unicorn (see references



Rubbings from Tomb Bricks or Tiles of the Ch'in or earlier Period from Lo-yang in Honan, showing Hunting Scenes. It is suggested that the Tiger (above) and Leopard (below) represent Animals trained for the Chase. Special attention is called to the two Birds in the upper Rubbing, evidently representing the Chinese mythical *Fêng Huang*, usually but wrongly called the Phoenix.



A Tiger from a Rubbing from a Tomb Brick from Lo-yang, Honan, of the Ch'in Period or earlier (B.C. 500-200).



Three Storks appearing on a Ch'in or earlier Period Tomb Brick found at Lo-yang in Honan. These are not to be confused with the Cranes on a similar Brick shown in the December, 1932, number of *The China Journal*.

to unicorn in the Book of Job). If so it has undergone remarkable changes in both its Western and Eastern forms. The *ki-lin* is undoubtedly a unicorn, but certainly not the unicorn of Western legend and heraldry—there are too many points of difference. Incidentally it may be pointed out that sometimes the *ki lin* is shown with two horns like those of the deer, instead of with the one on the top of the head.

Finally, we frankly plead complete ignorance as to why the golden oriole is always associated with ill omen and disaster in Chinese poetry.

If any of our readers can throw light upon the questions asked by Mr. Jenyns we should be glad to hear from them. Mr. Jenyns writes:

Dear Mr. Sowerby,

Thank you so much for your exceedingly interesting letter. It tells me all I want to know and more about the goldfish. I am very much interested in the literary and symbolical significance of fish, birds, beasts and flowers in Chinese art and poetry, but I find it hard to find anyone over here who can enlighten me. I shall continue, if I may, to plague you with questions from time to time. The present problem that is exercising my mind is the relationship between the Chinese Kylin and fng huang and the European unicorn and phoenix.

Do you think it can be said that they are both derived from some mutual source in the middle East or that one sprang from the other, and if so whether it was the East that influenced the West or vice versa?

I am also troubled as to the exact difference between the *têng* and the *luan*; as far as I can make out the *luan* is a species of green fng, that is particularly associated with the soul. Then there is another pheasant-like bird called the "Heavenly Chicken" which figures in Chinese porcelain, which I presume is a species on its own? It is so difficult to disentangle the different fabulous birds of a phoenix-like nature. Do you trace any connection between the phoenix and the argus pheasant? And do you agree with those who put forward the theory that the phoenix which accompanies Hsi Wang Mu, is adapted from the peacock which is associated with Juno in Greek art? The pheasant family

appears to be symbolical of good fortune and happiness in China. I presume like the cock they represent the Yang principle as opposed to the Yin, and so signify light and warmth and the generative principle? I suppose as they invariably appear with peonies on Yung Chong porcelain they also carry a flavour of rank and wealth?

Please do not allow this torrent of questions to waste your time, but if you have the leisure to spare to elucidate these mysteries you will find a ready listener.

Yours sincerely,

R. S. JENYNS

Department of Ceramics
and Ethnography,
British Museum, London.

November 5, 1932.

P.S. Why is the Golden Oriole invariably associated with ill omen and disaster in Chinese poetry? See Shih Ching, Book IV, Ode VII Book of Odes, Book VIII, Canto VII.

Li Chi, Book II, Huang Niao.

The Date of the Honan Tomb Tiles: With reference to the dating of the remarkable tomb tiles, rubbings of which are shown here and in our December, 1932, number, Bishop White has written us an follows:

Dear Mr. Sowerby,

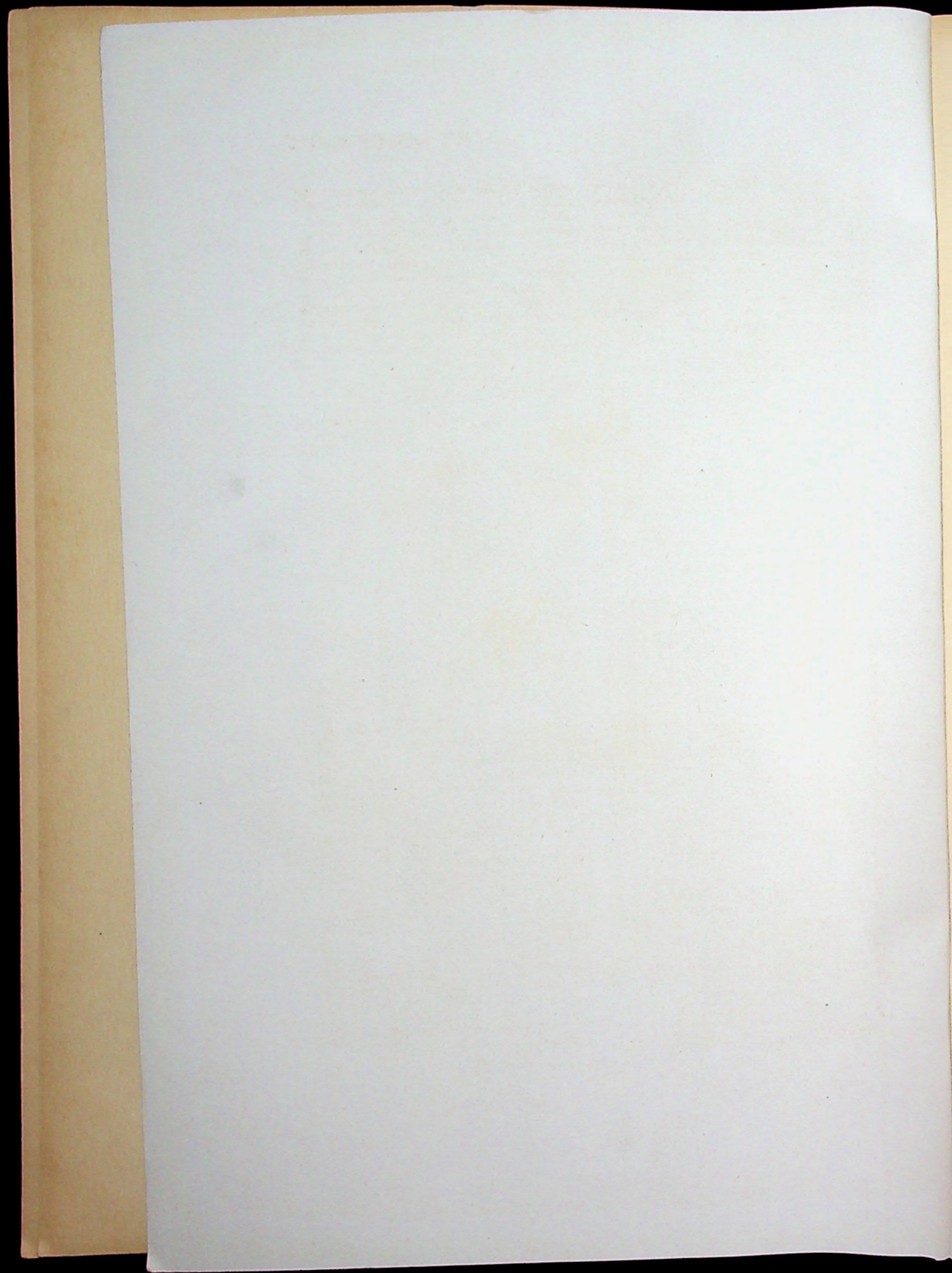
In the January number of the China Journal Mr. Carl Bishop asks whether there are other than stylistic grounds for the Ch'in attribution of the tiles illustrated in the December number of the Journal. So far, unfortunately, there is none.

For two years I have been picking up every scrap of information I could about these tiles, but have come across no object that has come from their tombs, and have only recently learnt where these tombs are, for apparently there are several.

But the evidence from their stylistic side for an early dating is now very strong. Take for instance the second oblong rubbing on page 270 of the December number of the Journal. It is doubtful whether this is a hunting scene, though there is a dog at the end and birds everywhere. There is an old gentleman on the left, in the centre a scholar carrying his book of bamboo



Varnish Brush Calligraphy of King Nun of the
Chin Dynasty.



CORRESPONDENCE

slips, then an old lady with her staff such as the aged used, with a damsel to her right.

The point here is the bamboo book, which would hardly likely to be depicted unless such were in actual use at the time, for the scene is a common domestic one.

The border is distinctively Ch'in, and is in line with the slanting "T" design so common on Ch'in mirrors of a certain type.

Recently a bronze bowl has come into my possession in which the design of the decoration is exactly that of this border. This bowl was found with a group of bells, called the *Piao* bells (鑿氏編鐘), which are, or were until recently, in Shanghai. The bells came from the same locality as the tiles, only two *li* away, and have already become famous on account of an inscription which gives the year date. For a year now Chinese scholars have been discussing the inscription in magazines and pamphlets, and the majority are agreed that the year date of the bells is the 22nd year of Chou Ling Wang, that is, 549 B.C. One scholar only, Mr. Kuo Mo jo, argues for the 22nd year of Chou An Wang, that is, 379 B.C. The point I wish to make is that the pattern of the border of this tile is exactly that of a bronze vessel which came from a tomb which Chinese scholars are agreed must date either 379 B.C. or 549 B.C. Of course this does not preclude the possibility of the pattern being used considerably later, but with the bamboo book also, and from the fact that the tiles and the bells come from the same locality, we can be reasonably sure of a 3rd or 2nd, century B.C. attribution.

Another matter bearing on the date should be mentioned. Several of the bricks had characters incised on the ends stating where they were to be placed in the tomb, and most of the others had the same sort of inscriptions written probably with a brush in dark red pigment on the surface of the brick. A rubbing of one of these tiles now in Yen-ching University, Peiping, was printed on the cover of "Yen-ching Journal of Chinese Studies" for June 1932, and a footnote stated that the characters written on the brick in red were "lower north-east" (東北下), which is typical of all the other inscriptions. The style of the incised

characters seems to be that which was common to the brief Ch'in period, while the written characters are more like those of the Western Han inscriptions, though both must be of the same time. If the characters, too, were written by brush then they could hardly be earlier than the last part of the 3rd century, and would more likely be the earlier part of the 2nd century. Ch'in or early Western Han seems to be a reasonable date for these tiles as judged by the inscriptions.

I am,

Yours truly,

WILLIAM C. WHITE,
Bishop.

The Use of Leopards in Hunting in Ancient China: In a letter published in our last issue (pages 17 and 18) Bishop William C. White refers to some rubbings from Ch'in Dynasty tomb bricks which he was sending us, calling attention to certain tiger or leopard-like animals depicted therein which appear to be wearing collars. He says that in some of these tiles he has seen the leopard is shown in hunting scenes with hunters in attendance, and he asks the very natural question whether it is not possible that the early Chinese used leopards for hunting. He requests information as to the use of the cheetah for hunting in early China.

More recently we have received the following letter from Bishop White:

Dear Mr. Sowerby,

I have found something on the use of the cheetah for hunting in China in Yule's *Marco Polo*, Chapter XVIII and page 398.

I have not yet come across anything in Chinese writings on the use of the cheetah in Han times.

With kind regards,

Yours sincerely,

WILLIAM C. WHITE

Kaifeng, Honan,
January 18, 1933.

We have looked up the passage and find it in Chapter XIV in Thomas Wright's revised edition of Marsden's translation of *Marco Polo's "Travels."* It runs as follows:

"The grand khan has many leopards and lynxes kept for the purpose of

chasing deer, and also many lions, which are larger than the Babylonian lions, have good skins and of a handsome colour—being streaked lengthways, with white, black and red stripes. They are active in seizing boars, wild oxen and asses, bears, stags, roebucks and other beasts that are the objects of sport. It is an admirable sight, when the lion is let loose in pursuit of the animal, to observe the savage eagerness and speed with which he overtakes it."

Then follows a description of how the hunt is conducted, finishing with the sentence:

"His majesty has eagles also, which are trained to stoop at wolves, and such is their size and strength that none, however large, can escape from their talons."

We give here reproductions of some of the hunting and wild animal scenes in the rubbings sent us by Bishop White, and it will be noted that in the full length one are depicted three pairs of large deer, evidently of the wapiti type, a leopard, two kinds of large bird of prey, evidently intended to represent the eagle (on the right) and the vulture (on the left) and a hunter with bow and arrow in the act of shooting at the deer.

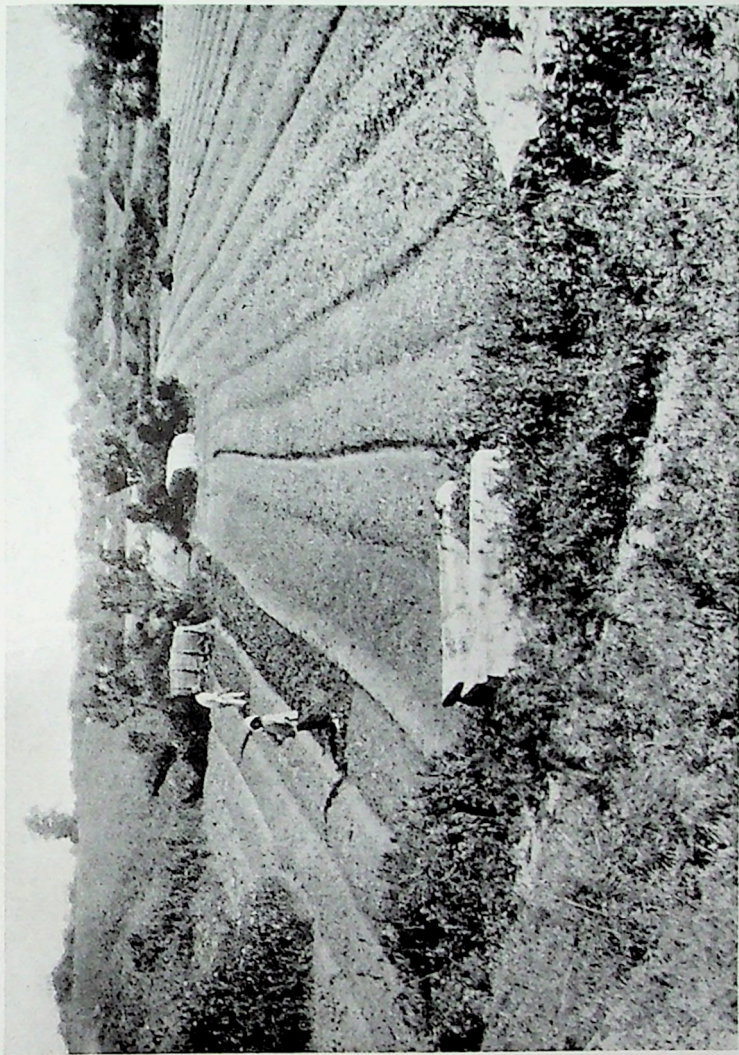
Now this scene might almost have been executed as an illustration of the above passages from Marco Polo's "Travels," and since, as pointed out by Mr. C. W. Bishop in his letter, also published in our last issue (pages 16 and 17), that it is inherently likely that the state of Ch'in adopted the use of horse-archers from their steppe neighbours (in other words the ancestors of the Mongols, who later established the Yuan Dynasty in China described by Marco Polo), there is no reason to suppose that they did not also adopt the hunting methods of the steppe people. And what more likely than that the methods of the chase in vogue in Kublai Khan's time, as described by Marco Polo, were in use amongst the nomads of the great steppe lands north and north-west of China even

in Ch'in times? It must be noted that while Marco Polo used the term "lions" he was referring to tigers, as his description indicates. We suggest that there is a very good case for the theory that the Ch'ins used the leopard and the tiger in the chase, albeit we are not fully satisfied that the marks on these animals' necks as depicted on the tiles under discussion represent collars, more especially when they are compared with the collars in the drawings of hunting dogs shown in the rubbings reproduced in our December, 1932, number, page 270, about which there can be no mistake.

As regards the use of the cheetah, or true hunting leopard, for hunting purposes in China, we doubt if this animal has ever been used for these purposes in this part of the world, though, of course, it may have been imported by the Mongols. Its range is Africa, Syria, Mesopotamia, Persia, parts of India and Ceylon. None of the animals shown in the rubbings answers to its description, however, for the cheetah is very long and slender in the leg, like a greyhound, whereas the animals in the rubbings have comparatively short and heavy legs.

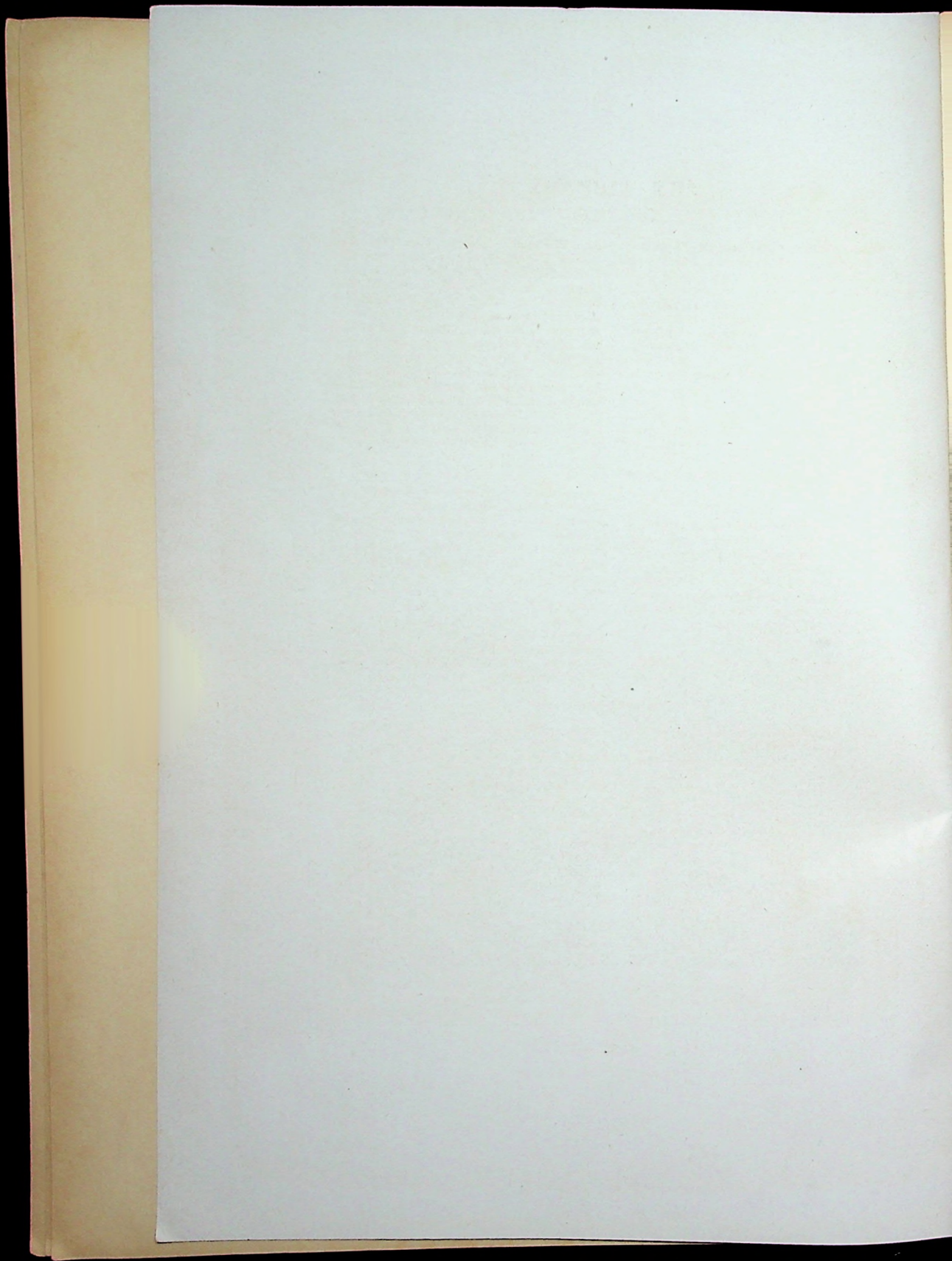
The Wild Ox in China: Mr. C. W. Bishop in his letter published in our December, 1932, number (pages 272 and 273) asked about the presence of the wild ox in North China, at the same time citing various references. In this connection it is interesting to note in the passage from Marsden's translation of Marco Polo's "Travels," given in the comment on Bishop White's query, that wild oxen are mentioned as amongst the animals hunted with leopards and tigers by the Grand Khan Kublai. There is no reason to suppose that these were feral oxen, and it is almost certain that the hunting described by Marco Polo took place as much on Chinese soil as on Mongolian. Hence we must assume that wild oxen did at one time exist in China.

A. DE C. S.



"The Good Earth"

From a Photograph by Mr. G. V. Ball shown at the Fourth Annual Photographic Exhibition
of the City Bank Club held in Shanghai last November.



THE LIBRARY

The British Museum Library Catalogue: It was announced on January 6 said a *Reuter* message from London, that a new catalogue of the four million books in the British Museum Library is being prepared. It is fifty-three years since work was first commenced on the present catalogue, which took twenty-five years to complete. Already two years have been spent on the new catalogue, and the staff has only got half way through the authors whose names begin with A. When completed the catalogue will consist of a hundred and sixty-five volumes, and will cost £400 a set. The books in the library, it may be mentioned, are accommodated on fifty-five miles of shelves.

The Academia Sinica's Peking Library: It was rumoured some time back that the valuable library of the Academia Sinica in Peking was going to be transferred to Shanghai for safety, and a telegram to this effect appeared in the local press. But this has been denied by the authorities.

Hankow Club Library for Hongkong: It was announced recently by

Sir William Hornell, Vice-Chancellor of the Hongkong University, that the University had acquired the famous Chinese Section of the Hankow Club Library consisting of 2,690 volumes. This had been largely built up by Dr. A. Skinner of Hankow, greatly assisted by Mr. M. Brisker, and it is undoubtedly one of the leading collections of publications on China. It would appear a very sound move on the part of the Hankow Club members to have disposed of it to such an institution as the Hongkong University, where it can be of the greatest possible service.

Research Library on Shanghai: Shanghai University is starting a research library on Shanghai, according to a recent announcement by President Hermon C. E. Liu. It is to serve as a depository and clearing house of important information about this great city. A good deal of material on Shanghai's economic, social, political, industrial, commercial, educational and religious life, past and present, has already been collected, and this will be placed in a special section of the University's library.

REVIEWS

Sons, by Pearl S. Buck: The John Day Company, New York, Price G.\$2.50.

Already in its third printing, Mrs. Pearl S. Buck's book "Sons" appears to be having as great a vogue as her previous publication "The Good Earth," which has caused a sensation in the book world equalled by few books these days.

"Sons" in our opinion is every whit as good as "The Good Earth." In fact, we like it better. In spite of what some of its Chinese critics may say to the contrary, it is an excellent picture of rural life and hazards in China, not only of to-day but for hundreds of years back. To those of us foreigners who claim to know this country at first hand, having been born and mainly reared in the interior, as well as spending a large part of our adult life travelling from place to place, it is China. But

we can quite see where the Occidentalized Chinese would not like it. Unfortunately the book, like Mrs. Buck's others, is marred by little inaccuracies which can be seized upon and used to depreciate the value of the book as a whole; but, those notwithstanding, it may be honestly said that the book presents a true, though composite, picture of the life of the classes in China it sets out to portray, which classes form by far the greater part of the country.

The story is of the sons of Wang Lung, the hero of "The Good Earth," especially of Wang the Tiger, his youngest son, who left the ancestral roof-tree to become a soldier, grew ambitious, turned bandit for a time and finally succeeded in becoming a warlord. It makes excellent reading and contains

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more excitement and adventure than "The Good Earth," which, perhaps, is why we like it better.

Mrs. Buck's style of writing is excellent and easy to read. We consider this and the previous work classics on China.

A. DE C. S.

Bulletin No. 4 of the Museum of Far Eastern Antiquities, Stockholm, 1932. Dedicated to His Royal Highness the Crown Prince Gustaf Adolf of Sweden, this somewhat massive number of the above museum's *Bulletin*, contains much material that must prove of the greatest interest to students of archaeology in China and the Far East generally, as the following list of its contents will indicate:

1. Prehistoric finds from the Island World of the Far East, now preserved in the Museum of Far Eastern Antiquities, Stockholm, by Ivar Schnell. This covers the prehistory of Japan, as shown by archaeological finds, and archaeological discoveries made in the Kurile Islands and Kamtchatka.
2. Notes sur Quelques objets Neolithiques trouves a Formose, by Margit Bylin. This describes a collection of interesting neolithic stone implements from Formosa.
3. Les Plaques de L'Empereur du Ceil, by Paul Pelliot.

Describing certain ancient bronze plaques in which are shown a

many headed dragon and the characters 天皇, *T'ien Huang*, or Emperor of Heaven.

4. Shi King Researches, by Bernhard Karlgren.

Describing the author's researches upon the Chinese classic known as the Shi King, or Book of Odes.

5. Tubes et Boutons Cruciformes trouves en Eurasie, by Olov Janse. This describes certain strange antique cross-shaped objects found in China, the Ordos and Mongolia as compared with similar objects found in Europe.

6. Hunting Magic in the Animal Style, by J. G. Andersson.

This is a long and fascinating study of the animal motif in the decoration of numerous bronze weapons, buckles, chains, discs, buttons, spoons, pendants, nails, vessels and so on found in the Ordos and known as the "Ordos Bronzes." They will come as a revelation to many, but will prove particularly interesting to the biologist by reason of the large variety of animals used in their decoration.

The first item in the number consists of a description of the Swedish Crown Prince's well known activities in the field of archaeology, a science which he has done a great deal to promote.

A. DE C. S.

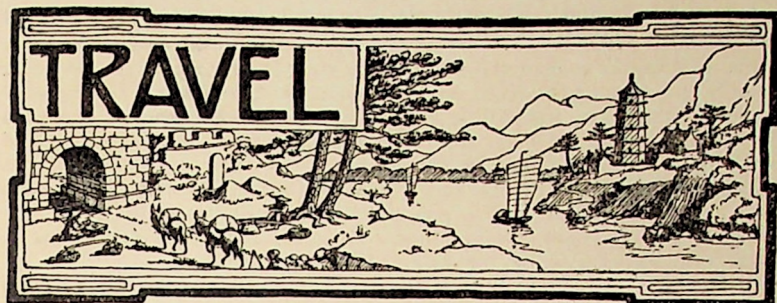


Chinese Country Women Typical of some of the Characters in Pearl Buck's Novels. From a Photograph by Miss L. Steinemann shown at the Fourth Photographic Exhibition of the Shanghai City Bank Club.



Photo by Mactavish.

My Lady goes shopping in Shanghai, where the famous so-called "Varnished Ducks" are a favourite Dish of the Chinese.



RECENT BOTANICAL EXPLORATIONS IN KWEICHOW

BY

ALBERT N. STEWARD AND C. Y. CHIAO.
(University of Nanking)

(Continued from page 26)

The authors of this paper, with two other scientists, S. Y. Cheo and H. C. Cheo, left Nanking on June 20, 1931, on a Yang-tze steamer for Kweichow with a view to carrying out the first part of a five-year programme of botanical exploration in that little known province. Ascending the great river as far as Chungking, whence they proceeded southward to Tsun-yi Hsien by the Great Highway that runs from Szechwan to Kweiyang, the capital of Kweichow, they established their first collecting base at a village named Liang-feng-yah. After making a large collection of botanical specimens and thoroughly investigating the topography and vegetation of this area, they proceeded by way of small country roads to Sze-nan on the Wu Chiang, passing Mei-tan Hsien on the way.

*
* *

THE FIRST MOUNTAIN OF KWEICHOW

In Sze-nan, at Mr. Robinson's suggestion, we stayed with Pastor Liao at the China Inland Mission house, which has a beautiful location overlooking the river. Upon inquiry we found that the famous Fan-ching Shan (方命山) region which we had come to explore lay to the eastward between Sze-nan and the city of Tung-jen (桐仁) on the Hunan border. There are several ways of approach and many places from which such work as ours might be carried out, so a trip of reconnaissance was planned to decide which route and location were best suited to our needs.

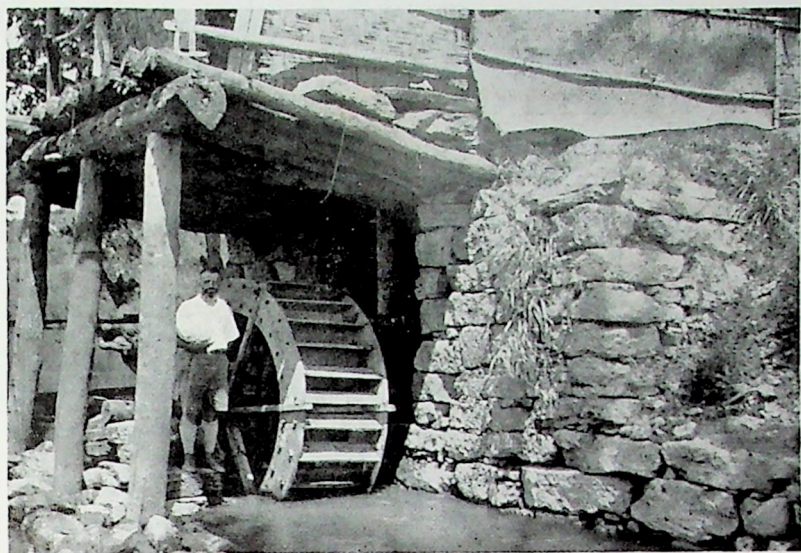
The writers left promptly with two carriers and a guide provided by the local officials. We travelled over narrow and steep mountain trails, and at the end of the second day were in the region of the great mountain, but not yet within sight of the peaks themselves. Undoubtedly we should have seen these peaks from an even greater distance than Sze-nan had we been travelling on the tops of the ridges instead of in the narrow confines of the ever present canyons and mountain valleys. After talking with the official at Ch'ang-ch'i (樟溪) we sent back our head carrier with a message to bring in the party from Sze-nan. The guide from Sze-nan had exhausted the limits of his knowledge and experience, so he also returned.

The next day after a hard climb over trails which were often obscure we reached, at about five o'clock in the evening, a pass from which we caught a glimpse of the magnificent peaks which were our objective. They were nearly covered with clouds and the glimpse was a fleeting one, but it gave us courage and strength to hurry down to the village of T'uan-lung (團龍) where we were courteously received long after dark and given food and lodging in the house of Ch'ai (柴). This was an unusually orderly and well disciplined establishment, being one of the very few in the region which stand clearly opposed to the use of opium. We regretted our failure to meet the head of the house, who was absent at a neighbouring market.

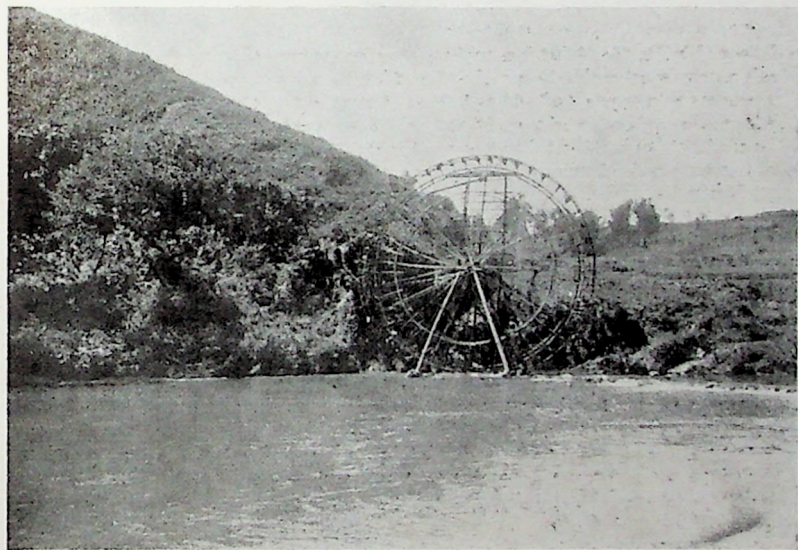
The next forenoon we went on to Hu Kuo Sze (護國寺), the best known temple on the mountain, in the main hall of which there is an inscription composed of the characters *Ch'ien Shan Ti I* (黔山第一), which, being interpreted, means "The First Mountain of Kweichow." The temple itself is not imposing by comparison with those we have seen in the mountains of Eastern China, but the mountain is one of the most famous in the province, being visited each summer by many thousands of pilgrims. This temple had been the headquarters used by Mr. Tsiang Ying of the Academia Sinica and Mr. Ho Kwan Chow of the Sun Yat Sen University when they, at different times, visited Fan-ching Shan.

In the afternoon we secured a guide and climbed up on to the long ridge which leads to the jagged summit of the range. The pilgrim season had passed and we met the last of the monks returning from the small temples near the mountain top to their winter quarters at Hu Kuo Sze. At one point the air was permeated by a peculiar and undefineable aroma which puzzled us until we were informed that last year's crop of bandits had been pacified and exterminated near this spot, and, perhaps, some of them were not buried very deeply over in a neighbouring gulch. We were rewarded for our climb by another glimpse, closer though also fleeting, of the wonderful peaks among the clouds. But Feng-huang Shan (鳳凰山), the highest of them all, remained hidden, and we did not see it until we had been in the region more than a week.

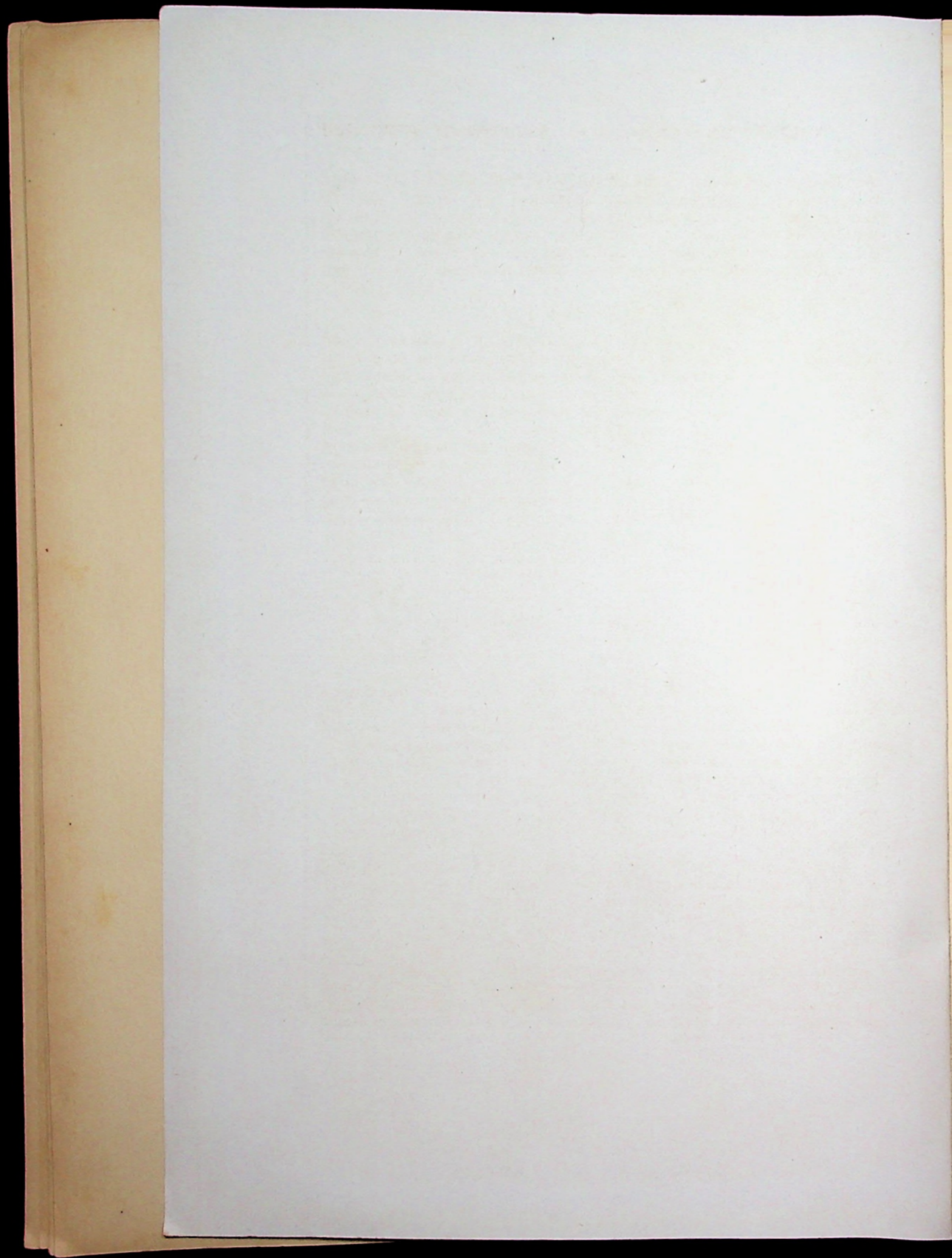
The following morning we travelled with our guide over the pass near Sze-tze-yai (獅子岩), Lion Cliff, and down the Ch'ang-ch'a Ho (長家河), a mountain torrent which tumbles foaming out from among



An undershot Water Wheel at Mei-tan in Northern Kweichow. It provides the Rice Mill on the Floor above with Power at an initial Cost of about \$200.



A Water Wheel for irrigating Rice Fields adjoining the River at Mei-tan. Except for the Main Shaft it is constructed of Bamboo, and costs not more than \$20.



RECENT BOTANICAL EXPLORATIONS IN KWEICHOW

the cloud capped peaks, to the village of the house of T'ien (田), called Ta-ho-yen (大火焰), which means "The Great Fiery Flame." Here we found it possible to rent adequate space in a substantially built house, and decided to establish at this place our headquarters for the preparation of collections from the surrounding mountainous region. A messenger was immediately sent to meet our party and direct it to our new base.

TA-HO-YEN

The village is a compactly built collection of houses and courts belonging to the T'ien family and occupied by about ten households, who are engaged in farming such of the adjacent slopes as have been placed under cultivation. The location is near a branch creek which tumbles down a forested ravine to the roaring river in the main canyon. It is at an elevation of about 940 meters.

The slope on which the village is located is irrigated by means of contour ditches carried from the adjacent ravines, which provide an abundance of water for an unbroken series of rice terraces beginning in the canyon bottom at an elevation of about 800 meters and reaching to a height of nearly 1,300 meters. Above this there is one small farm, where corn and other crops are grown without irrigation, but the indications are that these are not particularly profitable.

For the sum of one dollar per week we engaged a suite of three rooms. The large central room we used as sleeping and living quarters, with a good sized work room on each side. The floors were of concrete and there was a wide porch sheltered by overhanging eaves, and a large stone-paved court adjoining. The location was in a pocket protected by surrounding hills, and we were much more comfortable here than at Liang-feng-yah. Our landlady prepared and served our meals for us.

The rock formation is of shale or slate which was easily adapted to our need for building crude stoves on which to heat and ventilate our large presses over charcoal fires. We built five such stoves, and began to accumulate a supply of charcoal. There was not much available locally, so we contracted with a farmer to burn some for us. Timber is of so little value in this remote region that they use the finest hardwood, up to two feet in diameter, for the preparation of charcoal. The people have very little bedding, for cotton is exceedingly expensive, but they use charcoal to provide a little heat for their houses in the winter.

The location is on the western slope of the mountain mass, and is separated by a distance of 25 *li* from Hu Kuo Sze, where parties visiting the Fan-ching Shan region usually make their headquarters. We should have tried to locate ourselves still farther away on the eastern slope, but we had been warned of the danger of bandits in those parts.

After the first score or two of numbers had been taken in the immediate vicinity of our headquarters we took turns going out to greater distances to bring back material for the presses. Considerable time was consumed in laying out and rearranging some of the more delicate specimens.

NATURAL VEGETATION AREAS

The general survey of the structure of the vegetation of Fan-ching Shan reported below was made early in September. The natural vegetation areas here observed are of interest, not only for the study of the areas they cover, but as an indication of the nature of the vegetation which was indigenous to the mountainous country extending from this centre in all directions. The study of such isolated areas not yet disturbed by man is, perhaps, the best means at our disposal of discovering the structure of the vegetation natural to those parts of China now under cultivation or otherwise radically influenced by the activities of man. On this mountain mass there is a region, 20 to 30 miles in diameter, which remains almost untouched by the works of man.

The areas outlined below are easily correlated with elevation. Within each one of them moisture, slope exposure and soil conditions result in the separation of habitats, which may be called forest, shrubland and grassland.

1. *The Lower Vegetation Area* (600 to 1,000 meters). The forests of this area are characterized by *Cupressus* with mixtures of *Pinus* on drier slopes; and of *Carpinus*, *Celtis*, *Liquidambar*, *Lithocarpus*, *Quercus*, *Taxus* and some *Cunninghamia* on moister slopes. *Rhus*, *Rosa*, *Rubus*, *Thea* and *Viburnum* are common shrubs of this area. Other woody plants observed more or less commonly are:

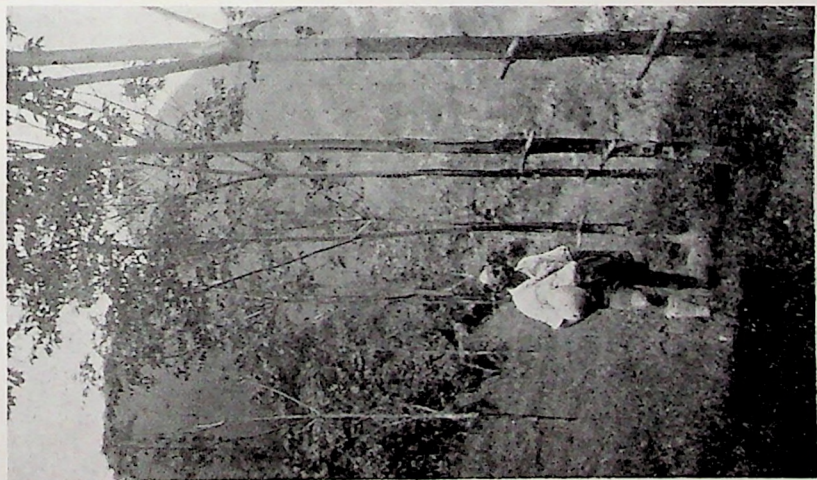
<i>Berchemia</i>	<i>Ficus</i>	<i>Mallotus</i>	<i>Rhododendron</i>
<i>Broussonetia</i>	<i>Glochidion</i>	<i>Nandina</i>	<i>Serissa</i>
<i>Caesalpinia</i>	<i>Indigofera</i>	<i>Parthenocissus</i>	<i>Smilax</i>
<i>Castanea</i>	<i>Lespedeza</i>	<i>Populus</i>	<i>Vaccinium</i>
<i>Castanopsis</i>	<i>Ligustrum</i>	<i>Pteroceltis</i>	<i>Vitex</i>
<i>Clematis</i>	<i>Lonicera</i>	<i>Rhamnus</i>	<i>Zizyphus</i>
<i>Elaeagnus</i>	<i>Loropetalum</i>	<i>Pyrus</i>	

In the grassland *Arundinella*, *Miscanthus*, *Pollinia* and *Themeda* are most conspicuous. *Pueraria* and *Pteridium* also form an important element in the grassland habitat. Other herbaceous genera noted are:

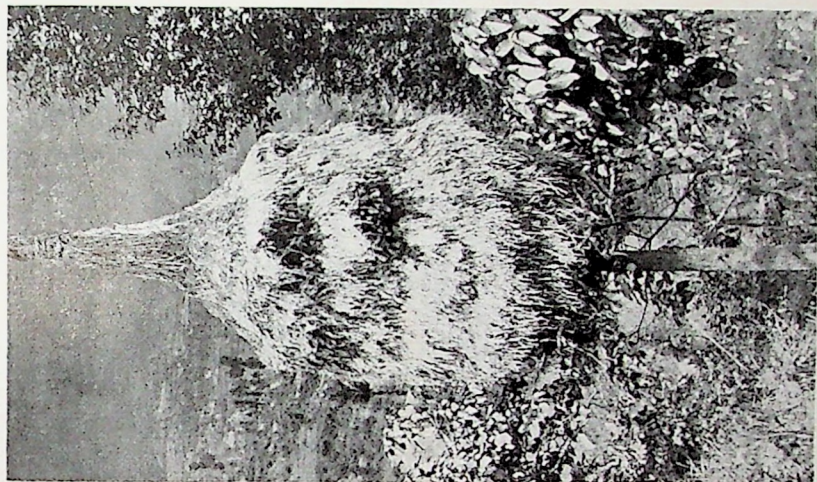
<i>Achyranthes</i>	<i>Carex</i>	<i>Imperata</i>	<i>Pennisetum</i>
<i>Adenophora</i>	<i>Celosia</i>	<i>Kyllinga</i>	<i>Polypodium</i>
<i>Agrimonia</i>	<i>Cocculus</i>	<i>Lemna</i>	<i>Pontederia</i>
<i>Anemone</i>	<i>Dioscorea</i>	<i>Lycopodium</i>	<i>Sagittaria</i>
<i>Aralia</i>	<i>Eragrostis</i>	<i>Lycoris</i>	<i>Selaginella</i>
<i>Artemisia</i>	<i>Eupatorium</i>	<i>Lygodium</i>	<i>Setaria</i>
<i>Aster</i>	<i>Geranium</i>	<i>Origanum</i>	<i>Tovara</i>
<i>Azolla</i>	<i>Gleichenia</i>	<i>Paederia</i>	<i>Woodwardia</i>
<i>Boehmeria</i>	<i>Gnaphalium</i>	<i>Panicum</i>	<i>Xanthium</i>

Some of the plants listed for this area are more characteristic of the adjacent limestone areas than of the slopes of Fan-ching Shan proper.

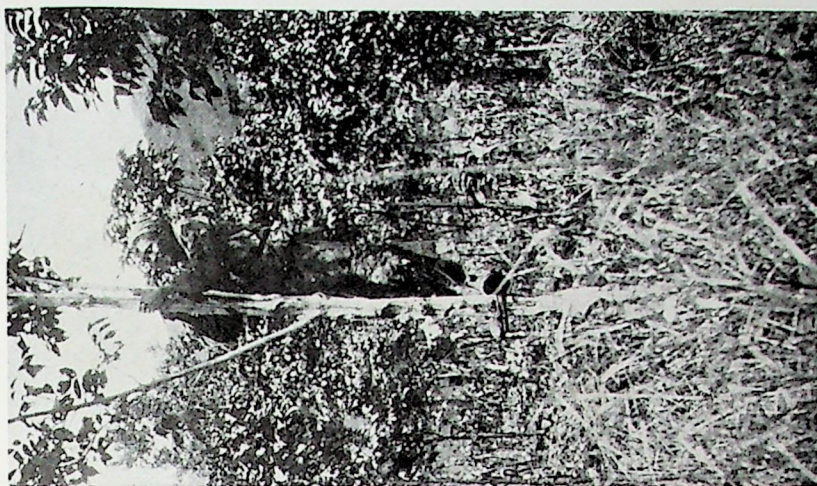
2. *The Middle Vegetation Area* (900 to 1,500 meters). *Cunninghamia* is without doubt the most characteristic tree in the forests of this area. It flourishes especially on well watered northern exposures, where it often attains a dense almost pure stand. In less favourable



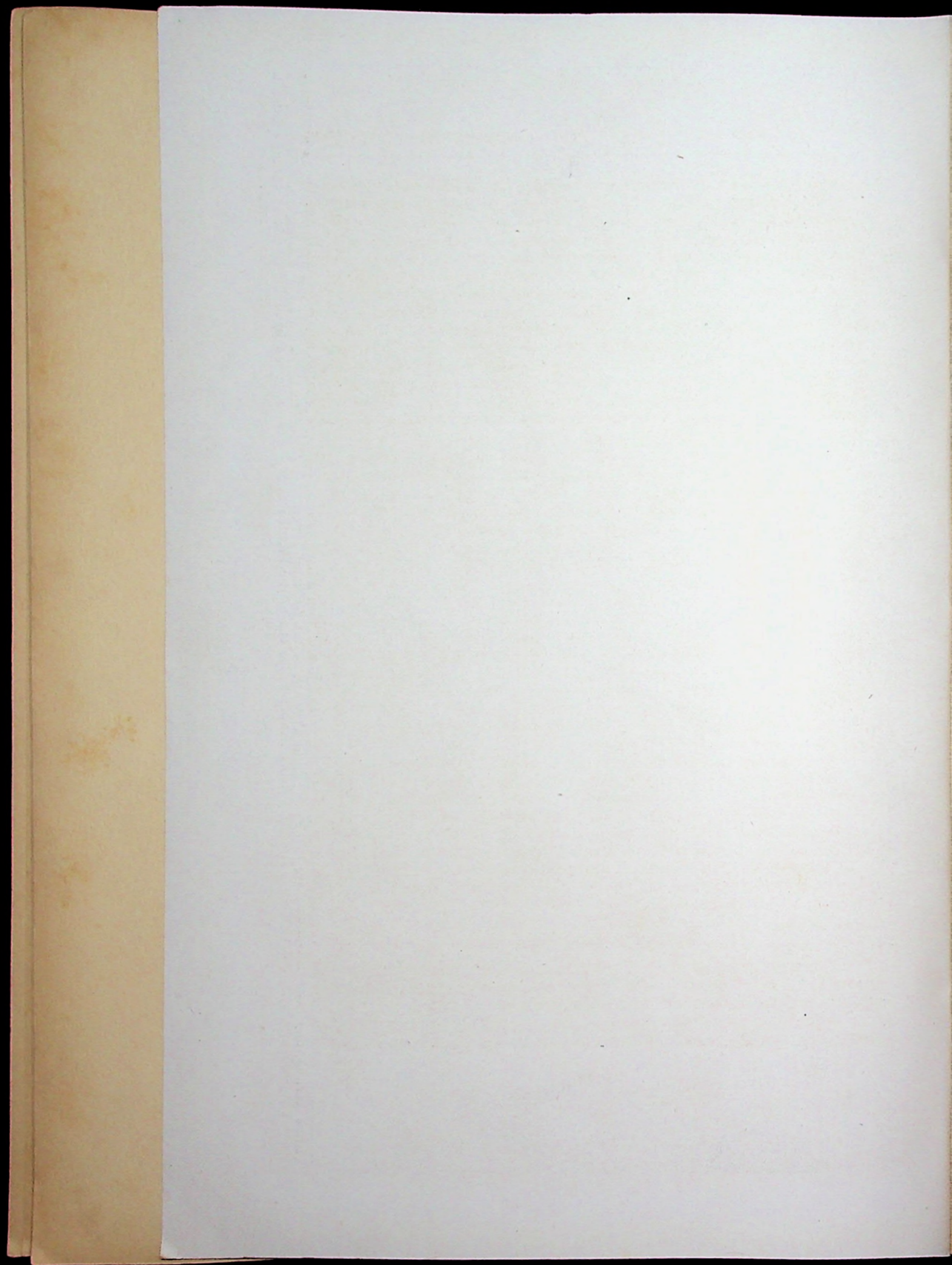
A Hillside Plantation of Varnish Trees (*Rhus verniciflua*) near An-shuen (安順), Ying-chiang Hsien, Kweichow.



A Straw Stack hung on a living *Cunninghamia* Tree near Ying-chiang Hsien. The leafy Branches are out of the Picture at the Top.



A Varnish Collector at Work in a Plantation of *Rhus verniciflua*. The Latex collected in small Shells is scraped into a Bamboo Vessel.



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situations it may be mixed with *Pinus*, *Liquidambar*, *Lithocarpus*, *Benzoin*, *Cornus* and *Taxus*. The more common shrubs include *Nandina*, *Rhododendron*, *Rhus*, *Rosa*, *Rubus* and *Viburnum*. Other woody plants noted are: *Albizzia*, *Aralia*, bamboo, *Betula*, *Desmodium*, *Elaeagnus*, *Eurya*, *Euscaphis*, *Hydrangea*, *Lespedeza*, *Liriodendron*, *Mallotus*, *Populus*, *Pyrus*, *Salix*, *Sargentodoxa*, *Sassafras*, *Serissa*, *Smilax*, *Spiraea*, *Thea*, *Vaccinium* and *Vitis*. *Ischaemum* and *Miscanthus* are more plentiful in the grasslands of this than in those of the other areas. *Adenophora*, *Anemone*, various *Compositae*, several ferns, *Hypericum*, *Patrinia* and *Pedicularis* are often mixed with the grasses. Additional herbs noted are: *Agrimonia*, *Artemisia*, *Arundinella*, *Aster*, *Cyperaceae*, *Diddisandra*, *Dioscorea*, *Epilobium*, *Eupatorium*, ferns, *Geum*, *Gnaphalium*, *Hypericum*, *Kyllinga*, *Impatiens*, *Labiatae*, *Lactuca*, *Lobelia*, *Lycopodium*, *Lysimachia*, *Osmunda*, *Pennisetum*, *Polygonum*, *Pueraria*, *Scabiosa*, *Selaginella*, *Setaria*, *Themeda* and *Urticaceae*.

3. *The Higher Vegetation Area* (1,400 to 2,500 meters). The forests of this area are composed almost entirely of dicotyledonous hardwood species, which form a canopy so dense that very few undershrubs occur. The canopy reaches a height of 15 to 20 meters on richer slopes and is reduced to 3 to 4 meters on the tops of the ridges. A shrubby bamboo forms thickets under the canopy in some places. *Acer*, *Illicium*, *Lauraceae*, *Lithocarpus*, *Magnoliaceae*, *Rhododendron* and many unfamiliar species compose the forest. *Ilex* was also seen. *Tsuga* occurs occasionally on the wooded northern slopes above 2,000 meters. The grassland typical of the south exposures in the middle area rarely ascends to 1,800 meters. Thickets of *Rhododendron* and *Salix* extend above the timber. Exposed ridges above 2,000 meters become mountain meadows in which *Compositae*, ferns, *Polygonum*, *Umbelliferae* and *Urticaceae* dominate at this season (September). *Lycopodium* and *Veratrum* were also noted.

There are at the foot of the mountain and adjoining it areas of semi-natural vegetation and of cultivated plants similar to those described in the vicinity of Liang-feng-yah.

Perhaps the most striking feature connected with the distribution of plants in the Fan-ching Shan region is the tendency to soil acidity shown by tests on the main mountain mass. These run from pH 5 to pH 6. In fact, this may be a very important reason why the region has been so little touched by the mountain farmers, for it is well known that most crop plants prefer a neutral or slightly alkaline soil. In our collections we note an abundance of the family *Ericaceae*, and particularly of the genus *Rhododendron*, which were practically absent from the vicinity of Liang-feng-yah.

THROUGH RAPIDS AND GORGES

On September 10 the senior writer regretfully separated from the party at Ta-ho-yen, and started with three carriers on the return journey to resume the responsibilities of class work at Nanking.

After only one day's journey further evidence was encountered indicating the importance of soil reaction in the distribution of plants

about Fan-ching Shan. The following paragraph applies to a limestone area between Sueh-t'u-pa (薛土坝) and Ying-kiang (印江).

A remarkable change occurs in the soil reactions and rock formations encountered shortly after leaving Sueh-t'u-pa for Ying-kiang. The river of very considerable size drops from sight, to appear below gushing from a tunnel in the mountain side. Within the first 20 *li* several similar instances may be observed in streams along the road. The soil reactions become definitely alkaline, and many caves appear in the hillsides. The water becomes slightly milky because of dissolved mineral, and a number of familiar plants not seen on Fan-ching Shan are discovered here. Finally, the farms now extend to the hilltops and are not so exclusively restricted to rice as those on the acid soil area.

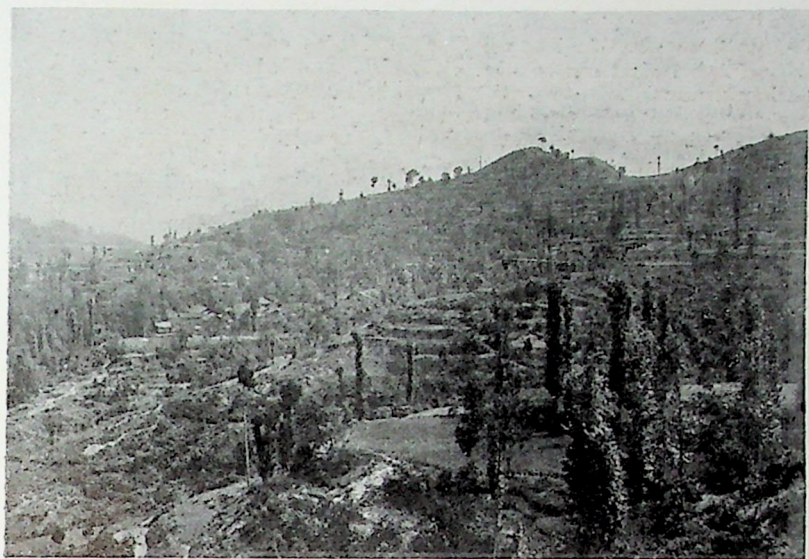
Beyond Ying-kiang the country presents a series of limestone ridges, in which are carved many great caves as the road goes down to Sze-nan on the Wu Kiang. Here we took a small (30-ft.) boat for Ch'ao-ti (潮底), the location of the first bad rapids, 60 *li* down the river. These bad rapids are located where the river periodically cuts through massive ridges on its way to the Yangtze. The way is lined with magnificent cliffs and interminable rock walls. The monotony was broken from time to time by the thrill of shooting rapids of such power that the boat often shipped a little water.

The trip to Fou-chou on the Yangtze was accomplished by means of several changes to larger boats and with numerous delays. This river is noted for the "crooked stern boats" of peculiar design built and used locally. The boatmen living on each section of the river rarely go beyond the limits of the rapids bounding their own section. Consequently a new bargain must be made at each stop before the journey can be continued. The largest boats were 70 feet long, and on each section of the river there were rapids large enough to require the full limit of the size of the boats used on that section. The following table gives the approximate distances for the different stages from Sze-nan to Fou-chou.

Sze-nan to Ch'ao-ti	60 <i>li</i>
* Ch'ao-ti to Sing-t'an	60 <i>li</i>
* Sing-t'an to Yuan-ho	120 <i>li</i>
Yuan-ho to Kung-t'an	180 <i>li</i>
* Kung-t'an to P'eng-shui	180 <i>li</i>
P'eng-shui to Kiang-k'ou	180 <i>li</i>
Kiang-k'ou to Fou-chou	240 <i>li</i>
Kung-t'an to Fou-chou	600 <i>li</i>
Sze-nan to Fou-chou	1,020 <i>li</i>

At Fou-chou we were most generously entertained by the Reverend R. B. McAmmond and other friends of the Canadian Mission. A day was spent in learning about agricultural conditions of that region and in becoming acquainted with certain gentlemen of the city who are interested in agriculture and forestry. Oranges and pomelos are abundant in this region.

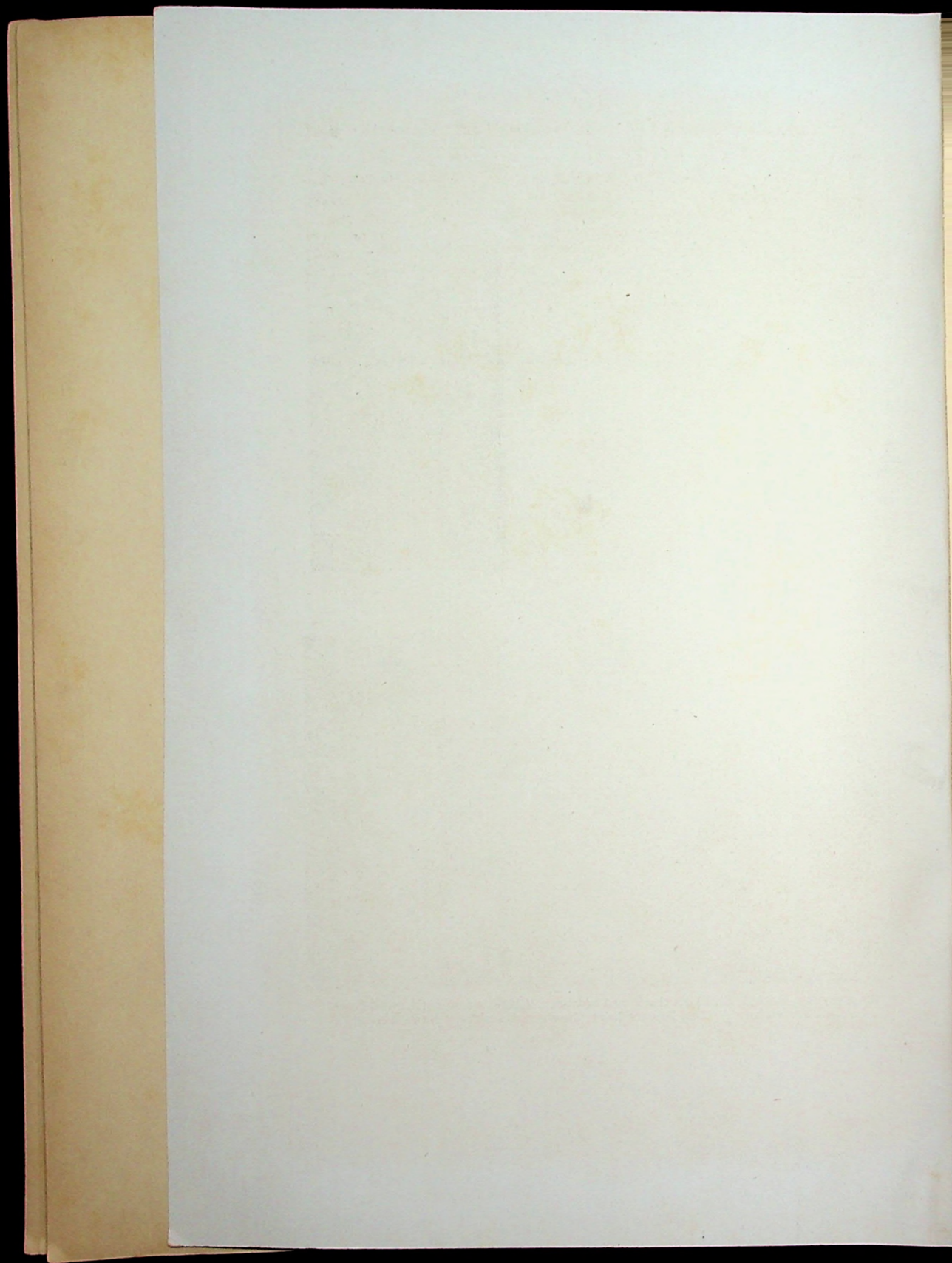
*Impassable rapids at the stage of the water encountered in September, 1931.



Hills cultivated and terraced to their very Tops in the rich Limestone Country near Ying-chiang Hsien, North-eastern Kweichow.



An average Cotton Field on the Road between Ying-chiang Hsien and Sze-nan, Kweichow. The Plants here shown are scarcely Knee high.



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The trip up-river to Chungking, about 270 *li*, was made by motor launch on September 27. Here the specimens shipped out from Tsun-yi had been cared for through the kindness of Mr. Gordon R. Jones of the Canadian Mission Business Agency.

With these added to our baggage we went on board the *I P'ing*, and made the voyage to Ichang without incident. As a special favour we were permitted to continue down river on the *P'ing Wo*, which ordinarily carries no cabin class passengers.

At Hankow the waters of the flood had receded sufficiently to expose the top of the bund. Water was draining slowly from the streets and the clean-up process was going forward steadily, but not rapidly enough to keep ahead of the odours of decay. Water marks on the buildings indicated a high water level five to seven feet above the bund. Most of the ornamental trees and shrubs appeared to be dead, but *Pterocarya* was an outstanding exception, calling to mind its natural habitat along river and stream banks where the roots are constantly more or less flooded.

We arrived at Nanking on the afternoon of October 5.

BOTANICAL EXCURSIONS IN THE FAN-CHING SHAN REGION

It was not until September 28 that we sent out from headquarters at Ta-ho-yen an expedition party to Fan-ching Shan for collections. Equipped with necessary provisions, we planned to stay a few weeks in this desolate place. The first day's march was full of interest, but the heavy rain and narrow trails made the first 25 *li* very trying, and we were finally forced to seek shelter at Chung Ling Sze (中林寺). The thunderstorm continued during the remaining part of the day. We found everything in the temple wet and the thatched roof acting like a sieve. Finally we managed to put up a temporary camp in the temple for the night. The carriers had no extra clothing with them so they built a fire in front of the camp. They were anxious for the warmth of the fire but cared little for the suffocating effect of the smoke.

Early next morning we started out from Chung Ling Sze for Lao Shan (老山). The weather was fine and clear in the afternoon and offered us a magnificent view of the country as well as a good opportunity for collecting. On the precipitous sharp-edged rocky ridge near Mien-shuei-ling (綿水嶺), about 7 *li* above Chung Ling Sze, we collected *Cotoneaster*, *Tsuga*, *Castanopsis*, *Quercus* and *Rhododendron*. We reached Cheng Kuo Sze (鎮國寺), one of the largest temples on Fan-ching Shan, in the afternoon and arranged our lodging before dark. The two days' collections were packed that night for delivery to our headquarters on the following day.

The evacuated temple served us nicely as our working base for this region. The temple is only occupied during the three months of summer by pilgrims from North-eastern Kweichow, South-eastern Szechuan and the agricultural region of Hunan. The weather was fine after our arrival. During these days we made collecting trips into the surrounding country and hauled in the day's collections before dark,

preparing them for shipment early the following morning. At the beginning we arranged to send a carrier with specimens to Chung Ling Sze, at which place he was expected to meet another carrier commissioned to deliver our supplies of food and paper from Ta-ho-yen. The specimens were transferred to the latter for delivery to Ta-ho-yen, and the former carried the supplies to us at the temple on the mountain top. Among the places we visited during the first week are Chiu-lung-sh'ih (九龍池), Lao Shan, Hsing Shan (新山), Mien-shui-ling, Huei-shiang-p'ing (迴香坪) and Luei-ta-yai (雷打岩).

The advance of the season and the frequent occurrence of rain storms during the second week, especially at higher elevations, made us feel that it would be more profitable to concentrate our botanizing efforts at lower elevations. Guided by these principles we moved our working base to Hui-shiang-p'ing, 15 *li* below Hsing Shan on October 15. Our camp site was located at an elevation of 1,700 meters in a hardwood forest, about one *li* north-east of the Huei-shiang-p'ing temple. Collections were commenced immediately in the vicinity of this newly established working centre. Here the dominant forest trees are *Fagus*, *Carpinus*, *Quercus*, *Eurya*, *Rhododendron*, *Acer*, *Liquidambar*, *Illicium* and *Photinia*. A dwarf species of bamboo forms impenetrable thickets under the forest trees.

We stayed here for two weeks and had our communications with the outside world entirely cut off, except for the carriers, through whom we learned of the progress of our work at headquarters. From them we also learned stories concerning wild animals, especially of the cat family, in this region, but we never had experience with any of these. Our sole protection was a fire at night. Troops of monkeys were heard in the canyons at various times, but we never succeeded in seeing any of them. A monkey seen by one of our helpers near our camp was reported to be about the size of a man.

On October 28, we moved again from Huei-shiang-p'ing downward to Yü-yoh (魚壩), which is at about 1,000 meters altitude. From here we could reach Ma-tsao Ho (馬槽河) and Heh-wan (黑灣) without loss of much time. The canyons in these two places are beautifully forested and the vegetation seemed to be entirely intact. With the advance of the season and the heavy programme at headquarters we limited our field work in this fascinating region to one week. The first snow of the winter fell during the time we were collecting there.

On November 3 Mr. Cheo Shu Yuen left Yü-yoh with a carrier for Tung-jen for additional supplies of paper and money. They travelled without mishap chiefly in a very sparsely populated country in Sung-tao Hsien (松桃縣). The rest of the party returned from the eastern slopes of Fan-ching Shan to Chung Ling Sze. Here we remained for three days and made collections in the vicinity of Hu Kuo Sze, Sze-tze-yai and the canyon below Mien-shui-ling.

During October collectors were also sent out from headquarters to botanize the following places: Pa Mei Sze (棋梅寺), Hu Kuo Sze, Ching-chao-p'ing (金照坪), Cheng-jen-ch'i (真人溪), Mei-ch'i (梅溪),

RECENT BOTANICAL EXPLORATIONS IN KWEICHOW

Ch'uan-meo-t'ang (春茂堂), Ta-ao (大坳), Niu-t'ou Shan (牛頭山) Yin-tze-tsen (燕子阡), Miao-wang (苗王) and Ch'a-sai (茶寨). Most of these places are within one day's journey of Ta-ho-yen.

On November 10 the junior author left Ta-ho-yen with two carriers for a collecting trip to Shih-t'u-pa, and thence proceeded to Ying-kiang. We passed several citrus orchards along the river bank near Lang Chi Sze (郎溪司), about 25 li east of Ying-kiang. Plants were also collected between Ying-kiang and Sze-nan, chiefly on limestone hills. One day was spent at Tsao-ti and its vicinity in Teh-kiang Hsien. We returned to our headquarters on November 18.

(To be concluded).

TRAVEL AND EXPLORATION NOTES

Minya Gong-ga Conquerors Return; The two conquerors of the great peak Minya Gong-ga on the Sino-Tibetan border, Mr. Terris Moore and Mr. Richard Burdsall, passed through Shanghai during the early part of January on their way back to the United States. They had with them Mr. Jack Young, who was the naturalist of the Sikong Expedition, as it was known, and had previously had experience of biological field work while on the Kelly-Roosevelt expedition to Western China in 1928, when the two Roosevelt brothers shot the first and only giant panda so far killed by a Westerner.

It had been erroneously reported in the Shanghai press that Mr. Young had killed a giant panda on the present expedition. What he secured turns out to be a good specimen of what R. I. Pocock has recently classified as the blue bear of Tibet (*Ursus arctos pruinosus*, Blyth).

A further erroneous report appearing in the local press, this journal included, was to the effect that Mr. Lewis Thorne was a member of the expedition. Mr. Thorne, who was also one of the original members of the Lamb expedition, was unable to accompany the other four members of that expedition who separated from Mr. Lamb in Peking early last

summer and coming to Shanghai organized the Sikong Expedition with the object of climbing Minya Gong-ga. He returned to the United States some time late last summer.

The fourth member of the Sikong Expedition, Mr. Arthur B. Emmons, has had to remain in Szechuan for the present owing to severe frost bite in the feet, sustained while making the ascent of the great peak. He was originally chosen to make the final dash to the summit with Mr. Moore, but sustained a severe cut in the hand while opening a tin of preserved food on the eve of the ascent, so that Mr. Burdsall had to take his place.

The last climb was made on October 28, starting at five o'clock in the morning from camp at an altitude of 21,500 feet, and by two o'clock the two explorers had reached the summit, now estimated at 24,000 feet. Here Mr. Burdsall got his fingers badly frost bitten as a result of removing his gloves to take a photograph of the Chinese and American flags that they had planted. By five o'clock in the afternoon they had returned to their 21,500 foot camp, and next day, with Mr. Emmons, broke camp and started back. It was during this descent that it was discovered that the latter's feet were

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frozen, and great hardship was experienced in reaching the base camp at 14,000 feet.

In our December issue we expressed surprise that the feat of climbing the Minya Gong-ga had been accomplished at all with the equipment with which the explorers were outfitted. Apparently we were under a misapprehension, for it appears that, as far as equipment for mountaineering was concerned, the party had the very best of everything.

Botanical Expedition to Kwangsi :

On January 28 Albert N. Steward, S.Y. Cheo and Cheo Hoh-chang of the Botany Department, University of Nanking, left Shanghai bound for Kwangsi Province. The purpose of this expedition is to make intensive botanical collections in the southern part of that province. This is the second of a series of such explorations in which the Arnold Arboretum and the Farlow Herbarium of Harvard University and the New York Botanical Garden are cooperating with the University of Nanking. The first expedition under this programme was made during the last half of 1931 to North-eastern Kweichow, and a description of it is appearing in this journal, commencing with the January number.

The method used in this work is to select within the general area to be studied two or three working centres. At each of these intensive collections are to be made over a period of from one to three months of all the plants obtainable in proper condition for study. These are to be collected in such quantity that the material may be divided among the cooperating institutions and be used by them in exchanges with many herbaria in America, Europe and China. Trips are to be made alternately in the earlier and then in the later parts of the growing season in order to secure material of many species in both flowering and fruiting condition. The areas to be

visited were selected in consultation with the cooperating herbaria in order to secure specimens from regions having little if any representation in their collections.

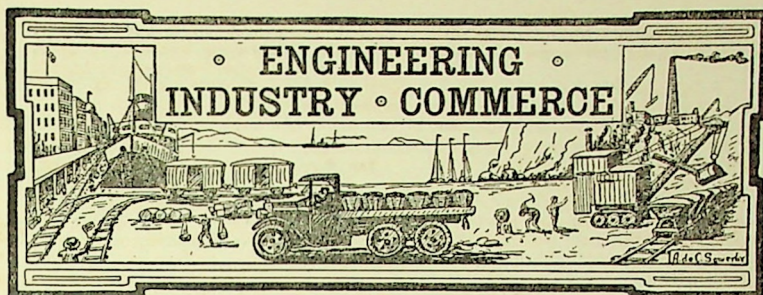
Dr. Sven Hedin Returns to China :

Dr. Sven Hedin, organizer of the Sino-Swedish Expedition to Chinese Turkestan, and famous Central Asian explorer, arrived back in Peking on January 20 from America, where he had been superintending the reconstruction of a Chinese temple transported from Jehol to Chicago for a wealthy American.

Some anxiety had been expressed for the safety of Dr. Nils Ambolt, one of the explorers attached to the above expedition, who was believed to be overdue in Peking ; but Dr. Hedin declared that there was absolutely no cause for alarm regarding Dr. Ambolt, who, he said, was due at Tamerlik in Eastern Tibet on January 1, and should reach Tung-kuan in the north-western extremity of Kansu about February 10, before which time it is impossible to hear from him. Mr. Gerard Bexell, another member of the expedition who has been working in Eastern Turkestan, has been instructed to get into touch with Dr. Ambolt and return with him this summer to Peking.

The Everest Expedition :

The leader of the latest expedition to attempt the conquest of Mount Everest, Mr. Hugh Rutledge, with four members of his party was due to leave England on January 20 for India. The fourteen members of the expedition will meet at Darjeeling early in March, and from there will set out on a five weeks' trek into Tibet to the proposed site of the base camp some twelve miles from the mountain, the attack on which is planned to take place before the monsoon breaks about the middle of June.



THE CHINESE CUSTOMS REVENUES FOR 1932

The release of the Customs returns for 1932 which took place about the middle of January affords a good opportunity of summing up the position of China's trade. The figures, totalling Tls. 200,289,000, are very interesting, for they show that in spite of all that the country went through during the past year, and including the loss of receipts since the middle of the year as the result of the secession of the three Manchurian provinces, the Central Government has received a larger revenue than in any preceding year except 1931. This, of course, is mainly attributable to the increase in tariff rates since China regained her customs autonomy, for there can be little doubt that there was a falling off of trade in 1932 as compared with 1931, when the customs receipts reached their maximum with Tls. 246,087,000.

Nevertheless, it would be wrong to assume that the difference in revenue between the two years is entirely due to a falling off of trade, for some Tls. 15,000,000 of the total difference of Tls. 45,848,000 may be accounted for by the loss of revenue from the Manchurian customs.

Allowing for the increase in import duties on certain classes of goods during the past year the falling off in trade during 1932 must have been such as would yield a revenue of something like Tls. 40,000,000, which, reckoning on an average duty of 25 per cent., would mean a loss of trade to the value of some Tls. 160,000,000. This, of course, is but a rough estimate, for without a very careful analysis of the detailed returns it would be impossible to arrive at a closer figure.

While this falling off in trade is serious enough, it is by no means as bad as might have been expected in view of the dire tribulations the country has gone through during the past eighteen months.

By far the greater part of the falling off of revenue was in the receipts of the Shanghai Customs, this being Tls. 32,988,000, and it may be accounted for by the decrease in purchasing power of the population of the Yangtze Valley as a result of the terrible floods of 1931 and by the almost complete cessation of trade during the spring as a result of the Sino-Japanese hostilities in the Shanghai area.

From these two catastrophes it will naturally take some time to recover, but since they are not in the nature of permanent factors the outlook is by no means a dark one. Already there are indications that a recovery is taking place.

While most other ports in China also showed a loss in Customs revenue during 1932, a few actually showed an increase, the most important of these being Tientsin and Tsingtao. This is a hopeful sign, and as the world at large recovers from the depression from which it has suffered during the past few years (and there are not wanting signs that it is recovering) we may look forward to a steady increase in China's export trade with a corresponding increase in her import trade.

Thus, unless China becomes involved in a serious war with Japan, which at the time of writing, it must be admitted, looks somewhat likely, there is every reason to be optimistic in regard to the immediate future of her trade.

A. DE C. S.

ENGINEERING, INDUSTRIAL AND COMMERCIAL NOTES

BUILDING

Building Decline in Shanghai: Two major factors are believed to account for a fifty per cent. decline in building activities in the International Settlement of Shanghai during the past year. These are the world trade depression and the Sino-Japanese hostilities that were taking place just a year ago, actual building operations being held up as a result of the latter from six weeks to four months. The total value of buildings for which the Public Works Department issued permits during 1932 was a little over

Tls. 18,000,000, as compared with Tls. 37,325,215 in 1931. Some 2,071 Chinese houses constituted the largest classification of buildings for which permits were issued in 1932, a drop from 6,987 in 1931. Other types of building commenced in 1932 were 95 foreign houses, three hotels, five apartment buildings, 21 office buildings, 216 foreign style shops, two theatres, six cotton mills, 28 factories, 27 godowns and 751 miscellaneous structures, making a total of 3,225 buildings.

SHIPPING

Safety at Sea: The recent distressing conflagrations on big liners at sea has resulted in a thorough investigation at the hands of ship-building employers and the Chamber of Shipping in London. Reports are under compilation which, it is believed, will deal specially with the relation between the outbreaks of fire and the design of liners in which

higher decks are without obstructing bulkheads, and with the material used for interior construction and decoration, says a recent *Reuter* message.

An Arctic Route to the Orient: To establish a sea route to the Orient by way of the Arctic Ocean and Bering

ENGINEERING, INDUSTRIAL AND COMMERCIAL NOTES

Straits the Council of People's Commissaries of Soviet Russia has formed a Great Northern Sea Route Administration, according to a *Tass* message dated January 21. Professor Otto Schmidt, who led the recent successful expedition of the "*Sibiriakov*" in its pioneer voyage through the North-east Passage, has been appointed head of the Administration. It was the work done by the "*Sibiriakov*" expedition in finding

and charting the new sea route and mapping the Siberian coast line that has made this route to the Far East possible. Vessels are being placed on the run between the White Sea and the mouth of the Lena River, thus giving the remote Republic of Yakutia an outlet by the sea. By the end of the year it is expected the entire distance to the Bering Straits will be navigable for commercial vessels.

RAILWAYS

Canton-Hankow Railway Loan :
At a meeting of the Finance Sub-Committee of the Board of Trustees of the British Boxer Indemnity Fund held on January 23, it is reported, the grant of a loan of £1,200,000 to the Ministry of Railways to complete the construction of the Canton-Hankow Railway was discussed. On December 5 last year the Board of Trustees agreed in principle to a loan of £2,400,000, half of which should be appropriated from the China portion of the Indemnity Fund and half from the London portion. The discussions held at the above mentioned meeting of the Finance Sub-Committee had to do with the appropriation of the China portion of the loan, and they included measures for the issuance of bonds, it was reported. It was also reported that a considerable sum of the London portion of the loan will be spent through the Purchasing Committee in London on material, though no discussions on this portion of the loan have yet taken place.

Kirin-Harbin Railway Projected :
A *Reuter* telegram from Harbin dated January 25 stated that according to the local Russian press construction on the projected railway from Kirin to Harbin will be commenced by the South Manchuria Railway in the coming spring. During the year it is proposed to connect the Hu-Hai Railway with the Koshan Railway, so that, when the line from Seishin in North-eastern Korea to Kirin is completed, these new railways will play an important part in the economic development of the country, besides being of great strategic importance.

The Tsingpu Ferry : The big train ferry which is being constructed in England for use on the Yangtze River between Pu-kou and Nanking is nearing completion, according to a recent report from Nanking. When it is finally placed on service the railway journey between Shanghai and Peking will be reduced to thirty-eight hours. At present it takes about forty-eight hours.

CONSERVANCY

Conservancy on the West River :
With a view to ascertaining whether or not dredging operations are necessary the Conservancy Board at Canton has sent a number of engineers to make a survey of certain stretches of the West River near Fatshan and Chen-chuen. This has been rendered necessary by the increasing shallowness of this river, which is interfering with shipping, and it has been decided to dredge places where it has become too shallow for navigation.

Dredging at Liu Ho : It was announced recently by the Reconstruction Department of the Kiangsu Pro-

vincial Government that dredging operations were to start forthwith to be completed by March 18 at Liu Ho on the Yangtze Estuary to the north of Shanghai, where the Japanese troops landed during the Sino-Japanese hostilities last spring.

White Sea to Lake Onega Canal Almost Completed : Constructed by convict and political exile labour, the great canal of 226 Kilometers between the White Sea and Lake Onega, which was commenced in December 1931, is nearing completion, and, according to a *United Press* telegram of January 23

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from Moscow, is now being made the boast of the Moscow newspapers as a great Soviet achievement in harnessing nature and reforming criminals into good citizens.

The completion of this canal establishes a through water passage between the White Sea and the Baltic, since Lake Onega is connected with the River Neva by natural waterways.

AVIATION

Sea Plane Construction Ordered : A report in the *China Press* of January 25 stated that according to local naval circles the Ministry of Navy had ordered the construction of a number of sea planes and work upon these had been started at the factory for the manufacture of airplanes in Kao-chang-miao. The materials had been transported from Fukien. The new sea planes will accommodate two men, will have engines of 130 horse power, a speed of 120 miles per hour, and will cost \$7,000 each. At present, the report says, the National Government has a hundred airplanes, nine of which are in Shanghai, four in the Chinese naval base at Amoy and the remainder in other ports in Fukien and other parts of the country.

Raising Funds for Airplanes : On January 21, according to a *Kuo-min* message, the Preparatory Office for the Hangchow National Salvation Aviation Association adopted measures to raise

funds for the purchase of airplanes for national defence. These include the levying of a 20 per cent. amusement tax for one month; the imposition of a tax on motor vehicles of \$2 on hired trucks, \$4 on hired cars and \$20 on private cars; a similar levy of \$2 on private rickshaws; contributions by the staffs of the various party and government organs and schools; the placing of boxes at street corners for voluntary contributions; the solicitation of voluntary contributions from shops and business houses through the Chamber of Commerce; a municipal survey of well to do families to be asked to contribute; and the running of a lottery by the Provincial Government.

In Shanghai an "Aviation Week" campaign was launched on January 23 amid much enthusiasm by various National Salvation and other important bodies. An "Aviation Propaganda Week" was also started in Nanking on the same date with a view to raising sufficient money to supply the Government with a few extra airplanes.

MINING

Manchurian Gold : Having established themselves firmly in Northern Manchuria as well as in Southern Manchuria, the Japanese now appear to be getting ready to exploit the well known gold fields of the former area, if a statement credited to Professor Kuraishi of Kyoto University is to be taken as meaning anything. According to a *Reuter* message of January 24 the Professor, who had arrived at Shimomoseki on his way back from Manchuria where he had been conducting an extensive survey of mining conditions, said "Japan will soon suffer from a plethora of gold." An expedition of

two hundred men, he is reported to have said, had already started an actual survey and were prospecting in the Sungari and Amur valleys, where lie gold deposits to the estimated value of \$2,500,000,000.

It may be asked at this juncture what action is being taken in regard to the Chinese owners of these rich alluvial gold fields, and the agreements they have entered into with foreigners of other nationality than the Japanese to operate them? We take it that all such agreements are going to be honoured.

AGRICULTURE

Financing Well-Digging in Shantung : A recent message from Mr. Perry O. Hanson appearing in the *Shanghai Evening Post and Mercury* reveals the fact that every county in the province of Shantung has a fund of \$3,500, from which any farmer may borrow enough for the digging of a well,

returning the same without interest within a reasonable time. He may also borrow equipment for the project. The movement for well digging, which has spread and developed with remarkable results in many parts of the province, was started by the Methodist Mission in Tai-an Fu.

ENGINEERING, INDUSTRIAL AND COMMERCIAL NOTES

COMMERCE

The Soviet and Credits : A *United Press* message from Berlin dated January 23 stated that the German Government and leading German steel and engineering firms had signed an agreement with the Soviet Government for long term credits which will be used for the purchase of German iron and steel products. These include iron piping for the Russian oil industry, dredges, locomotives and pumps to a total value of Gold M.75,000,000. The credits are to extend over a period of four years.

Trade in Manchuria : In a report from Harbin which appeared in the *North-China Daily News* of January 24 an analysis of the trade position of North Manchuria is made, and it is shown that whereas in times past merchants there had only to consider how much they could secure of products for export, they now have to consider how much they can sell, since the once brisk world demand for Manchurian products such as soya beans, furs and wool has fallen off very badly in the last two years.

FINANCE

Canton Bank Failures : It was recently announced that no fewer than eighteen Chinese banks in Canton had failed as a result of general trade depression, the slump in the silk business and a decrease in remittances from overseas Chinese. Some of the failures were due to speculation by the bankers and unsound management of the banks.

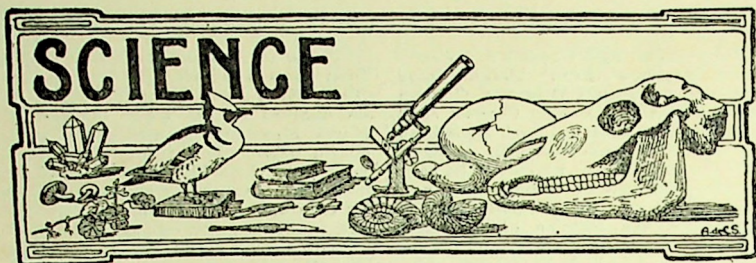
The big Chinese banks in Canton that are conducted on a modern basis, however, reported good profits for the year 1932.

Proposed New Bank in Harbin : Reports are to hand that a group of Japanese and Manchu merchants have obtained permission from the Manchukuo Government to establish a limited liability bank in Harbin with a capital of Yen 10,000,000.

A Clearing House for Shanghai : On January 10 what is to be known as

the Shanghai Clearing House was inaugurated under the auspices of the Joint Reserve Board of the Shanghai Bankers' Association to facilitate collections and payments between banks on cheques and bills. This meets a long-felt need amongst foreign-styled Chinese banks in Shanghai for a quicker and safer means of clearing bills, which include drafts and remittance receipts, bankers' orders, cheques, Joint Reserve notes, certificates handling principal redemption and interest payment of national bonds, and other kinds of bills deemed acceptable by the Executive Committee of the Board.

Two clearings a day, except on Saturdays, Sundays and public holidays, will take place at 11.00 to 11.30 a.m. and 3.30 to 3.50 p.m. respectively. On Saturdays two thirty minute periods for clearing will take place, namely, from 12.30 to 1.00 p.m. and from 3.20 to 3.50 p.m. The office is on the ground floor of the Shanghai Bankers' Club at No. 4 Hongkong Road.



THE TIGER IN CHINA

BY

ARTHUR DE C. SOWERBY

To the Chinese and other people of Eastern Asia the tiger is and always has been what the lion is and has been to the people of the West, holding the same place in their imaginations and fables. Just as the lion is the great feline marauder of Africa to-day and was so of the Near East and even of Western Europe in the past, so the tiger is the great feline marauder of Asia both in fact and in tradition.

From childhood many of us who were born in China have heard innumerable stories in which the tiger, or *lao hu* (老虎), as the Chinese call the great cat, has figured more or less prominently, and in a great number of Chinese myths and legends this fearsome beast of prey plays an important rôle. To the Chinese the tiger is the symbol of strength and courage, just as the lion is with the Westerner; so much so, indeed, that its bones, flesh and blood are looked upon as medicine of extraordinary efficacy in giving the person who partakes of them the tiger's strength and courage. For this reason they fetch a high price in the medicine shops, and a hunter who kills a tiger can make many hundreds of dollars out of it if he knows how to dispose of its remains properly. In Manchuria a tiger will realize a thousand dollars or more.

The ignorant Chinese of the country-side believe that the tiger is a *Ta Sheng*, or Great Spirit, and in the mountainous areas where it occurs fear it greatly. We were once told a story of how a hunter in the mountains of Western Shansi killed a tiger, whereafter the inhabitants of the neighbouring farmsteads and hamlets were greatly plagued by nightly visitations from the tiger's soul or ghost, which could perform miracles beyond the powers of the animal in the flesh, spiriting away people and cattle from locked rooms and byres.

Samuel Couling in his "Encyclopaedia Sinica" has the following passage:

"In Chinese mythology the tiger is often found as a mount for the destroyers of evil spirits, such as Chang Tao-ling; and Hsüan Tan, the god of riches, is also sometimes represented riding a tiger. The beast

itself is also counted divine and its picture is often seen stuck on the walls of houses, bearing the Taoist seal of Ch'êng Huang, and sometimes with the character 王 *wang*, king, on its forehead. The tiger as guardian is often seen painted on the walls of magistrates' offices and on private houses. Its claws or the ashes of its burnt hair are potent and expensive talismans."

Just as the tiger figures prominently in Chinese mythology so it appears frequently in Chinese art, being a favourite subject of painters, sculptors, wood carvers and toy makers alike. It occurs frequently in the art of past ages, in bronze, in stone, in jade and in clay. Couling's reference to the character 王, *wang*, which he says is "sometimes" shown on the forehead of tigers in Chinese paintings, is interesting. As a matter of fact it is always so shown in Chinese paintings of the great feline, for it is actually present in all Chinese and Manchurian tigers, and is well shown on the forehead of the beast in the accompanying illustration. Such a fact cannot have failed to impress the Chinese with their reverence for writing, and itself would be sufficient to account for the superstitious awe in which they hold the tiger. But add to this its enormous strength and ferocity, its cruel cunning, and the wild and lonely mountain fastnesses and gloomy forests it chooses for its lair, and it will be seen how readily the tiger lends itself to a prominent rôle in myth and legend in a country where these hold as great a place as they do in China.

Not only does the tiger figure prominently in China's legend and art, it also often appears in the history of the country, but space will not allow of more than a few references. Marco Polo tells us that the Grand Khan Kublai used tigers to hunt deer, wild cattle, wild boars, bears and antelopes, while the animal is also mentioned many times in hunts conducted by the Mongol and Manchu Emperors of China. That it figured largely in the lives of the warriors and hunters of even earlier times is shown by its appearance on clay tomb bricks or tiles of the Ch'in period (255-206 B.C.) or earlier, rubbings from which are reproduced elsewhere in this journal; and the question arises whether they were not even then used in the chase as the cheetah or hunting leopard of Africa and India is used to-day. From the scenes depicted on the tiles already mentioned it would almost appear that they were.

The range of the tiger to-day is from the Eastern Caucasus eastward to the shores of the Okhotsk and Japan Seas in Eastern Siberia, and from the Amur Basin and Southern Siberia in the north to the islands of Java and Bali in the south. There are at present large gaps in the continuity of the tiger's spread over this wide area, but in the past in human times, to judge from local traditions in areas where the tiger is not at present found, this great feline occurred more or less everywhere throughout this region; while in geologic times its range even embraced Northern Siberia and some of the islands of the Arctic Ocean north of 70° latitude, where its remains have been found. Indeed, the theory now is that the tiger originated in northern and temperate climes and spread to the tropics, instead of the reverse, as was once believed.

Throughout this great stretch of country it is only natural that we should now find a number of more or less distinct races of tiger, dis-

tinguishable one from the other mainly by their size, the thickness of their coats and their colour and markings, and scarcely if at all by any anatomical differences.

In a recent paper appearing in *The Journal of the Bombay Natural History Society* (Vol. XXXIII, No. 3, pp. 505-541, May, 1929) the well-known mammalogist Mr. R. I. Pocock, formerly in charge of the Zoological Gardens at Regent's Park, London, presents an extensive monograph on the tiger, describing in detail the range and characters of all the different known races. He employs the generic name *Panthera*, which also includes the lion, the leopard, the jaguar and the snow leopard or ounce. In all of these the hyoid bone, strengthening and supporting the larynx, is held to the base of the skull mainly by a long elastic ligament together with a few imperfectly ossified bones, whereas in all other members of the *Felidae* or cat family it is held close to the base of the back of the skull by a series of short bones jointed end to end. The specific name of the tiger is, of course, *tigris*, and the various races distinguished by Pocock are as follows.

- 1.—*Panthera tigris tigris* (Linn.) India from the southern slopes of the Himalayas to Cape Comorin, and some of the countries east of the Bay of Bengal.
- 2.—*Panthera tigris septentrionalis*, Satunin. The Caspian Area, from the Eastern Caucasus to the Persian boundary of Afghanistan.
- 3.—*Panthera tigris amurensis*, Dode. Manchuria, the Preamur or Amur Province, Transbaikalia, Primorskaya or the Maritime Province of Eastern Siberia and Korea.
- 4.—*Panthera tigris longipilis*, Fitzinger. Central Asia.
- 5.—*Panthera tigris styani*, Pocock (newly described in the paper referred to above). Northern and Central China.
- 6.—*Panthera tigris sumatrae*, Pocock (newly described). Sumatra.
- 7.—*Panthera tigris sondaica*, Fitzinger. Java.
- 8.—*Panthera tigris balica*, Schwarz. The Island of Bali.

Most of these races may be freely admitted, although there is by no means a satisfactory amount of data to go upon. But at least one of them is extremely doubtful, and that is the Bali race, in view of the well established fact that the tigers of the easternmost coast of Java not infrequently swim across the narrow straits that divide that island from Bali, and *vice versa*; just as the tigers of the South China mainland have been known to swim over to the island of Hongkong. With such a thing taking place it appears to us out of the question to admit the validity of the Bali subspecies on the very meagre material scientifically examined, a skull and a skin by Schwarz and four skins by Kloss, especially when these two authorities completely failed to agree as to the points in which the markings of the skins they examined differed from those of Javanese tigers' skins, Schwarz saying that the stripes on his Bali skin were broader and more duplicated than in Javanese skins and Kloss that they were narrower and fewer in the four Bali skins he examined.

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We are also doubtful as to whether the Manchurian and East Siberian tiger can really be separated from the Central Asian and Mongolian race. If to-day there are any very extensive breaks in the range of the tiger from Eastern Siberia to the Persian border, which we doubt, they can only have been produced by human agency in comparatively recent times, the last few decades or so, if the accounts of travellers may be believed, and it is our opinion that the Manchurian or East Siberian form extends westward, gradually merging into the form of the Caspian region. However, without adequate material from different sections of this wide stretch of country it is impossible to clear up the matter more satisfactorily than Pocock has done by recognizing three races, one in the extreme east, one in the central region and one in the extreme west.

It will be noted that the tigers of South-eastern and Southern China, Indo-China, Siam and the Malay Peninsula are left unclassified in the above list, but Pocock in giving the distribution of the North and Central China form says that no doubt it blends southwards with the tigers of Southern China, Siam, etc., the skins of which are unknown to him.

Now the tiger has existed in China from time immemorial, and unquestionably was formerly distributed throughout the whole country. It has only been driven into the various circumscribed areas it now inhabits by the destruction of the original forest, semi-forest, jungle and reed-beds, which must at one time have covered the whole country, according to its topography, and by the spread of cultivation that accompanied the expansion of the typical Chinese culture from the bed of the Yellow River in Shensi and Honan over the wide area it now occupies.

This being the case there has not been time for the tigers of the north and the south to differentiate any further than they had done by the time that their habitats were thus divided. That is to say, the differences we might expect to find would only be such as could be accounted for by the differences in climatic conditions, the tigers having longer coats in the northern and shorter coats in the southern areas. And this, indeed, is the only difference we can discover. There appears to be little or no difference in the colour and markings of the tigers of North and Central China from those of the south and south-east. The tiger is very rare in North China, and the only material Pocock appears to have had upon which to base his new subspecies *styani* consisted of two skulls collected by Styan and labelled North China, although he examined a number of trade skins, called "Hankow skins" and shipped to London from Shanghai. He describes the race as differing from the average tiger of Northern India in being smaller, somewhat darker and more closely or heavily striped and longer in the coat, probably in winter; and from the Manchurian tiger, as known to him, in being smaller, much darker and more fully striped, and in having a shorter, and less woolly winter coat.

Up to the present we know of no scientifically authentic records of the tiger in the provinces of Chihli (now called Hopei), Shansi, Shensi, Kansu or Honan, though in the course of our travels and hunting

experiences in this general area we have heard and seen enough to satisfy ourselves that tigers actually still occur in the wilder, more inaccessible and forested mountainous areas in these provinces. For instance, the native hunters of the Tung Ling or Eastern Tombs area, also known as the Imperial Hunting Grounds, that lies to the north-east of Peking, when we interrogated them on two expeditions we made into this district, insisted that tigers occurred in the forests of the mountain fastnesses, while in the winter of 1915 we saw what we took to be tiger tracks in the snow there. When visiting Lama Miao, or Dolonor, in Inner Mongolia in 1913, we were told of a tiger which had come from the east and had been killed near the town, its skin subsequently being displayed in a temple. In Honan the natives told us that there were tigers in the high mountains in the south-west of the province and also across the Yellow River in South Shansi. We picked up rumours of tigers in both Shensi and Kansu, and the Tibetans on the south-western borders of the latter province apparently have stories about tigers in that region, suggesting its occurrence there.

But it has always been in Shansi that we have come across the most persistent tales and rumours of tigers, mainly in the great forested mountains of the western part of the province, running from Ning-wu Fu, north-west of Tai-yuan Fu, the capital, to beyond Fen-chou Fu, south-west of that city. When a boy we were told by a missionary, the Reverend Herbert Dixon, that one of his colporteurs, while travelling across the so-called Ning-wu Shan (Ning-wu Mountains) south of the city of that name, found a dead tiger, the skin of which was too far gone to be of any value, but whose bones fetched a considerable sum at the medicine shops.

A little to the south of this district in the winter of 1909-10 we ourselves found and followed but finally lost the tracks in the snow of an immense feline that could only have been a tiger, the tracks being far too large for a leopard. The Chinese hunters with whom we were working insisted that they were the tracks of a tiger, and seemed very uneasy about following them. Although they admitted knowing where this tiger made its lair, nothing would induce them to guide us thither. The hunters of what are known as the Chao-ch'eng Shan, to the west of Tai-yuan Fu, informed us that there were tigers in the great forests that clothe these mountains, but they, too, could not be induced to assist in finding one. They professed a superstitious fear of the spirit of the tiger should it be molested. It was always our opinion, however, that the high value of the tiger's skin and bones made these native hunters resent the idea of anyone but themselves bagging one. While hunting wild sheep in the mountains of North-western Shansi in the Sui-yuan district, the native hunters told us that tigers were sometimes seen in the region, while we actually saw tiger skins in K'uei-hua Ch'eng which had been brought in from the mountains further west, that is, from the country north of the great northern bend of the Yellow River.

A missionary from Ping-yang Fu, south of Tai-yuan Fu, told us that he had actually seen a dead tiger brought in from the mountains to the west and sold to a local medicine shop.

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But it must be admitted that, except for the tracks in the snow in the Imperial Hunting Grounds in Chihli and in the Ning-wu Mountains, in Shansi, all the foregoing is mainly hearsay evidence as far as we are concerned.

At last, however, comes something much more tangible in the form of a letter from a missionary stationed at Chieh-chou in the extreme south-west of the province giving details of the actual killing of a tiger in a village named Peh-fang some forty *li*, or about twelve miles, north of Chieh-chou, and enclosing a photograph of the beast taken after it had been killed. So interesting is this record that we give the letter here in full:

"Dear Mr. Sowerby,

A tiger in south Shansi! Yes it is really true, as I hereby enclose a photograph of the beast. With wolves, leopards and wild boars I have had experience these forty odd years, but never with a tiger! Just as I left the village of Peh-fang (白坊村) forty *li* north of our city, in the early morning of Monday, 5th December, 1932, on my motorbike, having helped the evangelists with preaching in our big tent for some days in the village, a tiger coming from the north-west rushed into the village. Being chased by the scared villagers into a certain room where a man was sleeping on the *K'ang*, the tiger bit the man badly in the shoulder, throwing him down on the floor. (He may not live). The wounded man having been rescued by others, the door was securely closed and there the beast was made prisoner. Now word was sent to me to devise means to take the tiger alive into a cage. As important duties were calling me elsewhere, I could not help. Eventually the tiger was shot and the 虞鄉縣長 commandeered the body (what about 民國自由權?) the skin of which is now shown for money in the city!

HENRIK TJADER"

"P.S. Dear Mr. Sowerby,

The great question with us is whence came the tiger? Please try to solve this problem. Some one has suggested from over the frozen Yellow River from the north-west fastnesses where Mongolia borders on North Shensi! What do you think? In the 中條山 (the big south mountains where the above named beasts live) there are surely no tigers or I would long ago have been aware thereof.

"Chiehchow, Sha.

January 14th, 1933."

This, then, is the first substantiated record of the occurrence of the tiger in Shansi.

Referring again to Pocock's description of his North and Central China race, it will be seen that, as far as can be judged by the photograph, which we reproduce here, it fits the specimen in question very well, so that we have no hesitation in identifying it as belonging to the race *styani*.

The next question is what to call the South China tiger. While it is certain that many tigers have been killed by Europeans in South and South-eastern China, notably in Fukien Province, and more especially in the Amoy district, there are practically no records extant except the accounts given by the Reverend Harry R. Caldwell of the tigers he and his native helper Ta-ta, have killed in the Yen-ping and Fu-tsing districts of Fukien on the Min River and south of Foochow, respectively. These appear in his book "Blue Tiger" and in newspaper articles. In the book he gives the photograph of a tiger killed by him, which, in markings at least, agrees very closely with the Shansi tiger shown in our photograph. Judging from skins we have seen, the Fukien tiger in no way differs from the Central China tigers, except possibly in having a slightly shorter coat.

On the other hand, tigers shot in Indo-China, as far as we can judge from the photographs in our possession and published from time to time in *The China Journal*, show a distinctly lighter colouring and less heavy stripes, which are fewer and more widely distributed on the forequarters, much as in the Indian tiger.

It would seem, then, that, just as the tigers of North China merge into those of South China, so the latter merge into those of India, with an intermediate form occurring in Indo-China.

Meanwhile, it would appear impossible to separate the South and South-east China tiger from the North and Central China tiger, so that it, too, must be assigned to Pocock's new subspecies.

Thus the Chinese tiger may be known as *Panthera tigris styani* Pocock, and it may be described as occurring in isolated forested mountain areas in the north, west and centre, and more or less universally throughout the country south of the Yangtze River, being most plentiful in Fukien Province in the south-east, where its depredations are very considerable. While travelling and hunting in that province we many times came across the tracks of tiger. On more than one occasion we were in the vicinity when tigers killed the cattle of the natives, and were able to examine the scenes of the killing.

Caldwell, already mentioned, and his servant have during the last twenty years killed over a score of tigers in the province, while in times gone by many a foreign resident in Amoy or Swatow could boast a tiger to his gun. Some had a respectable number to their credit.

A tiger was once seen in the hills near Chinkiang on the Yangtze between Shanghai and Nanking by a foreign sportsman whose word we would consider an absolute guarantee of authenticity. He was hunting wild boar at the time and had a good view of the animal as it left cover and crossed a barren slope. He assured us that there could be no mistake about it. There are also persistent rumours of tigers in the mountains near Kuling, the famous summer resort of the Middle Yangtze region, while it is firmly believed by many that tigers occur in the mountains near Mokanshan, the North Chekiang summer resort for Shanghai. It is extremely likely that these rumours are based on fact, for both areas are well within the known range of the Chinese tiger, and there is much wild country close to both places. There is no reason whatsoever

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why a tiger from the neighbouring wilderness, while on one of its great circular tours, forty miles or more, as has been well established by observations in Fukien, should not at any moment turn up at either of these resorts and hunt for a period in the immediate vicinity. The fact that the tiger, like its cousin the leopard, is a great wanderer, covering immense distances while on its rounds, accounts for the great difficulty experienced in hunting it in China, and also for the way it has of turning up in places where it has not been seen or heard of for years.

We cannot leave the subject of the tiger in China without referring to the famous "blue tiger," with which our name has been connected through a ridiculous piece of newspaper publicity in 1921, when we returned to China to explore Fukien and other provinces south of the Yangtze. The blue tiger rightly belongs to Harry Caldwell, who is the only foreigner who has actually seen the animal, and from his description of it there can be little doubt that it is, or was, for it is probably dead by now, what is known as a colour phase of the ordinary tiger. A coat of either a smoky grey colour, such as is seen in the blue Persian cat and the blue chow dog, or with a white background striped with black, would at a distance give the impression of being blue or bluish; and it is our belief that the blue tiger of the Fu-tsing district of Fukien, a notorious man-eater, by the way, was coloured in one or other of these ways. Black tigers, white tigers and pale sandy or buff tigers are known to have existed, and there is no reason why greyish specimens should not appear from time to time.

MIGRATION NOTES *

BY

GEO. D. WILDER

GREYLAG GOOSE, RED-THROATED DIVER, STEPPE EAGLE, STELLER'S
SEA EAGLE, SNOW GOOSE AND MUTE SWAN.

The last instalment but one of "Migration Notes," appearing in the August, 1932, number of the Journal, in the middle of page 84, referred to the collecting of a "fine series of white-fronted geese" on March 27 at the Summer Palace. I am sorry to say that the statement was made on too hasty an examination. Further study and the reference of descriptions to two specialists in *Anseres*, Dr. N. Kuroda and M. Jean Delacour, convinces me that the six birds are all the greylag goose, *Anser anser* (L.). This goose, though not common, is less rare

*Tung-hsien, Hopei, December 17, 1932.

here than the white-fronted, with which it is easily confused on cursory examination. Some of the greylags that are probably old birds have a considerable amount of white at the base of the upper mandible, though never as clearly defined a white frontlet as in the adult white-fronted goose, *Anser albifrons*. Half of the six specimens in question are so marked. Young white-fronted geese sometimes have no trace of white at the base of the bill. Half of these greylags also have a considerable amount of the black spotting and blotching that occurs usually but not always on the belly and breast of the white-fronted goose. These variations of individuals of both species makes them easily confused. The upper parts of the white-fronted goose are much darker, and the outer tail feathers are ashy brown, while in the greylag goose they are white for the main part of the feather.

We have specimens that suggest crossing, and a specimen is in the museum of Mr. Hachisuka of Tokyo awaiting a decision on that point. But at present we consider these six to be greylags, with apologies to readers of the Journal for the error of denominating them white-fronted geese.

The hunter we have frequently mentioned, Wang Pao-chuan, spent three days last October in shooting a young female specimen of the red-throated diver or loon, *Gavia stellata* (Pontoppidan), formerly known as *Colymbus septentrionalis*, in the river north of Tung-hsien. It was most difficult to shoot, for it would dive at the flash of the gun before the shot reached it, just as the grebes that American sportsmen call "hell-divers" do. In the distance it was often seen to rear up and sit erect on the water with most of its silver-white breast and belly displayed. But when alarmed it would dive and reappear at an amazing distance away. Sometimes in shallow and clear water it could be seen actually flying with its wings under the surface. It would come up for breath and expose only its slender bill an instant before it went on again under the water. After two days of a grilling chase Mr. Wang got a fellow hunter to do the chasing while he lay in ambush at the top of a high bank of the river. Finally the bird showed its head above the surface just under him, and, with the advantages of shooting from concealment and down into the water in the direction of its dive, he succeeded in killing it. His account of its tactics to evade him agrees well with the books. He saw another a few days later.

Mr. La Touche had seen a specimen in a game market in North-eastern Chihli, and had seen birds fishing in the Ching-wang Tao harbour that he presumed to be this species, but this seems to be the first one definitely secured in the province, and on an interior stream. Though this diver is found on both the Atlantic and Pacific coasts of North America, as well as in Asia, this is the first specimen I ever saw in the flesh to know it.

On the same day that this diver was secured, October 22, a fine female steppe eagle, *Aquila nipalensis nipalensis*, flew for refuge into a one-roomed mud hut among the family eating on the *k'ang*. The father of the family, a poor coolie, gathered the bird up in his arms, a rather dangerous proceeding but worth the dollar that the bird brought

him. An eagle had been slightly wounded the day before by the hunters and may have been this same one, though it seemed uninjured.

Last summer several students of the North China American School spent the summer at Tai Shan in Shantung, where they paid a good deal of attention to the birds. They reported seeing an eagle several times soaring near them, both from above and below, so that they could see the white tail, mottled with brown at the sides and tip, and also a large area of white on the upper surface of each wing in the region of the wing coverts. From La Touche's "Handbook of the Birds of Eastern China" it seems that the only East China eagle with white areas on the upper surface of the wings is Steller's sea eagle, *Thalassoaëtus* (*Haliaëtus*) *pelagicus* (Pallas). It summers on the Sea of Okhotsk and would not be expected on the Shantung mountains in summer. I find two sketches in my notebooks of a large bird of prey with white in these areas and white tail which I saw in winter, one in Shantung and one in the mountains north of Peiping. Père David found it in Mongolia and saw one at the end of winter near Peking, but it has not been reported since. We would like better evidence of recent occurrence, but David's record is sufficient to give the bird a place on our list, from which it was omitted.

The bustards are even more common this winter than they were last year, being seen by the hunters almost every time they go out, and over thirty were seen in one market in Peking at one time recently. Two flocks of fifteen or eighteen were seen one afternoon, and found to be easy of approach to within shotgun range.

Tung-hsien is some thirty to forty miles south from the mountains, where pheasants, chukar and bearded partridges are to be found. There is no proper habitat nearer for any gallinaceous birds other than an occasional quail. Last year at a hunters' meeting some one reported having shot a female Mongolian pheasant among the sand dunes just east of the river from here. It seemed almost impossible, but a flock of seventeen chukar partridges has been seen several times this month by Mr. Wang, who knows them well, one having been shot to pieces and fallen into the water, but close enough to see the red bill and legs and crescent marked breast. These, like the pheasant last year, appeared here in the sand dunes after a terrific sandstorm from the northwest, so that we surmise that both pheasant and chukars came to us down the wind from the mountains.

Persistent reports ever since November 15 from the country round are to the effect that a few snow geese are appearing regularly at the same feeding grounds they used last year. We hope this winter to report success in securing absolute evidence as to their occurrence here. Mr. Wang also insists that there is a single "black swan" haunting this vicinity, but we dare not make a guess as to what it may be.

My notes show that the jackdaws arrived as usual on October 1, and in flocks about half pied and half black, though some flocks were nearly all pied and others nearly all black. A swan with a knob at the base of the upper mandible was killed on August 2. According to the description it was the (in China) very rare mute swan of Europe. Geese

and small ducks were reported by Chinese hunters on August 28, which is very early for this region, though not unusual at Pei-tai Ho. A very late date for the least bittern, *Ixobrychus sinensis*, was recorded when one of our coolies captured a solitary laggard on November 21, long after all the rest had gone. It was probably passing from the north.

A pair of yellow-rumped swallows built a nest under a very hot porch roof of our house last summer and raised a part of a brood, two or three at least being killed by the intense heat, just as a whole brood were a few years ago in exactly the same spot. The young had all flown in August, and we were surprised to have the two old birds come back and spend September 16 to 23 in the nest nightly. In the mornings they busied themselves in bringing mud pellets and extending the neck of their bottle-shaped nest by about two inches, making it unusually wide, perhaps in view of the heat. Then they left for the season, having made the improvements on their nest apparently for next year. We hope they will return, for their mating songs are very pleasant to hear before getting up in the morning.

SCIENTIFIC NOTES AND REVIEWS

BIOLOGY

Further Notes on the Bitterling: Our correspondent, whose letter regarding the breeding habits of the bitterling (*Acanthorhodeus*) was published in our last issue, has written us further on the subject as follows:

Dear Mr. Sowerby,

Very many thanks for your most interesting letter of the 29th ult. To complete the identification I might add a few details of the fish. The young (male and female) are all alike, having a marked black spot on the dorsal fin. As they grow, however, this spot gradually disappears in the male at the same time as the red markings of eye and tail appear. The female never loses the spot, does not grow to much more than half the size of the male, and does not develop the red markings, except a very slight tinge on the top half of the eye. The male seeks out the mussel, then courts the female and lures her down to the selected mussel with a very pretty

quivering motion of his whole body. He is often interrupted, however, in order to chase away any other males of the species who happen to be around. As soon as the female has deposited her egg (or eggs) the male injects the sperm into the gills of the mussel in a similar manner.

The fact, which you explain, that the mussel uses this process in its own reproductive functions explains a peculiarity I had noticed, namely that the mussel apparently senses what is going on. When any foreign matter touches or disturbs the neighbourhood of its gills it closes up with a powerful expulsive action, whereas when the female of this fish approaches it inhales strongly as it closes, sucking in the fish's ovipositor and appearing to imprison it.

I have never noticed any small mussels appearing in my aquarium, so it may be that there is some detrimental factor which causes that part of the exchange to mis-carry.

I am sending you herewith the shell of the particular mussel these fishes made use of. They are apparently quite particular in selection of the required type.

Please publish in your excellent journal anything of this that you wish. But if possible I would prefer that my name should not appear.

Yours etc.

We have received one of the valves of the mussel shell mentioned in the letter, and can say that it is one of the Chinese representatives of the European swan and duck mussels (*Anodonta*), of which there are many species to be found in the rivers of China. The note regarding the spot on the dorsal fin being a character that disappears in the adult male is interesting.

The Chinese Tiger : The attention of readers of these notes is directed to our article on "The Tiger in China" in the present issue of this journal for information regarding the correct designation of the Chinese tiger, which has recently been named *Panthera tigris styani* by R. I. Pocock. Its characteristics are a smaller size and a deeper, richer ground colour than in either the Manchurian or the Indian tigers, with more pronounced stripes, and the possession of a longer, more woolly coat than the Indian tiger and a shorter coat than the Manchurian tiger.

Evidence of the existence of the tiger in Shansi has come to hand in the form of a letter, accompanied by a photograph, from the Reverend Henrik Tjader of Chieh-chou in South-west Shansi, describing the killing of a tiger in a village named Peh-fang, some 40 li (about 12 miles) north of the town. As pointed out by us, this is the first tangible evidence of the tiger in this province, although we have long been convinced of its occurrence there.

Chinese Tufted Deer in London Zoo : The little tufted deer (*Elaphodus cephalophus*, M.-Edw.), which Mr. F. T. Smith brought back with him from the Muping district in North-western Szechuan eighteen months ago and lodged temporarily in the Zoological Gardens at Jessfield Park, has arrived safely at the Zoological Gardens, Regent's Park, London, where it is the first specimen of the species to have been exhibited there since 1876. It is also the second specimen that has been acquired by the Zoological Society of London since the Gardens were inaugurated over a hundred years ago. While this deer is very rare as a living specimen in zoological gardens, it is fairly common in the areas it inhabits in China, but by no means easy to secure, as it is very small and keeps to dense cover.

ANTHROPOLOGY

The Status of Peking Man : Exactly where the now famous Peking Man, or *Sinanthropus pekinensis*, as scientists call him, stood in the tree of human evolution is a matter of considerable interest. Recent pronouncements appearing in the press indicate that the matter is far from being satisfactorily cleared up. One of these appearing in the *North-China Daily News* of January 12, but otherwise undated, begins with the following statement: "To the anthropologist, Professor G. Elliot Smith's announcement on the strength of the discovery of a few carpal bones that the Peking Man was indeed a man is of first rate importance." It goes on to discuss the functions of the human hand as compared with that of the ape, and ends by saying, "But the hand of the Peking Man tells the story of his high estate: he was a man. He

created and used the stone tools found with his bones....."

As far as the hand of Peking Man is concerned this theory is corroborated in a *Reuter* telegram dated December 20, which quotes Professor Elliot Smith as saying "During further explorations of the cave at Chou Kou Tien a small bone from the wrist was found which is not appreciably different from that of modern man. This is exceptionally interesting in that it adds most powerful evidence to support the belief that the hundreds of stone implements which have been found in the cave were made and used by Peking Man."

But what appears to us more interesting is what is contained in the rest of the telegram's quotation of Professor Elliot Smith's announcement as follows:

"A number of other small bones have also been found. From their shape it

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would appear that the feet of Peking Man differed from those of modern man. They were not straight and he must have walked with his toes turned in—in the same way, in fact, as the ape does. There is, however, nothing to show that he was able to grip with his feet as the apes are able to do."

If this is correct we have a most remarkable state of affairs—a creature with the hands and brain of a human, albeit of a primitive type, but with feet more like those of an ape. If this suggests anything it is that the ancestors of man had begun to develop the use of the hand and the mental intelligence that characterizes the human being long before they ceased to be ape-like in other characters and probably before they abandoned an arboreal for a terrestrial life, which, we believe, is contrary to the theory hitherto generally

accepted. The theory held by many anthropologists is that it was the adoption of a terrestrial life and the development of the human foot and the power to walk on the hind limbs alone, thereby freeing the fore limbs and hand for other activities, that reacted upon and resulted in the development of the human brain, causing it to increase in size and assume its human quality. Thus, after all, man may have originated in the forests of tropical Asia or Africa, and not, as has been supposed, in the high steppe lands of Central Asia. From the remains of some of the animals discovered in association with *Sinanthropus pekinensis* at the Chou Kou Tien site, it is evident that he lived in a country where great forests existed, as well as more open country, and it may well have been that he was still to a certain extent a forest dweller.

VOLCANOLOGY

Krakatoa Continues Active: A *Reuter* message from Serang in Java, dated January 19, stated that the famous island volcano Krakatoa in the Sunda Straits between Java and Sumatra was in ceaseless eruption, throwing lava

to enormous heights in an uninterrupted flow, sometimes three or four thousand feet in the air. The last previous report of this volcano's activity was dated November 22.

SEISMOLOGY

Recent Earthquake Records: On December 31, the most severe earthquake in the history of the South African Union rocked large areas in that country. The first tremor lasted a hundred seconds. Houses in Natal cracked and solid buildings rocked, but no casualties were reported. The shocks continued to be felt in the southern part of the Orange Free State for some time. The centre of the seismic disturbances was reported to lie at a point some thirty-five miles south of Johannesburg.

Li-fan and other parts of North-western Szechuan were rocked by three earth tremors on the night of January 1, says a *Kuo Min* message dated January 16. Nearly a score of houses collapsed at Li-fan and several casualties occurred.

Another violent earthquake caused considerable damage in Thessaly, Greece, on the night of January 5, causing the inhabitants to flee from their houses and spend the rest of the night in the open.

Earth tremors were felt on the morning of January 14 in the north-west of England, the centre being located in Manchester. No casualties were reported, though buildings sustained some damage.

The Kansu Earthquake: Recent messages from Peking state that despatches which have been received there from Chinese sources in Kansu say that the damage done by the earthquake on December 25 last was very considerable and there was much loss of life. The damage done in Northern Kansu, it says, is estimated at \$10,000,000.

It will be remembered that the report which we published in our last issue referred to Western Kansu, and gave the epicentre of the earthquake as lying somewhere to the south of Su-chow Fu. It is evident from the above more recent report that the disturbances occurred over a very much wider area than was at first indicated.

METEOROLOGY

Weather Report for January: The comparative mildness of the present winter in the Shanghai area was suddenly brought to an end when the gloomy wet weather that characterized the last week in December gave place to bright sunshine and crisp cold on January 1, 1933. This continued for a few days, being followed by cold, rainy weather again. A dense fog enveloped the Yangtze Estuary area on January 10, holding up the shipping on the Whang-poo for the greater part of the day.

Snow began to fall during the night of January 11, and continued for the next three days, low temperatures prevailing. Heavy rain during the subsequent two days was followed by a very heavy fall of snow on January 18. Snow fell again for a short period late in the afternoon of January 26. The temperature during the latter part of the month was very low, some fourteen degrees of frost being registered on January 27 in the Western District of Shanghai. In other parts of China snow was reported as falling at Tai-an and over a wide area in Shantung on January 2. A cold wave swept over the country from the north from about January 10, and snow fell all over Mid-China during the subsequent few days, to be followed by a further heavy fall in the Yangtze Valley and as far north as Tai-an in Shantung on and about January 17.

A cold wave was reported as sweeping over South China on January 16, being the severest for four years. The first snow in the Peking area in the north was reported on January 19. Tokyo was reported six inches under snow on January 22, snow having fallen since the previous afternoon.

On January 28 Nanking experienced an almost unprecedented cold wave, the thermometer registering -13.8°C . This approaches the Nanking record, which is -13.3°C ., experienced on January 11, 1931. A report from Tsinan, Shantung, gives a temperature there of -30°C ., which constitutes a record.

On January 30 the *North-China Daily News* reported that the Huai River in Anhui and the Grand Canal and other waterways in Northern Kiangsu were completely frozen over.

A severe snow storm swept the North China seas and the Japanese seaboard on January 26.

It is interesting to note that reports from Great Britain and Europe indicate that severe cold and heavy falls of snow occurred there too, from January 22 on. Observations show that it not infrequently happens that China and Europe experience the same kind of weather at the same time. A message from Halifax, Nova Scotia, reported a terrific gale in the North Atlantic on January 28.

MEDICINE

Quack Exposure and Medical Registration in Shanghai: An exposure of the prevalence of quack doctors in Shanghai which appeared in the *China Press* of January 22 will meet with the approval of all properly qualified and registered medical men as well as of every right thinking layman in this city, and it is to be hoped that feeling will not subside in regard to this issue till means have been found to prevent the unqualified from practising. As pointed out, there is nothing to prevent anybody, whether qualified as a doctor, dentist or veterinary surgeon or not, from putting up a signboard in Shanghai and commencing to practice. Recently the International Settlement authorities have instituted a medical register, and a large number of medical practitioners have registered; but such a non-compulsory register obviously

cannot solve the problem of the prevention of the practice of medicine or surgery by those unqualified to do so unless the public refuses to go to anyone whose name is not on the register.

This is a course that is to be most strongly recommended to the public in the interests of its own safety. There can be no surer way of completely wrecking one's health than by going to a quack doctor, even for the lesser ailments. The mischief they do and have done in the past is untold.

At the same time it may be suggested that the Municipal Councils of the Shanghai area should thoroughly investigate the whole matter with a view to devising some way of prohibiting the unqualified from practicing here. It would seem that the only sure way would be to make registration compulsory, and this ought to be done, as

THE CHINA JOURNAL

far as the International Settlement is concerned, even if the Land Regulations, by which the latter is governed, have to be altered to allow of it. It should be easy enough to bring in such a regulation in the Chinese administered areas.

Chaulmoogra Oil not a New Cure for Leprosy: Reports appearing recently in the local press erroneously referred to a brand of chaulmoogra oil that was being imported into Shanghai from the Philippines as a new cure for leprosy. As pointed out by Dr. James L. Maxwell of the Henry Lester Institute of Medical Research in a statement reported in the *China Press* of January 5, "The drug mentioned as being due to arrive from the Philippines is not a new one in any sense of the word. Under the name of Iodised Ethyl Esters of Chaulmoogra oil it has

been in use for years and has been on sale in China for some months at least." The statement goes on to show that the reason why the drug is being imported from the Philippines, although it can be prepared locally, is because generous Government subsidies in the former country make it possible to produce the preparation in large quantities at a much lower price than is possible in China. Dr. Maxwell has estimated that some 300 litres of the product are needed for the first year's programme of anti-leprosy organizations in combating leprosy in China. He further states that it gives a wrong impression to say that Chaulmoogra preparations are a cure for leprosy, there being no drug that will cure leprosy, although this disease can be and is probably being cured as frequently as is tuberculosis. They can only be considered as of help in effecting such cures.

A. DE C. S.

SHOOTING AND FISHING NOTES

SHOOTING

The Tiger in Shansi: In a letter which we published in a separate article in the present number of this Journal on the subject of tigers in China, Mr. Henrik Tjader of Chieh-chou, in the extreme South-west of Shansi, describes the sudden appearance of a tiger in a village named Peh-fang, some forty *li* or about twelve miles to the north of that city, coming in from the north-west. The tiger was driven into a room, where it mauled a man sleeping on a *k'ang*. It was shot and killed by the villagers, and its skin later put on exhibition. A very good photograph of the dead tiger was taken and is reproduced here. We are not familiar with the part of Shansi in which Chieh-chou and the village of Peh-fang lie, and so cannot hazard a guess as to just where the tiger came from originally; but the greater part of that general area is,

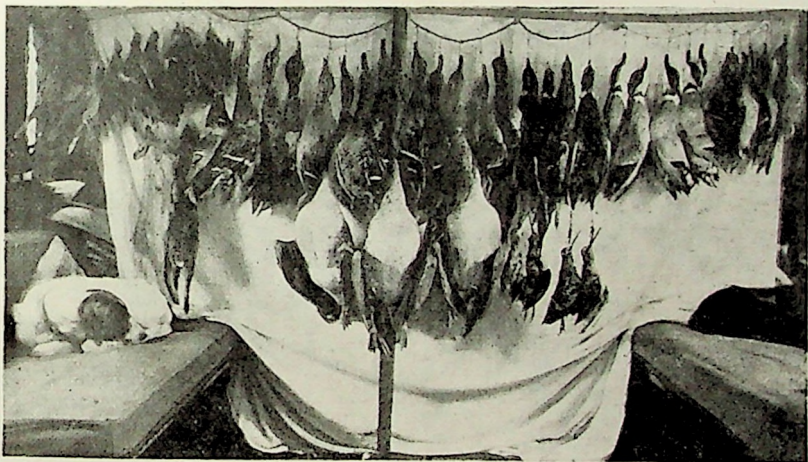
we believe, mountainous, and since these mountains harbour leopards and wild boars, as Mr. Tjader indicates in his letter, there is no reason why they should not harbour tigers as well, even if he had never previously had experience with them.

In the course of hunting in the high mountains to the north-west of Tai-yuan Fu in Shansi, particularly in the Ning-wu district, we frequently heard about tigers from the native hunters, who, however, consistently refused to guide us to their lairs, as they feared that by so doing they would bring the wrath of the tiger's spirit upon their heads. Once I came across tracks in the snow that could have been made by nothing other than a tiger, and a large one at that.

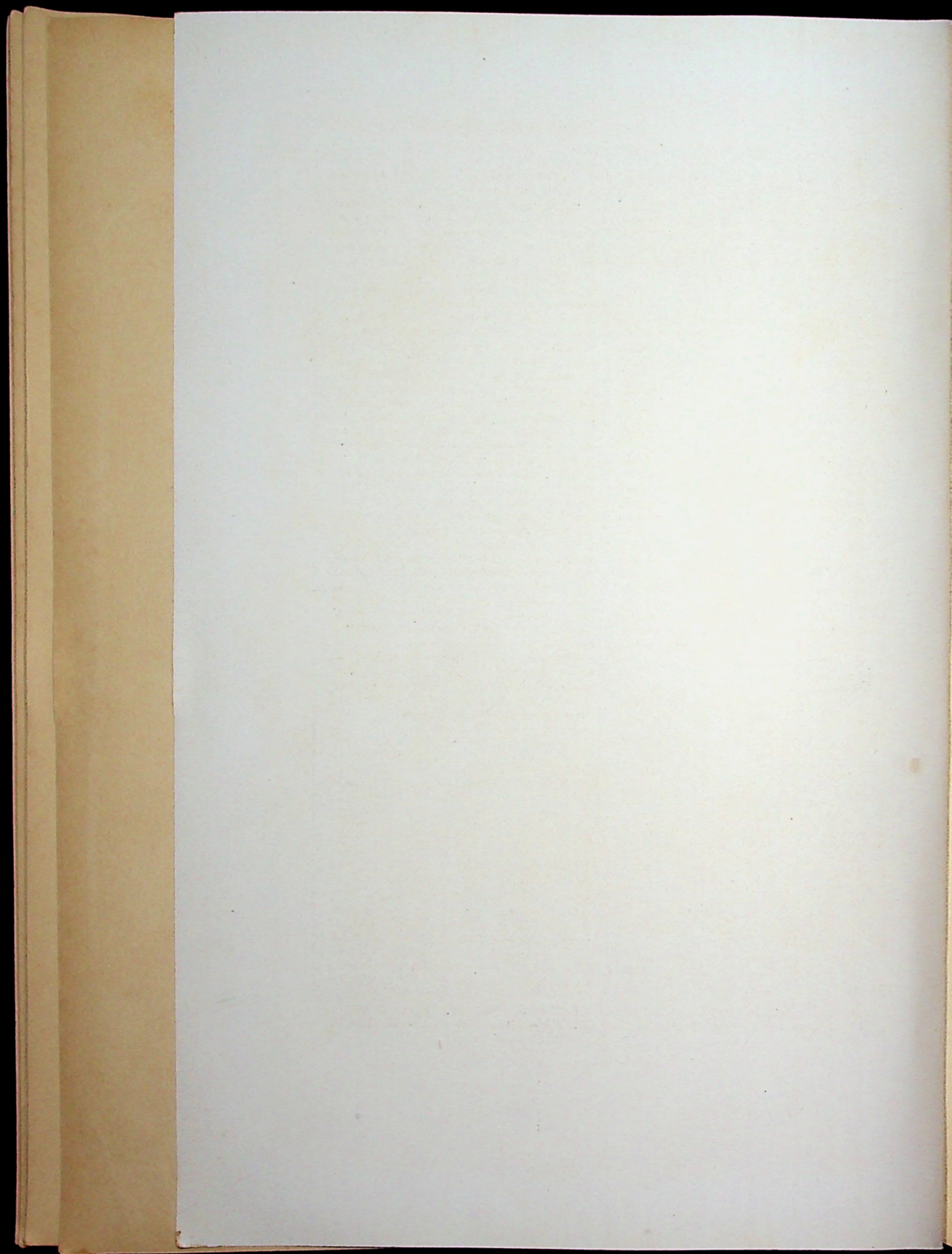
There is no reason why the range of the tiger should not continue southward as far as the Chieh-chou district,



A young female Leopard shot recently by a Chinese Hunter near the well-known Picnic Resort "Paradise Pool" at Kuling, Central China.



A nice Bag made at Chapu by Four Guns this Winter. It consisted of Geese, Mallards, Falcated Teal, Common Teal, Yellow-nib Duck, Woodcocks, Snipe, Pheasants and Hares.



SHOOTING AND FISHING NOTES

especially if there is wild country in the mountains there.

Sportsmen, who contemplate a shooting trip into Shansi at some future date, might bear in mind the possibility of securing a tiger in that province, the mountainous areas of which are full of game.

Leopard Shot Near Kuling : The following letter from Mr. John F. Duff of Kuling, the famous summer resort in Kiangsi Province near Kiukiang on the Yangtze, speaks for itself. The leopard in question, which is shown in the accompanying illustration, is typical of the form, now known scientifically as *Panthera pardus fontanieri*, that ranges throughout China.

With reference to Mr. Duff's request for advice as to what type of dog to get for hunting wild boars, we can only say that, in our experience in hunting these animals in the type of country and thick cover such as exists in the Kuling region, dogs were of little or no use, and we strongly advise cooperating with the local hunters, if there are any, and using beaters. The important thing is to discover the paths used by the wild pigs and to station oneself advantageously with regard to these, meanwhile sending the hunters and beaters to drive the quarry out of their lairs.

The North Korean and Manchurian hunting grounds present entirely different conditions, and there a pack of dogs is most useful.

Mr. Duff writes :

Dear Sir :

I am writing to you at the suggestion of Mr. C. D. Dixon, of Hankow. Mr. Dixon has been to Kuling for a few days this Christmas, and, both of us being keen hunters, the subject of big game has occupied the conversation considerably.

Mr. Dixon tells me that you are always interested in shooting news, and also that you are so kind as often to supply information to readers in this connection.

Perhaps the not-too-extraordinary incident of a leopard having been shot near the summer resort of Kuling this last week might be of interest? I enclose a photograph herewith, and have put some details on the back of

it. Please make use of it if it is suitable for your purpose.

Wild boar are plentiful about the foothills this year, but amazingly difficult to get a shot at. I got one last week, a young male, weighing 215 lbs. There are a few boar about the hill-top too, though not so many as about the lower slopes. Leopards seem to be plentiful this year: traces of them on all sides of Kuling Hills, particularly on the Poyang Lake side. Pheasants are scarcer than they were when I was in China last.

I am visiting my parents here, after an absence of eighteen years, and plan to remain in China for another year at least. Most likely I shall be in Shanghai in February some time, and shall give myself the pleasure of calling on you, if I may?

If it is not troubling you too much, can you give me any advice on the type of dog to get for hunting wild boar? The cover here is so thick that it is impossible to get them out without a dog. I notice that the Manchurian professional hunters use dogs for boars, and even tigers. Can you put me in touch with anyone who might be of help in this connection? Do any of the Russians whose pictures I have seen in your most interesting Journal sell trained hunting dogs?

Trusting that I do not put you to undue trouble by my questions, and assuring you that anything in the way of a tip on the dog question will be very much appreciated, I am

Yours truly,

JOHN F. DUFF

Kuling, Kiangsu,
December 26, 1932.

Pheasants Scarce in the Yangtze Valley : The following letter from Mr R. F. C. Master will be of considerable interest to Shanghai sportsmen who contemplate a trip up the Yangtze this season :

Dear Sowerby,

I always find much pleasure in reading your "Shooting Notes" in the *Journal*, and I thought it might be of interest to some of your readers to hear something about present game conditions on the Yangtze.

As you may know, I have just completed a three weeks trip with a

single companion up-river, spending most of the time on the Yangtze between Kiukiang and Angking with an excursion into the Po Yang Lake. I may say at once that shooting on the North Bank, except for wild-fowl, is a washout. We started off full of confidence at one of our pet spots, where in times past, and not so long past at that, we have (two guns) made good bags, say 50 to 70 pheasants, six or seven hare and two or three deer, in a day, but on this occasion after four hours' walking we had only seen (and got) one hen pheasant. We saw no hare and only two deer.

As far as the North Bank is concerned this state of things continued. Each place we visited proved hopeless, and I don't think we saw ten pheasants on the North Bank the whole time, not a single hare and only a very occasional deer. We suspected the floods of 1931 had done the damage, and this was confirmed by enquiries amongst the country people, and traces of the floods were only too evident. We were also most disappointed with the South Bank, but there were some birds and a few hare and deer, but even this was but a shadow of its former self. It was more difficult to account for the scarcity of game on the South Bank, as the floods had not been so bad, and we eventually came to the conclusion that it had been more or less shot out. The natives at one particular place told us that "more than 100 foreign men have shootee" (my companion spoke to them in Chinese too) a short while before, and we gathered there was little doubt that some of the 100 at any rate had been members of the "Senior Service" in the capacity of either shooters or beaters. We also came across a gunboat of another nationality, from which a shooting party landed on one occasion almost under our noses. We knew, too, that Chinese shooting men were about, though we didn't run across many. The pheasants we did shoot were, almost without exception, very old birds, both cocks and hens. We examined them carefully and the proportion of birds under two or three years old was very small. There were plenty of wild-fowl in the Po Yang Lake, literally tens of thousands, mostly geese and swan, but very difficult to get at; we had some fairly good goose flights,

but only worked in a casual manner. Given time and a systematic plan of dealing with them it should be possible to get very good bags of fowl indeed.

We had no trouble of any kind, and found the country folk entirely friendly and indeed helpful. Only once did we have any sort of dispute and that was when, having tramped some distance for an evening flight on a shallow lake which held both geese and duck, we came across three Chinese punt gunners on the spot, punt guns and all, and they not unnaturally resented our intrusion; but, after we had explained that we had come all the way from Shanghai and should not be visiting the place again for a long time, they gave way.

Altogether from a shooting point of view the trip was a disappointment, and in my opinion it will be a long time before the Yangtze between Kiukiang and Wuhu becomes again the Eldorado of game it was a few years ago. Reports from the Middle Yangtze were good and apparently there is plenty of game there, but we had no time to try so far away. We calculate we shot less than one fifth of what we expected.

Please make use of any of the above if you think it will be of any interest to anybody.

Yours sincerely,

REGINALD F. C. MASTER

Shanghai, January 6, 1933.

A Good Bag at Chapu : That good shooting is still to be had at Chapu is indicated by the following letter from Mr. John Berents :

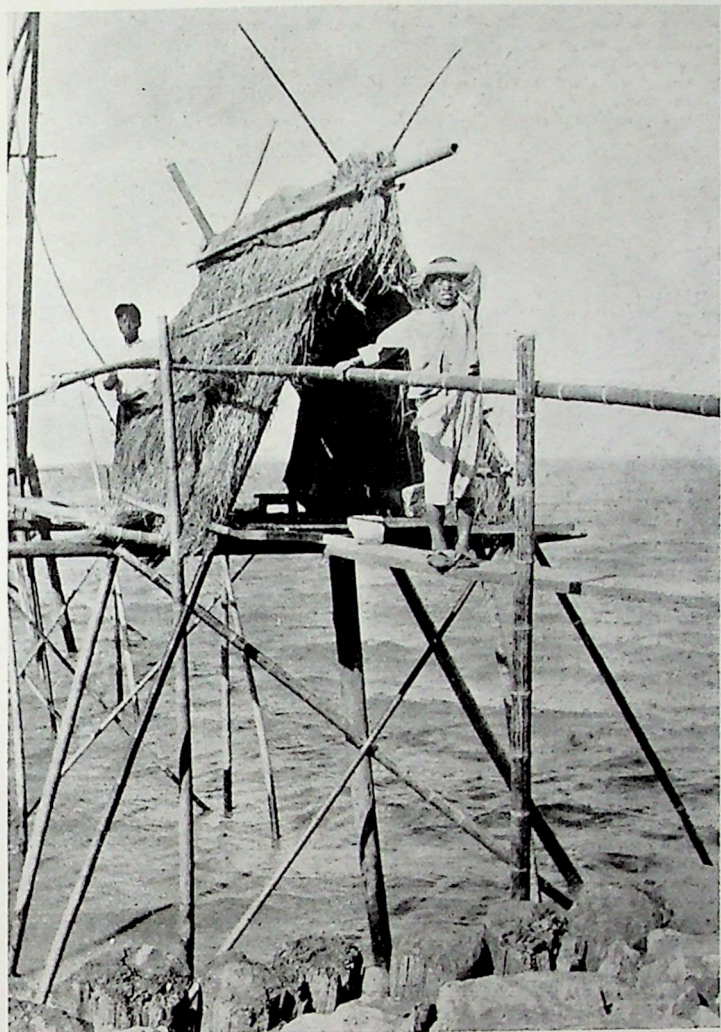
Dear Mr. Sowerby,

The enclosed photographs may be of interest to your readers as they represent a bag made by four guns in the region of Chapu during the New Year Holidays. It may be of particular interest to note that the bag included geese, mallards, shell drake, falcated teal, ordinary teal, pheasant, hare, woodcock, bamboo partridge, snipe and quail. The four guns concerned were Mr. G. A. Ake-man, W. J. Hatton, L. Wedderburn and myself.

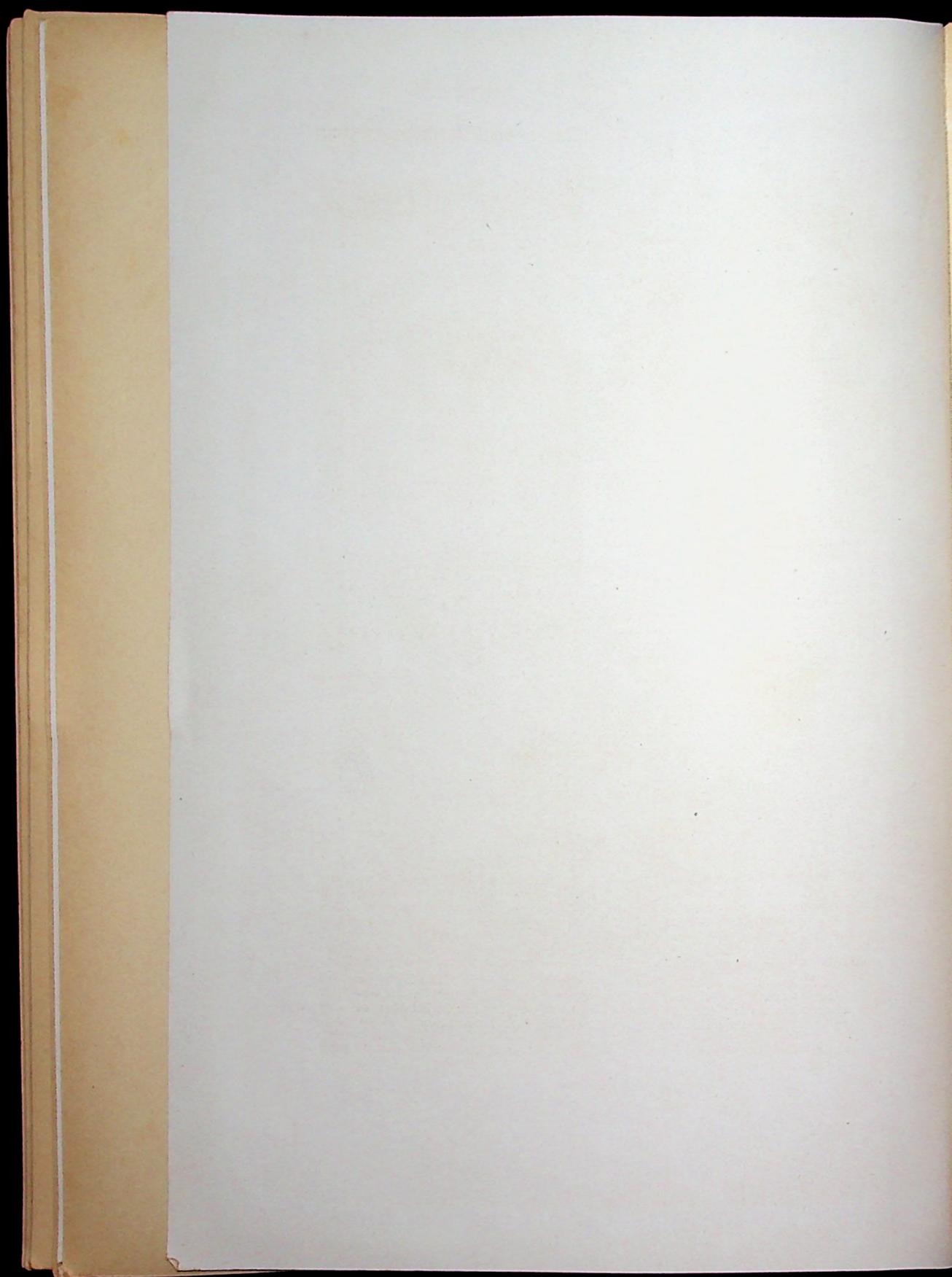
Yours truly

JOHN BERENTS

Shanghai, January 11, 1933.



A Chinese Fishing Platform and Straw Shelter on the Kiangsu Coast near Kiao-chao. From a Photograph by Miss L. Steine-mann shown at the Fourth Annual Photographic Exhibition of the City Bank Club, Shanghai, last November.



SHOOTING AND FISHING NOTES

In examining the different wild fowl shown in the photograph we have failed to detect the sheld drake mentioned, but note that there are one or two yellow nibs or Swinhoe's ducks. The

bag is a very interesting one, and we may say that we have heard that wild geese have been particularly plentiful at Chapu this winter.

A DE C. S.

FISHING

The Sharks and Rays of North China: Those interested in fish and fishing in China may be referred to a recent monograph entitled "The Elasmobranchiate Fishes of North China" by Fah-hsuen Liu, which appeared in *The Science Reports of the National Tsing Hua University* (Ser. B, Vol. I, No. 5, December, 1932). This gives a detailed account of the sharks, rays and other related fishes of North-China, most of which are to be found along the entire Chinese coast. Numerous illustrations of the species described and of the scales and teeth, which are very characteristic and help in identification, are given. Angling for sharks has not yet become a recognized form of sport on the China coast as it has become in other parts of the world, but it is only a matter of time for it to do so, and it is satisfactory to have some publication, such as the one under review, to which the sportsman may turn in order to identify his catches.

The monograph will also prove extremely useful to science. It is a further example of the excellent work

being done by young Chinese scientists to-day.

Chinese Fishing Methods: In the accompanying illustration from a photograph by Miss L. Steinemann shown at the last Annual Photographic Exhibition of the City Bank Club in Shanghai in November appears the scaffolding, platform and straw shelter of a Chinese dip-net fishing stand such as are commonly employed along the Kiangsu and Chekiang coasts and the banks of most Chinese rivers. One of the two sheerlegs by means of which the great dip-net is hoisted and lowered can be seen on the extreme left of the picture. The net is lowered into the water and raised at intervals, sometimes bringing up with it sizeable fish, though more often than not coming up empty. It is a tedious and wearisome way of fishing, even for the most patient, and barely suffices to keep the fisherman who employs it alive with his meagre wants.

A. DE C. S.

THE KENNEL

The Status of So-called Tibetan Breeds of Dog: Recently the China Kennel Club has been approached by the Irish Kennel Club asking for information on the following alleged breeds of Tibetan dogs, especially in regard to the registration of two so-called "apsos."

Tibetan Mastiffs
Lhasa Apsos
Tibetan Terriers
Tibetan Spaniels
Lhasa Terriers.

Application for information has also been made to the English Kennel Club and to Mr. Croxton Smith, the well known authority on dogs and author of the monumental book "About Our Dogs" reviewed by us some time back. There is a very good reason for these applications for information, for as far as we know there is no standard for any of these breeds, not even the well established Tibetan mastiff, while some confusion appears to exist in regard to all the other alleged breeds listed above. We

say "alleged" advisedly, for we know of no authoritative source for any of these names, though there would appear to be at least three breeds involved. These are the Lhasa terrier, the apso and the Tibetan spaniel.

As far as we can make out the only one we are concerned with in Shanghai is the apso, which, apparently, is another name, derived from who knows where, for what is known here and in Peking as the Tibetan poodle and also as the Tibetan lion dog, sometimes simply as the lion dog. It may best be described as a long rough coated Pekinese, as it has the general body, leg, tail and head form of the latter with very long rather stiff outstanding hair (not a flat coat as in the Pekinese) all over the body, legs and face. It is our opinion that it is the result of a cross between the Lhasa terrier and the Pekinese, which has arisen out of the mixing of the two breeds both in China and in Tibet, since the dogs of each country have been taken to the other from time to time by tribute envoys and officials. The cross in Tibet, which has been taken out of that country by way of India, has been called apso, and in it has been developed a golden coloured coat; while the cross in Peking has been called the Tibetan poodle or lion dog, and has developed a white or cream, black and white, grey or pure black coat. Doubtless the Tibetan cross has more of the Lhasa terrier in it, while the Chinese cross has more of the Pekinese. In fact, dogs of the latter group that have come from Peking and won prizes in the Shanghai shows have turned out to be on investigation the offspring of pure Pekinese bitches, sired by so-called Tibetans. Whether apso, as a name, may be used to include these dogs from Peking is a question that remains to be settled. As a type we would select Mr. and Mrs. David Fraser's bitch "Hai Nui Tze," which was awarded the prize for the best bitch in the China Kennel Club's annual Dog Show in 1931, and a photograph of which was given in the June number of this journal.

All the dogs we have seen in Shanghai, while acting as judge of this class at the local shows, have emanated from Peking. In this connection the statement of a missionary from the Chinese border of Tibet made to us recently is interesting. It was that such of these small dogs as he had seen in Tibet had all come from

Peking, according to their owners. The only true Tibetan breed, according to him, is the mastiff, which is greatly valued by all Tibetans. Even in the big Lamasseries in Eastern Tibet and neighbouring Western China this is the only dog to be found, and it is highly prized and well cared for.

Mr. David Fraser also tells us that although he has been in Tibet he has seen none of the so-called Tibetans there. His dog was purchased in Peking.

The Lhasa terrier appears to be a different breed altogether, much longer in the leg and having a more pointed nose, although possessing a distinct stop. We doubt very much if any pure specimens of this breed have ever been shown in Shanghai, and we suggest that it is confined to Southern Tibet and only finds its way out of that country nowadays, since the tribute envoys to China no longer come to this country, by way of India.

In Mr. Edward C. Ash's book "The Practical Dog Book" in Plate 36 appears an excellent picture of a Lhasa terrier, and on page 165 of the text a brief description of the breed. We recollect that two or three years ago a dog much resembling the one in this picture was entered in the Kennel Club show as a Tibetan of some sort. Recently, however, all the so-called Tibetans shown in Shanghai have had short legs like the Pekinese.

As regards the Tibetan spaniel, it appears that there is a small dog somewhat resembling a Pekinese but with more pointed nose found in Tibet to which this name might apply, but we are doubtful whether it is anything more than a deteriorated Pekinese in which the flat face and pug nose have been lost by careless breeding resulting in a reversion to ancestral type. This is well known amongst animal and bird breeders. Such a type of dog occurs everywhere in China. Mr. Ash's book, already referred to, also shows two pictures of Tibetan spaniels, and on page 171 gives a short description and history, the latter bearing out what we have suggested above. It would seem, then, that again Tibetan spaniel is a misnomer.

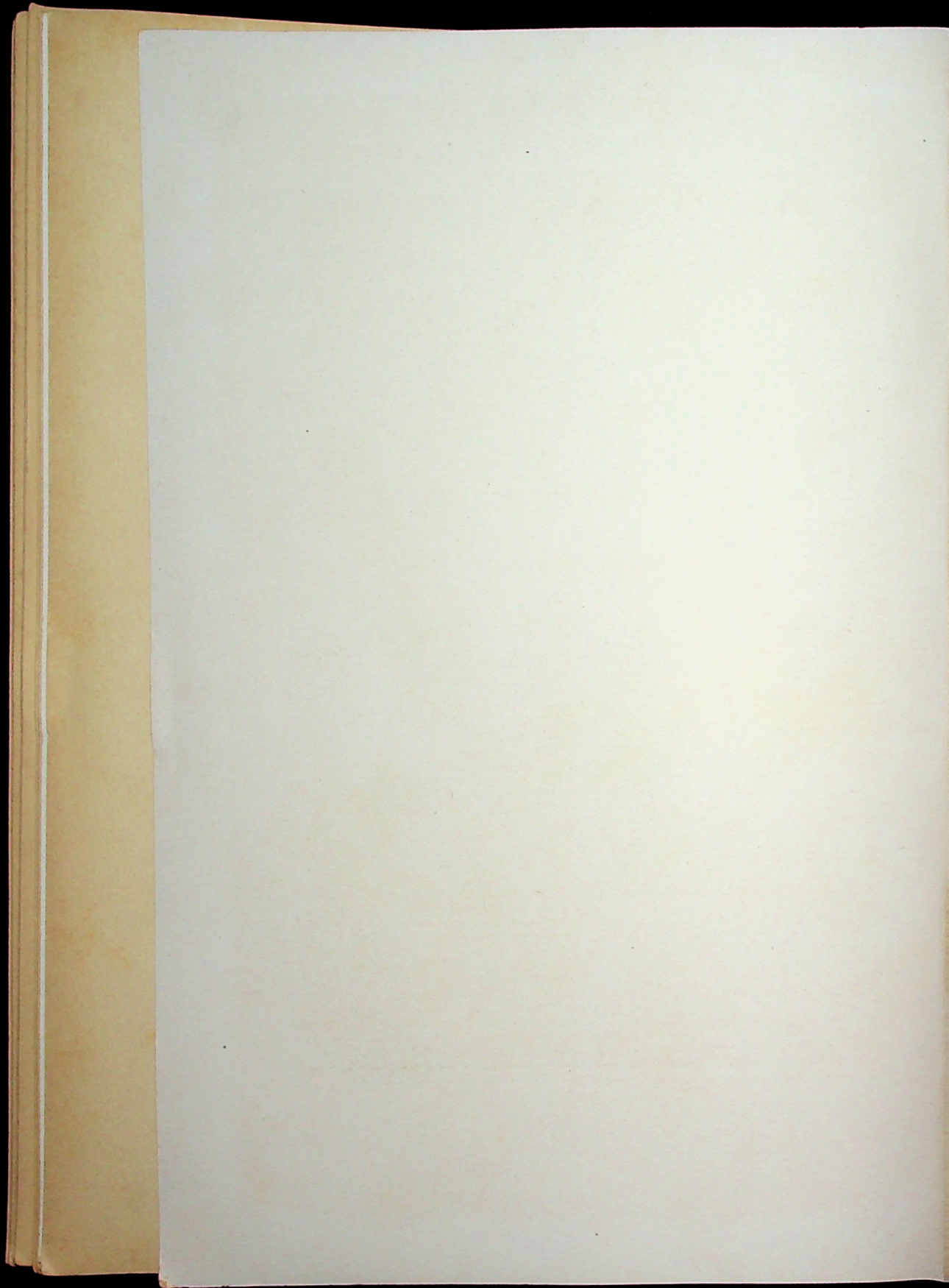
In the March, 1931, issue of this journal, page 148, we dealt at some length with these different breeds, basing our remarks mainly upon an article reproduced in the *North-China Daily*



The Moat and City Wall at Tunghsien, Hopei, during Winter. This lovely View was taken from just outside the Back Gate of the Residence of Reverend Geo. D. Wilder, who writes our Migration Notes.



"Be kind to me!" The dumb appeal in a faithful Dog's Eyes. One of the Prize-winners at the last Dog Show of the China Kennel Club.



News of January 4 of the same year from *The Times* of London, which refers to dogs of the various Tibetan breeds exhibited at the Crystal Palace. The last paragraph of our note briefly summed up the four breeds of dog emanating from Tibet, and, with the exception of a more careful distinction between the Lhasa terrier and the type to which the names apso, Tibetan poodle and Tibetan lion dog may be applied, still represents our opinion regarding these breeds.

resuscitated Shanghai Society for the Prevention of Cruelty to Animals, and we strongly urge all dog lovers and dog owners in Shanghai to give this much needed organization their fullest support by becoming members and notifying the Honorary Secretary of any cases of cruelty to dumb animals that come to their notice. By these means only can our canine friends receive the protection from the thoughtless and cruelty that they deserve.

A. DE C. S.

Protection for Dogs in Shanghai :
Under "Societies and Institutions"
we give details regarding the recently

THE GARDEN

FEBRUARY

A Gardener's Scrap Book : A housewife's own column in the newspapers provides and stimulates interest in the culinary arts and many a reader makes use of the desirable recipes it contains. And although civilized man cannot live without cooks, neither can he live without feeling joy in the presence of nature. That joy will be greater and keener if the results of his labour have been gratifying. One eminent New York physician advised : "Take one hoe, one spade and one rake and apply vigorously to the soil, vigorously at least three times a week." Fresh air, ultra-violet rays, exercise, inspiration, beauty—all these we may possess by working in a garden. In Rudyard Kipling's "The Glory of the Garden" we have :

"Oh, Adam was a gardener and
God who made him sees
That half a proper gardener's work
is done upon his knees
So when your work is finished, you
can wash your hands and pray
For the Glory of the Garden that
it may not pass away!"

As the prudent housewife has her scrap-book containing useful hints so

the gardener can also start such a scrap-book, filling it with clippings, notes and leaflets, all of which will be of interest and value. Many an item in the papers or bit of advice from a friend can be tabulated for reference. To arrange these notes so that they will be easily available for reference we can have a simple system of placing all clippings pertaining to vegetables in one envelope and all clippings regarding flowers in another; or we may prefer a more business-like card-index and filing system, with lists of annuals, tall and dwarf; perennials, hardy and half hardy; biannuals; rock garden plants; bulbs, autumn and spring planting; lawns; vegetables; evergreens; deciduous trees and shrubs; colour schemes; landscape gardening; miscellaneous items of interest; and many more subjects. The list is almost infinite.

Such a scrap-book, jointly with the garden diary we discussed in January's number of this Journal, may be of interest. Many helpful suggestions may be found in the following notes taken from an amateur's clippings and scraps:

The New York State Experiment Station has accumulated much in-

formation about fruit varieties. Of course, not all of these kinds are being grown at the present time, but all have been in cultivation from time to time, while new sorts are constantly coming into use. Among the tree fruits, the pear outranks all others in the great number of varieties represented. A total of 2,929 varieties is described, of which 91 are rated as major sorts. The next in order is the plum with approximately 1,700 varieties, followed by the peach with about 1,300, the cherry with 1,100, and the apple with 650. The grapes number about 1,500 sorts. Each of the small fruits also shows a remarkable number of different kinds, considering the fact that they have been under cultivation a much shorter time than have the fruit trees. Strawberries represent the largest group with over 1,300 varieties. Next come the raspberries with 708 kinds, followed by gooseberries with 244, blackberries with 193, currants with 183 and dewberries with 48.

Trees that are subject to scale insects of various kinds should be sprayed with one of the soluble oil mixtures. Fruit trees of all kinds, roses, *Evonymus* and all smooth barked trees are susceptible. Do not scrape the bark on trees to destroy insect pests: it is impossible to get into the crevices where insects hibernate, and often the tree is injured by removing the green outer bark. The holes made by the willow borer, which is a voracious cater, must be cleaned by the use of a fine wire, after which cotton soaked in sulphuric acid should be stuffed into all the holes. All nests of caterpillars must be destroyed.

Green aphids on the new shoots can be washed off with the hose. Slugs and snails will soon be active: get rid of them by broadcasting slack lime over the ground after dark, or by placing pieces of boards in the walks between the beds, when the slugs can be gathered from under the boards in the morning.

Grape canes should be cleaned up and pruned in early winter. Remove all the loose bark and wash the canes with a good strong soap insecticide, or spray them with an oil spray to destroy larvae.

During November and on into January give liquid manure to fruit trees

of all kinds. Fruit trees may be pruned in November or in very early spring.

Cut out all crowded wood from fruit and rose trees and shrubs.

The foliage of house plants must be kept free of insects. Spongo the leaves with a soap solution to which a good tobacco extract has been added. This will destroy white scale, red spider, mealy bug and green fly.

To keep the foliage of yellow privets from being stung and the leaves curling up and dying spray with a solution made as follows: One gallon of water, made soapy with a whale oil soap, one teaspoonful of nicotine sulphate and one teaspoonful of formaldehyde. Spray once a week and it will keep the foliage perfect. This has been proved and found satisfactory.

When ordering strawberries remember to order both staminate and pistillate varieties to insure fertilization. Prepare the bed by double digging, using well rotted manure. Strawberries need protecting from the birds. An old tennis net properly spread will answer for small beds. Scarecrows may be helpful.

Give a mulch of manure to raspberries, blackberries and other cane fruits.

Trench and manure all vacant land. Destroy every remaining weed, and keep the soil well cultivated, so that weed seeds cannot germinate and grow.

Burn all in the garden that will not rot into manure—all woody or fibrous matter. Add the ashes and charred remains to the manure heap.

Mushrooms may be grown in any ordinary cellar; the important point is fresh stable manure for the bed. Do not let them get really dry. Use new culture spawn.

To get rid of weeds on the lawn fill an oil can with kerosene or gasoline and pour a few drops on the centre of each weed. This is easier than cutting or pulling, and after one application the weeds turn brown and die off.

Look over the tender bulbs that are stored for the winter, such as dahlias, cannas, gladiolus and the like. Frost will surely destroy them, while too much heat or moisture will start them into growth before planting time returns.

Onions can be improved in size by partially breaking the tops down just above the bulb. This is best done by bending the tops over with the

hand until the stem doubles. Do not loosen the roots.

Crops that remain in the ground, such as Swiss chard and parsnips, should have a top dressing occasionally, with a strong fertilizer to prevent them from becoming tough. Soluble fertilizers are more available.

Lettuce runs to seed rapidly during the hot months, but a board placed over the row, supported so that it will be a few inches above the tops, will reduce the losses. The boards should be taken off during a shower.

After beets have been lifted and are ready for storage do not cut off the tops in the usual way, but twist the foliage off. This prevents loss of colour during the cooking process.

Rhubarb may be forced in the cellar or attic by planting good sized clumps in barrels or boxes and placing them beside the furnace or chimney. The soil should be kept moderately moist.

The temperature of a greenhouse varies with the crop grown. Delicate plants, such as begonias, ferns and palms, prefer a temperature of about sixty-five degrees by day and sixty degrees at night. Cool crops, such as cyclamen, primroses, cinerarias, bulbs and sweetpeas, prefer fifty-five degrees during the day and fifty degrees at night. Violets prefer a temperature not over fifty degrees in the day time and forty-five degrees at night. This means continuous ventilation during the greater part of the day. This, of course, depends upon the warmth of the sun. It is difficult to grow a wide range of cut flowers in the greenhouse because of these varying temperature requirements.

In recent years considerable experimental work has been done with the use of acid to hasten or encourage the rooting of cuttings. Sugar in the water hastened the rooting of *Buddleia*. Vinegar (acetic acid) has been found helpful.

All potted plants bloom better and more profusely just after they become potbound, that is, when the entire pot is filled with roots. To make up for the lack of food the plants should be given a stimulant. An excellent fertilizer for this purpose may be made up of one pound of potassium nitrate to half a pound of acid phosphate. Water the plants every two to three weeks with one teaspoonful of this fertilizer

to one gallon of water. Regular watering is also necessary.

All new plantings should be heavily mulched with manure. This not only serves to protect the plants by reducing the penetration of the frost but increases the fertility and productiveness of the soil as well.

If cold weather prevails it is well to look after the vegetable trenches and transplanted seedlings and make sure that the frost is not injuring the roots, thus loosening the plants.

In cutting narcissus, tulips, hyacinths and jonquils always leave the foliage. Unless this is allowed to wither naturally the strength and flowering ability of the bulbs will be greatly impaired.

Muscari and several other kinds of small spring flowering bulbs readily seed themselves under favourable conditions. The seed can be collected when ripe.

The sensible cutting of flowers does no harm to plants. One of its effects is to prolong the blossoming season through delaying the normal formation of the seeds.

The old fashioned elephant's ear (*Caladium*) in conjunction with the castor oil bean (*Ricinus*) produces wonderful tropical effects. Plant the castor oil beans two or three feet from the house wall, then in front of them another foot or so out set the *Caladium* bulbs eighteen inches or two feet apart. Give an abundance of manure and water freely during the summer.

The densest foliage for porches and verandahs is that produced by the Dutchman's pipe. Grape foliage is just as effective a screen, and, with a little care in pruning, also a little spraying for insects and disease at the proper time, will reward the grower with fine bunches of fruit (North China). The fastest growing vine is the Kudzu.

Flowers for the house should be gathered in the early morning while they are still fresh from the night's coolness and moisture. Plunge their stems into water immediately.

A most satisfactory cut flower is the gladiolus. It is not, however, a good bedding flower. It is better to grow it in rows in the vegetable garden, where it can be cultivated and cared for in the same way as corn and potatoes.

Oriental poppies are more or less dormant a month or so after they have

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bloomed. They should be planted or transplanted before the new growth starts (about September).

A bird bath is the surest way to attract the various desirable birds. Even in winter birds enjoy their fresh water and bath. We here in our Shanghai garden heartily endorse the idea of a bird bath. Wild doves, sparrows, jays and innumerable other birds gather all day even in winter along our bird bath edge, and drink and bathe and prunce their feathers. They then fly to the holly bush for a bright berry, return to the bath or to the suet tied up in a bare *Catalpa* tree near by and enjoy a glorious feed. The leftover seeds and corn from the canaries' cages are all placed in feeding pans,

out of Tommy's reach, so that the birds can enjoy a meal at leisure. And we appreciate then more and more T. E. Browne's exquisite sentiment expressed in the well known lines:

A garden is a lovesome thing,
God wot!
Rose plot,
Fringed pool,
Fern'd grot—
The veriest school
Of peace; and yet the fool
Contends that God is not—
Not God! in gardens! When the eve
is cool?
Nay, but I have a sign;
'Tis very sure God walks in mine.

L. L.

SOCIETIES AND INSTITUTIONS

THE SHANGHAI SOCIETY FOR THE PREVENTION OF CRUELTY TO ANIMALS

Officers and Activities: The following list of officers and notices regarding the activities of this Society were issued to the local press in the latter part of January, and we trust that all our Shanghai readers will take note and do everything in their power to assist the Society in its aim:

A. W. Burkill, Esq., O.B.E.
President of the Society
K. E. Newman, Esq.,
Chairman of the Committee
R. N. Swann, Esq., *Hon. Treasurer*
Miss C. N. Ferguson, *Secretary*
Inspector E. A. Eva,
Police Inspector (Traffic Dept.).

All enquiries or reports should be forwarded to:

The Secretary, c/o Clarke's Inquiry & Protection Agency, Room 302, 307.

Glen Line Building, 2, Peking Road, Tel. 10092, or to

Inspector Eva,
Traffic Dept., S. M. Police.
Tel 15380

Any stray animals found in an injured or emaciated condition may be taken to the Hospitals of either of the following Veterinary Surgeons:

Dr. J. E. Edgar,
(Keylock & Pratt, 75 Gordon Rd)

Dr. F. G. Philipp,
(1001, Yu Yuen Road)

Dr. Hyodo,
(90 Yue Ching Fong, North Szechuen Road, opposite Darroch Road).

Dr. Taniguchi, (27 Rue Massenet) who will have the animals painlessly destroyed; charges for same being defrayed by the Society, when neces-

SOCIETIES AND INSTITUTIONS

sary, and if immediately reported to the Secretary.

Motor vans and/or hand carts for transporting injured dogs and cats, can be obtained by telephoning the nearest Police Station, and the Municipal Council Van for transporting larger animals, can be obtained by telephoning No. 43047.

Subscription for membership of the Society \$2.00 per annum. Juniors \$1.00, should be forwarded to the Secretary.

An increase in the membership of the Society and the support and co-operation of the Public are earnestly solicited.—*N.-C.D.N. Jan. 19, 1933.*

THE ROYAL ASIATIC SOCIETY, NORTH CHINA BRANCH

Opening of New Building: Plans have almost been completed for the opening of the new building of this Society on February 23, when the Auditorium and Library will be in readiness. Owing

to the shortage of funds, however, it has been found impossible to proceed with the installation of cases in the Museum, which thus cannot be ready for the public for some months to come.

EDUCATIONAL NOTES AND INTELLIGENCE

Proposed New Education Scheme for China: A scheme designed to revolutionize and ameliorate the existing educational system in China, said a *Reuter* telegram from Canton dated January 7, has been drawn up by the Educational Reform Commission attached to the South-west Political Council and approved by the South-west authorities, its salient features being (1) the abolition of the present long winter and summer vacations; (2) the curtailment of the number of academic years to five years in primary schools, five years in middle schools and three years in college; (3) the division of the academic year into four terms instead of as at present into three; (4) with one week's holiday at the termination of each.

Tsing Hua Examinations Held: In spite of opposition from the students, stated a message from Peking dated January 12, Tsing Hua University held its semi-annual examinations on January 11 according to schedule, although only a third of the nine hundred students enrolled took the tests. Those who failed

to attend the examinations had absented themselves on the plea of being too fully occupied with patriotic activities with regard to the Sino-Japanese situation. In an interview published in the Peking press, the Vice-minister of Education, the message said, pointed out that previously the same students had posted placards urging the people to insist that their government adopt a firm attitude. Yet they were the first ones to flee from Peking, before the Japanese troops had even approached that area.

Shanghai Commercial School expanding Work: To meet the growing demand of the community the Downtown School of Commerce of Shanghai University is expanding its programme to include many new courses in its curriculum, an increase in its library, the promotion of vocational guidance and student self-help projects, and an increase in scholarship funds to help poor but worthy students. New teachers have been invited to instruct in the following subjects: commercial law, sales administration, finance and trans-

THE CHINA JOURNAL

portation. Last term the enrollment was over five hundred and twenty. The entrance examination for the spring term, commencing February 10, will be held on February 3.

Hongkong University Examination Results : That a considerable number of Shanghai candidates successfully passed the Hongkong University examinations held here last November was shown when Mr. R. F. C. Master, local agent for the University, issued the results on January 6. One Chinese student matriculated with honours, while nine others passed this examination. Six students passed the senior and twenty-three the junior examination.

Education in Russia : A *Tass Mail* message from Moscow published on January 23 in the *China Press* stated that the number of primary and middle schools in Russia had increased from 78,847 in 1914-15 with 5,200,000 pupils to 152,654 in 1933 with 17,639,000 pupils. It also pointed out that the system of schools in the various national republics, hitherto very backward in the matter of education, is developing with exceptional rapidity; while the introduction of the system of universal primary education is being completed in almost every part of the country this year, and great progress has been made in obtaining general literacy, even in sections where the public was previously totally illiterate.

PUBLICATIONS RECEIVED

Books :

The Museum of Far Eastern Antiquities, Bulletin No. 4 Stockholm.

Sons, by Pearl S. Buck : The John Day Co., New York.

The Man Who Went on Business, by Norman Tiptaft : E. Goodman & Son, The Phoenix Press, Taunton, England.

Periodicals :

Mid-Pacific Magazine—Chinese Medical Journal—Chinese Economic Bulletin—Tourism—The Shipping Review—La

Revue Nationale Chinoise—The Annals and Magazine of Natural History—The Modern Review—The Metropolitan Vickers Gazette—The Journal of the Society of Chemical Industry, Japan—Chiao-Tung University Special Bulletin—Science—The Chinese Recorder—Lloyd Mail—The Naturalist—The Manchuria Monitor—The Leper Quarterly—Bulletin des Institutions Royales d'Histoire Naturelle—Man—The Travel Bulletin—Far Eastern Review—World Unity—American Journal of Science—Discovery—Report of the Secretary of the Smithsonian Institution 1932—Chengtzu News Letter.

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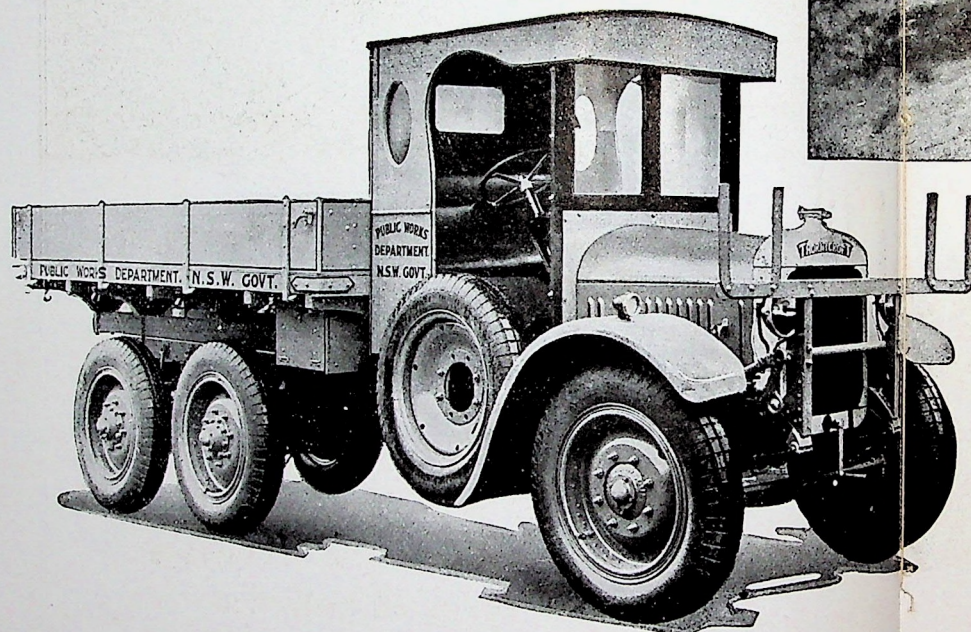
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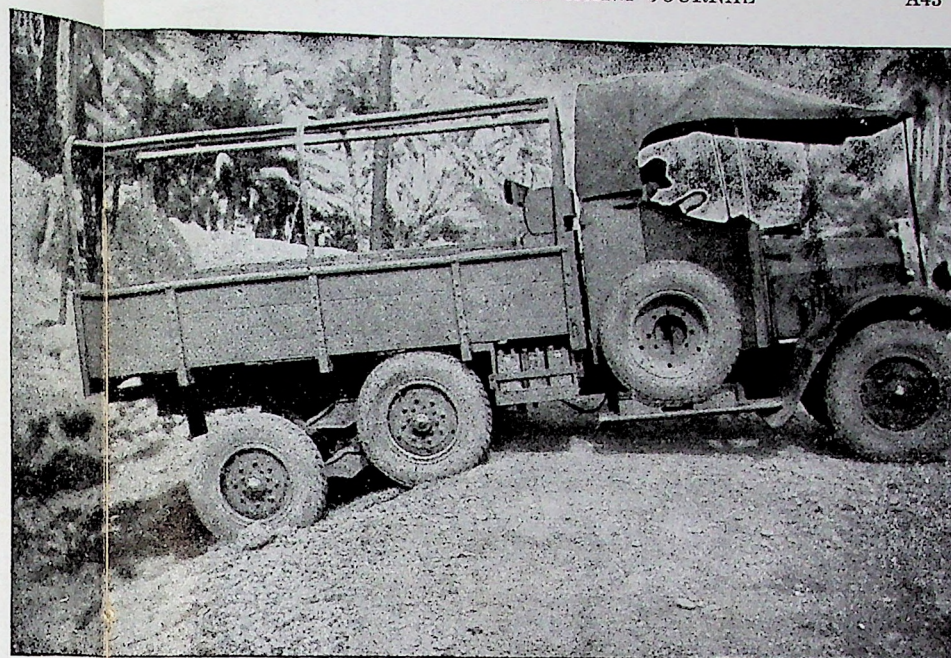
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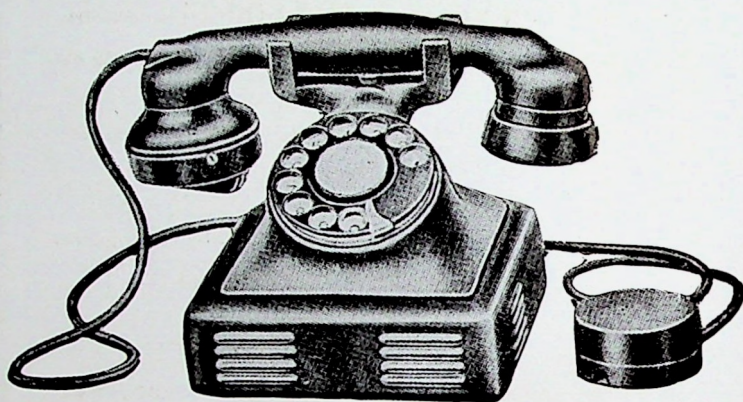
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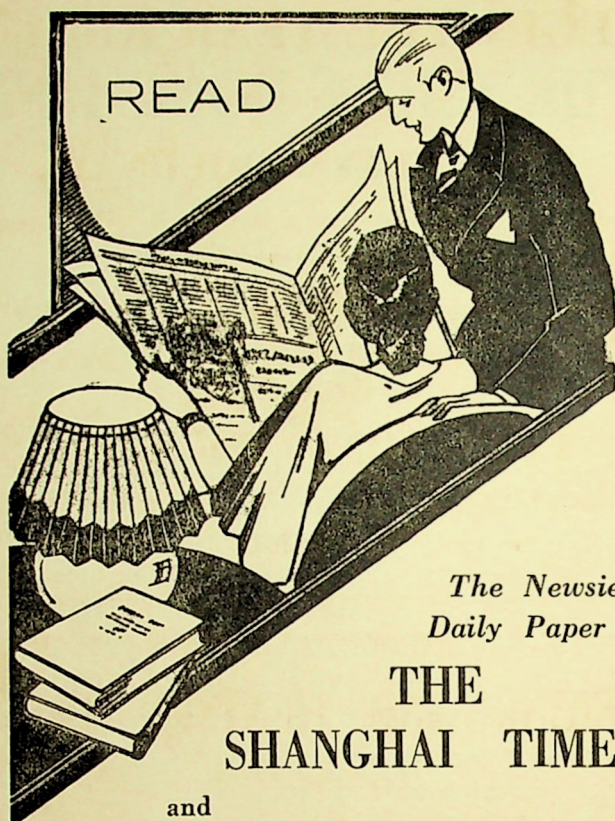
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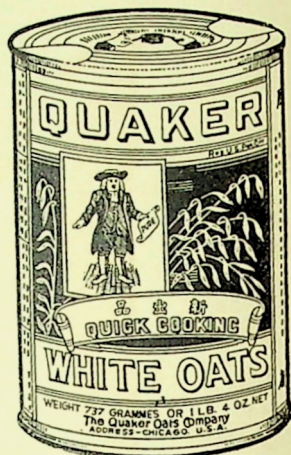
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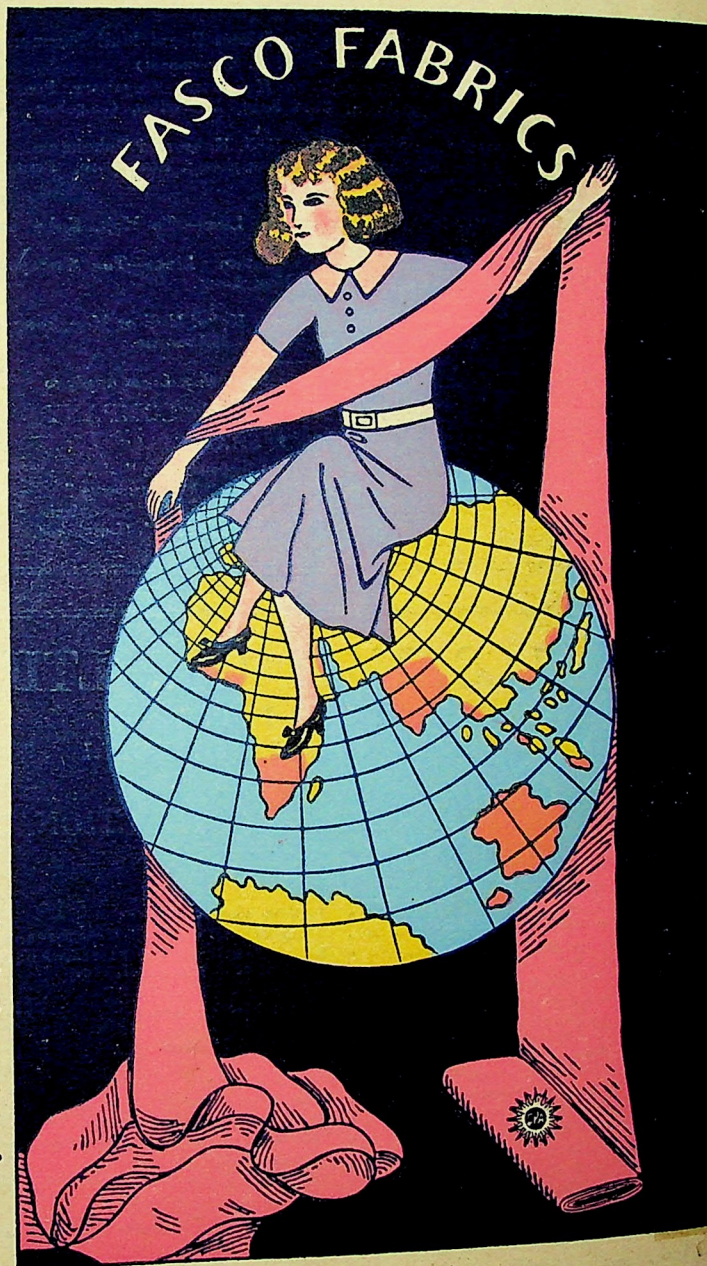
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