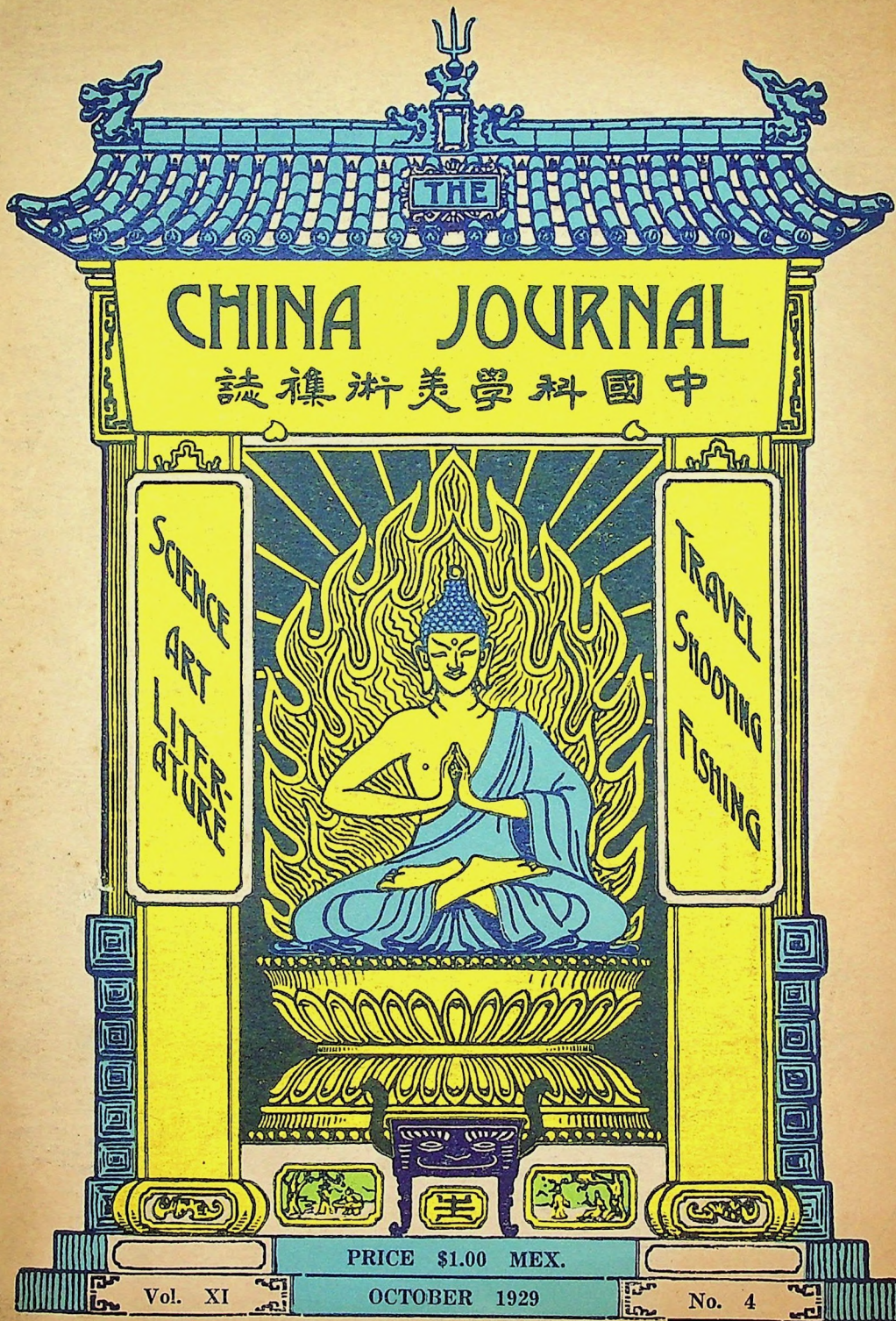




THE CHINA JOURNAL

中國科學美術雜誌

SCIENCE
ART
LITERATURE

TRAVEL
SHOOTING
FISHING

PRICE \$1.00 MEX.

Vol. XI

OCTOBER 1929

No. 4

ARTS & CRAFTS

LUXURIOUS PERSIAN RUGS
AXMINSTER AND WILTON
CARPETS

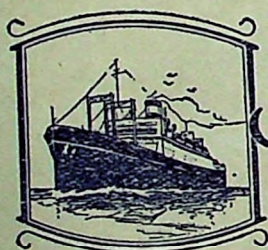
ART FELTS AND UNDERFELTS

HUGE STOCKS FOR YOUR INSPECTION

ARTS & CRAFTS, LIMITED
(Incorporated in Hongkong)

CARPET IMPORTERS

43 BUBBLING WELL ROAD, SHANGHAI



Sail On the
**PRESIDENT
LINERS**

TO SAN FRANCISCO VIA HONOLULU
"THE SUNSHINE BELT"

TO EUROPE AND NEW YORK VIA SUEZ
"THE NEW WAY TO AMERICA"

TO SEATTLE AND VICTORIA
"THE FAST SHORT ROUTE"

For Passenger and Freight Rates Apply to
**DOLLAR STEAMSHIP LINE
AMERICAN MAIL LINE**

SHANGHAI—TIENTSIN—HANKOW—HONGKONG—MANILA—SINGAPORE—
TOKYO—YOKOHAMA—KOBE.

On Steamer, Train or Foot



Take It With You

UNDERWOOD PORTABLE
with *4 Bank* STANDARD KEYBOARD

BUSINESS APPLIANCE DEPARTMENT OF
DODWELL & CO., LTD.
1 CANTON ROAD SHANGHAI

Through Healthy Infancy to Sturdy Childhood

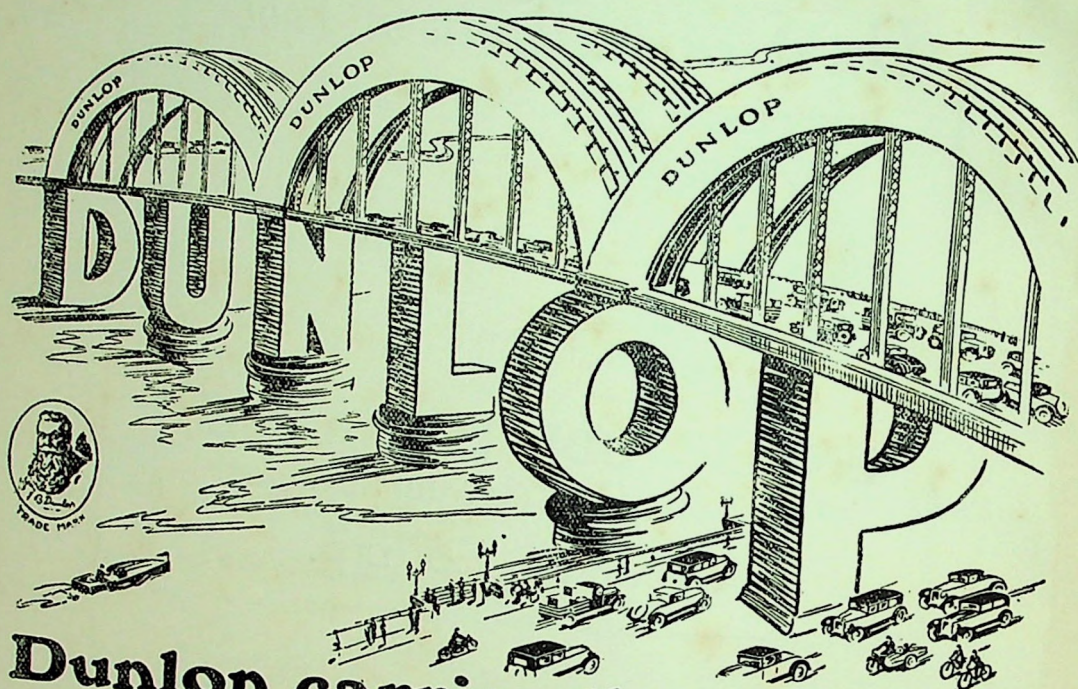
'Allenburys'
Progressive System of Infant Feeding

is modelled on Nature and provides a food adapted to each stage of Baby's developing digestive powers.

From birth to three months 'Allenburys' No. 1 Milk Food, which is practically identical with mother's milk, is employed. From three to six months 'Allenburys' No. 2 Milk Food, containing additional phosphates and albuminoids. At the end of the sixth month the developing digestive capacities of the child call for something more than milk, and this is provided for by Malted Food No. 3.

Write for a free copy of 'Infant Feeding and Management' and a sample of food. Please state Baby's age.

Allen & Hanburys Ltd., SHANGHAI



Dunlop carries the Traffic!

Obtainable from all Garages

Play with the Black Maxfli Golf Ball
and the Dunlop Tennis Ball

They will improve your game

SHIRTS MADE TO MEASURE

THE REPRESENTATIVE STORE
OF THE PRODUCTS OF JAPAN
IN FINE ART AND CURIOS.

乙號六十二路西江海上

村
上
洋
行



SHANGHAI

村上洋行 MURAKAMI

26^B KIANGSE ROAD TEL. 12319



BEAR IN MIND THE

G.E.C.

THE GENERAL ELECTRIC CO. (OF CHINA), LTD.
1 and 2 NINGPO ROAD, SHANGHAI

When Requiring

ANYTHING ELECTRICAL

From a Lampholder to a Complete Power Station



THE MARK OF
RELIABILITY AND SERVICE
Tel. 61606

THE OXFORD ENGLISH DICTIONARY

The New English Dictionary on Historical Principles is the only completed dictionary of any language which attempts to trace the history and meanings of every word from the earliest times to the present day, or to present the evidence on which its articles are based, in actual quotations drawn from the whole of literature.

15,488 pages

24 million words

\$600.00

OXFORD UNIVERSITY PRESS

Amen House, Warwick Square, London, E.C. 4

44 Peking Road, Shanghai

DISCOVERY

A Monthly Popular Journal of Knowledge

Trustees:

Sir J. J. THOMSON, O.M., F.R.S. Sir F. G. KENYON, K.C.B., F.B.A.
Prof. A. C. SEWARD, SC.D., F.R.S. Prof. R. S. CONWAY, LITT.D., F.B.A.

We will send a Free Specimen copy of "Discovery" to anyone anywhere. All you have to do is to send us a Post Card with your name and address. The copy will be sent by return of post.

Annual Subscription: 13s. 6d. post free.

BENN BROTHERS, LIMITED.

Bouverie House, Fleet Street, London, E.C.4, England

ILLUSTRATED

1/-

MONTHLY

It's
BETTER



to buy

CAPSTAN
CIGARETTES

This advertisement is issued by the British-American Tobacco Co. (China) Ltd.

EB-938

**ROSE, DOWNS &
THOMPSON (Far East),
LIMITED**

29 CANTON ROAD,
SHANGHAI

**ENGINEERS AND
MACHINERY
MERCHANTS**

**LARGE AND
COMPREHENSIVE
STOCKS CARRIED**

*Sole Agents for Leading
British Manufacturers*

**THE NATIONAL CITY BANK
OF NEW YORK**

Head Office :

55 Wall Street, New York,
U. S. A.

**CAPITAL, SURPLUS AND
UNDIVIDED PROFITS
over U.S. \$235,000,000.00**

Branches in :

ARGENTINE	INDIA
BELGIUM	ITALY
BRAZIL	JAPAN
CHILE	MEXICO
CHINA	PANAMA
COLOMBIA	PERU
CUBA	PORTO RICO
DOMINICAN	STRAITS
REPUBLIC	SETTLEMENT
LONDON	URUGUAY
FRANCE	VENEZUELA

**1-A KIUKIANG ROAD,
SHANGHAI**

**THE
SHANGHAI LAND INVESTMENT CO., LD.**

(Incorporated under the Companies Ordinances of Hongkong)

PROPERTIES TO LET AND FOR SALE

**GODOWNS SHOPS
OFFICES HOUSES
APARTMENTS**

28 JINKEE ROAD, SHANGHAI

Manager: N. L. SPARKE, F.S.I.

Agents: GIBB, LIVINGSTON & CO., LTD.



7 Good Reasons for using

Agfa

ROLL FILMS FILM PACKS

- 1 High Sensitiveness to Light Action,
i.e.—Speed.
- 2 Latitude,
i.e.—Indifference to under or over exposure.
- 3 Gradation,
i.e.—Absence of heavy contrast.
- 4 Orthochromatic Qualities,
i.e.—The ability to reproduce the colour values of the picture in Monochrome (Black and White).
- 5 Uniformity of Manufacture,
i.e.—Ensuring an endless chain of correct results.
- 6 Non-Curling,
i.e.—A patented process preventing this annoying trick when developing and printing.
- 7 and lastly—*Agfa Films do not have the distressing halation fault,*
i.e.—The ghostly aura which is so often seen round the edges of the more brightly illuminated portions of the picture.

Agfa Rolls and Film Packs fit any size or make of camera.

E. LEITZ, OPTICAL WORKS**WETZLAR, GERMANY**

- MICROSCOPES** for Biology
MICROSCOPES for Metallography
MICROSCOPES for Mineralogy
MAGNIFIERS Stereoscopic and plain binocular, hand-lenses, etc.
DISSECTING Microscopes
ACCESSORIES to Microscopes
COLORIMETERS and other apparatus for clinical investigations.
MICROTOMES Different types, for Paraffin, Celloidin and frozen preparations.
MICROPHOTO Apparatus and Accessories for any purpose.
PROJECTION Apparatus, Epi- and Diascope, Micro-projection.

*Known as the Best German Workmanship.***E. MERCK, CHEMICAL WORKS****DARMSTADT, GERMANY**

- CHEMICALS** Pharmaceutical, famous for their purity. Specify E. Merck's, when purchasing.
MEDICINES Prescribed all over the world. E. MERCK'S are tested before being put on the market. Samples furnished.
REAGENT Chemicals have no rivals. E. MERCK'S guarantee 100% results.
SCIENTIFIC Chemicals are employed extensively in all up-to-date laboratories, especially for research.

E. Merck's are the standard and cost no more.

Sold at the best Drug-stores. Specify what you want, specify MERCK'S.

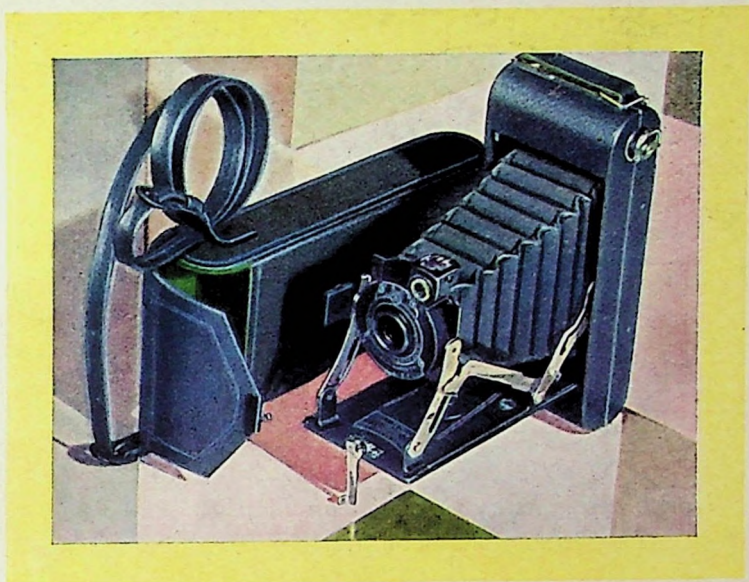
*Sole Agents :***SCHMIDT & CO.**

No. 1 Nanking Road
 SHANGHAI

No. 52 Taku Road
 TIENTSIN

No. 1 Hsi Tang Tze Hutung
 PEKING

Sub-Agent : E. BECHLER
 3rd Special District
 HANKOW



*Gifts of Novelty,
Beauty and Distinction*

No. 1a Pocket Kodak smartly styled in brown, beige, blue or gray leather. The case is specially designed of leather, same colour as the camera, and is lined with rich velvet and has two interchangeable straps (one for the wrist and one for the shoulder). All in four-colour gift box.

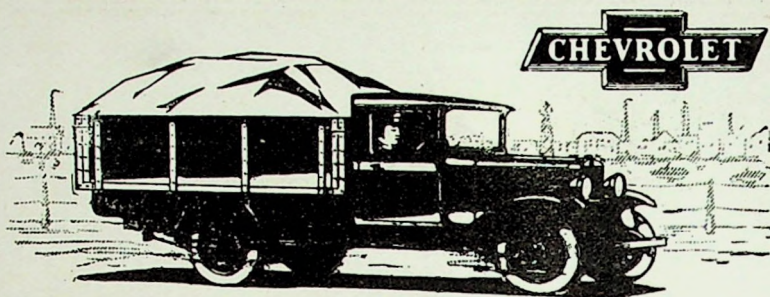
Kodak offers you the smartest array of gift selections that have ever left the hands of its craftsmen.

As to price, you may pay almost anything you have a mind to, for they range from the unassuming Brownie to the finest Ciné-Kodak home movie outfit. As to colour there is a tint to suit any temperament.

KODAKS IN COLOUR

EASTMAN KODAK COMPANY
SHANGHAI ... TIENTSIN ... HONGKONG

CHEVROLET IS A PRODUCT OF GENERAL MOTORS



Motor transportation advances the economic progress of China

*National Highway Commission plan 100,000 li
of roads to be completed within three years*

GENERAL Motors believes that the motor car is one of the greatest creators of wealth in the world. The well planned program of the National Highway Commission for the completion of 100,000 li of roads within three years shows that the leaders of China are making every effort to take advantage of motor transportation.

The United States with a population of 120,000,000 has over 3,000,000 miles of motor roads and 25,000,000 automobiles—one for every five people in the country. China has only one motor car for every 17,000 persons but with the completion of these new roads the number of cars which will come to China will increase by leaps and bounds.

General Motors, with its research laboratories, its 1245 acre proving ground, its vast financial resources, and its numerous trucks, buses, and passenger cars, has been continually active in promoting motor transportation throughout the world, and now it is serving China with equal enthusiasm. With its policy of a bus, truck, or passenger car for every purse and purpose General Motors feels that it can make a real contribution to the economic progress of China.

General Motors China Inc.



GENERAL MOTORS



The world's lowest priced six cylinder truck....

*Buy
genuine parts only
from
authorized dealers*



NOT only does the new six-cylinder $1\frac{1}{2}$ ton Chevrolet Truck provide an outstanding combination of capacity, performance and appearance.....

.....but it is sold at the lowest price ever placed on a six-cylinder commercial car of equal capacity.

By combining capacity, performance, appearance and economy the Chevrolet six-cylinder $1\frac{1}{2}$ ton truck meets the four fundamental requirements that you demand of a truck, to a greater degree than any other.

HARTZENBUSCH MOTOR COMPANY

Shanghai

UNITED MOTORS CORPORATION

Mukden

CHIH LI MOTORS LIMITED

Tientsin

ARNHOLD & CO., LTD.

Hankow

CHINESE AMERICAN
AUTOMOBILE COMPANY

Harbin

LIAOTUNG MOTORS COMPANY

Dairen

CASEY & LYTTLE

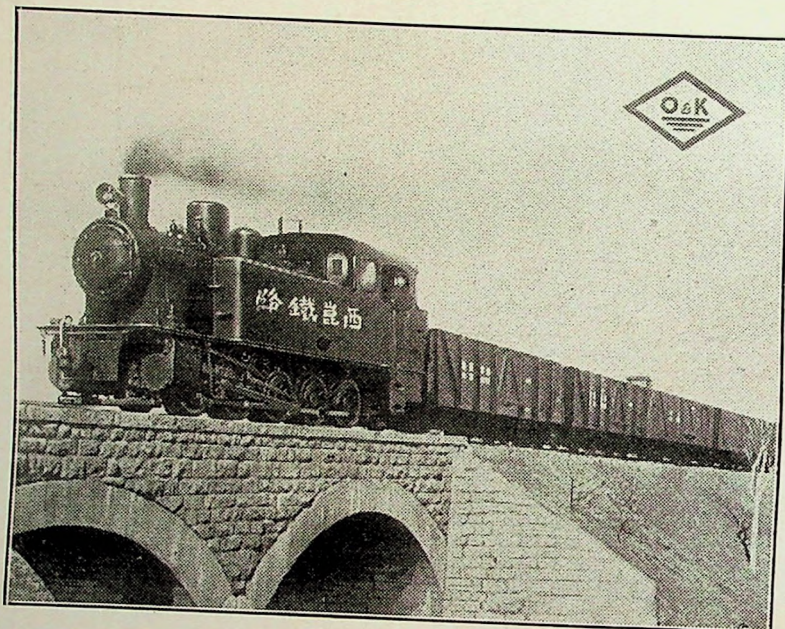
Tsingtau

NATIONAL MOTORS

Nanking

CHEVROLET IS A PRODUCT OF GENERAL MOTORS

ORENSTEIN
& KOPPEL A.G.
BERLIN—GERMANY—



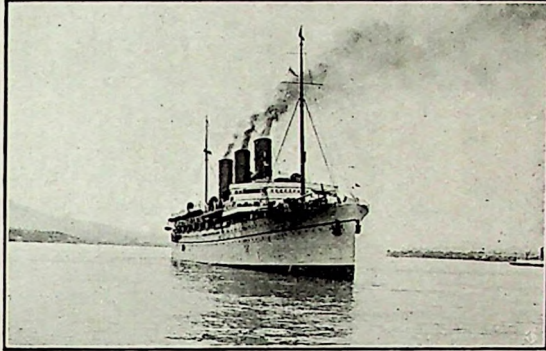
MANUFACTURERS OF
RAILWAY MATERIAL
STANDARD AND NARROW GAUGE

Agents :

SIEMSEN & CO., SHANGHAI

HONGKONG	CANTON	TIENTSIN	HANKOW
PEKING	MUKDEN	TAIYUANFU	TSINGTAO

The delicious Food Served at Every Meal, the Refined Luxury and Quiet Taste that make the Rooms on Board so Attractive and the Good Service Induce Experienced Travellers to Sail on Empress Liners



THE EMPRESSES ARE

The Largest and Fastest Liners Across the Pacific and Connect with Canadian Pacific Railway for all points in Canada, the United States and Canadian Pacific Atlantic Services to Europe. Through tickets issued, Sleeping Car and Hotel reservations made.

For further particulars please apply to

CANADIAN PACIFIC

THE WORLD'S GREATEST TRAVEL SYSTEM

WHITSONS LIMITED

INCORPORATED UNDER THE HONGKONG COMPANIES' ORDINANCES

35 CANTON ROAD, SHANGHAI

**Merchants, Commission Agents
and General Importers**

Telegrams :

"ANGLOESE"

Telephones :

13768

13785

Codes :

A. B. C. 5th Ed.

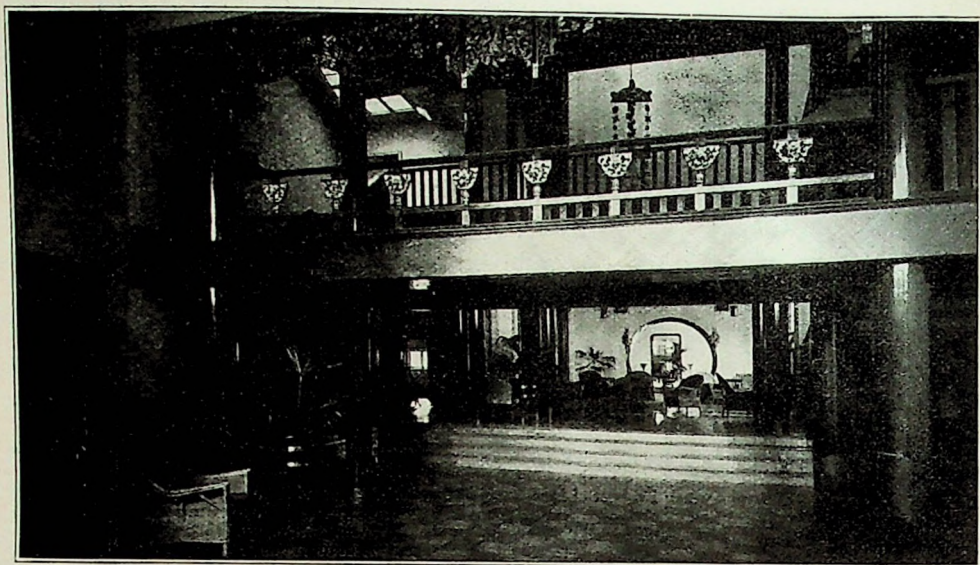
ACME

BENTLEY'S

SCHOFIELD'S

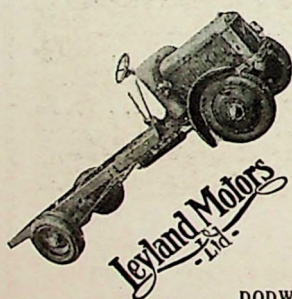
UNIVERSAL TRADE

**COTTON, WOOLLEN and SILK PIECE GOODS
ARTIFICIAL SILK and WOOL YARNS
LEATHER, METALS, GENERAL MERCHANDISE**

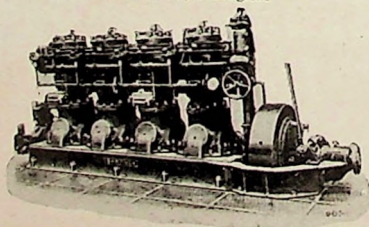
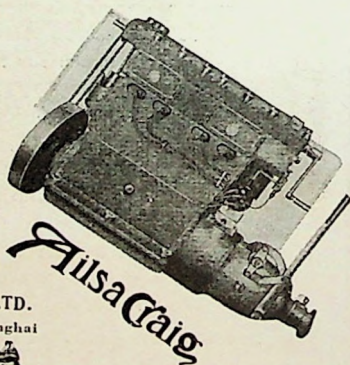


The Vestibule: THE COURT HOTEL, Tientsin, North China

The latest and most up-to-date hotel in Tientsin, situated in the centre of the British Concession. Complete with central heating, modern sanitation and plumbing, hot and cold running water in bedrooms.



Sole Agents
for China:
DODWELL & CO., LTD.
26 Canton Road, Shanghai



GARDNER
HEAVY
OIL
ENGINES



FEW will question the opinion of Connoisseurs of art that the gifted old Frenchman Rene Lalique, who is responsible for these wonderful creations, is the world's greatest living artist in glass.

*{ Lalique in its many forms, Motor
Mascots, Electroliers, Wall Lights,
Table Lamps, Vases, Table Glass,
etc., is obtainable only from }*

THE ALEXANDER CLARK CO., LTD.
CENTRAL SASSOON ARCADE

We gladly offer our advice on Matters of Decoration

Les Parfums de Mury

PARIS

NARCISSE
BLEU



"Narcisse Bleu," the delicate debutante perfume of Mury is absolutely the scent above praise. It is the favourite therefore of all fashionable ladies in Europe.

*Obtainable
In all leading stores.*

Write for Courtesy
Samples to the
China Agency:

G. GMEHLING & CO.

Shanghai
74 Szechuen Road

"PATRICIA"
expressing the
sweet charms
of naive
simplicity.



"NOTTURNO"

the captured, soft, velvety mystery of night.

THE CORNHILL INSURANCE COMPANY, LIMITED

Head Office:—32 CORNHILL, LONDON, E.C.3.

**FIRE, MARINE, MOTOR CAR,
ACCIDENT, HOUSEHOLDERS,
TRAVELLERS' BAGGAGE, ETC.**

BRANCH OFFICE FOR THE FAR EAST
CHARTERED BANK BUILDING,
18 THE BUND, SHANGHAI

Telegrams:
"COHESIBLE"

S. H. PEEK,
Manager.

CUMINE & CO., LTD.

(Incorporated in Hongkong.)

LAND, ESTATE AND INSURANCE
AGENTS

HEAD OFFICE:
No. 48 Szechuen Road, Shanghai

Telephones: 61195-6
Tel. Add.: COLUMNA, Shanghai
P. O. Box: No. 1457

This Company undertakes:—

1. Management of Properties
2. Collection of Rentals
3. Arrangement for letting Houses
4. Registration of Land
5. Negotiation of Mortgages. Sales and Purchases of Properties
6. Agencies for Summer Resorts in China
7. Fire Insurance Transactions
8. Advising on Investments (Mortgages, etc.)
etc., etc.

Agents for:

The West End Estates, Ltd.
The Central China Commercial Co., Ltd.
The Canton Insurance Office, Ltd.
The Shanghai Mercury, Ltd.

EASTERN ENGINEERING WORKS, LTD.

4 London Road, Tientsin
12 Szechuen Road, Shanghai

**ENGINEERS AND
GENERAL
CONTRACTORS**

"Independent" Sprinkler
Installations, "Zerolit"
Water-softeners

If you are interested in Heating,
Sanitation, Artesian Wells or
Water Supply: If you require
Engines, Boilers or Steel Structural
Work: If you need Oxy-Acetylene
or Electric Welding—Apply to us.

**ESTIMATES AND
PARTICULARS FREE**

JARDINE, MATHESON & CO., LTD.

General Merchants

Importers and Exporters

Head Office : HONGKONG

SHANGHAI—NEW YORK—YOKOHAMA—KOBE

BRANCHES THROUGHOUT CHINA

General Managers :
Ewo Cotton Mills, Limited

Proprietors:
Ewo Silk Filature
Ewo Cold Storage Company
Ewo Press Packing Company

General Agents :
Shanghai and Hongkew Wharf Company, Limited
China Sugar Refining Company, Limited

SHIPPING :

General Managers :
Indo-China Steam Navigation Company, Limited

INSURANCE :

General Agents :
Canton Insurance Office,
Limited

General Managers :
Hongkong Fire Insurance
Company, Limited

NORDDEUTSCHER LLOYD, BREMEN

Melchers & Co.,

SHANGHAI

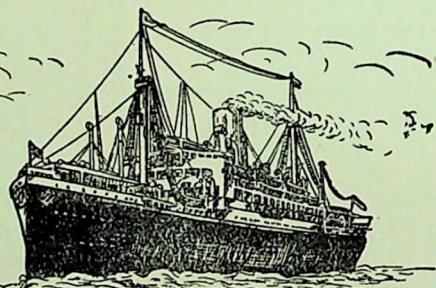
General Agents for
the Far East.

19-20 Kiukiang Rd.

Phones :

Central 67207-10

Also at Hankow,
Tientsin, Tsingtao
and Hongkong.



Fast and Regular Freight and Passenger Service

Between

TAKU BAR, DAIREN, TSINGTAO, SHANGHAI, HONGKONG,
MANILA, SINGAPORE, BELAWAN, COLOMBO, PORT-SAID,

and

GENOA, MARSEILLES, ROTTERDAM, HAMBURG, BREMEN.

Five passenger-boats of 9500 Gr. Reg. tons each:

S/S "DERFFLINGER," S/S "SAARBRUECKEN," S/S "TRIER,"
S/S "COBLENZ," M/S "FULDA"

Accommodation for 100 Cabin passengers and 140 middle class
and 15 freight steamers with accommodations for a few passengers.

Connection to all parts of the world. Through-bookings to U.S.A.

SAMUEL OSBORN & CO., LIMITED

Clyde Steel Works, SHEFFIELD

英 國 式 非 爾 埠
亞 斯 盤 鋼 鐵 有 限 公 司
喀 利 達 鋼 廠

SHANGHAI OFFICE: 2A KIUKIANG ROAD

Telephone 10104

P. O. Box No. 612

Tel. Add.: "HANDHEART—SHANGHAI"

上 海 分 公 司
九 江 路 愛 字 二 號
電 話 一 〇 一 〇 四 號
電 報 掛 號
"HANDHEART"
—SHANGHAI—
郵 政 信 箱 第 六 二 二 號

CORPORATE MARK

標 商



GRANTED 1833

心 手

Manufacturers of

"HAND AND HEART" BRAND FILES

"MUSHET" HIGH SPEED STEELS

TRAMWAY AND RAILWAY POINTS AND

CROSSINGS IN "TITAN" MANGANESE STEEL

DRINK
THREE BARREL
CASTILLON'S COGNAC BRANDY
 AND KEEP WELL.
 IT'S MELLOWED BY AGE
Sole Agents; **EGAL & CIE., SHANGHAI**



The most personal gift
YOUR PORTRAIT

CARSON



STUDIO

Portraits of Distinction

167 BUBBLING WELL ROAD

Phone : 30753

SPERMIN

is not a registered name, therefore you must be
 careful to select the best. Ask for

Dr. Freund's and Dr. Redlich's

SPERMIN

prepared by **Schering-Kahlbaum A.G.,**
Berlin

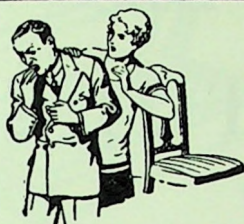
SOLD EVERYWHERE

Sole Agents for China:

THE FAR EASTERN DRUG TRADING CO.

9a HANKOW ROAD, SHANGHAI

Beware of Colds!



The organs of respiration are extremely sensitive, and are easily affected by colds and chills. Protect them and you protect yourself against grave risks. Hoarseness and coughing are early signs of a cold; bronchitis, bronchial catarrh, and congestion of the lungs soon follow. By strengthening the delicate respiratory organs, therefore, you ward off the danger of serious illness.

Take Guaiacose!

It protects against diseases of the respiratory organs and their consequences.

Guaiacose is a combination of Guaiacol and Somatose. The guaiacol exerts its healing influence on the organs of respiration, while the Somatose, by stimulating the appetite, gives the body the vigour necessary to resist and overcome disease.



BOLINDER'S

CRUDE OIL MARINE AND STATIONARY ENGINES

Direct Coupled Crude Oil Engines and Generators

The new BOLINDER'S Engine is the latest in Crude Oil Engines. No matter what service may be, driving a cargo boat or for generating electric light, the BOLINDER'S will do the work to your satisfaction. A cheap power and a business investment. For reliability and economy the BOLINDER'S engine cannot be beaten.

Sole Agent for China and Hongkong:—

G. S. JENSEN

91 SZECHUEN ROAD, SHANGHAI

BUY YOUR JADE
AT THE
JADE STORE

A LARGE SELECTION OF
ANTIQUE and
MODERN JADE
ORNAMENTS and
JEWELLERY

12A, NANKING ROAD

'Phone C. 3237

SHANGHAI

METAL
WINDOWS

CRITTALL MFG. CO.
LIMITED
(CHINA BRANCH)
SHANGHAI

AGENTS:

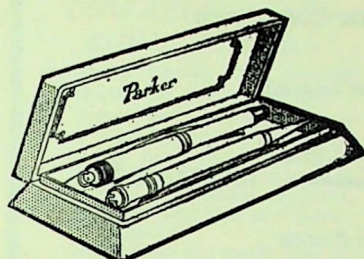
ARNHOLD & CO.	HONGKONG
JARDINE ENGINEERING	
CORP.	TIENTSIN
ARNHOLD & CO.	HANKOW
L. J. HEALING & CO. LTD.	TOKYO



From Stores

\$1.35 per lb. (net) Carton

Shanghai Ice & Cold Storage Co.



Whose
Birthday To-day?
 —to-morrow, next week,
 or next month?

Some of your loved ones—relatives or friends—no doubt, have birthdays soon. Don't forget them. Think how they will appreciate a Parker Duofold.

Pressureless Touch will win them to this pen—and to you, also, for your thoughtfulness and judgment.

28% lighter than rubber, the Duofold requires merely its own feather-light weight to bring it into immediate action on any kind of paper.

Finger pressure is relieved. No effort. No strain. No fatigue.

Barrels are of Parker Permanite—non-breakable! Parker Duofold benefits, therefore, are everlasting—as all good gifts should be.

Five flashing colours offer a wide choice. The genuine is always stamped, "Geo. S. Parker—DUOFOLD."

Sole Wholesale Agents:

DODGE & SEYMOUR
 (CHINA), LIMITED

3 Canton Road, Shanghai

Parker
Duofold



**THE FULL EFFICIENCY
 OF THE HEALTHY EYE**

over the whole range of vision you obtain by wearing Zeiss Punktal eye-glass lenses thanks to their scientifically computed new form, thanks also to their technically perfect and very precise manufacture by Carl Zeiss Jena.

Manufactured on a large scale and rational working methods help to produce a high class lens at a price which brings Zeiss Punktal Lenses within reach of everyone who cares for the comfort and well being of his eyes.

ZEISS
Punktal

**THE PERFECT EYE-GLASS
 LENS**

Ask your optician to fill in your next prescription with Zeiss Punktal Eye-Glass Lenses.

*Illustrated Booklet post free from the
 General Representatives:*

CARLOWITZ & CO.,
 OPTICAL-DEPT.

P. O. Box 1274



An Evidence of Public Confidence

New Insurance Issued

1918	_____	\$18,578,580.	
1923	_____	\$52,353,071.	
1928	_____		\$87,322,612.

Insurance in Force

1918	_____	\$108,572,703.	
1923	_____	\$246,716,731.	
1928	_____		\$453,323,912.

Assets

1918	_____	\$26,748,393.	
1923	_____	\$47,273,368.	
1928	_____		\$87,495,370.

Dividends to Policyholders

1918	_____	\$344,060.	
1923	_____	\$687,300.	
1928	_____		\$1,954,133.

THE
MANUFACTURERS LIFE
 INSURANCE COMPANY

Head Office; - TORONTO, CANADA

Shanghai Office :

343-5 Hongkong & Shanghai Bank Building

A. G. HEARNE,

District Manager.

BRANCH OFFICES IN CANADA, UNITED STATES, GREAT BRITAIN, INDIA,
 AFRICA, ASIA, JAPAN, PHILIPPINES, HAWAII, WEST INDIES,
 CENTRAL AND SOUTH AMERICA.

WRITE FOR COMPLETE COPY OF ANNUAL REPORT

LIBRARIANS AND BOOK BUYERS

ORIENTAL BOOKS AND ENGLISH
BOOKS ON EVERY SUBJECT

I shall be pleased to include
your library on my mailing
list, on receipt of a card.

Catalogues of new and second-
hand books issued regularly.
Send me your lists of "Books
Wanted."

Quotations are made free of
charge.

All orders are filled promptly,
accurately, and intelligently.

A trial order is solicited and
entire satisfaction guar-
anteed.

"ORIENTALIA," being a
Monthly List of New Books pub-
lished in all Parts of the World
dealing with the History, Philo-
logy, Travel, Arts, and all sub-
jects of interest concerning the
Orient. Subscription 5s. per
annum post free.

EDWARD GOLDSTON,

25 Museum Street, London, W.C. 1.

INSPECTION INVITED

DECORATIVE LINEN,
HAND-MADE LACE,
HANDKERCHIEF,
MONOGRAM,
DAMASK,
ETC.

C. T. TAI

Manufacturer and Exporter

185 Route Prosper Paris

(Near Siccawei)

Shanghai

Telephone West 2636



**MTSUI BUSSAN
KAISHA LTD.**

Capital Paid-up - Yen 100,000,000.00
Reserve - - - Yen 50,164,798.00

Cable Address:

"MITSUI"

Head Office:

TOKYO, JAPAN

Shanghai Branch:

49 Szechuen Road

Branches:

All over the World

IMPORTERS
SHIP-OWNERS

EXPORTERS
SHIP-BUILDERS

PRINCIPAL LINES
OF BUSINESS

Raw Silk and Silk Textiles,
Woollen Goods, Rayon and
Cotton Piece Goods, Spin-
ning and Weaving Machin-
eries, Starch, Tapioca and other
Dextrines, Chemicals, Dye
Stuffs and Fertilizers, Coal,
Cement, Lumber, Metals, etc.

H. OLIVEIRA & SON

SHOWROOM: 5 NORTH SOOCHOW ROAD

ENGINEERS AND MACHINERY
MERCHANTS

Specializing in

PRECISION TOOLS and SMALL TOOLS
OF ALL DESCRIPTIONS

Outport inquiries receive prompt and
careful attention



**DISTINCTIVE
EYEWEAR**

*for all
occasions.*

N. LAZARUS

OPHTHALMIC OPTICIANS

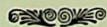
17 Nanking Road,
Shanghai

L. A. GARLAND

**High-Class
Gentlemen's
Tailor**

and

**Breeches
Maker**



**26 KIANGSE ROAD
SHANGHAI**

Telephone 12059

4 VITAL MORNING HOURS

Seven-tenths of the day's work is done before noon. Therefore, doctors, educators, employers urge the necessity of a nourishing first meal.

Quaker Oats possesses an ideal balance of nature's essential nutrients. 65% is energy-producing carbohydrate; 16% is muscle-making protein. In addition there are eight health-building minerals, and abundance of vitamins as well as the roughage, so essential to proper digestion.



Try serving Quaker Oats daily for the first meal. This delicious, perfectly balanced nutrient sustains the child in school, the business man, the factory worker, the housewife—all whose tasks fall heavily during the hours of the morning.

The Quaker Oats Company

1 KIUKIANG ROAD, SHANGHAI

Quaker Oats

Greater Comfort



*Improved Kotex is thoroughly comfortable
— cool and light*

THE improvements in Kotex took years to perfect. One is in the shaping of the pad

itself. No awkward bulkiness to mar the straight smooth lines that fashion dictates.

The other, fleecy softness that cannot irritate, cannot chafe or bind. The two mean comfort you have never hoped for.

Kotex was the first disposable napkin ever made. It is the only napkin in the world made from Cellucotton absorbent wadding.

Kotex deodorizes, too, and that ends worry. It is soft as down and light and comfortable, always.

Kotex is more than a sanitary napkin—it is a service to women. Get the Improved Kotex today. Kotex is simple to purchase *wherever you are.*

Deodorizes . . . and 4 other important features:

- 1—*Softer gauze* ends chafing; pliable filler absorbs as no other substance can;
- 2—*Corners are rounded* and tapered; no evidence of sanitary protection under any gown;
- 3—*Deodorizes*—safely, thoroughly, by a new and exclusive patented process;
- 4—*Adjust it to your needs*; filler may be made thinner, or narrower as required; *and*
- 5—*It is easily disposed of*; no unpleasant laundry.

KOTEX

The New Sanitary Pad
which deodorizes



7200

Agents for China: WM. GOLDING & CO.
64 PEKING ROAD, SHANGHAI

THE KAILAN MINING ADMINISTRATION

Telephone
C. 60317



12 The Bund,
Shanghai

BUILDING MATERIALS

FIREBRICKS

AND

FIRECLAY

—
"HYTEMPITE"

Special Fire Cement

DRAIN PIPES
Glazed inside and out

FACE BRICKS

PAVING BLOCKS
PAVING TILES

for Roads, Courtyards,
Stables, Godowns, etc.

WINDOW GLASS
(Factory at Chinwangtao)

16 oz. to 50 oz.
Best quality

C. REICHERT'S

HIGH QUALITY MICROSCOPES

FOR

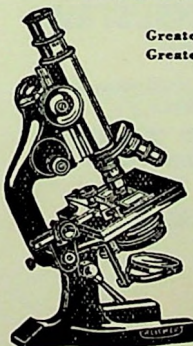
LABORATORY USE
AND RESEARCH WORK

of
Greatest Reliability
Greatest Durability

Also

Attachable
Micro-Camera,
Large Micro-
Photographic
Apparatus,
Minot Micro-
tome, Bright
and Darkfield
Condensers,
Compensation
Eyepieces, Oil
Immersion
Lenses, and
other
accessories.

Catalogues
will be sent on
application



Stocks Carried by
Sole Distributors for China

"K O F A"
AMERICAN DRUG CO.
FEDERAL INC., U.S.A.
120 Nanking Road, Shanghai

C. N. GRAY & CO.

39 A & B Kiangse Road

Telephone 17870

—
We have received
a large shipment
of Autumn and
Winter Suitings

TAILORS

AND

SHIRTMAKERS

NOW

IS THE TIME TO
USECRESCENT
COMPLETE
FERTILISERSCRESCENT
FERTILISERS

AND

CRESCENT SULPHATE
OF AMMONIA
IN YOUR GARDEN

Literature in English and Chinese on application to:—**IMPERIAL CHEMICAL INDUSTRIES
(CHINA), LIMITED***(Incorporated under the Ordinance of Hongkong)*CRESCENT
SULPHATE
OF
AMMONIA*Head Office:* BRUNNER, MOND BUILDING
41 SZECHUEN ROAD, SHANGHAI*Branches and Agents throughout China**Retail from:—*

DOMBEY & SONS, LIMITED

HALL & HOLTZ, LIMITED

WEEKS & CO., LIMITED

YOKOHAMA NURSERY CO., LIMITED

What you need to overcome the difficult climatical
conditions of the Far East is

**DR. WOLFF'S
HAEMATOPAN**

Sold by all leading Druggists'

Sole Agents :

THE FAR EASTERN DRUG TRADING CO.
9a HANKOW ROAD, SHANGHAI

In 1928

WE TRANSPORTED MORE THAN
HALF A MILLION
PASSENGERS IN SAFETY

TAYLOR GARAGE,
LIMITED

Telephone 33500
(4 Lines)

Extension Lines to
all our branches



MESSAGERIES MARITIMES

FRENCH MAIL STEAMERS AND CARGO STEAMERS

FORTNIGHTLY PASSENGER SERVICE
JAPAN, CHINA, HONGKONG, SAIGON AND STRAITS
TO AND FROM MARSEILLES

MONTHLY SERVICE OF CARGO BOATS
FROM DUNKIRK, ANTWERP, U.K. TO FAR EAST.

Far East Agency: { Shanghai : 9 French Bund
Yokohama : 9 Bund
Kobe : 68 Kyomachi
Hongkong : No. 3 Queen's Building
Tel. Address : Messagerie.

GORDON & CO., LTD.

137 SZECHUEN ROAD

Telephones C.1107-8

SHANGHAI

HEATING

SANITATION

AIR CONDITIONING

FIRE PROTECTION

Estimates and Schemes Submitted

THE CHINA JOURNAL

中國科學美術雜誌

Editors : ARTHUR DE C. SOWERBY, F.Z.S.
JOHN C. FERGUSON, PH.D.

Manager : CLARICE S. MOISE, B.A.
Secretary : ADA M. HENDERSON

[ENTERED AT THE CHINESE POST OFFICE AS A NEWSPAPER]

VOL. XI

OCTOBER, 1929

No. 4

CONTENTS

	PAGE
WIDENING OUR SCOPE	167
A BRIEF STUDY OF CHINESE LEXICOGRAPHY By K. T. WU	169
PALLADIUS By JOHN C. FERGUSON	173
FIRE IN TREES By J. H.	178
ART NOTES	179
REVIEWS	181
MOODS OF MOUNT OMEI By CHARLES HOOKER	183
TRAVEL AND EXPLORATION NOTES	185
INDUSTRIAL AND ENGINEERING POTENTIALITIES OF MANCHURIA By ARTHUR DE C. SOWERBY	186
ENGINEERING NOTES	189
THE SIKI OR SPOTTED DEER OF EASTERN ASIA By ARTHUR DE C. SOWERBY	192
A STUDY OF THE PROTEINS OF KAOLIANG By LO TENG-YI	195
SCIENTIFIC NOTES AND REVIEWS	201
SHOOTING AND FISHING NOTES	205
THE KENNEL	209
THE GARDEN	211
SOCIETIES AND INSTITUTIONS	212
EDUCATIONAL NOTES AND INTELLIGENCE	214
PUBLICATIONS RECEIVED	214

Contributions of a suitable nature are invited and all manuscripts not accepted for publication will be returned.

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

The subscription for the year (twelve issues) is \$10.00, Shanghai currency, or its equivalent. In the U.S.A. and Canada, Gold \$6.00; in Great Britain and Europe, 25/-. Postage free.

Crossed cheques, drafts or postal orders should be sent in payment of the annual subscription from Outports, Europe and America direct to the Manager.

Office : 8 Museum Road, Shanghai, China.

PRINTED BY THE NORTH-CHINA DAILY NEWS AND HERALD, LTD., FOR THE PROPRIETORS

[All Rights Reserved]

Classified Index of Advertisers

ART AND CURIO

DEALERS:

Jade Store	XXII
Toyo Murakami	III

BANKS:

National City Bank of New York	VI
---------------------------------------	----

BOOKS, BOOKSELLERS AND AGENTS, ETC.:

Discovery	IV
Goldston, Edward, (Orion-talia)	XXV
Kelly & Walsh, Ltd. ...	XXXVIII
Oxford University Press ...	IV

BUILDING MATERIALS:

Crittall Manufacturing Co. (Metal Windows) ...	XXII
Kailan Mining Administration	XXIX

CHEMICAL IMPORTERS,

DRUGGISTS, ETC.:

China Export, Import & Bank Co. (Guaiacose) ...	XXI
Far Eastern Drug Trading Co. (Spermin)	XX
Far Eastern Drug Trading Co. (Haematopan) ...	XXXI
Grenard & Co., L. (Cerinil)...	XLVI
Imperial Chemical Industries (China) Ltd. ...	XXX
Jensen, S. J. F.	Cover 3
Llewellyn & Co., Ltd., J. (Curex)	Cover 3
Mactavish & Co., Ltd. ...	XLVIII
McBain, George (Yeastpirin)	XXXIII
National Aniline & Chemical Co. U. S. A. (Dyestuffs)	XXXIV
Schmidt & Co.	VIII

DEPARTMENT STORES:

Weeks & Co.	XXXVII
--------------------	--------

ELECTRICAL ENGINEERS AND CONTRACTORS:

China Electric Co., Ltd. ...	XLIV
General Electric Co. (of China), Ltd.	IV

ENGINEERS, MACHINERY

MERCHANTS, SHIP

BUILDERS, ETC.:

Behn, Meyer China Co., Ltd.	XXI
China Well Drilling Corporation	XLVIII
Davie Boag & Co., Ltd. (Colfix)	XLVI
Dodwell & Co., Ltd. ...	XIV
Eastern Engineering Works, Ltd.	XVII
Gordon & Co., Ltd. ...	XXXII
Jensen, G. S. (Bolinder's Engines)	XXI
Oliveira & Son, H. ...	XXVI
Rose, Downs & Thompson (Far East) Ltd. ...	VI
Siemssen & Co.	XII

FOOD PRODUCTS:

Allen & Hanburys, Ltd. (Allenburys' Milk Food)	I
Bianchi	XLII
Quaker Oats Co., The ...	XXVII
Shanghai Ice and Cold Storage Co. (Clover Brand Butter) ...	XXII

FOUNTAIN PENS:

Parker Duofold, Jr. (Dodge & Seymour)	XXIII
--	-------

FURNITURE MANUFACTURERS:

Arts & Crafts, Ltd. ...	Cover 2
Weeks & Co., Ltd. ...	XXXVII

HOTELS:

Astor House Hotel, Tientsin	XLIII
Court Hotel	XIV
Fountain Court, Tsingtao...	XLIII
Hongkong & Shanghai Hotels, Ltd.	XLVII

IMPORTERS AND EXPORTERS, ETC.:

Alexander Clark Co., Ltd., The	XV
Arnhold & Co., Ltd. ...	XXXIII
Gmehling & Co., G. (Les Parfums de Mury) ...	XVI
Golding & Co., Wm. (Kotex)	XXXVIII
Kunst and Albers (Brunsviga Calculating Machines)	XLVII
Mitsui Bussan Kaisha, Ltd.	XXV
Whitsons Limited	XII

(Continued on next page).

Classified Index of Advertisers (Contd.)

INSURANCE COMPANIES :

Cornhill Insurance Co., Ltd.	xvii
Cumine & Co., Ltd.	xvii
Jardine, Matheson & Co. ...	xviii
Manufacturers Life Insurance Co. ...	xxiv

JEWELLERS :

Jade Store ...	xxii
Tuck Chang & Co. ...	xxii

MERCHANTS AND COMMISSION AGENTS :

Wattie & Co., Ltd., J.A. ...	xlvi
Whitsons Limited. ...	xiii

MOTOR CARS :

Andersen, Meyer & Co. (International Motor Trucks)	xli
Behn, Meyer China Co., Ltd.	xli
General Motors Co. (Trucks)	x
General Motors (Chevrolet)	xi
Taylor Garage ...	xxxi

OIL COMPANIES :

Asiatic Petroleum Co. (North China) Ltd. ...	xli
Standard Oil Co. of New York ...	xxxvii
Texas Co., The ...	xl

OPTICAL GOODS, ETC. :

American Drug Co. (Microscopes) ...	xxix
Carlowitz & Co. ...	xxiii
Lazarus, N. ...	xxvi
Schmidt & Co. ...	viii

PHOTOGRAPHY :

Agfa Photo-Materials ...	vii
Carson Studio ...	xx
Eastman Kodak Co. ...	ix
Joseffo Photo-Studio ...	xxxvii
Mactavish & Co., Ltd. (Developing and Printing)	xlvi

PLUMBERS :

Doughty & Co., C. J. ...	xlvi
--------------------------	------

PUBLISHERS, PRINTERS, NEWSPAPERS, ETC. :

China Press ...	xxxvi
Commercial Press, Ltd. ...	xlvi
Discovery ...	iv
North-China Daily News & Herald, Ltd. ...	xxxv
Oxford University Press ...	iv
Shanghai Times ...	xxxix
Tientsin Press, Ltd. (P. & T. Times) ...	xxxiv

REAL ESTATE AGENTS :

Shanghai Land Investment Company ...	vi
--------------------------------------	----

RUBBER ESTATES AND RUBBER PRODUCTS :

Dunlop ...	ii
Wattie & Co., Ltd. J. A. ...	xlvi

SCIENTIFIC INSTRUMENTS :

American Drug Co. (Microscopes) ...	xxix
Carlowitz & Co. ...	xxiii
Schmidt & Co. ...	viii

SILKS, LACES AND EMBROIDERIES :

Tai, C. T. ...	xxv
----------------	-----

STEAMSHIP AND RAILWAY COMPANIES :

American Mail Line ...	Cover 2
Canadian Pacific Steamship, Limited ...	xiii
Dollar Steamship Line ...	Cover 2
Jardine, Matheson & Co., Ltd. ...	xviii
MacKinnon, Mackenzie & Co. ...	Cover 3
Messageries Maritimes ...	xxxii
Norddeutscher Lloyd, Bremen ...	xviii
Yangtze Rapid Steamship Co. Federal Incorporated, U. S. A. ...	Cover 4

STEEL WORKS :

Osborn & Co., Ltd., Samuel	xix
----------------------------	-----

TAILORS, GENTLEMEN'S :

Garland, L. A. ...	xxvi
Gray & Co., C. N. ...	xxix

TRANSPORTATION :

Aronovsky, D. G. M. ...	xl
-------------------------	----

TOBACCO :

British-American Tobacco Co. (China), Ltd. (Capstan Cigarettes) ...	v
---	---

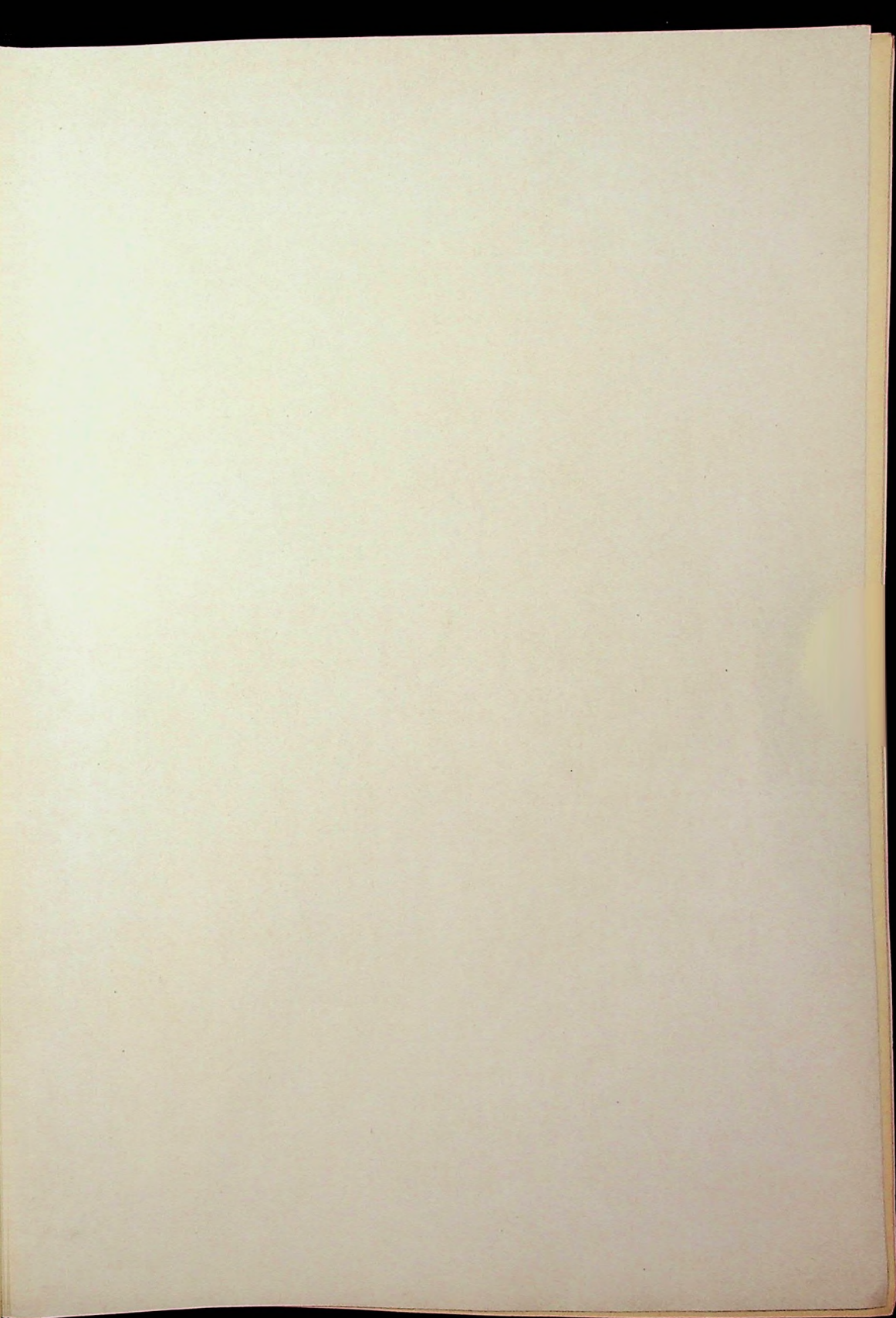
TYPEWRITERS :

Dodwell & Co., Ltd. (Underwood Portable) ...	
--	--

WINE MERCHANTS :

Egal & Cie ...	xx
Raphael, R. K. ...	xlvi

Readers of "The China Journal" are specially requested to make enquiries of the above firms when contemplating making purchases of articles or commodities mentioned in the advertisements, and, if possible, to purchase from our advertisers. Advertisers, Journal and Readers form a circle of mutual interdependence and co-operation. Do not break the circle.





Piotr Ivanovich Kafaroff, better known by his religious name
of Palladius.

(See page 173).



VOL. XI

OCTOBER 1929

No. 4

WIDENING OUR SCOPE

With the present number *The China Journal* widens very considerably its scope by the introduction of a section under the heading "Engineering, Industry and Commerce." This move has been under contemplation for some time, as it has been felt that, while science, art, literature and the other kindred subjects to which we have mainly confined ourselves are a very important adjunct to our existence, yet they should in some way be linked up with the innumerable activities that form the major portion of our lives. While this is a concession to the age of commercialism and industry in which we live, we see no reason why commerce and industry should not go hand in hand with art and science, for most assuredly without the latter the former would cut but a sorry figure.

We live by commerce, industry brings us our daily bread, and to these both art and science are in a way handmaidens. But it is mainly a case of stooping to conquer. Art and science, ministering as they do to what we may justly call our higher selves, the aesthetic sides of our natures, are enthroned above all our other activities, but just as a wise king considers himself the servant of his people, so are these phases of mind-life the servants of the less noble, but all important, life-functions whereby we derive the physical necessities to existence.

The ideal state is a happy blending of affairs of the mind and of the body, in which the needs of the aesthetic sides of our nature are not subordinated to the grosser needs of our bodies, or the needs of the body sacrificed to those of the spirit.

It is our intention to attempt just such a blending in the pages of *The China Journal*, so as to round it out, so to speak, into a more perfect medium of expression for all this is best, most interesting, most typical, most valuable in the lives of those who live in this great country, China.

THE CHINA JOURNAL

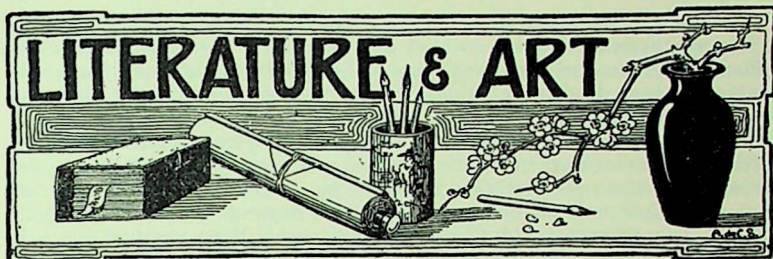
Readers who have learned to love and look forward each month to the arrival of the journal must not entertain the fear that anything worth while it already contains is going to be sacrificed. On the contrary, something more is going to be given, something which, we hope, will prove of interest to them, as we know it will interest many who are not already readers.

From time to time during the course of its existence we have had to make changes in *The China Journal* to meet either changes in conditions or certain demands of our supporters, but we pride ourselves that these changes have always been progressive and have resulted in the improvement of the journal.

The first change was in 1925, after the journal had been running for two years. It was in this year that we changed the journal from a bi-monthly to a monthly publication, giving our readers practically double value in quantity. This was Volume III of the journal and it ran to twelve numbers. These when bound formed a tome that was somewhat too cumbersome, so that the following year, while still running as a monthly, the journal was split up into two volumes to the year. This brought us to our present standard, volumes from four to ten being of a uniform, handy size. The next thing that called for a change was the title. The old name of *The China Journal of Science and Arts* was not only cumbersome, but was misleading to the general public as to the contents of the journal, thereby proving a stumbling block to many. It narrowed the scope of the journal, in the minds of many, since by definitely using the words science and arts it appeared to be confined to those subjects. It gave no hint of the articles and notes on travel, shooting, fishing, gardening and dogs, which appeared in almost every number. Thus it was decided to abbreviate the name to *The China Journal*, which was done in 1927.

And now we find that there is a growing demand on the part of our readers and supporters generally for the introduction of articles and notes on matters somewhat outside the field that we have covered, and we are introducing in this number the new feature mentioned above.

In making this innovation the editors feel confident that they are helping to supply a want, and it is with equal confidence that they look to all who have hitherto supported them in various ways to continue giving that support, and so ever to increase the value and prestige of *The China Journal*.



A BRIEF STUDY OF CHINESE LEXICOGRAPHY

BY

K. T. WU

Students of the Chinese language are unanimous in their opinion that one of the greatest handicaps in mastering the language is the difficulty in the arrangement of the Chinese characters. People well-versed in the language may occasionally find it hard to locate a word in a dictionary or the name of a firm in a directory on account of the lack of an adequate system of arranging the Chinese characters, in contrast to the ease of the arrangement of the alphabetic system of foreign phonetic languages. Consequently, educators find that illiteracy and ignorance is by no means easy to combat because of this very obstacle.

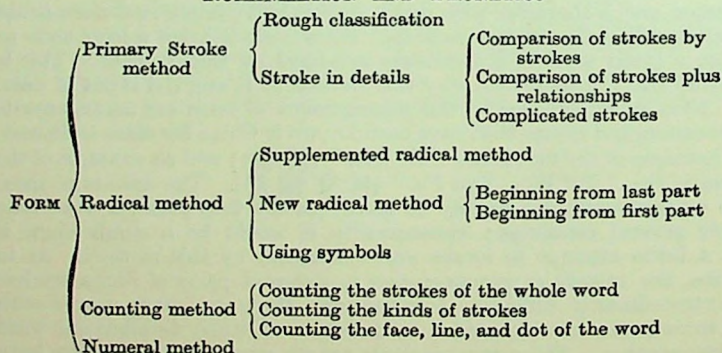
The most prevalent method known in China is the so-called "radical system" of the K'ang Hsi Dictionary. In this system there are two hundred and fourteen radicals representing the different headings under which a word is likely to be placed. Long years of experience have proved that there are many defects in this system. To point out a common one, a character with many strokes and complicated form could possibly fall under several radicals. Sometimes it takes a long time to locate a given word in a dictionary arranged by this method. This is a sound and cogent reason why this method of K'ang Hsi is out of date.

Next in importance to this arrangement of form are arrangements by meaning and rhyme that have been known in China for many centuries. An example of the first is the "Er Yah" (爾雅); and an example of the latter is the "Pei Wen Yun Fu" (佩文韻府). The defects of these two arrangements can readily be seen. In the first place, a word may imply several meanings; consequently it would be a cumbersome if not a futile attempt to locate words arranged by this method. As to rhyme, the variety of pronunciation in different parts of China renders it extraordinarily difficult. Furthermore, there are many words with the same pronunciation, and it is, therefore, arbitrary to place one word before another. These two methods are no more in vogue; they have been replaced by the "radical system" of K'ang Hsi's Dictionary.

In view of the inadequacy of the above three methods a number of new methods have been devised by enthusiasts in order to solve the difficulty. Some are modifications of the old methods while some are devised entirely from new angles. It is an encouraging sign that some of those new methods have been adopted for use and are working excellently, in spite of one difficulty or another. Some of them have been used in the arrangement of dictionaries. It should be noted that the majority of the new methods is based on forms. Having found out that the other two elements—sound and meaning—are of little significance, the promoters of Chinese lexicography have all turned their attention to the forms of words to decide their arrangement. And beyond doubt they are on the right track.

According to Mr. I. V. Gillis, "There can be but one valid reason for discarding the centuries-old system of arrangement of Chinese characters by so-called 'radicals,' and that is the devisal of a better and more practical system."* This plain and candid statement gives the reason why the old and much used system—the "radical system"—is being gradually discarded, and is being replaced by other new ways. What, then, are the criteria of an adequate system? In the first annual meeting of the Library Association of China held in the University of Nanking in January of this year, there were lengthy discussions as to the standards of a good system of arranging words. These are: 1 convenience; 2 accuracy; and 3 simplicity. In other words, they should be just as natural as the foreign alphabetical arrangement. Furthermore, the system should not be so cumbersome as to allow exceptions. A review of the existing system of arranging Chinese characters is of vital interest to those who have given attention to the subject. It is hardly possible to embody all the new systems, which are no less than forty, according to a rough estimate of Mr. Wan Kwoh-ting, head of the Research Library of the University of Nanking, in a short compass. Apparently some more are forthcoming. Mr. Wan tabulated these methods as follows:

ROMANIZATION AND PHONETICS



* *China Journal*, Vol. XI, No. 1, p. 10, 1929.

A BRIEF STUDY OF CHINESE LEXICOGRAPHY

It is not my intention here to go over each of those systems separately. It will be sufficient for our purpose here to point out a few of them so as to give an idea of the fruitful attempts of Chinese scholars in this line. It should be added, by the way, that the following are chosen not because they are the most perfect as they all have their advantages as well as disadvantages, but because, according to my opinion, they serve well for our purpose here to illustrate the effort expended on different ways of approaching this stupendous task. The merits and demerits of each of these methods are left to the discretion of the reader.

A. Professor Lin Yu-tang, a veteran in this line, devised a method, besides his many others, which utilizes the new radical system, known as the last stroke indexing system. In this system he divides the Chinese characters into 1,310 sections, which are reduced to 139 parts, which in turn are reduced to nine primary strokes; namely, ㇀ ㇁ ㇂ ㇃ ㇄ ㇅ ㇆ ㇇ ㇈. These represent the last stroke, on the right side of a word. In looking for a word first find out under which of these nine strokes the word falls. These govern the 139 radicals in which to find the proper word. Besides Professor Ling's method of making use of the radical system, there are others which are similar to the old method, modified and improved. Of these the outstanding ones are P. Poletti's radicals and sub-radicals system, O. Rosenberg's five-direction method, Chiang I-t sien's radical system, and Chen Wen's head-tail-face-line method.

B. Doo Ding-u's Chinese filing system is a very easy one, despite some shortcomings. In his system, Mr. Doo has made use of the counting of strokes embodied in a Chinese character. Words of lesser strokes precede those of more strokes. If two words happen to have the same number of strokes the order will be determined by the order of eight strokes in the character 'yung' (永); namely, 一 丨 丿 ㇀ ㇁ ㇂ ㇃ ㇄. The greatest handicap in this system is that the numbering of the strokes is not uniform.

C. Chang Feng's numeral form system is noted for its simplicity. The order of words, in his system, is determined by the number of three things, namely, face, line, and dot. If these happen to be the same number in two characters, then the order of the words is determined by the intercrossing, touching and opposite strokes. The word 'Chang' (張), for instance, has no face and dots, but eleven strokes; hence the number for this word is 0 (face) 11 (line) 0 (dot). This system sounds logical, but it fails to eliminate the awkwardness of counting.

D. Wan Kwoh-ting's system of filing could be cited as an example of the primary stroke method. According to this scheme, strokes are divided into eight kinds; namely, horizontal, vertical, dot, left slanting stroke, slanting upward, bending stroke, sword stroke, and hook (一 丨 丿 ㇀ ㇁ ㇂ ㇃ ㇄). Words are arranged according to the order of the first two strokes, as listed above. Relationships of detached, connected, intercrossing, adjacent, and opposite strokes are taken into consideration in case the initial strokes are the same. If the order of writing the strokes is uniform, which unfortunately is frequently not the case, the method can be highly recommended. Besides this method there are a number of other prominent ones which make good use of the primary

strokes, which classification differs in kind in addition to numbers. These are Chen Li-fu's five strokes method, Hwang Hsi-shen's method, Shen Tzu-yung and Hu Ching-seng's method, Ho Kong-kan's unit method, and Cheo Pien-ming's semi-circle method.

E. Of all the methods, Wong Yung-wu's four-corner numeral system is probably most widely known on account of the extensive publicity which has been given to it by the Commercial Press. According to this method every character is assumed to have four corners; namely, upper left, upper right, lower left, and lower right. Strokes are divided into ten classes, each represented by a figure. The kind of strokes of each of the four corners determine the four numbers of the word. It is unnecessary to reproduce the whole scheme, as it has already been explained in this journal. Words are filed in accordance with the numerical order of the number; *e.g.* 2200, 3319, etc. When two words have the same number, a fifth corner is used, but even this is not sufficient to avoid confusion. Parallel to this method are the more or less similar ones devised by Chu Chung-fu, Lu I-yen, Chiang Fu-chen, and others.

After all the untiring effort and accomplishment on the part of Chinese scholars in devising new schemes, we are still not in a position to recommend any one method, as they are all in an experimental stage. At the first annual meeting of the Library Association of China mentioned above many controversial points were brought out in the heated debates as to the final method to be adopted. The Association finally came to the wise resolution that all methods should be given a fair chance in order that people may discover which is the most ideal one. After a lapse of a few years, the whole matter will be taken into consideration. In the meantime, all of these methods should be used extensively in order to have the best one tested out. Time and adaptability must be the deciding factors. It is beyond question that the filing system in China should be uniform for the sake of efficiency. Having once decided the most suitable one, other systems will be disregarded. Prejudices should all be laid aside and an impartial attitude should be maintained, not only by the users but also by the advocates. For practicability, efficiency and uniformity, there should be one, and only one, method which will be used not only for dictionaries, but also for library cards, directories, telephone lists, and filing of all descriptions. Cooperative effort, after the selection of a suitable method, must be devoted for the improvement of this final one until it becomes perfect.

PALLADIUS

BY

JOHN C. FERGUSON

The contributions of Russian scholars to sinology have been conspicuous, but they have not received the attention to which their merit entitles them, chiefly for the reason that they are written in a language which is not known to scholars of other nations. In this respect they resemble the extensive and valuable writings of Japanese scholars who have patiently investigated various branches of Chinese scholarship. It is proposed to give a new résumé of the work of Russian scholars in a series of articles. As the first of these sinologists I have chosen Palladius.

In the *Revue de l'Extrême Orient*, 1882 p. 9, Cordier gives an excellent account of the life and works of Palladius, but I have been able to supplement this by references from the Preface of the Chinese-Russian Dictionary by P. S. Popoff, 1889, and from the Short History of the Russian Orthodox Mission in China published in Peking in 1916.

Piotr Ivanovich (Peter son of John) Kafaroff, better known by his religious name of Palladius, was born at Chistopol in the province of Kazan on September 17, 1817. His father was a priest of that place. He studied theology in the Theological School of his native place, and subsequently in the Theological Seminary of Kazan. As he was one of the foremost students of the Seminary, he was sent to the Theological School in St. Petersburg.

In 1839 there was organized the 12th ecclesiastical mission to Peking under the leadership of archimandrite Policarp Tugarinoff, and Peter Kafaroff expressed a desire to join the mission. Subsequently he was consecrated as deacon, took the name of Palladius, and was appointed a member of the new mission, which reached Peking in September, 1840. Being a man of inquisitive, critical and philosophical mind he found in China a broad field for his scientific researches, and devoted all his time to a study of the Chinese language and Buddhism.

After six years Palladius was recalled to St. Petersburg. He left Peking in April, 1847, and reached St. Petersburg on March 7, 1848. Soon after his return to Russia he was ordained to the priesthood. Subsequently he was raised to the dignity of archimandrite and was appointed head of a new mission to Peking (13th mission).

He arrived in Peking September 27, 1849, and remained for ten years. The 13th mission left China on 25th May, 1859, and reached St. Petersburg on 24th December. During his two terms of residence in China Palladius had built up for himself an excellent reputation as an ecclesiastical administrator and a promising scholar, so that on his return to Russia he received many offers of promotion to higher positions. He was asked to accept the post of archimandrite of the Youriev Monastery in Novgorod, the wealthiest in all Russia, but declined it and asked to be appointed Chaplain of the Russian Legation in Rome, where he could

carry on his theological studies. Here he remained for nearly four years, during which time he wrote a series of letters concerning ancient Christian monuments which were published in "Ecclesiastical Discourse."

In 1864 it was decided to reorganize the Peking Mission and Palladius was invited for the second time to become the head of the Mission (15th). He reached Peking for the third time on March 25, 1865, and remained until April, 1870, when he undertook a journey to the Ussuri district at the request of the Russian Geographical Society to make ethnographical and archaeological researches. In recognition of the value of the results of this journey the Geographical Society awarded him a gold medal. This journey occupied about one year of his life. In 1878 he became ill and was compelled to leave China. He returned to Europe by sea, but only got as far as Marseilles where he died on December 6. He was buried at Nice. He had spent about a quarter of a century in China.

The most important works which he published and which placed him among the foremost sinologists of the world are as follows:

(1) **THE LIFE OF BUDDHA**, published in a Collection of works by the Members of the Russian Ecclesiastical Mission at Peking, 1852; in Russian; translated into German by C. Abel and F. A. Mecklenberg, Berlin, 1858, vol. I. This work is a masterful outline of the philosophical teachings of India at the time of the Buddha and gives a good description of the contemporary customs and manners of India.

(2) **HISTORICAL OUTLINE OF ANCIENT BUDDHISM** is his second work according to chronological order. It gives a general picture of the development of Buddhism during the first six centuries after the death of its founder. It describes the character and organization of Buddhist societies, the different schools of interpretation which sprang up, the writings of these schools and their attitude toward contemporary philosophical teachings. It was published in vol. 2 of the Collection of Works by the Members of the Russian Ecclesiastical Mission at Peking, 1853, in Russian, translated into German by C. Abel and F. A. Mecklenberg, Berlin, 1858.

(3) **NAVIGATION BETWEEN TIENTSIN AND SHANGHAI** ("Sudohodstvo mejdu Tiantsinom u Shanhaiem") *ibid.*, 1857; in Russian.

(4) **ANCIENT CHRISTIAN MONUMENTS** ("Pamiatniki Hristianskoy Drevnosti")—studies made in Rome; published in "Ecclesiastical Discourse," St. Petersburg, 1860-1863, in Russian.

(5) **TRANSLATION OF YUAN CH'AO MI SHIH** (元朝秘史), published under the title of "Ancient Mongolian Story of Genghis Khan" ("Starinnoye Mongolskoye Skazanie o Chinghis-hane"). This translation of the Secret History of the Yüan Dynasty, published with copious annotations and a detailed introduction, is a work of considerable importance. In the introduction Palladius sketches the history of the writing of this book. We learn that Yüan Ch'ao Mi Shih was originally written in Mongolian by an unknown author. It treats the early history of the

Mongols, the reign of Genghis-khan, and the beginning of the reign of Ogotai. The first mention of the work is in the Hung Wu Shih Lu (洪武事錄), or "Record of the Reign of Hung Wu," in the year 1382. The Yüan Ch'ao Mi Shih is repeatedly mentioned in many works of the Ming and Ch'ing Dynasties, for instance, in San Ts'ai T'u Hui (三才圖會), Wan Hsing T'ung P'u (萬姓通譜), Ssü K'u Ch'üan Shu Mu Lu (四庫全書目錄), and in Shi Yü Shui Tao Chi (西域水道記). According to Palladius one of the reasons of the unpopularity of the Yüan Ch'ao Mi Shih among the Chinese is its poor literary style. There are many strange idioms and Mongolisms, which we cannot find in any other historical or geographical books. In spite of the many difficulties in the original text of Yüan Ch'ao Mi Shih, Palladius gives us an accurate translation of this unique historical work left by Mongols. His annotations based upon his own researches are almost as valuable as the text.

(6) TRANSLATION OF HSI YU CHI (西遊記) or Narrative of Travel to the Western World ("Si Yu Tsi ili Opisaniye puteshestviya na Zapad") *ibid.*, 1866; in Russian. This translation is mentioned in this journal, August, 1929, p. 63. The book itself is a record of the long journey of Ch'iu Ch'ang-ch'un to visit the Mongol Emperor Genghis Khan at his Field Headquarters in the mountains north of India. In addition to the geographical information which it contains there are also many references to Taoist doctrines and practices. Palladius was the first to bring the attention of the Western World to this valuable work.

(7) TRANSLATION OF SHENG WU CHI (聖武紀), a descriptive account of the military operations of the Ch'ing Dynasty, Peking, 1848.

(8) MOHAMMEDANS IN CHINA (Mahometane v Kitaye). Original article written by Arch. Palladius, and published in the Collection of Works by the Members of the Russian Ecclesiastical Mission at Peking, vol. 4, 1886. In this very instructive article Palladius acquaints us with the history of the introduction of Islam into China, the status of Mohammedanism in China, the statistics of Moslems in China, their customs and manners, and with Mohammedan literature in Chinese. He also describes the mosques, which he visited in Peking, and discusses the status of ahuns (pastors).

(9) THE TOMBS OF THE CH'IN EMPERORS, published in the St. Petersburg Geographical Society's Bulletin, 1866; in Russian.

(10) CHINESE LITERATURE OF THE MOHAMMEDANS, published by the Archaeological Society at St. Petersburg, 1874; in Russian.

(11) TRANSLATION OF THE ITINERARY OF CHANG TE-HUI (張德輝) IN 1248 FROM PEKING TO KARAKORUM; in Irkutsk Geographical Society's Bulletin, vols. x—xi; in Russian; translated into English, Geographical Magazine, 1875.

(12) NOTES ON THE MANTZU OF THE USSURI, in St. Petersburg Geographical Society's Bulletin, 1871.

(13) NOTES OF A JOURNEY FROM PEKING TO BLAGOVES-CHENSK ; *ibid.*, 1878 ; in Russian.

(14) ANCIENT CHINESE STORY OF GENGHIS KHAN ("Starinnoye Kitaiskoye Skazanie o Chinghis-hane"), published in the *Oriental Record*, vol. 1, 1872 ; in Russian. A translation of an ancient historical document, recording the history of the military expeditions of Genghis Khan. The Chinese name of the book, of which Palladius possessed only a manuscript copy, is Huang Yüan Shêng Wu Ch'ing Chêng Lu (皇元聖武親征錄). According to Palladius, the book was compiled from Mongolian documents, in the first half of the 14th century, but the author of it is unknown. The name of this book is quoted in Yüan Shih Lei Pien (元史類編). It is also a very valuable contribution to our knowledge of the early history of Mongols.

(15) ANCIENT TRACES OF CHRISTIANITY IN CHINA ("Starinnyye Sledy hristianstva v Kitaye") ; *ibid.*, 1872 ; in Russian. This work is a result of the researches of Palladius, based upon many Chinese sources and claiming that there was Christianity in China at the time of the T'ang and Yüan Dynasties. The article contains also very important references to Zoroastrianism (祆教), Manichaeism and Jews in China.

(16) TRACES OF CHRISTIANITY IN MONGOLIA AND CHINA IN 13TH CENTURY ; in the *Chinese Recorder*, 1875, in English.

(17) NOTE ON THE INSCRIPTION OF SI-NGAN FOU ; *ibid.*, 1875 ; in English.

(18) ELUCIDATIONS OF THE TRAVELS OF MARCO POLO IN NORTH CHINA ; in the *Journal of North-China Branch of the Royal Asiatic Society*, 1875 ; in English.

(19) DIARY OF ARCH. PALLADIUS IN 1858 ("Dnievnik Arh. Palladiya za 1858 g."), published in the *Naval Magazine*, 1860, vols. 48-49, and in the *Bulletin of the Ministry of Foreign Affairs*, St. Petersburg, vol. 1, 1912. The "Diary" as published in the *Naval Magazine* contains only extracts from the Manuscript copy of the diary of this distinguished scholar; the complete text was published in the *Bulletin of the Ministry of Foreign Affairs* in 1912. From the Diary we learn about the part which the Russian plenipotentiary, Count Putiatin, played in the negotiations between England, France and China previous to the war of 1860, and about Palladius himself as adviser of Count Putiatin. It contains also many remarkable descriptions of the conditions prevailing in China at that time, due to her internal troubles and strained relations with foreign countries. There are interesting remarks concerning the characteristics of the Chinese officials and foreign diplomats who participated in the negotiations in 1858. It is an important contribution to the history of the diplomatic relations between China and foreign countries. It also shows the high respect for Palladius of the Court which surrounded Hsien Fêng, the Manchu Emperor of that period. He was recognized not only as a scholar but as a friend of the Chinese people.

(20) TRADING ROUTES IN CHINA AND HER VASSAL STATES, published in the St. Petersburg Geographical Society's Bulletin, vol. 4, 1850.

(21) HISTORICAL OUTLINE OF USSURI REGION ("Istoricheski ocherk Ussuriy skogo kraya"), published in the St. Petersburg Geographical Society's Bulletin, vol. 8, 1879.

(22) CHINESE-RUSSIAN DICTIONARY ("Kitaisko-Russkyi slovar"), Peking, 1889, 11 vols. This is a work of first rank based on his long study of Chinese literature and religions. It contains 11,868 characters, and besides these, copious illustrations of phrases derived from the Chinese classics and books on History, Religion, Military Science, Medicine, Botany, etc. The main sources of the dictionary were the Chinese dictionaries:

1. Shih Yün Yin I Chu (詩韻音義註)
2. Yün Tsung (韻綜)
3. P'ei Wên Yün Fu (佩文韻府)
4. P'ien Tzū Lei Pien (駢字類編)
5. Hsieh Shêng P'in Tzū Chien (諧聲品字箋)
6. Tzū Kuan (字貫).

Palladius compiled his dictionary in eight years and left it in manuscript. After his death the Manuscript was copied by Father Flavian, a member of the 15th Mission, and revised by P. S. Popoff, Chinese Secretary of the Russian Legation in Peking.

(23) NOTES OF TWO JOURNEYS ACROSS MONGOLIA IN 1847 AND 1859, ("Doroznye zamietki na puti po Mongolii v 1847 i 1859 g.g.") published in the St. Petersburg Geographical Society's Bulletin, vol. xxii, N1, 1892, with an introduction by Dr. Bretschneider and notes by Professor A. M. Pozdnieff. This work consists of two diaries of Palladius kept by him during his two journeys through Mongolia. In 1847 he made a journey across Mongolia by the so-called postal route, which was not previously known by any European travellers. The description of this route is most interesting, because none of the later travellers who took the same route has left any detailed account of it. A second diary was kept by Palladius during his journey with the 14th Ecclesiastical Mission in 1859 from Peking to Russia. The notes of these journeys are of considerable scientific interest, such as his account of the ruins of ancient towns in Mongolia and his trip to the river Kerulun.

FIRE IN TREES

The following incident was reported in the Shanghai "Hsin Wen Pao" of December 8, 1921, to have occurred during the afternoon of December 6, two days previously.

There is in the garden behind the Wen Ch'ang Tien temple a very tall and ancient *tung ching* tree. At about two o'clock in the afternoon thick black smoke was observed to issue from the crest followed almost at once by fierce flames. All the stalls in and around the temple were soon deserted by the traders and the idle crowd also fled in panic. The native fire brigade reached the scene in due course and laid on their hoses, but the tree was so high that the streams of water fell short of the flames. Before very long the fire died down of its own accord, leaving the tree unharmed save for the burnt foliage and charred small branches near its top.

The Chinese who pointed this out to me "as possibly of interest to a foreigner" showed very little surprise and no disbelief, though he admitted it was "a little curious." On the contrary, he said this phenomenon was well known in China, and that though he himself had never seen such a thing happen, many of his friends had.

He added that of course trees had fire inherent in them, and volunteered the following remarks by way of explanation.

"Before we had matches our fathers got fire by striking flint on steel, but for many ages before that by rubbing two dry sticks together. But the earliest man, more than five thousand years ago, secured fire by another means. He bored a hole in a living tree with an iron spike and worked the spike round and round in the hole thus made until fire came out of it. The method is called *chuan mu ch'u huo* and the fire thus obtained is called *shui*. In the spring the tree used was an elm, in summer a willow, in the autumn a *sophora* (*huai shu*), and in winter a scrub oak.

"Trees, therefore, contain fire, and when a tree is very old the fire works its own way up and out at the top."

The man who told me this was well educated, a "writer" for many years associated with foreign affairs. His father and grandfather before him were men looked upon as scholars in a small way.

J. H.

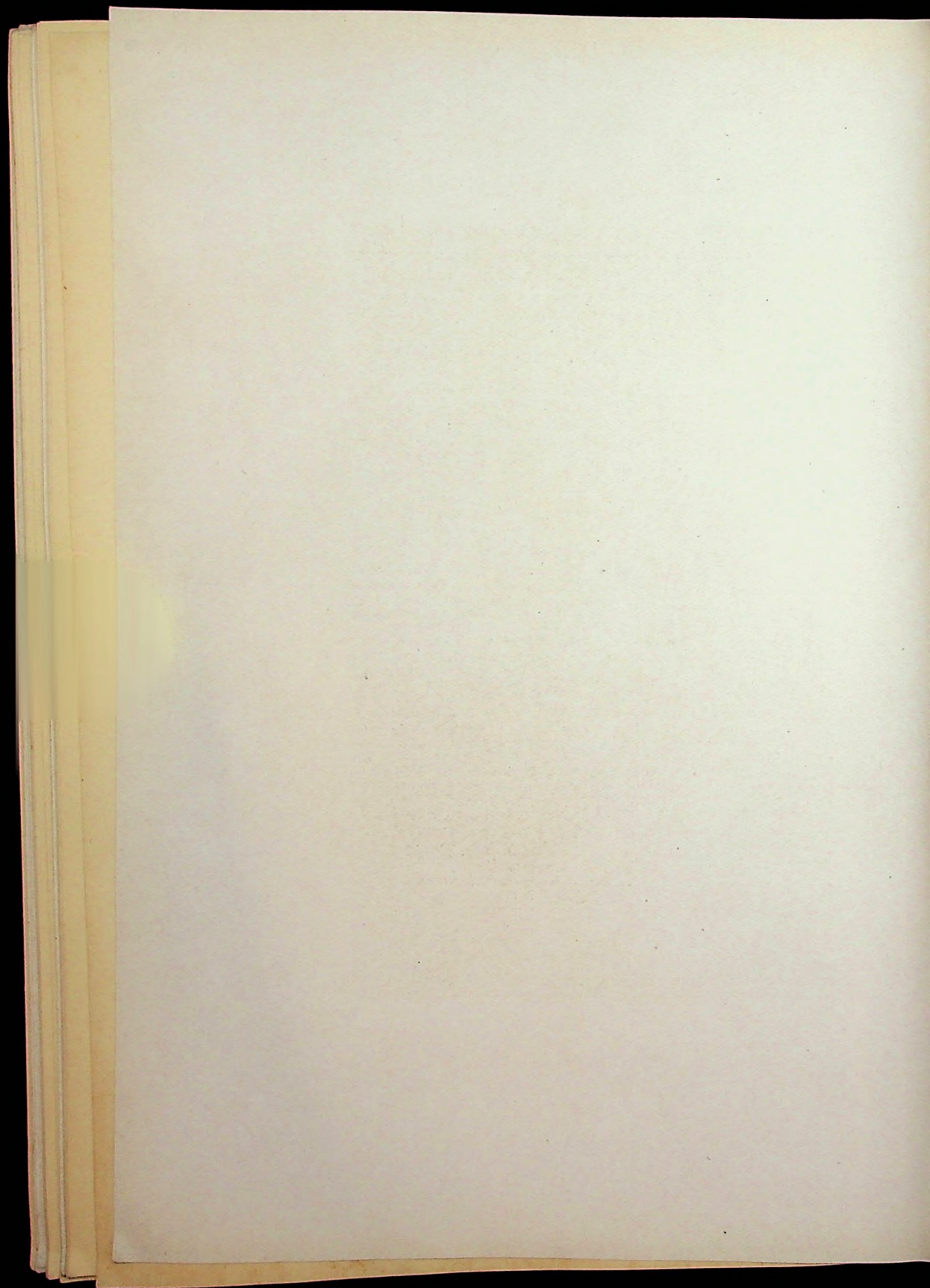
QUICK SILVER FROM THE GINKGO TREE

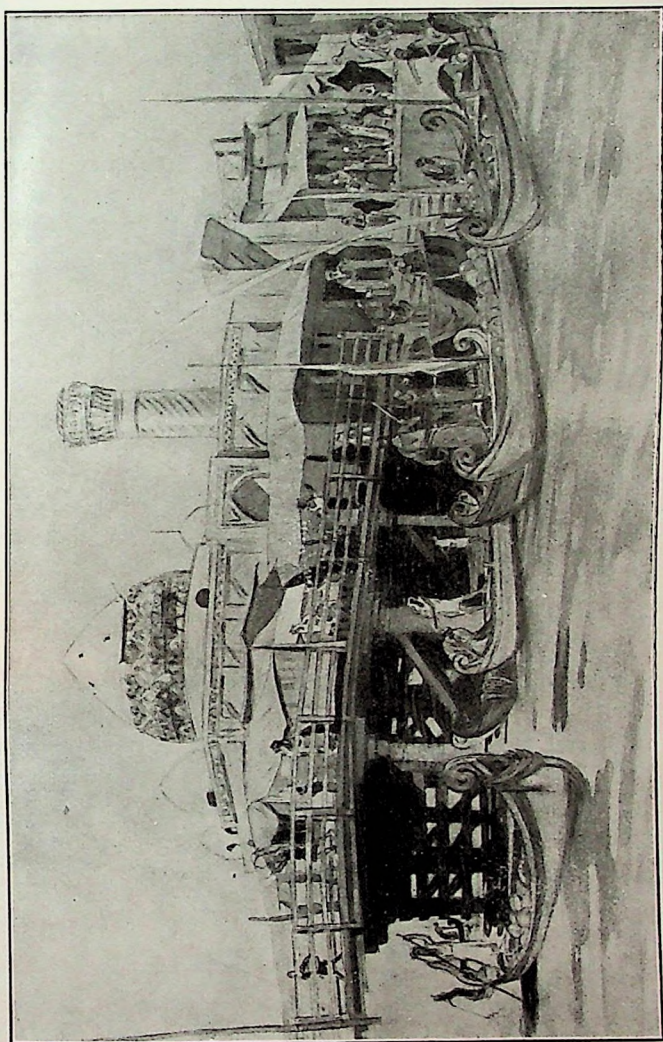
A Chinese belief is to the effect that Mercury is deposited by the male maiden-hair fern tree in and below its roots, and this was the sole source of supply in China until foreigners imported the kind which they dig out of mines. It is supposed to be the sap of this tree coagulated in the earth.

J. H.

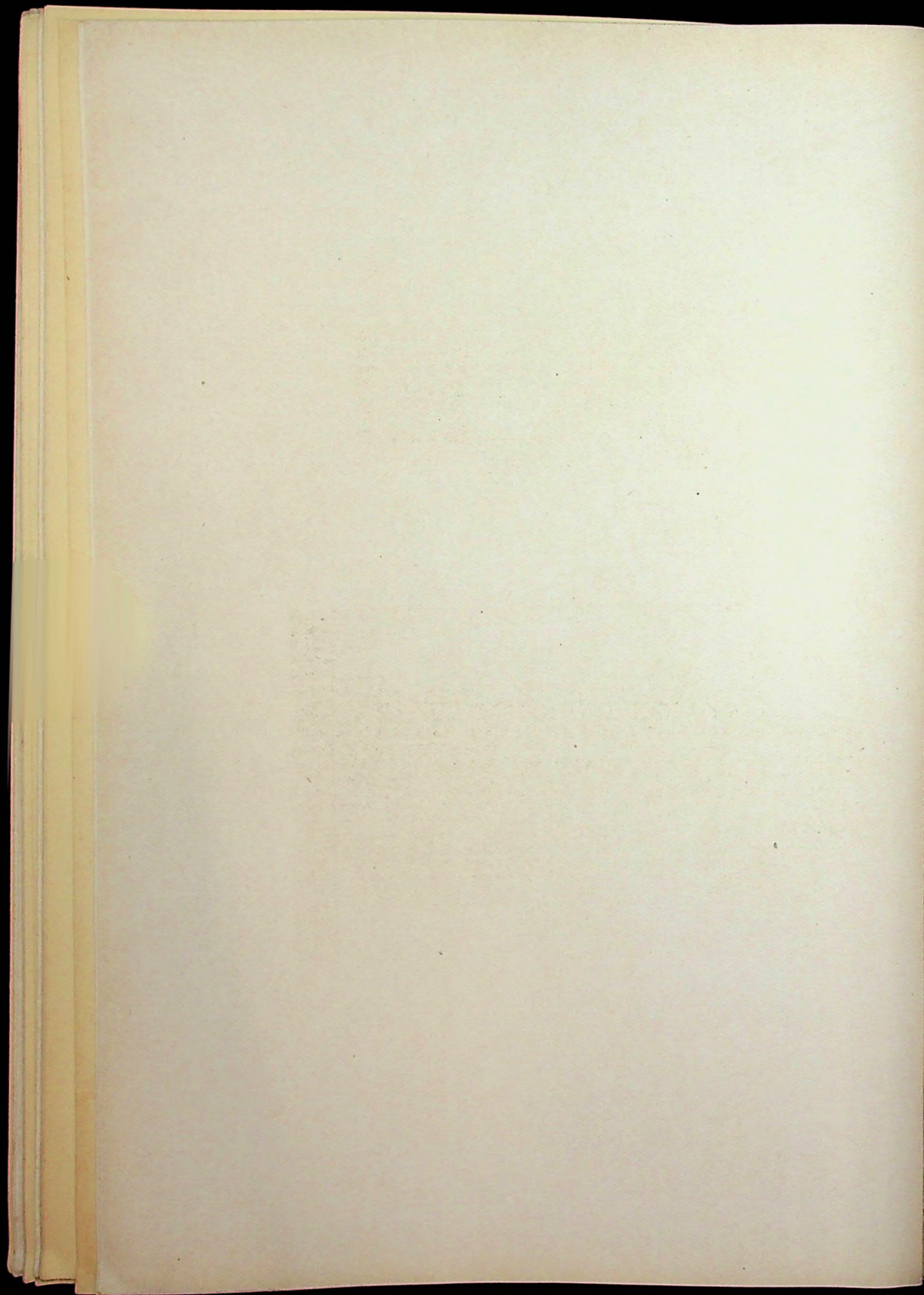


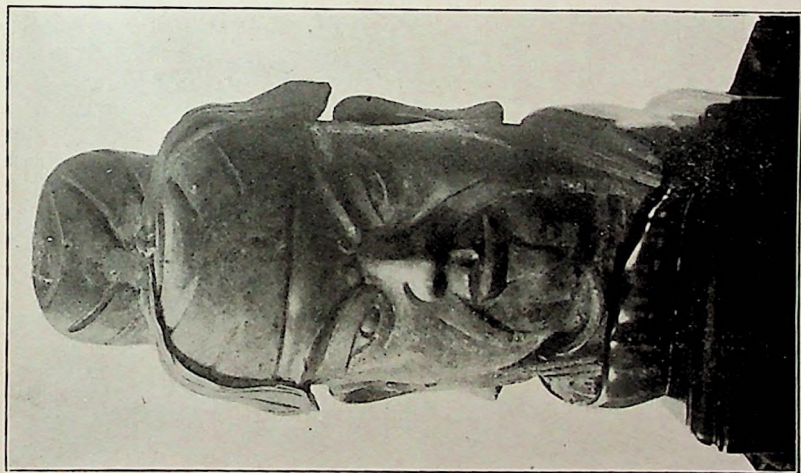
"Bund Coolies, Wuhu." From the Oil Painting by Vera Southby, which was accepted by the 1929 Royal Academy but not hung.





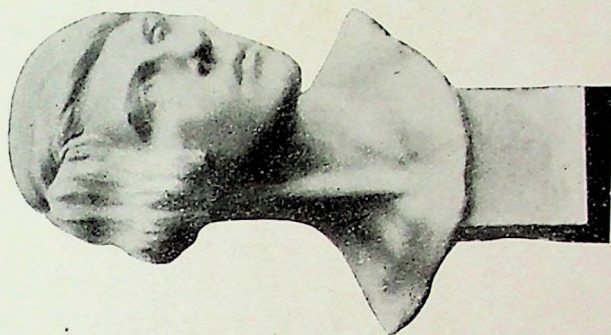
"Basrah." From the Water Colour Painting by Vera Southby.



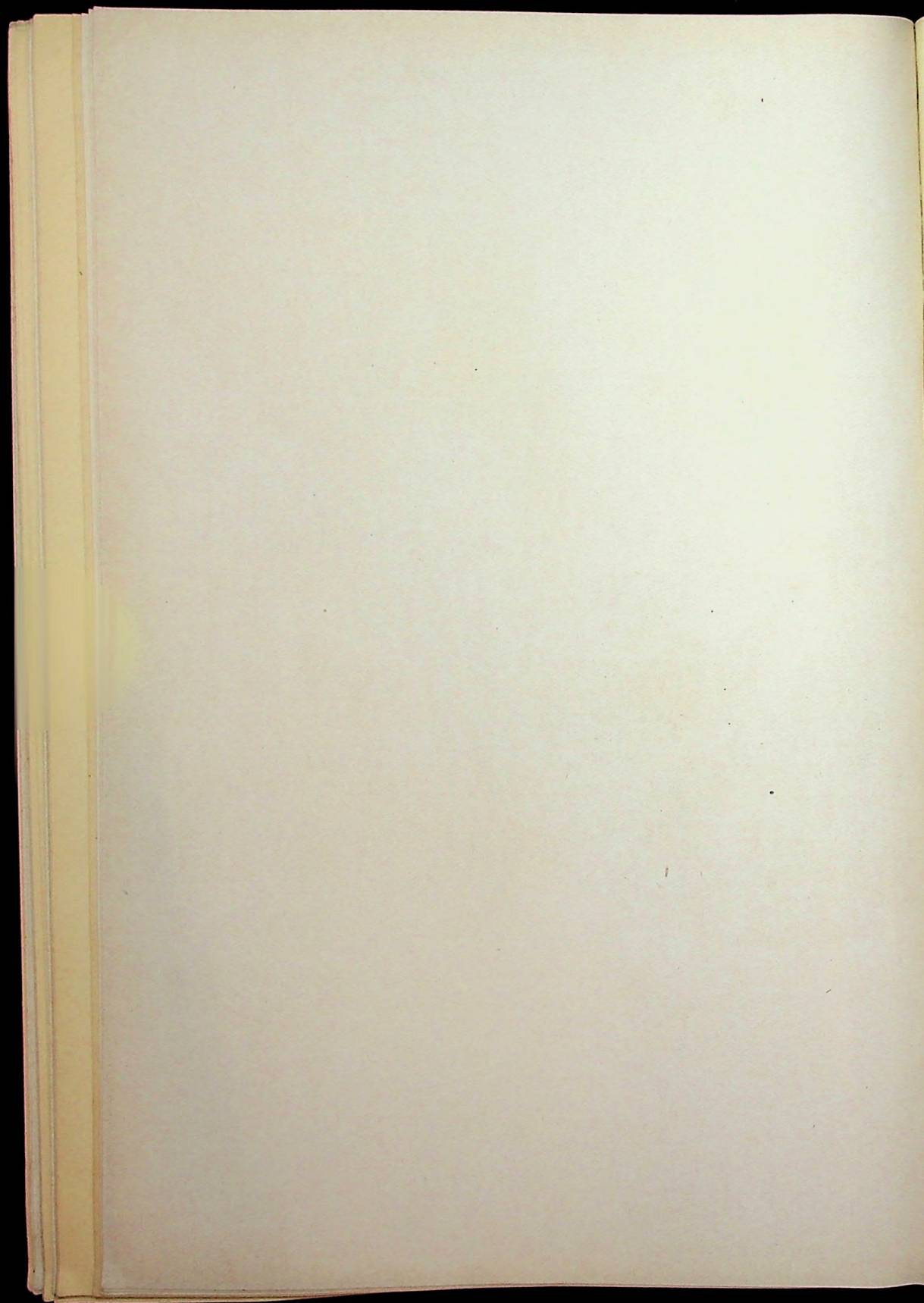


Head of Kwan Ti, the God of War, in
Bronze. Period unknown.

(From the W. Bos Collection)



A Bust in Clay by Vera Southby



ART NOTES

FORTHCOMING EXHIBITION OF LADY ARTIST'S PAINTINGS:

Readers of the *China Journal* who are also lovers of art will be interested to hear that the well known artist Vera Southby (Mrs. Stuart Dees), of Wuhu, has recently gone to Peking with the express purpose of painting a series of pictures of scenes and people there with a view to holding an exhibition of her work in Shanghai towards the end of October or beginning of November. The fine work of this artist will be remembered by many who have attended local art exhibitions, in several of which her paintings have been hung. Vera Southby is one of the only artists in China who have had their work hung in the Royal Academy in London. She has also had her work accepted for exhibition in the Salon in Paris, which two facts place her in the front rank of artists in this country. In the accompanying illustrations are shown some examples of her work.

ANCIENT CHINESE POTTERY TOMB FIGURES IN SHANGHAI:

In our last issue we published an account with illustrations of some of the remarkable pottery tomb figures that have been found in ancient Chinese graves of the T'ang and other early periods, and which aroused so much interest and comment when their significance was first discovered a decade or so ago. We are pleased to be able to announce that recently some very fine examples have been received in Shanghai from up-country, and these can be seen by those interested at an address which will be furnished on application to the editorial department of *The China Journal*. We understand that a limited number of these are for sale. In the accompanying illustrations are shown photographs of some of these.

It may be noted that, owing to the demand for these tomb figures that immediately developed on their discovery, a regular business has developed in Honan of making and selling imitations, with the result that it is not at all easy to secure genuine pieces. It is all the more interesting, then, to be able to view pieces whose authenticity is above suspicion as is that of the pieces mentioned above. Even amongst originals there is a wide variation in the quality of the work, those pieces that were executed by good artists being worth a great deal more than those done by poorer craftsmen.

TRUTH OR CONVENTION: In his discussion in "Art Notes" under the above caption in the last issue of this journal, R. T. P. G. asks the question whether Chinese art, having worked towards and accomplished the arbitrary establishment of a convention, did not stand still. This is a question that may well be asked, for of all distinctive arts that have developed in the world that of China is undoubtedly the most conventional. A superficial survey of the field of Chinese art as we see it about us to-day might easily lead one to answer the question in the affirmative; but as soon as we begin to study the subject in relation to the time and place of the production of the innumerable Chinese *objets d'art* with which we are continually being brought into contact, we find that the question admits of another answer, the subject of another interpretation.

Fundamentally the Chinese are a conservative and conventional race. Nowhere in the world but China could the teachings of Confucius, with their insistence on the correct behaviour, formalities and customs to follow, have flourished and become the state religion.

What very little we know of the beginnings of art in China, the scratched drawings and hieroglyphs on the so-called "oracle bones," show that while there was at first a certain amount of freedom of expression and adherence to truth, yet this was soon overcome and dominated by conventionalism. And out of it developed the Chinese script, that wonderfully beautiful writing that has persisted with very little change for thousands of years.

Later, again, when other media for art expression had been developed, such as stone carving and bronze work, the same thing happened—freedom and adherence to truth in form and line subsequently superseded by a strict conventionalism.

The earliest Chinese painters of which we know anything displayed a remarkable appreciation of natural beauty; but subsequently their work was copied and copied till picture painting as an art became conventionalized and such natural objects as mountains, clouds, running water, trees and rocks indicated by the most stereotyped forms.

Many of the pottery tomb figures of the Wei and T'ang periods show an extraordinary verisimilitude to the people and animals they represent, but this art, apparently, did not last, and when next we find pottery figures, mainly in the form of tiles and roof decorations, they have become extremely conventionalized.

The fact of the matter is Chinese art has been continually subjected to changes, periods of quickening and reversion to realism alternating with periods of stagnation, when the new truth-forms discovered crystallized into new convention-forms, thereby further enriching the already rich collection of art-forms belonging to the nation, and upon which all later artists could and did draw.

These changes were brought about by various agencies. The introduction of Buddhism brought with it a Greek influence by way of India, and for a time Chinese statuary showed a tendency towards the pure truth of Greek art, but it, too, was soon overcome by conventionalism, and to-day images of the Buddha and the various saints that surround them show hardly any variation except in detail from one end of the country to the other.

At other times a change in dynasties has brought with it a definite change in the art of the country, but always back of everything there has been the Chinese love of conventionalism which has brought the country's art back to its original channels. In different parts of the country the conventions take different forms, going to show that even in their conventionalism the Chinese display a versatility that is remarkable.

This brings us to another truth about Chinese art, we might say, art in general, and that is that conventionalism does not necessarily destroy initiation and invention. For instance, even if the conception of the goddess Kuan-yin has become conventionalized, there is still scope for considerable variation in individual detail, a liberty of which almost every artisan and artist in the country avails himself, so that it is almost impossible to find two Kuan-yin exactly alike.

That the Chinese as artists are not unable to conceive and carry out new ideas is amply shown by the extraordinary ease with which the young school of present day artists have taken up the Western style of painting, especially oil-colour painting, in which they display no lack of originality and initiative.

In this connection it will be interesting to see how long it will take them to develop their own school and conventions. Already one notices a certain conventionality in the use of colours creeping in, while the majority of these young artists favour a sort of impressionist style. Some have made very praiseworthy attempts to adapt Western media to old Chinese art-forms and conventions.

Finally, may we not suggest that even Greek art, with all its adherence to truth, was to a certain extent conventionalized? The Greeks adored natural forms, but these they idealized, using only what they considered the perfect line, and producing figures of men, women and animals in a perfection that we may rest assured almost never existed in a single individual in nature. When this had been attained the form, whatever it was, became stereotyped, conventionalized, and has remained so down through the ages, till artists like Rodin have had the temerity to draw their inspiration once more direct from nature, and others like Epstein have broken clean away from the old traditions.

The Greeks, in their art, discovered certain very definite lines and forms of beauty by adhering to and, we might say, improving upon nature. The Chinese, in their art, have broken away from absolute nature and have invented a very great number of art-lines and art-forms, whose truth and beauty are every whit as real as those of the Greek art, while, if we come to look at them closely, we find that many of their renderings of natural objects, especially in the way of plant foliage and blossoms, birds, fish and other more lowly forms of animal life, have been idealized.

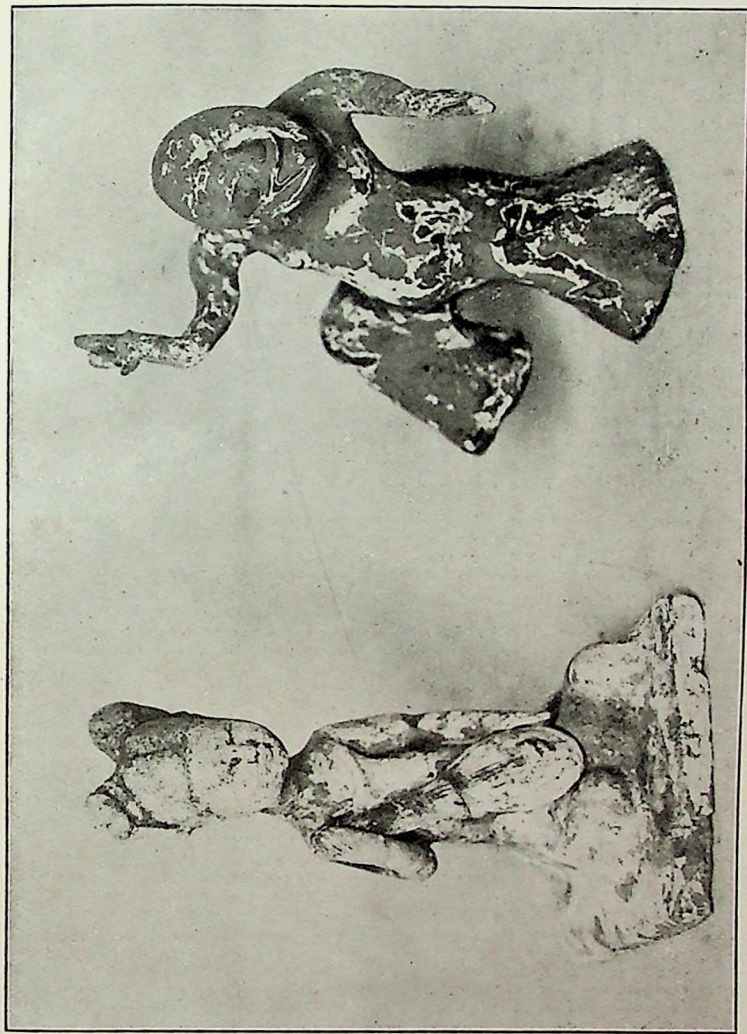
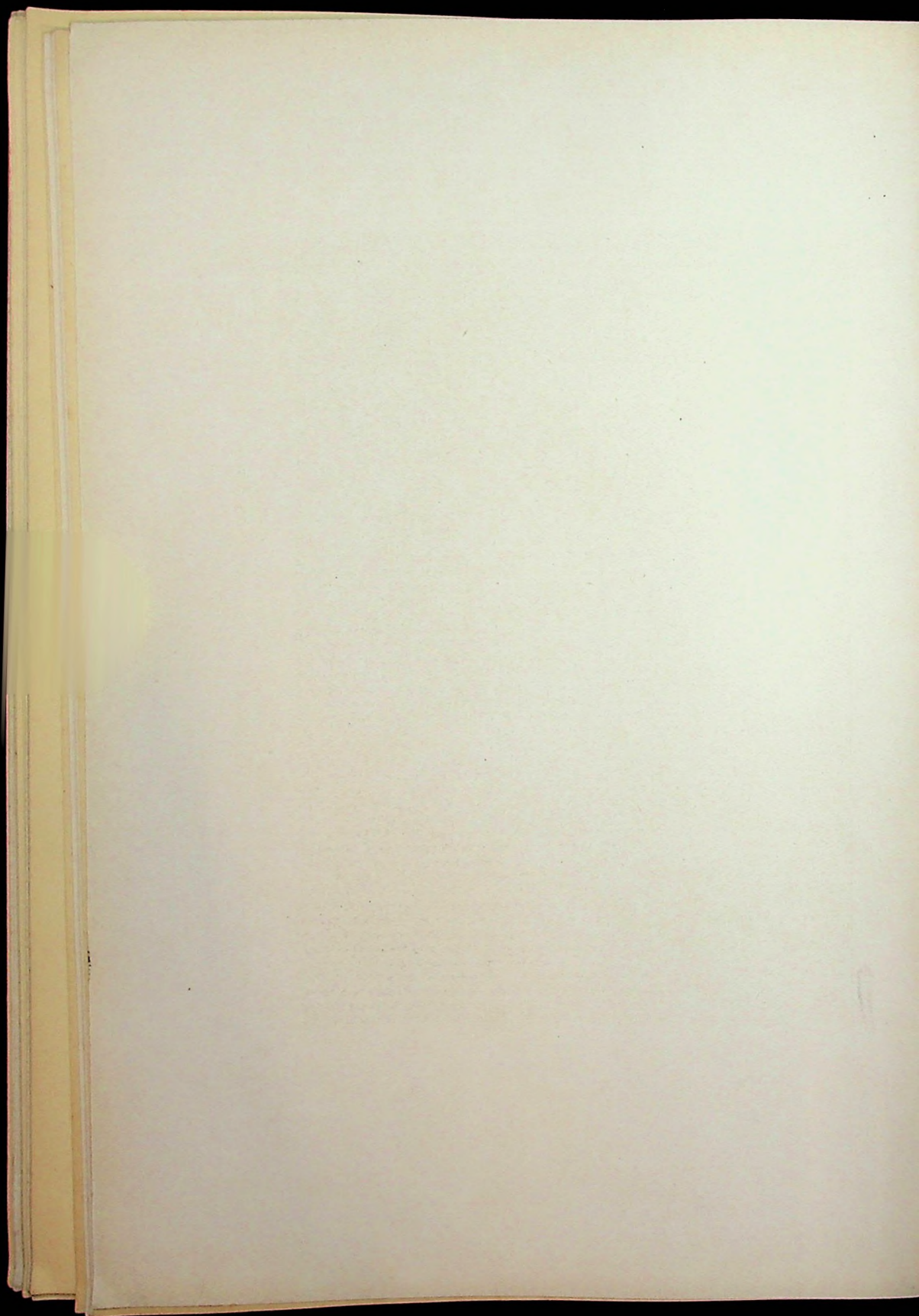


Photo by Ah Fong.

A Female Figure of a Musician, and a Male Figure of a Clown. These delightful Pottery Tomb Pieces date from the T'ang and Wei Dynasties, respectively. They are at present in Shanghai.



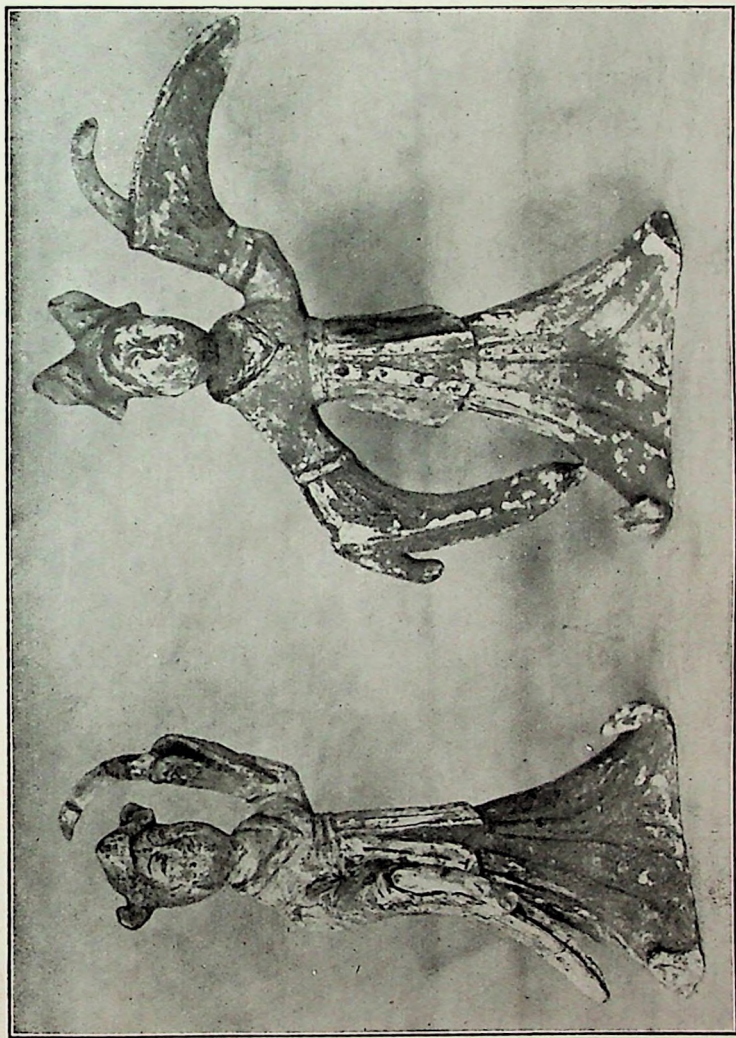
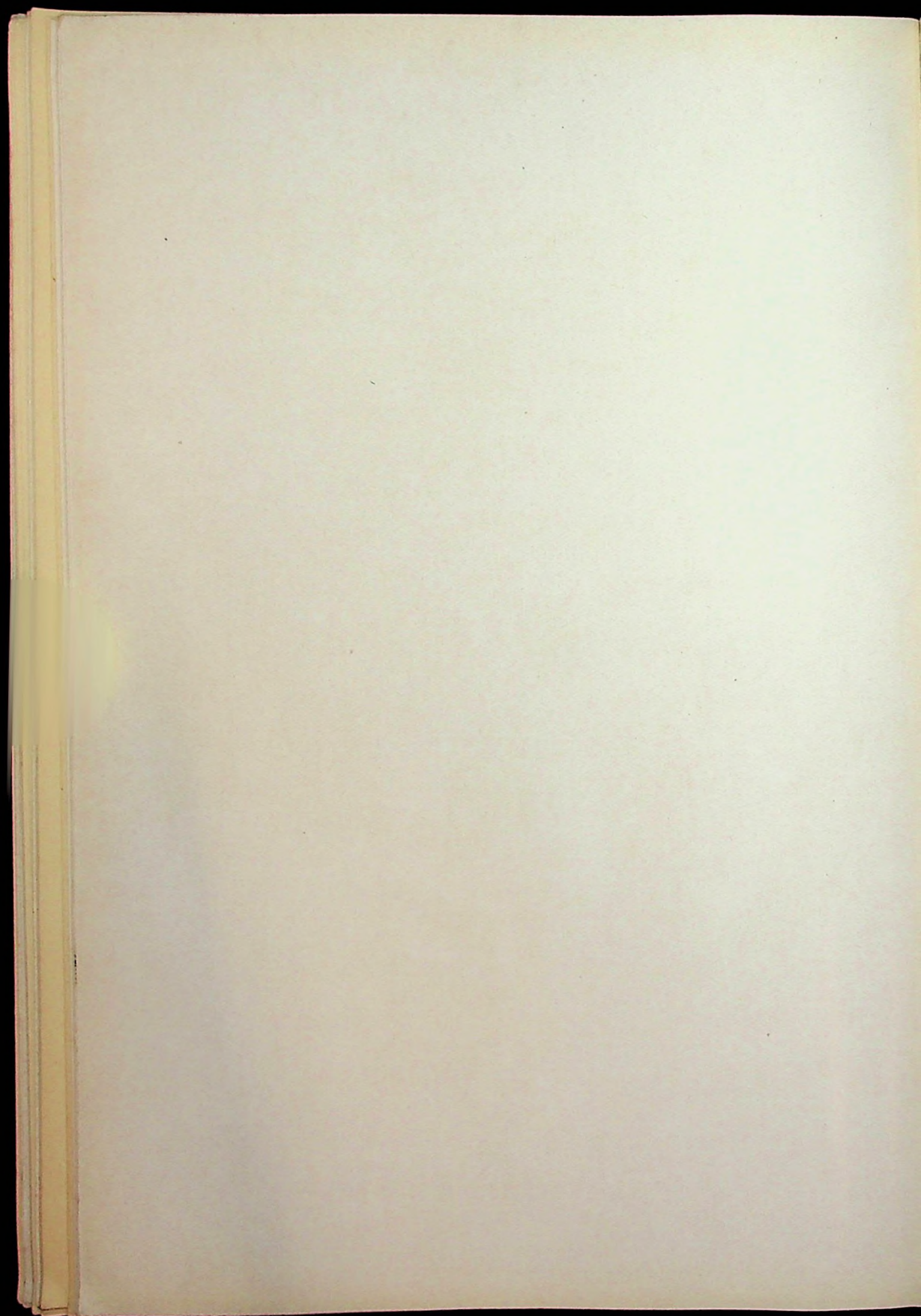


Photo by Ah Fong.

Pottery Tomb Figures of the Wei Dynasty representing two Dancers. These were discovered in Honan, and are now in Shanghai.



ART NOTES

On the whole we feel that the art of China, so far from standing still, has shown a continual and steady progression, in spite of periods of decadence, till to-day it is in many ways the most beautiful the world has to offer, just as it is certainly by far the richest in art-forms and inner significance. Almost everything in Chinese art means something.

A. DE C. S.

REVIEWS

THE DESERT ROAD TO TURKESTAN, by Owen Lattimore; Little Brown & Co., Boston 1929, 372 pp.

This is the book for the Westerner to read, who, immersed in the intricacies of our technological civilization, has overlooked the elemental things of life, and wants to know how men travelled over the earth through the millenniums before the steam engine and the motor car radically altered the ways of men.

No ordinary Western youth would undertake a four months camel journey from Peking to India over a wholly new desert route, against the advice of "old China hands" and consular officials at a time when the whole of China was seething with political turmoil. This the author did, however, entirely on his own, and without the financial backing of an imposing and well-advertised exploring party of the ordinary sort. In spite of these handicaps, or shall we say because of them, he has written a book of which larger and more impressive expeditions might well be proud. He had, however, the great initial advantage of having been reared in China. Knowing the language, he could record with fidelity the tales and the talk of men who live their lives in inns or take what the open road has to offer. Only a genuine love of "caravan transport" enabled him to overcome the initial difficulties of a five months internment at the very edge of the Gobi, and obstruction at every turn because of the war-clouds which were looming ever more darkly over north and west China in the spring and autumn of 1926.

Perhaps nowhere within the covers of one book will one find so much lore on the temperament of camel men or the superstitions and customs of travel in the Gobi. It is good to have all this recorded by one so sympathetic with men of the desert and by one so capable of putting it in literary form. Not every explorer reads Homer on camel back, or has such an ear for the right word and such a feeling for what right words can do. His descriptions of the slowly changing landscape are varied by interesting comments on the Chinese language, the etymology of words, the identification of desert flora, or the ways of "caravan men." Oftentimes these chance observations are very acute, as when he describes the Mongol tribes as "dividing themselves by watersheds and not by valleys, because what they require is the delimitation of grazing grounds." Quite evidently the author is more in love with the religious customs and life of the Mongols than he is with the Chinese. The combination of acute observation with evident literary power is familiar to us in some of the great English books of travel, but it is not often that we find it in the writings of American travellers. In this respect Mr. Lattimore has followed the best English tradition, and we hope has set a standard which other Americans will follow.

ARTHUR W. HUMMEL.

THE CHINA JOURNAL

INTERNATIONAL RIVALRIES IN MANCHURIA, 1689-1922, by Paul Hibbert Clyde, PH. D., the Ohio State University Press, Columbus, Ohio, U.S.A.

RUSSO-CHINESE DIPLOMACY, by Ken Shen Weigh, PH. D., The Commercial Press, Ltd., Shanghai.

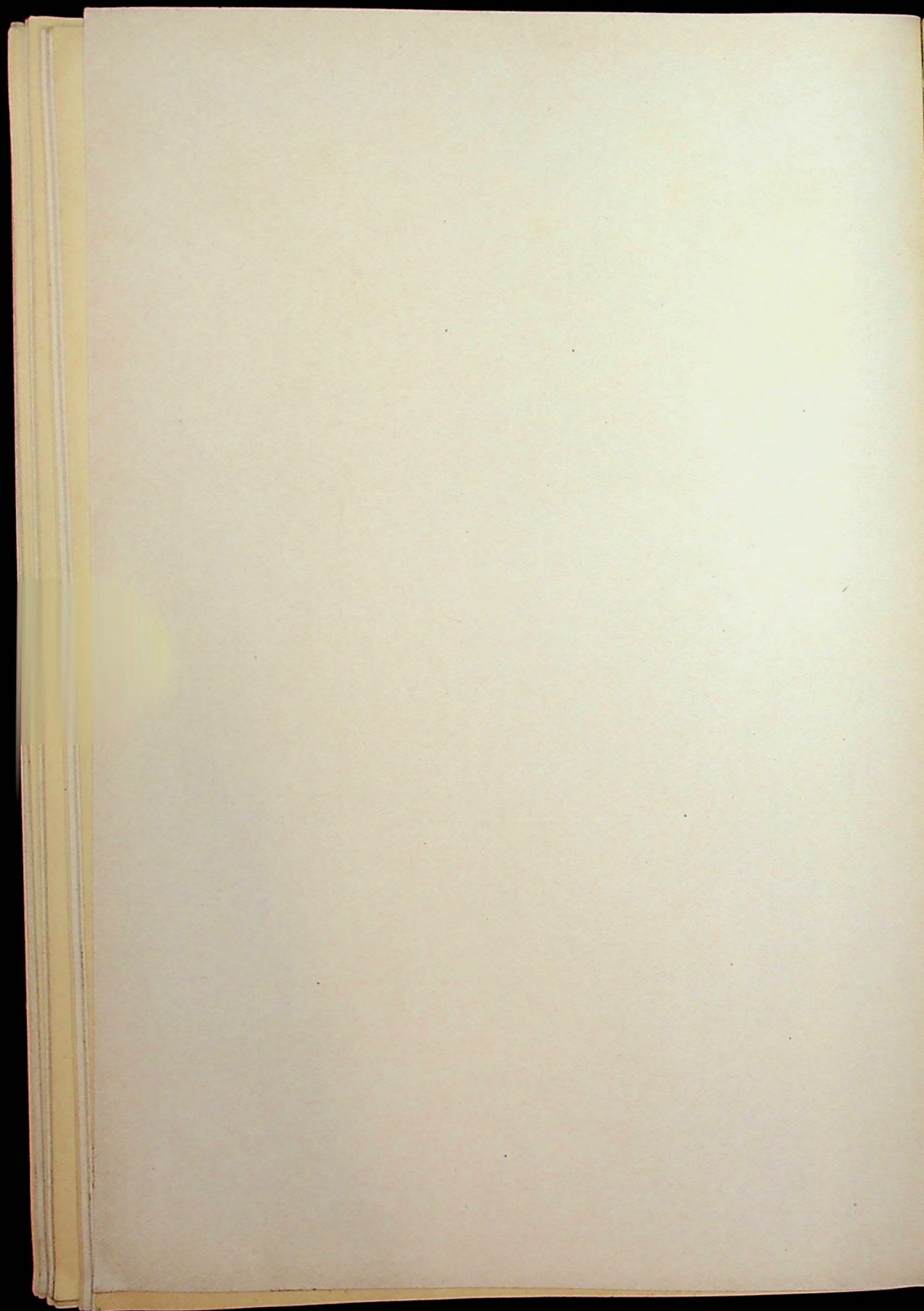
One of the most interesting functions of a reviewer occurs when it is possible to consider two books at the same time dealing with the same subject, and the writer has obtained more than the usual amount of pleasure and a considerable amount of instruction in reading the above mentioned books together. Mr. Clyde has approached the subject from as impartial and historical a point of view as can well be imagined, seeing, of course, his facts through American spectacles. Dr. Weigh is essentially a special pleader. Having much in common so far as the authorities they quote in substantiation of their arguments, are concerned, they approach an interesting problem from two different angles, deal with it on widely differing lines and succeed in leaving the reader exactly where he was before. But Mr. Clyde does so frankly. "No attempt," he writes, "has been made to bring the story up to date from 1922. The years succeeding that date have been filled with activity so far as Manchuria is concerned, but this story is reserved for a later volume, not merely because of limitations of space, but because much of the material necessary for an historical treatment of the subject has not yet been made available to the historian." But the period he has chosen to cover is admirably treated as an exposition of the American attitude in the intense rivalry which has existed in the Manchurian markets between the foreign Powers and the tortuous policies that rivalry brought into being. As such, Mr. Clyde's work is of inestimable value within the limits he has set himself.

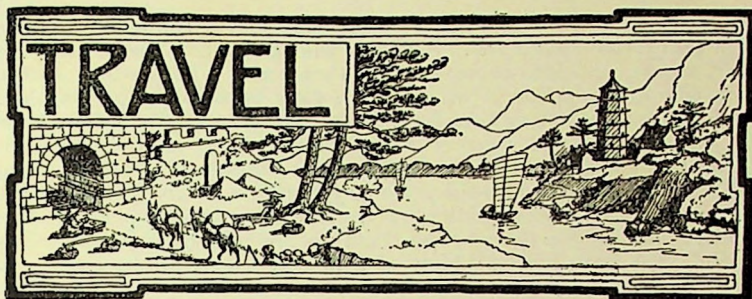
Dr. Weigh, on the other hand, takes his book up to the end of 1927, but the quality of his work for the last five years may be judged by the following extract which is typical: "Bolshevism in China does mean this, however, that the nationalistic and intellectual elements, tired of the political juggling that goes on in the tuchunate draining the sinews of the nation, and indignant over the unequal treaties that bind China hand and foot, politically and economically, may with the help of a rejuvenated Russia, defy the *opera bouffe* of native militarism and the predatoriness of foreign imperialism—a defiance which may or may not involve all manners of disorders and all kinds of atrocities. This is the kind of Bolshevism that appeals to the most sensitized and the most articulate elements of the nation, the nationalists and the intelligentsia." Thus with the old familiar clichés, the veiled threat, the book proceeds to its end, where in the last seven lines the policy of the *fait accompli* is suggested as the real solution of China's difficulties, a contemplation of the possibility of China forcing the present situation into a three cornered struggle between herself, Japan and the Powers, in the apparent hope that what China cannot now obtain in equity she may secure by expediency. And that is a restatement of a very old Chinese policy.

R. T. P. G.



Photo by Ah Fong.
Two Dancers. Wei Dynasty Pottery Tomb Figures, now in Shanghai.





MOODS OF MOUNT OMEI

BY

CHARLES HOOKER

In the province of Szechuan, in the interior of China, there is a vast pile rising from the plains of Kiating. Mount Omei has for centuries been the mountain sacred to the worshippers of Buddha. To one who has been permitted to explore her templed slopes, memories of her changing moods must always linger.

You are approaching across the cultivated plains along paths worn smooth to Omei. The rays of the setting sun throw the mountain into sharp relief against the bank of tinted clouds which form the background. With the first feeling of awe the traveller gazes upwards as the road starts to wind among the many foothills. The majesty of Omei dwarfs the surroundings, even as it seems to dominate the mind of the pilgrim. For on these slopes you are a pilgrim in the true sense of the word. Even as you watch, the shadows merge and the sharp outlines fade into the night.

It is night on Mount Omei. The temple courtyard seems almost ghost-like in the first hush of the evening. Flecks of moonlight dance fantastically on the pavement worn thin by millions of pious feet. Grey clad forms glide through the corridors, intent on the duties of the evening prayer, which is about to commence. The still of the night is broken, but not disturbed, by a rolling boom from the bass drum in the inner temple. The echo is caught and tossed from valley to cliff and back. Slowly and rhythmically the cadence is increased till the roll becomes continuous, then, as gradually, it is slowed until, with a last boom, unbroken quiet takes hold of the mountain. Your eyes are lifted to the peak above, there among the stars Omei seems to smile, if a mountain may smile, as she graciously receives the homage of her children, and bids them sleep, calm in the protection of her shadow.

It is dawn on the summit of Omei. The thin clear air holds a glorious promise of the day to be. You are invited by a courteous priest to attend the Abbot of the Monastery, who is waiting below. From

the edge of the three thousand foot precipice you watch as many have kept that watch before you. Suddenly the aged abbot, who is standing near, moves, and into those wise old eyes comes a look which baffles you, who are from the West. For the glory is about to be revealed. Banks of mist stretch away as far as the eye can see. The sun rises above the edge of the bowl, turning the clouds into a sea of rose and gold. Directly below is a white bed of mist as yet untouched by the morning sun. It is this bank which the priest at your side is watching so carefully, as you too watch, hushed instinctively. A rainbow appears in a complete circle. Nothing can describe the beauty of the colours on the ground of white. The head and shoulders of a man are seen in the circle. A head which moves, and an arm which beckons. And it is now that hundreds of devout pilgrims leap to these beckoning arms, leap to death three thousand feet below. "You are fortunate—pilgrim" the abbot murmurs, "there are many who ascend, but it is not given to all to view the Glory of Buddha." And you are thankful.

It may be that you expect it, that you are forewarned, or it may be that it comes to you as a vision from another world. Before you is spread a plain; a river winds like a gleam of silver through the picture, but along the horizon, and towering above the horizon, is the crowning glory of Omei. Row upon row, rising one above and behind the other are—the Himalayas! They are seen so plainly in that clear air that details can be picked out by the naked eye. That green band is a world famous glacier, those twin peaks that form the crest of the bowl are worshipped as gods. That pass is one of the main entrances to Tibet and the hinterland. The priest who is attending you has produced a pair of glasses with the best German lenses. With their aid you can pick out the features of the various peaks. Yet closer inspection cannot weaken the first impression received when the Himalayas were seen, eternal, grand and cold, the top of the world.

One more picture remains, Omei in her wrath. Across the foothills they are piling up, swiftly, relentlessly. The wise pilgrim retires to the shelter of temple or shrine when these black clouds approach. The sun is hidden, and the birds are quiet, with an ominous quiet before the storm. The summit stands alone, grim, menacing, as the thunder clouds roll up her side. With but scant warning the storm breaks with a fury that is breath taking. Flashes of vivid lightning leap from the crest of one cloud to another, and play around the peak in jagged forks of fire. Simultaneously the crash and boom of thunder fills the very earth with sound. The trees are shaken and bowed, and you watch a bird, storm tossed, try to reach the haven of the temple eaves. Accompanied by vast sheets of rain the storm rolls swiftly away, and soon rumbles itself out on the neighbouring hills. With a new respect you gaze up at the mountain you are leaving. She can be beautiful, mysterious, grand beyond comparison, and terrible in her wrath. Is it any wonder that China has, for generations, toiled up her rugged paths to worship on her summit. They will continue to do so, for Omei is older than time, she will watch governments and creeds come and go. And she will remain sacred and helpful to the men who share, and will share, her secrets.

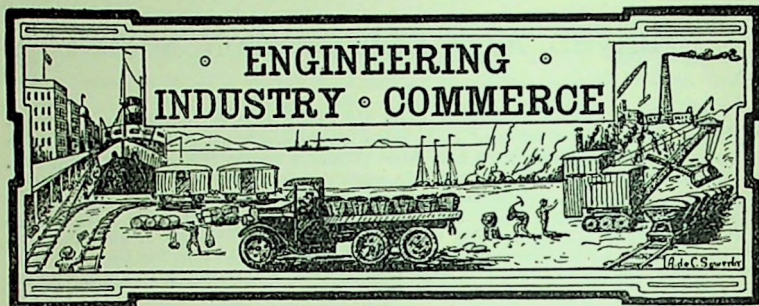
TRAVEL AND EXPLORATION NOTES

CITROEN CATERPILLARS FOR EXPLORATION IN CHINA : Arrangements are now being concluded for a most interesting voyage of exploration to be carried out in Northern China and Indo-China by means of caterpillar motor cars, for the purpose of scientific research in what are comparatively little known areas at present. It will be conducted by the National Scientific Union of China and the Citroen Motor Car Factory of France. M. Haardt, director of Citroen and in charge of the caterpillar manufacturing department, will be in charge of his company's interests on the expedition, having been selected for that purpose by the French Government, while Dr. Chu Min-yi, a well known Chinese scientist and a returned student from France, president of the Sino-French Technical Institute will be head of the Chinese section.

Starting out from Peking in January of next year, according to the present arrangements a long journey across Asia is contemplated, which, it is expected will result in fresh and important discoveries being made. A expedition consisting of about a dozen caterpillars have made similar trips in Africa, Persia and Egypt with the greatest success. Starting from Tunis its members have crossed Tripoli, Egypt and Syria and are now in Persia. They are next planning to cross Russian Turkestan with the idea of linking up with the Chinese expedition somewhere in Sinkiang, after which the combined parties will enter Mongolia and Suiyuan, and then visit various places in Shensi, Hupeh, Shansi, Hunan, Kueichow, Yunnan and Indo-China where the whole expedition will end.

Research work will be done by the Chinese division in connection with Geology, Ethnology and Archeology, which it is expected to be able to complete within seven months of the party's arrival in Sinkiang, and it is interesting to note that while certain limits as to activities are placed upon the party, which cannot make maps, or take photographs without the consent of the Chinese Government, no specimens found may be sent abroad without the permission of the Chinese leader of the expedition. By the use of the caterpillar in preference to the old style caravans it is hoped to encourage the development of a new economic spirit in the districts through which the expedition will pass, at the same time reducing the amount of time spent in actual travel, while on the scientific side it is expected that much will be done to illuminate many matters upon which the world is at present in the dark, regarding Asia, particularly Sinkiang, of which so little is known, and which is reputed to be the birthplace of an old civilization.

EXPEDITIONS INTO MONGOLIA : The news which has arrived just recently to the effect that there is still a possibility of the American Museum of Natural History being able to continue its work in Mongolia under Dr. Roy Chapman Andrews is interesting in the extreme. The telegraphic reports are, naturally, not too extensive, but it would appear that a *modus vivendi* may be arrived at on the basis of a differentiation between geological and paleontological specimens and archaeological remains and *objets d'art*, the two latter being retained in the country and the export of the former being permitted. If, as it is promised, legislation to this effect can be put through by the Chinese Government, then a definite step will have been made in stabilizing China's position with regard to one of the sciences, and providing for facilities, the refusal of which considerably embarrassed the workers in this particular field. Negotiations, we understand are to proceed in Washington and it is hoped that a definite settlement of a vexed question may be arrived at. It does seem as though, on the basis suggested, foreign enterprise in this direction will have an opportunity of securing adequate reward for its work in Mongolia, while China itself will in no way be impoverished, *objets de vertu* undoubtedly should remain in China, the home of their creation, but geological specimens are of such world-wide importance that Nanking would be doing the gracious thing to permit of their going into channels where they would be of the greatest possible scientific worth.



INDUSTRIAL AND ENGINEERING POTENTIALITIES OF MANCHURIA

BY

ARTHUR DE C. SOWERBY

Those who have followed the trend of events in the Far East during recent years will have realized that by far the most promising as yet undeveloped area, both commercially and industrially, is that part of the East Asiatic land-mass that lies between the Great Wall of China in the region where it reaches the sea at Shan-hai Kuan and the mighty Amur River that divides Soviet territory in Eastern Siberia from that of China. This is Manchuria, comprising the three provinces of Heilungchiang in the north, Kirin in the centre and east and Fengtien in the south. Of these by far the most developed is the last, having been settled by Chinese almost completely for many centuries.

For the best part of the past three decades this part of Manchuria has lain within the sphere of influence of Japan and the South Manchuria Railway, who have been responsible for enormous developments in the way of commercial and industrial enterprise, showing clearly what may be done with the rest of this land of promise under favourable conditions and an effective government control. For Fengtien is by no means the richest area in Manchuria, except, possibly in coal and iron. It possesses none of the great timber reserves or alluvial gold deposits of Kirin and Heilungchiang, where also are immense areas of undeveloped land highly suitable for farming and stock raising.

It must not be thought, from this statement, that Fengtien is a poor province. On the contrary, it is extremely rich, both from an agricultural and mining point of view. The famous Fushun colliery, consisting mainly of an "open cut," which is one of the largest in the world, produces 12,000 tons of high grade bituminous coal daily, while the reserve of coal in this mine has been estimated at over 1,000,000,000 tons, or two hundred years' supply at the present rate of out-take. A new industry in the form of oil extraction from the shale that overlies the coal seams is being developed, and when the oil distilling plant has

INDUSTRIAL AND ENGINEERING POTENTIALITIES, ETC.

been completed it will turn out annually 1,000,000 gallons of volatile oil and 50,000 tons of heavy oil, as well, of course, as other products derived from such a project. Another important industry in this province is formed by the Anshan Iron Works, producing 250 tons of pig-iron a day, to which is to be added in the immediate future a steel producing plant.

Probably the most important industry involving the use of machinery in this province, as, indeed, it may ultimately prove to be for the whole of Manchuria, is the milling of the soya bean. This, of course, is directly dependent upon the agricultural potentialities of the country, since it rests entirely upon the production of the soya bean. At present there are said to be some two hundred soya bean mills for the extraction of oil from the beans, by far the greater number of which are old fashioned and are owned and run by Chinese. These mills produce a low grade of oil containing many impurities. The perfecting of milling machinery producing a pure high grade oil, and which is now extensively used in Europe and America, has resulted in a very considerable falling off in the demand for the bean oil produced in Manchuria, the demand for the beans themselves having correspondingly gone up by leaps and bounds. Denmark heads the list as a foreign purchaser of soya beans from Manchuria, the beans being milled in that country and the oil and by-products used in all sorts of industries, such as soap manufacture, milk production, and the like. The possibility of carrying on these oil milling and other manufacturing enterprises connected with the soya bean locally and exporting the finished products rather than the raw material forms one of the chief industrial potentialities of Manchuria. Here, indeed, is a great field for the introduction of foreign capital and Western machinery, and one which is bound to be developed sooner or later. That it is feasible is proved by the existence of at least two up-to-date mills in the country, turning out high grade oil. One of these, the Nishin Oil Mills, is situated in Dairen, and the other, the Calbalkin Oil Mills, is in Harbin. Other Japanese companies in Dairen are engaged in the manufacture of articles and commodities from the by-products of this milling, notably paint, soap, perfume, casein, bean flour and celluloid.

The dimensions this general industry may develop in Manchuria is indicated by the present annual production of soya beans in that country. This reaches the enormous figure of five and a half million tons, of which 72 per cent. is exported. This means that at present practically the whole of the profit derived from milling and manufacturing articles and commodities from the soya beans grown in Manchuria is enjoyed by countries outside, and all Manchuria gets from the business is the profit to be derived from the growing and marketing of the beans.

Another industrial potentiality connected with the Manchurian bean business is that of supplying agricultural and farming machinery and implements. This brings us to the subject of the agricultural development generally of the country, as well, of course, as to that of transport, which two must necessarily go hand in hand, and in both of which lines there must be almost unlimited opportunities for the introduction of foreign machinery and appliances in the very near future.

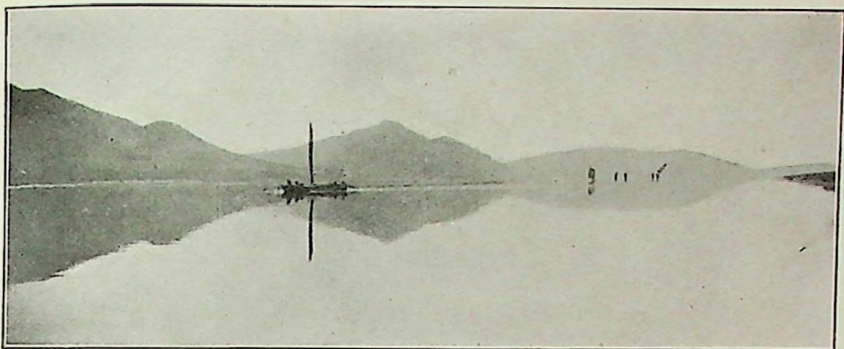
The very profitable business of opening up new land for agriculture and selling it to the incoming settlers from China (running into hundreds of thousands each season), is creating an ever-increasing demand for foreign agricultural machinery, while the necessity of getting the agricultural products, mainly beans, but consisting also of sorghum (*kaoliang*), millet, maize, wheat, barley, buckwheat, hemp, tobacco, cotton and sugar beets, to the markets calls for motor vehicles in large numbers as the most effective means of transport in a country where for two-thirds of the year all roads, although not metalled, are so hard as to be suitable for this kind of traffic, which works out cheaper and far more rapid than the old-fashioned mule-cart. Such agricultural products as tobacco and cotton again open up the possibility of the introduction of foreign machinery in order to handle them to the best advantage of the country.

Yet another potentiality in regard to the introduction of foreign machinery in Manchuria is the development of water transport. The Sungari River and its tributaries tap an enormous area in Kirin and Heilungchiang and are navigable over very extensive stretches. Vast areas now under cultivation depend almost entirely upon the waterways of this system to get their products to the markets, which indicates an opening for the introduction of motor and steam driven vessels of considerable capacity and the proper draft to meet local conditions.

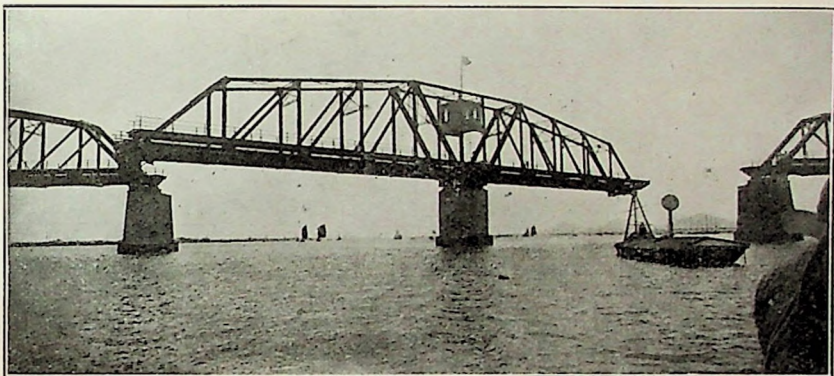
The manufacture of chemicals is another industry which may be developed in Manchuria, and it is planned to erect a 50,000 ton soda ash plant at Dairen, and sulphate of ammonia and nitrogen plant at Anshan.

Finally we have the mineral wealth of the extensive, almost unsurveyed areas of Kirin and Heilungchiang, not to mention the timber reserves, the proper handling of which call for the construction of numerous railways. The coal of these two provinces, while admittedly not of the same extraordinarily high quality as the Fushun mine, is sufficiently good and exists in sufficiently large quantities to warrant the development of a very extensive coal-mining industry and the construction of railways to bring the coal to the markets, both home and foreign. The possibility of the exportation of coal from Manchuria when these mines have been developed in itself calls for the development of harbours and ports which shall be under the control of the Chinese; and here again is a great potential market for foreign machinery, and a prospect of a greatly increased shipping trade with foreign countries. As Manchuria develops, these things must come, and while part of the capital will inevitably be furnished and part of the work done by the Chinese, yet there will also as surely be a demand for foreign capital and foreign engineers.

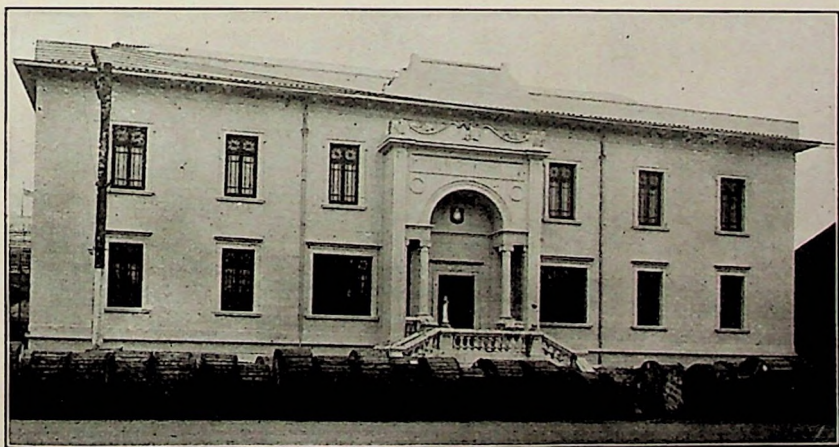
Before this brief review of the industrial and engineering potentialities of Manchuria is drawn to a close, a few remarks may be made upon the gold fields of Heilungkiang, and to a lesser extent of Kirin. While opinion is divided as to just how rich these areas of Manchuria are in alluvial gold, it is generally conceded by those who have gone into the question that there are very extensive stretches of gold bearing country which would well repay working on a large scale with dredges and other up-to-date foreign machinery, while scattered over the country are richer



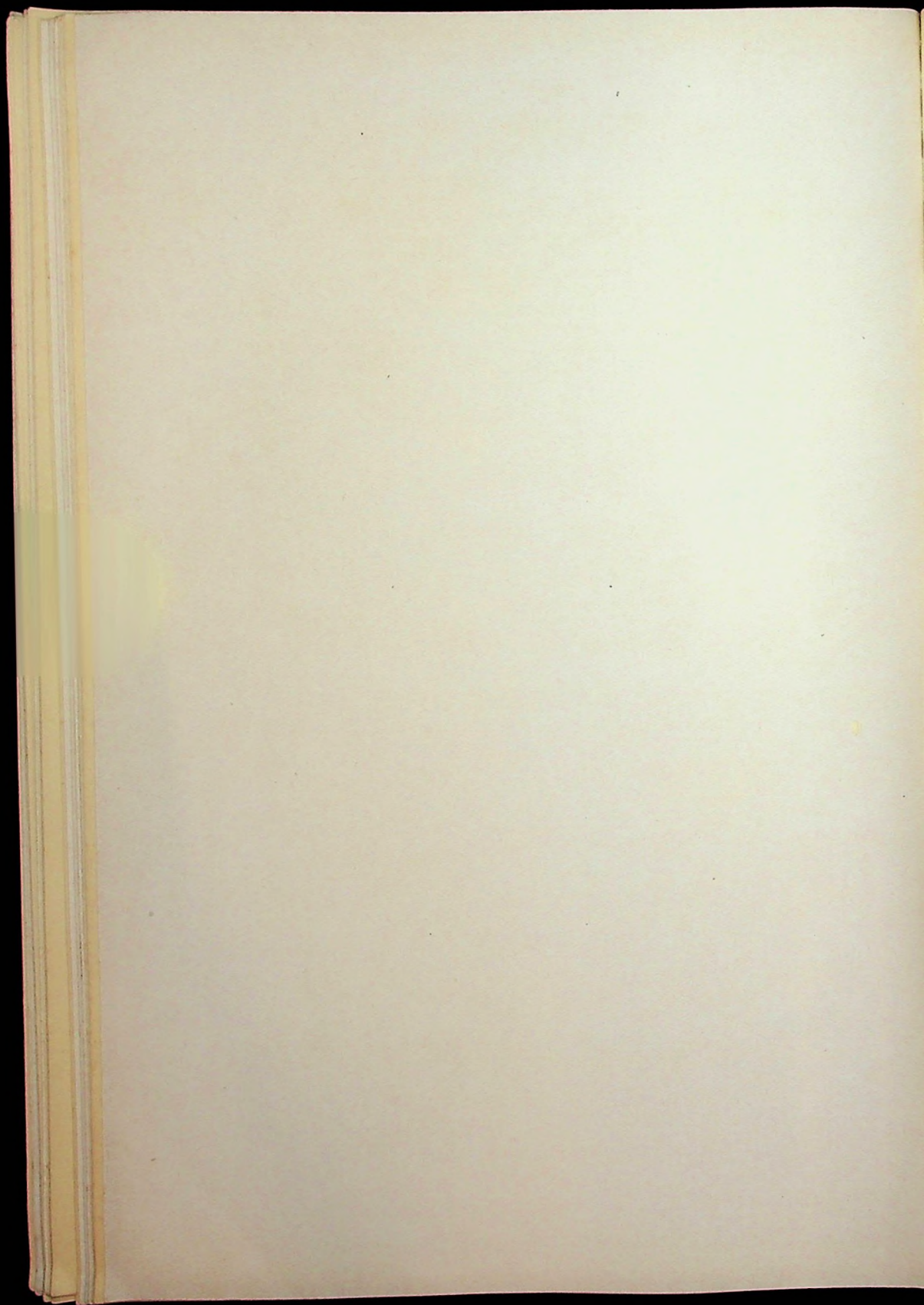
A Scene on the Yalu River, one of South Manchuria's great Arteries of Commerce.



The Fine Bridge Crossing the Yalu River at Antung. One of the Engineering Feats of Manchuria.



The Canton Automatic Telephone Exchange Building.



INDUSTRIAL AND ENGINEERING POTENTIALITIES, ETC.

pockets that render hand mining, even with primitive Chinese methods, exceedingly profitable. So far practically all the gold located is alluvial, but there is good reason to suppose that regular mines will be found when more extensive surveys have been carried out. It must be remembered that vast stretches of the mountainous areas and watersheds are thickly covered with forest, or at least a heavy vegetation, and are scarcely ever visited by human beings except a few Tartar trappers, and it is not unreasonable to suppose that these watersheds carry the mother lodes from which the alluvial gold in the valleys and river-beds is derived. Statistics of the amount of virgin gold annually sold in such places as Harbin indicate that a very considerable amount of this metal is won from the surrounding country by the crude hand-washing methods in vogue, and from this it is not difficult to visualize the extent of the gold mining and dredging industry that would arise were the business properly gone into with adequate capital and government sanction and protection.

In fine, the industrial, commercial and engineering potentialities of the Three Eastern Provinces, as Manchuria is also called, are almost unlimited, and all that is needed is the whole-hearted co-operation of the Government and people with foreign capitalists and engineers working on a mutually satisfactory basis in order to make that country one of the richest, if not *the* richest, parts of the whole Pacific area. It is a naturally rich country, blest with an excellent climate, that has lain idle and untouched while the rest of the world has been developing along modern industrial lines, and now it is being thrown open to a world hungry for raw materials. Its future is assured, and fortunate indeed will be those who can get a foothold on its soil in these, the days of its opening and development.

ENGINEERING NOTES

PLUMBING AND HEATING FACTS AND FIGURES: One is so apt to take plumbing and heating fixtures in a building as so much for granted that it comes somewhat as a surprise to find how much these necessary features contribute to the costs of construction. Just recently a friend was talking on this subject and made what appeared to be at first blush the remarkable statement that no less than a million taels had been spent on this feature in five new buildings in Shanghai. Most of the work so put in is handled by local contractors, a notable example to the contrary, however, being the Hongkong and Shanghai Bank Building, which we understand was carried through by a London firm. The following interesting figures will give some idea of what is spent in this direction nowadays, and afford some indication of the amount of money invested in this very necessary adjunct to modern comfort:—

Customs House by The Shanghai Waterworks		Tls. 200,000
Cathay Hotel		300,000
Cathay Mansions by Messrs. C. J. Doughty & Co.		275,000
China United Building		150,000
Foreign Y. M. C. A. by Messrs. Gordon & Co.		100,000

CHINA'S RAILWAY NEEDS: The recently published announcement by Nanking that for the future a central purchasing establishment would be founded

THE CHINA JOURNAL

to supply the needs of the various Chinese railways has probably been noticed with interest by the various companies concerned in the provision of such supplies. There is, indeed, a great deal to be said for such an arrangement in view of the state ownership of the lines and the necessity of obtaining some degree of unity of control. The desire that firms in the business of purveying railway supplies should register with the Nanking Government should also give no cause for objection, for those who wish to do business with China must expect more and more to have to do it on China's terms, and if the present scheme tends to a more complete control of the expenditure on the railways and a greater degree of efficiency, the reform will be as heartily welcomed by the foreign firms concerned as anything in connection with this form of activity which China has introduced during recent years.

THE MINERALS OF ANHWEI : The National Reconstruction Committee at Nanking has issued an announcement to the effect that it has decided to commence work on the exploitation of the rich mineral deposits in Anhwei Province, especially those of coal in the districts of Hweiyuan, Shaohsien and Fengtai in northern Anhwei. To hasten the development of this work it is proposed to accept the investment of private money in these government enterprises. It is expected to commence work in the development of these resources in December, and to continue for at least three years. Experts believe that the output of coal from these three districts alone will amount to over \$1,000,000.

AUTOMATIC TELEPHONE FOR CANTON : The Canton Automatic Telephone Exchange, installed by the China Electric Co. for the Municipality of Canton and consisting of one-4,000 line exchange of the latest Rotary Automatic type, was put into service on August 25, 1929. The old exchange was removed and an entire new outside telephone plant installed, including five miles of underground duct system, and nearly one hundred thousand feet of underground telephone cable. All aerial cables and wires are carried on concrete poles. The system is working satisfactorily and the Municipality is highly pleased.

AUTOMATIC TELEPHONE AT MUKDEN : During the first week-end of last month an automatic telephone exchange for 4,000 subscribers was put into operation at Mukden, replacing the former manual system, the change being effected within a few hours over night and without any noticeable inconvenience to the public. The new exchange is operated on the Strowger System, installed by Siemens and Halske of Berlin, whose China agents are the Siemens China Co. The inauguration of this new exchange at Mukden brings the total number of Strowger System automatic telephones in operation in China up to 55,000.

THE HUAI RIVER CONSERVANCY : According to the latest estimate of the Huai River Conservancy Board, improvement works on the Huai River will necessitate an expenditure of \$5,000,000. To raise this sum the Nanking Government is to be asked to appropriate \$2,000,000 as initial expenses, the balance probably to be raised later on by means of a loan to be offered for public subscription.

RADIO SERVICE FOR DOLLAR LINE : Before the end of the year the Robert Dollar Co. will have installed units to complete the chain of radio services throughout the world connecting up all the Dollar Offices with the ships afloat, thus keeping the vessels in constant touch with their offices and each other, effecting thereby great economy and promoting the dispatch of business. Arrangements have been made for the Chinese Government to build the Shanghai radio station for the company, the proposed plant being of the 1½ k.w. type. messages being

ENGINEERING NOTES

sent out on a short wave length of from 15 to 18 metres. The station will be operated by the Chinese government, the company paying a fixed rate every month for the use of the facilities thus afforded, while the government may use the station in addition for its own purposes and private messages of all kinds of its own.

FOUR NEW VESSELS FOR M. M. LINE : The Compagnie des Messageries Maritimes are proposing to add four more vessels to their existing fleet during the next few years, of which three will be placed on the Far Eastern run. Already one such vessel is under construction, and orders placed for the building of two more sister ships. It is stated that the *Felix Roussel*, when she is completed will cause a sensation in the world of travel, so far as comfort and convenience on board are concerned, while it is expected that the engines and general refinements of design will enable the duration of the voyage between the East and France to be cut down appreciably.

FLYING THE CHINESE MAIL : The Aviation Exploration, Inc., of New York City, with offices in Shanghai, has contracts with the China National Aviation Corporation (a Chinese Government Corporation) to fly the Chinese national mails between Shanghai, Hankow, Canton and Peiping, and expect to fly their first ship not later than October 17, 1929.

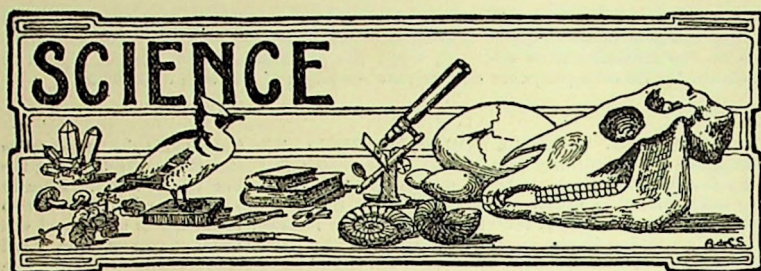
For the purpose of carrying out these contracts, officers, an office force, air pilots, mechanics, and radio operators are now here in Shanghai, preparing for the undertaking.

For the first route between Shanghai and Hankow they will use Loening Amphibians, and the first of these ships has arrived and will be followed at short intervals by the others in time for the inauguration of the line.

The American staff will train a Chinese staff, with a view eventually to having the latter handle the actual work of operating the line and maintaining the aeroplanes.

Flying fields will be established at the termini of the routes and other principal points. Radio stations will be established for the benefit of the flyers in keeping in touch with the ground stations, especially as to weather conditions. Detailed information as to operations will be given after the inauguration of the first route.

WORLD ENGINEERING CONGRESS, TOKYO : The first World Engineering Congress to be held in the Far East will open on October 29 at Tokyo, and will be preceded on October 25 to 28 by excursions of delegates to Nikko and Hakone. The Congress will last till November 7, after which up to November 22 there will be further excursions to various parts of Japan. It will also embrace in sectional meetings the World Power Conference. The Congress will be held under the auspices of the "Kogakki," the Engineering Society of Japan, and will have for its Patron His Imperial Highness Prince Yasuhito of Chichibu, with His Excellency the Prime Minister of Japan as Honorary President, Baron Koi Furuichi as President and a large number of prominent Japanese engineers and scientists as Officers and Committee men. Delegates are expected from all over the world, and it is felt that the bringing together thus of the leaders in research, education and business who are directing the trend of engineering activities will initiate and promote an international co-operation and understanding of engineers the world over, so essential to the advancement of the welfare of mankind. Japanese engineers have long hoped for and awaited the opportunity for such an international congress to be organized under Japanese auspices, and at last their hopes are to be realized. The far-reaching effects and importance of such an undertaking cannot be over-estimated, and it is to be hoped that the Congress will meet with the fullest success. The next Conference will be held in Germany in 1930 under the auspices of the German Government.



THE SIKA OR SPOTTED DEER OF EASTERN ASIA

BY

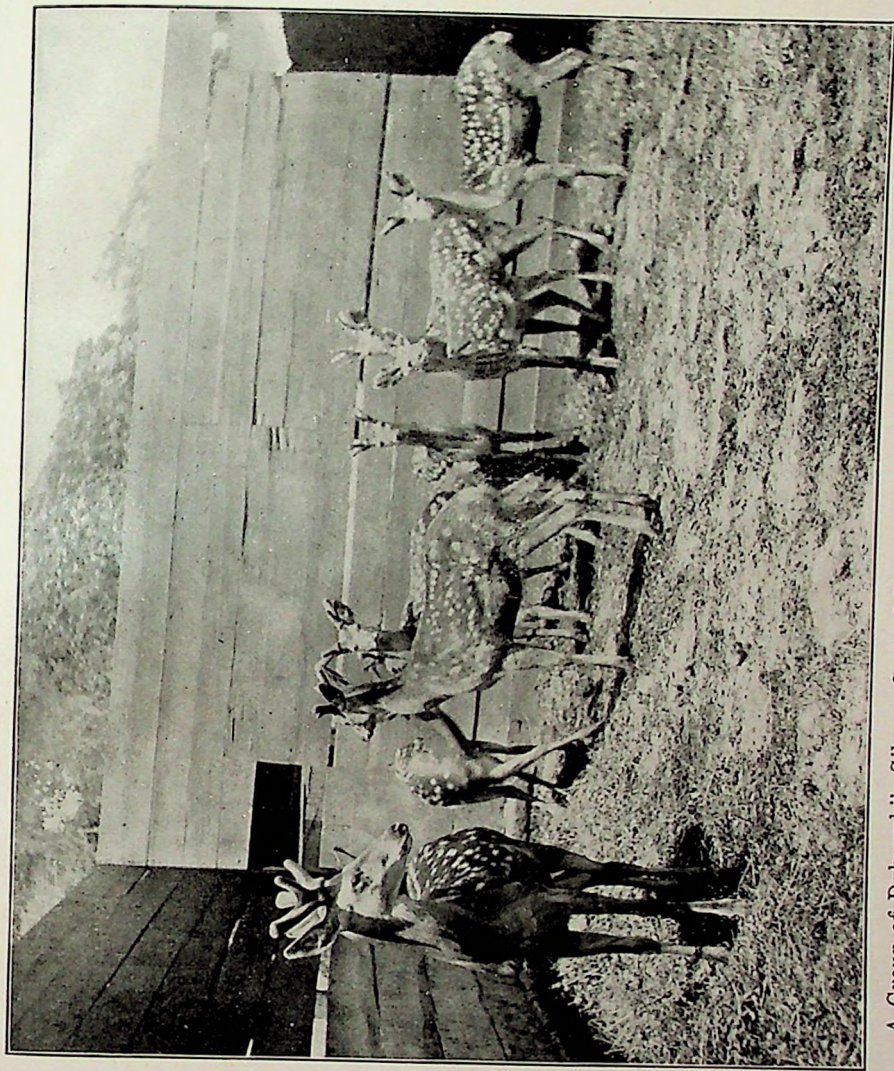
ARTHUR DE C. SOWERBY

Of the eight or nine different genera of deer found in China by far the most beautiful and graceful, both in regard to colour and form, are the sikas, or spotted deer, of which several different species occur in the region of Eastern Asia extending from the Amur in the north-east to Tonkin in the south, as well as occupying the islands of Japan and Formosa. The furthest west the genus extends is West Shansi in the north, the region of the Poyang Lake in the centre and Tonkin in the south, while its easternmost extension is the valley of the Ussuri in the north and Japan.

The horns of these deer are sub-elaphine in type, being about half way between those of the wapiti and red-deer (elaphine) and those of the sambhur (rusine). Normally they show but four points, or tines, a brow, a trez and two royals, even in those of the largest fully adult stags, but in certain areas they show a tendency to develop a fifth point below the royals and projecting backwards. This at times bifurcates again, giving the antler six points. However, this is a rarity confined almost exclusively to the deer of the Yangtze Valley, which, with those of further south as far as Kwangtung, have been grouped under the well-known name of Kopsch's deer (*Cervus kopschi*, Swinhoe).

This is a true sika, ranking in size between the small deer of the Japanese Islands, the typical sika (*Cervus nippon*), and the four large species of the north, Dybowski's deer (*C. dybowskii*, Taczanowski) of the Ussuri and Primorsk, the Manchurian sika (*C. manchuricus*, Swinhoe) of further west in Manchuria, the Chinese sika (*C. mandarinus*, Swinhoe) of the Imperial Hunting Grounds (Tung Ling and Wei Chang) of North-eastern Chihli, and the Shansi sika (*C. grassianus*, Heude) of Western Shansi.

These four northern forms rival the red-deer of England and Scotland in size, being handsome creatures with a red coat in summer strongly spotted with white, much as in the well-known fallow deer of Europe,



A Group of Dybowski's Sika or Spotted Deer (*Cervus dybowskii*, Taczanowski) on a Farm near Vladivostok, which are kept for the sake of their horns.