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Shanghai, China, January 17, 1940.

Subject: World Refrigerator Markets - China.

Submitted by: H. B. Howard, Vice Consul.

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DOMESTIC COMMERCE

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Sales Possibilities in Shanghai: During recent years, electric refrigeration has increased in popularity among the Chinese. Under normal conditions, Shanghai offered excellent sales possibilities for American-made electric refrigerators, although in proportion to population, sales returns might be considered small when compared with densely populated cities in the United States. However, the gradual but steady expansion of mechanical refrigeration in Shanghai is evidenced by reports which estimate that during the years from 1923 to 1926 there were approximately 25 household units sold per year. From 1927 to 1930 the average increased to about 100 units per annum. For the year 1931 the number jumped to approximately 400. In 1932 a total of about 500 units was sold. In 1933, sales increased to 1,000 and in 1934 a turnover of approximately 1,400 units represented the annual Shanghai sales volume. For the year 1935 a peak of 1,700 was reached as in 1936 a decline to 1,500 was witnessed. This decline was principally due to a falling-off in apartment house construction from the 1935 boom level. In 1937 sales declined to about 1,200, due to the commencement of hostilities in August. As a result of the conflict and its attendant currency depreciation and trade restrictions, the number of units sold during 1938 decreased sharply to approximately 605 units, while in 1939 it is estimated that not more than 360 units were sold.

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From these estimates it may be seen that the present Sino-Japanese hostilities with the accompanying depreciation of Chinese national currency and trade restrictions have dealt a severe blow to the refrigerator trade. It is the opinion of some interested trade circles that unless the value of Chinese currency improves in terms of foreign currencies and more areas are made accessible for distribution, the immediate prospect for imported electric refrigerators is not promising. It has been estimated by one large distributor that at \*present exchange rates less than 200 household units can be sold in Shanghai during 1940.

Present stocks of electric household refrigerators in Shanghai are estimated to be about 320 units. Hence it is probable that the export of American refrigerators to Shanghai during 1940 will be limited.

Sizes and Types Preferred: While electric refrigerators ranging between 2 cubic feet and 16 cubic feet are available, the sizes in most demand in Shanghai are the 4 cu.ft., 5 cu.ft. and 6 cu.ft. household models.

Of the two main types of electric refrigerators - the open type and the hermetically-sealed type - the latter is generally preferred. It has been indicated that the Chinese have followed the lead of the American public in this respect in that the foolproof features of the sealed-in mechanism which requires little if any adjustment, have a sales advantage over other types of equipment offered in this market.

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\* On January 17, 1940, 1 yuan or Standard Chinese Dollar was equivalent to U.S.\$0.08.



Food Customs Affecting Refrigeration: Among the well-to-do Chinese as well as among those in moderate or even meager circumstances, the centuries old aversion to chilled foods and drinks has undergone considerable modification during the last decade. However, aside from matters of cost, the necessary precaution of eating principally cooked food in China and the common belief held by many old-style Chinese that refrigeration is not required in the kitchen during the winter months has restricted sales to some extent. Also a very large number of Chinese, exclusive of the general masses which exist mainly on such non-highly perishable foodstuffs as rice or wheat products, continue the old custom of purchasing their food on a daily basis although they may be financially able to afford electric refrigeration.

Potential Sales Centers: Sales centers are necessarily limited to areas having 24-hour electric power facilities such as Shanghai, Nanking, Hangchow, Tientsin, Peiping, Tsingtao, Hankow, Foochow, Chungking, Kunming, Canton, and the British Crown Colony of Hong Kong. However, at the present time such cities as Nanking, Hankow, Hangchow, Tientsin, Peiping, Tsingtao and Canton are under Japanese occupation and are subject to the restrictions affecting normal trade and commerce as instituted by the occupying forces.

The following electrical currents are found within the metropolitan area of Shanghai:

International Settlement:

200 to 220 volts; 50 cycles, alternating current. Power lines, 3 phase, 380 volts.



French Concession:

110 volts (but goes as low as 85 or 90); 50 cycles, alternating current. While French Concession power lines for industrial motors are 3 phase, 330 volts, electric refrigerators are required to operate from 1 phase - 200 volt lines.

Chinese Area:

Pootung and Nantao:

220 volts; 50 cycles, alternating current. Power lines, 3 phase - 330 volts.

Chapei:

200 volts; 50 cycles, both alternating and direct current. Power lines, 3 phase, 350 volts.

Sales Promotion Methods: While carefully planned advertising is important, one of the large Shanghai distributors of refrigeration equipment stated that personal connections with heads of real estate and finance companies, builders and architects (both Chinese and foreign) who are interested in apartment house and commercial and industrial construction are perhaps the most satisfactory promotional methods for equipment of this type. Attractive sales displays, advertising layouts drawn up by those experienced with the China market, adequate guarantees and service maintenance facilities, as well as friendly personal connections in business circles, represent practical methods of promoting refrigeration sales in this market. It is also believed, although not yet attempted, that if Chinese motion picture producers would occasionally show American-made electric refrigerators in their pictures - merely as a part of some appropriate set-dressing or if such equipment might be used as part of some incidental "business" during the picture, that sales of such household appliances would be eventually increased. An arrangement between the



manufacturer and his China representative whereby the manufacturer would defray, as part of his advertising budget, the costs involved in loaning such equipment to interested film producers, would undoubtedly tend to popularize electric refrigeration among an appreciable number of Chinese cinema goers.

Competition From Foreign and Domestic Makes: To date, American made electric refrigerators have had but little competition to meet in the Shanghai or China market from either foreign or domestic sources, and it is likely that this favorable condition, insofar as competition is concerned, will continue for some time to come. It is estimated that approximately 90% of the refrigerators in use in Shanghai today are of American manufacture. However, in the last 4 or 5 years an increasing number of electrical refrigerators - particularly of the commercial type - have been produced in Shanghai and Tientsin and it is believed that in time these domestic offerings may cause importers more concern than at present. Nearly all such China-made refrigerators represent only domestically constructed cabinets (attractive in appearance but lined with zinc rather than porcelain) into which imported mechanical parts have been incorporated. Such essential mechanical parts may be entirely new equipment imported especially for these China-made cabinets, or they may be second-hand units locally re-conditioned and made up of both imported and domestically made new or second-hand parts. Some condensing units are now being manufactured entirely in Shanghai, but their quality and standard of performance leaves much to be desired insofar as even China-made refrigerators are concerned.



Other than domestically made equipment, refrigerators of British manufacture and to a lesser extent remaining stocks of German offerings represent the only other competitors to American refrigerators. It may be said that the only competition in the refrigerator market today is among the various American distributors themselves.

At the present time there are some \*16 different makes of refrigerators represented in the Shanghai market. This does not include some 10 additional makes that have appeared during the last few years and were subsequently withdrawn due to poor market reception. Among those represented at present in Shanghai include the following:

1. Frigidaire
2. General Electric (USA)
3. Westinghouse
4. Norge
5. General Electric (British "Coldair")
6. Kelvinator
7. Starr Freeze
8. Fairbank Morse
9. Spartan
10. Briggs
11. Servel
12. Crosley
13. Electrolux
14. White Hall
15. Bosch (German)
16. Freezor (Chinese)

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\* Not For Publication: American companies in Shanghai such as Andersen, Meyer; Gallop & Co.; American Engineering Corp., and Electrical & Musical Instruments Co. (British) manufacture electric refrigerators under their own trade names, but use well-known makes of imported mechanical units for incorporation into the cabinets.



Prices: The only imported refrigerator in some demand, other than those of American manufacture, is the "Coldair" made by the British General Electric Company. It retails at the following prices:

<u>Size</u>	<u>£ Sterling</u>	<u>*US\$ Equivalent</u>
3.23 Cu. Ft.	£36. 0. 0.	US\$142.56
4.71 " "	39.10. 0.	156.42
5.8 " "	45. 0. 0.	178.20
7.21 " "	55. 0. 0.	217.80

These quotations are subject to a 10% discount for cash. Installment purchases are accepted on the basis of 25% down, and the balance to be paid within 12 months. Carrying charges of 8% are added to the amount which remains after the down payment has been deducted. Payment is also accepted in Chinese currency at exchange rates obtaining on the day of purchase.

Retail Prices of American Refrigerators

4 Cu. Ft.	range from	US\$128.00	to	US\$170.00
5 " "	" "	132.00	" "	207.00
6 " "	" "	151.00	" "	242.00

The lower quotations usually represent secondary makes or makes not well known to foreign markets, while the higher figures represent quotations on standard equipment having an international reputation.

Electric refrigerators manufactured in Shanghai which contain only new imported mechanical parts retail at about half the price of imported units, while those using a larger percentage of locally made or reconditioned parts sell at about one-third the cost of imported models of similar size.

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 \* On January 17, 1940 1 Pound Sterling was equivalent to US\$3.96.



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Terms of Sale: The usual terms for retail sales are cash upon delivery. The discount given by importers to dealers ranges between 10% to 30% while discounts given by dealers to consumers vary anywhere from nothing at all to around 30% depending upon the retail price asked. Under normal conditions, terms for installment purchases range between 20% to 50% down with the balance paid over a period of 12 months. Carrying charges are usually from 5% to 8%. At time of purchase these charges are added to the balance due after the down-payment has been deducted. The papers may be handled by a finance company or by the distributor himself. However, during times of stress such as the present hostilities, it is not unusual for dealers to demand that all sales be entirely on a cash basis.

Maintenance Service Available: Adequate service facilities are maintained in Shanghai by most refrigerator companies which as a rule act as importers and distributors as well as exclusive representatives. It is reported, however, that many refrigerators in use in interior cities, which prior to the present conflict were periodically inspected by service men despatched from Shanghai or from branch offices maintained by the importer, are now isolated from such maintenance facilities.

Estimated Number of Refrigerators In Use: It is estimated that in Shanghai there are approximately 10,000 household and 300 commercial refrigerators in use at the present time.

Statistics concerning imports of electrical refrigerators into China are not available. Chinese Maritime Customs Returns include such equipment along with some 76 other articles which are all classified under one heading known as "Electrical Appliances, N.O.R."



Import Duties in Free China: In areas under the control of the Chinese National Government, electrical refrigerators pay an import duty of 25% ad valorem plus a surcharge of 13% of the duty assessed. Such equipment is classified by the Chinese Maritime Import Tariff (1934) under Returns No. 194; Tariff Code No. 264/40. This classification (264/40) is known as "Electrical Appliances, n.o.r." and also includes, under the 25% ad valorem rate, such additional electrical refrigeration equipment as:

Refrigeration parts (specially designed for household refrigerators; i.e., to be built into cabinets for household use):

Coils, Multiple Freezing  
Cooling Units  
Motors and Pulleys

Industrial Ice Making Machinery is classified in the Chinese Maritime Customs Import Tariff under Tariff Code No. 252/90 "Machinery, n.o.p.f.". Such equipment is assessed an import duty of 10% ad valorem plus the 13% surcharge.

Non-electric household refrigerators such as "Kerosene Burning" and "Gasoline Engine Operated" are classified under Tariff Code No. 262/00 which includes "Coal-burning, Oil-burning, and Spirit-burning Stoves, Cookers, Radiators, Steam Heaters, and similar appliances, and parts thereof", and are assessed an import of 25% ad valorem, plus the 13% surcharge.

Gas burning refrigerators are classified under Tariff Code No. 267/00 which includes "Gas burners, Cookers, Heaters, Lamps, Ranges, Water-Heaters, and similar Gas-burning Appliances, and parts or accessories thereof", and are assessed an import duty of 25% ad valorem plus the usual surcharges of 13% of the duty assessed.



Import Duties in Occupied China: In areas at present under Japanese control (including the port of Shanghai) a revised import tariff was instituted on June 1, 1938. Under this tariff electric refrigerators and parts thereof are assessed an import duty of 20% ad valorem, plus surcharges of 14% of the duty assessed. Such equipment is classified under No. 237.

Kerosene and gasoline operated refrigerators are classified under No. 235 and are assessed an import duty of 20% ad valorem plus the 14% surcharge, while gas burning refrigerators are classified under No. 240 and also pay an import duty of 20% plus the same surcharge.

NOTE: Should articles on which an import duty has been paid at Shanghai be shipped to areas under the control of the Chinese National Government, a second duty will be assessed at rates provided for under the Chinese Maritime Customs "Guide to the Import Tariff - 1934".

Weather Conditions Affecting Operations or Use: The prolonged summers in Central, South and Southwest China with their intense heat and high humidity generally force refrigeration mechanisms to bear a heavier load than is usually carried in the United States. For best performance and protection against rapid deterioration from moisture, electric refrigerators in this market require tropical insulation for cabinet, motor and switches. According to some trade circles, larger condensers might well be considered in order more successfully to combat seasonal heat and humidity.

Power Facilities: Generally speaking, 24 hour electric power service is only obtainable in China's coastal port cities and in the larger industrial and commercial centers of the interior.



Approximate power requirements and current consumption of 3 typical commercial installations in Shanghai are as follows:

		Room Temperature 95° F. K.W.H. per hour
Location No.1 (Cafe)	6' show case 1/3 H.P. motor.	.375/.415
Location No.2 (Creamery Display)	8' show case 1/3 H.P. motor.	.375/.415
Location No.3 (Bakery)	10' show case 1/2 H.P. motor.	.58/.63

Regulations Affecting Imports: Other than the usual regulations now in effect concerning payment of import duties on goods entering Shanghai in artificially valued "Hua Hsing" notes or their equivalent, or the regulations controlling remittances of foreign exchange to points abroad from "free" China, there are no restrictions affecting the importation or use of electric refrigerators into Shanghai or areas under the jurisdiction of the Chinese National Government.

*H. B. Howard.*  
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Vice Consul.

Approved by:

*J. A.*  
Julian Arnold,  
Commercial Attache.

HBH:MKD



S O U R C E S       O F       I N F O R M A T I O N

American Engineering Corporation (China),  
989 Bubbling Well Road, Shanghai.

Electric & Musical Industries (China) Ltd.,  
878 Bubbling Well Road, Shanghai.

Andersen, Meyer & Company, Ltd.,  
Electrical Merchandise Department,  
21 Yuen Ming Yuen Road, Shanghai.

Gallop & Company, Federal Inc., U. S. A.,  
320 Szechuen Road, Shanghai.

Shanghai Power Company,  
181 Nanking Road, Shanghai.

Compagnie Francaise de Tramways,  
et d'Eclairage Electriques de Shanghai,  
249 Avenue Dubail, Shanghai.

Files of the Commercial Attache.

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