

SPECIAL REPORT

Shanghai, China, July 27, 1931.

Subject: SHANGHAI KNITTING INDUSTRY - INDUSTRIAL SURVEY

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The knitting of garments on a commercial scale was started in Shanghai around 1900 at which time all knitting was done entirely by hand. As nearly as can be ascertained, the first hand-operated machines were imported in 1904. Within a few years Chinese craftsmen were manufacturing imitations of these machines and the use of such equipment spread very rapidly not only around Shanghai but in other parts of China, until today thousands of these hand-operated machines are to be found throughout the country, not only in factories but also in households.

The use of power knitting machines in China began in 1911 when the Chingpu Knitting Mill was established in Kwangtung, and the Chin Shing Knitting Mill in Shanghai, equipped with power-driven machinery. The products of the various knitting concerns found a market from their very inception, but an added incentive to the establishment of more mills came about during the world war which caused a scarcity of imported knitted products. The industry has had a steady growth since that time, until today it is estimated that there are about 65 power equipped knitting mills in various Chinese cities, with an additional 25 in Hong Kong. Shanghai is the largest center of the knitting industry, having 47 power equipped mills and considerably more smaller mills equipped with hand-operated machines.

Machinery Used

The power machinery used is almost entirely American, Scott & Williams equipment being the most popular. There are a few German machines and some of Japanese manufacture, but the chief competition for American equipment is from Chinese imitations of it. There are several Chinese shops which undertake to imitate any type of machine, and a considerable number of Chinese made knitting and winding machines are to be found in various mills.

Generally, the Chinese power equipment, although it usually costs less than half the price of American, is not economical to operate as due to the lack of knowledge in working and casting metals on the part of the Chinese, it is short-lived and frequently in need of repair. Nevertheless, many mill-owners install them as original cost and not up-keep appears to be the main factor to them.

Knitting Mills Not Using Power

Locally made machines for operation by hand are more successful than the locally made power equipment, and due to the low cost of labor, the cost of operating hand machines is about the same as for American power machinery. The hand-operated machines are in general use for the knitting of silk hosiery and seem to be fairly successful for this purpose.

It is estimated there are over 150 establishments in Shanghai using hand-operated machines of German, Japanese and local manufacture. The output of such machines is around one dozen pairs a day. In addition to the factories using such machines, they are also to be found in the household, either rented or owned outright.

Centers where there are large numbers of hand-operated machines to be found include Foochow, Hankow, Ping-Hu, Kashing, Sungkiang, Mukden, Peking, Shanghai, and Tientsin. The British Crown Colony of Hong Kong, in addition to its power knitting industry, also has a large hand industry.

Many of the present power mills in Shanghai were originally equipped with hand-operated machinery, and it is possible that certain of the mills now on a hand-work basis, may eventually switch over to the use of power, especially in centers where power is readily available.

Products

With the exception of a few mills, the chief output of the power knitting industry is cotton hosiery. Other products include silk hosiery, cotton underwear, and woollen sweaters, underwear, hosiery and shawls.

The knitting industry looks mainly to the local market for the consumption of its products, and with the constantly developing trade, resulting from the increasing number of Chinese adopting knitted footwear, the expansion of the industry is practically assured. In addition to the Home market, China's knitted products also find a market in the Straits Settlements, Dutch East Indies, and the Philip-
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pines, as indicated by the table attached to this report showing China's exports of cotton socks and stockings during 1930. This table indicates that Hong Kong also takes a large number of China's cotton hosiery, but it is believed that Hong Kong merely trans-ships them to other markets.

Materials Used

Mill owners report that between 80 and 90% of the cotton yarn used is of Japanese manufacture, the bulk of the remainder being locally made. The small quantities of American and British yarn used are mercerized yarn for making tops for the best grade of hosiery manufactured locally. American yarn is recognized as being the best yarn for this purpose, but as it is more expensive than other types of yarn, it is used only to a very small extent.

In view of the continued expansion in the knitting industry, it seems probable that local Chinese cotton mills will make greater efforts to produce yarn suitable for this industry.

For silk hosiery, Chinese made silk thread is used almost exclusively.

The small amount of woollen yarn used in those mills making woollen products is entirely imported, chiefly from Great Britain.

Output

It is practically impossible to determine the output of the knitting industry either for China or for Shanghai alone, as there are no reliable statistics available. It is estimated, however, that the production of power mills in Shanghai amounts to more than 6,000,000 pairs of cotton hosiery per year.

The output of most hand-operated machines is around 12 pairs of hosiery per day, and although such machines in households are not operated regularly, the thousands operated in factories account for huge quantities of knitted hosiery.

The increase in duty to 50% ad valorem on silk products which was put into effect Jan. 1, 1931, stimulated the manufacture of silk hosiery and a very creditable product is now being turned out at prices considerably below the cost of imports. The amount of silk hosiery produced is, however, impossible to ascertain. The power-equipped mills in Shanghai producing silk hosiery have a capacity of something over 3000 pairs per day. However, there are a great number of hand-operated machines producing silk hosiery operating in Shanghai and it is quite impossible to ascertain just what the actual output is.

List of Mills

1/ Attached to this report is a list of mills located in Shanghai, giving the address of the mills, capitalization, equipment, products and output, labor employed, and the year in which power machinery was first used in each mill. With the exception of one or possibly two mills, (Japanese owned), all mills are Chinese owned and operated.

Knitting Association

There is a knitting association consisting of members of the Shanghai Industry with offices at 19 Siking Road, Shanghai. This organization is not very active, its purpose apparently being to function in case of labor difficulties. It does not maintain statistics on output, prices or the market.

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