remorse and regret, not because of the financial setback which I suffered as a result of the war, but for the lost opportunity of developing my plans for aiding those who were in dire need for better education, medical facilities and a chance for a more abundant and meaningful life.

CHAPTER VI

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THE STORY OF THE PAO CHIU FLASHLIGHT BULB FACTORY

挽回利權設立保久小燈泡廠

A FTER Wei Ming's flashlights began to show success on the market, I launched other manufacturing enterprises, making complementary items that helped to broaden and strengthen my product range.

These included a carbon rod factory and a plant which made small flashlight bulbs. The flashlight bulb factory's success was especially phenomenal. Within a short time after its establishment, our bulbs gained wide market acceptance, and sales boomed.

This was a field which had been dominated by imports. I was happy that Pao Chiu bulbs had overwhelmed the hitherto unchallenged eminence of imported bulbs in consumer preference. I was especially happy because the quick and sweeping success of the factory had helped to fulfil my desire of establishing Chinese home industries to dam the torrential outflow of foreign exchange.

In the past there had been other Chinese-operated flashlight bulb factories. But their manufacturing process was technologically crude, and the quality of their products was vastly inferior compared with foreign-made bulbs. Chinese-made bulbs were not only low in brilliance, but their durability was poor.

GE-Edison had a flashlight bulb factory in Shanghai at that time. Its products out-sold Chinese-made bulbs in both price and quantity. I remembered that bulbs made by

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Chinese factories were able to fetch \$70 to \$80 per 10,000 units whereas imported bulbs from Japan sold for more than \$100 per 10,000 while GE-Edison bulbs were sold at \$750per 10,000 - 10 times the price of Chinese bulbs.

Actually, the cost in material and labour of GE bulbs and Chinese-made bulbs was about the same. Thus with a daily production of between 60,000 to 65,000, the GE-Edison plant was obviously making fantastic profits. Looking at the situation in the light of China's national economy, one could see that on a tiny item such as a flashlight bulb alone, foreign merchants were draining away more than *a million dollars annually. This was indeed a lamentable state of affairs.

My Great Dreadnaught brand flashlights made by Wei Ming factory needed bulbs. I found the Chinese-made bulbs inferior in quality, but I was not willing to use imported bulbs in a Chinese-made flashlight; not only because the cost was too high but also because the light failed to focus properly.

Previously, I had gained some experience in making flashlight bulbs when I started the Ta Chong Ming Bulbs Factory. But its output was by no means up to standard and since I was busy with my other enterprises, this plant was eventually closed down.

In 1934, China gained tariff autonomy, and upon the insistence of the Association of Chinese Electric Goods Manufacturers, duty on imported flashlight bulbs was raised to 10 cent apiece (ordinary light bulbs paid the same duty, regardless of size or wattage).

The new tariff, while it cut down on imported bulbs, also helped the sales of GE-Edison products which manufactured their bulbs in China. At that time, GE-Edison had an annual production of 1.8 million to 2 million bulbs annually, and they were making an immense profit from the Chinese market.

To fill the requirement of my own Great Dreadnaught *The value of the dollar then was about \$110 an ounce of gold. flashlights and to develop the market for my batteries, I felt compelled to do my own research in producing a better flashlight bulb. After repeated experiments, I finally was able to grasp the basic technique in the manufacturing process.

The bulbs I was finally able to produce achieved the dual standard of brilliance and durability which other Chinese-made bulbs were unable to achieve. Using GE-Edison as comparison, the brilliance of my bulbs was two units higher and the durability life-span was twice that of the GE products. (With normal voltage, GE-Edison bulbs gave 6-7 candle powers of light, whereas my bulbs produced 8-9 candle power. Under intensified voltage, GE bulbs had a life-span of 30 seconds, while my bulbs lasted 60 seconds.) In addition, improvement had been made in focusing the light, and the result was quite satisfactory.

I was already too pre-occupied with my flashlight and battery plant, and I had no thought at first of going into the manufacturing of bulbs. Thus, I passed on the results of my research to two small factories – Kung Ming and Fu An – and made arrangements for them to manufacture Pao Chiu brand bulbs under contract. In accordance with my cherished principle of helping others as well as myself, I made sure that these two small factories were able to make a handsome profit from the arrangement.

But I found later that the arrangement failed to meet my expectations. Hence in 1935, I invited Mr Hsu of the Kung Ming plant and another friend of the Association of Electric Goods Manufacturers to join me in partnership in launching the New Asia Factory to make Pao Chiu brand bulbs for me.

(This factory was dissolved at the outbreak of the war in the Pacific and I launched the Pao Chiu Flashlight Bulb Manufacturing Factory.)

From the very beginning, we set the price of Pao Chiu at *\$380 per 10,000. We devoted particular attention to the package design, not only to give the product more eye-appeal, but also to set Pao Chiu bulbs apart from cheaper

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brands.

Our price was five times higher than other Chinese-made flashlight bulbs. But our sales skyrocketed with unbelievable speed from 300,000 units to 1,000,000 units per month. We had a difficult time, despite all our efforts, to expand our production to fulfill the rising demand.

We had achieved this rapid upswing in our sales without any great effort at advertising. All we did was to include in our Great Dreadnaught flashlight package a note asking customers to use Pao Chiu brand bulbs whenever replacement was necessary. Yet with such minimal advertising efforts, our sales zoomed.

The profit we made on the bulbs was much bigger than what we earned on the flashlights or the batteries. I had originally hoped that within five years I would be able to catch up with GE-Edison sales. But actually in three years we succeeded in checkmating GE's flashlight bulb sales in China.

During the Sino-Japanese War it was immensely difficult to push sales in the interior. But we had the surprising phenomenon of having customers willing to pay *\$400 per 10,000 in air-freight charges when the bulbs themselves only cost *\$380. These were flown to wartime Chungking, and continued orders from that region helped to assure me that we were enjoying a high reputation for producing a quality product.

When war in Europe broke out and London was under the blitz, demand for flashlights soared in England, A foreign-owned exporting firm in Shanghai lost no time in shipping our Pao Chiu bulbs to England. The British were surprised by the high quality of our product. I remember even today that I was never so pleased when I received a letter from Vitality Bulbs Limited of London praising our bulbs and saying that they would never have believed that Chinese manufacturers could produce items of such excellent quality. in P.D. & Werks

After the outbreak of the Pacific War, the production and

*The value of the dollar then was about \$110 an ounce of gold.

sales of Pao Chiu bulbs suffered from the lack of raw material supplies. But we managed to continue production until Shanghai was taken over by the Chinese Communists. From VJ Day until the Communist takeover of Shanghai, our bulbs, although higher in price, were popular in Taiwan because of their proven quality and they out-sold Japanese brands.

Looking back, I consider my venture in operating the Pao Chiu Bulb Factory one of the most satisfying successes of my industrial career. I am gratified by the thought that perhaps I had, in some small way, helped my country by plugging a hole in her economy and by safeguarding her interest.