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CHINA - THE PEIYANG ARSENAL MINT

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Despite the lack of official records of most of the earlier Chinese machine mints a certain amount of information on their activities may be culled from contemporary documents. The purpose of this paper is to marshall these facts for one such mint and to attempt to present its operations against the changing background of China's minting policy. Needless to say, any constructive criticism or additional data will be welcomed.

The Peiyang Arsenal was one and the same as the Tientsin East Arsenal (as distinct from the smaller, West Arsenal), and is probably identical to the Tientsin Machine Factory set up in 1867. The term "Peiyang" (literally "North Ocean") is an interesting one as it dates back to 1861 when, after the disaster of the second Opium War had forced the opening of further Treaty Ports, China found it necessary to appoint High Commissioners for Trade at Tientsin and Shanghai for the control of the northern and southern ports. These Peiyang - strictly the coastlines of Shantung, Chihli and Fengtien - and Nanyang administrations inevitably outgrew their original functions and absorbed anything new, including the armed forces. The eye catching successes of the western steam warships in the war of 1857-60 led China to concentrate on the construction of squadrons of ironclads, and one such squadron to achieve particular prominence in the late eighties and early nineties, in view of its vital geographical situation in the front line against a growing Japanese menace, was the Peiyang Fleet, supported from Tientsin. It is a debatable point whether the Peiyang Arsenal acquired its name from this naval connection, or from the more general Peiyang administration which by that stage controlled North China.

During the second half of the nineteenth century China underwent a currency crisis on two fronts - there was a cash shortage due, basically, to the high price of copper, and it became painfully obvious to the Treaty Port Authorities that the traditional Chinese currency of cash and silver bullion did not stand comparison with the western traders' imported medium of silver coin. The Imperial authorities, comfortably isolated in Peking, did not concern themselves with the latter, but had a duty towards the cash supply. The advantages of modern machines as a method of mass producing cash had come to their ears, probably from the Chinese Embassy first established in London in 1876, and are mentioned in a singularly bitter edict from the Empress Dowager in February 1887(1), directed at the provincial authorities responsible for producing cash. This had its effect. The following month there was a newspaper report referring to the possibility of a regular mint being established in Tientsin (2) and in April the contract for the mint at Canton was signed in Birmingham (3). This contract included some machinery for minting silver coin, even though the memorial from the Viceroy, Chang Chih-tung, in which he formally applied for permission to undertake on Peking's behalf the experiment of producing a national silver coinage, is dated 26th July 1887 (4). In this memorial Chang correctly forecast "the profits of the one (silver) going to make up the losses of the other (cash)", and referred hopefully, because he was a good patriot and statesman, to the establishment of a main mint in Tientsin to undertake the production of the new national dollar if his experiment succeeded.

Cash minting machinery arrived in Tientsin in May 1888 (5) and was installed in what was obviously the most convenient place - the arsenal. No other details appear to exist, but it seems unlikely this was anything other than a modest plant purchased solely, like most others, in deference to the Empress Dowager's wishes. Various types of Tientsin struck cash are known (6), though its output appears minimal; technical difficulties were reported (7). Tentative experiments may have been made with a silver coinage as there is a specimen of a "Tientsin" (not Peiyang) dollar dated 1889 which, if authentic, could be credited to the Tientsin Arsenal (8); and Heaton's have a written record of a "Tientsin" dollar of weight 7.3 Candareens which would relate to this period (9). The attitude of the authorities must have been half hearted as no progress was made, and the mint was soon closed down due to excessive costs (7).

In the meanwhile the Canton mint progressed satisfactorily, striking a vast amount of cash. The silver coinage had a mixed reception, but the 20 and 10 cents were found to fill a genuine need and production was concentrated on them. The Imperial authorities were quoted as watching the experiment with interest, and encouraging the Viceroy of neighbouring Fukien to follow suit (10); Chang Chih-tung, transferred to Hunan/Hupei, obtained permission to set up another silver mint (Wuchang), which started work in 1895. Nevertheless, there was no sign of a main mint in the north until 1896 when the "Celestial Empire" reported (11):-

"The Emperor, says the Messenger, has approved a Memorial of the Board of Revenue on Currency. Gold, silver and copper coins are to be minted in Peking. The necessary apparatus for a mint will be obtained from Shanghai. The English sovereign is to be a model for gold coins. The provinces will each have its own mint, but Governors are at liberty to have coins made for them at the Wuchang and Canton mints if they prefer it. Viceroy Liu at Nanking has already sent to Shanghai for the required machinery to supply the needs of his Viceroyalty".

This started the proliferation of provincial mints although, as the machinery had to be imported, few actually commenced operations before 1897, and all except one produced coins under their provincial or vice-regal names.

At this stage it is worth summarising the facts generally available on the odd man out - the Peiyang Arsenal mint - up to the time of its destruction in 1900 - not a difficult task as there is very little.

1. From the Imperial Maritime Customs Trade and Decennial Reports (12):-

(a) A mint has been established (1896) at the Tientsin Arsenal for the manufacture of cash. Silver coins have also been struck but not yet circulated (February 1897)

(b) Mintage figures for silver coin:-

	<u>1896</u>	<u>1897</u>	<u>1898</u>	<u>1899</u>
Dollars	3,000	1,120,000	2,800,000	1,566,940
50 Cents	2,500	20,963	176,000	56,100
20 Cents	12,500	146,782	350,000	152,684
10 Cents	5,000	147,770	614,000	153,787
5 Cents	7,000	38,814	231,000	97,679

(c) 580 million cash were reported as having been cast in 1898 (and also in 1899, although this may have been a repetition).

(d) Referring to the silver coinage - "Some of the earliest of these coins came on the market so much lighter than the regular coins then in circulation that they were discredited by two of the foreign banks... this immediately led to the recall of the light issue and its replacement by a new set minted to the proper standard of weight and touch...".

2. A visit by Beresford in 1898 (13), when he reports that the mint comprised two machines with a total capacity of 30,000 dollars a day, working at half power. (It is encouraging that a figure of 15,000 coins per day for, say, 300 days matches the output for 1898 quoted in the Trade Report).
3. Coins in being, dated 22nd Year (1896) and rare, 23rd Year and 24th Year, named to Peiyang Arsenal (Yeoman No. 61-65); and 25th and 25th Year, named to Peiyang (Yeoman No. 69-73).

The first point to note is the establishment of a "copper" mint in the arsenal in 1896. In view of the later statement that 580 million cash had been cast one must assume that the arsenal had reverted to traditional methods of cash production; this is not entirely surprising as machines required good quality (and hence expensive) plans for successful stamping, while any type of debased metal could be used for casting. The second point to note is the small capacity of the silver mint, compared with Canton and Nanking (both 100,000 p.d.); this cannot be reconciled with a main national mint hinted at in the "Celestial Empire" and campaigned for since 1888. It seems likely that the Peiyang Arsenal mint was set up initially as a sideline to fill a particular need, such as relieving a shortage of money to pay the military (14); this assumption may also help to explain the unusual naming used on the coins - "Peiyang Machinery Mint" in Chinese and "Peiyang Arsenal" in English - instead of a provincial or, as used later, an area designation.

The silver mintage figures, as already pointed out, appear to be correct when compared with the known capacity of the mint. The low figures for the subsidiary coinage are notable, particularly in view of the fact that the early Peiyang coinage never achieved much status in China, thus reducing any chance of restriking at a later date, and probably suffered the usual attrition through melting down during the various recoinages of the Republic. However, it is likely that these figures refer not to the dated coinage but to the mint's yearly output. Which leads on to the next point - the date of issue and the reason for the scarcity of the coins dated 22nd Year (1896) - as it is not reasonable to assume that the mint struck two days output (@ 30,000 coins), found it was the (Chinese) New Year and changed the dies. It is evident from the recorded data that the mint had started to operate by February 1897, but, reading through the columns of the "Peking and Tientsin Times", whose offices were in Tientsin and thus not far away from the Arsenal, there is no trace of any reference to the Peiyang dollar until June 1897 (when one is placed under a foundation stone), followed by a major row in August, 1897 with two banks finding the Peiyang dollar "wanting". (15) In September 1897 there was a report that the mint authorities had called in the "base" coin and issued sound dollars in their place (16). This suggests a better explanation for the rarity of the first issue: the coins were minted during the last days of 1896 and the first half of 1897, but distribution did not start until the middle of 1897. The coins reached the foreign banks from circulation in August. At this stage they were found to have an insufficient or varying silver content and the majority were therefore withdrawn by the authorities in September, presumably to be melted.

(A similar pattern had been followed by the initial issues of Canton and Wuchang, although not for the same reasons). The replacement issue was almost certainly hastily prepared coinage dated 23rd Year (1897), with a more stable and satisfactory silver content; the addition of "Tai Tsing" (Chinese Empire) on the reverse may have been an attempt to bolster its authenticity with the foreigner. The next change of dies probably occurred in the summer of the following year (1898) to produce coins dated 24th Year.

Mention should also be made of a small 1 tael copper coin (17), named in Chinese to the Peiyang Machinery Mint. These coins may possibly be copper patterns of a proposed gold tael; sovereign sized coins were mentioned in the report by the "Celestial Empire" in 1896. Further information would be welcome.

Although the revised silver coinages were quite well received in enlightened trading circles, the cash remained the prime unit of currency and, being in short supply, often commanded a curiously low rate of exchange; i.e. in Tientsin in March 1899 the exchange rate was down from 1,000 to 755 cash: dollar, which led to renewed demands in financial circles that the Viceroy should persuade the population to accept silver coins at par (18). A proclamation to this effect was made in Tientsin in April 1899 without, however, any noticeable effect. Shortly afterwards, in June, the Imperial authorities became alarmed over the deteriorating standard of some of the provincial coinages - Anhwei is usually quoted as the worst example - and ordered an investigation into the practicability of setting up a mint in the capital (19). The committee must have been unusually prompt in coming to a finding. The "Peking and Tientsin Times" of the following week reported the forthcoming coinage of cash and silver in the capital; and later the recommendation that the manager of the Canton Mint (probably still E. Wyon, who was later reported besieged in Peking (20)) should be appointed to take charge of the new mint (21); and the arrival in December of German Minting machinery (22). The speed of delivery can be explained from the Decennial Reports where it is stated the new Hangchow mint was dismantled and sent to Peking in October 1899 (23); Kann quotes its capacity at \$200,000 p.d. so it was obviously a big one (24). Concurrently, at least six provincial mints closed, or were closed down, leaving just the large, efficiently run mints at Canton, Wuchang and Nanking in operation, together with the more remote mint at Kirin (25). At Tientsin the mint remained, possibly pending the completion of the high grade mint at Peking, but its coinage for the 25th Year (1899) was redesigned to read just "Peiyang", implying North China; (in view of the similarity in design to the Hu Poo dies of 1903 which were made in Osaka, it is possible the assistance of the Osaka mint was sought in 1899 as well (26)); and silver coins of Peiyang dated 26th Year were in course of preparation and issue when the arsenal was destroyed by the Allied Armies in June 1900.

The Peking Mint was similarly destroyed during the same Boxer troubles. Accounts differ as to whether it actually struck any coin. However, had it been allowed to come into mass production under the able management of Wyon it would undoubtedly have eventually produced national silver coins of a character similar to the Tai Ching issues of 1906 onwards.

Then followed a delay while the effects of the Boxer Rebellion were sorted out in the north and it was not until December 1902 that the next Tientsin mint was opened (28). While not named specifically in the Decennial Reports, this mint can be identified as the reborn Peiyang mint from the mintage figures of 1,405,017 dollars struck on private contract for bankers in 1904, and which must be the Peiyang dollars dated 29th Year. The Report also states that the mint struck samples of tael coins, and gives mintage figures for copper coin struck in 1903/4:-

	<u>1903</u>	<u>1904</u>
20 Cash	1,288,725	3,997,710
10 Cash	51,109,757	81,946,060
5 Cash	2,594,020	1,077,120

From this data it is evident that the Peiyang mint was responsible for the Hu Poo silver pattern tael coins, struck from the Osaka dies (Kann No. 927-), and for the associated original striking of Hu Poo copper coins (Y.3-5). The report also states that the mint concentrated on the production of copper coins; most of the other mints in China were similarly engaged until over-production and deteriorating standards led to the introduction of Tai-Ching dies, and finally to a clampdown in 1906 which followed closely the pattern of 1899 (29). The Peiyang 20 and 10 Cash (Y.67 and 68) must logically have been struck between 1903 and 1905; (the 1 Cash (Y.66) was probably struck in 1906); however, it is not clear whether the mintage figures for 1903/4 are for the combined issues of Hu Poo and Peiyang coins. An interesting point is that Heaton's have a record of 5, 10, 20 and 50 Cash coins struck from dies prepared for "Tientsin" (30); as both the Hu Poo and Peiyang coins have dragon styles which appear to have been evolved either in Tientsin or Osaka, it seems unlikely that any of the regular series may be identified with Heaton's dies. However, recorded in Woodward there is one Peiyang 10 Cash of different characteristics (31) which might possibly have been struck from Heaton's dies, the rest of the set remaining as patterns.

The silver 20 cent pieces dated 31st Year (1905) named to Peiyang are so scarce that they too must have been a very limited issue, possibly a private contract similar to that quoted for the dollar of 1903. In 1906 the mint presumably took up the production of the Tai Ching copper coins identified to Chihli province; the reversion to the coining of silver shown by the dollars/taels dated 33rd and 34th Year would have been caused by the over-production of copper already referred to. The Vice-Royalty of the Three Eastern (Manchurian) Provinces was formed at this time and a new coinage struck at Mukden. Due to the close resemblance to the Peiyang coinage it would be reasonable to infer that the dies were prepared in Tientsin.

In the meanwhile the concept of a main mint had been revived, although it was not apparently until 1904 that an edict was made definitely establishing a second mint at Tientsin (32). The site was moved from Peking to aid the supply of raw materials, and machinery was ordered from the United States. The purpose of the Tientsin Central Mint, which started work in 1905 on the Tai Ching copper coinage, was the reform of the currency, with the intention of eventually producing a unified coinage, and its progress may be followed through the Tai Ching experimental silver coinages of 1906 and 1907 to the general issues of 1908. This was also the last date of the individual Peiyang coins, although Peiyang dollars dated 34th Year are so plentiful that their production was obviously spread over more than one year and mint. The Peiyang mint appears to have been retained as a branch mint, and was used to house the remnants of the machinery from the Tientsin Central Mint after the latter's destruction in March 1912. It is also quoted as being retained as a branch mint after the rebuilding of the Central Mint in 1914 (33).

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