Macao custom-house rent. Coolie hire. Money payments. Trade at Amoy.

Rent for the first month shall commence forty days after the landing of the first lot of goods.

		T. m. c. c.
All goods and articles of weight, will pay per each gross pecul. - - -		0 0 1 5
All goods and articles in packages as follows.	For each case of cambric of 100 pieces. - - -	0 0 2 0
	For „ „ of chintz 50 „ - - -	0 0 1 5
	For „ „ of longcloth 50 „ - - -	0 0 2 0
	For „ bale of woolen cloth or camlet of 10 pieces,	0 0 2 5
	For „ „ of long ells of 20 pieces, - - -	0 0 2 0
	For „ pipe or half pipe, - - - - - -	0 1 0 0
	For „ quarter pipe (other similar packages in proportion.	0 0 2 0

And all other packages will pay in proportion to their sizes, excepting small packages of articles for personal use, which are free of godown rent, for the first *six* months.

After six months, parties will be charged for godown rent, double, and after twelve months, treble, at the rates above specified.

N. B.—All goods and articles imported in Portuguese vessels will have godown rent free for *six* months.

No. 2.

Table of coolie-hire for carrying and stowing goods and articles.

	T. m. c. c.
All common or ordinary goods in bales, cases, bundles, canisters, bags, &c., will pay per each gross pecul. - - - - - - - - - -	0 0 1 0
All fine goods in packages of regular size, per each package, - - -	0 0 3 0
All fine goods in large size packages, per each package, - - - -	0 0 6 0
Boxes and small packages, per each package, - - - - - -	0 0 1 0

N. B.—No coolie hire will be charged on goods and articles, that are not landed in the custom-house, and immediately cleared and taken away by the importer's own coolies, or otherwise; but they will be subject to the charge of an officer's attendance in order to ascertain the number of packages and their weight.

Duties are received at the Portuguese custom-house at the rate of 720 taels per $1000, by the standard weights there, at which rate payments are also made to all government officers, and whenever stipulated in contracts. Tonnage dues are paid according to the same rate. The usual rate however in small transactions, when there is no agreement, is 717 taels per $1000, which is in fact much nearer the actual weight of a dollar than the former.

Section 12.

FOREIGN TRADE AT OTHER PORTS.

The foreign trade at the other ports lately thrown open is still very small, and requires but few remarks. The Tariff and General Regulations are of course applicable there the same as at Canton, and the mode of conducting the trade of British vessels is the same as at Canton, i. e. in reporting the ship's cargo, landing and shipping off goods, applying for grand chop, &c., &c., so that what has been said on these points need not be repeated.

Amoy.

The harbor of Amoy is described on pages 2–4; its limits, according to a Notice, dated Dec. 4th, 1843, include Kúláng sú, reaching from Pagoda I. on the southwest side to the Six Islands on the eastern side. The port regulations regarding pilots are here given.

1. Every pilot is to have a license signed by the Haihong, countersigned

by the consul, and stamped with the respective seals of the offices of those functionaries.*

2. To entitle a pilot to his license, he must produce a certificate of his fitness, signed by at least one captain of one of H. B. M. ships, which certificate will be lodged at the British consulate.

3. Every pilot-boat is to hoist a red and white flag horizontal, with an English number on the flag.

4. The rates of pilotage are; for every foot of water the ship draws, 50 cents per foot both inwards and outwards from the Chau chat 大礁 rock; & one dollar per foot from a line drawn from Lamtia 南椗, Chapel I. or Tungting 東椗, and Paktia 北椗, or in the proximities of them.

5. All British merchant ships are liable to the pilotage from and to the Chau-chat rock, beyond or outside of which it is optional.

Duties are paid in foreign coin at the same rates as in Canton, but instead of 1*t.* 2*m.* as allowed at Canton for expenses of remelting, the charge is 1*t.* 5*m.* in every hundred taels; otherwise the difference charged to make the silver equal to pure sycee is the same. Foreign ships trading to Amoy have hitherto been allowed to discharge their cargo only by reporting themselves through the British consul.

NINGPO.

The passage up to Ningpo is described on pages 50, 51; and many notices of the city and its environs will be found in the Chinese Repository, Vol. XIII, *passim*. H. B. M. consul for Ningpo has published certain regulations to be observed by British merchants and vessels resorting to Ningpo, which comprises all that need be said in addition to the details already given under Canton.

Regulations to be observed by British subjects residing at or resorting to Ningpo.

1. All British subjects must immediately upon arrival at Ningpo report themselves at this consulate, stating at the same time, their professions, places of residence, &c., &c., and the probable period of their stay at this city.

2. British subjects will not be permitted under any pretence to go into the country a greater distance than three miles from the city of Ningpo, without previously reporting their intention at this consulate, when the undersigned will reserve to himself the right of judging whether such intention be admissible or not. In all cases where it is decided that it is admissible, the undersigned will provide the person or party applying with a guide who will remain with such person or party till their return to this city; and when it shall be decided that the proposal is inadmissible, the person on going into the country in opposition to the expressed wish of the undersigned, will expose himself or themselves to a severe penalty, as the circumstances of the case may appear less or more aggravated.

3. All British subjects going into the country to shoot, no matter what the distance may be, must in like manner give due notice at this consulate, and obtain permission for that end, otherwise they will expose themselves to a like penalty.

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* The haihong 海防 or 'Coast-guarder,' is a sub-prefect; he is at Macao called the kiunmin fŭ, or 'Casa Branca mandarin.'

4. British subjects while in the country will be required to be exceedingly particular not to enter the houses of the people against their will, nor to offer any wanton disrespect to their temples or idols, nor to desecrate or injure tombs, or to break down fences or to tread on anything planted in the ground, and in short not only to do no positive injury to the people, but also to guard against doing anything that may shock their prejudices.

5. British subjects will not be permitted to go to any of the cities or towns, or even large villages in the neighborhood of Ningpo, without special license from the undersigned and the high authorities of the district.

6. British subjects will not be permitted to enter any of the public offices of this place without special license or express invitation.

7. British subjects residing at Ningpo are required to give distinct notice at this consulate when they change their places of residence.

8. All British subjects on leaving Ningpo are required to report themselves at this consulate as on arrival, and those who have resided here for any length of time, and had commercial dealings with the natives, will be required to give at least 48 hours' notice before they can be permitted to depart.

The undersigned ventures to hope that by a strict observance of the above regulations, which in so far as he is concerned will be most rigorously enforced, all well disposed persons will have an enjoyment of healthful air and exercise secured to them; while it will be put out of the power of any ill-disposed individual to prejudice by his bad conduct the comforts and rational recreations of the community at large.

(Signed) R. THOM,
Ningpo, Jan. 1st, 1844. *H. B. M. Officiating Consul.*

Regulations to be observed by British vessels trading to or from Ningpo.

1. All British vessels entering the port of Ningpo must anchor at Chinhai and report themselves to the officer stationed there for that purpose, waiting till they have been duly visited by that functionary, and searched if he shall deem it expedient.

N. B. *The following is the form of report required:*

"I, *G. Junkin*, master of the ship *Io*, of —— tons burden, navigated by a crew of —— men, now declare my intention of proceeding to Ningpo, and request that I may be dispatched without delay.

On board ship *Io*, *G. Junkin* master, 10*th* day of *February*, 1844.

2. British vessels on arriving at Ningpo will anchor as near to the consulate, (which will be at once known by the red ensign flying,) as may be done without incommoding the ships already at anchor in the river, or the native junks. When practicable, a person will be sent on board who will point out the proper place to bring up, but they must not on any account go higher up the river than abeam of the consular flag-staff.

3. British vessels on arrival at Ningpo will have each a number given them, which must be painted in large letters in white, English on both bows, and Chinese on both quarters, for greater facility of discrimination.

4. Masters of British vessels on arrival at Ningpo must give in a list upon oath of all persons that they may have on board; none of these may be left behind without exposing the said master to a heavy penalty, neither may the said master take away others than those in the original list, without duly representing the same.

5. Masters and supercargoes of British vessels will be required at this consulate to present a manifest of all cargo they may have brought within the

mouth of this river, and to attest the same upon oath; and should they not discharge all their cargo, they will be required to show the balance of such cargo as should remain on board to the Chinese custom-house officer whenever he may wish to inspect it.

6. British vessels will only be permitted to discharge or load at the place appointed by the authorities on the northern bank of the river known by the Chinese name of Likiá Táutau 李家衙頭 and between the hours of 8 in the morning and 4 in the afternoon; and any goods found landing from, or shipping on board of, any British vessel at any other time or place, without special license having been granted for the same, such goods will be considered contraband and as such will be liable to instant seizure; besides, the vessel landing or shipping off such goods in contravention of the regulations of the port, will expose herself to be severely fined for each irregularity.

7. Masters of British vessels will be careful not to let their people land at Chinhai more than is absolutely necessary for reporting the ship as she enters and leaves the mouth of the river, and on no account must they permit their people to land and ramble into the country while the vessel is on her passage between Chinhai and Ningpo, and vice versâ.

8. Masters of British vessels while lying in the Ningpo river will be required to be exceedingly strict and attentive as to the degree of liberty they allow their men while in port. No more persons will be allowed to go on shore from each ship than what are absolutely necessary for the carrying on of the lawful business of the ship, without being first duly reported at the consulate, and getting a special license, and such special licenses can only be granted when the men are under the care of an officer. Let it be borne in mind that for any damages done by sailors on shore, the ship will in the first instance be held responsible. Let masters of vessels also beware of allowing samshoo to be brought alongside.

9. Masters and supercargoes of British vessels about to leave the port will be required to give at least 48 hours' notice beforehand, and to keep their blue-peter flying for that time, that the same may be duly made known.

10. British vessels leaving the port will be required to exhibit their grand chop or port clearance to the authorities stationed at Chinhai for that purpose; and mustagain submit to be searched should a wish be expressed to that effect.

11. Masters of British vessels will be required to pay attention to the conduct and capabilities of those Chinese who offer themselves to pilot ships up and down the river, and they will be further required to give an honest and true certificate under their hand of such conduct and capabilities, in order that in the course of time consular licenses may be given to the most skillful. These certificates should state the name, age, and appearance of the individual.

12. Lastly, all masters and supercargoes of British vessels will be required to subscribe to these regulations before being permitted to discharge; and the undersigned will in the event of any breach of them, reserve to himself the right of imposing such penalties as the greater or lesser aggravations of the case may seem to call for.

(Signed) R. Thom,

Ningpo, 1st Jan. 1844. *H. M.'s Officiating Consul for Ningpo.*

Hints to British merchants resorting to Ningpo for purposes of trade.

1. It must be borne in mind, that weights and measures differ widely in every part of China, and that consequently there is a great difference between

Care to be exercised. *Duties.* *Names of government shroffs.*

those employed at Canton, and those in use at Ningpo. Many mistakes have already taken place in consequence, and to obviate such mistakes in future, the undersigned strongly recommends all British merchants having commercial dealings at the port, whether in buying or selling goods by weight or measure, or paying or receiving money by weight, to reduce everything to custom-house standard; for which end the standard weights and measures of this Consulate will always be at the service of any merchant, who may wish to adjust his own by them, or to have a similar set made.

2. British merchants are reminded that the Ningpo merchants are not men of the same established character and great means as the hong-merchants of Canton. Great care should therefore be taken when goods have been sold to deliver them as per muster, and in good order and condition before witnesses, lest the market falling, the purchaser should damage them and say that he received them in that state, as a pretext to throw up his bargain; and still more in buying goods, every package should be most carefully examined before being removed from the seller's premises in order to guard against false packing and other frauds, which are very common in this part of the country.

3. There being no longer security merchants to pay the debts and fulfill the engagements of those who are unfortunate, or of those who commit acts of fraud, British subjects are hereby cautioned against giving credit to any large amount. A barter trade will be found the best and safest in the end; and no matter what the sum may be, whether in making sales or purchases, British subjects are strongly recommended to exact a sale or purchase note (vulgarly called a *hong-chop*), without which document, in the event of fraud or failure, the sufferer would find great difficulty to establish his claim in a Chinese court of law.

Lastly. While the undersigned has every wish to assist such of his countrymen as may be unhappily involved in losses from frauds or failures at Ningpo, yet in justice to himself, he must insist on the transactions brought before him being not only in themselves perfectly *just* and *straightforward*, but moreover of such a tangible and *business-like* shape that when he takes them up he may have some prospect of bringing them, if not always to a *satisfactory*, at least to an *intelligible*, issue. Respecting all cases that are not perfectly consistent with what is right and proper between man and man, as all cases of mere suspicion without evidence, or where the British subject has been in part to blame in the first instance, or where from carelessness and inattention, the circumstances have been allowed to become so complex as to require much explanation and unraveling, the undersigned must for his own credit decline to mix himself up in such transactions; and he has accordingly to request that British subjects will be careful in bringing cases of like nature before him.

(Signed) R. Thom,

British Consulate, Ningpo, 1st Jan. 1844. *H. M.'s Officiating Consul.*

Duties, if paid in foreign coins, are taken at the same rates as at Canton, with the same addition of 1*t.* 2*m.* for every hundred taels for remelting. The shroff shops appointed by government to recive duties are three in number:

Kiń-án 八安, of which Yeh Kinhung 葉金鋐 is the responsible partner.

Yuenho 原和, of which Chung Kwángkien 鍾光建 is the responsible partner.

Kiúho, 久和, of which Ching Suitán 鄭瑞檀 is the responsible partner.

An American vice-consul having been appointed to Ningpo, all American ships report themselves through him, and transact their business for the most part according to the plan pursued by American ships at Canton.

SHANGHAI.

The directions for entering the Wúsung river up to Shanghai are on pages 48–50. Many of the *hints* published by the British consul at Ningpo are also applicable to Shanghai, and the formalities of trade are conducted in both places according to the same plan. The following extracts from a consular notification embodies many particulars relating to the trade at Shanghai.

I hereby notify to all Her Majesty's subjects that I have temporarily established the British Consulate within the city of Shanghai, in a street situated close to the walls between the east and west gates.

For the present the limits of the port of Shanghai are declared to be within the lines formed by Paushan point bearing west, and the battery on the right bank, at the mouth of the river below Wúsung, bearing southwest. The place of anchorage for loading and unloading within the port is as close over as possible to the left bank at the bend of the river adjacent to a creek named the Wúsung kau; which at the distance of about three quarters of a mile below the walls of Shanghai discharges its waters into the Shanghai river; and when the number of vessels may render it requisite, ships must anchor head and stern, leaving the navigation of the river clear, and the mouth of the Wúsung kau well open. The Tariff, General Regulations, and various proclamations promulgated by his excellency sir Henry Pottinger, bart., G. C. B., H. M. Plenipotentiary, for conducting the commercial intercourse with China, must be strictly adhered to by myself, as well as by those resorting to this port.

The intendant of circuit and superintendent of customs has established a government banking establishment or shroff shop, for the receipt of tonnage dues, and export and import duties, and has fixed the office in the street leading from the little east gate of the city to the bank of the river; the firm being held by the six partners, named Yaou Hangyuen, Chow Hooshing, Maou Hangho, Kwo Wanfung, Chuen Yuenjee, King Yuenke, any one of whom is empowered to grant receipts for monies paid on account of the above purposes.

Standard weights and measures are lodged in the office of the Consulate, and as all duties will be paid and received according to these standards, British merchants are recommended to provide themselves with sets which can easily be obtained at Shanghai; and the propriety of endeavoring to bring the same into general use is submitted for consideration. As the different trades and professions at this place have different weights and measures, and as none agree with the government standard fixed for the five ports, particular caution is essential in all commercial transactions, to have the catty and covid, by which the transaction has to be settled, clearly defined; and it will prevent difficulties and loss, to be cautious in reposing confidence until the character and conduct of parties are better known.

Although it is desirable to adhere to the usual time, for the transaction of business, yet it will be clearly understood, that when necessary, the consulate will be open to all persons, at all hours, and any aid or information which can be afforded by the consular establishment will as a matter of duty, be willingly given in application either by writing or personal communication.

(Signed) G. BALFOUR,

Shanghai, Nov. 14th, 1843. *H. M. Consul at Shanghai.*

Chinese currency. The li or cash. Mode of casting it; much adulterated.

CHAPTER III.

MONEYS, WEIGHTS, AND MEASURES IN CHINA, THE NEIGHBORING COUNTRIES, &c.

Section I.

REMARKS ON CHINESE CURRENCY.

[The principal part of the present section, and also a large proportion of this chapter, are taken from the Guide, with such additions and explanations as seemed necessary to make it useful to those seeking information on these points. Many of the data are taken from the Chinese Chrestomathy.]

The only coin that is now in general use throughout China is the *li*, usually called *tsien*, or cash, a small piece of base metal, formed from a composition of copper and tutenague. Although of no greater value than about the twelfth part of a cent, this money is nevertheless much adulterated by forgers, and depreciated by the government; inferior descriptions of it are also imported in considerable quantities, particularly from Cochinchina, where tutenague is almost the only ingredient used in its composition. The Chinese *cash* is circular, about ¾ of an inch in diameter, and has a square hole in the middle, for the convenience of stringing a number together. It is cast, not coined; the face bears a device for the reigning dynasty, in Mantchou, having the name of the dynasty on the left side of the square hole, and that of the reigning monarch on the right; on the reverse is the name of the reign (as Táukwáng, &c.,) with the addition of two words, *tung pán* 通寶 'current money.'

The mode of casting cash is described in the Chinese Chrestomathy: "From the Board of Revenue at Peking models are obtained, and in each provincial city a mint is established, over which a director is appointed. When the mint is to be worked, the director weighs out the proper quantity of copper and delivers it to the workmen to be cast into money, and to be returned according to the quantity given; but these workmen often throw sand into the mold with the metal, and are thus enabled to purloin the copper. When about to cast, they take the metal and put it into a furnace to be fused, and afterwards pour it into a clay mold. Afterwards, when the metal has become cold and hard, it is turned out of the mold. The weight of each piece of the money is one mace (*tsien*), and hence it is called by the same name; the value fixed by government is the thousandth part of a tael's weight of silver.

"The second, fifth, and eighth days of each month are the periods fixed for commencing the work; and the third, sixth, and ninth are the days for weighing the money, and delivering it to the commissioner of finance. The people who work the mint are required to be always in the establishment, not being at liberty to go in

and out at pleasure; but they are changed in rotation; and, except on the third, sixth, and ninth days, when after they have weighed and delivered the money over to the commissioner of finance, are they permitted to leave the mint, but are required to return on the same evening."

Silver coins of various kinds have been in use in China, at several periods; but none are now issued by the government, or can find general circulation throughout the country; Spanish and South American dollars (though not acknowledged by the government) are however employed as a commercial medium in the maritime provinces; but, in Canton, the system of stamping them, practiced by bankers, shroffs, and merchants, as a pledge for their purity, soon takes from them one of the chief advantages of coined money, that of having a fixed and certain weight. As a commercial medium, therefore, the broken Spanish dollars in circulation in Canton do not differ very materially from sycee silver. The only difference is, that the former has a fixed, the latter an uncertain, standard of purity, and that the former being much thinner, dishonesty practiced with it is more readily detected than when practiced with the solid ingots of the latter.

The Chinese *nominal moneys* are the 兩 *liáng*, 錢 *tsien*, and 分 *fan*, called by foreigners tael, mace, and candareen, the proportion of which, one to the other, is decimal. The lowest of these, the candareen, is equal, *in accounts*, to ten *li* or cash, but owing to the deterioration of these last, the actual value of a copper cash is about the sixteenth part of a candareen, 1700 ordinary cash, or 1680 picked ones, being commonly paid for a tael. These terms—tael, mace, and candareen—are, properly speaking, denominations of weight, the cases in which stamped pieces of silver (other than uninjured dollars) pass current as coin, being few, except in the smallest transactions. It is more convenient, however, to speak of them as nominal monies. In fact, usage has occasioned a slight difference, (which is not however recognized by the Chinese,) between the *money* and the *commercial* tael, at the standards assigned by foreigners to each. At the money standard of 120 *oz.* 16 *dwts.* English troy weight for 100 taels, the pecul, which contains 1600 taels, should weigh 132.535 *lbs.* avoirdupois, while its actual standard is 133⅓ *lbs.* This must be borne in mind, in order to account for what will otherwise appear erroneous in some of the tables in the following pages. The difference appears to have arisen from motives of convenience with respect to turning Chinese into English weights and *vice versâ*.

The circulating medium at Canton is, as has been mentioned, broken Spanish dollars; the value of which in relation to the tael varies in different transactions, according to long-established usage. In *calculations*, or *accounts* between foreigners and hong-merchants, taels are converted into dollars at the rate of, - *taels* 720 per $1000
Payments in *cash* are generally *weighed* at „ 717 per 1000
But payments for Bengal opium at - - „ 718 per 1000
Payments for Malwa or Turkey opium are at „ 717 per 1000

Value of the tael.	*Difference of exchange in dollars; cause of it.*
Tradesmen generally, when paid by the compradors, receive payments at 715 *taels* to	*taels* 717 per $1000
Payments into the Company's treasury were at	„ 718 per 1000
At Macao, payments are usually at - -	„ 720 per 1000

The value of the tael in relation to sterling money was reckoned in the books of the East India Company at 6*s.* 8*d.*, but its intrinsic value varies according to the price paid for Spanish dollars per ounce in London. Hence, to convert taels into sterling money, multiply the price paid for Spanish dollars by the multiplier 1.208. Thus, if the price of the Spanish dollar be 60*d.* per ounce, the value of the tael will be 60×1.208=72.48*d.*; if at 66*d.*, it will be 79.728*d.*; and for any other price in the same proportion.

Dollars, though of the same weight and purity, are not received alike by the Chinese; the difference chiefly arises from caprice, so that what is preferred in one place is often refused in another place, unless at a discount. Thus, at Chusan and Ningpo, Republican dollars pass more freely than Spanish, while at Amoy, they are at a slight discount. But Spanish dollars, of certain coinages in the reign of Carlos IV., called *old head Carolus dollars*, if uninjured by the Canton practice of stamping, always bear a premium, varying from 5 to 15 per cent.; while undefaced Ferdinand dollars are a little below par. Chopped dollars are always at par. There are other kinds of Spanish dollars, both Carolus and Ferdinand, bearing the stamp of the letter G. or G^{a} to denote their being coined at the Guadalajara mint, called by Chinese *kow tseen* 鉤錢 or 'hooked dollars,' from the resemblance of that letter, which are never received but at a discount, sometimes as great as 5 per cent. Their inferiority has been fixed by authority of an order from the hoppo. Republican dollars and rupees are a legal tender at Hongkong, but neither of these coins pass currently hereabouts except in that settlement. Their use is extending at the present time, and if nothing obstructs the course of things, they will gradually be taken at par. The cause of this fastidiousness is difficult to explain; it may have been at first owing to the habit of receiving coin of only a certain stamp from a uniform experience that such coin was always good, and of disliking to receive coin of any other sort from ignorance of its purity; and this, through the influence of speculators in the difference of exchange among the sorts of dollars, tending to uphold this artificial premium and discount, has perhaps still further contributed to maintain the present rates.

Foreign coin is frequently counterfeited. The following remarks of H. M. Clark of the E. I. Co.'s factory on the Chinese currency describes this practice, as well as some other points.

"The dread of change, which has been generally considered as the leading characteristic feature in the domestic, as well as foreign, policy of China, has extended its full influence to the circulating medium of the country. The government is determined that its coffers, at least, shall suffer no defalcation by depreciation of the currency; and hence the imperial taxes

Banks in China for receiving duties; how regulated. *Counterfeit dollars.*

and duties are required to be paid in pure silver. In every large town, are *yin tien* 'or money shops,' the inferior class of which are establishments of money-changers and shroffs; the more respectable are private banks. Of the latter class every officer who has any superintendence of the revenue employs one or more, to receive the taxes and duties, with a fixed allowance for loss in melting, and having reduced them to sycee silver, to become reponsible for the purity thereof. The establishments which are thus connected with government are licensed, a privilege for which they have to pay, but not largely. They are remunerated by the surplus allowance or waste, which always exceeds what is necessary. Taxes are generally handed over to them by the government; mercantile duties are paid into their banks by the merchants from whom they are owing, and the banker in such case gives the merchants a receipt for the amount, accompanied by a certificate that it shall be paid to government within a certain period. The refined silver is cast into ingots, and stamped with the names of the banker and the workmen, the year and district in which it is cast, and sometimes the kind of tax for which it was cast to pay. Should any deception be afterwards discovered, at whatever distance of time, the refiner is liable to severe punishment.

"However wisely this system may have been contrived for the maintenance of the imperial resources, in a commercial point of view it is most burdensome and inconvenient. Since the establishment of foreign trade, the introduction of Spanish dollars has supplied the defect to a certain, though very limited, extent; and so sensible did the native authorities appear to be of its advantages, that for a time the coinage of dollars in imitation thereof was allowed—nay even practiced under authority of a provincial treasurer. 'But,' says the *Yin Lun*, a Chinese treatise on money, 'though they commenced at a higher rate than the foreign dollars, in a short process of time they sank greatly below the standard, whilst the foreign money preserved its original degree of purity.' The manufacture of dollars is now disallowed by the laws; but, according to the common report of natives, is still carried on in spite of them to a very considerable extent. In the district of Shuntih, south of Canton, there is said to be a very large establishment, in which as many as a hundred workmen are frequently employed. Dollars are there manufactured of all gradations of value, some alloyed with lead, some made of base metal and coated over with silver, and others deteriorated by cutting out pieces of silver and filling up their places with lead, disguised by repeated stamps; this last method is frequently practiced with genuine Spanish dollars. These false coiners are said to possess European stamps, procured at great expense; but sometimes they attempt imitations, in which the omission or disfiguring of some letters easily betrays the deception to a European eye. So common, however, are their dollars in circulation, that men from this district are most usually selected as shroffs, and there is a book in print for the use of the public, giving an account of the process of manufacturing each variety of false money, and rules for detecting the forgery. These rules are practically known by the shroffs, so that they can tell any description of dollar or degree of alloy at a single glance. When the dollar is made of true value, the imitation is often very good, and detection is indeed difficult; yet the shroffs perceive the imitation and reject it. The profits of the concern in Shuntih are so large, that it can easily afford to quiet all interference on the part of the local officers.

"On the east coast of China, smooth faced dollars used to be found in large quantities, which were round pieces of unstamped silver of a dollar's value, mixed with Spanish dollars worn smooth either by time or intention-

ally." This kind of money is now seldom met with. The provincial treasurer in Fukien has issued a native coin to some extent, of the weight of a dollar. The obverse bears a portrait of the god of Longevity, with an inscription showing that it was cast in the reign of Táukwáng, and by the treasury scales weighs *7 mace 2 cand.*, and is also *tsuh wan yin ping*, 'a cake of pure sycee silver.' The reverse exhibits a tripod, denoting that it is a government coin, and *Taiwan* in Mantchou, which we suppose is intended to say that it was to be used in or was cast in Formosa. The workmanship of this Chinese dollar is very rude.

"With regard to the cash, which is the only native coin now in circulation, the government have within the last few years taken strong measures to suppress the private manufacture of it, but in vain. The rapacity of the governors is strongly exemplified also in the gross adulteration of the public coin; that of recent manufacture is many per cent. less in intrinsic value, than that of Kanghi, about 150 years ago, or even than that of Kienlung, not more than 50 years since. It is debased in the coarsest manner, with iron dust and sand *(tieh shá)*, and presents a gritty appearance to the eye.

"In China, as in Europe, coins and medals have attracted the attention of antiquarian collectors; and some of them offer subjects of interest to the curious. In the middle ages, they were valued as affording specimens of many ancient forms of characters which in the times of feudal anarchy immediately preceding had been forgotten. Symbolical figures of birds and animals are those with which the medals are generally stamped. Coins are also strung together in different ways, and worn on the person, or suspended over beds, as charms, and sometimes as ornaments. This fancy does not appear peculiar to the Chinese. 'Many of the ancient coins found in Greece,' says Walpole, 'are pierced, and through the hole a string is passed, by which they are hung as ornaments round the heads of women and young girls. This custom is not new, we find it mentioned by Chrysostom, who particularly refers to the coins of Alexander.'"

A few remarks on the *banking* establishments above referred to, will not be irrelevant to the present subject. There are some bankers unconnected with ordinary mercantile business; but the majority are either agents, drawable at will, in which case no interest is allowed; or they take money at an interest not exceeding 12 per cent., in which case some days' notice must be given before any portion can be withdrawn. They do not appear to differ materially, in any particular, from similar establishments in Europe; but they are not chartered or privileged banking companies. Paper money was formerly issued by the government, but is not now known. Promissory notes, however, circulate with the same facility as in Europe. Many of the Canton banks confine their transactions to this and the adjoining province, Kwangse. Some have correspondents in one or two other provinces. A few only have agents in all the provinces. The bank that possesses most credit in Canton is one named *Anshing*, the correspondence of which is principally with Peking and Nanking; with these places its intercourse is as regular, and perhaps more so, than that of the government.—There are in some places *banks of loan*, which advance money for short periods, at a daily interest of about ½ per cent., for periods of not less than three days.

Nearly allied to these are the establishments of *pawnbrokers*, which

are very numerous in China. The licensed ones are of three classes. Those which possess large capital and are licensed to grant loans to any amount, are placed under considerable restrictions; they allow three years to redeem, with a grace of three months. These have to pay largely for their licenses, and are also subject to an annual tax. They must give three years' notice of retiring. Inferior pawnbrokers are licensed to allow only two years to redeem. And others again, of a still lower description, may sell off the pawned articles after one year; but freemen are not permitted to open such establishments. Unlicensed pawnbrokers are liable to severe punishment. The length of time which they are compelled to allow for the redemption of pledges is very injurious to them, as the pledges must often lose their value within such protracted periods. The only reason given for this is, that such is the law.—If a pawnbroker suffer from fire originating in his own premises, he is not exonerated from the responsibility of repaying to the pawnee, the value of any article which he had in pawn. When fire is communicated to the pawnbroker's house from a neighbor's, he is required only to make good half the amount of loss. The highest legal rate of interest is three per cent. per month. In the winter months, it may not exceed two per cent. on raiment, that so the poor may be enabled more easily to redeem. The statement which has been sometimes made respecting interest among the Chinese, that it is usually paid during only ten months of the year, appears to have originated in error. One or two months' freedom from the payment of interest is sometimes allowed, as matter of favor. But we cannot learn that any rule exists on the subject.

On this subject of *interest*, the translator of the Chinese Penal Code has some correct remarks, in a note to those sections of Chinese law which come under the head of Usury. The exorbitance of the rate of interest upon which a contract for a pecuniary loan may be lawfully made, is a peculiarity in the Chinese laws which he considers it difficult to account for. It is not, however, to be understood that the ordinary rate of interest in China ever attains the legal limit. At Canton, for instance, the rate is generally considered to be from 10 to 15 per cent. per annum, rarely exceeding the latter amount. But on loans made on pledges, if a small amount, the legal rate is usually charged.

"The rate of interest upon a pecuniary loan (quoting the words of the able translator) must, generally speaking, be influenced by a twofold consideration. Besides what is considered to be strictly equivalent to the advantage arising from the use of the money, the lender must be supposed in most cases, to receive likewise a certain compensation for the risk to which he exposes his principal. The former consideration will always be limited by, and bear a certain ratio to, the peculiar state and degree of the general prosperity; but the latter can evidently be determined by no rule or proportion, which does not include the consideration of the relative situation and circumstances of the parties interested in the transaction. In England, indeed, where the security of property, and the exclusive rights of individuals are so well understood, and so effectually protected by the laws, it may, in general, be almost as easy to guard against risk, as to compensate for it. But in China, where the rights connected with property are comparatively vague and unde-

Bullion not a legal export. *Size of ingots.* *Gold leaf.* *Silver mines.*

fined, and, being distinct from the sources of power and influence, are less the law's regard; where, owing to the subdivision of property, there are few great capitalists; and where also there is but little individual confidence, except between relations, who, holding their patrimony in some degree in common, can scarcely be considered as borrowers or lenders in the eye of the law,—it is not so surprising that it should be deemed expedient to license in pecuniary transactions, the insertion of stipulations for very ample interest. * * * * *

"In a state of things so unfavorable to the accumulation and transfer of property, there cannot at any time be much floating capital; and the value of that capital, as far as it is denoted by the interest which it bears, it is natural to expect, will be high in proportion to its scarcity. In other words, where there are many borrowers and few lenders, and where it forms no part of the system of the government to grant to the former any peculiar degree of protection or encouragement, it seems a necessary consequence, that the latter will both demand and obtain a more than ordinary compensation in return for the use of his property. Trade therefore, as far as it requires such aid, cannot be so extensively carried on, as it is in those countries, in which there being more available capital, that capital is procurable at a cheaper rate, and accordingly a smaller return of profit found adequate to the charges of commercial adventurers."

Gold and Silver may not legally be exported from China, except in limited quantities, and in foreign metal. A large amount is, however, annually taken away, not only of broken Spanish dollars, but also of sycee silver and gold. The gold is chiefly taken in the shape of gold leaf; but sometimes also in bars and ingots. Sycee silver is the metal in which the receipts and payments of the government are made. The term is derived from *sai-sz'* 細絲 literally signifying 'fine floss silk;' the more common native name is *wan yin* 紋銀. It is found in ingots of different shapes and sizes, which vary in weight from 1 to 50 taels. Fractional parts of a tael are said to be in use sometimes, but very rarely. The most common weight of the ingots is ten taels each, and their shape that of a parallelogram, smooth and flat on the upper, but rather rough and rounded on the lower surface, and bearing a slight resemblance to a shoe, from whence they are called *shoes*.—South American gold and silver bullion are also brought to China, and re-exported; but not in large quantities.

These silver ingots, and the newly coined Fukien dollars, are the only approach to a silver coinage among the Chinese. Gold leaf is also used as money, in payments not under $40 or $50, being both a portable medium of conveyance, and from its thinness very secure from fraud. The average exchange is about 17 taels of silver, or about $22½ per tael of gold.

It appears from a memorial addressed to the emperor in 1838, that most of the native silver is obtained from mines at Hoshán in Yunnan in the department of Tsiángchau, and at Sungsing on the borders of Cochinchina. These mines are farmed out by the government to overseers, and between forty and fifty thousand workmen are employed in them, who annually produce not far from two millions of taels of silver.

Touch of bullion. *Table of money weights.* *Chinese numerals.*

The fineness of gold and silver is expressed by dividing the metal into a hundred parts called touches. Thus, if an ingot be said to be at 95 touch, it is understood to contain 5 parts of alloy, and 95 parts of pure metal. The fineness of the metals, as thus expressed, may be converted into English proportions by the following analogies. If gold be for instance, at 91.66 touch, say as 100: 91.66 : : 12 : 11, the standard, and *vice versâ;* and to convert standard silver into touch, say as 240 : 222 : : 100 : 92.5, the touch of sterling silver.

TABLE OF CHINESE MONEY AND WEIGHTS.

Pecul.	*Catties.*	*Taels.*	*Mace.*	*Cand.*	*Cash.*	*Lbs. avr.*	*Grs. Troy.*
1	100	1600	16,000	160,000	1,600,000	133⅓	—
	1	160	160	1,600	16,000	1⅓	—
		1	10	100	1,000	oz. 1⅓	579.84
			1	10	100		57.984
				1	10		5.7984

Note.—By some, and among others Dr. Kelly, the tael has been stated to be 580 grains troy. The difference is trifling; and the use of even numbers would probably have been found more convenient; but 579.84 *grs.* is the usual standard at Canton. At this standard, a pecul should weigh only 132.535 *lbs.* avoirdupois; but for the sake of convenience in calculation, the standard of 133⅓ *lbs.* has been commonly adopted; for thus, 3 peculs equal 400 *lbs.;* and 3 taels equal 4 *oz.* avoirdupois.

Section 2.

CHINESE NUMERALS.

The numerals of the Chinese in the complex, simple, and contracted forms, with their pronunciation in the court, Canton, and Fukien dialects, are as follows.

	Full length.	*Common.*	*Contracted form.*	*Court.*	*Canton.*	*Fukien.*	*pronounced.*
1	壹	一	丨	yih	yat	yit	*chit.*
2	貳	二	𠄌 or 𠀋	'rh	í	jí	*no.*
3	叁	三	𠃌 or 𠄎	sán	sám	sám	*sⁿá.*
4	肆	四	乂	sz'	sz'	sú	*sí.*
5	伍	五	𠂆	wú	'ng	ngóu	*gòé.*
6	陸	六	亠	luh	luk	liok	*lák.*
7	柒	七	𠂉	ts'ih	ts'at	ch'it	*ch'it.*
8	捌	八	𠂆	páh	pát	pát	*pèh.*
9	玖	九	𠂇	kiú	kau	kiú	*kiú.*
10	拾	十	廾	shih	shap	sip	*chúp.*

Fractions or decimals. *The swanpan or abacus; its construction.*

Pih 百 is 100; *tsien* 千 1000; *wán* 萬 10,000; *yih* 億 100,000; 兆 *cháu* is 1,000,000; *king* 京 is 10,000,000, &c. There are higher terms than these, but numbers above a myriad are usually expressed by uniting those below it, as *pih wán ling ling sán tsien ling luh-shih wú* 百萬零零三千零六十五 or 1,003,065. *Ling* is used to denote a cypher. Twenty is sometimes written 廿 *jih*, and 30 卅 *sáh*, which are merely 十 combined twice and thrice; but the common way to express all numbers above ten is by combining the digits, as *shih-yih* 11, *shih-'rh* 12, *'rh-shih* 20, *'rh-shih-yih* 21, *yih pih ling luh*, 106; &c.

The decimals are not called tenths, hundredths, &c., as with Europeans, but each progressive term has a separate name. The five first are the

Fan 分 tenth. *Sz'* 絲 ten thousandth.
Lí 厘 hundredth. *Hwuh* 忽 hundred-thousandth, &c.
Háu 毫 thousandth.

At Canton, in money accounts, the *háu* is used for dimes or tenths of a dollar, and *sz'* for cents; as *sám ko ngan tsín sz' hò yat sz'* 三個銀錢四毫一絲 is $3.41. This has arisen probably from the confusion which would ensue if *fan* and *lí* were used, they being the names of Chinese moneys. The mode of reckoning in dollars and cents will probably be introduced at the new ports as trade extends there, and foreign coins become common.

In performing calculations, the Chinese use a kind of abacus, called *swán pán* 算板 or 'counting board.' It consists of an oblong wooden frame, divided into two unequal compartments, by a bar running lengthwise, at a distance from the upper end of the frame of about one-third its width. Through this bar at right angles are inserted a number of parallel wires, usually seventeen, but sometimes more; and on each wire are, in the lower compartment five, and in the upper, two movable balls. The principle on which computations are made is this: that a ball in the lower compartment, being placed against the bar and called unity, is increased towards the left, or decreased towards the right, by tens, hundreds, &c. A ball in the upper division denotes a value five times that of any ball opposite to it in the lower compartment; thus, if opposite to a unit, it denotes five; if to ten, fifty, and so also, if opposite to a hundredth part, it denotes $\frac{5}{100}$th parts.

In noting down calculations, the Chinese follow the order of the balls on the abacus, and accordingly place the numerals after each other, from left to right, in precisely the same order and method as those do who employ the Arabic numerals. For this purpose the contracted form of figures are used.—Thus, 𠄎〢 denotes 2309, the character for *thousand* being placed under the first figure, so that it may be read off at once without error or difficulty.

Chinese weights. *Three kinds of balances.* *Three sorts of pecul at Macao.*

Section 3.

CHINESE WEIGHTS.

The weights known among the Chinese are as follows:

1 kernel of millet (一粒黍) is one 黍 *shú*;

10 *shú* 黍 or kernels make one 纍 *lui*;

10 *lui* 纍 make one 銖 *chú*;

24 *chú* 銖 make one *tael* 两 *liáng*;

16 taels make one *catty* 斤 *kin*;

2 catties make one 引 *yin*;

30 catties make one 鈞 *kiun*;

100 catties make one *pecul* 擔 *tán* (lit. a *load*);

120 catties make one stone 石 *shih*.

The first three of these denominations, with the *yin*, *kiun*, and *shih*, are nominal. Instead of *shú*, *lui*, and *chú*, the decimals given in the preceding section are used for less weights than a tael; these are also employed in measures, and generally whenever a fractional number is to be expressed, but from their most common use in reckoning sums of money, the terms *fan*, *lí*, &c., are considered rather as moneys than decimals.

In China, most unmanufactured articles are sold by weight, not excepting liquids, wood, silk, cloth, grain, and live stock. Grain is however retailed by measure. The minor decimal weights are used in weighing bullion, pearls, precious stones, valuable drugs, &c. There are three instruments for weighing, viz., the balances, steelyards, and money scales. Balances are used for weighing large sums of money; standard weights are furnished by the Board of Revenue at Peking, from 100 taels down to one cash, made of brass. The steelyard is made of wood, marked off into catties, mace, &c.; the largest of them will weigh two or three peculs; it is called *dotchin* by foreigners, a word corrupted from *tok-ching*, to weigh. The counterpoise is usually a piece of stone, and so common is its use, that no one goes to market without carrying a *dotchin*. The money scales are merely a small ivory yard like the *dotchin*, used to weigh money, pearls, and small things.

At Macao, the pecul is distinguished by the Portuguese into three kinds, viz, the *pecul balança* or common pecul, by which cotton, and valuable goods are sold; the *pecul seda* of 111.15 catties or 148$\frac{1}{5}$ *lbs.*, by which alum, pepper, and coarse goods are sold; and the *pecul chapa* of 150 catties or 200 *lbs.*, by which rice is sold. In the sale of paddy, one third is allowed for the trouble and diminution in weight which attend the taking off the husk, or which is the same thing, paddy is sold at two thirds the price of the same weight of rice.

Section 4.

MEASURES OF CAPACITY.

These are chiefly used in retailing rice and other grain, large quantities being sold by the pecul.

1 grain of millet (*yih lih suh* 一粒粟) is a 粟 *suh*;
6 *suh* 粟 make one 圭 *kwei*;
10 *kwei* 圭 make one 撮 *tsoh*, or pugil;
10 *tsoh* 撮 make one 抄 *cháu*, or handful;
10 *cháu* 抄 make one 勺 *choh*, or ladle;
5 *choh* 勺 make one 龠 *yoh*, or cup;
2 *yoh* 龠 make one 合 *koh*, or gill;
10 *koh* 合 make one 升 *shing*, or pint; = 31.6 cubic *tsun*.
10 *shing* 升 make one 斗 *tau*; = 316 „ „
5 *tau* 斗 make one 斛 *hoh*; = 1580 „ „
2 *hoh* 斛 make one 石 *shih*; = 3160 „ „
1 *fú* 釜 is equal to 6 *tau* 4 *shing*;
1 *yü* 庾 is equal to 16 *tau*;
1 *ping* 秉 is equal to 16 *hoh*.

There are only four of these fourteen measures actually in use, the others are entirely nominal; these four are the *koh*, the half *shing* and whole *shing*, and the *tau*. The first three are made of the cylindrical joints of the bamboo. The *tau* is made of wood in the shape of the frustrum of a pyramid, with a handle across the top, and is of two sizes; one, called *shí tau* 'the market *tau*,' or *shih kin tau* '10 catty *tau*,' holds just ten catties of dry rice, and measures 316 cubic *tsun* according to government measure. The *shih* in this proportion is just a pecul. But the common *tau*, called *tsáng tau*, 'granary *tau*,' holds only 6½ catties, and measures 309.57148 inches or nearly 1.13 gallon. The common *shing* contains 30.43415 cubic inches, or a trifle less than a pint, but this and the two smaller measures, owing to the inaccuracy of the bamboo, are not uniform in their capacity.

Measures are also used for selling liquids, as spirits, oil, &c., but they contain a certain weight not quantity; there are three in common use, containing two, four, and eight taels respectively.

Timber is not sold by measurement; fine woods are sold by weight, and common lumber by the stick.

Section 5.

MEASURES OF LENGTH.

Like the people of all other countries, the Chinese have had great trouble and perplexity in fixing a standard of weights and measures. A certain number of kernels of grain—whether disposed lengthwise or crosswise is uncertain—was taken as a starting point. The terms of length among the Chinese are not many; their comparative values are as follows.

1 (*yih-lih* 一粒)	grain is one	分	*fan*;	
10 *fan*	分 make one	寸	*tsun*, or punto; nearly $1\frac{1}{5}$ *in.*	
10 *tsun*	寸 make one	尺	*chih*, or covid;	
10 *chih*	尺 make one	丈	*cháng*;	
10 *cháng*	丈 make one	引	*yin*.	

The *chih* (cubit, covid, or Chinese foot) fixed by the Mathematical Board at Peking is 13.125 English inches; that used by tradesmen at Canton varies from 14.625 to 14.81 inches; that employed by the engineers of public works is 12.7 inches, and that by which distances is usually measured is 12.1 nearly. At Canton, an English yard or *má* is reckoned at 2 *chih* 4 *tsun*, which makes the English foot equal to 8 *tsun*. The *chih* is reckoned in the new tariff at 14.1 English inches, which is about the average length of this measure in Canton; this rate makes the *cháng* to be 141 inches, or $3\frac{11}{12}$ *yds.*; the usual length of a *cháng* in Canton is a very little over 4 *yds.*, though some of them are but a little over 11 feet. The foot-rule of tailors is called *pái tsien chih*, and the shorter one of masons *chau tung chih*. The *cháng* varies according to the *chih*.

The same terms are, with others, used in measuring distances.

Half a *tsun*	寸 makes one	厘	*li*;
5 *tsun*	寸 make one	分	*fan*;
5 *chih*	尺 or feet make one	步	*pú*, or pace;
360 *pú*	步 paces make one	里	*li*, or mile;
250 *li*	里 or miles make one	度	*tú*, or degree.

Formerly, $192\frac{1}{2}$ *li* were reckoned to a degree, which makes the length of the *li* $1897\frac{1}{2}$ English feet, or 2.78 *li* to a mile. But the European mathematicians at the capital deviating from their predecessors, divided the degree into 250 *li*, or 1460.44 *ft.*, intending to make it exactly one tenth of a French league, probably the French astronomical league, which is $\frac{1}{2^{5}}$ of a degree. The degree is subdivided into 60 *fan* or minutes, and each *fan* into 60 秒 *miáu* or seconds. The old estimate of the *li* makes a *chih* 12.054 inches, a little less than that commonly regarded as the rate in measuring distances.

Land measures; size of the Chiaese acre. Japanese moneys; form of the coins.

Section 6.

LAND MEASURE.

5 *chih* 尺 make one 步 *pú* (pace), or 弓 *kung* (bow).
24 *pú* 步 make one 分 *fan*;
60 *pú* 步 make one 角 *kioh*, or horn;
4 *kioh* 角 or 240 *pú*, make one 畝 *mau*, or Chinese acre;
100 *mau* 畝 make one 頃 *king*.

Taking the *chih* to be 12.587 inches, a square *pú* will measure 27.499636 square inches; this divided by 9, gives 3.0555 square yards; multiplied by 240 *pú* gives 733.32 sq. yds. in a Chinese *mau*, which is 6.61 *mau* to an English acre. But the Chinese always estimate land by the *king* and *mau*, below which, they reckon in decimals. The *mau* anciently contained 100 square *pú* instead of 240, but whether it was then larger or smaller than at present is uncertain; it now contains 6000 sq. chih, or 6599.88 sq. feet; a *king* contains 15.13 square acres. The land tax is reckoned by the *mau*.

Section 7.

It is incompatible with the design and limits of this volume to give more than a mere sketch of the monetary system of the neighboring countries, or of those having extensive dealings with China.

JAPAN.

The moneys and the weights of China, like her laws, government and manners, literature and commercial principles, have extended, with but little alteration, to all the neighboring countries. Of Corea, we know very little, but respecting Japan we possess some commercial information.

The coins of these islands are various, being legally made of gold, silver, and copper; but they are debased a little with other metals. Accounts, however, are kept in *rio* taels, *momme* mace, and *bu* candareens, which have the same relative value as in China. In Japan, as in China, the coins are cast, not coined; and the gold and silver pieces of certain denominations are weighed among merchants,—the only coins which have any certain standard of value being those of the imperial coinage, with a flower and three leaves of the *kiri* or Dryandra, which is the imperial coat of arms, upon the face.

The Japanese coins of gold and silver are of various shapes. In a native work on Japanese moneys, they are represented as circular, square, or rectangular like pieces of Indian ink, thin and elliptical, and also in unshapen lumps; most of these, however, are drawings of old coins not now in use. The common form of the gold kobangs is flat and elliptical; the smaller ones, and those of silver are usually in the form of a parallelogram; unshapen ingots of silver are also in common use. The elliptical gold coins are two, the *obang* 大判, and the *kobang* or *kopang* 小判: the first is nearly as large as the

palm of the hand, and both are about the thickness of an English farthing. The *kobang*—which has the nominal value of a tael of gold, and is the tenth part of an *obang*—is about two inches long, and rather more than an inch wide; it should weigh 3 *mace* 5 *cand.* or 203 grs. troy. These pieces are marked on one side with a die consisting of short parallel lines, and on both sides with several stamps. The older coins are thicker, and consequently of more value than the new ones, and are sometimes also of finer metal; they are not in general circulation, but are laid up by those who treasure their wealth. At Batavia,

The old kobang weighs 275 *grs.* troy, and is said to be 22 carats fine.
The new kobang weighs 180 *grs.* troy, and is about 16 „ „
The old kobang is then worth 44*s.* 7*d.* sterling; it passes for 10 rix dollars.
The new kobang is worth 21*s.* 3*d.* „ and passes for 6 „

It must be observed, that the old Japanese coins are reckoned at Madras only 87 touch, which is $20\frac{22}{25}$ carats, and this reduces the value of the old kobang to 41*s.* 10*d.* sterling.

Of the smaller gold coins now in use, one is called *ichi-bu* or a quarter 一分, and by the Dutch, 'golden bean.' It is the fourth part of a *kobang*, and should weigh $8\frac{3}{4}$ *cand.*, but on weighing one of them it was found to weigh only 6.8 *cand;* it is rectangular in shape, marked with the imperial arms on one side, and on the other the emperor's reign. The other is called *ko isshiu*, 小一珠 and is half the value of an *ichi-bu*.

The silver money, *nandio* 南鐐 or *nandrio gin*, is of three sorts; the largest called *nibu gin* is half a *kobang*; the *nishiu gin* is $\frac{1}{8}$ of a kobang; and the *ichibu gin* is $\frac{1}{16}$ of a kobang; two of these last in our possession weighed $6\frac{3}{5}$ *cand.*, but both of them had been filed at on end; it is a small coin, not quite one inch long by half an inch broad, and thick as a rupee. These are stamped in Chinese characters, stating their relative value, as 2, 8, or 16, to a tael or kobang, and that they are issued from the government mint.—The *ita-gane*, 板金 (or 'metallic slips,') are made of both gold and silver, of an oblong form, and when passed from hand to hand, receive a small stamp, as evidence of their purity. The *kodama* 小玉 'little pellets,' are made in Satzuma, are round, of uncertain weight, and like the *ita-gane* are weighed and stamped. Neither of them bear the imperial coat of arms. If however, the *schuit* and *ita-gane* be the same, the weight of this coin is uniform, being, according to Dr. Kelly, 4 *oz.* 18 *dwts.* 16 *grs.* troy, and of 4 ounces fineness;—consequently is worth 25*s.* 3*d.* sterling.

The coins of inferior metal, which are of the same form as the Chinese cash, are called by the Japanese 銭 *zeni*. The smallest *zeni* are reckoned as 6800 to a *kobang*, and are a base coin. The *si-mon-zeni* 四文銭 (so called because four times the value of the common

sort) is a well cast coin, made of brass, as large as a cent, but thinner, with a square hole. Cash are made everywhere, and are sometimes very much adulterated. In the principality of Shendai, square cash are cast, which are so brittle as to break if they fall on the stones. Cash are strung upon cords each containing 1000, called then a *kwan*; one *kwan* is worth about 9 mace of silver; 120 cash are usually reckoned to a single mace, but the rates of exchange vary. We have seen a well made copper coin, which passed for 100 *zeni*; it was about the size and shape of a longitudinal section of an egg, having a square hole in the centre. It only bore the two characters 當百 'worth a hundred.' From this it appears that cash bear a higher proportionate value than in China, though rather inferior in weight. The same is the case in Cochinchina, where this coin is in a still further degree inferior to the Chinese.

Bills of exchange, promissory notes, &c., appear to be common in Japan as in China. Princes sometimes issue notes to circulate in their own principalities. In fact, there is in many things, as much resemblance between the Chinese and Japanese as between the inhabitants of two different provinces of the same country.

The weights in Japan are the same as in China, both in relation one to the other, and in relation to European weights,—the pecul here being generally accounted equal to 133⅓ *lbs.* avoirdupois, or 125 Dutch pounds; it is said however only to weigh 130 *lbs.* av.; 1250 catties make one *koku*, in which revenues are rated.

The measures of length and of capacity are of the same size and relative proportions as in China, but there is in addition a measure called *go shiaku záu* which is 5 Chinese covids, or half a chang; there is also a carpenter's ell of 6 *chih* called *ken-záu*, used in building; rough timber is purchased by the *yama ken záu* of 6 *chih* 3 *tsun*; but as the measures in China are not uniform, there is no standard to which we can refer those of Japan; these latter also differ among themselves. The Japanese *ri* or mile varies in length; it is usually computed to be two-fifths of a Dutch league; 4 Chinese *lí* are about equal to 1 Japanese *ri*.

Section 8.

COCHINCHINA.

The coins of Cochinchina are gold and silver taels, the former usually fourteen or fifteen times the value of the latter,—and cash, like the Chinese, made of pure zinc, which are called by the natives *dong*. The precious metals are scarce among the people, and most transactions are carried on in cash, which is very inconvenient, owing both to its brittleness and its great weight.

The gold and silver used by the Cochinchinese is generally refined, but sometimes much alloyed. The golden ingot, or *loaf* as it is called, is the largest; there is a half ingot of gold of the same shape,

of 5 taels' weight, worth 277 rupees, or about 693 fr. 40 cent. the *dinh vang*, or golden nail, weighs one tael, and is worth 138 *fr.* or 53¼ rupees. A silver ingot of the same form of the *loaf*, called *nen bac*, weighs 10 taels, and is an oblong piece of silver, worth 32 Co. rupees, or 81 francs 57 centimes. There is another piece of silver money, called *dinh bac*, or nail, weighing one tael, worth about 8 *fr.* 15*c.* or 3¼ rupees; this has its subdivisional halves and quarters; the half is called *nua dinh bac*. Besides these more strictly native coins, the last king Minh Menh issued a coinage of dollars, the pieces of which were intended to be of the same weight as the Spanish dollar; but in general it is not worth more than 1.6 of a rupee (4 francs) or about 70 cents, from the great adulteration of the metal, one third of it being copper. The workmanship of all these gold and silver coins is highly creditable.

The copper coinage is cast; 60 cash or *dong* make 1 *mot tien* or heap; and 10 *mot tien* make 1 *kwan* or string; these 600 cash are worth between 50 and 60 cents, and weigh about 3½ *lbs.* av. The rates of exchange between cash and the silver coins vary from three, to five *kwan* to a tael.

The silver and gold coins are usually shaped like pieces of Indian ink but much thinner. They have slightly raised edges, and their value and date are marked on them in raised characters. At every new issue, the coins previously current lose several per cent. of their value. This custom is extremely inconvenient, particularly to foreigners, who are unable to read the characters which are stamped on them.

The *weights* in Cochinchina, although bearing the same name, are heavier than in China. They are:

10 ai or atoms		1 tran;	equal to .0000003905	gramme
10 tran		1 huy;	.000003905	
10 huy		1 chau;	.00003905	
10 chau		1 hot, in Chinese *hwuh;*	.0003905	
10 hot		1 hao, do. *hâu;*	.003905	
10 hao		1 li, do. *lí;*	.03905	
10 li		1 phan, do. *fan;*	.3905	
10 phan	make	1 dong, do. *tsien;*	3.905	
10 dong or mace		1 luong, do. *liáng;*	39.05	
10 luong or taels		1 nen;	390.5	
16 luong		1 can, do. *kin;*	624.8	
10 can or catty		1 yen;	6.248	kilograms
50 can		1 binh;	31.24	
100 can		1 ta, in Chinese *tán;*	62.48	
500 can		1 quan.	312.4	

The *luong* weighs about 1¼ *oz.*, but the *can* is 1*lb.* 6*oz.* 10*grs. av.*

Measures of grain vary in every province, and purchasers always agree beforehand what measures shall be used. Their names and relative proportions are the same as in China.

Land Measures bear the same proportion to each other as in China. The *thuoc* (cubit, chih, or foot) contains 18 French inches, or 19.12 inches English; it is also used by architects and carpenters.

Long measures; the covid and li. Cambojan coins. Siamese coins and weights.

10 li	make	1 phan, in Chinese *fan;*	equal to .0048726 metres.
10 phan		1 tac, do. *tsun;*	.048726
10 tac		1 thuoc, do. *chih;*	.48726
5 thuoc		1 ngu or perch;	2.4363
15 thuoc		1 sao;	7.3089
10 sao		1 mau, in Chinese *máu.*	73.089

By another perch, of 16½ *thuoc*, by which land is measured, 10 *sao* in a *mau* or acre, makes it 80.3979 metres.

Long Measures. The Cochinchinese ell or *thuoc* (chih) used only for measuring cloths and silks, contains 25½ *ins.* English.

10 phan	make	1 tac *(tsun);*	equal to .064968 metres.
10 tac		1 thuoc *(chih);*	= .64968
10 thuoc		1 truong *(chang);*	= 6.4968 or 21 $\frac{316}{1000}$ ft. Eng.
30 thuoc		1 cai vai, or that;	19.4904
10 cai vai		1 qou.	194.904

The *li* is $\frac{1}{10}$th of the common French league, 25 to a degree or 444.39 metres, equal to 1458 feet English. A *dam* or stadium is two *li* or 888 metres; 5 *dam* make 1 league.

As no trade is now carried on with TUNGKING, we are ignorant if any difference exist between the moneys, weights, and measures of that place and those of the rest of Cochinchina, to which it is now united.

In CAMBOJA, which has been partitioned by the kings of Cochinchina and Siam, there are small round silver coins, of various sizes—the largest hardly equal in size to a farthing; which are said by Milburn to be called *galls.* They are roughly made, and very liable, from their extreme smallness, to frequent loss. Spanish dollars are also employed there, and for small change, the Cochinchinese cash. The weights and measures are the same as in China.

Section 9.

SIAM.

The coins used in Siam are small globular pieces of gold and silver, of various sizes and denominations. The only small change is in cowries; no regard is paid to shape of the shells.—Accounts are kept in ticals, salŭngs, and fŭangs, in the following relative proportions:

From 200 to 450 Bier or cowries	make	1 P'ai;	equal to 1⅞ cts.
4 P'ai		1 Fŭang;	7½ cts.
2 Fŭangs		1 Salŭng;	15 cts.
4 Salŭngs		1 Bat, or *tical;*	60 cts.
4 Bats		1 Tumlung, or *tael;*	= $2,40
80 Bats		1 Chang, or *catty;*	$48
50 Chang		1 Háp, or *pecul;*	$2400
100 Háp		1 Pura.	$240,000

The gold and silver tical are the principal coins; the former is said to pass for 10 of the latter; but the common exchange is from 14 to 17 ticals of silver for one of gold. There are also half ticals, salŭngs, and fŭangs of both metals, and half fŭangs of silver. The silver tical has been found to weigh 225½ English *grs.*, and is from 11 *oz.* 4 *dwts.* to

Siamese measures. *Coins current in the Straits; at Singapore.*

11 *oz.* 12 *dwts.* fine; thus it is worth from 29*d.* to 30*d.* sterling.—From 800 to 1000 cowries are given in exchange for a fŭang. The *p'ai* is is also subdivided into 32 *sagas* or red beans.

Spanish dollars are taken at Bangkok in exchange for cargo, or for ship dues, and by the government converted into the currency of the country, but they are not current in the bazar, or in common commercial transactions.

The Siamese *Weights* are the same as in the table of money. The pecul weighs about 129 *lbs.* avoirdupois, and is divided into 80 ticals. Gold and silver are weighed by the tical, which is equal to 236 *grs.* The fineness of the precious metals is expressed as in China.

The measures of length are these:

12	Níu		1	K'ŭp		
2	K'ŭp		1	Sôk	=	19½ Eng. inches;
4	Sôk	make	1	Wá	=	78 Eng. inches;
20	Wá		1	Sen	=	130 feet;
400	Sen		1	Yôte	=	9⅞ miles.

The *Dry Measures*, and those for measuring liquids, are but few, and these, from the nature of the vessels employed, are very indefinite.

Dry Measure.	25	*Cocoanut shells full*	make 1 *Busket;*
	80	*Buskets*	make 1 *Cart.*
Liquid Measure.	20	*Cocoanut shells full*	make 1 *Bucket;*
	100	*Buckets*	make 1 *Cart.*

Section 10.

SINGAPORE, MALACCA, AND PENANG.

The chief coin throughout Ultra-gangetic India is the Spanish dollar. The only native coin that we know of among the Malay states is one made of tin, somewhat larger than the Chinese cash. Foreign moneys have therefore free access into these states, especially the Spanish dollars, and the Dutch coins in use at Batavia. Owing to a scarcity of these, other dollars and rupees of several denominations have come into use, wherever commerce has been carried to any considerable extent. In places under the British government, sicca rupees with their subdivisional annas and pice, have been introduced, but they have not become the chief commercial currency, except it be at Penang.

At Singapore, the government accounts are kept in sicca rupees of 16 annas and 192 pice. Commercial accounts are generally kept in dollars and cents. The current copper money is a mixture of Dutch doits, pice of the Company's coinage, and coin of private manufacture, of equal value with the doit; all which pass under the name of *pice.* Ten pice make 1 *fanam;* and from 31 to 32 fanams make 1 *ringit* or dollar.

Malacca has the same currency as Singapore, with the addition of a few old Dutch moneys, viz. the rix dollar and guilder, and their sub-

At Malacca and Penang. *Weights and measures used in the Straits.*

divisional parts. The rix dollar is a nominal coin in which accounts are kept, of from 19 to 20 fanams, or about 192 doits, bought and sold in Dutch dollars. The guilder or rupee has of 12 fanams; half rupees and skillings are also met with. The coins are the cent, half cent, and quarter cent, and a variety of others of different countries. The following is the relative value of some of the coins at Malacca.

1 Japan kobang stamped,	make	10	Dutch dollars or 8 Spanish;
18 Tangees or skillings,		1	Dutch dollar;
20 do.		1	Spanish dollar;
4 Doits,		1	Stiver;
6 Stivers		1	Skilling;
8 Skillings,		1	*Rix* dollar;
13 do.		1	Ducatoon;
10 do.		1	English crown;
5 do.		1	Bombay or Surat rupee;
4 do.		1	Madras or Arcot rupee.

At PENANG, or Prince of Wales' Island, the currency is less mixed than at Singapore and Malacca. Accounts are kept for the most part in sicca rupees, annas, and pice; but dollars always pass current, and are received into the government treasury. They are divided into ten copangs, which is a nominal money of the value of ten pice. Gold coins are rarely met with in the Straits.

The same denominations of money as well as of weights and measures prevail, with various degrees of relative distinction, throughout most of the Malay and Sumatran states.

Weights. The commercial weights in use, both among Europeans and the Malays, are the Chinese pecul, catty, and tael. A little discrepancy exists in the weight of the pecul and catty in some places; and sometimes there is a distinction made between the Chinese and Malay pecul; the latter is equal, at Penang, to 142$\frac{2}{3}$ *lbs.* avoirdupois. This discrepancy arises from the use of the *bahr*, which varies considerably in weight, and is divided into 3 Malay peculs; the bahr is equal at Penang to 321 catties. By the Malay pecul, goods are purchased from native vessels; but they are re-sold by the Chinese pecul. By the coyan of 40 Chinese peculs, grain and salt are sold. The coyan, at Penang, is a measure; 45 peculs of rice or 43 of salt, make a measurement coyan. Gold thread at Penang is sold by the catty of $36 weight, or 31 *oz.* 4 *dwts.* The Chinese *dotchin* (szema) is commonly met with; but among merchants, English weights and scales are generally used. Gold dust is weighed by the bunkal, equal to $2, or 832 *grs.* troy, which is divided into 16 miams, each miam containing 12 sagas. Pulse, dholl and rice from Bengal are sold by the bag of 2 bazar maunds, or 194$\frac{1}{4}$ *lbs.* Piece goods are sold by the corge of 20 pieces, and Java tobacco by the corge of 40 baskets.

At Malacca, the pecul weighs 135 *lbs.* av., and 3 peculs make 1 *bahr.*

Measures. The measures of length frequently used by the Malays and other natives is the hasta or cubit, equal to 18 English inches. But among Chinese, as well as Europeans, the English yard is always used. The following are the terms employed in land measure.

Currency of Hongkong. *Moneys at Tavoy and Mergui.* *Indian rupees.*

4 Hastas	make	1 Depa;	= 2 yards English.	
2 Depas	make	1 Jumba;	= 4 — —	
20 Jumbas	make	1 Orlong.	= 80 — —	

The chief measure of capacity is the gantang, divided into 4 chupahs; the gantang is equal to 271.65 cubic inches, or not quite one gallon; 800 gantangs are counted to a coyan.

At Hongkong, the legal currency is Spanish and Mexican dollars, and Company's rupees, and their component parts, and the copper cash of China, in the following proportions:

1200 Cash	make	1 dollar;	133 Cash	make	¼ rupee.
600 „	make	½ do.	2¼ Co.'s Rupees	make	1 dollar;
300 „	make	¼ do.	1 rupee, 2 annas	make	½ do.
533 „	make	1 Co.'s rupee;	9 annas.	make	¼ do.
266 „	make	½ ditto.			

All coins can circulate, however, in the colony, at such rates as the exchange allows, but the above are the only legal tenders. The rates of exchange between the dollar and cash vary a little in fact, according to the sort of dollar, and the amount of cash in the market. The rupee and Mexican dollar pass current in the colony without difficulty, but they are not taken out of Hongkong by the Chinese to much extent.

Section 11.

TAVOY AND MERGUI.

The tical and tin pice formerly in use have been superseded by the rupee; the ratio between which and pice is at present:

12 small pice,	make	1 large pice or kabean;
40 large pice or kabeans,	make	1 Madras rupee;
44 ditto.	make	1 Sicca rupee;
88 ditto.	make	1 Spanish dollar.

Grain is measured by the *ten* or *tendaum*, called a *basket*, which contains 19 *vis* or 40 Penang catties; 100 tendaums make 1 coyan. An Ava peeul or *peiya* is 250 Penang catties, equal to 100 *vis* or *tabisas*, each of which is subdivided into 100 ticals of money weight. The measure of length is the cubit, of which the tendaum is above 18 inches, and the sundaum of 22 inches; the last is used in measuring crown lands. The weights are the same as those used in Burmah, viz., Nos. 1, 2, 3 and 4 *to* weights, respectively equal to 20, 10, 4 and 2 ticals; there are also Nos. 5 and 6 small *to* weights, one equal to 1¼ Madras rupee, or 225 *grs.*, the other equal to 7 annas.

Section 12.

INDIAN PRESIDENCIES.

BENGAL.

The moneys of India, although consisting of but a few *denominations*, are extremely various in their intrinsic *value*.—While the Mogul emperors were sole sovereigns of Hindostan, there was, throughout their

Current and sicca rupees. *Coins and their relative value.* *Current coins.*

dominions, but one kind of silver coin, denominated the *Sicca Rupee*, as being of the weight called sicca, which was the unit of size for all other weights. The sicca weight answered to 179⅔ grains English, and was also divided into 16 annas, each anna subdivided into 12 pie; it was also divided into *mashas*, but the relative value of the rupee and masha appears to have varied. The gold mohur was of the same weight as the sicca rupee, and both were of extreme fineness. When the native princes established mints in their several states, they, in course of time, varied from the original standard, particularly in the purity of their coins. Hence the multiplied variety of rupees throughout India.

To reduce these various coins to an uniform standard, an imaginary money was adopted, called the *Current Rupee*, to which all others were to be compared before they were entered into merchants' books. This ideal standard took its proportion from the sicca rupee, newly coined, of the same value as the rupee of the 19th sun (or year) of Shah Allum, 100 of which were reckoned equal to 116 current rupees. Such difference was called the *batta*, a term used in the comparison of all other rupees with this imaginary standard, as well as with each other.

Coins.—Accounts are kept at Calcutta in rupees, with their subdivisions, annas and pie. The following table exhibits the scheme of the British-Indian monetary system, as at present established.

Gold Mohur.	*Co. Rupee*	*Anna.*	*Pysa.*	*Pie.*	*Weight in Grains.*	*Value.*
Calcutta 1	16	256	1024	3072	204.710	£1. 13*s.* 8*d.*
Madras & Bombay 1	15	240	960	2880	180	£1. 9*s.* 3*d.*
	1	16	64	192	180	1*s.* 11¾*d.*
		1	4	12		
			1	3		

Into this currency must all the real specie be converted, before any sum can be regularly entered in a merchant's books. The Company keep their accounts in current rupees, bearing a batta of 16 per cent. in favor of the sicca.

The gold coins current (which can only be coined at Calcutta) are the old Calcutta mohur and the new standard mohur, and the Madras gold rupee, with half and quarter mohurs of proportionate weight. The silver coins are the sicca and Company's rupee, halves and quarters; of copper, there are half annas, pice or pysa (equal to three pie), and small copper coin of the value of one pie.

The standard of Bengal money is silver; the sicca rupee is a very common coin. It retains the same weight of pure silver, and consequently the same value, as formerly; but it has now a greater proportion of alloy. Since 1818 its weight has been 191.916 grs. troy, 11 parts of pure metal, and 1 of alloy. It is now to be 192 grs., pre-

Relative value of rupees. *Cowries.* *Weights used in Bengal.*

serving the same proportions, viz. $\frac{11}{12}$ or 176 *grs.* of pure metal, and $\frac{1}{12}$ or 16 *grs.* of alloy. The change in the weight of the Calcutta sicca rupee is accompanied by an alteration in the new Furrukhabad rupee, "to assimilate it to the Furrukhabad rupee coined at the Saugor mint, and to the legal currency of the Madras and Bombay presidencies." The Furrukhabad rupee hitherto coined is also called the sonaut rupee. At the new standard of 165 grs. of pure metal, and 15 grs. of alloy, making a total of 180 grs., it coincides precisely with the Madras and Bombay rupees. Thus uniformity has obtained over a large portion of the Company's possessions; and that without any considerable alteration in the value of the coins. Within the last four or five years, the sicca rupee has gone very greatly out of circulation, and will probably soon give place to the British rupee. The London mint price of the sicca rupee is 2*s.* 0·58*d.*; of the Furrukhabad rupee, 1*s.* 11·04*d.*

Comparison of Sicca and Current with other rupees.

Current rupees.		Sicca R.	A.	P.
100 Sicca rupees (Calcutta) =	116	100 Current rupees, =	86	3 $3\frac{21}{29}$
100 Sonaut rupees, - - =	111	100 Arcot rupees, =	93	11 $7\frac{23}{29}$
100 Bombay rupees, - - =	110	100 Bombay rupees, =	94	13 $2\frac{26}{29}$
100 Arcot rupees, - - =	108	100 Sonaut rupees, =	95	11 $0\frac{22}{29}$

These comparisons are made at the standard of 191.916 grs. to the sicca rupee. The new sicca rupee is to circulate at par with the old one.

A lac of rupees is 100,000, and a crore is 10,000,000; in accounts, sums are distinguished into crores and lacs by being thus divided:—1,00,000 for one lac, and 1,00,00,000 for one crore.

Cowry shells are sometimes made use of for small payments in the bazar, and are generally thus reckoned; but they are at present almost superseded by the copper currency.

4 Cowries, 20 Gundas, 8 Puns, 4 Annas } make { 1 Gunda; 1 Pun; 1 Anna; 1 Cahun. } These rates fluctuate; two years ago 5 puns made an anna. The cahun is about ¼ rupee.

Weights.—According to the ponderary system hitherto in use, the large weights for merchandise are distinguished into the bazar and factory standards; the former being 10 per cent. heavier than the latter. But by a late regulation of the supreme government a slight change is to be made in the bazar weights, for the purpose of inducing uniformity by the palpable advantages of the new system. The unit of the new system is the *tola* of 180 grs. troy, which is equal to the weight of the Company's, Bombay, and Furrukhabad rupees, and is used in many parts of India as the foundation of the larger weights—[illegible] and. At the same time, the change made is so slight as [illegible] susceptible in commercial dealings in bulky goods. The [illegible] is also very convenient from the circumstance that fractions are rendered entirely unnecessary in converting Indian into English weights, the mun or maund of 3200 tolas being exactly equal to 72 lbs. avoirdupois.—From the tola upwards are derived the heavy

Proportions and values of the weights; many kinds. *Jeweler's weights.*

weights, viz. chitak, seer, and mun or maund; and by its subdivisions are obtained the small or jeweler's weights. The following scale exibits the proportions of these weights.

maund	pussere	seer	chitak	tola	masha	ruttee	dhan	Troy
1	8	40	640	3200	38400	307200	1228800	100 *lbs.*
	1	5	80	400	4800	38400	153600	
		1	16	80	960	7680	30720	2 *lb.* 6*oz.*
			1	5	60	480	1920	1oz 17*d.*12*gr*
				1	12	96	384	7*d.* 12 *grs.*
					1	8	32	15 *grs.*
						1	4	17-8 *grs.*

Different weights used in Bengal reduced to sicca weights.

80 sicca weight, 80 — —, 82 — —, 84 — — } make { 1 Calcutta bazar seer; 1 Serampore seer; 1 Hooghly seer; 1 Benares seer

96 sicca weight, 84 — —, 96 — —, 72 11.2.10.2,76 } make { 1 Lucknow seer; 1 Mirzapoor seer; 1 Allahabad seer; 1 Calcutta fact. seer.

The Bengal factory maund and its fractional parts, reduced to English avoirdupois weight, according to the standard received from Europe in 1787.

	lbs.	oz.	drs.	dec.
A Maund,	84	10	10	10.666
20 Seers,	37	5	5	5.333
10 —	18	10	10	19.666
5 —	9	5	5	5.333
4 —	7	7	7	7.466

	lbs.	oz.	drs.	dec.
3 Seers,	5	9	9	9.599
2 —	3	11	12	12.733
1 —	1	13	12	12.866
8 Chitaks,	0	14	14	14.933
4 —	0	7	7	7.466

	lbs.	oz.	drs.	dec.
2 Chitaks,	0	3	11	11.733
1 —	0	1	13	13.366

The Bengal bazar maund is 10 p. ct. better than the fy. md. & is equal to 82 2 2 2.366

The large bazar weights, according to the old system, are the following:

5 Siccas, 16 Chitaks, 40 Seers } make { 1 Chitak; 1 Seer; 1 Maund = $82\frac{2}{15}$ lbs. avoir.

But these are used only for some articles; the seer being the common unit, which varies in the number of tolas or siccas that it contains, according to the articles to be bought or sold. The introduction of the factory weights, which though long rejected in the government offices, have been still retained in the commercial dealings of the Company, has increased the confusion occasioned by the use of various weights; some articles are quoted at sicca rupees per bazar maund; other at sicca rupees per factory maund; and for others again the current rupee and factory maund are cited. However, the relation of the factory to the bazar weights is so simple, that there can be no difficulty in substituting the latter in the place of the former; it being necessary only to add ten per cent. to the prices per factory maund.

The masha and its subdivisions are used for stating the fineness, as well as the weight, of the precious metals. Pure silver or gold is stated at 12 mashas fine. The subdivision of the tola or 12 mashas into 96 rattees of 4 dhans each agrees exactly with the English division of the lb. of 24 carats into 96 grains, subdivided into quarters, which is used in stating the purity of gold.

Long, cloth, and dry measures. *Coins at Madras; their values and names.*

Measures.—In long measure, 3 jows make 1 ungulee, or finger-breadth; 4 ungulees 1 moot or hand-breadth; 3 moots 1 span; 2 spans 1 haut or cubit, equal to 18 inches; 4 cubits 1 fathom; and 1000 fathoms 1 coss or Bengal mile=2000 yards. Cloth is measured by the haut or cubit, which is divided into 8 gheria; 1 gheria is equal to 3 ungulees; and 1 ungulee to 3 jorbes or jows. The guz of 2 hauts is also used; it is equal to the English yard.

In square measure, the same haut or cubit is used; 5 hauts long and 4 broad make 1 chitak, which contains therefore 45 square feet; 16 chitaks make 1 cottah=720 sq. feet; 20 cottahs make 1 biggah=1600 sq. yds.

In enumerations by tale, the corge is equal to 4 gundas or 20 particulars.

Grain is sold by the khahoon, which contains 16 soallees of 20 pallees each, and is equal to 40 maunds; the palle is divided into 4 raiks; the raik into 4 koonkees; and the koonkee into 5 chitaks. Liquids are sold by the chitak of 5 sicca weight; 4 chitaks make 1 pouah; 4 pouahs 1 seer; and 40 seers 1 maund.

MADRAS.

Coins.—In the remarks given above respecting the Bengal moneys, we have seen the origin of the rupee and its parts, under the Mussulman sovereigns of India. At Madras and a few other places, the Hindoo monetary system has been preserved. This system is evidently of Bactrian derivation. Its unit is of gold, and is called by Europeans the *pagoda*, an appellation derived from the edifice depicted on one side of it. The Mohammedan name, by which it is generally known among the natives, is *hun*. It is subdivided into *fanams* and *cash*; 80 cash being equal to 1 fanam, and from 42 to 46 fanams equal to 1 star pagoda. This was formerly the currency of Madras. The pagoda weighed 45.83 grs. troy; the star pagoda, 52.56 grs. The value was reckoned about 8*s*. sterling; 12 fanams make 1 rupee. The pagoda is not yet wholly withdrawn from circulation. Copper pieces of 20 cash, called *pice*, and of 10 and 5 cash, called doodie and half doodies, which are coined in England, are current. The arcot rupee was also current at Madras, at the exchange of 3½ rupees to the pagoda.

According to the new currency, fixed by proclamation, the 7th January, 1818, the Madras silver rupee is now the standard coin, the subdivisional parts of which are annas, quarters, and pice.

12 Pice	make	1 Anna;
4 Annas	make	1 Quarter;
4 Quarters	make	1 Silver rupee.

The public accounts were converted from star pagodas into Madras silver rupees, at the exchange of 350 rupees per 100 star pagodas, and all government transactions are now conducted in rupees. These contain 165 grs. of pure silver, and 15 grs. of alloy, making together 180 grs. troy, the same as the Company's rupee.

The gold coins are the rupee (of the same weight and fineness as the silver rupee), halves, and quarters. The value of the gold rupee, at the English mint price, is £1 9*s.* 2.42*d.*; and that of the silver rupee 1*s.* 11.04*d.* Of the latter 15 pass for 1 of the former.

Pearl weight.—Pearls are valued by two kinds of weights, real and nominal; by the former they are weighed, and by the latter sold. The real weight used at Madras is the *mangelin*, divided into 16 parts, and equal to 6 *grs.* troy. The nominal weight is the *chow* divided into 64 parts. To convert real into nominal weight: square the number of mangelins, and divide three-fourths of the product by the number of pearls; the quotient is the number of chows.—Diamonds are mostly weighed in India by the carat, as in England; and unwrought diamonds are generally valued according to the square of their carat weight, at £2 per carat. Wrought diamonds are supposed to have lost half their original weight, and are valued according to the square of double their actual weight. 'This mode of valuing diamonds,' says Dr. Kelly, 'though stated in works of the highest authority, must admit of exceptions.'

The weights are in the following proportions;

10 Pagodas	make	1 Pollam;	=	0*lb.* 1¼*oz.* avoir.
40 Pollams		1 Vis;	=	3 *lbs.* ,,
8 Vis		1 Maund;	=	25 ,,
20 Maunds		1 Candy;	=	500 ,,
20 Candies		1 Gursay;	=	9645½ *lbs.*, or 4 tons 6 cwt.

These are the weights used in Madras; the Malabar weights of the surrounding country, though having the same relative proportions, vary slightly in name and standard.

Measures.—The covid, used in cloth measure, is 18 inches, but the English yard is generally employed. A ground (or mauney) land measure, is 60 feet long and 40 broad, and contains therefore 2400 square feet; 24 mauneys make 1 cawney; hence 121 cawneys are equal to 160 English acres. The *ady* or Malabar foot is 10.46 ins.; 24 or 26 adies are equal to a culy; 100 square culies are equal to a cawney.

The garce of 8400 *lbs.* av. corn measure, contains 80 paras,—a para is equal to 5 marcals, a marcal to 8 puddies, a puddy to 8 ollocks. The marcal should measure 750 cubic inches, and weigh 27 *lbs.* 2 *oz.* 2 *dr.* avoirdupois of fresh spring water; 77 puddies of oil are equal to 125 quarts, and 400 marcals to 336 Madras maunds.

BOMBAY.

Coins.—Accounts are kept in this presidency in rupees, quarters, and reas.

5 Raes	make	1 pice;	
5 Pice		1 anna;	
16 Annas or 80 pice		1 rupee;	
100 Raes		1 quarter rupee:	
4 Quarters or 400 raes		1 rupee.	

Bombay rupee. *Pearl weights.* *Weights and measures, and their values.*

The *rea* and *anna* are imaginary; 16 annas make 1 rupee. Gold coins, viz., the *paunchea* or 5 rupee piece, and the mohur of 15 rupees, have not circulated for many years. The coins now in common use are the whole, half, and quarter rupee of silver, and the pie and the half and quarter anna of copper, of which 32 half, and 64 quarter, annas make one rupee; 3 pie make one quarter anna. These copper coins are all new; the old ones are:

Urdee of 2 Reas; Doorea of 6 Reas;
Doogany of 4 Reas; Fuddea of 8 Reas, with 2 and 4 fuddea pcs.

The Bombay rupee, when first coined, was the same as the Surat rupee, weighing 178.314 *grs.* troy, and containing 172.4 *grs.* pure. In 1800, the weight was altered to 179 *grs.*, 164.74 being pure, and 14.26 alloy. In 1829, the weight was finally altered to 180 grains, 165 *grs.* or $91\frac{2}{3}$ per cent. being pure; the gold mohur was also altered to the same weight and standard.

Pearls, at Bombay, as at Madras, have a real and a nominal weight. The real weight is the *tank*, divided into 24 ruttees, each ruttee equal to 20 vassas; or otherwise, the ruttee divided into 4 quarters, each quarter equal to 4 annas. The nominal weight is the *chow* divided into 4 quarters, the quarter into 5 docra, and the docra into 16 buddams. The nominal standard is 1 tank to 330 chow; 55 Bombay chows are equal to 18 Madras chows.

Weights. The English weights are in common use at Bombay; but native weights are also met with. The native commercial weights are these.

30 Pice, or 72 tanks,	make	1 Seer	= 11 *oz.* $3\frac{1}{5}$*d.* av.
40 Seers	make	1 Maund	= 28 *lbs.* avoir.
20 Maunds	make	1 Candy	= 560 *lbs.* av.

There is however considerable variety in the proportion of the weights; from 40 to 42 seers in Bombay, and from 40 to 44 seers in Surat, being reckoned to the maund; 3 Surat maunds or 120 seers equal 112 *lbs.* av., or 1 cwt. The weight of the Bombay maund of 40 seers is 28 *lbs.* avoirdupois; that of the Surat maund of 44 seers, is 44.066 *lbs.* Silk is bought and sold by the pucca seer, 15 of which equal 28 *lbs.* av., and cotton by the candy of 784 *lbs.*

To convert Surat maunds into pounds avoirdupois, multiply 28 (i. e. the *lbs.* in a Bombay maund) by the number of seers by which the article is bought and sold, dividing the product by 40.

Goldsmith's weights in Guzerat.

6 Chows or chawuls	make	1 Ruttee;	= 1.916 *grs.* troy.
3 Ruttees or goonj	make	1 Waal;	= 5.750 —
16 Valls or waals	make	1 Guddeeanna;	= 92 —
2 Guddeannas	make	1 Tola;	= 184 —

The measures of length—are the kathee, guz, and cubit or covid. The kathe is used only as a land measure; the other two are more used by artificers, and sometimes in measuring piece-goods, &c. The

Dry and liquid measures. *Other British colonies.* *Coins, &c., at Goa.*

guz is divided both into 20 and 24 tussoo, and the cubit into 14 tussoo; the guz is about 27, and the cubit or *hath* 18 to 19 inches.

Superficial and solid measures are also the guz and covid, the guz being generally divided into 24 borels, and the covid into 20 vassas. These have other subdivisions. In solid measure, 12 cubic feet and 1216 inches are equal to a covid or candy; and 26 cubic feet 206 inches are equal to a guz. In grain, measure, the denominations are.

2 Tipprees 4 Seers 16 Pailys 8 Paras	make	1 Seer; = 11 *oz.* 3.2 *dr.* or 24.836 tolahs. 1 Puhelee or paily; 1 Para; = 44 *lbs.* 12 *oz.* 12.8 *dr.* 1 Candy; = 358 *lbs.* 6 *oz.* 4 *dr.*

Rice in the husk is sold by the moora of 25 paras. The para for salt is equal to 6 gallons, and is divided into 10½ adholees, each adholee equal to 3½ or 4 seer; 100 paras are equal to an anna, each anna equal to 2½ tons; and 16 annas are equal to 1 rash, or 40 tons. The bag of rice weighs 6 maunds, the maund being equal to from 20 to 24 adholees.

An Order in Council was issued in 1825 for the British colonial possessions directing all public accounts to be kept in British currency, and making British coins a legal tender. The dollar, wherever it was still a legal tender, was to be taken at 4*s.* 4*d.*; the rix dollar was, at the Cape and at Ceylon, to be equal to 1*s.* 6*d.* The Co.'s rupee circulates at 1*s.* 11*d.*, sicca rupees at 2*s.* 1*d.*, and 5 franc pieces at 4*s.* These regulations are in force in Ceylon, Australia, Van Diemen's Land, the Cape, Mauritius and St. Helena.

Section 13.

GOA.

Accounts are kept here in pardaos, tangas, and reis, but there are good and bad of each kind, the good being to the bad as 5 to 4;—60 reis make 1 tanga; and 5 tangas make 1 pardao; one of which is worth 20 cents. The pardao is thus worth 300 good or 360 bad reis, but these rates vary.

The coins are, the San Thomé, of gold, nearly of the weight of a ducat; the pardao, of silver. The Goa rupee is no longer coined; it is nearly the same value as the Bombay rupee. A budgerook is not a coin, but is rather a collective term for a number of coins of a certain value. Spanish dollars, rupees, and other foreign coins, both silver and copper, pass current here; but there is very little trade carried on at present at Goa except in barter. The copper currency is of a miscellaneous character, and the market value of the coins vary.

Weights.—The quintal of 4 arrobas, or 129½ *lbs.* avoirdupois, is the commercial weight in common use. The candy, of 495 *lbs.* avoirdupois, is also used, being divided into 20 maunds, of 24 rattles each.

The measures of length are the Portuguese vara and covado; the

former is $1\frac{1}{5}$ English yard; the latter $26\frac{2}{3}$ inches.—The measure of grain for corn and rice is the candy of 20 maunds, each maund divided into 24 medida.

Section 14.

MANILA.

The port of Manila is open to the ships of all nations at peace with Spain. Foreign vessels pay 25 cts. per ton for port charges, and $15 to $21 additional according to the size of the vessel. Ships which neither load nor unload, pay only $12\frac{1}{2}$ cts. per ton, but are charged with the additional fee.

Coins.—Accounts are kept in dollars, rials, and granos, in the following proportions:

34 Maravedis, or 12 granos 8 Rials, or 16 quintos . 16 Dollars	make	1 rial; 1 dollar or peso; 1 doubloon.

The weights commonly in use are the pecul and its parts. There are also the following Spanish weights:

8 Drams . . 16 Ounces or 2 marks 25 Pounds . . 4 Arrobas . . $5\frac{1}{2}$ Arrobas, or $137\frac{1}{2}$ *lbs.*	make	1 Ounce 1 Pound 1 Arroba, equal to $25\frac{1}{2}$ *lbs.* av. 1 Quintal; — 102 *lbs.* av. 1 Pecul; — 140 *lbs.* av.

Measures.—The Spanish foot is about $11\frac{1}{8}$ English inches. It is divided into 12 *pulgadas*, each containing 12 lines. The vara, or measure for cloth, is 2 feet, or 4 palmos, or 36 pulgadas, equal to $33\frac{1}{3}$ English inches; 100 varas are equal to $92\frac{3}{4}$ Eng. yards. Cotton goods and some other fabrics are however sold by the English yard. The corge is 20 pieces. The caban, a measure for grain, contains $3\frac{47}{100}$ cubic feet. 16 Manila peculs equal 1 ton English weight. 1 ton weight of hemp is just 2 tons measurement 40 cubic feet in Am. ships.

The import duties are levied on a fixed valuation according to the following scale.

Spanish goods imported	in Spanish vessels	3	per cent.
	in foreign bottoms	8	,,
Foreign goods imported	in Spanish vessels from all ports	7	,,
	in foreign vessels	14	,,
Except from Singapore in Spanish ships		8	,,
,, ,, China in Spanish ships		9	,,
Spirituous liquors from Spain	in Spanish ships	10	,,
	in foreign bottoms	25	,,
do. do. foreign	in Spanish ships	30	,,
	in foreign bottoms	60	,,
Beer and cider from Spain,	in Spanish ships	3	,,
	in foreign bottoms	10	,,
do. do. foreign	in Spanish ships	20	,,
	in foreign ships	25	,,
Spanish wines of all sorts,	in Spanish vessels	3	,,
	in foreign ships	8	,,

Rates of storage. *Manila port regulations.* *Monetary system in Java.*

Foreign wines of all sorts,	in Spanish vessels	40 per cent.
	in foreign ships	50 „
Except champagne,	in Spanish vessels	7 „
	in foreign craft	14 „

	Spanish vessels.	Foreign vessels.
Cotton twist, black, blue, or purple, bolos (a kind of bowie-knife), clothes, boots, shoes, preserved, candied, or pickled fruits	40*pr ct.*	50
Madras handkerchiefs and cambayas	20	30
Foreign fabrics of cotton and silk in imitation of native cloths, especially stripes or checks of black, blue or purple colors, gray, white or stamped cottons from Madras or Bengal, towels, napkins, and table-cloths	15	25
Bicho-de-mar, rattans, diamonds, tortoise-shell, birds-nests and mother-o'-pearl	1	2
Machines of all kinds for the improvement of native industry, (except printing-presses) red, yellow, and green cotton twist, gold and silver coin and bullion, plants and seeds	free.	
Tropical productions like those of the Philippines, gunpowder and arrack,	prohibited.	

Opium is received in deposit, and sold by permission of government to the Chinese settlers alone. Swords, fire-arms, muskets, pistols, and all kinds of weapons (except cannon and side arms), cannot be imported for consumption without special permission, but may be stored.

Export duties.

All sorts of merchandise exported to Spain, as well the products of the Philippines as foreign, if imported in Spanish vessels,	1	per cent.
The same exported to other countries	1½	„
The same imported in foreign vessels,	2	„
Foreign goods exported in foreign vessels,	3	„
Hemp exported in Spanish vessels, 1½ per ct. In foreign vessels,	2	„
Rice do. do. do. free. do. do.	1½	„

Manufactured tobacco, silver in bar, dust or bullion, and gold dust and coin, free under all flags; coined silver, 2 per cent. in Spanish, and 4 per cent. in foreign bottoms. Goods are stored for 1 per ct. on entry, and the same when reshipped; and an additional 1 per ct. is charged if they remain more than a year. A ship, on her arrival must not communicate with the shore until the harbor-master has boarded her; and 30 hours after this the manifest must be presented at the custom-house, detailing the marks, numbers, and bales, of the cargo; a vessel may retain her cargo on board 40 days after the manifest is presented.

Section 15.

NETHERLANDS INDIA.

The monetary system at present established in Java is founded upon the decimal system of Holland, and all accounts are kept in Java guilders; each guilder is divided into 100 nominal parts called cents. The unit of value is the Java silver guilder, with its subdivisions of half guilders equal to 50 cents, and quarter guilders equal to 25 cents silver. The guilder now most current corresponds with the common Netherlands gulden, with the difference, that on the reverse,

under the coat of arms and crown, are the words NEDERLANDSCH INDIE. All other silver coin formerly used, as stuivers, dubbeltjes, schellingen, &c., have disappeared; and although gold and silver coin of all descriptions are admitted into Java, they are rather as articles of trade than as parts of the currency.

The only copper coin used in the island is the *duiten*, single and double, for which the dies are sent from Holland to be coined in Java; 120 single duiten go to the guilder. Every other kind of copper coin is strictly prohibited.

A paper currency is also issued under governmental control by the Java Bank, at Batavia; this bank has branch offices at Sourabaya and Samarang. The notes are for *f.*1000, *f.*500, *f.*300, *f.*200, *f.*100, *f.*50, and *f.*25, for silver currency, and in sets of *f.*500, *f.*300, *f.*200, *f.*100, *f.*50, *f.*25, *f.*10 and *f.*5 for copper currency. Government has established a fixed rate of agio between copper and silver of 20 per cent.*

The weight for gold and silver is the Dutch mark troy, divided into 9 reals, each weighing 422 grs. English. The commercial weights in common use are founded on the Chinese weights, thus:—

16	Taels	make	1 Catty;	=	1¼ *lbs.* Dutch troy.
100	Catties	make	1 Pecul;	=	125 *lbs.* ditto, or 136 *lbs.* avoir.
3	Peculs	make	1 small Bahar; . . .	=	408 —
4½	Peculs	make	1 large Bahar; . . .	=	612 —

In foreign trade, however, the Dutch troy pound of 2 marks is generally used. The following are the proportions of Dutch and English weights:—

1 Dutch troy pound . . = 7596 grs. Eng. troy.
1 Dutch commercial pound = 7625 — —

The measures for rice and grain are the pecul and coyang, and for smaller quantities, the timbang and gantang. The coyang weighs at

Batavia,	27 peculs,	or 3375 lbs.	troy Dutch.
Samarang,	28 „	or 3500 lbs.	— —
Sourabaya,	30 „	or 3750 lbs.	— —

The timbang contains 5 peculs or 10 sacks; 5 gantangs make 1 measure, and 46 measures are equal to a last. These measures are principally in use among the natives. The most general liquid measure, in all the Dutch settlements, is the kan, 33 of which are equal to a little more than 13 English gallons. Of long measure, the *el* is 27¾ English inches; and the foot of 12 *duimen* or Dutch inches, is equivalent to $12\frac{9}{25}$ English inches.

* At this period (May, 1844), the scarcity of silver coin is so great that a Java silver guilder is worth 140 or 150 duiten instead of 120, and a Republican dollar exchanges for 370 to 380 instead of 306 duiten. Owing to this cause, chiefly, the exchange between Java and Holland at present is from 22 to 25 per cent. in favor of the latter.

Section 16.

SOUTH AMERICAN SILVER WEIGHTS.

The weight of silver in South America is calculated in marcos, ounces, and granos: 12 granos make 1 ounce, and 8 ounces make 1 marco, equal to 3550½ *grs.* troy, or $8.535, or 6.124 taels.

The ley or touch stamped on the bars is computed in dineros, of 24 granos each, 12 dineros being pure silver. The silver of 12 dineros is not, however, found to be quite pure at the English and Indian mints, although its inferiority is very trifling, and it is more to be relied on than the sycee silver of China.

Section 17.

ENGLAND.

The gold coins are the guinea, half guinea, the seven shilling piece and sovereign; the silver are the crown, half crown, shilling, and sixpence; and the copper penny, halfpenny and farthing.

4 farthings, 12 pence } make { 1 penny; 1 shilling;

20 shillings, 5 shillings, 21 shillings } make { 1 pound or sovereign; 1 crown; 1 guinea.

A particular denomination of weight, a *carat*, is used for weighing diamonds. An ounce troy is equivalent to 151½ carats; whence a carat is nearly equal to 3⅙ grains. In expressing the fineness of gold by *carats*, the term rather denotes a proportion than a weight. Thus gold 22 carats fine, signifies an alloy such that the proportion of the weight of pure gold to that of the whole weight is as 22 to 24; or such that it contains 22 parts by weight of pure gold, and 2 parts of some inferior metal.

BRITISH AND AMERICAN WEIGHTS AND MEASURES.

1. *Imperial Troy Weight.*—Standard: One cubic inch of distilled water, at 62° Fahrenheit's thermometer, the barometer being 30 inches, weighs 252.458 troy grains.

grs.	*dwts.*	*oz.*	*lb.*	Fr. grammes.
24 =	1		=	1.5552
480 =	20 =	1	=	31.1027
5760 =	240 =	12 =	1 =	373.2330

Troy weight is used in weighing gold, silver, jewels, &c., and in philosophical experiments.

2. *Apothecaries' Weight.*—Standard: The same as in troy weight, with the ounce divided into 8 drachms and 24 scruples.

grs.	*scrs.* (℈)				*Fr. Gram.*
20 =	1	*drs.* (ʒ)			= 1.296
60 =	3 =	1	*oz.* (℥)		= 3.888
480 =	24 =	8 =	1	*lb.* (lb)	= 31.102
5760 =	288 =	96 =	12 =	1	= 373.233

Avoirdupois weights. *Lineal measures.* *Measures of superficies.*

Medicines are compounded by this weight; but drugs are usually bought and sold by avoirdupois weight.

3. *Imperial Avoirdupois weight.*—Standard: The same as in troy weight; and one avoirdupois pound=7000 troy grains.

drs.	oz.	lbs.	qrs.	cwts.	ton.		
16 =	1					= 28.346	gram.
256 =	16=	1				= 453.544	„
7168 =	448=	28=	1			= 12.699	kilogr.
28672 =	1792=	112=	4=	1		= 50.796	„
573440 =	35840=	2240=	80=	20=	1	=1015.920	„

This weight is used for the general purposes of commerce.

The stone is 14 *lbs.* av., except for butcher's meat and fish, which is 8 *lbs.*; 8 stone of the former is a cwt. A stone of glass is 5 *lbs.*, and a seam of glass is 24 stone, or 120 *lbs.* Hay and straw are sold by the load of 36 trusses; a truss of hay weighs 56 *lbs.*, and of straw 36 *lbs.* In weighing wool, 7 *lbs.* make a clove; 2 cloves a stone; 2 stones a tod; 6½ tods a wey; 2 weys a sack; 12 sacks a last, which is equal to 39 cwt.; 240 *lbs.* make a pack. 56 *lbs.* of butter is a firkin.

Relative value of troy and avoirdupois pound.

Troy *lb.*	1	2	3	4	5	6	7	8	9	175 *oz.*
Avoir. *lb.*	0.823	1.646	2.469	3.291	4.114	4.937	5.760	6.583	7.400	192 *oz.*
Avoir. *lb.*	1	2	3	4	5	6	7	8	9	144 *lbs.*
Troy *lb.*	1.215	2.431	3.646	4.861	6.076	7.292	8.507	9.722	10.397	175 *lbs.*

English system of lineal measures. The unit in this is the yard, divided into 3 feet, and each foot into 12 inches; the multiples of the yard are the pole, furlong, and mile, in the following proportions.

In.	Feet.	Yards.	Poles.	Furlongs.	Miles.	Metres.
1	0.083	0.028	0.00505	0.00012626	0.0000157828	
12	1	0.333	0.06060	0.00151515	0.00018939	0.3048
36	3	1	0.1818	0.004545	0.00056818	0.9144
198	16.5	5.5	1	0.025	0.003125	5.0291
7920	660	220	40	1	0.125	201.1632
63360	5280	1760	320	8	1	1609.3059

A league is 3 miles, and 60 geographical miles, or 69⅑ common miles, make a degree. A palm is 3 inches, a hand is 4 inches, a span 9 inches, and a fathom 6 feet; a cubit is 18 inches, but the cubit of the Scriptures is about 22 inches. The inch is generally divided on scales into tenths, but in squaring the dimensions of works, it is divided into 12 lines, which are subdivided into 12 seconds and then again into 12 thirds but these duodecimals are now giving place to decimals.—In measuring cloth, 1 nail is 2¼ inches, and 4 nails or 9 inches is a quarter, and 5 quarters an ell.

Measures of superficies. In square measure, the yard is also subdivided into feet and inches; 144 square inches being equal to a square foot. For land measure, the multiples of the yard are the pole, rood, and acre; 30¼ (the square of 5½) square yards being a pole, &c., according to the following proportions.

Measures of volume. Comparison of English and French measures and weights.

Sq. feet.	Sq. Yards.	Poles.	Roods.	Acres.	Sq. Metres.
1	0.1111	0.00367309	0.000091827	0.000022957	0.0929
9	1.	0.0330579	0.000826448	0.000206612	0.8361
272.25	30.25	1	0.025	0.00625	25.2916
10890	1210	40	1	0.25	1011.6662
43560	4840	160	4	1	4046.6648

Land is usually measured by a chain of 4 poles or 22 yds., which is divided into 100 links; 10 square chains make an acre; and 640 acres one square mile.

Measures of volume. Solids are measured by cubic yards, feet, and inches; 1728 cubic inches making a cubic foot, and 27 cubic feet a cubic yard; 50 cubic feet in English ships, and 40 cubic feet in American ships, is reckoned to be a ton of measurement. For all sorts of liquids, the standard is the imperial gallon, measuring 277.274 cubic inches, and weighing 10 avoirdupois pounts of distilled water. Its parts are quarts, pints, and gills;—its multiples are pecks, bushels, and quarters, as in the table, which is according to the new imperial liquid and dry measures. There is some difference between the new and old.

Gills.	Pints.	Quarts.	Gallons.	Pecks.	Bushels.	Quarters.	Lbs. of water.
4	1	0.5	0.125	0.0625	0.015625	0.001953125	1¼
8	2	1	0.25	0.125	0.03125	0.00390625	2½
32	8	4	1	0.5	0.125	0.015625	10
64	16	8	2	1	0.25	0.03125	20
256	64	32	8	4	1	0.125	80
2048	512	256	64	32	8	1	640

Several other measures are used for liquids, as the ale firkin of 8 gallons, the beer firkin of 9 galls., the kilderkin of 18, and the barrel of 36 gallons; a hogshead is 1½ barrel, a puncheon 2 barrels, a butt 4 barrels, and a tun 8 barrels. A rundlet is 18 gallons, and an anker 9; a pottle is half a gallon, and a coom is half a quarter or 4 bushels.

The following comparative view of the English and French weights and measures combines all the data necessary for their reduction to one another in ordinary cases; the French measurements are so often stated in books, that a table of this sort becomes almost indispensable.

MEASURES OF LENGTH.

English.		*French.*
1 inch,.....	2.539954	centimetres
1 foot,.....	3.0479449	decimetres
1 yard imperial,	0.91438348	metre
1 fathom,...	1.82876696	metre
1 pole,.....	5.02911	metres
1 furlong,..	201.16437	metres
1 mile,....	1609.3149	metres

French.	*English.*	
1 milimetre,	0.03937	inch
1 centimetre,	0.393708	inch
1 decimetre,	3.937079.	inches
1 metre,....	39.37079	inches
	3.2808992	feet
	1.093633	yard
1 myriametre,	6.2138	miles

SQUARE MEASURE.

English.		*French.*
1 yard square,	0.836097	metre square
1 rod,....	25.291939	metres square
1 rood,....	10.116775	ares
1 acre,...	0.404671	hectares

French.	*English.*	
1 metre square,	1.196033	yard sq.
1 are,....	0.098845	rood
1 hectare,	2.473614	acres

SOLID MEASURE.

English.		*French.*
1 pint,.....	0.567932	litre
1 quart,.....	1.135364	litre
1 gallon imperial,	4.84315794	litres
1 peck,...	9.0869159	litres
1 bushel,	36.347661	litres

Coins in the United States. Russian and Chinese weights compared. Note.

1 sack,....	1.09043	hectolitre
1 quarter...	2.907813	hectolitres
1 chaldron,	13.08516	hectolitres

French.	*English.*	
1 litre,.....	1.760773	pint
	0.2200967	gallon
1 decalitre,	2.2009667	gallons
1 hectolitre,	22.009667	gallons

WEIGHTS.

English Troy.	*French.*	
1 grain,....	0.06477	gramme
1 pennyweight,	1.55456	gramme
1 ounce,....	31.0913	grammes
1 pound,....	0.3730956	kilogram.

English Avoirdupois.	*French.*	
1 drachm,	1.7712	gramme
1 ounce,	28.3384	grammes
1 pound av. imp.	0.4534148	kilogra.
1 hundred,	50.78246	kilograms.
1 ton,	1015.649	kilogrammes

English.	*French.*	
1 gramme,	15.438	grains troy
	0.643	pennyweight
	0.03216	ounce troy
1 kilogramme	2.68027	pounds „
	2.20548	pounds avoirdupois.

Section 18.

UNITED STATES OF AMERICA.

The federal money is based upon a decimal arrangement, of which the dollar is the unit; the American dollar contains $371\frac{1}{4}$ *grs.* of pure silver, or 416 *grs.* standard silver. The gold coins are the eagle, half, and quarter eagle, respectively equal to 10, 5, and $2\frac{1}{2}$ dollars; silver coins are dollars, half dollars, quarter dollars, dimes, and half dimes; with cents of copper. The Spanish and South American dollars pass at par with the American; Spanish pieces of 4, $2\frac{1}{2}$ and 1 rial, and of 1 quinto, pass current everywhere. The eagle contains 232 *grs.* pure gold. The English sovereign is worth $\$4.87\frac{7}{120}$ by mint valuation; Spanish doubloons, containing about 361 *grs.*, are worth $\$15.56\frac{3}{4}$ on the average by mint valuation. The French franc of 69.453 *grs.* is valued at $18\frac{177}{250}$ cents; but in France itself, the dollar is worth only 5 francs 26 centimes. The Dutch guilder is usually reckoned at 40 cents, and the Hamburg mark banco at $35\frac{18}{125}$ cents.

Section 19.

RUSSIA.

From Timkowski and his annotator Klaproth, it appears that the proportionate value between the tael of silver and cash is less at the north than in this region; 1100 to 1150 cash being exchanged for a tael. A ruble is about $\frac{1}{8}$ of a tael or $137\frac{1}{2}$ cash; the franc is nearly the same part of a tael. A Russian pound is 11 taels when weighing silver, but in buying eatables, &c., 11 taels 6 mace go to a Russian pound. A tael is about $8\frac{3}{4}$ soltnicks; and 147.83 pounds, or $3\frac{2}{3}$ poods nearly, is 1 pecul. These proportions are observed at Kiakhta.

Note. The sections in this chapter upon the currency, weights and measures of various countries have been compiled from the most authentic sources that could be procured. Those on China and Japan were derived from native authorities; those on Cochinchina and Siam, from parties who have lived in those countries; and the tables respecting Indian and English coins, weights and measures, will probably prove useful in cases of reference. The sections on Manila, Batavia, and Goa, have been submitted to gentlemen in China who have resided in those ports, and may be relied on as authentic.

CHAPTER IV.

USEFUL TABLES, FORMULÆ, ETC.

Section 1.

RELATING TO TIME.

TABLE I.—*Comparison of Christian and Chinese Years.*

This table shows what year of the Chinese cycle of 60 corresponds to the year A. D., and in the next column the current year in the reign of the emperor which answers to it; *Kien.* stands for Kienlung; *Kia.* for Kiaking; and *Tau.* for Taukwang, the reigning monarch. The figures placed after some of the months show which month of that year was intercalated.

Year.	Cycle.	Reign.	Commenced.	Year.	Cycle.	Reign.	Commenced.	Year.	Cycle.	Reign.	Commenced.
1776	33	40 Kien.	18th Feb.	1800	57	4	25th Jan.[1]	1824	21	4	31st Jan.
1777	34	41	7th Feb.	1801	58	5	13th Feb.	1825	22	5	17th Feb.[5]
1778	35	42	27th Jan.[6]	1802	59	6	3d Feb.	1826	23	6	7th Feb.
1779	36	43	15th Feb.	1803	60	7	23d Jan.[3]	1827	24	7	27th Jan.[6]
1780	37	44	5th Feb.	1804	1	8	11th Feb.	1828	25	8	15th Feb.
1781	38	45	24th Jan.[5]	1805	2	9	31st Jan.[6]	1829	26	9	4th Feb.[7]
1782	39	46	3d Feb.	1806	3	10	19th Feb.	1830	27	10	24th Jan.
1783	40	47	16th Feb.	1807	4	11	8th Feb.	1831	28	11	11th Feb.
1784	41	48	23d Jan.[3]	1808	5	12	29th Jan.[5]	1832	29	12	1st Feb.[9]
1785	42	49	10th Feb.	1809	6	13	16th Feb.	1833	30	13	20th Feb.
1786	43	50	31st Jan.[7]	1810	7	14	6th Feb.[3]	1834	31	14	8th Feb.
1787	44	51	19th Feb.	1811	8	15	27th Jan.	1835	32	15	29th Jan.[6]
1788	45	52	8th Feb.	1812	9	16	15th Feb.	1836	33	16	17th Feb.
1789	46	53	27th Jan.[5]	1813	10	17	3d Feb.[9]	1837	34	17	5th Feb.
1790	47	54	15th Feb.	1814	11	18	21st Feb.	1838	35	18	26th Jan.[3]
1791	48	55	4th Feb.	1815	12	19	10th Feb.	1839	36	19	14th Feb.
1792	49	56	24th Jan.[4]	1816	13	20	30th Jan.[6]	1840	37	20	3d Feb.[4]
1793	50	57	11th Feb.	1817	14	21	17th Feb.	1841	38	21	20th Feb.
1794	51	58	31st Jan.[2]	1818	15	22	6th Feb.	1842	39	22	10th Feb.
1795	52	59	21st Jan.	1819	16	23	27th Jan.[3]	1843	40	23	30th Jan.[5]
1796	53	60	9th Feb.	1820	17	24	13th Feb.	1844	41	24	18th Feb.
1797	54	1 Kia.	28th Jan.[6]	1821	18	1 Tau.	2d Feb.	1845	42		7th Feb.
1798	55	2	16th Feb.	1822	19	2	23d Jan.[4]	1846	43		27th Jan.[6]
1799	56	3	5th Feb.	1823	20	3	10th Feb.	1847	44		14th Feb.

TABLE II.—*To find the number of days from one month to the same day in another.*

Between	*Jan.*	*Feb.*	*Mar.*	*Apr.*	*May*	*June*	*July.*	*Aug.*	*Sep.*	*Oct.*	*Nov.*	*Dec.*
January,..	365	334	306	275	245	214	184	153	122	92	61	31
February,.	31	365	337	306	276	245	215	184	153	123	92	62
March,...	59	28	365	334	304	273	243	212	181	151	120	90
April,....	90	59	31	365	335	304	274	243	212	182	151	121
May,.....	120	89	61	30	365	334	304	273	242	212	181	151
June,.....	151	120	92	61	31	365	335	304	273	243	212	182
July,.....	181	150	122	91	61	30	365	334	303	273	242	212
August,..	212	181	153	122	92	61	31	365	334	304	273	243
September	243	212	184	153	123	92	62	31	365	335	304	274
October,..	273	242	214	183	153	122	92	61	30	365	334	304
November,	304	273	245	214	184	153	123	92	61	31	365	335
December,	334	303	275	244	214	183	153	122	91	61	30	365

Explanation. Tab. 3. To find the number of days from Jan. 1st to Dec. 31st.

In using Table II., bear in mind that the month *from* is in the top row, and the month *to* in the left hand column. It must be observed, that in Leap Year, if the end of the month of February be included in the time, one day must be added. If it be desired to find the number of days from a given day in one month to a different day in another, the difference between the dates must be added to, or subtracted from (as the case may be), the amount. For example:—To find the number of days between the 5th of Jan. and 12th of Nov., add to 304 (the number in the table between those two dates) 7 days, the time between the 5th and 12th, and it gives 311, and 312 if in leap year.

TABLE III.—*To find the Number of days from Jan. 1st to Dec. 31st.*

Days.	*Jan.*	*Feb.*	*Mar.*	*April.*	*May.*	*June.*	*July.*	*Aug.*	*Sep.*	*Oct.*	*Nov.*	*Dec.*
1	1	32	60	91	121	152	182	213	244	274	305	335
2	2	33	61	92	122	153	183	214	245	275	306	336
3	3	34	62	93	123	154	184	215	246	276	307	337
4	4	35	63	94	124	155	185	216	247	277	308	338
5	5	36	64	95	125	156	186	217	248	278	309	339
6	6	37	65	96	126	157	187	218	249	279	310	340
7	7	38	66	97	127	158	188	219	250	280	311	341
8	8	39	67	98	128	159	189	220	251	281	312	342
9	9	40	68	99	129	160	190	221	252	282	313	343
10	10	41	69	100	130	161	191	222	253	283	314	344
11	11	42	70	101	131	162	192	223	254	284	315	345
12	12	43	71	102	132	163	193	224	255	285	316	346
13	13	44	72	103	133	164	194	225	256	286	317	347
14	14	45	73	104	134	165	195	226	257	287	318	348
15	15	46	74	105	135	166	196	227	258	288	319	349
16	16	47	75	106	136	167	197	228	259	289	320	350
17	17	48	76	107	137	168	198	229	260	290	321	351
18	18	49	77	108	138	169	199	230	261	291	322	352
19	19	50	78	109	139	170	200	231	262	292	323	353
20	20	51	79	110	140	171	201	232	263	293	324	354
21	21	52	80	111	141	172	202	233	264	294	325	355
22	22	53	81	112	142	173	203	234	265	295	326	356
23	23	54	82	113	143	174	204	235	266	296	327	357
24	24	55	83	114	144	175	205	236	267	297	328	358
25	25	56	84	115	145	176	206	237	268	298	329	359
26	26	57	85	116	146	177	207	238	269	299	330	360
27	27	58	86	117	147	178	208	239	270	300	331	361
28	28	59	87	118	148	179	209	240	271	301	332	362
29	29		88	119	149	180	210	241	272	302	333	363
30	30		89	120	150	181	211	242	273	303	334	364
31	31		90		151		212	243		304		365

In Leap Years one day must be added after the 28th of February.

THE USES OF THE FOREGOING TABLE.

I. To find the number of days from the end of the year to any day in any month of the year following.—*Rule.* Opposite the given day in the margin look under the given month, which will show the number of days required.

II. To find the number of days from any particular day to the end of the year; suppose, 27th July. From 365 (the days in a year) take the number answering to 27th July, viz, 208; the remainder is 157 days.

III. To find the number of days from any day in one month to any day in another month; suppose from 5th April to 28th November.—*Rule.* Take the difference between the numbers corresponding to those days: *e. g.* Between Nov. 28th, the 332d day of the year, and April 5th, the 95th, are 237 days.

IV. To find the number of days between any day in one year to any day in the year following; suppose from 21st August, 1822, to 27th May, 1823. From 365 days in a year, take the number of 21st August, 233 days, which leaves 132 days in 1822; add the number up to 27th May, 147 days, together make the total 279 days required.

TABLE IV.—*For converting Dollars into Taels, and vice versa.*

DOLLARS TURNED INTO TAELS.				TAELS TURNED INTO DOLLARS.			
Amount.	715 taels per 1000 dollars	717 taels per 1000 dollars	720 taels per 1000 dollars	Amount.	715 taels per 1000 dollars	717 taels per 1000 dollars	720 taels per 1000 dollars
Dollars.	*T. m. c. c.*	*T. m. c. c.*	*T. m. c.*	*T. m.*	*D. c.*	*D. c.*	*D. c.*
,25	0.178	0.179	0.18	0.10	0.139	0.139	0.138
,50	0.357	0.358	0.36	0.20	0.279	0.278	0.277
,75	0.537	0.536	0.54	0.30	0.419	0.418	0.416
1	0.715	0.717	0.72	0.40	0.559	0.557	0.555
2	1.430	1.434	1.44	0.50	0.699	0.697	0.694
3	2.145	2.151	2.16	0.72	1.006	1.004	1.000
4	2.860	2.868	2.88	1	1.398	1.394	1.388
5	3.575	3.585	3.60	2	2.797	2.789	2.777
6	4.290	4.302	4.32	3	4.195	4.184	4.166
7	5.005	5.019	5.04	4	5.594	5.578	5.555
8	5.720	5.736	5.76	5	6.993	6.973	6.944
9	6.435	6.453	6.48	6	8.391	8.368	8.333
10	7.150	7.170	7.20	7	9.790	9.762	9.722
11	7.865	7.887	7.92	8	11.188	11.157	11.111
12	8.580	8.604	8.64	9	12.587	12.552	12.500
13	9.295	9.321	9.36	10	13.986	13.947	13.888
14	10.010	10.038	10.08	11	15.384	15.341	15.277
15	10.725	10.755	10.80	12	16.783	16.736	16.666
16	11.440	11.472	11.52	13	18.181	18.131	18.055
17	12.155	12.189	12.24	14	19.580	19.525	19.444
18	12.870	12.906	12.96	15	20.979	20.920	20.833
19	13.585	13.623	13.68	16	22.377	22.315	22.222
20	14.300	14.340	14.40	17	23.776	23.709	23.611
21	15.015	15.057	15.12	18	25.174	25.104	25.000
22	15.730	15.774	15.84	19	26.573	26.499	26.388
23	16.445	16.491	16.56	20	27.972	27.894	27.777
24	17.160	17.208	17.28	21	29.370	29.288	29.166
25	17.875	17.925	18.00	22	30.769	30.683	30.555
30	21.450	21.510	21.60	23	32.167	32.078	31.944
40	28.600	28.680	28.80	24	33.566	33.472	33.333
50	35.750	35.850	36.00	25	34.965	34.867	34.722
60	42.900	43.020	43.20	30	41.958	41.840	41.666
75	53.625	53.775	54.00	40	55.944	55.788	55.555
80	57.20	57.36	57.60	50	69.930	69.735	69.444
90	64.35	64.53	64.80	75	104.895	104.602	104.166
100	71.500	71.70	72	90	125.874	125.520	125.000
150	107.250	107.55	108	100	139.860	139.470	138.888
200	143.000	143.40	144	200	279.720	278.940	277.777
300	214.500	215.10	216	300	419.580	418.410	416.666
400	286.000	286.80	288	400	559.440	557.880	555.555
500	357.500	358.50	360	500	699.300	697.350	694.444
600	429.000	430.20	432	600	839.160	836.820	833.333
700	500.500	501.90	504	700	979.020	976.290	972.222
800	572.000	573.60	576	800	1118.880	1115.760	1111.111
900	643.500	645.30	648	900	1258.741	1255.230	1250.000
1000	715.000	717.00	720	1000	1398.601	1394.700	1388.888

TABLE V.—*For converting Spanish Dollars into*

Amount.	At 4*s.*		4*s.* 1*d.* *per dollar.*			4*s.* 2*d.* *per dollar.*			4*s.* 3*d.* *per dollar.*		
Spanish Dollars.	£	*s.*	£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*
100,000	20,000	0	20,416	13	4	20,833	6	8	21,250	0	0
20,000	4,000	0	4,083	6	8	4,166	13	4	4,250	0	0
19,000	3,800	0	3,879	3	4	3,958	6	8	4,037	10	0
18,000	3,600	0	3,675	0	0	3,750	0	0	3,825	0	0
17,000	3,400	0	3,470	16	8	3,541	13	4	3,612	10	0
16,000	3,200	0	3,266	13	4	3,333	6	8	3,400	0	0
15,000	3,000	0	3,062	10	0	3,125	0	0	3,187	10	0
14,000	2,800	0	2,858	6	8	2,916	13	4	2,975	0	0
13,000	2,600	0	2,654	3	4	2,708	6	8	2,762	10	0
12,000	2,400	0	2,450	0	0	2,500	0	0	2,550	0	0
11,000	2,200	0	2,245	16	8	2,291	13	4	2,337	10	0
10,000	2,000	0	2,041	13	4	2,083	6	8	2,125	0	0
5,000	1,000	0	1,020	16	8	1,041	13	4	1,062	10	0
4,000	800	0	816	13	4	833	6	8	850	0	0
3,000	600	0	612	10	0	625	0	0	637	10	0
2,000	400	0	408	6	8	416	13	4	425	0	0
1,000	200	0	204	3	4	208	6	8	212	10	0
500	100	0	102	1	8	104	3	4	106	5	0
400	80	0	81	13	4	83	6	8	85	0	0
300	60	0	61	5	0	62	10	0	63	15	0
200	40	0	40	16	8	41	13	4	42	10	0
150	30	0	30	12	6	31	5	0	31	17	6
100	20	0	20	8	4	20	16	8	21	5	0
50	10	0	10	4	2	10	8	4	10	12	6
20	4	0	4	1	8	4	3	4	4	5	0
19	3	16	3	17	7	3	19	2	4	0	9
18	3	12	3	13	6	3	15	0	3	16	6
17	3	8	3	9	5	3	10	10	3	12	3
16	3	4	3	5	4	3	6	8	3	8	0
15	3	0	3	1	3	3	2	6	3	3	9
14	2	16	2	17	2	2	18	4	2	19	6
13	2	12	2	13	1	2	14	2	2	15	3
12	2	8	2	9	0	2	10	0	2	11	0
11	2	4	2	4	11	2	5	10	2	6	9
10	2	0	2	0	10	2	1	8	2	2	6
9	1	16	1	16	9	1	17	6	1	18	3
8	1	12	1	12	8	1	13	4	1	14	0
7	1	8	1	8	7	1	9	2	1	9	9
6	1	4	1	4	6	1	5	0	1	5	6
5	1	0	1	0	5	1	0	10	1	1	3
4		16		16	4		16	8		17	0
3		12		12	3		12	6		12	9
2		8		8	2		8	4		8	6
1		4		4	1		4	2		4	3
0,75		3		3	0¾		3	1½		3	2¼
0,50		2		2	0½		2	1		2	1½

Sterling Money, at various rates of Exchange.

4s. 4d. p. doll.			4s. 5d. per doll.			4s. 6d. per doll.			4s. 7d. per doll.			4s. 9d. per doll.		
£	s.	d.	£	s.	d.	£	s.	d.	l.	s.	d.	l.	s.	d.
21666	13	4	22083	6	8	22500	0	0	22916	13	4	23750	0	0
4,333	6	8	4,416	13	4	4,500	0	0	4,583	6	8	4,750	0	0
4,116	13	4	4,195	16	8	4,275	0	0	4,354	3	4	4,512	10	0
3,900	00	0	3,975	0	0	4,050	0	0	4,125	0	0	4,275	0	0
3,683	6	8	3,754	3	4	3,825	0	0	3,895	16	8	4,037	10	0
3,466	13	4	3,533	6	8	3,600	0	0	3,666	13	4	3,800	0	0
3,250	0	0	3,312	10	0	3,375	0	0	3,437	10	0	3,562	10	0
3,033	6	8	3,091	13	4	3,150	0	0	3,208	6	8	3,325	0	0
2,816	13	4	2,870	16	8	2,935	0	0	2,979	3	4	3,087	10	0
2,600	00	0	2,650	0	0	2,700	0	0	2,750	0	0	2,850	0	0
2,383	6	8	2,429	3	4	2,475	0	0	2,520	16	8	2,612	10	0
2,166	13	4	2,208	6	8	2,250	0	0	2,291	13	4	2,375	0	0
1,083	6	8	1,104	3	4	1,125	0	0	1,145	16	8	1,187	10	0
866	13	4	883	6	8	900	0	0	916	13	4	950	0	0
650	0	0	662	10	0	675	0	0	687	10	0	712	10	0
433	6	8	441	13	4	450	0	0	458	6	8	475	0	0
216	13	4	220	16	8	225	0	0	229	3	4	237	10	0
108	6	8	110	8	4	112	10	0	114	11	8	118	15	0
86	13	4	88	6	8	90	0	0	91	13	4	95	0	0
65	0	0	66	5	0	67	10	0	68	15	0	71	5	0
43	6	8	44	3	4	45	0	0	45	16	8	47	10	0
32	10	0	33	2	6	33	15	0	34	7	6	35	12	6
21	13	4	22	1	8	22	10	0	22	18	4	23	15	0
10	16	8	11	0	10	11	5	0	11	9	2	11	17	6
4	6	8	4	8	4	4	10	0	4	11	8	4	15	0
4	2	4	4	3	11	4	5	6	4	7	1	4	10	3
3	18	0	3	19	6	4	1	0	4	2	6	4	5	6
3	13	8	3	15	1	3	16	6	3	17	11	4	0	9
3	9	4	3	10	8	3	12	0	3	13	4	3	16	0
3	5	0	3	6	3	3	7	6	3	8	9	3	11	3
3	0	8	3	1	10	3	3	0	3	4	2	3	6	6
2	16	4	2	17	5	2	18	6	2	19	7	3	1	9
2	12	0	2	13	0	2	14	0	2	15	0	2	17	0
2	7	8	2	8	7	2	9	6	2	10	5	2	12	3
2	3	4	2	4	2	2	5	0	2	5	10	2	7	6
1	19	0	1	19	9	2	0	6	2	1	3	2	2	9
1	14	8	1	15	4	1	16	0	1	16	8	1	18	0
1	10	4	1	10	11	1	11	6	1	12	1	1	13	3
1	6	0	1	6	6	1	7	0	1	7	6	1	8	6
1	1	8	1	2	1	1	2	6	1	2	11	1	3	9
	17	4		17	8		18	0		18	4		19	0
	13	0		13	3		13	6		13	9		14	3
	8	8		8	10		9	0		9	2		9	6
	4	4		4	5		4	6		4	7		4	9
	3	3		3	3¾		3	4½		3	5¼		3	6¾
	2	2		2	2½		2	3		2	3½		2	4½

TABLE VI.—*Sterling Money converted into*

Amount.	4s. p. doll.	4s. 1d. per doll.	4s. 2d. p. doll.	4s. 3d. per doll.	4s. 4d. p. doll
10,000*l.*	50,000	48,979 59	48,000	47,058 82	46,153 84
9,000	45,000	44,081 63	43,200	42,352 94	41,538 46
8,000	40,000	39,183 67	38,400	37,647 05	36,923 08
7,000	35,000	34,285 71	33,600	32,941 17	32,307 69
6,000	30,000	29,387 75	28,800	28,235 29	27,692 31
5,000	25,000	24,489 79	24,000	23,529 41	23,076 92
4,000	20,000	19,591 83	19,200	18,823 52	18,461 54
3,000	15,000	14,693 88	14,400	14,117 64	13,846 15
2,000	10,000	9,795 92	9,600	9,411 76	9,239 77
1,000	5,000	4,897 95	4,800	4,705 88	4,615 38
950	4,750	4,653 06	4,560	4,470 58	4,384 62
850	4,250	4,163 26	4,080	4,000 00	3,923 07
750	3,750	3,673 47	3,600	3,529 41	3,461 54
650	3,250	3,183 68	3,120	3,058 82	3,000 00
550	2,750	2,693 87	2,640	2,588 22	2,538 46
450	2,250	2,204 08	2,160	2,117 64	2,076 92
350	1,750	1,714 28	1,680	1,647 05	1,615 38
250	1,250	1,224 48	1,200	1,176 47	1,153 84
200	1,000	979 59	960	941 17	923 07
150	750	734 69	720	705 88	692 30
100	500	489 79	480	470 58	461 53
80	400	391 83	384	376 47	369 23
75	375	367 34	360	352 94	346 15
60	300	293 87	336	282 35	276 92
50	250	244 89	240	235 29	230 76
30	150	146 93	144	141 17	138 46
25	125	122 44	120	117 64	115 38
20	100	97 95	96	94 11	92 30
19	95	93 06	91 20	89 41	87 69
18	90	88 16	86 40	84 70	83 07
17	85	83 26	81 60	80 00	78 46
16	80	78 36	76 80	75 29	73 84
15	75	73 46	72 00	70 58	69 23
14	70	68 57	67 20	65 88	64 60
13	65	63 67	62 40	61 17	60 00
12	60	58 77	57 60	56 46	55 39
11	55	53 86	52 80	51 75	50 77
10	50	48 97	48 00	47 05	46 15
9	45	44 08	43 20	42 35	41 53
8	40	39 18	38 40	37 64	36 92
7	35	34 28	33 60	32 94	32 30
6	30	29 38	28 80	28 23	27 69
5	25	24 48	24 00	23 52	23 07
4	20	19 59	19 20	18 82	18 46
3	15	14 69	14 40	14 11	13 84
2	10	9 79	9 60	9 41	9 23
1	5	4 89	4 80	4 70	4 61

Spanish Dollars at various rates of Exchange.

4s. 4½d.	4s. 5d.	4s. 6d.	4s. 7d.	4s. 8d.	4s. 9d.
45,714 28	45,283 01	44,444 44	43,636 36	42,857 14	42,105 26
41,142 85	40,754 71	40,000 00	39,272 72	38,571 43	37,894 73
36,571 42	36,226 41	35,555 55	34,909 09	34,285 71	33,684 21
32,000 00	31,698 11	31,111 11	30,545 45	30,000 00	29,473 68
27,428 57	27,169 81	26,666 66	26,181 81	25,714 28	25,263 15
22,857 14	22,641 51	22,222 22	21,818 18	21,428 57	21,052 63
18,285 71	18,113 20	17,777 77	17,454 54	17,142 85	16,842 10
13,714 28	13,584 90	13,333 33	13,090 90	12,857 14	12,631 57
9,142 85	9,056 60	8,888 88	8,727 27	8,571 42	8,421 05
4,571 42	4,528 30	4,444 44	4,363 63	4,285 71	4,210 52
4,342 85	4,301 88	4,222 22	4,145 45	4,071 42	4,000 00
3,885 71	3,849 05	3,777 77	3,709 09	3,642 85	3,578 95
3,428 57	3,396 22	3,333 33	3,272 72	3,214 28	3,157 90
2,971 43	2,943 39	2,888 88	2,836 36	2,785 71	2,736 86
2,514 29	2,490 56	2,444 44	2,400 00	2,357 14	2,315 81
2,057 14	2,037 73	2,000 00	1,963 63	1,928 57	1,894 73
1,600 00	1,584 90	1,555 55	1,527 27	1,500 00	1,473 68
1,142 85	1,132 07	1,111 11	1,090 90	1,071 42	1,052 63
914 28	905 66	888 88	872 72	857 14	642 10
685 71	679 24	666 66	654 54	642 85	631 57
457 14	452 83	444 44	436 36	428 57	421 05
365 71	362 26	355 55	349 09	342 85	336 84
342 85	339 62	333 33	327 27	321 42	315 79
274 28	271 69	266 66	261 81	257 14	252 63
228 57	226 41	222 22	218 18	214 28	210 52
137 14	135 84	133 33	130 90	128 57	126 31
114 28	113 20	111 11	109 09	107 14	105 26
91 42	90 56	88 88	87 27	85 71	84 21
86 85	86 03	84 44	83 90	81 43	80 00
82 28	81 50	80 00	78 54	77 24	75 75
77 71	76 98	75 55	74 18	72 86	71 48
73 14	72 45	71 11	69 81	68 57	67 36
68 57	67 92	66 66	65 45	64 28	63 15
64 00	63 38	62 22	61 09	60 00	58 94
59 42	58 86	57 77	56 72	55 72	54 73
54 84	54 34	53 33	52 36	51 43	50 42
50 27	49 81	48 88	48 00	47 15	46 31
45 71	45 28	44 44	43 63	42 85	42 10
41 14	40 75	40 00	39 27	38 57	37 89
36 57	36 22	35 55	34 90	34 28	33 68
32 00	31 69	31 11	30 54	30 00	29 47
27 42	27 17	26 66	26 18	25 71	25 26
22 85	22 64	22 22	21 81	21 42	21 05
18 28	18 11	17 77	17 45	17 14	16 84
13 71	13 58	13 33	13 09	12 85	12 63
9 14	9 05	8 88	8 72	8 57	8 42
4 57	4 52	4 44	4 36	4 28	4 21

TABLE VI.—*Continued.*

Shillings	4s.	4s. 1d.	4s. 2d.	4s. 3d.	4s. 4d.	4s. 5d.	4s. 6d.	4s. 7d.	4s. 8d.	4s. 9d.
19	4.75	4.653	4.56	4.470	4.384	4.301	4.222	4.144	4.071	3.999
18	4.50	4.408	4.32	4.235	4.153	4.075	3.999	3.926	3.857	3.789
17	4.25	4.163	4.08	4.000	3.923	3.849	3.777	3.709	3.642	3.578
16	4.00	3.918	3.84	3.764	3.692	3.622	3.555	3.490	3.428	3.468
15	3.75	3.673	3.60	3.529	3.461	3.396	3.333	3.272	3.214	3.157
14	3.50	3.428	3.36	3.294	3.230	3.169	3.111	3.054	2.999	2.947
13	3.25	3.183	3.12	3.058	3.000	2.943	2.888	2.836	2.785	2.736
12	3.00	2.938	2.88	2.823	2.769	2.716	2.666	2.618	2.571	2.526
11	2.75	2.693	2.64	2.588	2.538	2.490	2.444	2.399	2.357	2.315
10	2.50	2.448	2.40	2.352	2.307	2.264	2.222	2.181	2.142	2.105
9	2.25	2.204	2.16	2.117	2.076	2.037	1.999	1.963	1.928	1.894
8	2.00	1.959	1.92	1.882	1.846	1.811	1.777	1.745	1.714	1.734
7	1.75	1.714	1.68	1.647	1.615	1.584	1.555	1.527	1.499	1.473
6	1.50	1.469	1.44	1.411	1.384	1.358	1.333	1.309	1.285	1.263
5	1.25	1.224	1.20	1.176	1.153	1.132	1.111	1.090	1.071	1.052
4	1.00	0.979	0.96	0.940	0.923	0.905	0.888	0.872	0.857	0.842
3	0.75	0.734	0.72	0.705	0.692	0.669	0.666	0.654	0.642	0.631
2	0.50	0.489	0.48	0.470	0.461	0.452	0.444	0.436	0.428	0.421
1	0.25	0.244	0.24	0.235	0.230	0.226	0.222	0.218	0.214	0.210
Pence.										
9	0.183¾	0.183	0.18	0.176	0.172	0.169	0.166	0.163	0.160	0.157
6	0.12½	0.122	0.12	0.117	0.115	0.113	0.111	0.109	0.107	0.105
3	0.06¼	0.061	0.06	0.058	0.057	0.056	0.055	0.054	0.053	0.052

Out-turn at Bombay of various modes of remittances from China.

Bills of exchange on London, purchased in China, and sold at Bombay, at 1*s.* 10*d.* per rupee :—

	s.	*d.*		£	*s.*	*d.*	Rs.	qrs.	reas.
100 Sp. drs. at	4	10	per dollar, will sell for	24	3	4 =	263	2	51
	4	6		22	10	0 =	245	1	82
	4	4		21	13	4 =	236	1	61
	4	1		20	8	4 =	222	2	91
	4	0		20	0	0 =	218	0	72
	3	11		19	11	8 =	213	2	51

Sycee silver, bought at 106½ taels per 100 taels' weight:

$100 worth will cost at Bombay, allowing commission, insurance, and freight, at 216 rupees per $100 . . .	226	1	48
If sold at Bombay, for 3½ per cent. for Company's rupees, .	225	0	20
If sold — for 3 per cent. - - - - - -	223	3	8
Bills of exchange on Bengal, bought at 204 sicca rupees per $100, and sold at Bombay at 105½ Bombay for 100 sicca rupees, $100 will give - - - - - - - - - - - -	215	0	8
And if sold at 105 Bombay for 100 sicca rupees, - -	214	0	80

The following table shows the general rate of exchange between China and London and India, for the last 14 years. During the interruption of the trade in 1839, '40, and '41, the rates were frequently nominal.—F. C. stands for the Finance Committee of the E. I. Co., and S. B. for Scotch Banks.

TABLE VII.—*Quarterly rates of Exchange in China, from July 1832 to Apr. 1844.*

PERIODS.	ON LONDON. 6 months' sight; sterling per dollar.	ON BENGAL. Sicca rupees per 100 dollars. Co.'s Bills.	Private.	ON BOMBAY. Rupees per 100 dollars Private.
1832.		30 days.	30 days.	30 days' sight.
July to Sep.	4s 1*d* to 4s 2½*d*.	205	207	215¼ to 218
Oct. to Dec.	4s 4½*d*. (Fit for India, 4s 3⅛*d*.)	207	209½	216¾ to 218
1833.				
Jan. to Mar.	4s 4*d* to 4s 5*d*.	207	209 to 210	218
Apr. to June	4s 4*d* to 4s 5*d*. Range,	207	209 to 210	217
July to Sep.	4s 4*d*. 4s. 4*d*. to 4s. 10*d*.	207	208½ to 209½	216
Oct. to Dec.	4s 7¼*d* to 4s 8¼*d*.	207	208½ to 209½	218¾
1834.				
Jan. to Mar.	4s 9*d* to 4s 11*d*.	207	209 to 211¾	219¼ to 219¾
Apr. to June	4s 10*d* to 5s.	207	204½ to 205	216 to 218
July to Sep.	4s 10*d* a 5s; 4s 9*d* a 4s 11*d*; 4s 10*d*; 4s 8*d*; 4s 9*d*.	204	204 to 206	216. 218
Oct. to Dec.	4s 8*d* a 4s 9*d*; 4s 9*d*.—F. C. 4s 7*d*.	204, 6, 8, 10	206, '08, '10	216. 218
1835.				
Jan. to Mar.	4s 9*d* to 4s 10*d*.—F. C. 4s 7.	206. 208	210	216 to 218
Apr. to June	4s 9*d* to 4s 10*d*.—F. C. 4s 7*d*.	208. 206	210. 208	216 to 218
July to Sep.	4s 9*d* to 4s 10*d*; 4s 10*d*.–F. C. 4s 8*d*.	206. '08. '10	208. '10. '12	216, 218 to 220
Oct. to Dec.	4s 9*d* to 4s 10*d*; 4s 10*d*.–F. C. 4s 8*d*.	210	212	220. 220 to 222
1836.				
Jan. to Mar.	4s 10*d*; 4s 9*d* a 4s 10*d*—F. C. 4s 8*d*.	210. '07. '08	212, '07, '08	220 to 222
Apr. to June	4s 9*d* a 4s 10*d*; 4s 9½*d*—F. C. 4s 8*d*.	206	206	220 to 222
July to Sep.	4s 9*d* a 4s 9½*d*; 4s 9*d*. F. C. 4s. 8*d*; 4s 7½*d*.	*Company's* 218. 220	*Rupees.* 220	220 to 222
Oct. to Dec.	4s 9*d* a 4s 10*d*; 4s 10*d*; 4s 11*d*.	220	220	222
1837.				
Jan. to Mar.	4s 11*d* a 5s.	220	220	222
Apr. to June	5s.	220. 218	220.' 22. '20	222
July to Sep.	1s 10*d* a 4s 11*d*; 4s 8*d* a 4s 9*d*.	218. 216	220. 218	222. '20. '18
Oct. to Dec.	4s 8*d* a 4s 9*d*; 4s 7*d* a 4s 8*d*; 4s 7*d*; 4s 6*d*.—F. C. 4s 7*d*.	216	218. 216	218
1838.				
Jan. to Mar.	4s 6*d*; 4s 5*d* a 4s 6*d*–S. B. 60 days, 4s 2*d*.—F. C. 4s 6*d*.	None.	216. none	218. 216
Apr. to June	4s 5*d* a 4s 6*d*; 4s 5*d* a 4s 7*d* S. B. 60 ds 4s 2*d*; 4s 4*d*.—F. C. 4s 7*d*.	None; 210	None.	216, '12, '14
July to Sep.	4s 5*d* to 4s 7*d*; 4s 6*d* to 4s 7*d*. F. C. 4s 7*d*.—S. B. 4s 4*d*; none.	210	None.	212. 214
Oct. to Dec.	4s 6*d* a 4s 7*d*, 4s 6½*d* a 4s 7½*d* 4s 7*d* a 4s 7½*d*, 4s 7*d* a 4s 8*d*–F.C. 4s 7*d*	210. 212	None.	212, '14, '14 '13
1839.		COMPANY'S BILLS.		
Jan. to Mar.	1s 7*d* to 4s 9*d*; 4s 10*d*; 5s.	218, '20, '22, '24		
Apr. to June	1s 10*d*.	220		
July to Sep.	4s 9½*d*.	218. 216		
Oct. to Dec.	1s 9*d*.	220		
1840.				
Jan. to Mar.	1s 9*d* to 4s 11*d*.	220		
Apr. to June	4s 10*d* to 5s.	218		
July to Sep.	1s 10*d*; 4s 9*d*.	216 to 218		
Oct. to Dec.	1s 8*d*; 4s 7*d* to 4s 7½*d*.	216 to 218		
1841.				
Jan. to Mar.	1s 8*d*; 4s 9*d* to 4s 10*d*.	218		
Apr. to June	5s; 4s 10*d* to 5s.	218 to 220		
July to Sep.	1s 9*d*; 4s 8*d* to 4s 9*d*.	218 to 220		
Oct. to Dec.	1s 9½*d*; 4s 10*d*; 5s.	220 to 222		
1842.				
Jan. to Mar.	5s.	225. '26. '30		
Apr. to June	1s 10*d* to 4s 11*d*; 4s 8*d* to 4s 8½*d*.	225. 222		
July to Sep.	1s 7½*d* to 4s 8*d*.			
Oct. to Dec.	1s 8*d* to 4s 9*d*.	220		
1843.				
Jan. to Mar.	1s 9*d* to 4s 10*d*.	222 to '24		
Apr. to June	1s 8*d* to 4s 9*d*; 4s 8*d*; 4s 6*d*.	222		
July to Sep.	1s 5*d*; 4s 6*d*; 4s 3*d*.	222		
Oct. to Dec.	4s 3*d* to 4s 4*d*; 4s 1*d* to 1s 5*d*.	222		
1844.				
Jan. to Mar.	1s 6*d* to 1s 7*d*; 1s 5*d* to 1s 6*d*.	224. 226		
Apr. to June	1s 1*d* to 1s 5*d*	226 to 228		

TABLE VIII.—*Exchange Table of Rupees into Dollars.*

At the rate of 225 Company's Rupees per 100 Dollars.

Rs. A. P.	*Dec.*	*Rs.*	*Dlls. dec*	*Rs.*	*Dolls. dec.*	*Rs.*	*Dlls.dec.*	*Rps.*	*Dolls. dec.*	*Rups.*	*Dolls. dec.*	*Rupees.*	*Dolls. dec*
0 0 1	.002 17/225	2	0.888 8/9	29	12.888 8/9	56	24.888 8/9	83	36.888 8/9	1,001	444.888 8/9	3,700	1644.444 4/9
0 0 2	.004 17/225	3	1.333 1/3	30	13.333 1/3	57	25.333 1/3	84	37.333 1/3	1,100	488.888 8/9	3,800	1688.888 8/9
0 0 3	.006 5/75	4	1.777 7/9	31	13.777 7/9	58	25.777 7/9	85	37.777 7/9	1,200	533.333 1/3	3,900	1733.333 1/3
0 0 4	.009 7/225	5	2.222 2/9	32	14.222 2/9	59	26.222 2/9	86	38.222 2/9	1,300	577.777 7/9	4,000	1777.777 7/9
0 0 5	.011 1/45	6	2.666 2/3	33	14.666 2/3	60	26.666 2/3	87	38.666 2/3	1,400	622.222 2/9	4,100	1822.222 2/9
0 0 6	.013 2/45	7	3.111 1/9	34	15.111 1/9	61	27.111 1/9	88	39.111 1/9	1,500	666.666 2/3	4,200	1866.666 2/3
0 0 7	.016 1/45	8	3.555 5/9	35	15.555 5/9	62	27.555 5/9	89	39.555 5/9	1,600	711.111 1/9	4,300	1911.111 1/9
0 0 8	.018 1/25	9	4.000	36	16.000	63	28.000	90	40.000	1,700	755.555 5/9	4,400	1955.555 5/9
0 0 9	.020 5/6	10	4.444 4/9	37	16.444 4/9	64	28.444 4/9	91	40.444 4/9	1,800	800.000	4,500	2000.000
0 0 10	.023 7/225	11	4.888 8/9	38	16.888 8/9	65	28.888 8/9	92	40.888 8/9	1,400	844.444 4/9	4,600	2044.444 4/9
0 0 11	.025 1/25	12	5.333 1/3	39	17.333 1/3	66	28.333 1/3	93	41.333 1/3	2,090	888.888 8/9	4,700	2088.888 8/9
0 1 0	.027 1/45	13	5.777 7/9	40	17.777 7/9	67	29.777 7/9	94	41.777 7/9	2,100	933.333 1/3	4,800	2133.333 1/3
0 2 0	.055 1/25	14	6.222 2/9	41	18.222 2/9	68	30.222 2/9	95	42.222 2/9	2,200	977.777 7/9	4,900	2177.777 7/9
0 3 0	.083 1/25	15	6.666 2/3	42	18.666 2/3	69	30.666 2/3	96	42.666 2/3	2,300	1022.222 2/9	5,000	2222.222 2/9
0 4 0	.111 1/9	16	7.111 1/9	43	19.111 1/9	70	31.111 1/9	97	43.111 1/9	2,400	1066.666 2/3	6,000	2666.666 2/3
0 5 0	.138 4/225	17	7.555 5/9	44	19.555 5/9	71	31.555 5/9	98	43.555 5/9	2,500	1111.111 1/9	7,000	3111.111 1/9
0 6 0	.166 1/25	18	8.000	45	20.000	72	32.000	99	44.000	2,600	1155.555 5/9	8,000	3555.555 5/9
0 7 0	.194 1/45	19	8.444 4/9	46	20.444 4/9	73	32.444 4/9	100	44.444 4/9	2,700	1200.000	9,000	4000.000
0 8 0	.222 2/225	20	8.888 8/9	47	20.888 8/9	74	32.888 8/9	200	88.888 8/9	2,800	1244.4444	10,000	4444.444 4/9
0 9 0	.249 5/225	21	9.333 1/3	48	21.333 1/3	75	33.333 1/3	300	133.333 1/3	2,900	1288.888 8/9	20,000	8888.888 8/9
0 10 0	.277 1/25	22	9.777 7/9	49	21.777 7/9	76	33.777 7/9	400	177.777 7/9	3,000	1333.333 1/3	30,000	13333.333 1/3
0 11 0	.305 1/45	23	10.222 2/9	50	22.222 2/9	77	34.222 2/9	500	222.222 2/9	3,100	1377.777 7/9	40,000	17777.777 7/9
0 12 0	.333 1/9	24	10.666 2/3	51	22.666 2/3	78	34.666 2/3	600	266.666 2/3	3,200	1422.222 2/9	50,000	22222.222 2/9
0 13 0	.360 1/25	25	11.111 1/9	52	23.111 1/9	79	35.111 1/9	700	311.111 1/9	3,300	1466.666 2/3	60,000	26666.666 2/3
0 14 0	.388 1/25	26	11.555 5/9	53	23.555 5/9	80	35.555 5/9	800	355.555 5/9	3,400	1511.111 1/9	70,000	31111.111 1/9
0 15 0	.416 5/225	27	12.000	54	24.000	81	36.000	900	400.000	3,500	1555.555 5/9	80,000	35555.555 5/9
1 0 0	.444 4/9	28	12.444 4/9	55	24.444 4/9	82	36.444 4/9	1,000	444.444 4/9	3,600	1600.000	90,000	40000.000