ILLUSTRATED HANDBOOK

ON

MONEY CURRENCY

AND

PRECIOUS METALS

HALL MARKS

AND

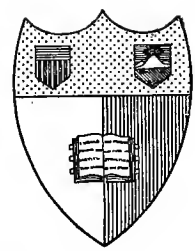
DATE LETTERS

FROM

1509 TO 1920.

3/6

REDMAN.



ILLUSTRATED

HAND BOOK OF INFORMATION

ON

Money Currency & Precious Metals;

MONETARY SYSTEMS OF THE PRINCIPAL COUNTRIES OF THE WORLD.

HALL-MARKS AND DATE-LETTERS FROM 1509 TO 1920

ON ECCLESIASTICAL AND DOMESTIC PLATE;

STOCKS OF MONEY IN THE WORLD;

WEALTH OF NATIONS, AND PER CAPITA;

AND OTHER USEFUL AND INTERESTING INFORMATION IN CONNECTION WITH THE BANKS, THE MINTS, AND THE ASSAY OFFICES OF ENGLAND, IRELAND AND SCOTLAND.

BY

WILLIAM REDMAN, F.R.G.S.,

AUTHOR OF "THE JEWELLER'S GUIDE AND HANDY REFERENCE BOOK," "HALL-MARKS ON SILVER PLATE AND JEWELLERY," ETC.

PRICE, 2/-; BOUND IN CLOTH, 3/6.

W. REDMAN, THIRKILL TERRACE, WEST BOWLING, BRADFORD.

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BELONGING TO RICHARD WILSON, ESQ.

COST £220.—*See page* 167.

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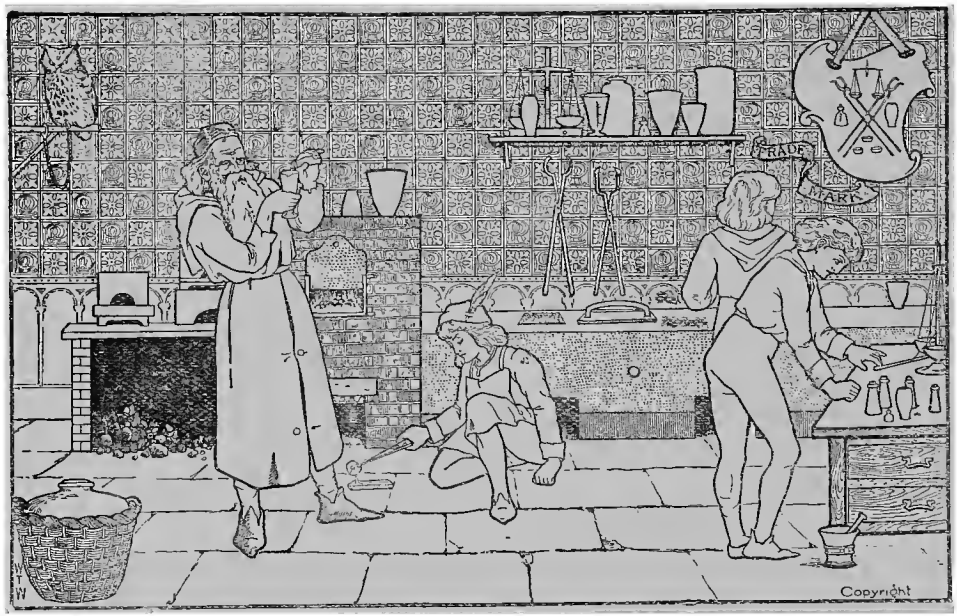
ILLUSTRATIONS.

ERRATA.

Page v., line 10, for "King" "Queen," read "Kings" "Queens."
" 1, " 34, for "on" read "of."
" 6, " 2, for "Amatuer" read "Amateur."
" 6, " 18, for "must" read "should."
" 11, " 5, add "we."
" 11, " 17, for "have been" read "were."
" 11, " 30, for "is" read "are."
" 11, " 33, transpose "should."
" 11, " 34, for "That" read "This."
" 13, " 5, add "period."
" 13, " 29, add "money."
" 14, " 13, add "out."
" 16, " 19, for "have" read "has."
" 16, " 26, for "Javons" read "Jevons,"
" 18, " 38, for "500" read "450."
" 19, " 15, for "dray" read "drag."
" 19, " 35, for "700" read "300."
" 20, " 1, for "that" read "such."
" 20, " 27, for "120" read "110."
" 21, " 8, delete "s" after "Tower."
" 21, " 9, for "two" read "three."
" 21, " 10, for "thirty" read "twenty."
" 26, " 31, delete "a made" read "made a."
" 28, " 38, for "is" read "are."
" 29, " 19, for "whom" read "these."
" 31, " 37, for "nett" read "net."
" 34, " 6, for "Licenses" read "Licences."
" 38, " 20, for "are" read "is."
" 38, " 21, for "have" read "has."
" 46. This page was written in July, 1899.
" 66. The remedy allowance for the half-sovereign and the silver coins has been altered a little. See "Mint Report for 1891."
" 71. In 1888, 12,000 fourpences were made for British Guiana.
" 81, line 13, for "Folville" read "Foville."
" 81, " 14, for "economical" read "economic."
" 85, " 12, for "as" read "to."
" 108. Note.—The words "Counsel" and "ruble" are correctly printed as given in the "U.S. Mint Report."
Pages 123, 124, 125 and 127, for "stirling" read "sterling."
Page 137, line 26, for "shall be" read "is"
" 138. The table of charges for assaying and marking plate on this page is now incorrect; a corrected list of charges may be had by applying at the Hall.
" 140, line 9, for "dirt" read "diet."
" 141, line 21, for "assor" read "assoc."
" 143. Delete the last 13 lines. A new method of parting gold assays has lately been introduced; a platinum apparatus is now used instead of glass tubes.
" 149, line 1, for "General Information" read "London and Birmingham."
" 149. Delete the paragraph "Time of Attendance." A new and corrected list may be had by applying at the Goldsmiths' Hall.
" 150, line 26, for "Sunday" read "Saturday."
" 154, " 28, for "universal" read "unusual."
" 157. Delete the three bottom lines, and read, "the world's production of gold for 1899 is now stated to be about five millions sterling more than 1898.
" 170, line 4, for "wilks" read "weeks."
" 201, " 1, for "100" read "50."
" 201, " 3, add "which are."
" 201, " 8, for "to" read "of."
" 201, " 9, for "are" read "were."
" 201, " 35, for "£2,000" read "£1,000."
" 202, " 6, delete "double."



YE OLD MELTING SHOP.

The Author heartily thanks Mr. Garstin for the following article on Dublin Hall-Marks, and is sorry it has come to hand too late to be put in its proper place

DUBLIN HALL-MARKS.

Note by John Ribton Garstin, F.S.A., V.P., R.I.A., & R.S A., Braganstown, Castlebellingham.—Great uncertainty exists as to many of the Irish Date-letters, which have not yet been thoroughly investigated. Some of the Cycles in the early editions of "Chaffers," having been constructed on the supposition that the alphabets were uninterrupted, have been very misleading. Even in the fourth edition, 1872, there is not a single correct Date-letter in the 100 years from 1646 to 1745. Mr. Cripps made good progress in recovering their value, but dated examples before 1690 are so few that this is difficult, even the letters used between 1678 and 1721 have yet to be definitely fixed. They appear to be mainly Old English, the earlier ones being in straight-topped shields and the later ones in shields with engrailed tops. The series was probably interrupted about 1688-90 during the war, and some of the letters appear to have done duty for more than one year. William III. brought some very skilled Dutch silversmiths to Dublin. The beginning of a Court-hand alphabet appears about 1718-20, but only the A B & C are found. From 1721 the alphabets proceed with tolerable regularity (omitting J, but retaining U and V) but with such uniformity of type that it is difficult to distinguish between some of the Cycles. Mr. Waterhouse published a table of Date-letters from 1638, and Mr. Johnson one from 1721. I am engaged in endeavouring to complete the early Cycles and have collected notes of a vast number of dated examples. The records of the Goldsmiths' Company are very imperfect, but I have transcribed Apprenticements, 1632-47; Plate-makers from (The Charter) 1638-49 and from 1693-99: the Book of Freemen, 1637-1779; and the Register of Manufacturers' Punches, 1784-1876. With the aid of these I am able to identify most of the makers marks. The modern punches are struck on copper plates, which are kept at the Assay Office at the Custom House, Dublin. Little is known about New Geneva, and its productions are rare. Cork never had a hall or assay master or date-letter, but it had a company of Goldsmiths and manufactured largely, and Mr. Cecil Woods has published a list of Cork goldsmiths, 1601-1850, in the Journal of the R.S.A.I. for 1895.

The Dublin Shields for 1846 to 1871 (omitted on page 195) differed in shape, but the alphabet was mainly in small Roman.

NOTE.—It may interest many of our readers to know that there is now appearing in the columns of *The Jeweller and Metal Worker* an account of "English Silversmiths and their Marks," by Reginald Foster. Part I. commenced January 1st, 1900, published by E. G. Allen, 24, Clerkenwell Road, E.C.

PREFACE.

The success of our previous publications consisting of ten thousand copies, pertaining to the assaying, and marking of gold and silver, and the industrial consumption of the precious metals, together with the growing interest now taken in the currency question, and the wonderful discovery of gold, has induced us to issue this handbook. We have endeavoured to embrace in a compact form everything that is useful and interesting relating in any way to the production and distribution of the precious metals. We have also included some interesting particulars about banks and foreign exchanges.

As the ultimate purpose is to make our readers acquainted with the elementary facts and principles, a knowledge of which is essential to the proper understanding of monetary and currency matters, we have tried to give such information in as simple a form as possible. We have no pretensions to great originality, our object has been to put what has taken years to collect and comprehend into such form that it may be seen at a glance and easily understood by those less acquainted with the subject. The arrangement of the work we have found a somewhat difficult task, and we fear it is more or less disjointed. The account here given of the "Monetary Systems of the Principal Countries of the World" has been taken (by permission) from the United States Mint Report for 1898, as have also most of the tables and matter relating to the production of gold and silver. Several other tables have also been taken from the same book, and the dollars converted into pounds sterling at the rate of 5 dollars to £1. The rest of the tables relating to the coining and re-coining of money have been taken, almost exclusively, from the Royal Mint Reports.

With reference to the industrial consumption of gold and silver, and the hall-marks on domestic plate and jewellery, we have given a more detailed account, this being information with which we are very familiar, and having issued several editions before on this part of the work, we can with confidence recommend it, believing it to be by far the best information that can be had at such a low price and in so small a compass.

Hall-marking was established for the use and benefit of the general public, as a guarantee of the genuineness of the article so marked. The mints and assay offices being for hundreds of years closely associated with each other, a hand-book of this

kind would be incomplete that did not include an account of both the branches. We hope the time will never come in this country when compulsory hall-marking will be done away with. (At the same time manufacturers ought to receive some consideration, with respect to orders received from other countries, in order that they may be able to comply with the requirements of the case.) No ordinary purchaser, and few dealers, could now protect themselves from fraud, but for the aid of the authorised hall-marks. To abolish these marks would cause an endless amount of trouble and inconvenience, therefore we would strongly recommend the continued maintenance of the authorised incorporated establishments.

In the preface of our first issue in 1883, it was stated that the question of hall-marking would be more appreciated the better it was understood, because people are better satisfied, and will buy more freely when they have confidence that what they are purchasing is a real genuine article. It was also stated that hall-marked goods would become more and more in demand. As a proof of the correctness of this forecast, we give the official statement from the mint reports of the amount of work done at Birmingham assay office alone for 1883 and 1898.

1883	Gold wares assayed and marked	91,053	Ounces
1898	,, ,, ,,	333,741	,,
1883	Silver wares assayed and marked	851,957	,,
1898	,, ,, ,,	2,530,019	,,

This is a remarkable increase, and is still continuing. The ever increasing production of the precious metals, combined with the decreasing price of silver, has also had something to do with causing such a large industrial consumption of gold and silver.

It is pleasing to find in the annual mint reports, that the work carried on at Birmingham, Sheffield, and Chester Assay Offices is in each case, year after year, perfectly satisfactory and accurate.

It is very desirable that the laws in future should be so framed that marks on inferior goods may not in any way resemble the hall-marks.

The assay masters and officials connected with the several halls, deserve the thanks and support of the trade and public for the trouble and expense they often put themselves to in

prosecuting evil doers who try to palm off on the public goods made from base and spurious metals.

The date-letters have been reconstructed and put in vertical columns, and the alphabets continued as far as possible into the next century. At Birmingham Assay Offices a new cycle of date-letters will be commenced in July, 1900.

From the beginning to the end of this book we have confined our remarks, as far as possible, to statements of facts, and to the inferences that seem fairly deducible therefrom. While we have endeavoured to give the tables and other statements as near correct as possible, we caution our readers to avoid the error of coming to the conclusion that all statistics of this kind are ascertained facts, for in many cases they are only approximate results.

The illustrations of the Diamond Jubilee Medals which appear between Pages 8 and 9 have been taken from the Twenty-eighth Annual Report of the Deputy Master of the Mint, 1898, by the consent of the Controller of Her Majesty's Stationery Office.

In another part of this work we have given a list of books and papers from which we have derived valuable information and copied a few quotations. We also take this opportunity of expressing our thanks to the authors and publishers of these works, and to the assay masters and officials of the Royal Mint, and others who have rendered us any assistance in connection with this issue.

WILLIAM REDMAN.

29, Thirkill Terrace, West Bowling, Bradford,
February, 1900.

List of Books on Currency, Money and Precious Metals, &c., &c.

During the last five years we have received much valuable information from the following works, and take this opportunity of recommending the same to our readers. We may say that the present work would have been simply impossible, so far as the former part of it is concerned, which relates to the precious metals, but for the excellent Reports issued by the Director of the United States Mint.

"History of Monetary Systems," by A. DEL-MAR.
E. Wilson, Royal Exchange.

"Coin of the Realm; What is it?" by E. C. SHARLAND.
Waterlow & Sons, London Wall.

"The Theory of Credit," 2 vols., by H. D. MACLEOD. Longmans, Green & Co.

"The Theory and Practice of Banking," by H. D. MACLEOD.
Longmans, Green & Co.

"Bimetalism," by H. D. MACLEOD. Longmans, Green & Co.

"World's Exchanges of Standard Metals," by J. H. NORMAN.
S. Low, Marston & Co.

"Universal Cambist," by J. H. NORMAN. E. Wilson, Royal Exchange.

"Money," by W. STANLEY JEVONS. K. Paul, Trench & Co., Ltd.

"Indian Currency," and other Blue Books on Money, &c.
P. S. King & Son, Orchard House, Westminster.

"Investigations in Currency and Finance," by W. S. JEVONS.
Macmillan & Co.

"The Gold Standard," 1898, by LORD FARRER and others.
Cassell & Co., Ltd.

"The History of Currency," 1252 to 1894, by W. A. SHAW.
C. Wilson, 29, Paternoster Row.

"The Natural Law of Money," by W. BROUGH. G. P. Putnam's Sons.

"United States Mint Reports," by the DIRECTOR of the MINT.
P. S. King & Son, Orchard House, Westminster.

"Royal Mint Reports," by the Deputy Master, H. SEYMOUR, Esq., C.B.

"Everybody's Guide to Money Matters," by W. COTTON. F. Warne & Co.

"Lombard Street," by WALTER BAGEHOT. K. Paul, Trench & Co., Ltd.

"The A.B.C. of the Foreign Exchanges," by GEO. CLARE. Macmillan & Co.

"The Theory of the Foreign Exchanges," G. J. GOSCHEN.
E. Wilson, Royal Exchange.

"History of the Bank of England," by J. FRANCIS. Willoughby & Co.

"Chronicles of the Bank of England," by B. B. TURNER.
S. Sonnenschein & Co., Ltd.

"The Work of a Bank," by H. T. EASTON. E. Wilson, Royal Exchange.

"A History of Modern Banks of Issue," by C. A. CONANT.
G. P. Putnam's Sons.

*"Banker's Almanack," by R. H. J. PALGRAVE. Waterlow & Sons.

*"Journal of the Institute of Bankers." Office, 34, Clement's Lane.

"The Mining Manual," by W. R. SKINNER. Waterlow & Sons.

* These are of special interest to bankers and their assistants.

The Law of Supply and Demand.

The more a person has of any thing the more of that thing will he give for some other thing he desires. This is the law of supply.

The law of demand is, the more a person desires a thing the more he will give of what he has in possession for it. A clear understanding of this easily settles such heresies as that of money being a thing of fixed value, while all other values fluctuate.

> " Money is the Sovereign power
> That all mankind fall down before,
> For what's the worth of anything
> But so much money as 'twill bring ?"
>
> BUTLER.

Gold Mining

HINTS TO AMATUER INVESTORS.

In the present day there are thousands of people who are in the possession of a few hundred, or perhaps a few thousand pounds, whose failing is the making haste to be rich. A large number of such people think that if they could secure a number of shares in a gold mine they would have accomplished their task. We would remind these folks that safe and successful investments, even in gold mines, are not, as a rule, found out without great care and strict investigation. We consider that before an amateur speculates much in gold mines it is essential for him to read carefully two or three of the following financial journals, every week, for at least twelve months:

The Economist	(weekly)	South Africa	(weekly)
The Mining Journal	,,	The Financial Times	(daily)
The Statist	,,	The Financial News	,,
Finance	,,	The Times	,,
Money	,,		

By this time he will have gleaned information that will assist him in selecting the size and quality of the property he wishes to invest his money in, he must, however, invest very carefully, and in different mines or shares.

The area of a property should be one of the first points on which the intending investor should satisfy himself that it gives the company a good chance of being worked successfully, as it is on this that the duration of the mine, and the return it gives, are almost entirely dependent. In the second place the directorate of a company is a very important point to be considered. They should all be good business men, and at least three of them should have a very extensive knowledge of mining and machinery suitable for the work. Care should also be taken as to the amount of capital the company has to work with. Good mines with a small area are sometimes put to great inconvenience by having too large a capital; on the other hand, good mines with a large area are often ruined for want of more capital in order to develop the work and put down more stamps. Take for instance a property of from 25 to 50 acres, which cannot support more than 20 stamps without in a short time being worked out; a mine of this size should have an output of about 1000 tons a month, yielding 1½ ounces of gold per ton= 1500 ounces, at 70s. per ounce=£5250; putting the cost of production at 50s. per ton=£2500, this would show a profit of £2750 a month, or £33,000 a year. Now, on a capital of between £400,000 and £500,000, the interest which the company is able to pay does not work out at a very high rate, and the shares are likely to fall from their par value to a discount. This kind of thing should be taken particular notice of. A company of this size, in order to pay a good dividend and have sufficient to lay aside shares enough for working expenses, ought to have a capital of about £250,000.

A careful perusal of the *Mining Manual*, published yearly, by Waterlow and Sons, Ltd., London, will be found very useful to investors and shareholders in mines.

INTRODUCTION.

Gold and Silver are not found native in a state of purity; indeed, they seem to "hunt in couples." The nuggets found in California contain, on an average, about 88 per cent, the balance being chiefly silver. Native silver has been found more nearly approaching purity; but even this contains enough gold to pay for parting. It is probably owing to these combinations that both these metals have been known from the earliest ages. We find mention made of Gold in the first pages of sacred history, in Genesis, ch. ii, 11-12 v. where it says: "The name of the first is Pison; that is it which compasseth the whole land of Havilah, (Armenia) where there is gold; and the gold of that land is good." It is evident that there were other places where gold of an inferior quality, or lower grade, was found. This account of the finding of gold in the river beds of Armenia was written by Moses nearly 6000 years ago. If we turn over a few more pages we find in the 28th ch. of 1 Chronicles, v. 14, where David gives instructions to his son Solomon concerning the building of the temple: "He gave of gold by weight for things of gold, for all instruments of all manner of service; also for gold candlesticks." The candlesticks were a dream of beauty carved out of loveliness. They were made of hammered gold, stood on a foot of gold, and had six branches of gold blooming all along in six lilies of gold each, and tips of gold, from which the candles lifted their holy fire. There were also lamps, flesh-hooks, bowls, cups, and several other things of gold by weight in large quantities. If we go carefully through the scriptures, we find reference made to an immense quantity of gold and silver. In the Bible we find gold and silver mentioned, like the mathematical figure seven, over 300 times. Among the ancient Egyptian monuments we find gold. The Chinese have known gold from the earliest period of their far-reaching history. At a very early period of the world's history abundance of gold was found in Mexico and South America. It is recorded that Pizarro found gold enough in Peru to satisfy the greed of his followers. Prescott tells us of a room that was filled with gold, at the demand of this adventurer, as high as the tallest man in his troop could reach. He speaks of a large number of statues, four feet high, all made of solid gold. If the statements referred to are true there was more gold at

that period, in proportion to the population, than there is now. According to history gold in those days was very cheap, but as the population of the world increased and improved, socially and commercially, the price of gold became higher and higher, until a few years back when banks and clearing-houses became well established and of such valuable service to the commercial world.

There is no such thing now as gold appreciation, on the contrary it is cheap and plentiful. The production of gold has nearly doubled during the last six years, and the great central banks of the world have a gold stock larger than was ever before believed possible; the rate of discount in recent years has been so low as to point to anything rather than to the appreciation of gold. Gold will not buy the same amount of manual labour it would a few years ago. Considering the large number of rich gold mines now being opened, and the wonderful improvements which are continually being introduced for efficiently treating the ore, there are no signs or likelihood of gold becoming scarce or dear. Although the production of gold has been vastly increased the steady fall in the price of commodities has not been arrested thereby. To have cheap food and plenty of gold is an unique and happy position to be placed in.

The metallic stocks of the principal countries of the world are about double what they were at the end of 1890. In December, 1890, the stocks of gold and silver in the countries named below were: gold, £313,080,000; silver, £170,000,000. In June, 1897, stocks of gold were £492,000,000; silver, £220,080,000. The amount possessed by each country will be shown in the following table:—

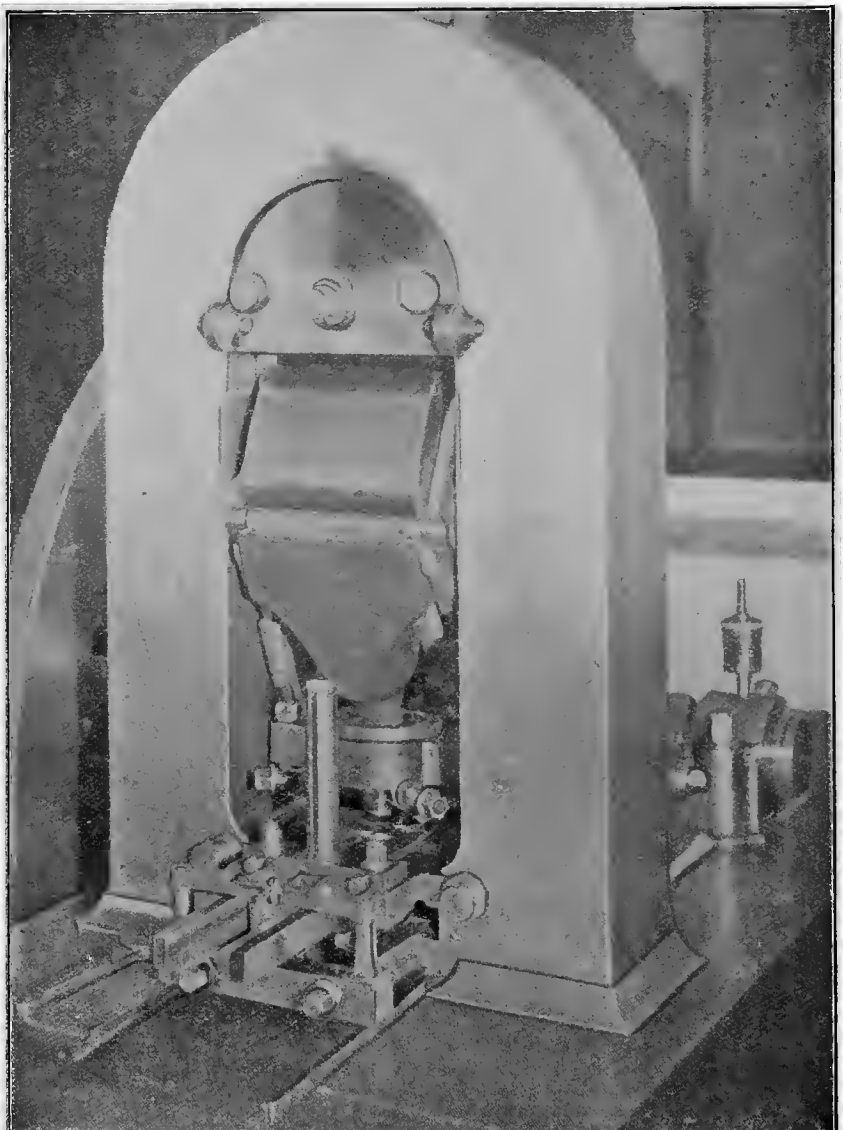
VISIBLE STOCKS OF THE PRECIOUS METALS AT THE END OF JUNE, 1897.

(Compiled by Ottomar Hampt, of Paris).

Mr. Hampt is a distinguished French Statistician of Monetary Questions.

We have converted the figures from francs into pounds in the following table, at the rate of 25 francs to the £.

Name of Bank.	Gold.	Silver.
Bank of England	£36,520,000	£200,000
Other English Banks -	8,000,000	——
Banks of Scotland -	5,200,000	720,000
Banks of Ireland -	2,600,000	540,000



COINING PRESS.—*See page* 20.

DIAMOND JUBILEE MEDALS.—*See page* 129.

Name of Bank.	Gold.	Silver.
Banks of France -	80,600,000	50,240,000
German Imperial Bank -	29,680,000	13,600,000
German Banks of Issue -	4,920,000	200,000
German War Fund -	6,000,000	——
Austro-Hungarian Bank -	30,360,000	10,640,000
Austro-Hungarian Treasury	16,200,000	——
Bank of Italy -	12,040,000	2,360,000
Bank of Naples -	5,240,000	440,000
Bank of Sicily -	1,400,000	80,000
Italian Treasury -	3,480,000	440,000
Belgian National Bank -	3,520,000	480,000
Greek National Bank -	80,000	——
Roumanian National Bank -	2,360,000	160,000
Bank of Spain -	8,920,000	10,880,000
Bank of Holland -	2,640,000	7,120,000
Bank of Algeria -	880,000	840,000
Bank of Portugal -	1,080,000	1,920,000
Bank of Sweden -	1,320,000	160,000
Bank of Norway -	1,600,000	——
Bank of Denmark -	4,740,000	——
Bulgarian National Bank -	200,000	200,000
Servia National Bank -	280,000	200,000
Bank of Finland -	840,000	120,000
Swedish Banks of Issue -	440,000	480,000
Swiss Banks of Issue -	3,560,000	360,000
Russian Bank of State -	94,840,000	3,200,000
Russian Treasury -	20,660,000	——
Associated Banks of New York	18,800,000	——
United States National Bank	17,040,000	2,720,000
United States Treasury	39,320,000	107,420,000
Australian Banks -	20,000,000	——
Bank of Japan -	8,640,000	4,360,000
Total -	£492,000,000	£220,080,000

At the end of 1893 the visible stocks of silver were stated to be £206,200,000, that is to say that during the last five years the stocks have remained almost stationary, for they are about the same now, and there is no likelihood of an increase in the near future. No additional full legal silver pieces are coming from the Mints of the countries in which the great banks of the world are located.

There is no doubt about silver being doomed to take a back seat as regards full legal tender money. For we find that first one nation and then another are establishing their monetary system on a gold basis, and withdrawing silver legal tender coins from circulation, mainly no doubt owing to inconvenience and loss caused by the variations in the price of silver.

"In consequence of the International Convention of the 29th of October, 1897, between France, Italy, Belgium, Greece and Switzerland, which increases the quota of their respective issues of silver token coin, the Paris Mint is now to undertake the recoinage of about 38 million francs in five-franc pieces of 900 standard, by converting them into 40 million francs of various denominations of silver token coin of 835 standard.

By the arrangements agreed to under the Convention, the quota of silver token coinage will be increased by one franc per head of the total population, including colonial. This will enable France to increase its share by 130,000,000 francs, of which 3,000,000 will be coined from silver ingots, and the balance from five-franc pieces. The use of the latter coins as material for the new coinage will enable a large accumulation of them to be disposed of in France, Italy, and Belgium."

The enormous growth of the production of silver, which to all appearance is likely to continue, is the final and essential cause of the depreciation of the white metal.

Up to within the last three or four years the difficulty of ascertaining the production of gold and silver in the world has been peculiarly great by reason of the lack of properly organized means, and the enormous extent of the fields through which the mines are scattered, as well as the nature of the industry itself, and the motives which influence the minds of those engaged in it, to withhold from publication the full and true accounts of its results. Now, however, most of the large mines are in the hands of companies who are obliged and willing to report and give an account of every ounce of metal produced. We have also the wonderful and elaborate Annual Report by the Director of the United States Mint, in which full particulars are given in connection with the production of the precious metals, the information is collected on a very comprehensive scale, through government officials and resident agents in every civilized country

where the precious metals are produced. This Report also gives full and interesting particulars relating to the metallic currency of the world.

Our original intention was to trace the precious metals in their various circuitous routes, but find this an impossible task. We might as well try to follow the channels of water from the clouds back to the clouds. For when we compare the amount of gold coinage, and the amount of gold used in the arts, &c., with the production, either in a single year or in a number of years, we find in many cases they do not approach to anywhere near exactitude ; for instance, the production of gold in the world for 1898 is reported to be 57¼ millions sterling, and the gold coinage of the world for the same year, as given in the Royal Mint Report, is nearly 125 millions sterling, this, of course, is a record year in the history of gold coining, and very large stocks of bar gold must have been melted and made into coins, besides the amount of light gold coins that have been re-coined. If we compare the reports for, say 13 years, from 1886 to the end of 1898, we find that about £429,000,000 of gold has been produced in the world, and during the same period about £570,000,000 of gold has been coined in the Mints of the world. It appears from these figures that the average amount of gold re-coined must have been not less than 11 millions a year for the period under consideration. There is no account of any such re-coinage, probably one-half that amount has been re-coined on an average since 1886. Then there is at least something like 12 millions sterling per year of gold used in the industrial consumption for plate and jewellery, &c. We must confess that how to reconcile the statements given as to the amount of gold produced and the amount used in the arts and for coinage is a mystery that we have not yet solved. However, if we had time and space at our disposal to go fully into the particulars of how much each country has produced, and the nett exports of gold bullion and specie, we probably should arrive at a nearer solution of the question. That we must leave for the present.

The tables and other particulars given in this handbook are a sort of dessert which we hope will be sweet and interesting.

The abrasion or loss by wear and tear of the coins in use is an important factor in the cost of a metallic currency. This differs between one country and another according to the hardness of the coin, and to the amount of surface of the coin exposed to wear in

proportion to its bulk. The rapidity of the circulation is perhaps the main ground on which to base the abrasion of the various coins.

The annual loss on the re-coinage of light gold in our own country, apart from the ordinary Mint expenses, may be taken at £55,000; sovereigns at £30,000; half-sovereigns at £25,000.

The amount of gold coin in circulation in the United Kingdom -	£100,000,000
Silver coin in circulation - -	16,000,000
Bronze - - -	2,000,000
Bullion in the Bank of England -	16,000,000
	£134,000,000

The interest on this sum, say 4 millions sterling. The metallic currency of the United Kingdom costs annually about £4,500,000.

MONEY CURRENCY & PRECIOUS METALS.

A Brief History of Money.

If we survey the entire history of money it divides itself into five distinct periods. First: The Pontifico-Royal Period, which lasted from the earliest times to the epoch of the Greek Republic. In the Pontifico-Royal money was coined exclusively in the temples, and stamped with the sacred emblems of religion. Second: The Republican Period, when money was controlled by the Senates of Sparta, Clazomene, Byzantium, Athens and Rome. Third: The Pontifico-Imperial Period, when the coinage was assumed by the Cæsars, and so regulated by them that for thirteen centuries its essential features remained substantially unaltered. Fourth: The Kingly Period, when the princes of the west, having freed themselves from the dominion of Rome, seized the coinage prerogative and exercised it independently. Fifth: The Period of Private Coinage, when the goldsmiths, merchants, and adventurers chartered to trade with and despoil or conquer the Orient, obtained control of the royal prerogative of coinage and thus opened the door to that last of degradations, private coinage. This period has not yet ended.

The most ancient method of trade was by barter, exchanging one thing for another. In after times the more precious metals were used as the price in merchandise. The gold and silver, however, were long weighed, not coined. Abraham weighed the 400 shekels which he gave for his burying place; Joseph was sold for 30 shekels of silver, and his brethren carried back to Egypt the same weight of money that had been returned in sacks; Jeremiah weighed the 17 shekels of silver which he gave for his cousin's field. Shekels and talents, whereby money was estimated, were weights not coins. We are not certain of any coined in the world till about A.M. 3460, when the King of Lydia coined his darkmons or darics. Nor do we know of the Jews coining any till about 400 years after, when Antiochus Sidetes gave Simon the Maccabee a privilege for that purpose. The Romans began to coin silver about A.M. 3735, and gold in A.M. 3797. The ancient Britons used rings or plates of iron for money. Anciently, and in straitened circumstances, leather, wood, paste-board, &c., have been coined

for money. To this day in China they cut and weigh their gold and silver for trade; and in some nations they trade with shells and fruits instead of money. We have read of professional artistes who have made tours round the world and given concerts on some of the islands in the Pacific, when they came to count up their takings it consisted of a number of animals, turkeys, chickens, bananas, lemons, oranges, and hundreds of cocoanuts. Most of the goods so received were exchanged again for what could be packed in boxes, and taken to some other country where they could be sold. In Iceland and some other countries a great amount of barter is still carried on.

What is Money?

Ninety-nine of every hundred persons would answer this simple question by saying that gold, silver, and bronze coins were money; a large number of business men and others would also include as money an indefinite number of credit notes, such as bank notes, cheques, and promissory notes, comprehending bank paper, bills of exchange, and all other tangible promises to pay. Paper money is styled paper currency, to distinguish it from specie, or metallic currency, or cash "money," or "moneta." Moneta is a Latin word, the surname of the Goddess Juno. The Romans coined and kept their money in the Temple of Juno.

Money is the channel whereby we get what we want, and in this way are made more comfortable. We have in our possession a very valuable book on this subject, "A Treatise on the Coins of the Realm in a Letter to the King," by Lord Liverpool, 1805, from which we quote the following: "The money, or coin, which is to be the principal measure of property, ought to be made of one metal only. Such is the opinion of Sir William Petty, Mr. Locke, Mr. Harris, and of all the eminent writers on coin. Sir William Petty says that one of the metals is the only fit matter for money. Mr. Locke calls this sort of money the money of account or the measure of commerce or contracts; and he adds, that two metals, such as gold and silver, cannot be the measure of commerce, both together, in any country." Mr. Harris, in his "Essay on Money and Coins," delivers it as his opinion, that only one metal can be the money, or standard measure of property and commerce in any country; and he calls this sort of money the standard of money. These three eminent authors assign their reasons in support of a principle in which they all

concur; their reasons are, in substance, the same; and are so convincing that the truth of this principle can no longer be controverted.

Mr. John H. Norman, in his valuable work "Universal Cambist," says,—a scientific monetary standard cannot possibly be made out of two commodities; because an attempt at it must embrace a fixed ratio between the two substances. It is unthinkable that any fixed ratio would conform to the comparative average cost of the production of the two commodities. If one should be favoured the other would be fettered; if one should be fettered the other would be favoured. And thereby monopoly prices would be secured for one class of producers, and a direct incentive given to the formation of rings and corners under the deliberate action of the State. There are other instruments to be used as intermediaries, such as metal tokens of, and paper promises to pay, the standard substance, which may be safely, if prudently, issued as substitutes for the standard substance in a country possessing an active automatic metal monetary system. But the moment that the standard substance cannot be obtained of the weight indicated by the monetary sign upon the State notes, payable on demand at the desire of the holder of the note, the system of currency ceases to be a monetary system, and has degenerated to a currency system of inconvertible paper.

In this country the exact definition of money is the weight of a sovereign. Standard gold bullion is essentially international money, and not only fulfils the primary functions to a fuller extent than can be claimed for any other of the numerous forms of representative money, but is itself the thing, or the power, which they only represent. There is a sense, says Lord Farrar, in which money does not mean simply gold sovereigns. It is not true that every sale and purchase is effected by the use of gold sovereigns; on the contrary, it is notorious that out of the whole number of wholesale transactions those in which gold coins are used as a means of exchange are so few and small as scarcely to deserve notice. It is by different forms of credit that our dealings are actually carried on. While the gold sovereign is the unit or measure of value in terms of which contracts are made, the real medium of exchange is not gold sovereigns, but a promise to pay gold sovereigns; a promise the actual performance of which is seldom exacted unless in the case of panic. Gold coins, whilst

remaining our sole *standard of value*, have long ceased to be our ordinary *medium of exchange*. To say that gold has been economised is a very inadequate statement of the fact. Gold has been supplanted and replaced by other forms of currency, infinitely more economical, because in themselves they cost little or nothing; infinitely more safe, because they cannot be stolen; infinitely more convenient, because they expand and contract automatically with the need for them. In the history of money silver has played a very prominent part. For hundreds of years it was a standard of value along with gold; the ratio varied from 11 to 1 to 15 to 1; that is, 15 ounces of silver was about equal to one ounce of gold. It may safely be said that the double standard system never worked satisfactorily for long together, the ratios were continually varying. About the beginning of this century, Lord Liverpool, and other experts on money, came to the unanimous conclusion that monometallism was the proper thing to adopt as a standard of value. In 1816, gold monometallism was established by law in England, and since that date one country after another have adopted the same wise course, until all Europe and several other countries have done away with silver money as a standard of value It is hoped that the committee now sitting on the Indian Currency Question will recommend the adoption of the gold sovereign as the standard unit for the whole of that great dependency. Until that takes place there will be no peace with the Monetary System of India.

Javons says that gold is the most suitable material for the purpose of coining, for it possesses the following qualities, or properties (see page 31 in his book, "Money"). First: Utility and Value—Since money has to be exchanged for valuable goods, it should itself possess value, and it must therefore have utility as the basis of value. Second: Portability—The material of money must not only be valuable, but the value must be so related to the weight and bulk of the material that the money shall not be inconveniently heavy on the one hand, nor inconveniently minute on the other. Third: Indestructibility—If it is to be passed about in trade and kept in reserve, money must not be subject to easy deterioration or loss. It must not evaporate like alcohol, nor putrefy like animal substances, nor decay like wood, nor rust like iron. Fourth: Homogeneity—All portions or specimens of the substance used as money should be homogeneous, that is, of the same quality, so that equal weights will have

exactly the same value. Fifth: Divisibility—Closely connected with the last property is that of divisibility. Gold can be divided and re-united without loss. Sixth: Stability of Value—It is evidently desirable that the currency should not be subject to fluctuations of value, because every change in the value of money does some injury to society. Seventh: Cognizability—By this name we may denote the capability of a substance for being easily recognized and distinguished from all other substances.—Gold has also another rich property, for as a thing of beauty it has no equal; the beautiful yellow colour of gold is without parallel among known substances; its weight and beauty are two remarkable and striking characteristics. The peculiar metallic ring or sounding property of gold, combined with its high polish, are properties which have given fame to this metal from times most remote. In all large cities or towns the money in circulation may be compared to a flock of pigeons, which are continually flying round and coming back to the same home, the bank.

Every £1000 of money in circulation in the United Kingdom may be considered to consist of

	£	s.	d.
Coin - -	8	15	0
Bank Notes - -	20	0	0
Cheques and Bills -	971	5	0
	£1000	0	0

Drafts do not increase the currency, and have no effect on prices. Bills and Notes form part of the currency, and affect prices exactly like an equal amount of gold.

The Process of Minting Coins.

Nearly all civilized countries, and most of those that are not quite civilized, coin metallic money for the purposes of trade as the most convenient medium of exchange in buying and selling. Most of these possess Mints, or coin-manufactories, belonging to and worked by the state; others contract with private individuals to make the coins for them at a fixed charge Thus, in France, Germany, Denmark, Russia, Spain, Switzerland, and the United States, Governments for the most part make their own coin. In several countries the coins are made by contract, while in the United Kingdom the gold and silver coins are made wholly at the Royal Mints in London and Australia, but those of bronze partly

by private contract with firms at Birmingham. Two hundred years ago there were several Mints in England, and the expenses in connection with each Mint were very large, there being far too many officials, increasing the loss which coining entailed.

The chief reforms in the operations of the Mint were commenced about fifty years ago. Since 1851 no officer has been allowed (as had hitherto been the rule) to carry on his own private business within the establishment. At one time there was a warden to keep in check the master, and a comptroller to keep a check on both. The master of the Mint was usually a politician, who went out of office when his party went out. Men with no knowledge of minting were often appointed and received £2,000 a year. It is said that during the time Sir John Herschel was master of the Mint, he introduced so many useful reforms that the Mint saved £10,000 a year in salaries and contracts, without any lessening of efficiency. In 1869 an Act of Parliament was passed, making the Chancellor of the Exchequer ex-officio master of the Mint, without addition to his salary; the real working head to be the deputy-master, who would submit an annual report to the Treasury. Shortly after this the Treasury sent out a Commission to foreign countries, to collect as much information as possible concerning their Mints. A most valuable report was presented to Parliament by this Commission.

The following abridged particulars on the Process of Minting have been taken from this report:—

Melting.—The melting of the metals to be converted into coin is the first operation in the manufacturing department of a Mint. (At the Royal Mint, London, the gold and silver ingots or bars are, as a rule, sent in by the Bank of England.) The furnaces are common air furnaces, such as are used at most of the Mints in Europe.

Pouring.—Gold is poured sometimes from the pot or crucible, which is removed from the furnace for the purpose, direct into the moulds. In other cases the crucible is left in the furnace and the metal is ladled out until the contents are much reduced, when the remainder is poured from the crucible. Silver is more frequently ladled from the crucible than gold. (At London about 500 lbs. of silver is melted at a time).

Moulds for Casting Bars.—The moulds into which the metal is poured for casting bars, whether of gold, silver, copper, or

bronze, are universally made of cast iron; their form and construction are much varied.

Bars.—Gold and silver bars usually measure from 15 to 24 inches in length. The width rarely exceeds two inches, and is suited to the diameter of the blank.

Dressing Bars.—When cast the bars are armed with thin ragged edges, resulting from the escape of the metal between the joints of the moulds; the removal of these is necessary before rolling and is effected in a variety of ways.

Rolling Bars into Bands or Fillets.—The process of rolling out the bars into bands or fillets of the required thickness is accomplished by rolling mills. The bars are, in the first place, passed through the heavier and rougher rolling mills to reduce their thickness rapidly, and are then treated by mills more accurately adjusted (called a dray machine), and otherwise capable of bringing the fillet to its final thickness with exactness.

Annealing Fillets.—In the process of rolling, the metal is so hardened that at intervals it is desirable to soften it by annealing; this is effected in a furnace, where it is heated to redness; when cooled it is again passed through the rolls. This is done in order to make the metal workable; without this process it would crack in working, because it is so dry and brittle.

Adjusting Thickness of Fillets.—The difficulties attending the thickness by the rolling mill have led to the adoption, in some establishments, of draw-benches or machines, analogous to those in common use for wire-drawing for the final regulation of the fillet to gauge.

Cutting Out Coin Discs, or Blanks, from Fillets.—The coin blanks or discs are cut from the fillets in all cases by punching. The punch is made to suit the diameter of the blank, and accurately fits into a ring-cutter or die; the fillet is placed between the ring-cutter and the punch, which, when forced into the ring-cutter, carries with it a disc of metal cut or punched out of the fillet; this operation being performed at the rate of about 700 a minute.

Weighing Blanks.—Except at the Royal Mints, the blanks or coin discs, when cut from the fillets are weighed, to reject those too light and to separate any too heavy from those within the remedy or working allowance for error. The classifying of the blanks is effected by automatic machines. In this department

there is a self-acting machine for equalizing the coinage to that perfection that no appreciable difference need exist between the standard weight and the coin blank which has passed through the machine.

Edge Rolling and Impressing.—The large and medium-sized blanks are thickened at the edge by rolling, in order that in the coining-press the relief at and near the circumference may be the more easily and perfectly brought up. In many cases the edges are not only thickened in the process of edge-rolling, but are also lettered or impressed with an inscription or with an ornament.

Pickling, or Bleaching, and Drying.—The process of pickling coin discs or blanks is nearly, if not in all respects, similar to that employed for giving the appearance of metallic purity to brasswork for ornamental and other uses, and produces that clean surface in the blank which becomes brilliant in the new coin. The blanks are treated in a very simple manner, being immersed in acidulated liquid by means of a perforated pan, then washed in a fresh water vat, after which they are dried in beechwood sawdust; they are then ready for stamping.

Coining.—The blanks terminate their career in this department, where they are transformed into finished coin. In the process of coining, each blank is placed singly between two dies, upper and lower. *The upper die is brought forcibly down upon the blank as it rests on the lower die, so that the blank is squeezed between them, when each die leaves the impression of its engraved surface upon the disc of metal, which then ceases to be a blank. (At the Royal Mint this process is gone through at the rate of 120 a minute; they are milled, stamped, and polished all with one blow.) Whilst the surfaces of the disc are giving way to the pressure of the dies the metal seeks to escape from between the dies at their circumference; this escape is prevented by a collar, into which a cylindrical part, formed on each die immediately next to its face, fits freely. The collar is so placed at the time of the pressure that it surrounds the edge of the disc and also the ends of both dies. The metal thus prevented from escaping is forced against the collar with such effect that a milled or lettered edge, as the case may be, can be produced upon the coin by milling or engraving the interior of the collar against which the metal is forced. When a plain collar is used the result is a smooth edge upon the coin.

* See Illustration.

Weighing Finished Coins.—The finished coins are weighed separately at several of the Mints as a check upon the previous weighings of the blanks, and against undue loss or fraud in the processes of pickling, edge rolling, and coining. These weighings are performed by hand, except where automatic machines, such as those employed at the Royal Mint, are used. We have more than once had the pleasure of looking around that most interesting and historic establishment on Tower's Hill. In the weighing-room here there are fifty machines at work when needed. Two seconds of time is allowed for weighing each coin, that is thirty a minute. There are three holes, or tills, just large enough to receive a crown piece. When the coin is too light it drops down the first hole, when too heavy down the third hole, and when correct it drops into the centre till. The balances are so fixed as to weigh to the 100th part of a grain. The coins are also weighed in quantities as a check.

Counting.—In many of the Mints in Europe the blanks and coins are counted when passed from one department to another. Trays are used for this purpose, in which are rows of shallow recesses, not exceeding the thickness of the blank or coin, ranged close together. The pieces are poured on to the tray, and spread over it until all the recesses are occupied, the surplus is then swept off, and the tray emptied of its contents, which are thus counted.

The Manufacturing of Dies.—The making of the dies is a very important part of the business connected with the process of coining

Scissel.—There is also the process of reclaiming the waste metal, the sweepings of the various departments. One of the most serious drawbacks to the operation of coining precious metals is the large proportion which the returns to the crucible bear to the quantity of metal melted. The scissel, or cuttings which are left after the blanks are cut from the fillets, reach to from 30 to 40 per cent., indeed, roundly taken, the returns to the crucible may be put at nearly 50 per cent., so that, to produce a given weight of finished coin, something like double the weight of metal must be melted.

It may be here stated that this question has received much attention for some years past, it being now thought that before long machinery will be constructed which will in a great measure

do away with the re-melting of the scissel. For fuller particulars on this matter we refer our readers to the "Report on European Mints," issued by the Deputy-Master of the Mint some years back. 4d. (Eyre and Spottiswoode).

The net annual average profit on the operations of the Royal Mint, from 1872 to 1897, is £156,495.

The following is a remarkable and satisfactory statement to record :—For nearly fifty years only one robbery has taken place at the Royal Mint, London. In 1890 one of the boy-workers abstracted five small pieces of gold, for which he was sent to prison five months, and dismissed the service of the Mint.

British Coins.

The number of the different kinds of coins in ordinary circulation in the United Kingdom is very small compared to that of several other countries. We have only 17 different denominations, viz., 4 gold, 10 silver, and 3 bronze coins. The four-shilling piece is not now being issued; the five-pound and two-pound gold pieces are not in general use; and the same might be said of the four-penny, two-penny, and penny silver pieces. Thus the number in ordinary circulation as money is reduced to eleven pieces, viz., 20/-. 10/-, 5/-, 2/6, 2/-, 1/- 6d., 3d., 1d., ½d., and ¼d. pieces.

The two-pound pieces were first issued in 1823, when 15,418 of them were minted; in the following year another 700 were issued. In 1887 there were 53,200 five-pound pieces and 85,293 two-pound pieces issued in comemmoration of that interesting event, the 50th year of the Queen's reign. The last issue of these two large gold coins was in 1893, when 20,160 five-pound and 49,771 two-pound pieces were minted to meet the requirements of the country.

By Act of Parliament of January 30, 1893, it was enacted that certain of the coins made at the Royal Mints should bear designs as follows: That every Five-Pound Piece shall have for the obverse impression Our Effigy (that is, the impression of the Queen) with the inscription, "Victoria Dei Gra. Britt. Regina Fid. Def. Ind. Imp." (which means, "Victoria, by the Grace of God, Queen of Britain, Defender of the Faith, Empress of India"); and for the reverse, the image of Saint George, armed, sitting on horseback, attacking the dragon with a sword, a broken spear upon the ground, and the date of the year, with a graining upon

the edge. The Two-Pound Piece, the Sovereign, and the Half-Sovereign to have the same obverse and reverse impressions and inscriptions in all respects as the Five-Pound Piece, with a graining upon the edge; and that every Crown should have the same obverse and reverse impressions and inscriptions in all respects as the Five-Pound Piece, and on the edge of the piece, in raised letters, "Decus et Tutamen Anno Regni" (which means, "That which adorns or beautifies; defence or protection"), the year of the reign being in Roman numeral letters; and that every Half-Crown shall have for the obverse impression the aforesaid Effigy with the inscription, "Victoria Dei. Gra. Britt. Reg." and for the reverse the Ensigns Armorial of the United Kingdom contained in a shield, surmounted by the inscription, "Fid. Def. Ind. Imp." together with the words, "Half-Crown," and the date of the year, with a graining on the edge; and that every Florin shall have the same obverse impression and inscription in all respects as the Five-Pound Piece, and for the reverse two Royal sceptres in saltire behind three shields, the shield on the dexter (right side) in bend, bearing the Arms of England, that on the sinister (left side) in bend, Scotland, and that in base, Ireland, between them the three emblems, the Rose, the Thistle, and the Shamrock, each shield surmounted by the Royal Crown, the Garter, bearing the motto, "Honi soit qui mal y pense" (which means, "Evil be to him who evil thinks") underlying the whole, and the words, "One Florin. Two Shillings," and the date of the year, with a graining upon the edge. From the particulars given above the designs of the smaller silver coins will be well understood. In 1895 the words, "Ind. Imp." were added to the Bronze coinage.

The whole Imperial coinage, accordingly, now bears an identical effigy of Her Majesty, and an identical legend. The opportunity was taken to make some improvement in the figure of Britannia which appears on the reverse of the Bronze coins. This figure first occurred on the copper coinage of Charles II., probably in imitation of a somewhat similar figure found on some Roman coins. The Britannia of the reign of Charles II. held a spear in her left hand, and a palm-branch in the other. It is said that the original model was the royal favourite, known as "La Belle Stewart," who was afterwards Duchess of Richmond, but it is disputed whether the figure resembles her, and the story is not

universally accepted. At her side was placed an oval shield bearing the united crosses of St. George and St. Andrew, commonly known as the "Union Jack." With occasional slight modifications the figure and surroundings of Britannia remained much the same until the reign of George III., when, in 1797, for the first time, she bears a trident, and a three-masted ship is seen in the distance. In the reign of George IV., Britannia, no longer bareheaded as from the time of Charles II., faces helmeted to the right, her right arm resting on the shield, on which she appears to be partly sitting, and the ship and sea have disappeared. On the Bronze coinage of 1860 there is a lighthouse behind the figure of Britannia, and in front a three-masted ship is sailing away from her; her right arm entwines the trident, supporting it rather than grasping it; the old-fashioned sailing vessel has again disappeared, as also the lighthouse (by design of the authorities and not by mistake as we have often heard it said).

Farthings are now issued just as they come from the blocking machine, unpolished.

The Shilling was fixed at 12 pence by William I. No coin called a shilling was issued before the reign of Henry VII.

The Crown, an English silver token coin, first struck in 1542; weight 480 grains (1oz. troy), value 5s. 6d. Present weight, 436·36 grains; face value, 5s.

The Florin, face value two shillings, was first issued as at present in 1849; weight 174·54 grians. A Gold Florin was struck by Edward III. in 1252, its name derived from the fact of its having upon it a lily (flower), sometimes called a florence, rated at 6s. sterling in 1344; its weight was 115·25 grains, 994·8 fine, value 20s. 3d.

Fineness of Coins.—The amount of pure or "fine" metal contained in a coin is expressed either by means of the ancient "carat-pound" system, or by the more modern millesimal method, thus: standard gold, which was formerly stated as containing 22 carats fine and 2 carats alloy, becomes 916·6; and silver is reported by the assayer as "925 fine." 1000 stands for pure silver.

There was only one gold coin in England before the time of Henry III., a piece of pure metal called "byzant." The Standard was for a long time 23 carats 3½ grains fine, and ½ grain alloy. The present standard, 22 carats, or 916·6, has been in use over 200

MR. WILSON'S PLATE.—*See page* 167.

years, since the time of Charles II. The present standard for silver coins was first adopted by the Saxons. During the reign of Edward VI., Queen Mary, and Queen Elizabeth, it was greatly debased. Seigniorage used to be the King's charges for minting, now it is profit on silver coinage and paid into the exchequer; in 1897 it was over 136 per cent, or £563,706 13s. 6d. From 1763 to the end of 1815 there was practically no silver coined, except for one year, 1787, when £55,459 worth was coined. In 51 years only £3,115 worth of silver was coined. England has practically been on the Gold Standard for 133 years. Free coinage of silver was discontinued in 1798 and finally abolished in 1816.

No country has an absolutely free mint, except Great Britain; but the charges in most countries are very small, about 2 per cent. America charges for the alloying of the metal only.

British Coins with their Worth in Weight of Pure Gold.

£1	contains ...	113	Grains of pure Gold			Standards.
10/-	piece contains	$56\frac{1}{2}$	,,	,,	,,	
5/-	,, is worth	$28\frac{1}{4}$	,,	,,	,,	
2/6	,, ,,	$14\frac{1}{8}$	,,	,,	,,	
2/-	,, ,,	$11\frac{3}{10}$	,,	,,	,,	
1/-	,, ,,	$5\frac{13}{20}$	,,	,,	,,	
6d.	,, ,,	$2\frac{4}{5}$	,,	,,	,,	
3d.	,, ,,	$1\frac{1}{2}$	,,	,,	,,	

The exact number of grains of pure gold in a soverign is 113·0016, worth $2\frac{1}{3}$d. per grain.

Bank of England.

The Bank of England being so closely connected with the Royal Mint, and the subject of precious metals, we consider it would be a serious omission not to include it in this handbook. The Bank of England is one of the best known historic buildings in the world, and certainly the greatest monetary institution ever established. It is situated in the centre of the most valuable gold field ever discovered. Precious metals turned up in any part of the world start off on their course, in almost every instance, in the direction of the Bank of England and the bullion dealers in its vicinity. Three hundred years ago, before banks were established, merchants, brokers, and goldsmiths, were in the habit of depositing their bullion and cash at the mint in the tower of London, for convenience and security, under the care of the crown. There were several banks in London before the Bank of England was opened. The Bank of England commenced business on the 1st of January, 1695. This Bank has come to enjoy, by a series of changes in the law, the substantial monopoly of note issue in Enland and Wales, and has proved the strongest banking institution of the world. The circulation of notes since the bank Act of 1844, is based wholly upon securities and deposits of bullion and coin.

The founder of the Bank of England was the son of a Scottish farmer in the parish of Tinwald; his name was William Paterson. At an early age he left home, starting off with a peddler's pack; after travelling through England he settled in Bristol for a short time; he then proceeded to the West Indies, and returned to England after visiting Hamburg, Berlin, and Amsterdam before he was thirty years of age. He first submitted to the Government his plan for a National Bank, in 1691, and in 1694 he was a made director of the newly-formed Bank of England. After a chequered career (for a second time) in different parts of the world, he returned to London in 1700. In his latter days he became poor and, but for the assistance he received from the Government, he would

most likely have died in the workhouse. He was born in April, 1658, and died on the 22nd of January, 1719.

Paterson's proposal to establish a National Bank was little noticed for three years, when circumstances compelled the Government to try the scheme. The Chancellor of the Exchequer, Mr. Montague, and one of the richest merchants in London, Mr. Michael Godfrey (brother of Sir E. Godfrey whose sad and mysterous death had, fifteen years before, produced a terrible outbreak of popular feeling. He was a magistrate, active in the discovery of the popish plot in 1678, and was found pierced by his own sword. His death was imputed to foul play). By these two distinguished men Paterson's plan was carried out. The former undertook to manage the House of Commons, and the latter to manage the City. Michael Godfrey, who was the first Deputy Governor, was shot dead on the battlefield. He left his peaceful avocation to visit Namur in Belgium, then vigorously besieged by the English Monarch. Mr. Godfrey's mission was to make arrangements with the King for the supplying of money to the army necessary to carry on the fight. Michael, thinking most likely that the safest place would be near or in the vicinity of the sovereign, ventured into the trenches, where he met the King. "Mr. Godfrey," said William, "I think you ought not to run this risk; you are a civilian and can be of no service here." "True," was Mr. Godfrey's courteous reply to the King, "but I am no more exposed than your Majesty." "Yet," returned William, "I am in my duty, and therefore have a more reasonable claim to preservation." A cannon-ball at this moment, fired from the ramparts, struck Mr. Godfrey and killed him instantly. The King was much affected at this sad event, and ordered the body of Michael Godfrey to be brought to England. He was buried in St. Swithin's church, near the Bank of England. The monument to his memory in the church records: "He died a Bachelor, much lamented by all his friends, relations, and acquaintances, for his integrity, his knowledge, and the sweetness of his manners." William III., who died in 1702, was the first royal patron of the Bank of England. His name will be regarded with more honour as the founder of the Bank of England, than as a soldier who fought in the trenches at Namur. He was a vigorous advocate of the Protestant cause, and looked well after the commercial prosperity of the country. In the Great Hall of

the Bank, near the door of the Treasury, may be seen a beautiful marble statue of the King, draped in Roman costume, standing on a pedestal. The following is a translation of the inscription:—

"For restoring efficacy to the laws,
Authority to the courts of justice,
Dignity to the Parliament,
To all his subjects their religion and liberties,
and
For confirming these to posterity
By the Succession of the illustrious House
of Hanover
To the British Throne,
To the best of princes, William III.,
Founder of the Bank,
This corporation, from a sense of gratitude,
Has erected this Statue,
and dedicated it to his memory,
In the year of our Lord MDCCXXXIV.,
and the first year of this building."

This is a graceful homage to the man who was the origin of its greatness. This statue was unveiled on Wednesday, the 1st of January, 1735, when the under-servants fired three volleys with small arms. From this date the history of the Bank of England is full of interesting and thrilling incidents.

The wonderful success that has been attained by the directors and officers of the Bank of England baffles description. The envious goldsmith little thought of what a gigantic institution this would become when he wrote the following epitaph:—

"Here lies the body of the Bank of England,
Who was born in the year 1694, died May 5th, 1696,
in the third year of his age."

The Bank of England is governed by a board of 24 directors, including the Governor and Deputy Governor, and by what is called the Committee of Treasury, which consists for the most part of the elder members of the Board and ex-Governors. The Board meets every Thursday, at 11-35 a.m., in the noted "Bank Parlour," to transact the business of the Bank, ... particulars of which is published the following day in the *Times* and other papers. The Board of Directors are, in reality, self-elected. It is true some of them retire every year, but when one permanently retires, or a death occurs, the whole Board selects a new member. No man ever selects a life-partner with greater care than the Bank selects its new members. In choosing a director it is considered

essential to fix on a young man, and when the Board meets for that purpose, they carefully go over the names of a number of the most attentive and promising young men, who are well connected with the commercial life of London (bankers are excluded), choosing the one whom they think the most likely to make a suitable Bank director. It is evident the directors for the time being do their very best in making these selections, and to the best of their ability provide for the future good management of the Bank. It is usual that a director must have had at least 20 years' experience before he is made the Governor. The Deputy-Governor always succeeds the Governor. The gentlemen who fill the first and second position in the Bank of England must of necessity be men of great ability and in the vigour of life; on this account it is necessary for the Bank directors when first selected by the Board to be young and active men. There are not many changes among the senior members of the Board, those who retire annually being, as a rule, the young men. The Governor and the Deputy-Governor are changed every two years. The yearly salaries of whom are £2,000 and £1,500, respectively. The 24 directors each have £500 a year salary. Considering the magnitude of the work, and the responsibility connected with it, these gentlemen are not overpaid.

Number of officers and clerks in the head offices of the Bank of England:—

Governor	1
Deputy Governor	1
Directors	24
Officers and Clerks in Accountant's Department	270
,, ,, ,, ,, Cashier's ,,	338
,, ,, ,, ,, Secretary's ,,	74
Doorkeepers, Messengers, Porters, and Watchmen	80
Women Clerks	40
Total	828

Bank Issues.

It was provided in the Bank Act of 1844 that, should any provincial banks cease issuing notes, the Bank of England might be empowered, by order in council, to issue upon securities, two-thirds (and no more) of the notes which such banks had been authorised to issue. Under this condition the total secured issue

of the bank has been increased from £14,000,000 in 1844 to £16,800,000 in 1897; but for every other note, which the Issue Department may at present issue over and above the £16,800,000 (which is issued on what is known as first-class securities), an equal amount of gold money or bullion must be paid into the coffers of the Bank; and, therefore, the notes of the Bank of England are made equal to gold. The Bank of England transacts the whole business of the Government, consequently it is not a private concern as some writers would have us believe. The Bank of England has the sole right to issue notes in London and for 60 miles around; it is also the banker of all clearing-house banks; and, as agent for the Mint, all coins are issued according to the instructions received from the Bank. Of course it also carries on a large business as an ordinary private bank. The Bank has to give an account to the Government of the profit from its issue of bank notes. The profit the Bank derives from its Issue Department is the interest received on the original amount, £14,000,000 of Government debt and securities, which amounts to about £400,000 yearly. The Bank has to pay out of this to the Government, in lieu of stamp-duty and privileges, the sum of about £200,000 a year Then there are the expenses of the issuing department which will perhaps amount to £150,000 leaving a nett profit of about £70,000 a year. There is also the profit made by the Bank on the foreign gold coin and bullion bought in exchange for notes, for which they pay £3 17s. 9d. per ounce (916⅔ fine), and receive at the Mint £3 17s. 10½d. per ounce.

The following statement will show the amount of notes generally in circulation :—

May, 1898, Bank of England :	Notes in circulation	£27,568,640
Private Banks :	,, ,,	436,218
Joint Stock Banks :	,, ,,	1,010,209
Total in England	-	29,015,067
Banks of Scotland :	Notes in circulation	7,053,581
Banks of Ireland :	,, ,,	6,280,600
Total in United Kingdom		£42,349,248

The English Private Banks are below their fixed issue	£938,158
The English Joint Stock Banks are below their fixed issue - -	752,752
Total -	1,690,910
The Banks of Scotland are above their fixed issues -	4,377,231
The Banks of Ireland are below their fixed issues	73,894
The amount of gold and silver held by the Banks of Scotland - -	5,413,676
The amount of gold and silver held by the Banks of Ireland	2,910,413

It is often stated by persons who know no better that the Bank of England seldom issues £1000 notes. This is a mistake, the average number of £1000 notes issued yearly is about 43,000, and of £500 notes about 76,000 yearly, of course they soon come back to the Bank and are cancelled.

There is in connection with the Bank of England a Club, and also a Library with a membership of about 800. The Board of Directors pay great attention to the staff employed in the Bank. They also gave permission for and assisted in the formation of the Club and Library. The Bank of England is furnished by the Government with a military garrison every night for the protection of the gold reserve.

Bank Deposits.

There are, in the Banks of the United Kingdom, deposits, current accounts, and notes in circulation, about £900,000,000, and a banking capital, including reserve funds, of £126,278,300, October, 1898. In January, 1899, the public deposits were about £750,000,000, being an increase of £250,000,000 in 23 years.

Number of Banks in the United Kingdom.

(From the Bankers' Almanack, 1899).

Head Offices in England and Wales,	327 :	Branches,	4,105
,, ,, Scotland - -	12	,,	1,030
,, ,, Ireland - -	11	,,	654
,, ,, Isle of Man -	3	,,	18
	353		5,807
Nett Increase of new Branches opened in 1898 -			178

Total Fixed Issues in the Banks of the United Kingdom.

Nov. 1898, Bank of England - -	£16,800,000
6 Banks in Ireland - -	6,354,494
10 Banks in Scotland -	2,676,350
31 Joint Stock Banks, England and Wales -	1,762,961
38 Private Banks, England and Wales	1,374,376
Total -	£28,968,181

The following are the principal Banks in the United Kingdom, which have more than 100 Branches:—

England.	Branches.	Ireland and Scotland.	Branches.
Lloyds' Bank -	248	National Bank (I)	109
National Provincial -	229	Ulster Bank	128
Capital and Counties -	225	National Bank (S)	110
Barclay & Co.'s	225	Union Bank	137
London City & Midland	201	Commercial Bank	134
London & County Bkg. Co.	181	Royal Bank	130
London & Provincial	147	Bank of Scotland	120
Metropolitan Bank	128	British Linen Co.	119
Wilts. & Dorset -	124	Clydesdale Bank -	116
London & South Western	112		

The Bank of England has 11 Branches, viz.:—

Burlington Gardens,	Birmingham,	Leeds,	Hull,
Fleet Street,	Liverpool,	Newcastle,	Plymouth,
Manchester,	Bristol,	Portsmouth.	

Foreign Exchange.

When exchanges are spoken of in English money, as the Australian, the Indian, and the Chinese exchange, the higher their quotation is the more unfavourable it is to England. It therefore follows that every fall in the rate of these exchanges signifies that they are more favourable to England. Exchanges quoted in foreign money, like the Italian, the German, the American, and the French exchanges are more favourable to England the higher they are quoted; the more dollars, the more lire, or the more

francs are given for the pound sterling the better it is for this country. The higher a broker buys and the lower he sells the better for his client. The rise in the price of cheques on Paris is better for the English debtor.

The following are the equivalents in the coins of countries where Gold monometallism is the standard. $113\frac{1}{600}$ grains of pure gold equals one sovereign :—

Argentina,	Dollars,	5·044	equals £1.	One	Peso	equals	47·578	pence
Austria,	Florin,	10·088	,,	,,	Florin	,,	23·789	,,
,,	New F.	12·009	,,	,,	Florin	,,	19·985	,,
Chili	Dollars,	5·335	,,	,,	Peso	,,	44·985	,,
,,	New Dol.	13·213	,,	,,	Peso	,,	18·163	,,
Denmark, Norway & Sweden,	Krones,	18·159	,,	,,	Krone	,,	13·216	,,
Brazil,	Milreis,	8·901	,,	,,	Milreis	,,	26·934	,,
France and Latin Uni'n	Francs,	25·221	,,	,,	Franc	,,	9·515	,,
Germany,	Marks,	20·429	,,	,,	Mark	,,	11·747	,,
Holland,	Florins,	12·107	,,	,,	Florin	,,	19·823	,,
Portugal,	Milreis,	4·504	,,	,,	Milreis	,,	53·284	,,
United States	Dollars,	4·867	,,	,,	Dollars	,,	49·316	,,
Uruguay,	Dollars,	4·705	,,	,,	Peso	,,	51·003	,,

The exchange between London and Paris is at par when £1 equals 25 francs $22\frac{1}{2}$ centimes. When the French exchange is at 25·10, gold is sent from London to Paris, because it pays to do so. When the French exchange is at 25·35, gold is returned from Paris to London ; there is in this case a margin of $12\frac{1}{2}$ centimes, or $\frac{1}{2}$ per cent. either way, or 1 per cent. between the two extreme points. So long as the exchange varies less than $\frac{1}{2}$ per cent. it will not pay to send gold between the two places.

Gold Points in the Foreign Exchange.

The gold points on the London Exchange with some of the principal countries are :

London on	Mint Pars.		Gold Exports.	Gold Imports.
Paris ...	Francs,	25·22½ ...	25·12½ ...	25·32½
*Berlin ...	Marks,	20·43 ...	20·34 ...	20·52
Amsterdam ...	Florins,	12·10 ...	12·04 ...	12·15
Copenhagen ...	Krones,	18·16 ...	18·07 ...	18·23
New York ...	Dollars,	4·87 ...	4·84 ...	4·90

*Example.—Desired to know the German fixed par of exchange between Berlin and London. The British pound contains 113·0016 troy grains of pure gold. The sign for a troy grain of pure gold in Germany is 18·079 pfennigs. One English sovereign and 20·43 Marks are signs for the same weight of pure gold, viz., 113·0016 troy grains. The fixed par of exchange, therefore, between Berlin and London is 20·43 Marks per pound.

These are the rates at which gold remittance becomes generally profitable, but, as a matter of fact, bullion movements begin before these points are reached, as some commercial firms with special opportunities, or undertaking large transactions, find a benefit in remitting bullion at much closer rates.

Bankers' Licenses.

Previous to 1844, banks which issued unstamped bills and notes to the amount of £5 or over had to pay to the Government £30 per year to enable them to do this. In 1844, if a bank had more than three branch offices, £120 per year covered the whole. Every branch bank that has been opened since 1844 (except those in the same town) has to pay £30 per year as licence. This heavy toll has, no doubt, been a great inconvenience to a large number of villages, that would now have had a bank open daily but for the great cost of the licence. In England and Wales the licences are due on the 10th of October in each year. In Ireland a separate licence for each branch is not required, £120 per year still covers the whole number no matter how many there may be.

Banking Power of the World.

The total banking power of the world is estimated to be as follows :—

	£
Europe - -	2,200 million
North America -	1,200 ,,
Oceania -	175 ,,
Asia -	150 ,,
South America -	140 ,,
Africa - -	50 ,,
	£3,915 million

The banking resources of the United Kingdom are considered to be about one thousand million pounds sterling.

Investments and Income of the United Kingdom.

The amount of investments of the United Kingdom is, according to *Burdett's Official Intelligence*, 1898, of British American and foreign securities, set down at £7,457,507,144. And according to the *Financial Reform Almanack*, 1899, the total net capital wealth

of the United Kingdom, including all real and personal property, based on official figures, 1896, is the enormous sum of £12,672,846,988. In a remarkable paper on "The Excess of Imports," by Sir Robert Giffen, given at a meeting of the Royal Statistical Society, in January, 1899, it was stated that, apart from profit on our own manufactures in the United Kingdom, we were as a nation earning nearly 200 million sterling per annum, made up as follows:—Freight carriers, £88,000,000; commission and brokers' charges, £18,000,000; interest on investments and profits made abroad, £90,000,000. In Napoleon's days we were considered a nation of shopkeepers. We are now a nation of stockholders.

Estimated Wealth of the Principal Countries of the World, and per Capita, 1898.

Countries.	Population: Millions.	Total Wealth.	Wealth per Capita.
England and Wales	31¼	£10,406,250,000	£333
Scotland	4¼	1,120,500,000	266
Australia	4½	1,152,000,000	256
France	38½	9,856,000,000	256
United States	72	16,776,000,000	233
Denmark	2¼	51,175,000	230
Canada	6	1,176,000,000	196
Holland	5	830,000,000	186
Switzerland	3	498,000,000	166
Germany	52½	8,400,000,000	160
Belgium	6½	1,014,000,000	156
Argentina	4¼	659,100,000	156
Ireland	4½	657,000,000	146
Spain	18	2,430,000,000	135
Sweden	4¾	548,100,000	116
Austria-Hungary	44½	4,717,000,000	106
Italy	31	3,100,000,000	100
Portugal	5¼	459,800,000	88
Roumania	5½	495,000,000	90
Russia	128	7,680,000,000	60

Wealth of six of the principal nations, 1898:

United States	£16,776,000,000
United Kingdom	12,672,950,000
France	9,856,000,000
Germany	8,400,000,000
Austria-Hungary	4,717,000,000
Italy	3,100,000,000

The Institute of Bankers.

This Institute was founded in 1879, and is governed by a President, 12 Vice-Presidents, 3 Trustees, 23 Councillors, and a permanent Secretary, W. Talbot Agar, Esq., Office Library and other rooms, 34, Clement's Lane, London, E.C. We would earnestly recommend all bankers, bank managers, and young men in banks who would wish to improve their position, to join this useful society. A considerable amount of valuable information on banking, mercantile law, and other subjects, may be gathered through the facilities offered to members at the meetings, which are held monthly from November to May, by the papers read and discussions that follow on these occasions. The papers are, as a rule, published in a monthly journal issued by the Institute. Terms:—Ordinary Members, 10s. 6d. per year. Present number, about 3000.

There is also an Institute of this kind in Edinburgh; office, 27, Queen Street; W. Baird, Esq., Secretary; and another in Manchester, with a membership of about 760; Secretaries, H. Greenleaves, Esq., Cunliffes, Brook & Co., and T. W. Shawcross, Esq., Manchester and County Bank, Limited.

How to Pass the Institute of Bankers' Examination.

The value attached by bank directors and managers to the success of members of their staffs in the Institute of Bankers' Examinations is increasing year by year. A number of banks have passed Board minutes, holding out a standing inducement of £15 to any members of their staff who may succeed in satisfying the examiners. Many other banks are in the habit of recognising the efforts of successful candidates in a substantial manner. The certificate is one of the means by which, in many instances, valuable banking appointments have been obtained in the Colonies and India, while at home it has frequently proved a stepping-stone to promotion and success. The examinations were inaugurated in 1880, and of late years the popularity of the examinations has grown rapidly, as banking men have found it well worth their while to enter for them in large numbers every year. Of course there is no reason whatever why such knowledge should not be obtained apart from examinations altogether. If a man keeps his eyes open, is not afraid of asking questions

about his work, and supplements both observation and enquiry by a course of judicious reading, he may doubtless learn all he needs to know. But most men need some sort of inducement or stimulus to set them to work, and it is precisely this stimulus which these examinations offer. The expense and difficulties are not so great as many men imagine. In order to qualify as a candidate, it is necessary to become a member of the Institute, which will cost 10s. 6d. per year; this is very cheap considering the privileges connected with it. For the examination itself the entrance fee is 5s. It is not necessary to spend a great deal in buying books. A man writes to the Institute for an examination syllabus, but it is not necessary that all the works recommended should be bought, but they may be borrowed from the Institute library. However, it is almost necessary to buy a few, but the expense is not much. As to the amount of time required, take the case of the average man who has had an ordinary education, he need not spend more than five or six hours a week, for six or seven months. The number of books really essential to be read is comparatively small. Among the works recommended on the syllabus are Goschen's "Foreign Exchanges;" Bagehot's "Lombard Street;" "Chambers on Bills." The first thing to be done is to write to the secretary of the Institute, Mr. W. T. Agar, 34, Clement's Lane (or call,—the Institute is off Lombard Street), enclosing a stamp, and ask for an examination syllabus. Full particulars respecting this matter may be had for 1s., in a pamphlet by Mr. F. E. Steele; address, 34, Clement's Lane.

How Silver Coins are got into Circulation.

The bankers are the principal agents for getting the silver coins into circulation. Though not appointed by the Government, they do the work systematically and well. The Chancellor of the Exchequer ought to consider this matter and make arrangements whereby bankers should be able to pay their redundant silver coins into the Bank of England as agents for the Mint. In the latter part of every year the bankers order, on an average, about one million sterling of new silver coins, though in many cases they have already large stocks in their vaults, they do this to oblige their customers. Now, that the white metal is so cheap the issuing of so many silver coins every year enables the Mint authorities to make more profit than pays all the working expenses connected with that establishment. The cashier of the

Mint pays for the transmission of new silver coins to the provinces. No charge is made for redundant silver returned to the Bank of England when the amount is under £3,000. The 7/6 per cent, charged for sums over that amount, will not more than cover the cost of counting, washing, and sorting the various coins, but considering the profitable nature of the silver coinage, and also the invaluable help which is rendered by the bankers in getting it into circulation, we consider the bankers ought to be in a position to return their redundant silver to any amount free of charge. If any charge be made it ought to be on the transmission of new coins, which would perhaps have a tendency to check bankers from ordering new silver unnecessarily.

Who gives orders for the Coining of Money ?

The Mint authorities have no direct means of knowing when a batch of new coins are required. This information has to be got from the Bank of England, which is in daily contact with the numerous London and provincial bankers.

The Good Services rendered by Bankers.

There are no class of professional or commercial men in the land who have rendered better service to the community at large than the bankers. They render a service to society without which industry could not possibly be carried on on a large scale; they make exchanges of goods possible in a marvellously skilful manner, and increase the power of production and the efficiency of labour in ways little understood by the general public; these are men whose ability and character stand second to none. The bankers have done great service to this country more than once in protecting and upholding the integrity of our currency system, and have kept in check men and nations who would have brought ruin to this country had they succeeded in re-establishing a dual standard in our monetary system. A banker earns his profit in no way different from a wool merchant or a manufacturer; he simply buys, sells or exchanges his goods just in the same way as any other business man. In the United Kingdom we are credited with having the best bankers in the world. What would become of our trade and commerce if there were no clearing-house transac-

tions, no cheques, bills, nor bank notes? The banking system is the greatest boon in existence to our trade and commerce and our prosperity as a nation.

How and Where Gold and Silver are Produced.

The great increase in the production of gold and silver in recent years is not attributable alone to the discovery or opening of new mines or fields, it is largely due to the use of better business methods in the working and crushing processes, but more especially to the introduction of new means of extraction, which, whether worked alone or in combination with the old methods, make it possible to treat with profit immense quantities of low-grade ores in known deposits, or of so-called refractory ores, which have hitherto defied profitable treatment Gold is the only metal always found in a metallic state, that is, native, as some people call it, but it is never found absolutely pure; it is generally so blended with other materials, and so unlike itself, that only experienced men can distinguish it. Gold is very often found alloyed with silver and other metals, or it is embedded in quartz and other earthy and rocky substances which have to be crushed or "stamped" before the metal can be extracted, which is done from other metals and minerals by the aid of chemicals. Gold, when alloyed with other substances or blended with earthy soil, does not lose its individual character, any more than sand does when mixed with other dry ingredients. Gold is also indestructible: neither chemicals nor rust will affect it. By being exposed to the weather and washed down from the mountains it is only made purer. It is said that the greater part of gold is born in the summits and higher portions of the mountains, but that it is created and engendered in the entrails of the earth; and so, as the earth brings forth or expels it, and because of the abundance of the material in the mountain tops, it is carried down by the storm waters into the ravines of those streams which rise in the mountains, it is always those miners who get the gold at a lower level who find it purest; because the more the gold travels, the higher and finer the alloy. But those who extract it at a greater elevation, higher up the river, go closer to the birth-place of the gold, and obtain it more often in abundance. Hence it may be inferred that the distance which it moves takes much time, many years, so as to effect the increase of carat and of purity. The nearer gold is found to its vein or birth-place, once it has reached the river, the lower it is in carat and value than

MR. WILSON'S PLATE.—*See page* 168.

it would have been if it had travelled a greater distance. Gold is nowhere found in large masses, as we find stone and coal, but is infinitely distributed. It is found on the mountains, in the valleys, on the hills, and in quartz-rocks, in parphyry, in syenite, in granite, in greenstone of all kinds (sometimes called diorite) in alluvial soils, in the sands of rivers and other deposits. The alluvial gold is seldom found very deep, a few inches to a few feet being the average ; while in quartz-rocks the yellow metal exists at unknown depths.

The following is taken from the United States Mint Report for 1895 :—" The direct association of gold and diamonds anywhere in the world is known in only one instance, and this has never before been described in print. Professor Arzruni showed me the specimen exhibiting it some years ago and now gives me permission to make it known. In 1887, the Royal Polytechnic High School at Aachen acquired from Mr. Ernst Winter, a diamond dealer in Hamburg, Eimsbüttel, a grey, opaque. flawed, Kimberley diamond, which shows at two points inclusions of native gold in grains. It seems that this native gold must be considered as a constituent of the basic eruptive rock in which the Kimberley diamonds occur."

Gold is found in almost every country. In all probability there are valuable treasures of gold in the mountains of Wales, Ireland, and Scotland. On the continent of Europe, gold is found in the beds of several rivers ; the yield of it from Australia, America, Canada, and Africa is immense. During 1895-6-7, America took the lead in the production of both gold and silver. In 1898, and to the present, July, 1899, South Africa leads in the production of the yellow metal. When the mines of Klondyke, British Columbia and West Australia are more developed, it is evident there will be a close run with three or four of the principal gold-producing countries, no one can say with certainty which will take the lead in 1903.

More than three-fourths of all the silver produced in 1897-8 came from Canada, United States, Central and South America.

In 1897, out of 165,000,000 ounces, 140,500,000 ounces of it came from the continent of America. It is a well-known fact that the precious metals exist in great quantities in every quarter of the globe.

At present the following countries are producing over half-a-million sterling per year of the yellow metal :—Africa, Australasia,

China, India, Russia, Mexico, United States, Canada, Columbia, and the Guianas.

Gold only is produced in Brazil, Venezuela, British, French, and Dutch Guiana, Uruguay, China, Africa, British India, Korea, Borneo, and Madagascar. Both metals, gold and silver, are produced in Central America, United States, Canada, Columbia, Japan, and Australasia. Silver only is produced in Norway, Spain, Greece, and France. The value of gold produced in France, given in another part of this book, has been extracted from imported ore. For years we have spent a considerable amount of time in consulting the reports given on the production of the precious metals, &c., and have come to the conclusion that in the near future the output of gold will be enormously increased. The enthusiasm for gold and mining shares at the present time, which has seized the public of Europe and America, is unbounded. The discovery and development of such a large number of successful mines, which have been opened up during the last few years, have caused large syndicates to be formed in London, Paris, New York, and other big towns, for the purpose of exploiting mines in Africa, Australasia, India, America, Canada, and other places. It is the opinion of mining engineers and other well-informed experts, that there will be a great discovery of the precious metals, shortly, in the region of the Andes Mountains, in South America.

The wages of gold miners and the mode of working varies greatly in different parts of the world. There is no uniformity in any district, the wages varying from 4s. to 40s. per day. And as a rule the easier the work the better the pay.

There are two forms in which gold occurs; first, by replacement, as in quartz gold, gold in hornblende and in diorite (greenstone); secondly, by precipitation in free material, as in flimy gold, large nuggety gold which is generally found at the cap of a lode (vein or course) in cavities or vugs of the quartz reef, also the fine gold which seems like powder scattered through the soft, amorphous mass which had lost its transparent form previous to the gold emanation. Gold is not often found in nuggets of any size, when it does occur the nuggets are exhibited in great centres, as London and New York. We have seen two accounts claiming to be the largest nugget ever found, as follows:—The largest nugget of gold ever found was picked up in Australia, in 1852: it weighed 2,676 ounces, and was said to be worth £11,000. At the exhibition

now being held at Earl's Court, we saw, the other day, what is said to be the largest lump of solid gold ever found in the world, it was found at Moliagul, Victoria, February 5th, 1869, three inches below the surface; it weighed 2,520 ounces, was valued at £10,000, and was called "The welcome Stranger." The largest nugget ever found in America was a long way short of the Australian monster; it was picked up in California, on the 18th of November, 1854, at Camp Corona; it weighed 1,818 ounces, and was exhibited in both England and America; finally, it was melted into bullion and sold for £7,255. This nugget was found near the root of a tree. The man (Oliver Martin) who found it was digging a grave in which to bury his companion—the two had been working in the diggings for weeks without any success until they were nearly dead, when a storm came on which lasted for days, and while sheltering under a tree his comrade was killed by lightning, and, although nearly dead himself, he was determined, if possible, to give his friend (Flower) a decent burial; thus, while engaged in this kindly act, he was rewarded for his labour of love by finding the largest lump of fine gold ever picked up on the continent of America. He was so weak at the time that he had to obtain the assistance of another man to help him to get it out of the ground. In 1866, another large nugget was found in California by a man named David Hill, which he sold for £3,400. In 1871, the same man found another large lump of gold, which he sold for £2,800; a few years afterwards this same man died in prison penniless. It is calculated that all the gold found or extracted during the last hundred years has cost twice as much as it is worth, or more, so that while some are gaining others are losing money in the gold mines. During the last year, the two million sterling of gold produced at Klondike cost not less than £10,000,000. It should be borne in mind that gold is not, as a rule, picked up easily and without trouble. Successful mines are managed by careful, shrewd, experienced men; and successful investors and stockbrokers read regularly the different financial journals in order that they may be well acquainted with the business they have in hand.

There is another serious and expensive thing connected with the production of gold that ought to be considered by those intending going out to the mines, that is, the difficulties and hardships to be met with in such places as Klondike and Western Australia. Not

one half of the people who start out for these places ever land there, they die on the way, or return wiser and poorer, without ever reaching their destination.

The World's Production of Gold, from 1493 to 1898.

The total of the World's production of gold, from 1493 to 1898, or in four hundred and five years, was 462,163,545 ounces, fine; value, about £1,848,653,180. If those who recollect the state of the gold mining market twelve or fifteen years ago will take the trouble to make a mental comparison of the difference of affairs then, with the widespread enterprise and the myriad mines with which we are familiar now, they will be astonished at the advance which has been made. To have prophesied a dozen years ago, that active mining shares by the hundred would be quoted in the financial papers, and dealt in by thousands on the Stock Exchange every day, before the end of the century, would have been to declare oneself as a fit subject for an asylum, yet the unexpected has come to pass, and, for one investor who was interested in mines ten years ago, there are hundreds with the same interest now. The progress of gold mining was slow, in the 16th and 17th Centuries, as may be seen from the following figures, which are those of Dr. Soetbeer. In the 18th Century the movement became accelerated in a very perceptible manner, but afterwards diminished greatly.

PRODUCTION OF GOLD: ANNUAL AVERAGE.

Period.	Annual Average. Fine Ounces.	Value	Period.	Annual Average Fine Ounces.	Value.
1493-1520	186,470	£777,000	1661-1680	297,709	£1,230,800
1521-1544	230,194	952,000	1681-1700	346,095	1,430,400
1545-1560	273,506	1,111,200	1701-1720	412,162	1,704,000
1561-1580	219,906	992,000	1721-1740	613,422	2,536,200
1581-1600	237,267	981,000	1741-1760	791,211	3,271,200
1601-1620	273,918	1,132,400	1761-1780	665,666	2,752,200
1621-1640	266,845	1,103,200	1781-1800	571,948	2,364,600
1641-1660	281,955	1,145,400			

This course of the production—first ascending and then retrograding—was due especially to Brazil. Central Europe continued to yield annually about 32,100 ounces of fine gold, while Russia was still only assaying its placers; there was no progress in Africa, but the contrary; New Granada (the Colombia and Venezuela of the present day), after having yielded 160,100 ounces up to about

1760, also began to decline. Brazil then took the lead and became for a time the country *par excellence* of gold production. Estimated at 78,100 ounces per annum, the average figures for the period 1701 to 1720; its production rose to 283,400 ounces from 1720 to 1740, and to 467,400 from 1741 to 1760. This represents almost three-fifths of the then total gold yield of the two worlds. Only, the Brazilian deposits were soon used up, and their annual tribute decreased, first, by one-third, and later, by two-thirds and even more.

The 19th Century is distinguished by events of a very different kind. First among them, during the ephemeral occupation of Spain by Napoleon, was the insurrection of the Spanish colonies, and the long war of independence that gave birth to the majority of the autonomous republics that stretch at present from the Gulf of Mexico to the Straits of Magellan. During this crisis the gold production of America declined by more than one half. Russia, fortunately, began to increase its annual out-put, from 1821, and became the great purveyor of gold for the civilized world, when an unexpected discovery of gold was found first in California, in 1848; then in Australia, in 1851. Thousands of emigrants were lost on the broad prairies of the Far West, or amid the snow of the Rocky Mountains; and many lost their lives in mutual strife in that distant Babel, California. In Australia, similar events were taking place at the same time. The following table shows with what promptitude California and Australia doubled the production of gold:—

Period.	Annual Average. Fine Ounces	Value	Period.	Annual Average. Fine Ounces.	Value.
1801-1810	571,563	£2,363,000	1851-1855	6,410,324	£26,502,600
1811-1820	367,957	1,521,200	1856-1860	6,486,262	26,816,600
1821-1830	457,044	1,889,600	1861-1865	5,949,582	24,597,800
1831-1840	652,291	2,696,800	1866-1870	6,270,086	25,922,800
1841-1850	1,760,502	7,274,600	1871-1875	5,591,014	23,115,400

Less than 5 millions up to 1848, and 25 millions to 28 millions beginning with 1850—a prodigious jump, certainly. Prices, as in the 16th Century, necessarily felt the effect of this enormous increase in the world's yield of gold. Of the 6,400,000 ounces of gold produced annually from 1851 to 1855, nearly 3 million ounces were obtained in California. Australia yielded about 2,240,000 ounces, or about three times as much as Russia. From 1871 to 1875 Australasia and North America registered equal products, about 1,920,000 ounces. Russia produced about one

million ounces. Of the remaining countries, none then reached 130 thousand ounces. There was quite a noticeable reaction from 1860 to 1883, and the production fell to about 4,600,000 ounces per year. The reaction was only a temporary one though, for from 1891 to 1895 the yield was almost double that of 1861 to 1865, and considerably higher than in any previous year, see following table :—

Period.	Annual Average. Ounces.	Value	Period	Annual Average Ounces.	Value.
1876-1880	5340170	£22695724	1891-1895	7902250	£33544564
1881-1885	4955831	20974291	1896	9804748	40456460
1886-1890	5461281	23210349	1897	11489291	47500960

Seventeen years ago, to all appearances, the supply of gold was fast dying out, the richest gold fields having been rapidly exhausted, and new ones not having taken their place, the gold industry seemed doomed to perish. This state of things seemed to bolster up the claims of the apostles of bimetallism, "That the decline of wholesale prices was due to the downfall of silver and the enhanced value of gold." But chance, after having for a time favoured this thesis, sprung an unpleasant surprise on those who had made this their creed, for, while prices continued to fall, an unforeseen change took place, and the extraction of gold from the mines of the world soon reached surprising proportions. We need not remind our readers of the stupendous increase in the yield of the world's gold mines during the last four or five years, the amount produced in 1898 was £57,241,790. During the first six months of this year, 1899, South African mines have yielded 2,585,865 ounces, or 430,977 ounces per month. In all probability these mines will yield, this year, 5½ million ounces; this at £4 per ounce would be 22 millions sterling, which will be more than all the mines of the world produced 23 years ago. The arrivals in 1898 from South Africa were phenomenal; and, for the first time that country ranked as the largest gold producer in the world. The cost of carriage from Johannesburg to London at present is about 4s. 1d. per pound, avoirdupois. This heavy charge is a great disadvantage to bullion dealers, and ought to be reduced In the Australasian colonies rapid strides are being made in the production of gold. Western Australia has quickly risen from the bottom of the list to near the top. A new gold field is being opened up in India, the "Wondalli" mine, about 300 miles north of Mysore group. The Mysore mines yielded

415,147 ounces in 1898, an increase of 25,357 ounces over 1897. During the last two years only about one-third of the gold produced has arrived in London. The vast increase of the production has not been sent to the London market, but to Russia and the United States. There need be no alarm on that account, unprpductive hoards in any country to any great extent is folly, and no wise Government or banker will sanction such a thing.

The Value of Gold produced in the principal Gold Yielding Countries of the World from 1887 to 1898.

Year.	United States.	Australia.	Russia.	Africa.	India.	The Guianas.
1887...	£6600000	£5467400	£4018400	£383920	£84320	£143780
1888...	7635000	6617340	4265000	900000	135520	124614
1889...	6560000	5961600	4791100	1717320	300520	312060
1890...	6569000	6277800	4691600	2051220	400000	423440
1891...	6635000	6831800	4832500	3148480	499000	668040
1892...	6600000	7137720	4921240	4846400	663660	822180
1893...	7191000	8354160	5561640	5788700	762720	889520
1894...	7900000	8352160	4826680	8054200	776580	1113220
1895...	9322000	8959660	5778880	8910980	951180	1080620
1896...	10617600	9036380	4307160	8918200	1226100	960400
1897...	11842159	10419068	4307698	11524094	1559911	803432
1898...	12860000	12296153	5027399	15865889	1550360	764458
Totals,	100331759	95711241	57329297	72109403	8909871	8105764

It will be observed from the above table that in the production of Gold, Africa has gained rapidly on America and Australia, until now she leads the way. The race with America and Australia is a near run, in fact it is hard to say which country in the world will yield the largest quantity of the yellow metal at the commencement of the next century. The prospects are favourable in three or four different parts of the world. The vast increase of gold obtained in the world has, thus far, not been able to exercise much influence on economic conditions, being for the most part accumulated idly in the banks of Europe and America, crowding their vaults in a manner previously unheard of. Very little interest is now paid at the banks for gold, and in many cases none whatever.

Value of Gold produced in the World from 1894 to 1898, showing the amount from each Country.

Countries.	1894.	1895.	1896.	1897.	1898.
AFRICA ...	£8054200	£8910980	£8918200	...	...
Witwatersrand	...	...	...	£10382721	£14695320
Other Districts	...	...	...	961014	948870
West Coast ...	...	...	...	100359	100359
Rhodesia ...	...	...	...	...	41340
Madagascar ...	...	...	...	80000	80000
Australasia (7 Colonies)	8352160	8959660	9036380	10419068	12296153
ASIA.					
China ...	1711360	1704200	604800	1328238	1328238
India (British)	776580	951180	1226100	1459911	1550360
Japan ...	97960	103420	142660	142660	142660
Kora ...	93440	139840	144360	144353	144353
Malay Peninsula	...	...	...	103350	103350
Borneo ...	...	14760	91800	20000	20000
EUROPE.					
Austria-Hungary	361440	397800	430540	435711	435711
France ...	...	...	...	43461	43461
Germany ...	412120	444620	227820	375817	375817
Italy ...	23400	23400	28040	42686	42686
Norway ...	...	...	...	2702	2702
Russia ...	4826680	5778880	4307160	4307698	5027399
Sweden ...	12500	10500	15220	15305	15305
Turkey ...	1600	1600	1460	1600	1621
United Kingdom	14811	18520	5035	7185	8400
NORTH AMERICA.					
United States	7900000	9322000	10617600	11842159	12860000
Canada ...	208420	382180	562040	1238000	2838000
Newfoundland	...	.	...	12402	12402
Mexico ...	900000	1200000	1666340	1424238	1533773
Central America	94100	94100	94100	105000	105000
SOUTH AMERICA.					
Argentine ...	19000	19000	36000	62981	62981
Bolivia ...	13400	13400	15000	13000	13000
Brazil ...	443900	443900	200220	292424	350000
Chile ...	228880	281540	281520	281509	281509
Colombia ...	588560	578560	600000	780000	780000
Ecuador ...	13680	13680	26580	26580	26580
Guiana, British	462020	462020	442660	419620	372279
,, Dutch	130160	97560	96360	136350	116884
,, French	521040	521040	421480	247462	275295
Peru ...	14880	12760	23320	23926	23926
Uruguay ...	3080	5440	6720	22920	22920
Venezuela ...	188190	181900	189700	162813	162813
	£36457561	41088440	39459215	47465223	57241367

The above particulars on the production of Gold for the last five years have been gathered from different sources, consequently the totals do not exactly correspond with the totals for the same years taken from the United States Mint Report.

The total amount of gold produced from January 1st, 1879, to December 31st, 1898—20 years—is £566,406,410.

The World's Production of Silver, from 1493 to 1898.

The world's production of silver from 1493 to the end of 1870—that is, from the discovery of America to the beginning of Germany's reform of its Monetary System—was 5,497,117,918 ounces fine, of the value of £1,421,554,693. The production of silver from 1871 to the end of 1896 was 2,709,430,930 ounces fine, of the coinage value of £700,658,838. Thus, the production of the silver mines of the world, during these 26 years, was 49·2 per cent., or very nearly one-half of the amount extracted from them in the 378 years, from 1492 to 1871. The average annual production of silver in the world, from 1492 to 1871 was 14,542,635 ounces fine. During the years 1871 to 1896 it was 104,208,888 ounces fine—that is, seven times as much per annum as previous to the date of the so-called demonetization of silver. The world's total production of silver from 1493 to 1898, or in 407 years, was about 8,628,339,077 ounces fine. During the last ten years, from 1889 to 1898, the amount of silver extracted from the mines of the world, was 1,407,988,819 ounces fine. Such an increase, within about a quarter of a century, in the production of the monetary metals is certainly sufficient reason why one of them should have been demonetized, or why, at least, the coinage of one of them should have been limited or suspended, if the world was to be spared a revolution in prices similar to that which took place in the Sixteenth Century, and compared with which the decline of prices since 1871 is insignificant in the effects it has produced. The principal cause of the decline of silver, since 1873, is the enormous increase in its annual production. In 1874 the output of fine silver was under 56 million ounces, while in 1898 the production was 190 million ounces, over 300 per cent. Another cause is said to be the suspension of its coinage into full legal-tender coins on private

account by all the States of Europe, and by every civilized Government of any importance, except Mexico. The suspension of the coinage, however, will not account for it entirely, because, notwithstanding such suspension, there has been incomparably more silver coined since 1873 than in any period of equal length preceding it. To say that silver only began to decline in 1873 is a false statement. At a Monetary Inquiry in France, in 1867, it was found that the increase of the production of silver was causing a vast amount of anxiety in commercial circles. A careful study of the history of money will prove that a progressive decline in the value of silver from century to century has taken place. In our opinion that decline will continue until it reaches 1s. 6d. per ounce. While the increased production of silver has proceeded at such a rapid rate, the demand by the mints of the world has declined. From the end of 1881 to the end of 1891, the value of silver over gold coined in the world was about £20,000,000. From January, 1892, to December, 1898, there has been an enormous increase in the gold coinage of the world. During the same period the silver coinage has declined, taking the price of silver at coinage value. The value of gold and silver coined in the world during the seven years from 1892 to 1898, was £377,842,198 gold, and £173,632,583 silver. It is evident then that the commercial world has abandoned silver in favour of gold.

Weight and Coining Value of Silver produced in the World, from 1493 to 1897—405 years.

Period.	Annual Average for Period.		Total for Period.	
	Fine Ounces.	Coining Value.	Fine Ounces.	Coining Value.
1493-1544	4410980	£1138800	111907720	£28933800
1545-1580	19646865	5080400	352865540	91246000
1581-1620	27063870	6998400	541277400	139966600
1621-1660	24430785	6317400	488615700	126349200
1661-1700	21826635	5644000	436532700	112881200
1701-1720	11432540	2956200	228650800	59125800
1721-1740	13863080	3584800	277261600	71696000
1741-1760	17140612	4432400	342812235	88646400
1761-1780	20985591	5426600	419711820	108531600
1781-1800	28261779	7308000	565235580	146162000
1801-1810	28746922	7433600	287469225	74333400
1811-1820	17385755	4495800	173857555	48956000
1821-1830	14807004	3838800	148070040	38288800
1831-1840	19175867	4940600	191758675	49586000
1841-1850	25090342	6488000	250903422	64880000

Period.	Annual Average for Period. Fine Ounces.	Coining Value.	Total for Period. Fine Ounces.	Coining Value.
1851-1855	28488597	7364800	142442986	36833800
1856-1860	29095428	7523600	145477142	37618400
1861-1865	35401972	9154400	177009862	45772200
1866-1870	43051583	11132400	215257914	55662600
1871-1875	63317014	16372800	316585069	81864400
1876-1880	78775602	20370200	393878009	101851200
1881-1885	92003944	23791000	460019722	118954600
1886-1890	108911431	28163000	544557155	140814800
1891-1895	157581331	40748400	787906656	203741600
1896	168178550	46249100	168178550	46249100
1897	183096000	50351400	183096000	50351400
1898	190000000	52250000	190000000	52250000
Totals,	1472170079	£389554900	8541339077	£2221546900

Annual Production of Gold and Silver in the World, from 1873 to 1898.

From the United States Mint Report.

Year.	Gold. Fine Ounces.	Value.	Silver. Fine Ounces.	Commercial Value.
1873	4653675	£19778118	63267187	£16937415
1874	4390031	18657631	55300781	14576595
1875	4716563	20045392	62261719	16000483
1876	5016488	21320074	67753125	16154036
1877	5512196	23426833	62679916	15526211
1878	5761114	24484734	73385451	17436375
1879	5262174	22364239	74383495	17228619
1880	5148880	21882740	74795273	17663373
1881	4983742	21180903	79020872	18545966
1882	4934086	20969905	86472091	20260411
1883	4614588	19511999	89175023	20415511
1884	4921169	20914968	81567801	18724406
1885	5245572	22293681	91609959	20113252
1886	5135679	21826635	93297290	19138659
1887	5116861	21746659	96123586	19393893
1888	5330775	22655293	108827606	21065841
1889	5973790	25388607	120218611	23185408
1890	5749306	24434550	126095062	27212006
1891	6320194	26660824	137170919	27946916
1892	7094266	30150630	153151762	27514657
1893	7618811	32379946	165472621	26630979
1894	8783342	37329203	164610394	21551681
1895	9694640	41202220	168308353	21038500
1896	9817991	40591200	168178550	21622318
1897	11500000	47223660	183096000	20598310
1898	13805407	57241791	190000000	21375000
Totals,	167101340	£705662435	2836218447	£527852821

Gold and Silver produced in the United Kingdom, from 1880 to 1897.

	GOLD.		SILVER.		Price of Silver for the Year.
	Weight. ounces.	Value. £	Weight. ounces.	Value. £	
1880	10	38	297283	63463	52 1/4
1881	4·5	18	310048	67500	51 3/4
1882	226	863	372544	80426	51 13/16
1883	66	252	344053	72484	50 9/16
1884	—	—	325718	68791	50 11/16
1885	3·5	14	320520	64938	48 5/8
1886	—	—	325427	63051	45 3/8
1887	58	210	320345	59564	44 5/8
1888	8745	29982	321425	57421	42 7/8
1889	3890	13227	306149	54453	42 11/16
1890	206	675	291724	58040	47 3/4
1891	4007·8	13700	279792	52534	45 1/16
1892	2835	10511	271259	44998	39 13/16
1893	2309	8691	274100	40687	35 5/8
1894	4235	14811	275695	33313	29
1895	6600	18520	280434	34908	29 7/8
1896	1352·5	5035	283826	36365	30 3/4
1897	2032	7185	249157	28614	27 9/16
Total	36580·3	123782	5449499	981550	

The Geography of Gold.

In an article entitled *The Geography of Gold*, by the distinguished Director of the French Mint, Mr. A. de Foville, he says: "There exists, perhaps, a great deal of gold in the deep layers of the terrestial sphere. Gold is 20 times as heavy as water, or nearly so, and its very density contributes to hold it nearer the centre of the Globe. At the surface it is found only in the sporadic and almost molecular state. Imagine a cube measuring 33 feet in length, breadth and thickness. Such a cube contains no very large volume, and the capacity of a small ship is equal to it. Now, all the gold extracted from the earth from the very beginning would represent a volume no larger than this, and the greater part of this gold is of recent origin. Is it

not extraordinary that so small a quantity of the yellow metal has been able to exercise so formidable an influence on the destinies of so many generations?

"What bloody wars, what brutal invasions, what cruel tyrannies, what treachery, and what crimes have had their real incentive in *aurisacra fames*, the accursed thirst for gold!

The war now raging in Natal and the Transvaal is no exception to the rule. President Kruger and his family have got so rich out of the gold mines, and by taxing the Uitlanders to an unreasonable extent, and making slaves of the black people, that nothing in reason will now satisfy them, in consequence of which they are just now, according to the news to hand this morning, October 23rd, 1899, reaping the fruits of what they have sown.

On the other hand, what an impetus has been given to material progress and to civilization, wherever gold has been discovered, whether in America, Australia or Africa! It will never be known whether gold has been productive of more evil or good to mankind."

How to make a Safe Investment.

This is a question that is being asked almost hourly, and in the short space we have at our disposal we will try to answer it as effectively as possible.

In the first place do not, even at the instigation of a broker, buy any stock unless you are prepared to pay for it. We mention this in order to warn you against the practice which is adopted by some people of purchasing and carrying over stock and paying or drawing the differences on the day when the Stock Exchange settlement takes place. This has ruined many hundreds who have expected that the stock would rise and that they would be drawing the differences, when on the other hand circumstances have arisen which they did not foresee, and consequently the stock has fallen in value and claims have been made which could not be met, and the transaction has resulted in loss and trouble. Such a system as this, which is very general, cannot be included under any heading but that of gambling.

In the second place, many tempting offers are made to people to place money in ordinary trading concerns, and sometimes 7½, 10, 15, and even 20 per cent. is offered, and from the way in which the prospectus is couched, one is led to imagine that the principal is secure, but in hundreds of cases it turns out to be insecure, and as a rule the bigger the dividend offered and the the greater insecurity of the principal. To put money into such concerns must be considered a speculation, and it is necessary to advise you if you consider any of the prospectuses issued by trading concerns to (1) ascertain the standing of the directors and of those connected with the promotion; (2) get the opinion of some professional accountant of good standing as to any figures that may be given in regard to the company's capital, trading, and the goodwill it is proposed to pay. Examine carefully the purchase agreement between the vendors and the company, and for the money which the vendors are receiving ascertain if they are giving anything approaching the actual value in the shape of assets; and (3) consider the standing of the concern, how many years it has been in existence, and whether the increase in the

profits has been continuous and for what number of years. If these facts are borne in mind it will prevent, we are sure, a good many people from investing money carelessly.

The only way in which you can make a safe investment, is not so much to seek a large dividend as to see that the principal is secured, and hence the reason why executors under wills are prohibited from investing trust money in anything but where there is absolute security for the principal. We do not advise investments across the water with the exception of American bonds. You cannot beat the ordinary English railway stock or consols. True it is in some instances you may have to pay a premium for railway stock, still there is a chance of getting something for that premium by an expected future rise in the stock, as in all our English railways it is expected that the stock will continue to rise. We can also recommend stock in connection with some of our city corporations, and last, but not least, if you can lend your money on property in a district with which you are acquainted, where the premises are not used as workshops or anything of that kind; more particularly cottage property in a thriving working class district where you can watch it and it does not run away. We should like to say finally that it is never wise to have all one's eggs in one basket, or as Shakespeare puts it:

> "My ventures are not in one bottom trusted;
> Nor to one place; nor is my whole estate
> Upon the fortune of this present year."

List of Gold Coins.

List of Gold Coins of the principal countries of the World, with their fineness, legal weight, weight of pure metal, and value in English gold coin.

1000 stands for pure gold; ·900 fine = $\frac{9}{10}$ths pure metal and $\frac{1}{10}$th alloy. No coins are made of pure gold. The price is calculated on 2·123 pence per grain of pure gold.

Countries.	Name of Coins.	Fineness.	Legal Weight, grains.	Grains of Pure Gold.	Value in English Coin.
Argentina	Argentine	900	124·45	112	19 10
,,	½ ,,	900	62·22	56	9 11
Austria-Hungary	20 Crown piece	900	104·55	94·09	16 8
,,	10 ,,	900	52·27	47·04	8 4
,,	4 Ducats	986⅑	215·49	212·45	1 17 7½
,,	1 ,,	986⅑	53·86	53·11	9 4¾
,,	8 Florins (old system)	900	99·56	89·6	15 10½
,,	4 Florins (old system)	900	49·47	44·8	7 11
Belgium	100 Francs	900	497·80	448·02	3 19 4
,,	50 ,,	900	248·90	224	1 19 8
,,	20 ,,	900	99·56	89·6	15 10½
,,	10 ,,	900	49·78	44·8	7 11
,,	5 ,,	900	24·89	22·4	3 11½
France, Switzerland, Italy and Greece (Latin Union) same as Belgium					
Bolivia	16 Bolivianos	900	385·21	346·6	3 1 3¼
Brazil	20 Milreis	916⅔	276·69	253·6	2 4 10½
,,	10 ,,	916⅔	138·34	126·8	1 2 5¼
British India	Double Mohur, 30 Rupees	916⅔	360	330	2 18 5
,,	Mohur, 15 Rupees	916⅔	180	165	1 9 2½
,,	⅔ Mohur 10 Rupees	916⅔	120	110	19 5¾
,,	⅓ Mohur 5 Rupees	916⅔	60	55	9 9
Bulgaria	Alexander	900	99·56	89·6	15 10½
Central America	Onza or Doubloon (coined prior to 1870)	875	417·59	365·39	3 4 8
,,	½ ,, ,,	875	208·79	182·69	1 12 4
,,	20 Peso piece (since 1870)	900	497·80	448	3 19 4

MR. WILSON'S PLATE.—*See page* 169.

Countries.	Name of Coins.	Fineness.	Legal Weight, grains.	Grains of Pure Gold.	Value in English Coin.
Central America	10 Peso piece (since 1870)	900	248·90	224	1 19 8
,,	5 ,, ,,	900	124·45	112	19 10
,,	2 ,, ,,	900	49·78	44·8	7 11
,,	1 ,, ,,	900	24·89	22·4	3 11½
Costa Rica	20 Colons	900	240·12	216·1	1 18 3
,,	10 ,,	900	120	108	19 1½
,,	5 ,,	900	60	54	9 6¾
,,	2 ,,	900	24	21·6	3 9¾
Chili	Condor	916⅔	184·90	169·5	1 10 0
,,	Doubloon	916⅔	92·45	84·7	15 0
,,	Escudo	916⅔	46·22	42·3	7 6
,,	Peso	916⅔	9·24	8·4	1 5¾
Cuba	Spanish Quadruple (Onza)	875	417·59	365·4	3 4 9
,,	Doubloon Isabella	900	129·43	116·4	1 0 8
,,	Alphonse (25 pesetas)	900	124·45	112	19 10
Colombia	Double Condor	900	497·80	448	3 19 4
,,	Condor	900	248·90	224	1 19 8
Egypt	Egyptian Pound	875	131·17	114·7	1 0 3½
,,	50 Piasters	875	65 58	57·3	10 2
,,	20 ,,	875	26·23	22·9	4 0¾
,,	10 ,,	875	13·11	11·4	2 0½
,,	5 ,,	875	6·55	5·7	1 0
Finland	20 Mark Kaa	900	99·56	89·6	15 11
,,	10 ,, ,,	900	49·78	44·8	7 11½
Germany	Double Crown (20 Marks)	900	122·91	110·6	19 7
,,	Crown (10 Marks)	900	61·45	55·3	9 9½
,,	½ ,, 5 ,,	900	30 72	27·6	4 10¾
Great Britain	Five Pound	916⅔	616·37	565	5 0 0
,,	Two ,,	916⅔	246·54	226	2 0 0
,,	One ,,	916⅔	123·27	113	1 0 0
,,	Half ,,	916⅔	61·63	56·5	10 0
Haiti	10 Gourdes	900	248·90	224	1 19 8
,,	5 ,,	900	124·45	112	19 10
,,	2 ,,	900	49·78	44·8	7 11½
,,	1 ,,	900	24·89	22·4	4 0

Countries.	Name of Coins.	Fineness.	Legal Weight, grains.	Grains of Pure Gold.	Value in English Coin.
Japan	20 Yens (old law)	900	514·40	469·9	4 2 0
,,	10 ,,	900	257·20	231·5	2 1 0
,,	5 ,,	900	128·60	115·7	1 0 6
,,	2 ,,	900	51·44	46·3	8 2¼
,,	1 ,,	900	25·72	23·1	4 1
,,	20 Yens (new law)	900	257·19	231·4	2 1 0
,,	10 ,,	900	128·59	115·7	1 0 6
,,	5 ,,	900	64·29	57·8	10 3
,,	1 ,,	900	12·85	11·5	2 0½
Mexico	20 pesos	875	522·23	456·9	4 0 11
,,	10 ,,	875	261·11	228·4	2 0 5½
,,	5 ,,	875	130·55	114·2	1 0 2½
,,	2½ ,,	875	65·27	57·1	10 1
,,	1 ,,	875	26·11	22·8	4 0
Netherlands	10 Florins	900	103·70	93·3	16 6¼
Persia	2 Tomans	900	87·96	79·1	14 0
,,	1 ,,	900	43·98	39·5	7 0
Peru	20 Sols	900	497·80	448	3 19 4
,,	10 ,,	900	248·90	224	1 19 8
,,	5 ,,	900	124·45	112	19 10
,,	2 ,,	900	49·78	44·8	7 11¼
,,	1 ,,	900	24·89	22·4	4 0
,,	1 Libra (new)	916⅔	123·27	113	1 0 0
Portugal	Crown	916⅔	273·68	250·8	2 4 4¾
,,	½ ,, 5 Milreis	916⅔	136·84	125·4	1 2 2½
,,	⅕ ,, 2 ,,	916⅔	54·73	50·1	8 10½
,,	1/10 ,, 1 ,,	916⅔	27 36	25	4 5
Roumania	20 Leis	900	99 56	89·6	15 10¼
,,	10 ,,	900	49·78	44·8	7 11
Russia	Imper'l,10 rubles	900	199·13	179·2	1 11 9
,,	½ ,, 5 ,,	916⅔	100·98	92·5	16 4½
,,	½ ,, 5 ,,	900	99·56	89·6	15 10½
,,	Ducat, 3 ,,	916⅔	60·59	55·5	9 10
,,	10 Rubles (new)			119	1 1 1
Scandinavian Union	20 Crowns	900	138·28	124·4	1 2 0¼
,,	10 ,,	900	69·14	62·2	11 0

Countries.	Nams of Coins.	Fineness.	Legal Weight, grains.	Grains of Pure Gold.	Value in English Coin.
Servia	Milan, 20 dinars	900	99·56	89·6	15 10¼
,,	½ ,, 10 ,,	900	49·78	44·8	7 11¼
Spain	25 Pesetas	900	124·45	112	19 10
,,	10 ,,	900	49·78	44·8	7 11¼
,,	5 ,,	900	24·89	22·4	4 0
Turkey	500 Piasters	916⅔	556·81	510·4	4 10 4
,,	250 ,,	916⅔	278·40	255·2	2 5 2
,,	100 ,,	916⅔	111·36	102	18 1
,,	50 ,,	916⅔	55·68	51	9 0½
,,	25 ,,	916⅔	27·84	25·5	4 6
United States	20 Dollars	900	516	464·4	4 2 3
,,	10 ,, 1 Eagle	900	258	232·2	2 1 1½
,,	5 ,, ½ ,,	900	129	116·1	1 0 6¾
,,	2½ ,, ¼ ,,	900	64·5	58	10 3¼
,,	3 ,,	900	77·4	69·66	12 4
,,	1 ,,	900	25·8	23·22	4 1½

1 dollar = 49·29d.

Silver Coins.

A list of Silver Coins of the principal countries of the World, with their fineness, legal weight, and weight of pure metal, metal value, and current value.

1000 stands for pure silver, ·925 is the standard of English silver coins. ·900 is the standard of almost every other country.

There are 444 grains of pure silver to the standard ounce, the metal value in this table is calculated at 2/3 per oz.

Countries.	Name of Coins.	Fineness.	Legal Weight, grains.	Grains of Pure Silver.	Metal Value.	Current Value.
Argentine	1 Peso	900	385·8	347·2	1 9	4 0
,,	½ ,, 50 centavos	900	192·9	173·6	10½	2 0
,,	⅕ ,, 20 ,,	900	77·1	69·4	4¼	9½
,,	1/10 ,, 10 ,,	900	38·5	34·7	2	4¾
,,	1/20 ,, 5 ,,	900	19·2	17·3	1	2¼
Austria-Hungary	1 Crown, old law	835	77·1	64·4	4	9
,,	50 Heller piece	835	38·5	32·2	2	4½
,,	Maria-Theresa thaler	833⅓	433	360·7	1 9¾	4 2

Countries.	Name of Coins.	Fineness.	Legal Weight, grains.	Grains of Pure Silver.	Metal Value. s.	Metal Value. d.	Current Value. s.	Current Value. d.
Austria-Hungary	2 Florins	900	381	342·9	1	8¾	3	10½
,,	1 ,,	900	190·5	171·4		10½	1	11
,,	¼ ,,	520	82·4	42·8		2½		5½
,,	20 Kreutzer piece	500	41·1	20·5		1¼		2¾
,,	10 ,, ,,	400	25·7	10·2		0¾		1¼
Bolivia	1 Boliviano	900	385·8	347·2	1	9	4	0
,,	½ ,, 50 centavos	900	192·9	173·6		10½	2	0
,,	⅕ Boliviano 20 centavos	900	69·4	62·5		3⅞		8
,,	⅒ Boliviano 10 centavos	900	32·7	29·4		1⅞		3½
,,	⅕₀ Boliviano 5 centavos	900	16·3	14·7		0⅞		1¾
Brazil	2 Milreis	916⅔	393·5	360·7	1	9¾	4	2
,,	1 ,,	916⅔	196·7	180·3		10¾	2	1
,,	500 Reis	916⅔	98·3	90·1		5¼	1	0½
British India	1 Rupee	916⅔	180	165		10	*1	10½
,,	½ ,,	916⅔	90	82·5		5		11
,,	¼ ,,	916⅔	45	41·2		2½		5½
,,	⅛ ,,	916⅔	22·5	20·6		1¼		2½
Bulgaria	5 Levs	900	385·8	347·2	1	9	4	0
,,	2 ,,	835	154·3	128·8		7¾	1	5
,,	1 ,,	835	77·1	64·4		4		8½
,,	½ ,,	835	38·5	32·2		2		4¼
Canada	50 cent piece	925	179·3	165·8		10	1	10
,,	25 ,,	925	89·6	82·9		5		11
,,	10 ,,	925	35·8	33·1		2		4½
,,	5 ,,	925	17·9	16·5		1		2¼
Central America	1 Peso	900	385·8	347·2	1	9	4	0
,,	½ ,,	900	192·9	173·6		10½	2	0
,,	¼ ,,	900	96·4	86·8		5¼	1	0
,,	Dime	900	38·5	32·2		2		4¼
,,	½ ,,	900	19·2	16·1		1		2
Chili	1 Peso	835	308·6	257·7	1	3½	2	10½
,,	20 Centavo	835	61·7	51·5		3¼		6½
,,	10 ,,	835	30·8	25·7		1½		3¼
,,	5 ,,	835	15·4	12·8		0¾		1⅝

*Rated at 1s. 4d.

Countries.	Name of Coins.	Fineness.	Legal Weight, grains.	Grains of Pure Silver	Metal Value. s.	Metal Value. d.	Current Value. s.	Current Value. d.
Colombia	1 Peso	900	385·8	347·2	1	9	4	0
,,	2 Decimo	835	77·1	64·4		4		8½
,,	Decimo	835	38·5	32·2		2		4¼
,,	½ ,,	835	19·2	16·1		1		2
Denmark, Sweden and Norway	2 Crowns	800	231·4	185·1		11	2	1
	1 ,,	800	115·7	92·5		5½	1	0½
	50 Ore	600	77·1	46·2		2¾		6
,,	40 ,,	600	61·7	37		2¼		5
,,	25 ,,	600	37·3	22·4		1½		3
,,	10 ,,	400	22·3	9		0½		1
Ecuador	Sucre	900	385·8	347·2	1	9	4	0
,,	½ ,,	900	192·9	173·6		10½	2	0
,,	2 Dimes	900	77·1	69·4		4½		9½
,,	Dime	900	38·5	34·7		2		4¾
,,	½ ,,	900	19·2	17·3		1		2¼
Egypt	20 Piasters	833⅓	432	360	1	9¾	4	2
,,	10 ,,	833⅓	216	180		10¾	2	1
,,	5 ,,	833⅓	108	90		5¼	1	0½
,,	2 ,,	833⅓	43·2	36		2¼		5
,,	1 ,,	833⅓	21·6	18		1¼		2½
,,	½ ,,	833⅓	10·8	9		0½		1
,,	¼ ,,	833⅓	5·4	4·5		0¼		½
Finland	2 Mark Kaa	868	159·9	138·8		8½	1	6½
,,	1 ,,	868	79·9	69·4		4		9
,,	50 Penni	750	39·3	29·5		1¾		4
,,	25 ,,	750	19·6	14·7		0¾		2
France	5 Franc	900	385·8	347·2	1	9	4	0
,,	2 ,,	835	154·3	128·8		8	1	7
,,	1 ,,	835	77·1	64·4		4		9½
,,	50 Centimes	835	38·5	32·2		2		4¼
,,	20 ,,	835	15·4	12·8		0¾		1¾
Belgium, Greece, Italy, Spain and Switzerland, same as France.								
Germany	5 Marks	900	428·6	385·7	1	11¼	4	11
,,	2 ,,	900	171·4	154·3		9¼	1	11¾
,,	1 ,,	900	85·7	77·1		4¾	1	0
,,	50 Pfennig	900	42·8	38·5		2¼		6
,,	20 ,,	900	17·1	15·4		1		2

Countries.	Name of Coins.	Fineness.	Legal Weight, grains.	Grains of Pure Silver.	Metal Value. s.	Metal Value. d.	Current Value. s.	Current Value. d.
Haiti	1 Gourde	900	385·8	347·2	1	9	4	0
,,	½ ,,	835	192·9	161		9¾	2	0
,,	⅕ Gourde	835	77·1	64·6		4		9½
,,	1/10 ,,	835	38·5	32·2		2		4¾
Hawaii	1 Dollar piece	900	412·5	371·2	1	10½	4	2
,,	50 Cent piece	900	192·9	173·6		10½	1	8
,,	25 ,,	900	96·4	86·8		5¼		10
,,	10 ,,	900	38·5	34·7		2		4
Japan	1 Yen	900	416	374·4	1	10¾	4	2
,,	50 Sen	800	208	166·4		10	1	10
,,	20 ,,	800	83·2	66·5		4		9
,,	10 ,,	800	41·6	33·2		2		4½
,,	5 ,,	800	20·8	16·6		1		2¼
Mexico.	1 Peso	902 7/10	417·7	377·1	1	11	4	2
,,	50 Centavo	902 7/10	208·8	188·5		11½	2	1
,,	25 ,,	902 7/10	104·4	94·2		5¾	1	0½
,,	10 ,,	902 7/10	41·7	37·7		2¼		5
,,	5 ,,	902 7/10	20·8	18·8		1		2½
Netherlands	2½ Florins	945	385·8	364·5	1	10	4	2
,,	Florin	945	154·3	145·8		8¾	1	7½
,,	½ ,,	945	77·1	72·9		4¼		9¾
,,	¼ ,,	945	55·1	35·3		2¼		4½
,,	1/10 ,,	945	21·6	13·8		0¾		1½
,,	1/20 ,,	945	10·5	6·7		0¼		0¾
Peru	1 Sol	900	385·8	347·2	1	9	4	0
,,	½ ,,	900	192·9	173·6		10½	2	0
,,	⅕ ,,	900	77·1	69·4		4¼		9½
,,	Diner	900	38·5	34·7		2		4¾
,,	½ ,,	900	19·2	17·3		1		2
Portugal	500 Reis	916⅔	192·9	176·8		10¾	2	0
,,	200 ,,	916⅔	77·1	70·7		4¼		9¾
,,	100 ,,	916⅔	38·5	35·3		2		4¾
,,	50 ,,	916⅔	19·2	17·6		1		2¼
Roumania	5 Leis	900	385·8	347·2	1	9	4	0
,,	2 ,,	835	154·3	128·8		8	1	7
,,	Lei	835	77·1	64·4		4		9½
,,	½ ,,	835	38·5	32·2		2		4¼
Russia	1 Rouble (prior to 1886)	868	319·9	277·7	1	5	3	1

Countries.	Name of Coins.	Fineness.	Legal Weight, grains.	Grains of Pure Silver.	Metal Value. s.	Metal Value. d.	Current Value. s.	Current Value. d.
Russia	1 Rouble (since 1886)	900	308·5	277·7	1	5	3	1
,,	50 Kopecks (prior to 1886)	868	159·9	138·8		8½	1	6½
,,	50 Kopecks (since 1886)	900	154·2	138·8		8½	1	6½
,,	25 Kopecks (prior to 1886)	868	79·9	69·4		4		9
,,	25 Kopecks (since 1886)	900	77·1	69·4		4		9
,,	20 ,,	500	55·5	27·7		1½		4
,,	15 ,,	500	41·6	20·8		1¼		2½
,,	10 ,,	500	27·7	13·8		0¾		2
,,	5 ,,	500	13·8	6·9		0¼		1
Servia	5 Dinars	900	385·8	347·2	1	9	4	0
,,	2 ,,	835	154·3	128·8		8	1	7
,,	Dinar	835	77·1	64·4		4		9½
,,	½ ,,	835	38·5	32·2		2		4¼
Turkey	20 Piasters	830	371·2	308·1	1	6½	3	5½
,,	10 ,,	830	185·6	154		9¼	1	8¾
,,	5 ,,	830	92·8	77		4½		10¼
,,	2 ,,	830	37·1	30·8		1¾		4
,,	1 ,,	830	18·5	15·4		1		2
,,	½ ,,	830	9·2	7·7		0½		1
United States	Dollar	900	412·5	371·2	1	10½	4	2
,,	½ ,,	900	192	172·8		10¼	2	0
,,	¼ ,,	900	96	86·4		5¼	1	0
,,	1 Dime	900	38·4	34·5		2		6
,,	½ ,,	900	19·2	17·2		1		3
,,	3 Cents	900	11·5	10·3		0¾		1½
United Kingdom	Crown	925	436·3	403·6	2	0½	5	0
,,	Double Florin	925	349·8	322·8	1	7½	4	0
,,	Half-Crown	925	218·1	201·8	1	0½	2	6
,,	1 Florin	925	174·5	161·4		10	2	0
,,	1 Shilling	925	87·2	80·7		5	1	0
,,	Sixpence	925	43·6	40·3		2½		6
,,	Fourpence	925	29	26·9		1½		4
,,	Threepence	925	21·8	20·1		1¼		3
,,	Twopence	925	14·5	13·4		0¾		2

Countries whose large Silver Coins are equal in Size, Weight, and Value.

(Metal Value 2/3 Per Ounce.)

Countries.	Name of Coins.	Fineness.	Legal Weight, Grains.	Grains of Pure Silver.	Metal Value.	Current Value.
Argentine	... 1 Peso	900	385·800	347·220	1/9	4/-
Belgium	... 5 Francs	,,	,,	,,	,,	,,
Bolivia	... 1 Boliviano	,,	,,	,,	,,	,,
Bulgaria	... 5 Levs	,,	,,	,,	,,	,,
Central America	1 Peso	,,	,,	,,	,,	,,
Chili ...	... 1 Peso	,,	,,	,,	,,	,,
Ecuador	... 1 Peso	,,	,,	,,	,,	,,
France ...	... 5 Francs	,,	,,	,,	,,	,,
Greece ...	... 5 Drachmai	,,	,,	,,	,,	,,
Guatemala	... 1 Peso	,,	,,	,,	,,	,,
Haiti ...	... 1 Gourd	,,	,,	,,	,,	,,
Italy ...	... 5 Liras	,,	,,	,,	,,	,,
Peru ...	... 1 Sol	,,	,,	,,	,,	,,
Roumania	... 5 Leis	,,	,,	,,	,,	,,
Servia ...	... 5 Dinars	,,	,,	,,	,,	,,
Spain ...	... 5 Pesetas	,,	,,	,,	,,	,,
Uruguay	... 1 Peso	,,	,,	,,	,,	,,
United States Colombia	... 1 Peso	,,	,,	,,	,,	,,
Venezuela	... 1 Venezolano	,,	,,	,,	,,	,,
Switzerland	... 5 Francs	,,	,,	,,	,,	,,

All the above silver coins (except in Chili and Venezuela) are unlimited legal tender in their respective countries; there are, however, two sides to this question. While the distributive side of bimetallism still exists in these countries, all the mints are closed to the unlimited reception of the silver, and the international trade of these countries is conducted and settled on a gold basis. Practically, these are all gold standard countries. For the sake of uniformity, we have stated the current value of these large silver coins at 4s. each. Though in the majority of cases, in bimetallic countries, pure gold is taken at being worth $15\frac{1}{2}$ times its weight of pure silver. This proportion corresponds to giving standard silver a constant value of $60\frac{7}{8}$ pence per ounce, or 347·220 grains of pure silver equal to 3s. $11\frac{1}{2}$d. sterling.

Consolidated Fund Advances and Repayments.

An Account of the sums advanced in each Year from the Consolidated Fund for the purchase of Bullion for Coinage; and of the sums paid in each Year to the Account of Her Majesty's Exchequer at the Bank of England in repayment thereof, from the 1st day of January, 1888, to the 31st day of December, 1897.

Date.	Amounts Advanced from the Consolidated Fund. £	£	Date.	Amounts paid into the Exchequer in Repayment of Advances. £	£	Remarks.
Balance due to Exchequer on 1st January, 1888	.. ..	335,000				
1888 ..	.. ..	580,000	.. ..	.. ..	710,000	As given in detail in previous Returns.
1889 ..	.. ..	1,730,000	.. ..	.. ..	1,660,000	
1890 ..	.. ..	1,220,000	.. ..	.. ..	1,125,000	
1891 ..	.. ..	740,000	.. ..	.. ..	875,000	
1892 ..	.. ..	685,000	.. ..	.. ..	620 000	
1893 ..	.. ..	625.000	.. ..	.. ..	730,000	
1894 ..	.. ..	670,000	.. ..	.. ..	645,000	
1895 ..	.. ..	815,000	.. ..	.. ..	820,000	
1896 ..	.. ..	810,000	.. ..	.. ..	715,000	
1897 Mh. 18	100,000		1897 Mh. 26	150,000		
Jun. 4	100,000		Oct. 25	150 000		
Sep. 29	250.000	600,000	Dec. 1	100.000	650,000	
Nov. 1	100,000		,, 16	100,000		
Dec. 22	50,000		,, 23	150,000		
			Balance due to the Exchequer, on 31st December, 1897 ..		260.000	
		£8,810,000			£8,810,000	

Weight and Fineness of each New Coin.

SCHEDULE TO COINAGE ACT, 1870, AND AS AMENDED IN 1891.—1ST SCHEDULE.

Denomination of coin.	Standard Weight.		Least Current Weight.		Standard fineness.	Remedy allowance.		
	Imperial Weight.	Metric Weight.	Imperial Weight.	Metric Weight.		Weight per piece.		Millesimal fineness.
	Grains.	Grams.	Grains.	Grams.		Imperial grains.	Metric grams.	
GOLD.								
Five pound	616·87239	39·94028	612·50000	39·68935	Eleven-twelfths fine gold, one-twelfth alloy; or millesimal fineness, 916·66	1·00000	0·06479	0·002
Two pound	246·54895	15·97611	245·00000	15·87574		0·40000	0·02592	
Sovereign	123·27447	7·98805	122·50000	7·93787		0·20000	0·01296	
Half-sovereign	61·63723	3·99402	61·12500	3·96083		0·10000	0·00648	
SILVER.								
Crown	436·36363	28·27590	...	...	Thirty-seven-fortieths fine silver, three-fortieths alloy, or millesimal fineness, 925.	1·81818	0·11781	0·004
Half-crown	218·18181	14·13795	...	...		0·90909	0·05890	
Florin	174·54545	11·31036	...	...		0·72727	0·04712	
Shilling	87·27272	5·65518	...	...		0·36363	0·02356	
Sixpence	43·63636	2·82759	...	...		0·18181	0·01178	
Groat, or fourpence	29·09090	1·88506	...	...		0·12121	0·00785	
Threepence	21·81818	1·41379	...	...		0·09090	0·05889	
Twopence	14·54545	0·94253	...	...		0·06060	0·00392	
Penny	7·27272	0·47126	...	...		0·03030	0·00196	
BRONZE.								
Penny	145·83333	9·44984	...	...	Mixed metal, copper, tin, and zinc	2·91666	0·18899	None.
Halfpenny	87·50000	5·66990	...	...		1·75000	0·11339	
Farthing	43·75000	2·83495	...	...		0·87500	0·05669	

The weight and fineness of the coins specified in this schedule are according to what is provided by the Act 56 George the Third, chapter sixty-eight, that the gold coin of the United Kingdom of Great Britain and Ireland should hold such weight and fineness as were prescribed in the then existing mint indenture, that is to say, that there should be nine hundred and thirty-four sovereigns and one ten-shilling piece contained in twenty pounds weight troy of standard gold, of the fineness at the trial of the same of twenty-two carats fine gold, and two carats of alloy in the pound weight troy; and further, as regards silver coin, that there should be sixty-six shillings in every pound troy of standard silver of the fineness of eleven ounces two pennyweights of fine silver, and eighteen pennyweights of alloy in every pound weight troy.

Coinage Act, 1870.

SECTION 8.—"Where any person brings to the mint any gold bullion, such bullion shall be assayed and coined and delivered out to such person without any charge for such assay or coinage or for waste in coinage: Provided, that (1) if the fineness of the whole of the bullion so brought to the mint is such that it cannot be brought to the standard fineness under this Act of the coin to be coined thereout, without refining some portion of it, the master of the mint may refuse to receive, assay, or coin such bullion; (2) Where the bullion so brought to the mint is finer than the standard fineness under this Act of the coin to be coined thereout, there shall be delivered to the person bringing the same, such additional amount of coin as is proportionate to such superior fineness. No undue preference shall be shown to any person under this section, and every person shall have priority according to the time at which he brought such bullion to the mint for assay or coinage.

Coinage Value of Gold and Silver in the various Reigns, from Elizabeth, 1558, to George III., 1815.

	Elizabeth,	£5,832,000	Gold and	Silver.	
	James I.,	2,500,000	,,		
	Charles I.,	10,500,000	,,		
	Cromwell,	1,000,000	,,		
1660-1685	Charles II.,	4,672,768	Gold;	£3,272,311	Silver.
1686-1688	James II.,	1,659,006	,,	386,675	,,
1689-1694	Wm. & Mary,	482,442	,,	115,895	,,
1695-1701	William III.,	3,144,428	,,	7,014,047	,,
1702-1714	Anne,	3,028,710	,,	530,608	,,
1715-1727	George I.,	8,115,152	,,	229,905	,,
1728-1759	George II.,	11,034,979	,,	324,288	,,
1760-1815	George III.,	67,970,181	,,	64,625	,,

The present gold standard was introduced in 1816, when the guinea was replaced by the sovereign. From 1670 to 1816, one pound troy of gold was coined into 44½ guineas, now the same weight of gold is equal to £46 14s. 6d. It will be seen from the above table that all through the last century there was a great dearth of silver coin in this country, which caused great inconvenience to both rich and poor people. This was due to the fact that under the bimetallic law which opened the mint freely to both metals, silver was not coined, and full-value silver was melted down and exported. For the rich to have no pocket money with which to pay fares, food, or wages; for the poor to be deprived of the ready money with which to buy all the necessaries of life, these are evils almost as great as the evils which attended a faulty standard. And these evils were the inevitable result of the bimetallic law. See "Gold Standard" (paper by Lord Farrar).

Total Value of Gold Coinage at London and the Branch Mints for 82 years, from 1817 to 1898.

TABLE showing the Gold Coin struck at the Australian Mints, received by the Bank of England from 1874 * to 1898 inclusive; and the total amount of Gold Coin struck at the Royal Mint in London, and at the Sydney and Melbourne Branches of the Royal Mint.

[For details in regard to the period 1817 to 1893, see Twentieth Annual Report of the Mint (1889), page 87, and Twenty-fifth Do. Do. (1894), page 99.]

Year.	Australian Gold Coin received by the Bank of England, 1874-1898.	Gold Coined at Australian Branch Mints.			Gold Coined at the Royal Mint, London, 1817-1898.	Total amount of Gold Coined, 1817-1898.
		Sydney, 1855-98.	Melbourne, 1872-1898.	Total, 1855-1898.		
	£	£	£	£	£	£
Prior to 1894	46,229,040	73,005,000	53,012,000	126,017,000	301,840,800	427,857,800
1894	3,805,250	3,067,000	4,166,900	7,233,900	5,678,400	12,912,300
1895	4,035,800	2,758,000	4,165,900	6,923,900	3,811,200	10,735,100
1896	3,013 040	2,544 000	4,566,400	7,110,400	4,808,900	11,919,300
1897	3,439 850	2,532,000	5,130,565	7,662,565	1,778,300	9,440,865
1898	1.778 500	2,598.000	5,509,138	8,107,138	5,780,600	13,887,738
Total ...	62,301,480	86,504,000	76,550,903	163,054,903	323,698,200	486,753,103
Annual Average ...	2,492,059 (Twenty-five years)	1,966,000 (Forty-four years).	2,835,219 (Twenty-seven years).	3,705,793 (Forty-four years).	3,947,539 (Eighty-two years).	5,936,013 (Eighty-two years).

* The amount received before 1874 cannot be accurately given, but the Custom House Returns show that from 1858 to 1873, inclusive, British gold coin valued at £6 640,000 was imported into this country from Australia. The Sydney Branch of the Royal Mint was opened in 1855, but imports of coin and bullion into the United Kingdom were not recorded before 1858, so that the above probably falls somewhat short of the total amount imported. In view, however, of the fact that Australian gold coins were not made legal tender in this country until 1866, its seems probable that the receipts of the Bank of England during the nineteen years 1855-1873 did not exceed £5,000,000.

The value of the deficiency in weight of light gold coins withdrawn from circulation, from March 10th, 1892, to March 31st, 1899:—Nominal value of Sovereigns withdrawn, £22,265,000; value of deficiency in weight, £238,868 0s. 5d.; average loss per piece, 2·575 pence. Nominal value of Half-sovereigns withdrawn, £14,035,000; value of deficiency in weight, £312,304 6s. 10d.; average loss per piece, 2·670 pence. The average amount withdrawn during the last seven years is a little over five millions. The gold currency is in such good condition now, that during the current year the withdrawal will not reach more than £2,100,000; last year it was a little less than that amount. The value of deficiency in the standard fineness of gold coins withdrawn as above amounted to £14,013 6s. 9d. These losses have been paid by the Government.

Total amount of silver coined, from 1817 to 1898, £45,774,577.

Annual Amount of the Coinage at the Royal Mint, from 1884-1898.

Year.	Gold.	Silver.	Bronze.	Total.
1884	£2324015	£658548	£69290	£3051853
1885	2973452	720918	57568	3751938
1886	——	417384	51669	469053
1887	1472118	861498	45173	2378789
1888	2032954	756578	39498	2829030
1889	7500778	2224926	67573	9793277
1890	7680262	1712161	89450	9481873
1891	6723496	1056528	107669	7887693
1892	13907022	778932	49802	14735756
1893	9266460	1088409	53536	10408405
1894	5678374	822492	22474	6523340
1895	3811205	1187010	31733	5029948
1896	4808910	1329570	123573	6262053
1897	1778286	941886	108341	2828513
1898	5780573	1269180	82506	7132259
Totals,	£75737905	£15826020	£999855	£92563780
Annual Average	£5049193	£1055067	£66657	£6171158

Weight, Number and Value of the Gold Coinage, from 1884 to 1898.

	Sovereigns.			Half-Sovereigns.		
	Weight. ounces.	Number of Pieces.	Value £ s. d.	Weight. ounces.	Number of Pieces.	Value. £ s. d.
1884	452826·068	1763184	1763191 10 4	144031·738	1121600	560223 11 7
1885	181484·653	706685	706655 17 4	582162·940	4533605	2266796 18 11
1886	—	—	—	—	—	—
1887	270054·158	1051500	1051523 7 7	108017·948	841200	420594 17 8
1888	522107·184	2032900	2032954 16 11	—	—	—
1889	1926363·680	7500700	7500778 11 7	—	—	—
1890	1684429·160	6558556	6558746 0 10	288029 860	2243200	1121516 5 4
1891	1587046·756	6179706	6179563 6, 1	139693·882	1087884	543933 1 1
1892	1818344·578	7080100	7080179 4 0	1753282·468	13655480	6826843 12 2
1893	1764351·218	6869800	6869942 11 1	564002·692	4392218	2196085 9 8
1894	981265·000	3820450	3820800 11 10	477065·414	3715300	1857573 9 2
1895	594190·686	2313300	2313629 19 8	384609 970	2994672	1497575 1 5
1896	856982·786	3336760	3336876 14 6	378050 410	2944200	1472033 15 8
1897	—	—	—	456702·858	3556874	1778286 15 1
1898	1116260·936	4346200	4346441 0 4	368316·416	2868492	1434132 0 11
Total	13755706 863	53559841	£53561283 12 1	5643966·596	43954725	£21975594 18 8
Annual Average	917047·457	3570656	£3570752 0 0	376264·000	2930315	£146503 0 0

A sovereign should weigh 123·27447 grains, but as it is impossible to get machinery to make every coin of exactly the same weight, the remedy or allowance made to the mint master for imperfection of workmanship is $\frac{1}{5}$ of a grain.

Thus the mint cannot legally issue a sovereign weighing less than 123·07447 grains, or more than 123·47447 grains.

It will be seen in the above table that the number of sovereigns and their value do not exactly correspond, the latter being a little more than the former. But how wonderfully small is the difference, and on an average in favour of the public.

The remedy in fineness is 2 parts in one thousand.

The Royal Mint succeeds in working well within the margin both of weight and fineness.

Number of Coins issued at the British Mint, from 1884 to 1898.

Year.	Gold. Sovereigns.	Gold. Half Sovereigns.	Silver. Crowns.	Silver. Half-Crowns.	Silver. Florins.	Silver. Shillings.	Silver. Sixpences.
1884..	1763184	1121600	——	1568160	1447380	3924360	3191760
1885..	706685	4533605	——	1523808	1756260	3334320	4926240
1886..	——	——	——	994752	592020	1774080	2724480
1887..	1051500	841200	264528	1433520	1774080	4344120	3611520
1888..	2032900	——	161586	1427184	1546380	4645080	4015440
1889..	7500700	——	1785168	4807440	2973960	7029000	9155520
1890..	6558556	2243200	977328	3312584	1684980	8735760	9385200
1891..	6179706	1087884	582120	2287296	835560	5726160	7025040
1892..	7080100	13655480	473616	1713888	283140	4593600	6240960
1893..	6869800	4392218	496584	1719504	1663200	7020080	7357680
1894..	3820450	3715300	144936	1500048	1952280	5940000	3461040
1895..	2313300	2994672	252648	1796256	2183940	8890200	7025040
1896..	3336760	2944200	317592	2147904	2942280	9266400	6652800
1897	——	3556874	262152	1679040	1700820	6268680	5029200
1898..	4346200	2868492	161568	1831104	3061080	9769320	5916240
Tot'l	53559841	43954725	5879826	29742488	26397360	91261160	85718160

	Silver. Fourpences.	Silver. Threepences.	Silver. *Twopences.	Silver. *Pence.	Bronze. Pence.	Bronze. Half-pence.	Bronze. Farthings.
1884..	4158	3330888	4752	7920	11612160	6988800	6092800
1885..	4158	5184168	4752	7920	8171520	8601600	5376000
1886..	4158	6150408	4752	7920	6128640	8780800	7526400
1887..	4158	2776488	4752	7920	5376000	10393600	1075200
1888..	124158	511368	4752	7920	5268480	7347200	2150400
1889..	4158	4534728	4752	7920	12364800	7705600	——
1890..	4158	4582248	4752	7920	15375360	11110400	2150400
1891..	4158	6356324	4752	7920	17955840	13260800	5017600
1892..	4158	2570568	4572	7920	10429440	2688000	716800
1893..	8316	3097776	9504	15840	8279040	7168000	3942400
1894..	8316	1577136	9504	15840	3870720	1792000	2508800
1895..	8316	4840176	9504	15840	5376000	3046400	2867200
1896..	8316	4602576	9504	15840	24192000	9139200	3584000
1897..	8316	4555056	9504	15840	20536320	8601600	4659200
1898..	8316	4570896	9504	15840	14515200	8601600	3942400
Total..	167318	59240904	99612	166320	169451520	115225600	51609600

* This is Maundy Money.

N.B.—From 1887 to 1890, 4,897,530 Double-Florins were issued, and not any since. In 1887, 53,200 Five-Pound Gold pieces, and 85,293 Two-Pound gold pieces were issued. In 1893, 20,160 Five-pound pieces, and 49,771 Two-pound pieces were issued. Total number of coins issued during the 15 years 1884 to 1898, 732,587,518.

Annual Coinage of Gold and Silver of the World, from 1873 to 1898.

Year.	Gold. Ounces.	Gold. Value. £	Silver. Ounces.	Silver. Face Value. £	Total Value. £
1873 ...	12462890	52526160	101741421	26308893	78835053
1874 ...	6568279	27255677	79610875	20586246	47841923
1875 ...	9480892	39297485	92747118	23983093	63280578
1876 ...	10309645	43623855	97899525	25315433	68939288
1877 ...	9753196	40423293	88449796	22871866	63295159
1878 ...	9113202	47677322	124671870	32238382	79915704
1879 ...	4390167	18214562	81124555	20977662	39192224
1880 ...	7242951	39945016	65442074	16922395	56867411
1881 ...	7111864	29403055	83539051	21602017	51005072
1882 ...	4822851	19939434	85685996	22157186	42096620
1883 ...	5071882	21969423	84541904	21861341	43830764
1884 ...	4810061	29886559	74120127	19166416	49052975
1885 ...	4632273	19151516	98044475	25352914	44504430
1886 ...	4578310	18928414	96566844	24970820	43899234
1887 ...	6046510	25998493	126388502	32682279	58680772
1888 ...	6522346	26965771	104354000	26984469	53950240
1889 ...	8170611	33780333	107788256	27872519	61652852
1890 ...	7219725	29848993	117789228	30458629	60307622
1891 ...	5782463	23926824	106962049	27658873	51585697
1892 ...	8343387	35494624	120282947	31103469	66598093
1893 ...	11243342	47484123	106697783	27590538	75074661
1894 ...	11025680	46584206	87472523	22619157	69203363
1895 ...	11178855	46217487	98128832	24322044	70539531
1896 ...	9476620	39179903	123394239	31908005	71087908
1897 ...	21174673	87543869	129752104	32552059	120095928
1898 ...	30200035	124802142	113695284	28423821	153225963
Total	236732710	1016068539	2596891378	668490526	1684559065

MR. CHORLEY'S PLATE.—*See page* 164.

Total Coinage of the principal Countries of World, so far as reported, from 1873 to 1898, inclusive.

Countries.	Gold. £	Silver. £	Total. £
Australia	127977799	——	127977799
Austria-Hungary	52345862	41161115	93506977
Belgium	15676680	6127864	21804544
British India	255570	148562548	148818118
Egypt	454771	3185471	3640242
France	61795377	16863765	78659142
Germany	141518572	19743694	161262266
United Kingdom	91165146	21849280	113014426
Italy	8473896	12313349	20787245
Japan	19060097	40930111	59990208
Mexico	2756783	119244432	122001215
Netherlands	6597645	5188888	11786533
Portugal	649476	3952498	4601974
Russia	181005834	38904503	219910337
Scandinavian Union ...	9835183	4818437	14653620
South American States ...	8271215	16817046	25088261
Spain	41010729	35702264	76712993
United States	237218004	122949261	360167265
Total	1006068639	658314526	1664383165
Annual Average	38500000	25300000	

It is estimated that if all the returns had been sent in, the average Gold Coinage for the period under consideration would have reached about £45,000,000 per year, and the average Silver Coinage about £30,000,000 per year.

Coinage of Foreign Countries for Three Years, 1896-7-8 (so far as reported).

Countries.	Gold.	Silver.	Nickel.	Copper or Bronze.	Total Number of Pieces.	Total Value.
	£	£	£	£		£
United Kingdom (*a*)	35267164	3545739	—	314484	208891426	39127382
India ..	—	1332076	—	186783	365287726	1618859
British Colonies and Dependencies..	—	8524921	500	59654	171978225	8585085
Total (British)..	35267164	13402736	500	560921	746157377	49331326
Abyssinia ..	—	232528	—	1044	6818950	233572
Austria-Hungary ..	16844903	2788136	—	115280	354546971	19867415
Arabia (Report for 1898 only)		210	—	—	29400	210
Belgium ..	—	20000	32000	—	10000000	52000
Bolivia ..	—	—	60000	—	3750000	60000
Chili ..	51	—	—	—	54	51
Colombia ..	—	115100	—	—	4083600	115100
Costa Rica ..	58186	— (Report for 1897 only)			60017	58186
Denmark ..	55358	31987	—	5516	7051607	92861
Ecuador ..	—	186142	—	—	2140587	186142
Egypt ..	—	398293	33910	—	11248298	432203
France ..	20049774	1601760	—	129179	99916112	22180713
French Colonies, &c.	251184	4126485	64000	44810	49148452	4486479
Germany ..	20578618	1349363	218976	50001	215629188	22270931
German Colonies, &c.	—	43384	—	—	725782	43384
Holland ..	90643	270833	—	12916	24058771	374392
Dutch Asiatic Colonies, &c. ..	—	134583	—	192636	201230230	327219
Italy and Colonies	30666	333394	—	10077	19455358	374137
Japan ..	8277377	4092577	199012	—	139811233	12568966
Liberia ..	—	1719	—	2091	720960	3810
Lichtenstein ..	25	(Report for 1898 only)			30	25
Mexico ..	308017	13199553	—	20910	93698378	12415846
Monaco ..	80000	(Report for 1896 only)			20000	80000
Morocco ..	—	427409	—	—	12953191	427409
Muscat ..	(Report for 1898 only)			17442	16744000	17442
Norway ..	—	86110	—	5556	10600000	91666
Portugal ..	—	568889	—	2577	7440000	571466
Peru ..	40103	669216	—	—	7086596	609319
Pudukoto ..	(Report for 1897 only)			347	1000000	347
Russia ..	94956392	23988467	—	575696	659536683	119520565
San Domingo ..	—	284828	41666	—	11629118	326494
Siam ..	—	—	173412	10000	22216960	183412
Spain ..	599048	1393597	—	—	9179599	1992645
Sweden ..	348263	298383	—	12454	24628248	659105
Switzerland ..	960000	48000	28000	1600	12700000	1037600
Turkey ..	474832	180377	—	—	14387015	655209
United States ..	40658346	10886252	410050	286477	284261799	52241125
Total (Foreign)..	204661785	67757575	1261026	1496609	2338507187	274557446
Total ..	239928949	81160311	1261526	2057530	3084664564	323888772

(*a*) Including Gold Coins struck at the Australian Branch Mints.

No reports from China, Brazil, Greece, Persia, South African Republic, Argentina, Congo State, Guatemala, Haiti, Servia, and Uruguay.

The coinage of the World, for 1897 and 1898, has been much larger than in any previous year. The quantity of gold coined in Russia, France and the United States has been considerably above the average. In Russia the gold coinage has risen, from £1,497 in 1896, to the colossal amount of £69,034,837 in 1898.

SUMMARY.

Total Gold and Silver Coinage of the United States, France, and the United Kingdom, including the branch Mints from 1817 to 1898.

(We have not been able to secure the returns for Germany).

	Gold. £	Silver. £	Total. £
United States ...	389757802	180122966	569880768
United Kingdom ...	487437279	45473102	532910381
France	352897823	167509537	519407360

Total Value of Gold and Silver Coinage of Six of the principal Countries of the World, from 1873 to 1898.

	Gold. £	Silver. £	Total. £
United States ...	237218004	330775271	567993275
United Kingdom ...	220073046	23326309	243399355
Russia	181005804	37904503	218910307
Germany	142571551	19190543	161762094
British India ...	255570	148562548	148818118
France	66149029	16865485	83014514

Gold and Silver Coinage of Six of the principal Countries of the World for 1898.

	Gold. £	Silver. £	Total. £
Russia	69034837	7404455	76439292
United States ...	13465597	3434497	16900094
United Kingdom ...	13902748	1274065	15176813
Germany ...	8965355	778277	9743632
Japan	8029252	1042334	9071586
France	7093062	1600000	8693062

1896 and 1897 Re-coinage of the Gold and Silver of the World.

1896	Gold	£3050615	Silver	£4982255
1897	,,	£29324434	,,	£2843326

In 1896 there was no Gold re-coined in Russia, in 1897 they re-coined over 25½ millions sterling of Gold.

During the reign of Queen Victoria there has been up to the end of 1898 about £360,000,000 of Gold Coins issued from the Royal Mint and its branches in Australia.

There are at present in active circulation not less than £100,000,000; in the banks and private hoards probably another £100,000,000; the remainder has most likely been lost in the sea, worn out, exported, and used in the arts.

A Summary of the Value of the Imports and Exports of Gold and Silver Coin and Bullion to and from the principal Countries of the World for a series of years.

Years.	Countries.	GOLD. Imports.	Exports.
		£	£
1825 to 1898	United States ...	246508212	440354452
1825 — 1897	Cape Colony ...	16981243	56057568
1881 — 1885	China	34122360	41557708
1872 — 1897	Japan	11276092	17579689
1851 — 1897	Australasia ...	8412942	345420661
1858 — 1897	Great Britain ...	726553837	599481826
1835 — 1898	India	182622072	33147330
1815 — 1897	France	1257749129	921389645
1852 — 1894	Belgium ...	88666582	82229076
1878 — 1897	Switzerland ...	17722275	8743872
1862 — 1897	Italy	18178841	22205845
1869 — 1897	Portugal ...	24203093	9809328
1859 — 1897	Austria-Hungary	105495237	39915669
1851 — 1897	Netherlands ...	55337132	30036263
1871 — 1897	Russia	99163956	84447289
		SILVER.	
		£	£
1821 — 1898	United States ...	152251066	241688074
1825 — 1897	Cape Colony ...	1187005	592145
1881 — 1885	China	35523582	28744252
1872 — 1897	Japan	41721391	37284561
1858 — 1897	Great Britain ...	425711026	418285836
1835 — 1898	India	453479606	74756131
1815 — 1897	France	508357796	364380555
1852 — 1894	Belgium ...	18625182	4159994
1878 — 1897	Switzerland ...	26122640	13556907
1878 — 1897	Italy	30335973	24463974
1869 — 1897	Portugal ...	2478059	1891838
1859 — 1897	Austria-Hungary	41892011	47703300
1872 — 1897	Germany ...	34667624	49794482
1851 — 1897	Netherlands ...	7256620	4984609
1871 — 1896	Russia	55849537	16237803
		GOLD AND SILVER.	
		£	£
1871 — 1895	Spain	48379983	9218337
1871 — 1897	Scandinavian Union	21487726	11623237
1879 — 1897	Mexico	141124595	——
1881 — 1896	Argentina ...	29546414	16626459
1873 — 1895	Chili	3334919	25913960

Weight and Value of the Registered Imports of Gold Coin and Bullion into the United Kingdom in 1894 and 1895.

(It will be seen from this table that nearly one million ounces of Gold Coin more than bullion was imported in two years).

Countries.	Imports of Gold. British Coin. 1894. ounces.	British Coin. 1895. ounces.	Foreign Coin. 1894. ounces.	Foreign Coin. 1895. ounces.	Bullion. 1894. ounces.	Bullion. 1895. ounces.
Germany	70119	79942	7928	25652	1236	2924
Holland...	207632	35100	6	102564	210	23399
Belgium	83802	239001	444	32	——	23248
France ...	74748	219215	15574	80855	167703	42135
Portugal, Azores and Madeira	201069	122384	22911	10788	3252	58
Spain and Canaries	4550	9697	5799	6339	23	124
Gibraltar	2144	2607	1700	2231	45	53
Malta ...	10762	8364	——	——	——	260
Turkey ...	386	924	——	——	6	37
Egypt ...	266269	310917	——	——	——	21476
West Coast of Africa	3657	2997	6996	7609	30326	34916
British South Africa	16869	765	522	313	1974123	2280191
China ...	29621	12280	126487	131542	371708	141125
Australasia	1041370	1178883	747	361	208944	327929
British North America	2580	——	——	92	——	77
Mexico, West Indies and South America (except Brazil)	11329	25172	7467	23441	320339	313893
Brazil ...	21323	8870	26352	5494	20851	50724
United States	8127	3672	796241	2725360	26920	149310
British E. India	53223	23649	13	319	815257	488059
Other Countries	9843	10074	95295	67660	3505	16678
Total ozs.	2111423	2294513	1114482	3190652	3944448	3916616
Value	£8089237	8694548	4234106	12025006	14562820	14825083

N B.—During the year 1896, the amount of Gold exported from America to Europe was £9,484,282, made up as follows:—£5,815,815 United States Coin, £3,414,201 Mint and Assay Office Bars, £254,266 Foreign Coin.

Average Price of Gold per ounce, 916⅔ fine, in London, from 1870 to 1898.

	£ s. d.		£ s. d.		£ s. d.
1870	3 17 9·01	1880	3 17 9·15	1890	3 17 9·44
1871	3 17 9·01	1881	3 17 9·35	1891	3 17 9·29
1872	3 17 9·24	1882	3 17 9·43	1892	3 17 9·17
1873	3 17 9·28	1883	3 17 9·18	1893	3 17 9·57
1874	3 17 9	1884	3 17 9·32	1894	3 17 9·33
1875	3 17 9·23	1885	3 17 9·17	1895	3 17 9·03
1876	3 17 9·30	1886	3 17 9·10	1896	3 17 10·16
1877	3 17 9·30	1887	3 17 9·01	1897	3 17 11·23
1878	3 17 9·42	1888	3 17 9·21	1898	3 17 10·39
1879	3 17 9·41	1889	3 17 9·04	1899	3 17 9·40

	£	s.	d.
The Mint price of Standard Gold (916⅔ fine) is ...	3	17	10½
The Bank price „ „ „ ...	3	17	9
Mint price per ounce of Foreign Gold Coins (·900 fine)	3	16	6

A Gold Ingot is a bar of Gold not exactly square about the size of a small brick. Those sent by the Bank of England to the Mint for coinage weigh on an average 400 ounces troy. Fine ingots are nearly pure Gold (·999), the coarser bars contain on an average about ·898 parts of pure Gold.

The Silver Bars purchased by the Mint authorities for coinage weigh on an average 1000 ounces (995 fine).

Gold and Silver in a pure state are too soft to be used for money. When two metals are mixed together the compound is harder than either of them in a pure state.

American Gold Coins are freely Exported.

From the 1st of January, 1870, to the 1st of October, 1897, there were exported from America (mostly to Europe) £158,296,501 of Gold coin. Amount re-imported, only £41,345,849. Nett exports for the period, £116,950,652.

Miscellaneous Returns relating to the Silver Currency.

Annual Average London Market and Mint Purchase Price of Silver, with the corresponding Rate of Seignorage, and payments into the Exchequer in respect of profit on the Silver Coinage from 1870 to 1898 inclusive.

Year.	Commercial Ratio.	Average Price per standard ounce paid by the Mint.	Rate of Seignorage.	Profit on Silver Coinage paid into the Exchequer.		
	Pence.	Pence.	Per Cent.	£	s.	d.
1870	15·57	60$\frac{1}{2}$	9·09	9027	17	9
1871	15·57	60$\frac{7}{16}$	9·20	55067	19	4
1872	15·63	60$\frac{5}{16}$	9·43	77391	12	10
1873	15·92	58$\frac{13}{16}$	12·22	85680	10	2
1874	16·17	58$\frac{3}{4}$	12·34	101120	0	0
1875	16·59	56$\frac{7}{8}$	16·04	20306	10	4
1876	17·88	No silver bullion bought.		52286	2	0
1877	17·22	56$\frac{1}{16}$	17·72	31439	2	11
1878	17·94	50$\frac{1}{16}$	31·83	22268	15	6
1879	18·40	52$\frac{7}{8}$	24·82	32208	19	5
1880	18·05	52$\frac{1}{8}$	26·62	54098	11	7
1881	18·16	51$\frac{13}{16}$	27·38	118002	5	5
1882	18·19	51$\frac{1}{2}$	28·15	79257	15	6
1883	18·54	50$\frac{3}{4}$	30·05	165191	12	8
1884	18·57	50$\frac{1}{2}$	30·69	118102	15	8
1885	19·41	48$\frac{9}{16}$	35·91	95311	9	1
1886	20·78	46$\frac{9}{16}$	41·74	123865	15	1
1887	21·13	44$\frac{5}{8}$	47·90	116551	5	10
1888	21·99	42$\frac{15}{16}$	53·71	191436	2	0
1889	22·10	42$\frac{13}{16}$	54·16	578353	0	9
1890	19·76	48$\frac{11}{16}$	35·56	563414	7	8
1891	20·92	45$\frac{5}{16}$	45·65	253387	6	10
1892	23·72	39$\frac{13}{16}$	65·78	215136	10	7
1893	26·49	36$\frac{5}{16}$	81·75	370456	3	11
1894	32·56	29$\frac{1}{4}$	125·64	343645	2	4
1895	31·60	30$\frac{3}{8}$	117·28	403902	18	6
1896	30·66	30$\frac{5}{16}$	117·73	476866	17	4
1897	32·29	27$\frac{7}{8}$	136·77	563706	13	6
1898	34·14	27$\frac{1}{4}$	142·20	602565	17	0

The highest price of Silver during this century was in 1859, when the average price was 62$\frac{1}{16}$ pence per ounce. The lowest average price was in 1898. The lowest point reached hitherto was on the 26th of August and the 2nd of September, 1897, viz.: 23$\frac{3}{4}$ pence per ounce.

Commercial Ratio of Silver to Gold, from 1257 to 1898.

(NOTE.—This table has been taken from a number of different sources, including Dr. A. SOETBEER'S, and PIXLEY and ABELL'S).

Years.	Ratio.	Years.	Ratio.	Years.	Ratio.	Years.	Ratio.	Years.	Ratio.	Years.	Ratio.
1257..	9·29	1750..	14·55	1785..	14·92	1814..	15·04	1842..	15·87	1870..	15·57
1312..	10 07	1755..	14·68	1786..	14·96	1815..	15·26	1843..	15·93	1871..	15·57
1344..	12·59	1758..	14 85	1787..	14·92	1816..	15·28	1844..	15·85	1872..	15·63
1354..	11·03	1759.	14·15	1788..	14·65	1817..	15·11	1845..	15·92	1873..	15·92
1465..	11·02	1760..	14 14	1789..	14·75	1818..	15·35	1846..	15·90	1874..	16·17
1527..	11 02	1761..	14·54	1790..	15 04	1819..	15·33	1847..	15·80	1875..	16·59
1545..	6 09	1762..	15·27	1791..	15 05	1820..	15·62	1848..	15·85	1876..	17·88
1546..	5	1763..	14 99	1792..	15·17	1821..	15 95	1849..	15·78	1877..	17·22
1550..	5 02	1764..	14 70	1793..	15 00	1822..	15·80	1850..	15·70	1878..	17·94
1551..	4 8	1765..	14·83	1794..	15 37	1823..	15 84	1851..	15·46	1879..	18·40
1552..	2·3	1766..	14 80	1795..	15 55	1824..	15·82	1852..	15·59	1880..	18·05
1606..	12·2	1767..	14 85	1796..	15·65	1825..	15·70	1853..	15·33	1881..	18·16
1612..	13 4	1768..	14·80	1797..	15·41	1826..	15·76	1854..	15·33	1882..	18·19
1661..	14·5	1769..	14·72	1798..	15 59	1827..	15·74	1855..	15·38	1883..	18·64
1662.	10 9	1770..	14·62	1799..	15·74	1828..	15·78	1856..	15 38	1884..	18·57
1663..	14·48	1771..	14·66	1800..	15 68	1829..	15 78	1857..	15·27	1885..	19·41
1687..	14 94	1772..	14·52	1801..	15·46	1830..	15·82	1858..	15 38	1886..	20 78
1690..	15·02	1773..	14·62	1802..	15·26	1831..	15·72	1859..	15·19	1887..	21·13
1695..	15 02	1774..	14·62	1803..	15·41	1832..	15·73	1860..	15·29	1888..	21·99
1700..	14 81	1775..	14 72	1804..	15 41	1833..	15·93	1861..	15 50	1889..	22·10
1705..	15·11	1776..	14 55	1805..	15 79	1834..	15 73	1862..	15 35	1890..	19·76
1710..	15 22	1777..	14·54	1806..	15·52	1835..	15 80	1863..	15·37	1891..	20·92
1715..	15 11	1778..	14·68	1807..	15 43	1836..	15·72	1864..	15·37	1892..	23·72
1720..	15 04	1779..	14 80	1808..	16 08	1837..	15·83	1865..	15·44	1893..	26·49
1725..	15 11	1780..	14 72	1809..	15·96	1838..	15·85	1866..	15·43	1894..	32·56
1730..	14 81	1781..	14·78	1810..	15·77	1839..	15 62	1867..	15·57	1895..	31·60
1735..	15·41	1782..	14·42	1811..	15 53	1840..	15·62	1868..	15·59	1896..	30·66
1740..	14 94	1783..	14 48	1812..	16·11	1841..	15·70	1869..	15·60	1897..	32·29
1745..	14·98	1784..	14·70	1813..	16·25						

Speaking of ratios, Mr. John Henry Norman says: Before 1873 this ratio fluctuated round 15½ parts of silver to 1 part of gold, due to the very unscientific attempt to make one permanent measure of value out of two substances which were always varying in relative cost of production. That the Mint arrangements of the world were of such a nature as to hold these substances for currency purposes at about this relation, the writer has never doubted; but the effect of it was to confer a monopoly value upon silver to the enrichment of the silverites, and at the cost of the rest of the world. On the closure of the Mints of Europe against the reception of silver from the public this ratio became higher, and on the closure of the British Indian Mints against silver from the public and the imposition of a 5 per cent.

duty on silver imported into British India, the ratio became much higher, until to-day (1896) at 31·63 parts of silver to 1 part of gold. But this is not the highest which is to be expected. It is very probable that the natural ratio between the two metals is near to 60 parts of silver to 1 part of gold. This daily ratio between the metals is one of the most important pieces of information the commercial world can possess. The ratio can be easily ascertained from the gold price of silver. The mode is simply the division of a constant 942·9955 in the British Isles by the price of silver of the day in pence, and the result is the ratio.

Value or Stock of Gold and Silver Coins in France, 1897.

(25 Francs equals £1).

M. de Folville has published some interesting articles in the *French Economist*, the leading economical journal in France, on the existing stock of gold and silver coin in that country, and his conclusions are summed up as follows :—

Probable value of gold and silver coin now in France.

	French.	Foreign.	Total.
	Francs.	Francs.	Francs.
Gold coin ...	3,675,000,000 ...	525,000,000 ...	4,200,000,000
Five-franc pieces	1,380,000,000 ...	555,000,000 ...	1,935,000,000
Silver token pieces	205,000,000 ...	35,000,000 ...	240,000,000
	5,260,000,000 ...	1,115,000,000 ...	6,375,000,000

It will be seen that the estimate of gold coin far exceeds in value the amount believed to be held in this country—and that the number of five-franc pieces is taken at a much lower figure than is adopted by some public writers on currency. In connection with the gold coinage, the pieces which are of legal-tender are those of 100 francs, of 50 francs, of 40 francs, of 20 francs, of 10 francs, and of 5 francs. But few pieces of the first two denominations are now struck, and none of 40 francs have been struck since 1839, nor of 5 francs since 1869. The issue of 10-franc pieces has also been almost entirely discontinued since the latter year It follows that the 20-franc piece is almost exclusively the gold coin struck at the present day in the Paris Mint.

Coinage of the Mints of the United States, from their organisation, 1792 to June 30th, 1898.

DENOMINATIONS.	NUMBER OF PIECES.	VALUE. £
GOLD.		
Double eagles (20 Dollars)	69223625	276894500
Eagles	28451290	56902580
Half eagles	46410076	46412076
Three dollar pieces to Sept. 26th, 1890 (more since)	539792	323425
Quarter eagles (2½ Dollars)... ...	11527732	5763866
Dollars to Sept. 26th, 1890 ...	19499337	3899867
Total Gold	175651852	£390196314
SILVER.		
Dollars to Feb. 12th, 1873. Resumed February 28th, 1878	470027760	94005552
Trade Dollars	35965924	7193185
Half dollars	272854042	27285404
Half dollars Columbian Souvenir ...	5002105	500210
Quarter dollars	220159808	11007990
Quarter dollars Columbian Souvenir	40023	2001
Twenty cent pieces to May 2nd, 1878	1355000	54200
Dimes	308726919	6174538
Half dimes to Feb. 12th, 1873 ...	97604388	976044
Three cent pieces to Feb. 12th, 1873	42736240	256417
Total Silver	1454472209	£147455541
MINOR.		
Five cent pieces (nickel)	317056438	3170564
Three cent pieces (nickel) to Sept. 26th, 1890	31378316	188269
Two cent pieces (bronze) to Feb. 12th, 1873	45601000	182404
One cent pieces (copper) to Feb. 21st, 1857	156288744	312577
One cent pieces (nickel) to Apl. 22nd, 1864	200772000	401544
One cent pieces (bronze)	898731744	1797463
Half cent pieces (copper) to Feb. 21st, 1857	7985222	7788
Total Minor	1657813464	6060609
Total Coinage	3287937525	£543712464

Table showing the successive Depreciations of the Gold and Silver Coinage of England, from 1344 to 1897

Year.	SILVER. Fineness.	SILVER. Alloy.	SILVER. Mint Price of 11lb.	GOLD. Fineness.	GOLD. Alloy.	GOLD. Mint Price of 11lb.	Ratio Gold to Silver.
	oz. dwt.	oz. dwt.	£ s. d.	c'r'ts grns.	c'r'ts grns.	£ s. d.	
1344	11 2	0 18	1 2 2	23 3½	0 0½	15 0 0	1 to 12·58
1345	11 2	0 18	1 2 2	23 3½	0 0½	13 3 4	1 — 12·58
1346	11 2	0 18	1 2 4	23 3½	0 0½	——	1 — 11·57
1347	11 2	0 18	1 3 3	23 3½	0 0½	13 3 4	1 — 11·57
1352	11 2	0 18	1 5 0	23 3½	0 0½	15 0 0	1 — 11·15
1412	11 2	0 18	1 10 0	23 3½	0 0½	16 13 4	1 — 10·33
1464	11 2	0 18	1 17 6	23 3½	0 0½	20 16 8	1 — 11·15
1465	11 2	0 18	1 17 6	23 3½	0 0½	22 10 0	1 — 11·15
1526	11 2	0 18	2 5 0	22 3½	1 0½	25 2 6	1 — 11·26
1543	10 2	1 18	2 8 0	22 3½	1 0½	25 2 6	1 — 10·43
1545	6 2	5 10	2 8 6	22 3½	1 0½	25 2 6	1 — 6·81
1546	4 2	7 18	2 8 6	——	——	——	1 — 5
1547	4 0	8 0	2 8 0	——	——	30 0 0	1 — 5
1549	6 0	6 0	4 16 0	——	——	34 0 0	1 — 5·15
1550	3 2	8 18	4 16 0	——	——	28 16 0	1 — 4·82
1552	11 1	0 19	——	——	——	——	1 — 2·41
1553	——	——	2 16 6	22 0	2 0	36 0 0	1 — 11·01
1577	11 2	0 18	3 0 3	22 0	2 0	36 1 10½	1 — 10·82
1601	11 2	0 18	3 2 0	——	——	36 10 0	1 — 10·82
1604	11 0	1 0	4 2 6	22 0	2 0	36 10 0	——
1605	11 2	0 18	4 2 6	——	——	40 10 0	1 — 12·10
1611	11 2	0 18	4 2 6	22 0	2 0	44 11 0	1 — 12
1612	11 2	0 18	3 2 6	22 3½	1 0½	40 18 4	1 — 13·31
1623	11 2	0 18	3 5 6	22 3½	1 0½	41 0 0	1 — 13·34
1626	11 0	1 0	——	22 3½	1 0½	44 0 0	1 — 13·34
1670	——	——	3 2 0	22 0	2 0	44 10 0	1 — 14·48
1718	11 0	1 0	3 2 6	22 0	2 0	44 14 6	1 — 15·20
1817	——	——	3 6 0	22 0	2 0	44 14 6	1 — 14·28
1897	11 2	0 18	3 6 0	22 0	2 0	44 14 6	1 — 14·28

The Coinage of Silver in the Principal Countries of the World, from 1851 to 1898.

Period.	Amount. £	Period.	Amount. £
1851 — 1855	4356161	1876 — 1880	16550530
1856 — 1860	8780201	1881 — 1885	10667160
1861 — 1865	6734533	1886 — 1890	13744309
1866 — 1870	11159153	1891 — 1895	15488445
1871 — 1875	13213760	1896 — 1898	81400321

If we compare the silver coinage of the principal countries during the twenty years previous to 1873 and the twenty years subsequent, we find the following results:

1853 — 1872, amount of silver coined in the World, £172,866,445. Yearly average, £8,643,322.

1873 — 1892, amount coined £275,428,118. Yearly average, £13,771,406. Thus the total silver coinages of the principal countries during the twenty years subsequent to 1873 have been over 62 per cent. greater than the silver coinages during the twenty years previous thereto.

The estimated Value of all the Metallic Money in the World.

In the United States Mint Report, it is stated that there is in the World nearly £2,000,000,000 of metallic money. The gold in use as money, £920,000,000; current value of silver money in use, £867,000,000; and current value of nickel, copper and bronze coins, £180,000,000. The annual cost of maintaining the gold and silver circulation of the World is said to be upwards of 50 millions sterling.

Weight and Size of all the Gold Coin in the World.

If the Gold Currency of the World (£920,000,000) were cast into one block, it would measure a little over 7 cubic yards, and weigh a little over 7,260 [illegible] tons avoirdupois.

Melting Foreign Gold Coin.

All foreign gold coin received at the Mints and Assay Offices in America is melted and assayed before payment is made in United States gold coin. In case of large importations of gold it frequently occurs that large sums of foreign gold coin forms a

part of such importations. These coins are deposited at the Assay Office at New York and at San Francisco, and, though they may be new, are immediately melted. Both the Bank of England and the Bank of France, in case of the importation of American gold coin into these countries, purchase the same by weight and carry the amount as part of the bank's gold assets. When gold is required for exportation to the United States the demand is, as far as practicable, met by the Banks of France and England selling United States gold coin. As the coins are received and paid out by weight, little or no loss occurs. The authorities of the United States Mints are seeking to have the law altered so as to be in a similar position as France and England; this would result in a saving to the Government of America the expense of coining, and in the case of deposits at the New York Assay Office the additional cost of shipping the bullion resulting from the melting of such coins to the Mint at Philadelphia for conversion into coin.

The Division of Standard Coins.

The ounce itself is the proper starting point. An ounce troy of standard gold (440 grains of pure gold) is coined into $3\frac{239}{480}$ sovereigns, which amount, expressed in terms of currency, is £3 17s. 10½d., and this in ordinary language is called the price of an ounce of gold. In other words, an ounce of standard gold and £3 17s. 10½d. are equal terms. It is stated in the Coinage Act of 1870 that there should be 934 sovereigns and one half-sovereign contained in twenty pounds weight troy of standard gold, 22 carats fine (916⅔). Therefore, forty pounds or 480 ounces of standard gold in England equals 1869 sovereigns (these figures are so stated because they are without fractions); in France a kilogram, 900 fine gold equals 3100 francs; in Germany (new law) the Mint pound fine gold—one-half kilogram—equals 465 thalers or 1395 marks (a kilogram is 1000 grams or 15,432·32 grains); in America 43 ounces of standard gold, 900 fine, equals 800 dollars. In the First Schedule to the Coinage Act, 1870, the metric weight of all English coins are given, which is a great convenience when we have to compare them with foreign coins. Previous to 1816 guineas were the principal gold coins of the country, and 44½ guineas were equal to one pound Troy of standard gold, and now £46 14s. 6d. is equal to one pound of standard gold. Another mode of estimate is that 701 sovereigns weigh almost exactly 15 pounds Troy.

Monetary Systems and Approximate Stocks of Money of the

	COUNTRIES.	Monet'ry System or Standard.	Fineness 1000 Pure Metal.	Monetary Unit.	Weight of Monetary Unit.			Value in Sterling.	
					Total Troy Grains when issued.	Grains of Pure Metal.	Grams of Pure Metal.	Current.	Metal.
								s. d.	s. d.
1	United States .. .. *m* *	Gold	900	Dollar	25·8	23 22	1·50	4 1½	4 1½
2	United Kingdom .. *m*	,,	916⅔	Sovereign	123·27	113	7·32	20 0	20 0
3	France .. .. .. *m* *	,,	900	Franc	4·98	4·48	·29	9½	9½
4	Germany .. .. *m*	,,	900	Mark	6·14	5·53	·35	11⅞	11⅞
5	Belgium .. .. *m* *	,,	900	Franc	4·98	4·48	·29	9½	9½
6	Italy .. .. *p m* *	,,	900	Lira	4·98	4·48	·29	9½	9½
7	Switzerland .. .. *m* *	,,	900	Franc	4·98	4·48	·29	9½	9½
8	Greece .. .. *p* *	,	900	Drachma	4·98	4·48	·29	9½	9½
9	Spain .. .. .. *m* *	,,	900	Peseta	4·98	4·48	·29	9½	9½
10	Portugal .. .. *m*	,,	916⅔	Milreis	27·36	25·08	1·62	4 5	4 5
11	Roumania .. .. *	,,	900	Lei	4·98	4·48	·29	9½	9½
12	Servia .. .. .. *	,,	900	Dinar	4·98	4·48	·29	9½	9½
13	Austria-Hungary *p m*	,,	900	Crown	5·22	4·70	·30	10	10
14	Netherlands .. .. *m* *	,,	900	Florin	10·37	9·34	·60	1 7½	1 7½
15	Norway	,,	900	Crown	6·91	6·22	·40	1 0½	1 0½
16	Sweden	,,	900	,,	6 91	6 22	·40	1 0½	1 0½
17	Denmark .. .. *m*	,,	900	,,	6·91	6·22	·40	1 0½	1 0½
18	Russia .. .. *p m*	,,	900	Ruble	19·91	18·51	1·19	3 2	3 2
19	Turkey .. .. *m*	,,	916⅔	Pound	111·36	102·08	6·61	18 1	18 1
20	Australasia .. .. *m*	,,	916⅔	Sovereign	123·27	113	7·32	20 0	20 0
21	Egypt .. .. .. *m*	,,	875	Pound	131·17	114·77	7·43	20 3½	20 3½
22	Mexico .. .. .. *s m*	Silver	902	Dollar	417·79	377·05	24·43	4 2	1 9
23	Central American States *m*	,,	900	Peso	385·80	347·2	24 26	4 0	1 7¼
24	South American States *m*	,,	900	Sal	385 80	347·2	24·26	4 0	1 7¼
25	Japan .. .. .. *m*	Gold	900	Yen	25·70	23·14	1·5	4 1¼	4 1¼
26	India .. .. .. *m*	Silver	916⅔	Rupee	180	165	10·69	1 4	9
27	China .. .. .. *m*	,,	898	Tael	580	378	24·43	4 0	1 9
28	Straits Settlements ..	,,	900	,,	415·96	374·39	24·53	4 2	1 9
29	Canada	Gold	916⅔	Sovereign	123·27	113	7 32	20 0	20 0
30	Cuba .. .. *p* *	,,	900	Peseta	23·65	21·50	1·39	3 9¾	3 9¼
31	Haiti .. .. .. *	,,	900	Goarde	24·89	22·40	1·45	4 0	4 0
32	Bulgaria .. .. *	,,	900	Lev	4·98	4·48	·29	9½	9½
33	Siam	Silver	906¼	Tical	236	177	11·52	2 6	11
34	Hawaii .. .. .. *	Gold	900	Dollar	25·8	23·22	1·50	4 1½	4 1½
35	Cape Colony	,,	916⅔	Sovereign	123·27	113	7·32	20 0	20 0
36	South African Republic	,,	916⅔	,,	123·27	113	7·32	20 0	20 0
37	Finland .. .. *p*	,,	900	Mark Kaa	4·98	4·48	·29	9½	9½

*—Both gold and silver are unlimited legal tender.

m—That the country possesses a mint.

s—That the mint is open to the unlimited reception of silver only.

p—These countries have an inconvertible paper currency.

in the aggregate and per head in the principal Countries World.

	Ratio between Gold and Silver.	Population. Milli'ns	Approximate Stocks of Money, January 1st, 1898.		Uncovered Paper.	Per Head.		
			Gold.	Silver.		Gold.	Silver.	Paper.
			£	£	£	£ s. d.	£ s. d.	£ s. d.
1	1 to 16	74½	185020000	127640000	65220000	2 11 3	1 15 4	18 10
2	1 — 14½	40	87600000	24340000	22400000	2 5 4	12 6	12 6
3	1 — 15½	38½	162120000	83960000	24520000	4 6 6½	2 5 0	13 4
4	1 — 14	52¼	133700000	42560000	26440000	2 12 9	16 9½	16 6½
5	1 — 15½	6½	6000000	9000000	15820000	19 1	1 8 5	2 12 2½
6	1 — 15½	31¼	19300000	8500000	33900000	12 5	5 7½	1 2 4
7	1 — 15½	3	4800000	2140000	2860000	1 13 0	14 8½	19 8½
8	1 — 15½	2½	100000	300000	6120000	10½	2 7	2 12 7
9	1 — 15½	18	9100000	9960000	27500000	10 5½	11 5	1 11 6½
10	1 — 14	5	1040000	1220000	7400000	4 2	5 0	1 11 6½
11	1 — 15½	5½	2900000	2120000	6740000	11 1½	8 2	1 5 9
12	1 — 15½	2¼	240000	540000	540000	2 2	4 10	4 10
13	1 — 13½	45½	45540000	29100000	17240000	1 0 8	13 0	7 10½
14	1 — 15⅝	5	4480000	11220000	9100000	18 5½	2 7 3	1 18 3½
15	1 — 14½	2	1540000	460000	760000	16 1½	4 9	7 10½
16	1 — 14½	5	1720000	1140000	5540000	7 1½	4 8½	1 2 10½
17	1 — 14¾	2¼	3060000	1080000	1400000	1 7 5½	9 8½	12 6½
18	1 — 15½	129¼	151320000	25680000		1 4 2½	4 1½	
19	1 — 15⅝	24	10000000	8000000		2 3	6 10½	
20	1 — 14½	5	26420000	1400000	4500000	5 9 0	5 9½	18 7
21	1 — 15¾	9¾	6000000	1280000		12 5	2 9	
22	1 — 16½	13	1720000	21200000	800000	2 9½	1 13 7½	12 8
23	1 — 15½	3¼	260000	3800000	1680000	1 8½	1 3 9½	10 6
24	1 — 15½	37½	15500000	7000000	150120000	8 6½	3 10½	4 2 6½
25	1 — 32⅔	45	15980000	12080000		7 4	5 6½	
26	1 — 15	297		118400000	23460000		8 3	1 8
27		383½		150000000			8 11½	
28	1 — 15	4		48400000			12 8 2½	
29	1 — 14½	5¼	3200000	1000000	7000000	12 5	3 11½	1 7 3
30	1 — 15½	1¾	4000000	300000		4 7	3 5½	
31	1 — 15½	1	800000	900000	820000	16 6	18 7	16 11
32	1 — 15½	3¼	200000	1360000		1 3	8 6	
33		5	4000000	38680000		16 6	7 14 10	
34	1 — 16	1/10	800000	200000		8 5 0	2 1 3	
35	1 — 14½	1¾	7500000	200000		4 6 0	2 3½	
36	1 — 14½	1	5840000	240000		6 9 10	5 6	
37	1 — 15½	2½	860000	80000	1850000	6 10	7½	14 11½

Situation of the Principal Banks of Issue on June 30th, 1898.

[From the *Bulletin de Statistique*, Paris, July, 1898, p. 94.]

Name of Banks.	Metallic reserve.	Analysis of the reserve.		Bills payable to bearer in circulation.
		Gold.	Silver.	
Germany:	*Francs.*	*Francs.*	*Francs.*	*Francs.*
Imperial Bank	1,010,900,000	... ...	... ...	1,582,400,000
Banks of issue	99,500,000	... ...	... ...	241,100,000
Bank of Austria-Hungary	996,700,000	731,400,000	241,100,000	1,344,600,000
National Bank of Belgium ...	107,100,000	... ...	... ...	481,200,000
National Bank of Bulgaria *a* ...	6,000,000	... ...	... ...	3,300,000
National Bank of Denmark ...	92,800,000	92,800,000	... ...	131,700,000
Bank of Spain	361,700,000	248,800,000	112,900,000	1,350,300,000
Bank of Finland	23,700,000	21,700,000	2,000,000	78,300,000
Bank of France	3,115,200,000	1,877,000,000	1,238,200,000	3,703,200,000
National Bank of Greece *a* ...	1,900,000	... ...	... ...	121,500,000
Italy:				
Bank of Italy *b*	354,300,000	301,500,000	52,800,000	755,000,000
Bank of Naples *b*	73,000,000	65,500,000	10,500,000	227,500,000
Bank of Sicily *b*	36,700,000	35,200,000	1,500,000	56,800,000
Bank of Norway *a*	44,000,000	44,000,000	... ...	85,500,000
Bank of the Netherlands	253,000,000	76,900,000	176,100,000	439,300,000
Bank of Portugal	75,000,000	26,900,000	48,100,000	336,800,000
National Bank of Roumania ...	61,600,000	56,700,000	4,900,000	155,100,000
United Kingdom:				
Bank of England	963,400,000	963,400,000	... ...	706,600,000
Banks of Scotland *c*	137,500,000	... ...	... ...	172,500,000
Banks of Ireland *c*	74,400,000	... ...	... ...	152,500,000
Imperial Bank of Russia	3,021,900,000	2,904,500,000	117,400,000	2,193,600,000
National Bank of Servia	13,300,000	3,900,000	9,400,000	29,900,000
Sweden:				
Royal Bank *a*	44,100,000	40,600,000	3,500,000	86,800,000
Private banks *a*	26,100,000	11,500,000	14,600,000	107,000,000
Swiss banks of issue *a*	104,000,000	92,800,000	11,200,000	200,400,000
Imperial Bank of Turkey *d* ...	48,600,000	... ...	... ...	18,000,000
Associated banks of New York ...	930,500,000	... ...	... ...	73,500,000

a Situation on May 31. *b* Situation on June 20. *c* Situation on March 19. *d* Situation on April 30.

MR. CHORLEY'S PLATE.—*See page* 165.

MONETARY SYSTEMS OF THE PRINCIPAL COUNTRIES OF THE WORLD.

(FROM THE UNITED STATES MINT REPORT.)

ARGENTINA.

The Argentine Republic had a very incoherent monetary system.

The law of November 5, 1881, retained the gold piaster, divisible into centavos as the monetary unit, but lowered its weight to 1·6189 grams, the exact weight of the French 5-franc gold piece. The same law definitively regulated the mintage of Argentine coins as shown below.

Argentine gold coins are full legal tender. Silver coins are legal tender only to the amount of 10 pesos, and bronze coins to the amount of 1 peso.

Since the 16th of July, 1883, all the accounts of the Government and banks are settled in national pesos or piasters. In 1884 the Argentine Republic had a metallic stock of 48,000,000 pesos, 22,000,000 of which were in circulation. While formally adopting the double standard, the Argentine law of 1881 restricted the coinage and use of silver as legal tender, and the metallic standard may, therefore, be said to be gold. The country, however, is frequently classed as a double-standard country.

The actual currency is depreciated paper, fluctuating greatly in value. Gold is quoted at so much premium; for instance, 180 premium—that is, $280 paper to $100 gold.

Gold is also quoted in paper pesos per ounce, and, indirectly, through the price of the sovereign, in paper pesos. Thus, if sovereigns are given at 16·48, the gold dollar is $\frac{16\frac{48}{100}}{5\cdot04} = 326\cdot98$ pesos, i.e., gold is 227 premium.

AUSTRIA-HUNGARY.

This country has been legally a country with the single silver standard, practically it has had no metallic money in circulation. For nearly 50 years it has had nothing but an irredeemable paper currency, issued by the National Bank. For a long series of years there was a premium on silver, but since the end of 1878 silver and paper have been at par.

The recent monetary reform of Austria-Hungary is intended to fix the relative value of the gold florin to the new gold coins; to determine the changes which have become necessary in the Bank Act; to authorise the Government to raise a gold loan. The new currency consists of gold, silver, nickel, and bronze coins. The gold coins provided for are: The 20 crown piece weighing 94·09 grains of pure gold, ·900 fine, and a 10 crown piece of 47·04 grains of pure gold. Besides the above coins there are to be coined as heretofore the Austrian gold ducats (trade coins).

The new silver coin is the crown piece weighing 64·42 grains of pure silver, ·835 fine. The ratio of gold to silver in the new system is 1 to 13·69. Silver is coined only on account of the State. Silver coins are unlimited legal tender to the State at their nominal value; to private parties, to the amount of 50 crowns. The monetary agreement between Austria and Hungary is to remain in force until the end of 1910. Agreements are to be made at a proper time for the regulations of the fiduciary circulation and the resumption of specie payments. Austria paper money remains in circulation provisionally. The paper florin is, like the silver florin, worth 2 crowns. The introduction of the coins (which consists of 200 million silver crowns) of the new system will be made by degrees, in the course of several years, during which time the coins of the old silver standard as well as the State notes will remain current. The coins of the new system, multiplied by two, are of the same value as the pieces of the old silver and paper currency.

BOLIVIA.

Bolivia has the single silver standard. The money of account of this country is the boliviano, or silver peso, weighing 347·22 grains of pure silver with a fineness of ·900, and therefore equivalent to the French 5-franc piece.

In consequence of the scarcity of the boliviano the legal coin has come to be the 20-centavo piece, weighing 62·5 grains of pure silver. The real monetary unit is, therefore, the $\frac{1}{5}$ of the boliviano, and all transactions are carried on on that basis. The banks redeem their notes in no other coin, and exchange on Europe is measured in terms of the boliviano. The coinage of gold has long been suspended, and the old onzas and escudos are no longer found in the country. The bank of Bolivia issues paper money redeemable on demand and generally on a par with silver.

BRAZIL.

In 1849 the gold standard was adopted by Brazil, and the new coinage consists of pieces of 20, 10, and 5 milreis in gold, and 2, 1, one-half, one-fifth, and one-tenth milreis in silver.

The 20-milreis piece in gold weighs 5 oitavas, or 17·929 grams or 276·695 grains troy. It is 916⅔ fine. This gives a "mint par" between Brazil and England of 1 milreis, 26·93 pence, and makes the pieces of 20 milreis £2 4s. 10d. The other gold pieces in proportion. English sovereigns are valued at 8,890 reis gold (or 1 milreis 27d).

The silver money is not legal tender beyond 20 milreis.

The present money is, however, inconvertible paper, fluctuating in its value. In 1867 this paper was at a discount of 50 per cent.; in 1868, 80 per cent. discount; in 1875 it stood nearly at par with gold, but then fell to a discount of 25 per cent. In 1889 it rose to par again, and efforts were made to sustain it there, but they had to be abandoned. The Republic sanctioned large issues of paper money by banks, in consequence of which the milreis fell, in 1892, to 10d., from which quotation it has, however, risen again.

One thousand milreis are called a "conto;" 1,000 contos a "conto de contos."

BRITISH INDIA.

The standard of this country is silver, and the monetary unit, the rupee, of the legal weight of 180 troy grains, fineness, 916⅔, and containing 165 grains of pure silver.

There has been no change in the weight, fineness, or legal-tender power of the silver coins of India during the last twenty years, or, indeed, since the law of August 17, 1835, which went into effect on September 1, 1835, establishing the present monetary system of that country, with the single silver standard. That law provided that the company rupee, the name which it introduced, should weigh a new East India thaler, or 180 grains, $\frac{11}{12}$ or 916⅔ fine; that is, it should contain 165 grains of pure silver.

The act of the governor-general in council, June 26, 1893, did not change the weight, fineness, or legal-tender power of the rupee, although it closed the Indian mints to the free coinage of silver from and after the date of its passage. Silver, however, will still be coined in India on Government account, and the Government holds itself ready to furnish new rupees to indivi-

duals, in exchange for gold, at the rate of 1 silver rupee for 16 pence in gold, or 15 rupees for 1 pound sterling (93½ rupees are manufactured out of one kilogram of pure silver).

The silver coins are the one rupee, one-half, one-quarter, and one-eighth rupee pieces, all of the fineness of the rupee, and proportional to it in weight. Large payments are estimated in lacs of 100,000 rupees and in crores of 100 lacs. The rupee and the one-half rupee are unlimited legal tender, provided the coins have not lost more than 2 per cent. in weight, and have not suffered in deterioration otherwise than by abrasion. The quarter rupee and the eighth rupee are legal tender only to the amount of fractional parts of the rupee.

The gold coins are: The mohur, or 15-rupee piece, the 10 and 5 rupee pieces, and the double mohur, or 30-rupee piece. The weight of the mohur is 180 grains troy, 0·916⅔ fine, and contains 165 grains of pure gold. The other gold coins are of the same fineness as the mohur and have a weight proportional to it. Gold is not legal tender in India. There is a coinage charge of 1 per cent. for gold. The ratio of gold to silver in coinage is 1 to 15.

No gold is used for currency in India, and the whole of the gold imported or produced, and not exported, is either hoarded or used in the arts and industries. There is no data from which it will be possible to estimate the quantity which is hoarded and that which is used in the arts and industries. But it may be said, generally, that but little is hoarded in the form of bars or ingots, most of the gold being made into ornaments and hoarded in that form.

In recent years the only coinage was in 1891-2, when 16,524 gold mohurs, nominal value £24,786, were executed at the Calcutta Mint, and 3 mohurs, 3 two-third mohurs, and 6 one-third mohurs were struck as samples at the Bombay Mint.

BULGARIA.

Bulgaria has the double standard.

The monetary system of Bulgaria was established by the law of May 27, 1880. The silver coins of the country are the same as those of France. The coinage of the 10 and 20 lev pieces provided for by that law, and which was to amount to 400,000 levs as a first issue, has not yet been made. In the meantime foreign gold coins have been officially rated as follows:—The sovereign, 20·00 levs; 20 German marks, 24·50 levs; 20 francs,

20·00 levs; the old imperial, 20·50 levs; the Turkish pound, 22·70 levs; the Austrian ducat, 11·60 levs.

The country has no mint; its silver pieces have been coined at St. Petersburg, Brussels, Kremnitz, and Birmingham.

CANADA.

The Dominion of Canada comprises the united Canadas, New Brunswick, Nova Scotia, Prince Edward Island, Newfoundland, and British Columbia with Vancouver Island. The money of the Dominion is a gold standard, based upon the legal value of the pound sterling, equal to $4·86\frac{2}{3}$, or $1 equal to 49·316 pence.

The country has no gold coin of its own; silver is legal tender to the amount of $10 and bronze coins to the amount of 25 cents.

The value of the English silver in circulation has been officially fixed as follows: The crown, or 5 shillings, 1·20 dols.; the one-half-crown, or $2\frac{1}{2}$ shillings, 0·60 dols.; the florin, or 2 shillings, 0·48 dols.; the shilling, 0·24 dols.; the one-half shilling, 0·12 dols.

CENTRAL AMERICA.

Since 1870 accounts in Costa Rica, Guatemala, Honduras, Nicaragua, and Salvador are kept in piasters, or silver pesos, that coin being the monetary unit.

COSTA RICA.

Costa Rica, by a law approved by the President of the Republic October 24, 1896, adopted the single gold standard. That law provides that the monetary unit shall consist of 12·06 grains of gold 0·900 fine, and shall be called the colon, and be divided into 100 centimos, all multiples of the colon to be coined in gold and all sub-multiples in silver.

The tolerance of fineness, over and under, shall be for gold coins 0·002 and for silver coins 0·003.

Gold coins are full legal tender; silver coins to the amount of 10 colons, and copper coins to the amount of 1 colon.

Gold is coined on private account on the payment of 1 per cent. when the bullion is 0·900 fine, and of an additional 1 per cent., for the expense of alloying and refining the bullion, when it is not of that fineness.

Silver is not coined on private account except on the approval of Congress.

The total amount of silver coined must not be over 20 per cent. of the value of the gold coined.

Foreign silver coins are not lawful money.

CHILE.

By the law of February 11, 1895, Chile introduced the gold standard, and inasmuch as that law provided that after the 1st of June, 1895, the State should redeem its treasury notes in gold on presentation, the country may now be said to be on the gold basis. The new monetary unit is the ideal gold peso of the weight of 9·24 grains, 0·916⅔ fine. No provision is made for the mintage of this coin. There are gold and silver coins in the new system.

CHINA.

SHANGHAI, HANKOW, TIENTSIN, CHEEFOO, &c.

The Chinese money of account is as follows: 10 cash or li, 1 candareen; 10 candareens or fun or fen, 1 mace; 10 mace or tsien, 1 tael or liang.

The lowest link of the chain alone, the cash or li,* is represented by an actual coin, whereas the candareen, the mace, and the tael are simply denominations denoting certain fixed weights of silver.

The Canton tael weight is 579·84 grains troy (37·573 grams), but is generally taken as equal to 580 grains troy † which would make 24 taels equal to 29 ounces troy. The multiplier for converting taels into ounces troy is, therefore, 1·208 or 1·208⅓, respectively. The mace weight is, accordingly, equal to 58 grains troy, the candareen weight to 5·8 grains troy, and the cash weight (in silver) to 0·58 grains troy.

But the cash or li is not a silver coin; it is made from an alloy of copper, iron and tin. It is a circular bit of metal, seven-eighths of an inch in diameter, with a square hole in the middle, round which are impressed, on the obverse, Chinese characters, stating the reign, &c.; on the reverse, Mantchu characters stating the name of the mint. These cash are cast in moulds. Originally they represented one-thousandth part of a tael, and nominally they continue to do so to the present day; but they have long since ceased to keep up a corresponding actual metallic value.

Many years ago they had already fallen from the nominal 1,000 per tael to 1,400. Since then their mintage depreciation has been making rapid progress. Some time ago it required from 1,600 to 1,800 of these coins to make up the value of a tael.

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*Called also zin, and, by the Dutch, pitjes.

†When the Chinese Government in 1844 fixed the rates at which foreign coins should be received in payment of customs duties, the weight of 20 new rupees in Canton taels was found to be 6·203. As 20 new rupees of 180 grains troy weigh 20×180=3,600 grains troy, this makes the weight of the Canton tael 580·036434 grains troy. It may, then, fairly be taken at 580 grains in round numbers.

The monetary unit—the tael—is in Shanghai a quantity of silver of the fineness of the Mexican dollar (about ·898), and weighing a tael, which would make 1 money tael equal 1·3937 dols., and 100 dols. equal 71·7517 money taels.

At Shanghai foreign accounts are kept and the quotations are given in taels. Generally, when converting taels into dollars, 100 dols. are taken to equal 717 taels, or 1 tael equals 1·395 dol.

Besides the Canton tael weight (37·573 grams), there is the Hai-Kwan tael, or Government tael which weighs 590·35 grains (38·246 grams), or 2 per cent. more than the Canton tael (100 Canton taels equal 98 Hai-Kwan taels).

At Shanghai there is another tael weight about 2½ per cent. lighter than the Canton weight, 36·56 grams (564·20 grains troy). It is used as weight for gold.

There are several local taels at the various ports in China differing greatly in value as compared with the Hai-Kwan or Government tael.

In large native transactions ingots of silver form the medium of exchange. These ingots are called shoes, from some fancied resemblance in shape. They range in weight from a half-tael to 100 taels.

The Shanghai currency consists of such shoes of silver of about 50 taels weight each. These ingots are rendered current by the hong koo, who assays the metal, and affixes to each ingot assayed by him a stamp recording its touch or degree of purity. The hong koo is not an official appointed by the Chinese Government, but derives his authority entirely through an arrangement among the native bankers. According to the stamp affixed by him on each shoe the campradores add from 0 up to 3 taels Shanghai weight per 50 taels of actual weight. This addition thus ranges from 0 for silver of the hong koo's standard up to 6 per cent. for pure silver of 100 toques or touch.* A further addition of 2 per cent. is made in conformity with an old custom of long standing. From these data it is easy to deduce the touch or purity of Shanghai sycee, or, more properly speaking, of sycee†

*The Chinese report the fineness of the precious metals by dividing the weight into 100 parts, called toques or touch— 98 touch means, accordingly, that the gold or silver ingot, &c., contains 98 parts of pure metal to 2 parts of alloy.

†By the Chinese this silver is called wăn-yin (fine silver , but in foreign commerce it is known as sycee, which is the colloquial pronunciation of the Chinese words se-se, meaning "fine silk," and implying accordingly that the silver is so pure that it might he drawn out to the finest silken thread wire. Sycee silver means simply, therefore, the "purest silver."

silver calculated in the actual weight represented by it in Shanghai taels of account.

COURSE OF EXCHANGE.

Shanghai receives from London, sight and four months' sight 3s. 10d. for 1 tael; Paris, sight and four months' sight, 4·90 francs for 1 tael; Germany, four months' sight, 3·95 marks for 1 tael; and Bombay and Calcutta demand 315 rupees for 100 taels. And gives New York, four months' sight, 105 taels for 100 dols.; Hongkong, telegraphic transfers and three days' sight, 27 per cent. discount, i.e., 73 taels for 100 dols.; Yokohama, telegraphic transfers and thirty days' sight, 74 taels for 100 dols.

Gold bars are quoted in taels currency per 10 taels, Shanghai weight, 98 touch fine (365·6 grams).

Silver bars 17 B are quoted in taels currency per 100 taels Canton weight.

Mexican and Carolus dollars are quoted in taels per 100 dols. *

CUBA.

The legal monetary system of Cuba is the same as that of Spain. As a matter of fact, however, accounts are kept in the colony in piasters of 8 reals, of 16 cuartos each.

The metallic circulation is composed chiefly of the gold coins, and of the piasters of Spain and its subdivisions, of Mexican pesos, and American dollars.

Domestic transactions are carried on mainly in paper piasters with forced currency.

COLOMBIA.

The Republic of Colombia is generally classed among the countries that have the single silver standard, although its currency consists almost exclusively of paper money, divisional silver coin, and nickel coins.

ECUADOR.

Ecuador has at present the single silver standard. Up to 1884 the currency of Ecuador consisted of the coins of the neighbouring countries. Since 1884 a national currency has been introduced, with the sucre or pesos, 0·900 fine, as the monetary unit. There is, however, a paper currency, at present depreciated over 50 per cent.

*The preference of the Chinese for the Carolus (Spanish) dollar procures to that coin generally a higher quotation than that for the Mexican dollar. The relation between these coins is as follows: Full weight Carolus dollar, 413·76 grains troy, 7 W.; full weight Mexican dollar, 416·64 grains troy, 6½ W., which, at 60 pence per ounce standard, makes the Mexican dollar equal 4s. 2·55d., and Carolus dollar equal 4s. 2·09d.

EGYPT.

The monetary law of November 14, 1885, provided for the introduction of the single gold standard in Egypt, with silver as divisional coin. The Egyptian pound is divided into 100 piasters, and the piaster into 19 ochr-el guerche or tenths of a piaster. The tolerance of fineness is one one-thousandths, and of weight two one-thousandths. The mint coins gold on individual account, and other pieces on account of the Government only. Egyptian pounds and half-pounds, which by the ordinary wear and tear of circulation have come to weigh less than 130 grains and 65 grains respectively, cease to have legal currency, but are received by the treasury at their nominal value, after which they are not re-issued. Silver is legal tender to the amount of 200 piasters, or about 10 dols. in any one payment. Nickel and bronze coins are legal tender to the amount of 10 piasters, or about 2s. Payments in Egypt are generally made in foreign gold pieces, officially rated by the Government as follows: Pound sterling, 97·50 piasters; Turkish pound, 87·75 piasters; Old Russian imperial, 79·45 piasters; 20-franc piece, 77·15 piasters; Austrian sequin, 45·92 piasters.

The rate given the sequin and the imperial are nominal, as these pieces do not circulate.

The German gold coins are not rated, but are valued as follows: Twenty-mark pieces, 95·5 piasters; 10-mark pieces, 47·75 piasters.

Silver coins, such as the Maria Theresa thalers, the medjidies, 5-franc pieces, &c., are no longer received in the public treasuries, which accept no coins, except English sovereigns, 20-franc pieces, and Turkish pounds.

FINLAND.

Finland has the single gold standard.

Previous to 1886 Finland had the same monetary system as Russia, but the credit bills of the latter country did not circulate in Finland.

By a law of August 9, 1877, the present monetary system of the country was established, with the markkaa (equal to the franc) as monetary unit.

GERMAN EMPIRE.

The fundamental laws of the present monetary system of Germany are those of December 4, 1871, and July 9, 1873. The standard is gold monometallic, and the monetary unit the mark of

100 pfennigs. Two thousand seven hundred and ninety marks are manufactured from 1 kilogram of fine gold.

Hence the mark, or monetary unit, contains 5·53 grains of pure gold.

The maximum coinage charge for individuals is 14 marks, in the case of 20-mark pieces, per kilogram of fine gold.

The law of the 4th of December, 1871, was concerned exclusively with the creation of the gold coins of the Empire, and provided for the retirement of the old gold coins. It dealt with silver only to authorise the retirement of the current coins of that metal. The law of July 9, 1873, was supplemental to it and organised the new monetary system.

As to gold, it made no change in the law of 1871, save to authorise the coinage of the 5-mark gold piece and to allow the coinage of 20-mark gold pieces on private account when the mints were not occupied on account of the State.

The silver coins of the new system, 0·900 fine, are 5-mark, 2-mark, 1-mark, 50 and 20 pfennig pieces, 77·16 grains of fine silver to a mark. The coinage of silver is solely on account of the State. The total coinage of silver was limited to 10 marks per capita of the population of the Empire. Silver is legal tender to the amount of 20 marks. All these coins are exchangeable for gold at the public treasuries.

In effecting its monetary reform Germany called in all its old silver coins, with the exception of its thalers, which are still in circulation to the amount of about 450,000,000 marks, the thaler being reckoned as equivalent to 3 marks of the new system.

GREAT BRITAIN AND THE COLONIES.

Prior to 1798 the double standard prevailed in England with the legal ratio of gold to silver of 1 to 15·21. With the ratio in France of 1 to 15·5, commencing with 1785, gold began and continued to leave England and silver to take its place, and to prevent the silver coin from taking the place of gold, the English Parliament, in 1798, passed an act prohibiting the coinage of silver. When this measure was enacted the intention was apparently that it should be provisional only, but it soon became positive, and England to all intents and purposes has had the single gold standard since 1798. The single gold standard was definitely adopted by virtue of the act of Parliament passed June 22, 1816.

The sovereign, or pound sterling, the monetary unit, is a gold coin weighing 7·988 grams, 0·916⅔ fine, containing 7·322 grams or 113 grains of pure gold. The legal gold coins of Great Britain are the sovereign, half sovereign, 2-sovereign, and 5-sovereign pieces. The gold coins in circulation consist of sovereigns and half sovereigns.

The silver coins of Great Britain are the crown, double florin, half crown, florin, shilling, 6-pence, 3-pence pieces. The silver coins of Great Britain are a legal tender for 40s. or £2. The present legal ratio between gold and silver in the coinage of Great Britain is as 1 to 14·28. While individuals have the right to deposit gold at the royal mint for coinage, and receive in return therefor £3 17s. 10½d. per ounce of standard gold (916⅔ in English standard) under the law, but as a matter of fact since 1844 the Bank of England is the only depositor of gold at the royal mint. The present charter of the bank obtained in 1844 made it obligatory upon the bank to receive all gold brought to it by the public and to pay for the same immediately at the rate of £3 17s. 9d. per ounce standard. The difference of 1½d. compensates the bank for the loss of interest between the date of the deposit of the gold at the mint and the date it received the same back in the form of coin. The royal mint is open to receipt of deposits of gold only two days of each week, therefore depositors prefer to sell their bullion directly to the bank in preference to depositing the same themselves, as their losses in interest and other expenses would exceed the 1½d. the amount deducted by the bank. Silver is coined only on account of the Government

The English colonies of Malta, the Cape of Good Hope, Natal, the Australian colonies, and New Zealand have the same monetary systems as in England.

In Canada, however, the gold dollar of the United States is the monetary unit and the pound sterling or sovereign is a legal tender at the rate of 4·866 dols.

In the settlements of the Straits of Malacca and Hongkong the single silver standard prevails, the Mexican dollar being the monetary unit and a legal tender for all sums.

HAITI.

The money of account of Haiti is the gourde of 100 cents. Some years ago the monetary system of the island was very complicated in consequence of the tariffication of a large number

of foreign coins, made necessary by the absence of national coins and the enormous issue of paper money.

A law of September 24, 1880, provided for the minting of a national coin, called the gourde, weighing 22·40 grains of pure gold, and 347·22 grains of pure silver. The divisional silver coins are 0·835 fine.

The actual currency of Haiti is an irredeemable paper. The metallic gourdes have disappeared entirely from circulation and are hoarded. Only the divisional coins are found in circulation, but even these frequently command a premium of from 1 to 2 per cent.

A great many United States gold pieces are to be met with, owing to the fact that export duties have to be paid in gold.

HAWAII

Hawaii has no gold coins of its own. Accounts are kept in United States dollars, divided into 100 cents. Foreign gold coins circulate in the country and are received by the treasury at the following rates: American eagles, 10 dols.; English sovereigns, 5 dols.; 20-franc pieces, 4 dols.; Russian imperials, 4 dols.

Hawaii has also a paper currency redeemable at par in gold or silver dollars.

The two latest monetary laws of Hawaii officially communicated to the Bureau of the Mint are as follows:

I.—AN ACT to regulate the currency.

Be it enacted by the King and legislative assembly of the Hawaiian Islands in the Legislature of the Kingdom assembled:

From and after the 1st day of December, in the year of our Lord 1884, the gold coins of the United States of America shall be the standard and legal tender at their nominal value in the payment of all debts, public and private, within the Hawaiian Kingdom.

The standard silver coins of the United States of America and the silver coins of the Hawaiian Kingdom shall be, from and after December 1, 1884, a legal tender at their nominal value for any amount not exceeding 10 dols. in any one payment.

From and after the 1st day of December, 1884, gold and silver coins other than coins of the United States and of the Hawaiian Kingdom shall be received in the treasury, at a rate not exceeding their bullion value, for Government dues, duties, and taxes.

II.—AN ACT to regulate the currency of the Hawaiian Kingdom.

The gold coins of the United States of America are the standard, and legal tender at their nominal value in the payment of all debts, public and private, within the Hawaiian Kingdom.

The silver coins of the Hawaiian Kingdom are legal tender at their nominal value for any amount not exceeding 10 dols. in any one payment.

ICELAND.

The barter system is still in vogue in Iceland. It must not, however, be imagined that the inhabitants prefer goods and other effects as a currency to coins; they are rather the victims of circumstances. All the more intelligent citizens are fully alive to the pernicious effects of the old system on trade, and efforts have been constantly made to remedy the situation.

JAPAN.

By a law which went into operation October 1, 1897, Japan adopted the single gold standard.

That law declares that the unit of coinage shall be the yen, containing 11·574 grains troy of pure gold. The unit is not coined.

The decimal system is adopted for purposes of currency calculation. The hundredth part of a yen is called a sen, and the tenth part of a sen a rin. The system comprises nickel pieces of 5 sen and copper pieces of 1 sen and 5 rin.

The gold coins are full legal tender; silver coins are legal tender to the amount of 10 yen, and nickel and copper coins of 1 yen.

The legal remedy of fineness in the case of gold coins is ·001, and in the case of silver coins ·003.

Coins below the limit of tolerance on account of friction are exchanged for full-weight coins by the Government without charge.

When the design on a coin becomes difficult to distinguish, or when the coin has been privately restamped or otherwise defaced, it becomes unfit for circulation.

Individuals may have gold bullion coined on application to the Government.

Gold yens issued under the monetary law of 1871 circulate at twice the rate of the gold yens under the provisions of the law of 1897.

The silver 1-yen coins issued under the monetary law of 1871 are to be gradually exchanged for gold coins at the convenience of the Government, and at the rate of one gold yen for one silver yen.

Pending the completion of the exchange, the 1-yen silver coins are to be full legal tender at the rate of one silver yen for one gold yen. Notice of the suspension of the circulation of these coins is to be given six months in advance, and any not presented for exchange within five years after such notice are to be treated as bullion.

The old 5-yen silver coins are continued in circulation.

The law inaugurating the new system suspends the coinage of the 1-yen silver piece, but that restriction does not apply to the silver bullion entrusted to the Government for coinage prior to its passage.

THE LATIN UNION—FRANCE, BELGIUM, ITALY, SWITZERLAND, AND GREECE.

Previous to the formation of the Latin Union there had existed a de facto monetary union between France, Belgium, Italy, and Switzerland, the three latter countries having adopted the system established by the French law of the 17th of Germinal, year XI (April 6, 1803), the basis and monetary unit of which was the silver franc, and which granted legal currency to gold at the ratio in coinage of gold to silver of 1 to $15\frac{1}{2}$.

The change, however, in the commercial ratio of the value of the precious metals, consequent on the enormous production of gold in California and Australia, caused an ever-increasing substitution of gold for silver in the monetary systems of these countries. In the years 1850-1865 silver began to be exported from them, and a great dearth of silver coins to be felt. To remedy these evils, by providing a uniform metallic currency system for these countries, was the chief incentive that led to the monetary convention of December 22, 1865, and to the formation of the Latin Union. The contracting States maintained the double standard and the existing ratio of value of 1 to $15\frac{1}{2}$, but limited the standard silver coins to be stamped to the 5-franc silver piece. During the deliberations of the conference the delegates of Belgium, Italy, and Switzerland advocated the abolition of that coin and the introduction of the single gold standard, but their

endeavours were frustrated by the influence of the French Government.

All silver coins of less value than the 5-franc piece, i.e., the 2, 1, half, and one-fifth franc pieces, were transformed into divisional coins.

Thus, the system of the union, under the convention of 1865, became identical with that established for France by the law of April 6, 1803, and its subsequent amendments by the French Parliament. The law of April 6, 1803, provided that 5 grams of silver, 0·900 fine, should constitute the monetary unit and be called the franc. But the basis of the monetary system of that year exists in the system of Latin Union only in the 5-franc silver piece, the 1-franc piece having been reduced to a fineness of 0·835.

By the convention of 1865 each of the contracting States obligated itself to receive into its treasuries the coins manufactured by the others, without limitation as to the value, in the case of gold coins and 5-franc silver pieces, and to the amount of 100 francs in the case of other silver pieces in any one payment. It was further stipulated that the latter should be legal tender in the country that issued them to the amount of 50 francs between private parties in any one payment, and that they should be taken back by such country and exchanged for gold or 5-franc silver pieces, this obligation to be prolonged during the two years beginning with the expiration of the convention. The nominal value of the divisional silver coins, under this convention, being greater than their intrinsic value, because of the lowering of their fineness, their coinage was reserved to the States respectively and limited to 6 francs per capita of the population of each. This first convention of the Latin Union, to which Greece became a party in 1867, was concluded for a period of fifteen years, with a provision for tacit renewal. It maintained the fineness of 0·900 for the 5-franc silver piece and provided for the free coinage of both metals, thus putting the Latin Union under the bimetallic system. The depreciation of silver, which began in 1872, forced the contracting powers first to limit and then to suspend the coinage of the 5-franc silver piece.

These measures were taken in fulfilment of special conventions dated January 31, 1874, April 26, 1875, February 3, 1876, and November 5, 1878, and were sanctioned by the conventions of November 5, 1878, and November 6, 1885.

The convention of the 23rd of December, 1865, expired on the 1st of January, 1880. A new convention of the 5th of November, 1878, prolonged the duration of the Latin Union for five years. The convention now in force is dated November 6, 1885. By its terms the suspension of the coinage of the 5-franc silver piece is maintained in the countries of the union; but any of the contracting States may resume the free coinage of silver on condition of exchanging, during the entire duration of the convention, the 5-franc silver pieces bearing its stamp and circulating in the other States of the union for gold on demand. The latter, however, would then be at liberty not to receive the 5-franc silver pieces of the State that resumed the free coinage of the white metal. It was likewise stipulated in the convention of 1885 that the coins of each of the signatory powers should be received by the treasuries of the others as well as by the banks of France and Belgium, and that the union might be terminated any time after January 1, 1891, by giving one year's notice.

During the year following the termination of the convention the several Governments are to proceed to the exchange, and return to the country that issued them, of the 5-franc silver pieces. Any balance remaining after the exchange, has to be settled in gold or bills of exchange on the debtor State. Belgium, however, is obliged to pay France only one-half the balance and Switzerland only 6,000,000 francs in this way, but has obligated itself not to introduce into its monetary system for five years any change which might hinder the return to it of the other half, by the way of trade, and has guaranteed that this half shall not exceed 200,000,000 francs. In Italy's case, the maximum of the 5-franc pieces it has to take back from Switzerland is fixed at 30,000,000 francs, and the minimum balance from France at the proportion agreed upon between the latter country and Belgium.

In brief, therefore, the Latin Union has the double standard and the ratio of gold to silver of 1 to $15\frac{1}{2}$; 3,100 francs being coined out of the kilogram of standard gold, and 200 francs out of the kilogram of standard silver; $3,444\frac{4}{9}$ francs out of the kilogram of pure gold, and $222\frac{2}{9}$ francs out of the kilogram of pure silver. The coinage of gold is unlimited and that of silver suspended. The coinage charge is $7\frac{4}{9}$ francs per kilogram fine for gold and $1\frac{3}{4}$ francs per kilogram fine for silver. Gold coins and the 5-franc silver pieces are unlimited legal tender.

MR. CHORLEY'S PLATE.—*See page* 165.

MEXICO.

Mexico has the single silver standard.

The principal provisions of the laws governing the monetary system of Mexico are as follows:

The dollar (el peso) is the unit of account fixed by article 1 of the law of November 28, 1867.

The legal standard is the silver dollar, and the pieces into which it is divided are: The 50 cents, 25 cents, 10 cents, 5 cents, standard coin. All these coins should contain the fineness of 0·902+ [0·777 of 0·001], according to article 4 of said law.

The gold coins are: Pieces of 20 dols., 10 dols., 5 dols., 2·50 dols. and 1 dol. The fineness of all these kinds of coin is 0·875.

The mints of the Republic receive for coinage or assay whatever quantities may be presented by individuals, whether of gold or silver.

The coinage charge on silver is paid at the rate of 4·41 per cent. and on gold 4·61 per cent. of their respective values.

In the payment of Government dues or taxes no fixed amount in gold or silver is exacted, and payment is admitted in any of the coins in legal circulation.

THE NETHERLANDS.

The fundamental monetary laws of the Netherlands at the present time are those of November 26, 1847, and June 6, 1875. By the former law the Netherlands adopted the silver standard, and maintained it in force until 1872, the monetary unit being the silver florin of the legal weight of ten grams, 0·945 fine.

In 1872 a bill was passed to suspend the coinage of silver on private account. The fall in the value of silver continuing, the mint was closed to its coinage, and for the time being Holland had really no metallic standard of value, for gold was only a commodity. The balance of the indebtedness happened then to be favorable to Holland, and the foreign exchanges fell considerably. In order to arrest this fall, a bill was passed in 1877 opening the mint to the public for the coinage of gold, making the new standard coin a 10-florin gold piece, weighing 93·33 grains of fine gold, thus establishing the ratio in coinage of gold to silver of 1 to 15·625.

Holland is usually classed as a double-standard country. It would be more correct to say that it has a gold standard, conjointly with the circulation, as legal tender, of the silver coins issued before 1875. The currency is in the same provisional state of the

so-called limping standard as in France, but the balance of indebtedness having also been rather in favour of Holland, no inconvenience has been felt arising out of the present arrangement, and the foreign exchanges have adjusted themselves as if Holland possessed a gold standard. Up to the present only 10-florin gold pieces, with a tolerance of fineness of 1½ thousandths and a weight of 2 thousandths have been stamped.

The coinage charges are, for gold 5 florins per kilogram 0·900 fine, equal to 5·50 florins per kilogram fine, or 3½ per cent.

The mint is not bound to accept less than 100 kilograms for coinage.

Out of the kilogram of pure gold there are manufactured 1,653·43 florins; out of the kilogram of pure silver, 105·82 florins.

The monetary system of the Dutch colonies is the same as that of the mother country.

PARAGUAY.

The money account of Paraguay is the peso, divided into 8 reals. It is also divided into 100 centavos. The country, however, has a depreciated paper currency. The gold onza is rated officially at 17½ paper pesos, making the paper peso equal to 1·3617 grams, or 21·0137544 grains of fine gold. Five-franc pieces, venezolanos, and other piasters of the same kind, are, in like manner, reckoned as equivalent to 1¼ paper pesos.

PERSIA.

Ten shahis equal 1 penebat; 2 penebats equal 1 sahibghiran, or kran; 10 krans equal 1 toman, or 200 shahis equal 1 toman.

The principle coin is the kran, a silver piece of 71·065 grains 0·900 fine. The krans which circulate vary, however, greatly, as the mints of the country are not reliable, being farmed out for a yearly sum. The fineness of the coins oscillates between 0·760 and 0·900. In larger transactions the toman is taken as the unit, reckoned equal to 10 krans. There are some gold tomans and half tomans in existence, but they are not the standard; they circulate only as commercial money, and are taken by weight. The standard is silver.

PERU.

A decree was issued by the President of the Republic on the 10th of January, 1898, to give effect to the law of the 29th of December preceding, establishing a gold currency. Under its

provisions, the national gold coin is to be of the same standard and weight as the pound sterling, and to be free of export duty. Works of art in gold are also to be free, but the duty is to be continued on gold bars and gold dust. The decree provides for the size, fineness, weight, remedy and design of the new piece which is to be called a pound (libra).

PORTUGAL.

The present monetary system of Portugal was established by the law of July 29, 1854, and is gold monometallic, with the milreis, of 1,000 reis, as monetary unit. One thousand milreis, or 1,000,000 reis, is called a conto.

PORTO RICO.

The Government of the United States has fixed the value of the Porto Rican Peso at sixty cents United States currency for the payment of all public dues, taxes and contracts. The commercial value of the Peso continues to fluctuate. The Peso is of the weight and fineness of the Spanish piece of five pesetas and corresponds to the five-franc piece of the Latin Union; its bullion value, compared with the bullion value of the American dollar is as 93·5 to 100. The monetary situation in Porto Rico is not a matter of general interest, but those who are connected with the trade of that island, or who desire to examine the reasons which have led to the adoption of sixty cents as an equivalent for the Peso will find the subject discussed at length in the annual report of the Secretary of the Treasury of the United States for the year 1898.

ROUMANIA.

The laws of April 14, 1867, and April 30, 1879, introduced the system of the Latin Union into Roumania, the franc being called the lei and the centime the bani; but in 1890 a measure was passed by the Roumania Chamber abrogating the double standard and substituting for it the single gold standard, with a subsidiary silver coinage having a paying power to the amount of 50 lei or francs.

RUSSIA.

In 1896 a plan for the restoration of a metallic currency in Russia, on the basis of the gold standard, was submitted to the Counsel of the Empire. As a result of the deliberations of that body, a ukase of August, 1896, was issued fixing until January, 1898, the value of the half imperial at 7·5 paper rubles.

The plan submitted to the Counsel of the Empire in 1896 by the minister of finance contemplated the authorization of the coinage of new 10-ruble pieces corresponding exactly with the actual course of the bills of credit or paper rubles. The object of the projected reform was to substitute gold monometallism for the paper money based on silver (the silver or paper ruble). The reform in no way impairs contracts or modifies accounts either between parties in Russia itself or between Russians and foreigners. All that was sought to be effected by the reform was to fix and make permanent the gold parity of credit ruble, as it actually existed.

The ukase of August 8, 1896, was confirmed by that of January 3 (15), 1897. The full text of the latter is as follows:

"In order to put an end to the inconveniences which circumstances and the force of things have brought about in the monetary circulation of the country, we have directed that there shall be deposited with the Counsel of the Empire a plan elaborated by a special committee, having for its object the placing of our monetary system on new bases in harmony with the existing situation, and also the regulation of the issues of the Bank of Russia.

"This question, on account of its importance and complexity, may still require long deliberation and discussion.

"To-day, on account of the urgent necessity of resuming the stamping of gold coins, and in order to stop the uncertainty arising among the people from the discrepancy between the nominal value of gold coins and the price at which they are exchanged for bills of credit, or paper rubles, we have thought it well while awaiting our final decision after examination of the Counsel of the Empire, to cause to be stamped gold coin bearing the indication of the price fixed in Our Imperial decree of August 8, 1896.

"Therefore in accordance with the plan which you have submitted, and which has been examined by a special committee, we direct you:

"1. Without modifying in any way either the quantity of fine gold, or the fineness, or the weight, or the dimensions of the gold coins, as fixed by law (Monetary Law, articles 8, 9, 12, 17, 19, and 21), to cause to be stamped imperials and half imperials bearing as an indication of their price, the former, 15 rubles;

and the latter, 7 rubles 50 kopecks, in conformity with the description approved by Us at the same time as these presents.

"2. After the manufacture of the gold coins on the bases indicated in article 1 of the present ukase, to put the coin aforesaid in circulation."

The fundamental monetary law of the country is dated December 17, 1885, and went into force January 1, 1886. The monetary unit is the silver ruble of 100 kopecks. The law provides for the coinage of both gold and silver in the ratio of 1 to 15½; the system is, therefore, bimetallic. The gold coins are the imperial (10 rubles) and half imperial (5 rubles), of the legal weight of 199·13 and 100·98 grains, respectively, and the fineness of 0·900. The imperial therefore contains 179·21 grains of pure gold and the half imperial 92·57.

The coinage of gold on private account is unlimited, and the mint charge is 3 per cent for that metal.

The full legal-tender silver coins are the ruble, half ruble, and quarter ruble pieces. The silver ruble has a legal weight of 308·57 grains, a fineness of 0·900, and contains 277·71 grains of fine silver.

The half and quarter ruble are of the same fineness and of proportional weight. The divisional coins of Russia are of silver and copper.

The silver divisional coins are: 20, 15, 10, and 5 kopecks.

These coins are legal tender to the amount of 3 rubles between individuals and unlimited legal tender to the State for taxes, etc.

The coinage of silver on private account is suspended.

Such is the monetary system of Russia as it stands upon the statute book, but it has no existence in fact, that country having been under an exclusively paper-money régime since 1855.

SCANDINAVIAN UNION.

The Scandinavian Monetary Union embraces Sweden, Norway, and Denmark. These three kingdoms concluded in 1873 and 1875 a monetary convention based on the employment of the single gold standard and on a common system of coins and money of account. The krone or crown, divided into 100 öre, is the monetary unit.

Two thousand four hundred and eighty kronen are manufactured out of 1 kilogram of fine gold. The coinage of gold is unlimited. The coinage charges for gold are one-quarter per cent per kilogram

fine for 20-kronen pieces, and one-third per cent per kilogram fine for 10-kronen pieces. Silver is coined only on account of the Government.

Silver coins are legal tender as follows: The 2-kronen and 1-krone pieces to the amount of 20-kronen; the 50, 40, 25, and 10 öre pieces to the amount of 5 kronen.

All the coins above mentioned have legal currency in the three kingdoms. The monetary convention does not limit the coinage by the Governments of the silver or bronze coins. In each of the three States there are public treasuries at which any sum of fractional coin divisible by 10 kronen may be exchanged for gold.

SERVIA.

The monetary system of Servia was assimilated to that of the Latin Union by the law of November 11, 1878. The franc is called the dinar, and the centime the para. It was provided that after the gold pieces had been put in circulation the 5-dinar pieces should be legal tender only to the amount of 500 dinars, and the smaller silver pieces only to the amount of 50 dinars, thus making the country practically gold monometallic.

SIAM.

The moneys of Siam are as follows:

800 cowries equal 1 fuang; 2 fuango equal 1 salung; 4 salungo equal 1 bat or tical; 4 bats equal 1 tämling; 20 tämling equal 1 chäng; 50 chäng equal 1 häp; 100 häp equal 1 tära.

Cowries (also called bia in Siam) are the well-known shells used in many parts of Asia and Africa as a medium of exchange for small values. In Siam about 219 or 220 are reckoned equal to 1 penny sterling, which corresponds closely to the general rating of the bat or tical at 2s. 6d sterling; this is, however, more than the actual average value of the coin, which is 0·60 dols.

Small pewter and copper coins have of late been introduced as a substitute for the cowrie shell. The pewter coins are called lot and at; they are small flat bits of pewter; 2 lots equal 1 at.

The copper coin 2 ats, and about the same size as the English halfpenny, only a little thicker, is called song péis. Two song péis equal 1 fuang; 2 fuango equal 1 salung; 4 salungo equal 1 bat or tical.

The fuang and the salung are flat pieces of silver. They represent simply a certain weight of the metal. It is the same with the bat.

The coin called bat or tical is a small bit of a silver bar bent and with the ends beaten together. It has two or three small stamps impressed upon it. The weight of the bat or tical ranges between 212 and 236 grains troy, and is generally taken at 236 grains (15·292 grams).

The fineness of the tical, as well as that of the fuang and salung, averages 906·25, it is said. Taking the average weight of the tical or bat at 224 grains, the average fineness of the coin at 906·25, the metallic value may be computed at 2s. 3·4325d. sterling (at 60d. per ounce British Standard silver). This corresponds closely to the rating of the tical by the merchants in the Siamese ports, where 7 ticals are reckoned equal to 4 Spanish piasters or dollars.

The mint at Bangkok lately exchanged Mexican dollars against ticals at the rate of 5 ticals, equal 3 Mexican dollars. American silver dollars are also taken by the mint; they are weighed against Mexican dollars, and then paid for at the above rate of 5 ticals for 3 Mexican dollars.

Exchange on Hongkong and Singapore is quoted in per cent. premium or discount. If the quotations fall to 1 per cent. or more discount, Mexican dollars are being sent from China to Siam.

Exchange on London is quoted in shillings and pence per 1 Mexican dollar. If payments are made in ticals, it is at the rate of 5 ticals for 3 Mexican dollars.

SPAIN.

By a decree of the 19th of October, 1868, Spain adopted the monetary system of the Latin Union. It is, therefore, bimetallic, with the silver peseta, equivalent to the franc as monetary unit. It has the same gold and silver coins as the union. A gold 25-peseta piece was added by a decree of August 20, 1876.

The coinage of gold is free and there is no coinage charge for that metal, but depositors can not get the coined gold until eighteen days after the delivery of the bullion to the mint.

Since 1878 silver has been coined only on account of the State.

The ratio of gold to silver is 1 to 15½. Gold and the 5-peseta silver piece are unlimited legal tender; divisional silver coin, i.e., all silver coins of less value than 5 francs, only to the amount of 50 pesetas.

TURKEY

The monetary system of Turkey is bimetallic, with the piaster, equal to 40 paras, 3 aspes, as monetary unit. The gold coins are the 500, 250, 100, 50, and 25 piaster pieces, all of the same fineness, viz, 0·916⅔. The 100-piaster piece, or gold medjidie, is called the Turkish pound. It has a gross weight of 111·36 grains and a fine weight of 102·08 grains. The gross and fine weight of the other are proportional to those of the Turkish pound. The silver coins are the 20, 10, 5, 2, 1, and half piaster pieces, 0·830 fine. The 20-piaster piece has a gross weight of 371·21 grains and a fine weight of 308·10 grains.

The 10, 5, 2, 1, and half piasters have a proportional gross and fine weight. The ratio of gold to silver was originally 1 to 15·09.

By a decree the Government lowered the value of the 20-piaster piece to 19 piasters, in consequence of which debasement the ratio of gold to silver is 1 to 15⅞.

The coinage of silver is suspended. The mint charge for gold is 1 per cent. Such is the system as it exists on paper, but the actual coined money of the country is in a very unsatisfactory condition.

UNITED STATES.

In 1786 the Congress of the Confederation chose as the monetary unit of the United States the dollar of 375·64 grains of pure silver. The unit had its origin in the Spanish piaster or milled dollar, which constituted the basis of the metallic circulation of the English colonies in America. It was never coined, there being at that time no mint in the United States.

The act of April 2, 1792, established the first monetary system of the United States. The bases of the system were: The gold dollar, containing 24·75 grains of pure gold, and stamped in pieces of 10 dols., 5 dols., 2½dols., denominated, respectively, eagles, half eagles, and quarter eagles; the silver dollar, containing 371·25 grains of pure silver. A mint was

established. The coinage was unlimited and there was no mint charge. The ratio of gold to silver in coinage was 1 : 15. Both gold and silver were legal tender. The standard was double.

The act of 1792 undervalued gold. Which was therefore exported. The act of June 28, 1834, was passed to remedy this, by changing the mint ratio between the metals to 1 : 16·002. This latter act fixed the weight of the gold dollar at 25·8 grains, but lowered the fineness from 0 916⅔ to 0·899225. The fine weight of the gold dollar was thus reduced to 23·2 grains. The act of 1834 undervalued silver as that of 1792 had undervalued gold, and silver was attracted to Europe by the more favourable ratio of 1 : 15⅓. The act of January 18, 1837, was passed to make the fineness of the gold and silver coins uniform. The legal weight of the gold dollar was fixed at 25·8 grains, and its fine weight at 23·22 grains. The fineness was, therefore, changed by this act to 0·900 and the ratio to 1 : 15·988+.

Silver continued to be exported. The act of February 21, 1853, reduced the weight of the silver coins of a denomination less than 1 dol., which the acts of 1792, 1834, and 1837 had made exactly proportional to the weight of the silver dollar, and provided that they should be legal tender to the amount of only 5 dols. Under the acts of 1792, 1834, and 1837 they had been full legal tender. By the act of 1853 the legal weight of the half dollar was reduced to 192 grains, and that of the other fractions of the dollar in proportion. The coinage of the fractional parts of the dollar was reserved to the Government.

The act of February 12, 1873, provided that the unit of value of the United States should be the gold dollar of the standard weight of 25·8 grains, and that there should be coined besides the following gold coins: A quarter eagle, or 2½-dollar piece; a 3-dollar piece; a half eagle, or five dollar piece; an eagle, or 10-dollar piece; and a double eagle, or 20-dollar piece: all of a standard weight proportional to that of the dollar piece. These coins were made legal tender in all payments at their nominal value when not below the standard weight and limit of tolerance provided in the act for the single piece, and when reduced in weight they should be legal tender at a valuation in proportion to their actual weight. The silver coins

provided for by the act were a trade dollar, a half dollar, or 50-cent piece, a quarter dollar, and a 10-cent piece; the weight of the trade dollar to be 420 grains Troy; the half dollar 12½ grams; the quarter dollar and the dime, respectively, one-half and one fifth of the weight of the half dollar. The silver coins were made legal tender at their nominal value for any amount not exceeding 5 dols. in any one payment. The charge for converting standard gold bullion into coin was fixed at one-fifth of 1 per cent. Owners of silver bullion were allowed to deposit it at any mint of the United States to be formed into bars or into trade dollars, and no deposit of silver for other coinage was to be received.

Section II of the joint resolution of July 22, 1876, recited that the trade dollar should not thereafter be legal tender, and that the Secretary of the Treasury should be authorized to limit the coinage of the same to an amount sufficient to meet the export demand for it. The act of March 3, 1887, retired the trade dollar and prohibited its coinage. That of September 26, 1890, discontinued the coinage of the 1-dollar and 3-dollar gold pieces.

The act of February 28, 1878, directed the coinage of silver dollars of the weight of 412½ grains Troy, of standard silver, as provided in the act of January 18, 1837, and that such coins, with all silver coins theretofore coined, should be legal tender at their nominal value for all debts and dues, public and private, except where otherwise expressly stipulated in the contract.

The Secretary of the Treasury was authorized and directed by the first section of the act to purchase from time to time silver bullion at the market price thereof, not less than 2,000,000 dols. worth nor more than 4,000,000 dols. worth per month, and to cause the same to be coined monthly, as fast as purchased, into such dollars. A subsequent act, that of July 14, 1890, enacted that the Secretary of the Treasury should purchase silver bullion to the aggregate amount of 4,500,000 ounces, or so much thereof as might be offered, each month, at the market price thereof, not exceeding 1 dol. for 371·25 grains of pure silver, and to issue in payment thereof Treasury notes of the United States, such notes to be redeemable by the Government, on demand, in coin, and to be legal tender in payment of all debts, public and private, except

where otherwise expressly stipulated in the contract. The act directed the Secretary of the Treasury to coin each month 2,000,000 ounces of the silver bullion purchased under the provisions of the act into standard silver dollars until the 1st day of July, 1891, and thereafter as much as might be necessary, to provide for the redemption of the Treasury notes issued under the act. The purchasing clause of the act of July 14, 1890, was repealed by the act of November 1, 1893.

The act of June 9, 1879, made the subsidiary silver coins of the United States legal tender to the amount of 10 dols. The minor coins are legal tender to the amount of 25 cents.

VENEZUELA.

The monetary unit is the venezolano or peso, divided into 100 centavos, a silver coin weighing 25 grams, 0·900 fine, or equal to the French silver 5-franc piece. There are also gold coins equal to the French gold pieces. The one-fifth venezolano piece is called the "bolivar," equal to 1 franc.

The ratio of gold to silver is 1 to 15½, The only difference between the French monetary system and that of Venezuela is that whereas the French 5-Franc piece is unlimited legal tender, the 5-bolivar piece, or venezolano, is legal tender only to the amount of 500 bolivars, or about 100 dols. in United States gold coin. In this respect Venezuela is more like a single gold-standard country. For convenience, however, it is generally classed among double-standard countries.

SUMMARY OF MONETARY EVENTS SINCE 1786.

1786.—Establishment of the double standard in the United States with a ratio of 1 to 15·25; that is, on the basis of 123·134 grains of fine gold for the half eagle or 5 dol. piece, and 375·64 grains of fine silver for the dollar, without any actual coinage.

1792.—Adoption of the ratio of 1 to 15 and establishment of a mint with free and gratuitous coinage in the United States; the silver dollar equal to 371¼ grains fine, the eagle to 247½ grains fine.

1803.—Establishment of the double standard in France on the basis of the ratio of 1 to 15½, notwithstanding that the market ratio was then about 1 to 15.

1810.—Introduction of the silver standard in Russia on the basis of the ruble of 17·99 grams of fine silver, followed in 1871 by the coinage of imperials or gold pieces of 5 rubles, of 5,998 grams, therefore with a ratio of 1 to 15. This ratio was changed by the increase of the imperial to 5 rubles 15 copecks, and later to 1 to 15·45.

1815.—Great depreciation of paper money in England, reaching 26½ per cent. in May. Course of gold, £5 6s., and of silver, 71½d. per ounce standard. In December the loss was only 6 per cent. Gold at this period was quoted at £4 3s., and silver at 64d.

1816.—Abolition of the double standard in England which had had as its basis the ratio of 1 to 15·21, and adoption of the gold standard on the basis of the pound sterling at 7·322 grams fine in weight.

Coinage of divisional money at the rate of 66d. per ounce. Extreme prices, £4 2s. for gold and 64d. for silver; in January, £3 18s. 6d., and 59¼d. in December.

1816.—Substitution for the ratio of 1 to 15·5 in Holland, established by a rather confused coinage, of the ratio of 1 to 15⅞.

1819.—Abolition of forced currency in England. Price of gold £3 17s. 10½d. and of silver, 62d.* per ounce in October, against £4 1s. 6d. and 67d. in February.

1832.—Introduction of the monetary system of France in Belgium with a decree providing for the coinage of pieces of 20 and 40 francs, which, however, were not stamped. Silver, 59¾d.

1834.—Substitution of the ratio of 1 to 16 for that of 1 to 15 in the United States by reducing the weight of the eagle, $10 gold piece, from 270 grains to 258 grains.

In 1837 the fineness of the United States gold coins was raised from 0·899225 to 0·900, and the silver coins from 0·8924 to 0·900, giving a ratio of 1 to 15·988 and fixing the standard weight of the silver dollar at 412½ grains. Silver, 59$\frac{15}{16}$d.

1835.—Introduction of the company rupee, a piece of silver weighing 165 grains fine, in India, in place of the sicca rupee. Creation of a trade coin—the Mohur, or piece of 15 rupees—containing 165 grains of fine gold. Silver, 59$\frac{11}{16}$d.

1844.—Introduction of the double standard in Turkey, with the ratio of 1 to 15·10. Silver, 59¼d.

* The price of silver given hereafter represents the average rate per ounce standard—that is, the mean between the highest price and the lowest price quoted during the year.

1847.—Abolition of the double standard in Holland by the introduction of the silver standard on the basis of a 1-florin piece 0·945 grams fine, the coinage of which has already been decreed in 1839. Silver, 59$\frac{11}{16}$.

1847.—Discovery of the gold mines of California.

1848.—Coinage in Belgium of pieces of 10 and 25 francs in gold, a shade too light These pieces were demonitized and withdrawn from circulation in 1884. Silver, 59½d.

1848.—Replacing the ratio of 1 to 16 in Spain, which had been in force since 1786, by that of 1 to 15·77.

1850.—Introduction of the French monetary system in Switzerland without any actual coinage of gold pieces. Silver, 60$\frac{1}{16}$d.

1851.—Discovery of the gold mines of Australia.

1853.—Lowering of the weight of silver pieces of less value than $1 to the extent of 7 per cent. in the United States, and limitations of their legal-tender power to $5. Silver 61½d.

1853.—Maximum of the production of gold reached in California, when it amounted to $65,000,000.

1854.—Introduction of the gold standard in Portugal on the basis of the crown of 16·257 grams fine. Before this period the country had the silver standard, with a rather large circulation of gold coins stamped on the basis of 1 to 15½ in 1835 and 1 to 16½ in 1847. Silver, 61½d.

1854.—Modification of the ratio of 1 to 15·77 in Spain by raising it to 1 to 15·48, and by lowering the piaster from 23·49 grams to 23·36 grams fine.

1854.—Introduction of the silver standard, as it existed in the mother country, in Java, in place of the ideal Javenese money, and coinage of colonial silver pieces.

1857.—Conclusion of a monetary treaty between Austria and the German States, in accordance with which 1 pound of fine silver (one-half a kilogram) was stamped into 39 thalers or 52½ florins of south Germany, or 45 Austrian florins, resulting in 1 thaler equalling 1$\frac{3}{4}$ German florins or 1½ Austrian florins. Silver, 61¾d.

1861.—Law decreeing the coinage of gold pieces of 10 and 20 francs exactly equal to French coins of the same denomination in Belgium. Silver, 61¾d.

1862.—Adoption of the French monetary system by Italy. Silver, 61$\frac{7}{16}$d.

1865.—Formation of the Latin Union between France, Belgium, Switzerland, and Italy on the basis of a ratio of 1 to 15½. Silver, 61 $\frac{1}{16}$d.

1867.—First international monetary conference held in Paris.

1868.—Adoption of the French monetary system by Roumania, with the exclusion of the 5-franc silver piece, which was, however, stamped in 1881 and 1883. Silver, 60½d.

1868.—Admission of Greece into the Latin Union. The definite and universal introduction of the French monetary system into the country was effected only in 1883.

1868.—Adoption of the French monetary system, with the peseta or franc as the unit, by Spain. The coinage of gold alphonses d'or of 25 pesetas was made only in 1876.

1871.—Replacing of the silver standard in Germany by the gold standard. Coinage in 1873 of gold pieces of 5, 10, and 20 mark pieces, the latter weighing 7·168 grams fine. Silver, 60½d.

1871.—Establishment of the double standard in Japan with the ratio of 1 to 16·17 by the coinage of the gold yen of 1·667 grams and of the silver yen of 26·956 grams, both with a fineness of 0·900.

1873.—Increase of the intrinsic value of the subsidiary coins of the United States. Replacing of the double standard by the gold standard. Reduction of the cost of coinage of gold to one-fifth per cent, the total abolition of which charge was decreed in 1875. Creation of a trade dollar of 420 grains with a fineness of 0·900. Silver, 59¼d.

1873.—Suspension of the coinage of 5-franc pieces in Belgium.

1873.—Limitation of the coinage of 5-francs on individual account in France.

1873.—Suspension of the coinage of silver in Holland.

1873.—Formation of the Scandinavian Monetary Union. Replacing of the silver standard in Denmark, Sweden, and Norway by that of gold on the basis of the krone. Coinage of pieces of 10 and 20 kroner, the latter weighing 8·961 grams, with a fineness of 0·900.

1874.—Introduction of the system of contingents for the coinage of 5-franc silver pieces in the Latin Union. Silver, 58 $\frac{5}{16}$d.

1875.—Suspension of the coinage of silver on individual account in Italy. Silver, 56 $\frac{7}{8}$d.

1875.—Suspension of the coinage of silver on account of the Dutch colonies.

1875.—Introduction of the double standard in Holland on the basis of the ratio of 1 to 15·62 by the creation of a gold piece of 10 florins, weighing 5·048 grams fine, with the maintenance of the suspension of the coinage of silver.

1876.—Great fluctuations in the price of silver, which declined to 46¾d., representing the ratio of 1 to 20·172, in July. Recovery, in December, to 58½d. Average price, 52¾d.

1877.—Coinage of 5-franc silver pieces by Spain continued later, notwithstanding the decline of silver in the market. Silver, 54¾d.

1877.—Replacing of the double standard in Finland by that of gold on the basis of the mark or franc.

1878.—Act of United States Congress providing for the purchase, from time to time, of silver bullion, at the market price thereof, of not less than 2,000,000 dols. worth per month as a minimum, nor more than 4,000,000 dols. worth per month as a maximum, and its coinage as fast as purchased into silver dollars of 412½ grains. The coinage of silver on private account prohibited. Silver, 52$\frac{9}{16}$d.

1878.—Meeting of the second international monetary conference in Paris. Prolongation of the Latin Union to January 1, 1886.

1879.—Suspension of the sales of silver by Germany. Silver, 51¼d.

1879.—Resumption of specie payment by the United States.

1881.—Third international monetary conference in Paris. Silver, 51$\frac{11}{16}$d.

1885.—Introduction of the double standard in Egypt. Silver, 48⅜d.

1885.—Prolongation of the Latin Union to January 1, 1891.

1886.—Great decline in the price of silver, which fell in August to 42d. representing a ratio of 1 to 22·5, and recovery, in December, to 46d. Modification of the coinage of gold and silver pieces in Russia. Silver, 45⅜d.

1887.—Retirement of the trade dollars by the Government of the United States in February. Demonetization of the Spanish piasters, known as Ferdinand Carolus, whose reimbursement at the rate of 5 pesetas ended on March 11. New decline of silver in March to 44d., representing the ratio of 1 to 21·43. Silver, 44⅝d.

1890.—United States—Repeal of the act of February 28, 1878, commonly known as Bland-Allison law, and substitution of authority for purchase of 4,500,000 fine ounces of silver each month to be paid for by issue of Treasury notes payable in coin. (Act of July 14, 1890.) Demonetization of 25,000,000 lei in pieces of 5 lei in Roumania in consequence of the introduction of the gold standard by the law of October 27. Silver, 47 11/16d.

1891.—Introduction of the French monetary system in Tunis on the basis of the gold standard. Coinage of national gold coins and billon. Silver, 45 1/16d.

1892.—Replacing of the silver standard in Austria-Hungary by that of gold by the law of August 2. Coinage of pieces of 20 crowns, containing 6·098 grams fine. The crown equals one-half florin. Meeting of the fourth international monetary conference at Brussels. Production of gold reaches its maximum, varying between 675,000,000 and 734,000,000 francs. Silver, 39 13/16d.

1893.—Suspension of the coinage of silver in British India and of French trade dollars on individual account. Panic in the silver market in July in London, when the price fell to 30½d., representing the ratio of 1 to 30·92. Repeal of the purchasing clause of the act of July 14, 1890, by the Congress of the United States.

1895.—Adoption of the gold standard by Chile.

1895.—Russia decides to coin 100,000,000 gold rubles in 1896.

1896.—Costa Rica adopts the gold standard.

1896.—Russia decides to resume specie payments.

1897.—Adoption of the gold standard by Russia and Japan.

1897.—Peru suspends the coinage of silver and prohibits its importation.

1898.—Peru adopted the gold standard.

1899.—India adopted the gold standard in September.

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1 Gram equals 15·43235 Grains.

BRADFORD PARISH CHURCH PLATE.—*See page 170.*

Gold Supply.

At the present time—November 21st, 1899—the gold requirements of the world are probably larger than they have ever been before. The large railways now being made in Russia, China, and Africa, the wonderful industrial growth which is taking place in almost every manufacturing country of the world, and the large development of trade generally, are causing a demand for gold. The adoption of the gold standard for India, and the opening up of new colonies in different parts of the world, are augmenting the needs for gold. Under these circumstances, the temporary closing of the South African mines, should the war last long, will be sure to cause a great amount of financial trouble and loss, for want of gold. It seems now that in all probability it will be years before we need fear that an over-production of gold may seriously interfere with prices or values. However, it is necessary to consider that, should the number of banks continue to increase (rapidly) in the principal countries of Europe, and especially in France, and improve in usefulness, and the increase of the production of gold also continue, it is not unlikely that the financial world will be called upon to make some rearrangements in order to prevent a serious rise in prices, which would mean a fall in the purchasing power of workmen's wages, unless these were increased proportionally. In consequence of the South African mines being closed, public attention has been directed to other goldfields of the world, at the expense of the Rand district. We hope that when the war is settled the Transvaal mines will soon be in a position to take care of themselves. It is expected that they will be able to work the mines at a more profitable rate in the future. That, however, may not apply until after the war tax has been paid. All things considered, we think that there is no need at present for any serious thought or consideration respecting the world's gold supply.

TREATISE ON HALL-MARKS.

Historical Events connected with the Mints and Assay Offices.

It is thought there was a mint in Britain 150 B.C., if not earlier.

287 A.D. Roman mints were set up in London and Colchester.

380. Roman coins were struck by M. Maximus.

760. The Saxon silver penny was first struck. For 600 years the silver penny remained the chief and almost the only coin of general use. Its original weight, 24 grains, has given its name to the pennyweight.

800. There were several mints at this period, one at York.

1125. Coins were first made in Scotland by David I.

1180. There were two issues of pennies about this time, and several Goldsmiths' Guilds were in existence in England.

* 1327. First Charter granted for London Goldsmiths' Company.

1336. Leopard's Head crowned and maker's mark introduced.

1238. The Mayor and Aldermen of London had to select six good men and true to see that no gold or silver articles were made of inferior metal than the King's money.

1260. The Touch of Paris was enacted for silver, viz. :—·925.

1267. Gold pennies were struck by Henry III., weight 45 grains each, equal in value to 20 silver pennies. About this time a severe battle was fought near the river Thames, at London, by 500 goldsmiths and 500 tailors, a considerable number were killed, and the dead bodies were thrown into the river.

1300. Half-pennies and farthings, both in silver, were coined. The Goldsmiths' Company was recognised and put on a sound basis, and the leopard's head selected as the standard mark.

1300. The Touch of Paris, for both gold and silver, was established in England, viz. :—19$\frac{1}{2}$ carats gold, and $\frac{11}{12}$ for silver.

1327. Groats and half-groats were issued by Edward III. On the reverse of these coins was a long cross with the words, "I have made God my helper." Also the Goldsmiths' Company was incorporated by Charter during the reign of Edward III.

1331. The Goldsmiths' Company commenced its records, which are governed by a principal Warden and three others, with 21 Assistants, and 150 Guardians. The gold florin was current for six shillings about this date.

1343. It was provided that good stirling money should be made in England, and several different denominations were issued about this time by Edward III.

1355. The trial plate was introduced at the Assay office, and the process of assaying was by Cupel.

1363. The maker's mark was introduced and stamped on the work after it had been assayed and marked with the King's mark.

1366. One Thomas Hessey was the King's goldsmith at this time.

1379. It was enacted that the mark of the city or town, along with the maker's mark, should be stamped on all assayed articles.

1381. An Act was passed forbidding the export of gold or silver.

1392. The King re-incorporated the goldsmiths on account of some default in a former act.

1401. The gold standard reduced to 16 carats.

1402. The Act of 1381 was amended and other clauses added, one forbidding gold or silver in either money or plate to be carried out of England.

1404. An Act was passed forbidding any gilding or silvering of inferior articles, unless a portion of the original metal was left exposed, so that no one could be deceived by it.

1414. It was enacted that gilt articles were to be charged twice the price of their weight in silver.

1415. Sir Drew Barentyn, a noted goldsmith, died.

1420. An Act was passed not to allow any metal except silver to be gilded.

1423. It was ordered that no silver or gold worker should make or sell any silver plate of less fineness than "stirling" either in London, York, Newcastle, Lincoln, Norwich, or Bristol; and that it must be assayed and marked with the leopard's head before it was sold.

1436. The Act of 1355 was introduced under greater pressure. This Act led to the date-letter being introduced.

1462. The King empowered the Goldsmiths' Company of London, as the assayers of all England practically, with power to punish offenders in any part of the country; and the wardens occasionally travelled through the land to inspect and examine the work of jewellers and silversmiths in the different cities and towns.

1477. No gold under 18-carats fine was allowed to be worked and sold, nor any silver under "stirling," and all harness mounts must be made of silver and hall-marked.

1482. It was enacted that no workman must be made a freeman of the Goldsmiths' Company unless he had served seven years to the trade.

1488. Up to this date the refiners prepared all gold and silver for the mints of London, Canterbury, Durham, York, and Calais.

1512. During the reign of Henry VIII. a sad occurrence took place in the history of Old English gold and silver plate. Plate which had been the sacred property of churches and cathedrals for a long period was all destroyed or taken away. Later, another disaster befell the old plate that was stored by the Guilds and Goldsmiths' Company, and for a time ended the history of Old English Plate.

1513. Before any gold or silver plate could be put to sale, the maker must put his mark on the work, and the assayer must also put his mark (the date-letter) on it.

1519. Was an eventful year in the history of precious metals In Europe a general rise was witnessed.

1526. A pound weight of gold (23-carats, 3½ grains fine), was worth, in current money, £27.

1544. On the 16th May the price of the gold angel was advanced from 7/6 to 8/-. Gold was raised from 45/- to 48/- the oz., and silver from 3/9 to 4/-.

1545. The debasement of our currency began, which caused a great amount of trouble and poverty.

1560. About this time Queen Elizabeth took steps to restore the standard of money and plate, which had been much debased for years. The first attempt, too, was now made to supersede the old hammering method of making coins by the mill and screw, with a new machine, the screw press. The use of the dates on the coinage now became common. The Queen went to the mint and struck a number of coins herself and gave them away to those who were standing round.

1568. Affable Partridge was the principal goldsmith to the Queen.

1569. The first lottery was arranged by one of the Queen's goldsmiths, M. Dericke, of Cheapside.

1570. The sovereign of crown gold, 22 carats fine, was introduced.

1576. After the 20th of April no gold plate less than 22-carats fine was allowed to be made or sold, and no silver less than stirling (·925). The goldsmith stamped his mark thereon, and the assayers were obliged to stamp all articles with the leopard's head.

1597. The lion and alphabetical date-letter was introduced by statute, though the date-letter had been in use for over 100 years, and the lion had been in use more than forty years. A curious scrap of gold belonging to this reign is preserved in the British Museum, supposed to be the fragment of a sovereign.

1604. During the reign of James I. there were some fine specimens of gold coins issued, 23-carats, 3½-grains fine, with ½-grain alloy, and averaged in weight 154·83 grains troy.

1628. Nicholas Briot, a Frenchman, was chief engineer to the English mint. Various provincial mints were worked in this reign. After the outbreak of the civil war, in 1642, the mint at Shrewsbury was removed to Oxford. The Oxford crown piece of

Charles I. is a very fine specimen: on the obverse, within an inner circle, is the King on horseback to left, crowned, and holding a drawn sword; in the distance is the city of Oxford, with OXON over it, and to the left the letter R (the initial of the engraver, Rowlins); on the reverse, the "Declaration," in two lines across the field between two rows of scroll-work, three sets of plumes, the letter V above and 1644 below, all in an inner circle.

1646. At Newark a set of coins, consisting of four pieces, diamond shape, were issued: obverse, a crown, with C and R on either side, and XXX, XII, IX, or VI, to denote the value in pence; on the reverse, in three lines, O B S: Newark: 1646.

1649. About this period one of the most famous coins or medals was struck by Thomas Rowlins for King Charles, known as the "Juxon Medal." It was sold by auction at Sotheby, Wilkinson and Hodge's sale rooms, in November, 1896, there being a very large attendance at the sale, and expectation ran high when the famous medal was put up. This coin was presented to the Bishop of London by the King just before his execution. It passed down to Juxon's decendants, first to Mrs. Mary Gythens, who bequeathed it to her son-in-law, the Rev. James Commeline, of St. John's College, Cambridge. It ultimately came into the possession of Mr. Montague, at whose sale on November 16th, 1896, it fetched £770. (This is the largest price ever paid for a coin or medal in this country). It has since been acquired by the British Museum, and takes its place in the National Collection.

1649-1660. The Commonwealth. On one British crown commonweath is spelt with one m, a peculiarity which also appears on a shilling.

1653-1658. Protectorate. During this period coins were struck bearing the portrait and name of Cromwell. On the edge of the crown piece are the words, "Let no one remove these letters under pain of death."

1662. About £32,000 was paid to Sir Robt. Vynu, His Majesty's goldsmith, for a gold globe, two sceptres, and two crowns, set with precious stones.

1662. The mill-and-screw method of coining was again revived, and the hammered coinage ceased for ever. The first

milled crown piece is distinguished by a rose under the bust, from whence it derives its name of the Rose Crown.

1663. The famous "Petition Crown" was made by Thomas Simon, a well-known English die-sinker, and presented to Charles II. The inscription round the edge was an appeal or a petition to the King for relief. But it is said the petition had no result.

1669. Plate lotteries were allowed in England and Wales.

1671. Copper coins were first issued, and the first English numismatic representation of Britannia. The Duchess of Richmond sat as the model for Britannia.

1675. An order was granted for the re-enforcement of 22-carat gold, and stirling silver of ·925 fineness, to be marked with the lion and leopard's head crowned, one or both of them.

1696. All the old hammered money was called in, melted down, and re-coined. For this purpose mints were set up at Bristol, Chester, Exeter, Norwich, and York. Coins made at the above places have the initials of the name of the town upon them. Also, an Act was passed that, on and after March 25th, 1697, no silver plate under ·959 fine should be made or sold; and the new standard silver plate must have a different mark to the old standard in order to distinguish it, viz.:—a lion's head erased, instead of the leopard's head, and a figure of a woman, called Britannia, in place of the lion. This Act had the desired effect of putting a stop to the practice of melting down coins and making them into plate.

1700. York, Exeter, Bristol, Chester, and Norwich were re-appointed Assay towns.

1701. Newcastle-on-Tyne was re-appointed an Assay town.

1707. The Parliaments of Scotland and England were united. In consequence of this union an alteration was made in the armorial bearings as they appeared on the coins. On some of the gold and silver coins of this reign are found, under the bust, the word, Vigo. This refers to the capture in 1702 of the gold and silver, of which these pieces were minted, from the Spanish galleons at Vigo. On some of the silver coins of this reign are roses in the angles of the cross, which indicate that the silver came from the West of England. There are also silver coins

with plumes in the centre of the cross; this metal is supposed to have come from Wales. Then again, the plumes and roses together mean it is English and Welsh silver mixed.

1715. It may be interesting to state that there are gold coins of this period on which the following inscription is found: "George, by the grace of God, King of Great Britain, France, and Ireland; Defender of the Faith, Duke of Brunswick and Lüneberg, Arch-Treasurer and Elector of the Holy Roman Empire." The title, "Fidu Defensor," conferred on Henry VIII. by Pope Leo X., now appears on the coinage for the first time.

1720. The old standard silver (·925), and the old Assay marks were re-introduced; and a duty of 6d. per oz. imposed.

1739. It was again found necessary, in order to prevent frauds, to refix the standards of 22-carat gold and stirling silver, ·925. The higher standard of silver was not abolished. The maker's mark was changed from the first two letters of his name to the initials of the maker.

1773. Birmingham and Sheffield were appointed Assay towns for silver.

1784. The King's head was ordered to be stamped on all articles subject to duty, which was 8/- per oz. on gold and 6d. per oz. on silver.

1798. The standard of 18-carat gold was introduced, to be marked with a crown and 18.

1810. The mint was removed from the Tower to where it now stands, on Tower Hill.

1813. The lilies of France disappeared from our coins, having adorned them for more than 400 years.

1815. The duty was increased to 17/- per oz. on gold and 1/6 per oz. on silver.

1824. Gold articles were first stamped at Birmingham Assay Office.

1844. 22-carat gold was first stamped with the crown and 22.

1854. The three lower standards of gold were introduced, viz.: 15, 12, and 9-carat, and though they were subject to duty it was not necessary to stamp them with the Sovereign's head.

1876. The letter F was added to foreign plate assayed in England besides the other marks.

1887. Special marks were introduced to be stamped on all foreign watch cases assayed in this country.

1887. Double-florins were introduced.

1887. In this (Jubilee) year 53,200 five-pound pieces were issued, and 85,293 two-pound pieces.

1887. The number of commemorative medals struck were 944 in gold, 2,289 in silver, and 4,257 in bronze.

1890. The duty of 17/- per oz. on gold and 1/6 per oz. on silver was abolished, and the duty marks discontinued.

1890. The minting of double-florins was discontinued.

1890. An Act, dated May 13th, for a Return of the number of ounces of gold and silver upon which duty was paid at each of the Goldsmiths' Halls in London, Birmingham, Chester, Sheffield, Edinburgh, Glasgow, and Dublin, in each year from 1887-8 inclusive, and of the number of ounces upon which draw-back has been allowed in each of those years; showing also the number of ounces of gold and silver plate hall-marked under the voluntary system of hall-marking articles not subject to duty, and the number of gold and silver watch cases which have been hall-marked, distinguishing those which are British from those which are foreign.

1893. 20,160 five-pound pieces and 49,771 two-pound pieces were issued. (None issued since).

1893. An Act, dated December 5th, for a Return of the Charges made for the assay and marking of gold and silver wares by the hall-marking authorities in the under-mentioned places: London, Birmingham, Sheffield, Chester, Edinburgh, Glasgow, and Dublin.

Diamond Jubilee Medals

1897. In commemoration of the completion of the 60th year of the Queen's beneficent reign—a reign which has extended over a longer period of time than that of anyone of Her Majesty's predecessors—a medal was struck in two sizes: the large, $2\frac{3}{16}$ inches diameter; the small, 1 inch in diameter. Weight: large, gold, 3 oz.; large, silver, 2·75 oz.; small, gold, 200 grains; small, silver, 150 grains; bronze, 2·50 oz. Price of Medals: large, gold, £13; small, gold, £2; large, silver, 10/-; small, silver, 1/-; bronze, 4/- (all in cases except the small silver). Total number of orders received, as per Mint report, 1897: large, gold, 3,735; small, gold, 19,453; large, silver, 27,682; small, silver, 245,944;

bronze, 41,981—total, 338,796. 192,701 were ordered at the Bank of England, London, and the rest, 146,095, were ordered at its branches in the provinces, including Edinburgh and Dublin.

On the medal which was struck to mark the occasion of the Diamond Jubilee Year, are the following words :—"VICTORIA ANNVM REGNI SEXAGESIMVM FELICITER CLAUDIT XXI, VN. MDCCCXCVII." On the reverse, the inscription was adapted from the Vulgate, Proverbs iii, v. 16, to the following effect :—"LONGITVDO DIERVM IN DEXTERA EIVS ET IN SINISTRA GLORIA," words conveying the idea of the young Queen ascending her throne, bearing in either hand the gifts of Wisdom, gifts which during her reign have been so abundantly in evidence. At the base of the effigy an arrangement of olive branches, denoting prosperity, and the date of the year of Her Majesty's accession, 1837.

Quality : fine gold, fine silver, and copper bronzed. In the making of these medals polished dies were not used, as a highly polished table would not have been suitable to the arrangement adopted, and is not so agreeable or artistic in effect as a dull table. On the obverse of the medal is the effigy of the Queen, as delineated by Mr. Brock for the existing coinage; and on the reverse, her effigy as pourtrayed by the late Mr. Wm. Wyon for the coinage introduced at the commencement of Her Majesty's reign. In addition (of a different shape) there were 14 gold and 512 silver commemorative medals struck for presentation to the Lord Mayors and Mayors, the Lord Provosts and Provosts of the various Corporations in Great Britain and Ireland.

The World's Industrial Consumption of Gold and Silver, 1897.

There is no correct answer can be given as to the actual amount of the industrial consumption of the precious metals, because there are very few countries where statistics are properly kept relating to this matter. It was stated in the "United States Mint Report," for 1895, that foreign governments are begining to take a great interest in the collection of such facts. The estimate given in the above report for 1897, was as follows :—

	Gold	Silver,
Austria-Hungary	£373,106	£446770
Belgium and	,, £412,052	,, £166,240
Netherlands		,, £68,005
Egypt	,, £143,154	,, £41,842
England	,, £2,060,240	,, £1,163,680
France	,, £2,126,720	,, £1,246,800
Germany	,, £1,754,544	,, £1,246,800
Italy	,, £664,600	,, £174,552
Portugal	,, £1,196	,, £831
Russia	,, £543,244	,, £789,640
Sweden	,, £55,560	,, £29,923
Switzerland	,, £1,142,560	,, £236,892
United States ...	,, £1,859,600	,, £2,059,539
Other Countries ...	,, £664,600	,, £415,600
	Total £11,801,176	,, £8,087,114

Weight of Precious Metals Assayed and Marked in the United Kingdom for Industrial Purposes, from 1893 to 1898.

	1893.	1894.	1895.	1896.	1897.	1898.
Gold (Ounces).						
London	228,160	218,857	224,432	218,541	225,670	226,550
Birmingham	229,016	223,759	239,472	283,423	311,335	333,741
Chester	61,318	62,442	73,283	97,281	109,187	130,480
Glasgow	1,420	1,422	1,448	1,449	1,461	1,500
Edinburgh	100	104	123	125	140	150
Dublin	78	80	87	89	93	100
Total ounces	520,092	506,664	538,845	600,908	647,886	692,521
Silver (Ounces).						
London	1216563	1141495	1354566	1752541	2102563	2103652
Birmingham	1276317	1401449	1796056	2117622	2303157	2530019
Chester	208388	227250	311624	873887	556801	592783
Sheffield	404697	496148	715248	922482	974477	1165017
Glasgow	10000	11321	12452	12863	13395	15321
Edinburgh	12173	12496	13123	13453	14120	15413
Dublin	6365	6521	7315	7736	8123	8123
Total ounces	3134503	3296680	4210384	5700584	5972636	6430328

The average price of silver for the before-mentioned period was about 2/8 per ounce.

As regards the weights given for London, Glasgow, Edinburgh and Dublin in a few cases we have had to estimate the weights of the metals assayed, because we were not able to secure official returns.

The industrial consumption of gold in the world is now about thirteen millions stirling per year, and silver commercial value, about five millions sterling per year.

The Gold Standards.

In 1300 to 1478 the standard for gold plate was 19$\frac{1}{5}$-carat
,, 1478 to 1576 ,, ,, ,, 18 ,,
,, 1576 to 1798 ,, was equal to coin 22 ,, or $\frac{11}{12}$
From 1798 to the present time both 22 and 18 ,,

In December 1854, three lower standards were granted, viz., 15, 12 and 9-carat.

The Silver Standards.

The standard for silver-plate has been, for over 500 years, 11 oz. 2 dwts. of fine silver, and 18 dwts. of alloy (·925) to the pound troy. Except for a short period, from March 1697, to June 1720, in the reign of Wm. III. At that time it was thought that the coins of the realm were being melted and made into plate. In order to stop the practice, an act was passed raising the standard of silver-plate to 11 oz. 10 dwts. pure silver, and 10 dwts. of alloy to the pound troy (·959). It was soon found that plate made of the new standard ·959 (Britannia Standard) was too soft for service and durability, and the old standard of ·925 was restored. Both acts are now in force, but the new standard, ·959, is seldom required. This quality is called Britannia Silver, and is marked with the figure of Britannia in place of the old Silver Mark at London, and in addition at the other offices. The old silver-plate, made between 1697 and 1720, is known now-a-days as "Queen Anne Silver."

Manufacturer's or Merchant's Mark.

This mark has been in use for a very long period. At first, it was used as a symbol, and consisted of the figure of a bottle, cross, heart, crown, or an animal of some kind. In 1363 it was made compulsory that every maker should have a mark of his own, and

known to the man appointed to survey the work. As to the name and address of any particular maker, no reliable information can be given previous to 1697, when an act was passed which declared that the maker's mark must be the first two letters of his surname instead of his initials. In 1720 this act was repealed, when the old standard of silver ·925 was restored. From 1720 to 1739 manufacturers had the option of marking their goods either with the first two letters of their surname or with their initials. The act of March 28th, 1739, declared that the initials of the maker must be stamped at the works on all goods which were intended to be assayed, and the punch used for that purpose must be registered at the assay office, and properly entered in the name register book and signed. That is the law at present time.

Duty Mark.

On December 1st, 1784, a duty of 8s. per ounce on gold-plate, and 6d. per ounce on silver, was imposed. In 1815 it was increased to 17s. per ounce on gold, and to 1s. 6d. per ounce on silver. The duty was paid at the assay office. The King's, or the Queen's head was stamped on all articles subject to duty, which denoted that duty had been paid. Plate made in England, and exported new, was exempted from duty or, what was the same thing, a drawback of the duty was allowed. Watch cases were not subject to duty; but plain gold rings and wedding rings were duty charged and marked with the Sovereign's head. Duty was paid on 15, 12, and 9-carat gold-plate, but it was not necessary to mark these three lower standards with the Sovereign's head. The duty and duty-mark was abolished on the 30th of April, 1890.

Licenses.

Dealers in gold exceeding 2 dwts. and under 2 oz., and silver exceeding 5 dwts. and under 30 oz., £2 6s. 0d. per annum. Dealers in gold and silver over the above weights, and to refiners of gold and silver, £5 15s. 0d. per annum.

Date Letter.

The date-letter is by far the most interesting and useful mark in connection with this subject. It was first used about the year 1437 in order that should any dispute arise about the marking, it might be known who was the responsible warden at the time. It will be seen that these letters consist of part, or in some cases the

whole of the alphabet, in various forms. Since 1560 the letters have mostly been enclosed in shields of various styles and shapes, which in many cases are found to be very useful. The assay year at each office commences about the middle of the year, so that each letter serves for the last six months of one year and the first six months of the next year.

The Lion Passant.

The lion-passant is sometimes called Her Majesty's Lion. It is well-known as the standard mark for silver in England, and was also used as the standard mark for 22-carat gold from 1545 to 1844, when an act was passed to change the mark of 22-carat gold.

Section XV. reads as follows :—And whereas all gold wares of the standard or fineness of twenty-two-carats of fine gold in every pound troy assayed by any of the said companies of goldsmiths and guardians are by certain statutes now in force required to be marked with the same mark as that with which all silver wares of the standard or fineness of eleven ounces and two pennyweights, assayed as aforesaid, are required to be marked, (that is to say,) with the figure of the lion-passant, in order to denote the standards thereof respectively, whereby great facilities to frauds are afforded, and extensive frauds have been committed by dealers in gold and silver wares; and it is expedient that all gold wares of the standard or fineness aforesaid, and so assayed as aforesaid, should be marked by a different mark, to denote the standard thereof, from the mark so used for the said silver wares as aforesaid: Be it therefore enacted, that from and after the first day of October, one thousand eight hundred and forty-four, there shall be struck or marked by the said company of goldsmiths in London, and by the several companies of goldsmiths in the Cities of York, Exeter, Bristol, Chester, and Norwich, and the Town of Newcastle-upon-Tyne, and the Company of guardians of the standard of wrought plate in the town of Birmingham, upon all gold wares of the standard or fineness of twenty-two carats of fine gold in every pound troy, brought to them respectively to be assayed, the mark of a crown and the figures 22, instead of the mark of the lion-passant.

Section XVII. reads :—And be it enacted, that this act shall not extend to Scotland or Ireland.

The lion-passant has probably been in use for 360 years, it is first mentioned in the records of the Goldsmiths' Company in 1597, but has been found on plate made in 1545. It was enclosed

in a shield or rectangle from 1548 to 1557. For the first four years the lion was crowned. The shape of the shield has been changed from time to time. It is quite within the province of any office to adopt a change anytime it thinks fit. This was done at the London office in 1896, when the present cycle of date-letters commenced. The lion-passant, turned to the right, was used at Newcastle-on-Tyne as the standard mark in 1672.

The Leopard's Head.

This mark is the oldest hall-mark on record. In the year 1327 it was spoken of as the mark of ancient times. Its shape and appearance has been changed at various periods, from 1300 to 1547, it was enclosed in a circle, or round shield. From 1547 to 1678, the shape of the shield followed the head and crown. From 1678 to 1697 the head was again placed in a circle. From 1697 to 1720, the punch of the leopard's head was not used at the London office, the lion's head erased was substituted for it. From 1720 to 1729, the leopard's head was again brought into use, but the shape of the punch, is not definitely known. For a number of years from 1729 the shape of the shield for the leopard's head crowned was a plain angular heraldic shield. From about 1756, the present style of shield has been in use. From 1822 the leopard's head has appeared without the crown, and it has often been said to resemble the head of a cat. The leopard's head was the national standard mark for both gold and silver up to 1545, when the lion-passant was introduced. Since that time it has been considered the city or hall-mark for London. For many years, commencing with 1720, the leopard's head crowned was used at the provincial assay offices, in addition to the local marks, and at Newcastle it was regularly used until the office closed in 1885.

The Crown.

This is a very familiar mark in connection with the hall-marks. It has been in use at Sheffield as the city or hall-mark from the commencement in 1773. It has also been used at London, Birmingham and Chester as the standard-mark for 18-carat gold since 1798, and as a standard mark for 22-carat gold at these offices since 1844. The crown and a Roman letter X was the hall-mark at Exeter in 1572 and 1640. The crown and a rose was used as the standard mark at Norwich, from 1630 to 1690. The crown on the leopard's head was used at the London hall for hundreds of years up to 1822.

How to find out in which Year any Hall-Marked Article was made.

A few words on this subject will, we hope, be useful to many of our readers.—It is a difficult thing for an inexperienced person to find out the proper date or year in which a great number of hall-marked articles were made. The following examples we trust will assist those who are not acquainted with the matter. Example 1. I open the back case of a silver watch and I find the marks are:—




The D is the date letter, the lion the standard-mark, the dagger between three wheat sheaves is Chester city or hall-mark, the F and S are the initials of the case maker, or, as in this case, the initials of a firm who engages a case maker, viz., Fattorini & Sons. I now turn to the Chester list of date-letters, and find a similar Roman letter D to the one on the watch case which was used at Chester office, in the year 1887-8, consequently this watch is eleven years old. Example 2. I have now in my hand a teaspoon marked as follows: first, H. D. C. D. second, leopard's head crowned; third, lion; fourth, small letter F in a shield; fifth, king's head.

No. 1, the initials of the firm who made the spoon.

No. 2, the leopard's head crowned—the London hall-mark.

No. 3, the lion, or standard-mark.

No. 4, a small letter f in a shield. The shape of shield assists me to find the proper letter in the book.

No. 5, the king's head, or duty mark.

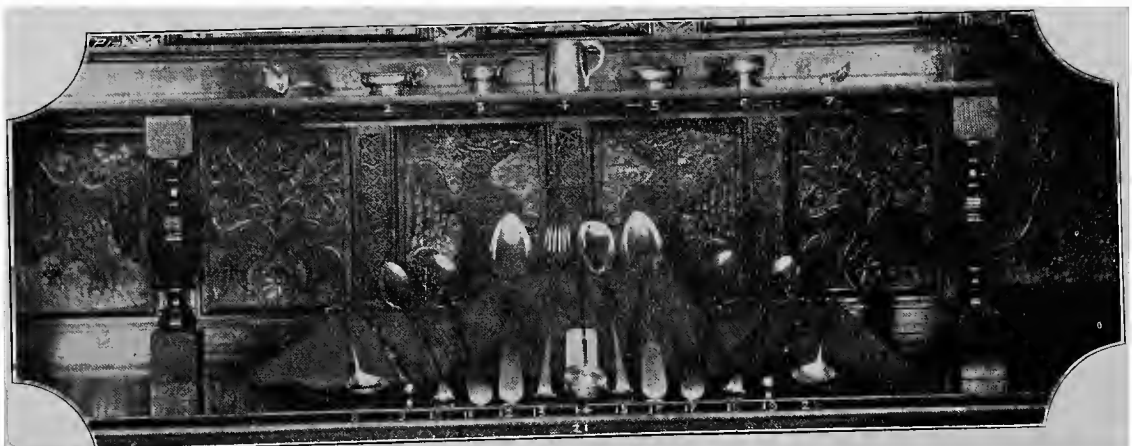
As this article was assayed and marked at London, I turn to the London list of date-letters, and find a similar letter, which corresponds in every way to the one marked on the spoon under the date of 1821-2, therefore the spoon is 78 years old.

Example 3. I have before me a silver fruit knife marked with three marks, as follows;—1, the lion; 2, anchor; 3, old English capital letter U.

No. 1, the standard mark.

No. 2, Birmingham hall-mark.

No. 3, The date-letter, an old English capital U, as above. In this case the article was assayed and marked at Birmingham, consequently I turn to the Birmingham list of date-letters, and



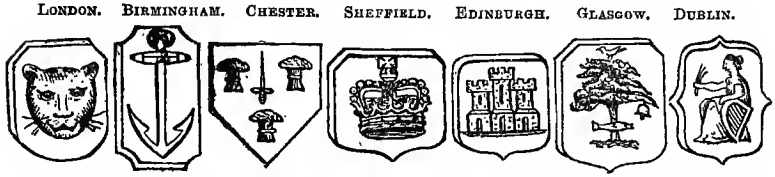
MR. CHORLEY'S PLATE.—*See page* 166.

find a similar letter to the one on the article, under date 1844-5; it is evident then that the knife is 55 years old. *(May, 1899.)*

The Hall-Mark.

The Hall-Mark proper is the city or town mark, sometimes called the local mark. The following are specimens of those in present use. The word Hall-Marks generally. has reference to all the marks used at the assay offices.

LONDON. BIRMINGHAM. CHESTER. SHEFFIELD. EDINBURGH. GLASGOW. DUBLIN.



Fine Gold.

The term fine gold means pure gold, in a commercial sense, and is worth £4 5s. 0d. per ounce troy. It is almost as soft as lead, and altogether unsuitable for industrial purposes. But as a thing of beauty and adornment there is nothing to equal it. It pleases the eye of every one, from the beggar to the prince. In the jewellery trade the term fine gold is often applied to articles made of 13 and 15-carat gold.

Charges made for Assaying and Marking Gold and Silver Wares.

The following is a summary of a return made to the Board of Trade, by order of the House of Commons, December, 1893. Return of the charges made for the assaying and marking of gold and silver wares by the Hall-Marking Authorities, in the undermentioned places, with respect to plate manufactured in the United Kingdom, and to that imported from abroad, and the statutory authorities for making such charges: London, Birmingham, Sheffield, Chester, Edinburgh, Glasgow and Dublin. It should be clearly understood that in case the amount received for assaying and marking should raise more money than shall be sufficient to defray the necessary expenses, the overplus is applied in the first instance towards prosecutions against those who try to swindle the public by marking inferior metal in an unlawful manner and, if not required for that purpose, in reduction of the amount to be charged for assaying. (The efficiency of hall-

marking is such now that the charges are a mere nothing.) Owing to the thorough examination made of every article at the Goldsmiths' Hall, London, for many years the expenses have considerably exceeded the amount received from fees. As regards the cost of assaying and marking foreign plate, on account of the extra care and trouble on the part of the officers, the average price per ounce is 2·421d. (nearly 2½d.). Practically the whole of the foreign plate imported into England is dealt with at the London office

ASSAY OFFICE, GOLDSMITHS' HALL, LONDON:
PRICES to be taken for Assaying and Marking Plate.

GOLD WORK.	s.	d.
Each Watch Case, or Box	0	9
Each Pendant	0	3
Each Sword Hilt or Watch Chain	1	6
Each Hook or Cane Head, Frame for Picture, Tooth-pick Case, Coral Socket, Spectacle Frame, Seal, Medal, Spoon, Badge, Pencil Case, Pap Boat	0	10
Each Buckle, or Piece of Chain	0	5
Each Snuff Box, or other Box	1	3
Each Thimble, Brooch, or Slide, Key, Split Ring, Blade	0	6
Each Pair of Sleeve Buttons	0	2
Each Ring, Coat, or Breast Button	0	1
Other Gold Work, weighing 30 oz. or under	2	6
30 to 50 oz. and so in proportion	3	9
Least Parcel of Gold	1	3

SILVER WORK. On Large Plate, weighing above 4 lbs. (48 ozs.) a Diet of 10 grs. per lb. Troy.	
Shoe Clasps, Sleeve Buttons, or Studs, per doz.	9d.
Each Sword Hilt, Frame for Cruets, Dish Stand, Cock, Ink Stand, Dish Cross, Argyle, Bread Rack	5d.
Each Badge, Flower Frame, Butter Cooler, Shaving Pot, Bottle, or Lamp	4d.
Each Coral Socket, Snuff and other Boxes, Pair of Spurs, Dozen of Tea Spoons, Seals, Buttons, Salt Shovels, Strainers, Salt Ladles, or Pieces to Garnish Cabinets, Knife Cases, Tea Chests, or Bridles	3¾d.

SILVER WARES weighing 5 ozs. each and upwards, and spoons and forks weighing 5 ozs. and upwards per dozen, one halfpenny per ounce.

Wares Weighing less than 5 ozs. as under:

Badges	4d. each	Chains	2d. each
Baskets	3d. ,,	Chatelaines	6d. ,,
Basins or Boats	3d. ,,	,, Appendages	2d. ,,
Basins or Boats under 2 ozs.	2d. ,,	Chatelaines Appendages Combinations	4d. ,,
Blades or Prongs	1d. ,,	Chalice, Flagon, or Paten	3d. ,,
Bracelets, Clasps or Medals	2d. ,,	Chalice, Flagon, or Paten, under 2 ozs.	2d. ,,
Bells -	3d. ,,	Cigar Rims	2d. ,,
Boxes or Bottles	3d. ,,	Clips	2d. ,,
Boxes or Bottles Combinations	6d. ,,	Coffee, Cocoa, or Shaving Pot	5d. ,,
Boxes or Bottles under 2 ozs.	2d. ,,	Coral Sockets	3d. ,,
Boxes or Bottles under Combinations -	4d. ,,	Comb Mounts -	2d. ,,
Bottle Stands -	2d. ,,	Crests	2d. ,,
,, Tickets or Bookmarkers	1d. ,,	Cruet Frames	5d. ,,
Breakfast Frames -	3d. ,,	,, Tops	1d. ,,
Buckles	2d. ,,	Crumb or Cheese Scoops	3d. ,,
Butter Coolers	4d. ,,	Dressing Case Covers	2d. ,,
,, Knives	1d. ,,	Dog Collars	5d. ,,
Buttons	3d. per doz.	Dog Collars, Plain Band -	2d. ,,
Brush Backs	3d. each	Egg Boilers	5d. ,,
Brush Backs under 2 ozs.	2d. each	Ewers	3d. ,,
Caddy or Canister	5d. ,,	,, under 2 ozs.	2d. ,,
Call or Whistle -	2d. ,,	Escallop Shells	2d. ,,
Candlestick or Taper	3d. ,,	Funnels -	2d. ,,
Carriage Lamps -	1/- ,,	Flower Vases	2d. ,,
		Grape Scissors	3d. ,,

There are scores of other articles which are charged at about the same rate as the above.

Any wares weighing less than 3 ozs., if made out of one piece without a joint, and sent in quantities not less than 24 pieces, each 1d.

Least Parcel of Silver, 5d.

Name-Mark to be struck before sending to Hall.

BIRMINGHAM.

Prices to be paid for assaying and marking gold and silver wares on and after the 15th of July, 1890

Gold.		Silver.	
Chain or Watch Case	5d. each	Wares not exceeding in weight 5 dwts. each (excepting watch pendants)	3d. per doz.
Locket, Bracelet, or Necklet Pendant	2d. ,,	Chains,	1d. per oz.
Studs, Links or Rings	3d. doz.	Other Wares,	½d. ,,
Other wares	1d. each		

No Parcel of Work will be charged less than 1s.

The full weight of gold and silver will be returned without stoppage for dirt.

SHEFFIELD.

Articles not exceeding 10 dwts. in weight each, 3d. per dozen.

All other wares ½d. per oz., the minimum charge for any one parcel being 6d.

These charges are in each case one-half of the charges allowed by statute.

CHESTER.

Gold.		Silver.	
Chain	5d. each	Wares not exceeding in weight 5 dwts. each (excepting watch pendants)	3d. per doz.
Watch Case	6d. ,,	Watch Cases	1d. per oz.
Locket, Bracelet or Necklet Pendant	2d. ,,	Chains	1d. ,,
Studs, Links or Rings	3d. doz.	Other Wares	½d. ,,
Other Wares	1d. each	Foreign Plate	1d. ,,

EDINBURGH.

Gold.		Silver.	
Stamping	1s. per oz.	Stamping	2d. per oz.
Assay	1s. each	Assay	3d. each

GLASGOW.

Gold.		Silver.	
Wares	1s. per oz.	Wares weighing 5 dwts. each and upwards	1d. per oz.
Watch Cases	1s. each	Wares under 5 dwts. each	6d. per doz.
Badges or Medals, not weighing more than 3 dwts. each	6d. per doz.		
Studs, Links, or Rings	6d. ,,		

No piece of gold will be charged less than 1s., or parcel of silver less than 6d., each parcel being one quality. The charge for assays to members, for gold 1s.; for silver, 3d.; non-members, gold, 1s. 6d.; silver 6d.

DUBLIN.

Gold.		Silver.	
Each Wedding Ring, under 6 dwts.	1d.	Plate	per oz. 1d.
,, Fancy Ring	2d.	Wares (not plate) weighing under 3 dwts.	each ½d.
,, Medal or Badge	4d.	Under 30 Articles, extra for Assaying	,, 4d.
,, Pair of Links	4d.	Wares under 6 dwts.	,, 1d.
,, Bracelet	6d	Under 12 Articles, extra for Assaying	,, 4d.
,, Chain	1s	Medals or badges over 6 dwts	,, 2d.
,, Watch Case	8d.	Watch Cases	,, 6d.
Plate	per oz. 6d.	Lowest charge for silver	,, 6d.
1s. is charged in all cases for assaying above the marking.			

These charges are regulated by the Goldsmiths' Corporation of Dublin. Special Charges are made for goods manufactured in England or Scotland.

Hall-Marking and Assaying at Chester Assay Office

The following has been furnished by W. F. Lowe, F.I.C., Assor. R.S.M., June, 1898:—The process of assay by cupellation is the removal, by the aid of fused lead oxide, of all the constituents of an alloy with the exception of the so-called noble metals, gold and silver (and also platinum, if present). It is carried out by the addition of a suitable quantity of lead to the alloy, which is then placed on a hot bone-ash cupel, and heated in a current of air. The lead and also the other metals, with the exception of the gold and silver, oxidise, and the fused lead oxide takes up the other oxides as fast as they form and carries them down into the porous cupel until a button of pure gold or silver only is left. The process of cupellation is one of the oldest metallurgical operations there is any record of, for it is frequently mentioned in the old testament as the "refiner's fire." There is no doubt that the Roman's carried out the process on a large scale. The furnace used for cupellation is a muffle furnace.

At Chester Office, Fletcher's perfected gas muffle furnaces are now used, and are found to give more uniform results than the older form of gas muffles. They are also larger and admit of 60 assays being cupelled at one time.

For Silver assay, 10 grains are taken. The balances employed are made by Oertling, and will indicate distinctly $\frac{1}{1200}$ of a grain.

The weighed assay is placed in a little bag of lead, made by taking very thin sheet assay lead (laminated lead) cut to the proper weight (the piece then measures about $3\frac{1}{2}$ by $2\frac{1}{2}$ in.) and rolling this up into a little conical bag like the bags used by grocers for holding moist sugar, &c. Needless to say each batch of lead is assayed for silver. The commercial laminated lead is usually quite pure enough for this purpose, as on an average the amount used for each assay contains only sufficient silver to raise the amount by 0·08 per thousand. After being placed in the lead bag, the latter is folded and is squeezed up into a small ball, which is then ready for cupelling.

Check Assays made from pure silver or pure gold are assayed with every batch of assays.

The pure silver for checks as also the pure gold for the same purpose, we always prepare ourselves, and before using them compare them with assays from the trial plates supplied by the mint. The assays after being removed from the furnace are squeezed with a pair of pliers, brushed, and then weighed by the assay master. *If found correct, he gives orders for the article from which assay was taken to be stamped with the hall-mark, the date-letter, and the standard mark; but if the assay is not up to the required standard it is put on one side and tested again twice more next day, and if still not right, the goods are broken and returned to the manufacturer.*

Gold.—The oldest method of testing the quality of gold was by the touch. This consisted in making a streak on a black stone, called a touchstone, and comparing it with a streak from a piece of gold of known composition called a touch needle. Erckern says that by this method a difference of half a carat can be detected. but it has been shown that a difference of two or three carats very frequently cannot be detected even by those accustomed to use the touchstone.

The process for the bullion assay of gold depends on the solubility of silver and the insolubility of gold in nitric acid. It was formerly considered that 3 parts of silver should be added to 1 part of gold in order that all the silver might be removed, and hence the process received the name of inquartation. It is now found that gold will part on the addition of two parts of silver to one of gold but in assaying it is usual to obtain the alloy in the

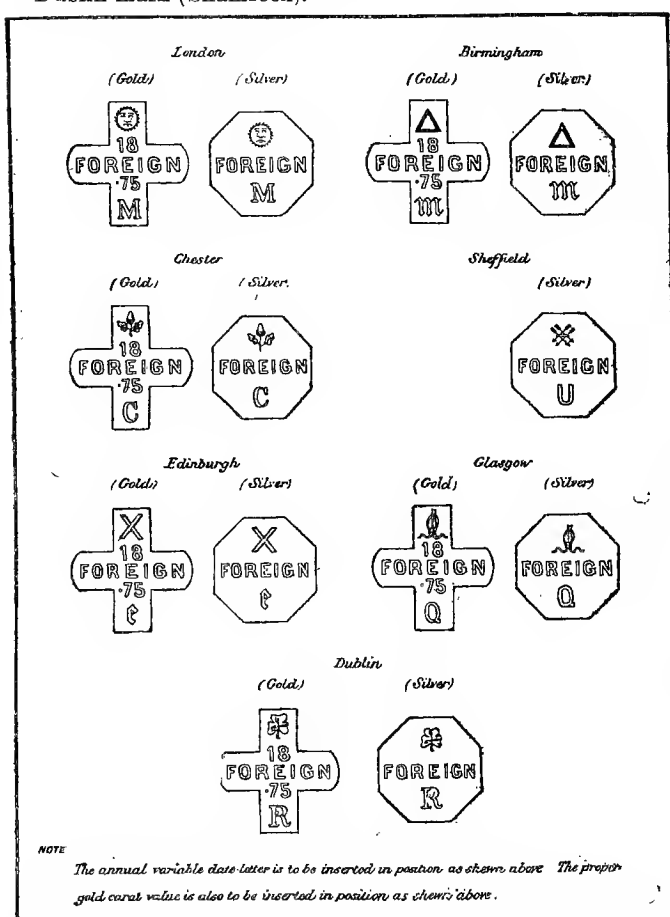
proportion of 2½ parts silver to one of gold. At Chester the unit weight employed is 5 grains; the writer would prefer to employ a larger quantity, but the difficulty lies in not being able to obtain a sufficient amount for assay without damaging the articles sent to be hall-marked. Many of these, such as rings, brooches, chains, &c., are very small. In taking the assay from the articles, if they are large enough they are scraped with a steel scraper, and if the article is made in several portions a separate assay is made from each part. The smaller articles have small pieces cut off, as they are sent up unfinished. Not less than two assays are made if possible from a single lot of work, and where there is a large number of articles in one lot, a dozen or more assays may be made from it. The weighed assay is placed in what is called a silver lead, that is a small conical bag of lead into which has been weighed the requisite amount of fine silver to form an alloy of 2½ parts of silver to one part of gold. When a batch of 60 assays is ready they are each squeezed up to the size of a small bullet, and cupelled in one muffle. The buttons are taken from the cupel with a pair of pliers, squeezed, and brushed with a fine wire brush then flattened on an anvil kept bright and polished, and are then rolled out into a little strip about three inches long. Each assay, after rolling, is placed on a tray of wire gauze over a large, solid-flame Fletcher burner, and in this way the whole batch of 60 are annealed at one time. After the strips are cool they are rolled up into little coils called cornets, and are then ready for parting. The parting apparatus (which was designed by the writer), consists of a porcelain basin 8½ in. in diameter, having a capacity of 50 oz.; a porcelain cover perforated with 60 holes, each hole being numbered with black enamel; and a number of glass tubes with small holes in the bottoms. The tubes are made to slip loosely through the holes in the cover. In this basin the cornets (or assays) are boiled in strong nitric acid over one of Fletcher's radial burners. When they have boiled for 15 or 20 minutes and the action of the acid has ceased, the whole 60 assays are transferred to another basin of stronger acid and are boiled briskly for half-an-hour; they are then taken out, washed with distilled water, and transferred to small crucibles; after this they are annealed in the muffle, when the assays are ready to weigh.

From the London Gazette, May 9th, 1887.

Marks on Foreign-made Watch Cases.

All gold and silver watch cases imported into this country for sale must be tested and stamped with a special punch, which bears altogether a different mark from the English mark as follows :—

London mark (Phœbus) or full moon with rays around it.
Birmingham mark (Equilateral Triangle).
Chester mark (Acorn and two Leaves).
Sheffield mark (Crossed Arrows).
Edinburgh mark (St. Andrew's Cross).
Glasgow mark (Bishop's Mitre).
Dublin mark (Shamrock).



Since this Act was passed, probably on account of the marks differing so much from the English lion and the marks for gold standards, scarcely any foreign watch cases have been marked in

England, thus preventing the sale of foreign as British make, for which purpose the Act was intended. They prefer now to mark them in their own country. On foreign silver watch cases you will find two bears standing on their hind legs, and 0935; on gold cases 18K, 14K, 10K, &c.

Laws and Standards of Foreign Countries.

FRANCE.

Hall-marking is compulsory. There are a large number of assay offices. Laws very strict. Number of standards: four gold, and three silver, viz.:—Gold: ·920, ·906, ·840 and ·750. Silver: ·950, ·948, and ·800.

PORTUGAL.

High duty on imports. Hall-marking laws very strict. The standard for both gold and silver was ·844. A change has taken place to gold, ·840¼; and silver, ·843¾; for small-ware jewellery a lower quality is allowed.

SWITZERLAND.

Hall-marking is compulsory. There are two standards for gold, and three for silver, viz.: Gold, ·750 and ·583⅓. Silver Watch cases, ·935; other wares, ·875 and ·800.

HOLLAND.

The Hall-marking laws are very similar to our own, with a small duty on silver There are four standards for gold, and three for silver: Gold, ·916⅔, ·833, ·750 and ·583. Silver, ·934, ·875 and ·833.

RUSSIA.

Hall-marking is strictly adhered to. Workmen must have a license, and they must get a permit if they wish to remove from one place to another. Standards for gold, ·950, ·880, ·750 and ·561; silver, ·950, ·900 and ·800.

DENMARK.

The laws of this country relating to the question are optional. The standards are ·819 for gold, and ·840 for silver. A tax is levied on foreign travellers.

SWEDEN AND NORWAY.

Compulsory laws are in force. No laws for exports. Gold standards, ·966, ·840, ·750 and ·583⅓. Silver, ·840. There is a small duty on imports, and foreign travellers are taxed.

AUSTRIA.

All gold and silver goods must be hall-marked. The standards are as follows:—gold, ·920, ·840, ·750 and ·580; silver, ·950, ·900 ·800, and ·750.

BELGIUM.

The laws here are not compulsory, the standards are same as in France. But little business is done at the assay office in Brussels, and French goods are sold largely in Belgium. There is a 5 per cent. import duty.

UNITED STATES.

Heavy duty on imports. No authorised Hall-marks are used in any part of America.

SPAIN.

Voluntary. Not much business done here. Gold standards, 916⅔, 833⅓, and ·750; silver, 916⅔ and ·750.

It is difficult to get correct information on foreign Hall-marks.

We have got the bulk of the foregoing particulars from Mrs. Brewer's book on *Gold, with notes by Mr. Edwin W. Streeter*, and Mr. Edward J. Watherston's pamphlet on *Voluntary versus Compulsory Hall-marking;* and from a *French Dictionary on Jewellery.*

General Information.

It is compulsory for all domestic gold and silver plate and watch cases to be assayed and hall-marked. Makers of watch cases do not require a license, nor do dealers in gold lace, wire, fringe or thread.

The term carat is not an absolute or real weight for gold, but is relative and denotes the quality. When refering to diamonds it is a real weight, 151½=1 oz. troy. It is not compulsory to mark gold and silver watch chains, but makers find it beneficial to do so, As they sell much better when they are hall-marked. 18-carat is stamped with a crown and 18; 15-carat with 15·625; 12-carat with 12·5; and 9-carat with 9·375 respectively. On one of the links the local mark and date-letter will be found. Silver chains are stamped with the lion.

22-carat gold articles are equal in quality to gold coins.

Silver stamped with the lion is equal to silver coins.

10 dwts. is a carat of a pound troy, 24 times 10=240 dwts.=1 lb.

The alloy in gold and silver serves two purposes, it cheapens and hardens the metal.

The price of gold is 3/6½d. per carat. 24 times 3/6½d=£4 5s.= 1 oz. pure gold.

For a good test acid, try the following: Pure nitric acid, 4 oz. Pure hydrochloric acid one scruple, distilled water 1 oz.

Gold can be beaten into leaves $\frac{1}{200000}$ of an inch in thickness.

One sovereign, or 123¼ grains, can be made to spread over a surface of 6588 square feet.

Gold is 19¼ times heavier than water.

One cubic foot of pure gold weighs 1203 $\frac{89}{100}$ lb. avoirdupois, 1463·04 lbs. troy.

One cubic inch of gold weighs 10·160 ozs. troy.

For weighing diamonds there are sets of carat weights, consisting of weights of 200, 100, 64, 32, 16, 8, 4, 3, 2 carats and of 1, ½, ¼, ⅛, $\frac{1}{16}$, $\frac{1}{32}$, $\frac{1}{64}$, carat.

151½ carats, or 600 diamond-grains=1 oz. troy.

Pearl weights. The pearl grain is the $\frac{1}{600}$ part of a troy oz., or $\frac{4}{5}$th of the grain troy.

The carat weight used in the sale of common pearls is the same as that in use for weighing diamonds, 3·1683 grains.

The pound troy, 12 oz. and the dwt. are now obsolete; but the troy ounce of 480 grains is recognised by the Board of Trade.

Three pennies, five half-pennies or ten farthings, weigh one ounce avoirdupois.

7000 grains=1 pound avoirdupois, 5760 grains=1 pound troy.

437½ grains=1 oz. avoirdupois, 480 grains=1 oz. troy.

Therefore the pound avoirdupois is greater than the troy pound by 17 to 14, but the avoidupois ounce is less than the troy ounce in the proportion of 72 to 79, about.

One ounce avoidupois is equal to 18¼ dwts.; or 20 dwts. troy =1 oz. troy.

The value of one cubic inch of fine gold is £43 3s. 7⅕, about.

The Duty of Guardians and Wardens.

To the guardians and wardens of each particular company belongs the duty of selecting experienced and qualified persons to make the necessary assays of articles submitted for marking. This is a responsible office, and the wardens are required to take an oath before a justice of the peace, residing in the county where the assay office is established. In this oath they undertake faithfully to discharge their duties, not to discover to any person any pattern,

design, or invention of any plate brought to the office for assay. The office of the assay master is more responsible still, he is required to give a bond to the master-of-the-mint, with two sureties, in the penalty of £500, for the faithful discharge of his duties to all concerned, and that he will not, either directly or indirecty, be concerned in the buying or selling of bullion, or the manufacture of wrought plate.

The Assay masters of Birmingham and Sheffield are required twice a year to appear at the mint and verify their proceedings, under a penalty of £200 and dismissal from their office for ever. This is not the case with any other office.

BULLION DEALERS' PRICES OF OLD GOLD.

The metal must be clean and free from solder.

	£	s.	d.	
22-carat Hall-marked Rings ...	3	16	0	per ounce troy
18 ,, Rings, Watch Cases, &c. ...	3	0	0	,, ,,
15 ,, Rings, &c., Hall-marked ...	2	10	0	,, ,,
12 ,, ,, ,, ,, ...	2	0	0	,, ,,
10 ,, ,, ,, ,, ...	1	13	0	,, ,,
9 ,, ,, ,, ,, ...	1	10	0	,, ,,
Ladies' Chains, Earrings, &c., unmarked, from ... ... 12/- to	1	5	0	,, ,,

LONDON.

There is every evidence that a society or guild of goldsmiths has been in operation here for over 700 years, if we go back to the consolidation of the Goldsmiths' Company of London. In the former part of the twelfth century, it was found necessary by the moneyers, as they were then called, to take steps for the protection of their trade. Thus was founded a society which was the germ of the great Goldsmiths' fraternity, which, to-day, is one of the wealthiest and most powerful trade corporations of the city of London.

The first statute on the subject of Hall-marks was passed in 1300, when the leopard's head crowned was introduced as the Government mark for both gold and silver. This mark was termed "Leopard," but was in fact the head of a lion. The "King's Mark" it was called in the statute of 1363. In the act of 1477 it was described in both ways. In a later account, near the end of

the 16th century, it was styled the leopard's head only. In the year 1678 the head was placed in a circle, and not until 1822 did it ever appear without the crown.

The Hall-marks at present in use, at the London Assay Office, are as follows:—

22-carat gold articles are stamped with the crown and 22, the leopard's head (which is often more like a cat's head), the maker's mark, and the annual date-letter.

18-carat, same as above, with the exception of the figures 18 in place of the 22.

15-carat gold ware is stamped with 15·625.
12 ,, ,, ,, ,, 12·5.
9 ,, ,, ,, ,, 9·375.

Stirling silver, old standard ·925, is marked with the lion-passant, maker's mark, leopard's head, and the annual date-letter.

Britannia silver, or New Standard ·959, is marked with the figure Britannia instead of the lion, and with the lion's head erased in place of the leopard's head.

Foreign silver plate, imported for sale and assayed at this office, is stamped with the letter F in addition to the marks for old English silver.

For marks on foreign watch cases *see elsewhere.*

TIME OF ATTENDANCE.

All work received from 9 o'clock to 9-30 a.m.; except on Saturdays, when the work must be sent before 9 o'clock a.m., in order to be assayed, marked and ready for delivery before 2 o'clock p.m. No attendance on Good Friday, Easter-Monday, Tuesday and Wednesday; Queen's Birthday; Whit-Monday, Tuesday, and Wednesday; May 28th (Trial of the Diet); May 29th (Swearing-in the Wardens and Officers); August Bank Holiday; November 9th; Christmas Day and three following days. Herbert W. Robinson, Deputy Warden.

BIRMINGHAM.

This office was established in 1773. The local mark is an anchor, and the standard marks for both gold and silver are the same as those used at London. This is the largest office of all the seven, and more goods are assayed and stamped at this place than at all the other provincial towns put together. In order to meet the requirements of the rapid increase of business, the offices here,

which were re-built in 1877, have been enlarged several times and are fitted with all the requirements of a first-class establishment. Electricity is largely made use of not only for lighting the offices and workrooms, but for driving lathes, lifts and machines of various kinds. It is replete with cooking, dining and lavatory rooms, and no one is allowed to leave the premises until all the punches are in their proper places and locked under three keys, which are taken charge of by the assay master and two of the wardens. In each department the work is carried on systematically by a staff of well trained hands. Method is absolutely necessary in an office of this kind, in order to keep the different assays in their proper places.

The guardians connected with this office are always on the alert, and no expense is spared to put down fraud and protect the honour of the trade.

In 1824, power was given to the guardians of Birmingham to assay gold as well as silver.

The shape of the tablets given with the figures denoting the three lower standards of gold are rectangular [9 | ·375] [12 | ·5] [15 | ·625]

The mode of selecting the cycle of date-letter might easily be improved by keeping the different styles of letter further apart. The first and the fourth cycles are similar, and the shape of the shield in this case is no guide Readers will remember that there was no duty-mark from 1773 to 1784, whilst all through the cycle from 1850 to 1875 the duty-mark has been used.

TIME OF ATTENDANCE.

Daily (except Sundays and Bank Holidays) from 4 to 5 p.m., from 9 to 9-30 a.m., and on payment of a late fee of 1s. for each parcel, from 11 to 11-30 a.m. This rule is strictly adhered to. Parcels of work are delivered at 3-30 p.m. in the order, as nearly as possible, in which they were received, preference being given to those of the previous afternoon. Parcels on which a late fee has been paid are delivered the same day. HENRY WESTWOOD AND ARTHUR WESTWOOD, Assay Masters, New Hall Street.

SHEFFIELD.

This office was established 1773 under the same Act by which the Birmingham Assay Office was founded.

The hall-mark is a crown. A large and increasing business is done, chiefly in heavy silver plate such as tea sets, waiters, centre-pieces, spoons, forks, &c., though a considerable quantity of light

articles, mounts, blades, &c., connected with the cutlery trade of the city are also marked at this hall, which has a very high reputation for efficiency.

The appliances of the office are throughout of the most modern type. Gas has been used as the fuel for the assay furnaces since the year 1867, when the present assay master introduced it as an improvement upon charcoal, and designed a furnace which, for thirty years has worked most satisfactorily.

Only Silver wares are assayed here. The office is open for receiving goods from 9 to 10 a.m. which are returned to the manufacturers between 5 and 6 p.m. Articles not exceeding 10 dwts. each in weight are charged 3d. per dozen; All other wares ½d. per ounce.

The second and the fourth cycle of date-letters at this office were similar, viz., Roman capitals; the former were in a lozenge-shaped shield, the latter in a square or oblong-shaped shield, the duty-mark will be sufficient to distinguish the cycles. Sometimes the crown and the date-letter are found within the same shield, the same thing occurs with regard to the lion and the crown, they are stamped with the same punch; however for the most part they are stamped separately. Arnold T. Watson, Assay Master, Leopold Street.

CHESTER.

There is no satisfactory record of the date when assaying and marking plate first commenced at Chester, but the goldsmiths of this historic city must have been in existence for three or four hundred years. We have had the privilege of inspecting an old minute-book containing an entry prior to 1573, which runs as follows:—"That noe brother shall delivere noe plate by him wrought unless his touche be marked and set upon the same beffore deliverie thereof upon paine of forfeture of everie diffalt to be levied out of his goods iiijs iiijd." Chester is one of the towns where large quantities of silver were coined in the time of Charles I. and William III. It is stated that there were at one period six or seven mint masters in Chester. The old local mark at Chester was the arms of the city—three lions ramp., dim., impaled with three garbes dim. This mark was used between 1701 and 1784. Since then to the present time the local or hall-mark has been a sword erect between three wheat sheaves. There is good authority for stating that Chester was an assay town in

1685. The office, however was re-established in 1701, and a fairly large amount of business has been done since that date. Goods are sent to this office from Coventry, Liverpool and other parts of the country. During the year, ending June 30th, 1897, 109,187 ounces of gold wares, and 556,801 ounces of silver wares were assayed and marked here. Number of watch cases, gold, 8,421; silver, 73,056. This office is neat and clean, and proper methods are adopted for carrying on the business in an expeditious manner.

W. F. Lowe, F.I.C., Assor. R.S.M., who is connected with this office, has kindly supplied us with an article on hall-marking and assaying, and corrected it to date. This will be found in another part of this work.

Office (open daily), Goss Street. Jas. F. Lowe, B.A., Assay Master.

EDINBURGH.

This assay office dates from 1457 and from that date to 1483 two stamps only were used—the makers' and the assay masters' marks. The city or hall-mark is a castle with three towers, introduced in the reign of James III. by act of parliament, in 1483; and repeated in Queen Mary's reign, 1555. According to the information given in Cripps' "Old English Plate," and from what information we have gathered ourselves, we find that the shape of the castle has appeared in at least ten different styles. The one here given has been taken from an impression kindly furnished by the present assay master lately.

The thistle is the standard mark at this office for both gold and silver. For the new standard of silver called Britannia, the figure of Britannia is the standard mark; the date-mark, a letter of the alphabet introduced in 1681 and changed every year in October by minute of incorporation. Office, 98, South Bridge. Open on Mondays, Wednesdays and Fridays. Alexander Keir, Assay Master.

The marks now in use are as follows:—

For 22-carat gold	...	22,	castle,	thistle,	date-letter.
,, 18 ,,	...	18	,,	,,	,,
,, 15 ,,	...	15	,,	,,	no date-letter.
,, 12 ,,	...	12	,,	,,	,, ,,
,, 9 ,,	...	9	,,	,,	,, ,,

Silver, old standard (·925), is stamped with the castle, thistle and date-letter.

New standard silver is marked with the figure of Britannia and date-letter.

GLASGOW.

The last assay office charter was granted to Glasgow, by an act of 1819 (59 George III. c. 28). The area comprised Glasgow and forty miles around, and all plate made within the radius must be assayed at this office. The hall or city-mark is a tree with a fish across the trunk, a bell hanging from one of the branches, and a small bird on the tree top. The lion rampant is the standard mark for both gold and silver.

The marks used at present are as follows:—

For 22-carat gold	...	22,	lion rampant,	tree,	date-letter	*
For 18 ,,	...	18	,,	,,	,,	*
For 15 ,,	...	·625	,,	,,	,,	15 *
For 12 ,,	...	12	,,	,,	,,	*
For 9 ,,	...	·375	tree, date-letter, 9, (no lion)			*

Sometimes no lion is stamped on 15-carat gold (no special reason).

* These marks are struck from one punch when practicable.

Mr. Graham has been kind enough to supply us with specimens of the marks at present in use. This shape ⌈⌉⌈⌉⌈⌉ with the respective marks within the squares.

Silver goods are marked with the tree, lion rampant and date-letter.

The figure of Britannia is added to the new standard ·959.

Silver plate was marked at Glasgow more than two hundred years ago, and the town mark was then an oak tree with a salmon across the trunk which had a ring in its mouth; (the fish's head is sometimes to the left and sometimes to the right); on the top of the tree a bird, and to the sinister or left branch of the tree a bell, to the dexter a letter G. Office: 48, Buchanan Street, open on Tuesdays and Fridays from 10 to 4 p.m. James Black, Assay Master.

DUBLIN.

This is the only assay office in Ireland. It was established in the Reign of Charles I., 1638, but a long time before this the harp was used at Dublin as an assay mark on plate. Since December, 1638, the harp crowned has been the city or hall-mark. It was enacted by the Irish Parliament in 1729, that all gold and silver articles should be assayed and marked by the Goldsmiths' Company

of Dublin. 22-carat gold and silver of the old standard (·925) should be marked with the harp crowned, makers' initials, and a date-letter. No Britannia silver has ever been marked at this office.

In 1730 the figure of Hibernia was introduced as the duty-mark. From 1807 to 1890 the sovereign's head was used as the duty-mark, and since that date the harp crowned has been considered the standard mark for 22-carat gold and also for silver. In 1783 three standards were fixed for gold, viz., 18, 20 and 22-carats, an unicorn's head is the mark for 18-carat, a plume of three feathers represents 20-carat, and the harp crowned is the standard mark for 22-carat. At this time there was an assay office in the village of New Geneva, Waterford, where a number of Swiss protestants were congregated together, many of these being working jewellers and silversmiths, consequently an assay office was established, with the marks only varying a little from those used at Dublin. The new settlers soon left the country and the assay office was not long in existence.

A good business was done at Dublin assay office fifty years ago, compared with the amount that is done there to-day; four or five times as much.

The date-letter was adopted in 1638, and commenced with a Roman capital letter A, ending in 1657-8 with U, J being omitted. The next cycle consisted of small letters, commencing with a in 1658-9, and ending with u in 1677-8, j being again omitted. For the next forty years the date-letter was very uncertain, and it does not appear that any regular system was adhered to. From 1721-2 to 1745-6 old English capitals were used from A to Z, omitting J. A very universal and unwise form of date-letter was used from 1746-7 to 1845-6, viz., four cycles of all one style of Roman capitals, twenty-five letters in each cycle. From 1846-7 to 1870-1 a cycle of small roman letters was used Then again from 1871-2, Roman capitals were used, ending with 1895-6. The present cycle of date-letters are old English capitals.

When calculating back the above date-letters special attention should be paid to the shape of the shields, and the duty-mark which was introduced in 1807, gives a little variation in the hall-marks at this office.

The office is open on Tuesday, Thursday and Saturday from 10 to 11 o'clock for marking same day. Office: Goldsmiths' Hall; Custom House, Dublin; S. W. Le Bass, Assay Master.

Assay Offices which are now Closed.

NEWCASTLE-UPON-TYNE.

During the reign of Henry III., in 1249, the bailiffs and good men were commanded to choose four of the most prudent and trusty men of their town for the office of moneyers there, and other four similar persons for keeping the king's mint in that town; also two suitable goldsmiths to be assayers of the money to be made there.

It will be seen from the above statement that hall-marking has been from a remote period, more or less connected with coining. Not unlikely the idea of marking plate was suggested by the more ancient practice of marking the sovereign's head on pieces of precious metal for coinage.

It is evident there was an assay office here at a very early period, which must have lapsed. In 1702 it was re-established, the hall-mark being three castles, two in the top part of the shield and one below. The annual date-letter runs regularly from June, 1702 to May 3rd, 1886. When the office was closed.

From 1724-5 to 1745-6, Old English capitals were used A to W, omitting J.

From 1702-3 to 1723-4, Roman capitals were used A to W, omitting J.

From 1746-7 to 1768-9, Roman capitals A to W.

From 1769-0 to 1790-1, Italic capitals *A* to *W*, omitting *J*.

The marks used at this office were the date-letter, the leopard's head crowned, the lion passant, a shield with three castles, and the makers' initials.

EXETER.

The old Exeter mark of 1570 is a Roman capital letter X with a crown over it, in a round shield dotted, a small star being on either side of the letter. Later, in 1640, the mark was a Roman capital letter X, crowned, and a shield following the shape of the letter and crown.

In 1700 the Assay Office at this city was re-opened.

The first Assay master was elected on the 19th November, 1701.

From 1701-2 to 1724-5 Roman capitals were used as date-letters, omitting J and U.

The next cycle, with the same number of letters, were Roman small; the third cycle were similar to the first; and the fourth cycle similar to the second; then again, from 1797-8 to 1816-7, A to U (omitting J) were Roman capitals.

From 1701-2 to 1885, when the office was closed, five stamps were used.

From the opening of the office until 1720 the marks were: lion's head erased, Britannia, castle, date-mark, and maker's initials. From 1720 to 1784-5 the marks were: 1, lion passant; 2, leopard's head; 3, castle; 4, date-mark; 5, maker's initials. From 1785 to 1885 the marks were: 1, lion passant; 2, castle; 3, date-mark; 4, maker's initials; 5, duty-mark (Sovereign's head).

YORK.

York is one of the oldest and most important historic cities we have in England.

It is more than a thousand years since money was first made at York. And there were jewellers and silversmiths who had their wares assayed and marked in the 13th Century.

The old mark used at York was a double rose, within tressure of arches and beaded circle, having in the centre a shield charged with three fleur-de-lys, the arms of France, and no doubt intended to symbolise Henry's pretensions to the French crown. In the year 1560 the mark at York was half of a seeded rose; from 1700 the mark was five lions on a cross. Very little business has been carried on at this office for 100 years, and it was finally closed in 1856.

Swiss Hall Marks,

Gold.		Silver.		
				
18-ct. ·750.	14-ct. ·583.	·935.	·875.	·800.
1	2	3	4	5

1. 18 ct. ·750. This is the mark for 18 carat gold; a juno head in profile, couped at the neck, in ellipse.

2. 14 ct. ·583. This is the mark for 14 carat gold; a squirrel sejant contourne in ellipse.

3. ·935. This is the mark for Swiss silver of the best quality, mostly used in watch cases for export; two bears rampant.

4. ·875. This is the mark for medium quality silver; a bear rampant.

5. ·800. This is the mark of the lowest quality of silver; a hen contourne, in ellipse.

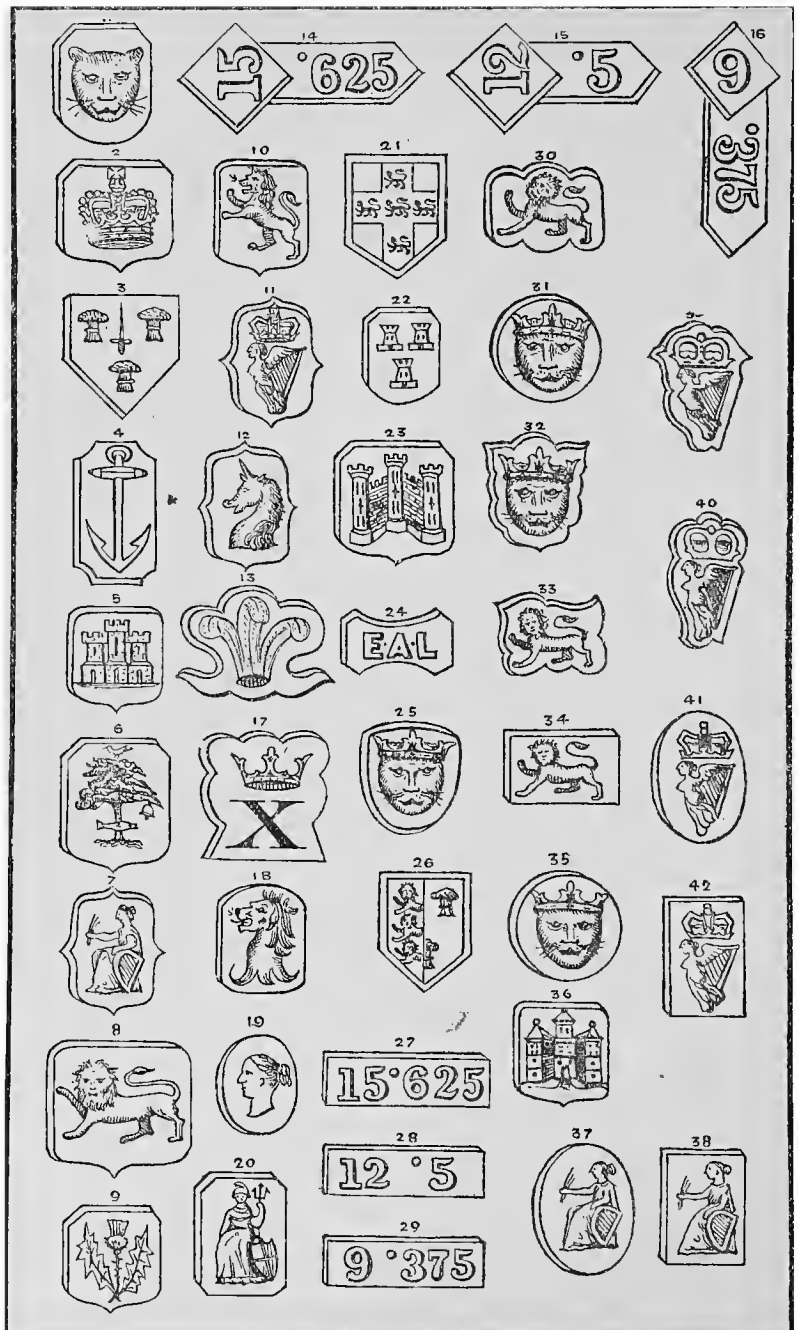
Gold in Sea Water.

In 1872 Prof Soustadt found that there was gold in sea water. 20 years later he re-affirmed these results and made out that there was about 1 grain of gold in every ton of sea water. Some few years ago Prof. A. Liversidge, who made a large number of tests upon sea water off the coast of Queensland and New South Wales came to the conclusion that there was from ½ a grain to 1 grain of gold per ton of water, which means from 130 to 260 tons of gold per cubic mile of sea water. Since then it has been ascertained very satisfactorily that the sea water off the south coast of England contains just about the same weight of gold per ton as Prof. Liversidge met with at the Antipodes.

As regards the commercial value of this process, we may add that the gold is precipitated in a free state, and, therefore, its recovery from the sludge is a very simple and handy process; moreover, each ton of sea water when treated precipitates about 1 lb. of sludge, which contains from ½ to 1 grain of gold, therefore each ton of sludge would produce from 1120 to 2240 grains or from 2½ to 5 ounces of gold. These particulars have been gathered from two or three numbers of the Mining Journal, Dec. 1899.

Production of Gold for 1899.

The production of gold for 1899 is expected to be somewhat less than that for 1898 in consequence of the interruption of mining in South Africa for three whole months.


1
14
15·625
15
2·5
16
9·375
2
10
21
30
3
11
22
31
4
12
23
32
5
13
24
EAL
33
6
17
25
34
7
18
26
35
8
19
27
15·625
36
9
20
28
12·5
37
29
9·375
38
39
40
41
42

Description of the foregoing Hall-Marks.

1. A Leopard's Head uncrowned—The Hall-Mark for London.
2. A Crown—The Standard Mark for 22 and 18-carat gold in England; also Sheffield Local or Hall-Mark
3. A Sword erect between Three Wheat Sheaves—Chester City or Hall-Mark.
4. An Anchor—The Local Mark used at Birmingham.
5. A Castle with Three Towers—Edinburgh Hall-Mark.
6. A Tree, Fish, Bell, and Bird—The City Mark for Glasgow.
7. The Figure of Hibernia—Dublin City Mark.
8. The Lion Passant—The Standard Mark for Silver (·925) in England.
9. A Thistle—The Standard Mark for both Gold and Silver at Edinburgh.
10. The Lion Rampant—The Standard Mark for both Gold and Silver at Glasgow.
11. Harp Crowned—The Standard Mark for 22-carat Gold and for Silver at Dublin.
12. A Unicorn's Head—The Standard Mark for 18-carat gold at Dublin.
13. A Plume of Three Feathers—The Standard Mark for 20-carat gold at Dublin. This is the only office that has authority to mark this quality of gold.
14, 15, 16. The marks and Style of Punch used at the London Assay Office, for 15, 12, and 9-carat gold.
17. Crown and Letter X—Exeter City Mark from 1570 to 1640.
18. A Lion's Head Erased—London Hall-Mark for Britannia Silver (·959 fine).
19. The Queen's Head—Duty Mark, discontinued in April, 1890.
20. The Figure of Britannia—The Standard Mark for Britannia Silver.
21. Five Lions on a Cross—York City Mark (office now closed).
22. Three Castles—Newcastle Hall-Mark (office now closed).
23. A Castle with Three Towers—Exeter City Mark (office now closed).
24. E.A L.—Maker's Initials.
25. Leopard's Head Crowned—London Hall-Mark previous to 1823.
26. Three Demi-Lions and a Wheat Sheaf on a Shield, and Part of another Sheaf—The Old Local Mark at Chester—The Arms of the City.
27, 28, and 29. The Marks and Style of Punches used at the Birmingham Office for 15, 12, and 9-carat gold.
30. A New Shape of Punch used for Marking Silver at London Assay Office since May 3rd, 1896.
31. Leopard's Head Crowned in a Circle—(being in fact a Lion's Head). The National Standard Mark at London and elsewhere for both Gold and Silver from 1300 to 1547; also the London Hall-Mark from 1678 to 1696.
32. London Hall-Mark from 1548 to 1678.
33. The Lion Passant, enclosed in an outline following the shape of the animal, was the Standard Mark for 22-carat Gold and Sterling Silver from 1545 to 1844, except from 1696 to 1720, alterations being made in the shape of the shield from time to time.
34. Standard Mark for Gold and Silver, from 1548 to 1557.
35. This is the first Hall-Mark or Standard Mark ever used, and styled "*une teste de leopart.*" It was the Hall-Mark at London from 1720 to 1822. It was also used at some of the Provincial offices. The goldsmiths of Newcastle-on-Tyne used this mark along with their own local marks until the office closed in 1885. The shape of the shield was oblong from 1746.
36. Edinburgh Hall-Mark in 1483 and at other subsequent dates.
37. The Dublin Hall-Mark was this shape from 1730 to 1792.
38. The Dublin Hall-Mark was this shape from 1792 to 1808.
39. The Standard Mark for both Gold and Silver at Dublin in the 17th century
40 The Standard Mark at Dublin in the 18th century till 1785.
41. Standard Mark at Dublin from 1785 to 1792.
Standard Mark at Dublin from 1792 to 1808.

THE LAW OF HALL-MARKING.

In the United Kingdom, it is compulsory for all gold and silver domestic plate, watch cases and 22-carat gold wedding rings to be hall-marked.

The following gold articles are not required to be hall-marked: Snuff-box rims, whereof tops or bottoms are made of shell or stone; nutmeg graters, very small; stock or garter clasps, jointed; rings, collets for rings, or other jewels; chains; necklace beads; lockets; jewellers' work, wherein any jewels or other stones are set (except mourning rings, jointed night ear-rings of gold, or gold springs of lockets); buttons, hollow or raised; buttons for sleeves; thimbles; coral sockets and bells; ferrules; pipe-lighters; cranes for bottles; book-clasps, very small; sliding pencils; pencil cases; needle cases; tooth-pick cases; or any fancy manufactured articles carved or chased in such a way as not to admit of an assay being taken without defacing the same.

ARTICLES OF SILVER.

Silver wares under 5 dwts. each are not required to be hall-marked. The following silver articles, which are considered to be of domestic use, must be hall-marked:—necks, collars and tops for castors; cruets or glasses appertaining to any sort of stands or frames; buttons for wearing apparel; solid sleeve buttons; solid studs; wrought seals; bottle tickets; shoe clasps; patch boxes; salt spoons; salt shovels; salt ladles; tea spoons; tea strainers; caddy ladles, &c. Very few of the above articles are now made without the hall-mark, such is the popularity and security of these marks.

The Assay Offices are not allowed to make any profit out of the business. If any large surplus were left after paying wages, and other expenses connected with the Office, they would be obliged to lower the charges.

The present hall-marking regulations prevent the legal sale of foreign plate in this country, unless it has been assayed and marked at one of the Assay Offices. The hall-mark, then, guarantees the quality of the article. In the case of home-made silver plate it is also evidence that it has been made in England, foreign-made plate having a mark of its own. The public should understand that the great majority of silversmiths, both wholesale and retail, are strongly opposed to the abolition of compulsory hall-marking. The argument that hall-marking is useless, and that a trade-mark

would do as well is an unwarranted statement. The mark of a trader would not have the same weight as the hall-mark, for this reason: the mark of a trader would be nothing more than his assertion that it is of a particular standard, whereas the marks of the Assay Offices are the evidence of a body other than the trader himself, and that a public body appointed to do a public function. The hall-mark has the effect of placing all traders on an equality as regards the guarantee they are able to give their customers of the quality of their goods, and in this respect it is a Free Trade measure, preventing a few eminent firms from obtaining a monopoly with the best class of customers. Then again, the hall-mark is a safe guide to the retailers and the public as to the year in which the article was made, if they will only take the trouble to compare the date-letter with the tables given in this work. The tendency of modern legislation is to enact laws to prevent adulteration and fraud. As a broad principle, the public have a right to be protected against the purchase of goods the quality of which they cannot possibly judge for themselves, and the only sufficient guarantee in the case of the precious metals is the hall-mark. (See Mr. Jas. U. Poole's pamphlet on "Hall-Marks of Gold and Silver Ware;" 62, St. John's Square London).

Unlicensed Watch Clubs and Presents.

It is unlawful for any agent or secretary to sell gold or silver watches, alberts, chains, spoons, &c., without a license. The National Retail Jewellers', and Pawnbrokers' Associations have during the last three or four years, brought before the Inland Revenue officials a great many cases of fraud and unlawful transactions connected with watch clubs, tea shops, soap makers, and other unscrupulous dealers, in consequence of which over 6000 agencies have been closed, and many of them fined. At Colchester, an innkeeper was fined £12 10s. and costs, for selling a watch without a license. At Warrington a firm of soap manufacturers were fined £20 and costs for giving a silver albert as a present to a purchaser of 10s. worth of soap. We understand that the National Retail Jewellers' Association and the National Pawnbrokers' Association are determined if possible to put a stop to their unscrupulous competitors, who are gulling the public by the promise of "presents" on condition of buying certain goods. Common sense ought to teach people that in trade no one will

give away his wares, whether they be silver watches, alberts, or anything else. We have never known an offer of this kind that was worth what it cost, as a rule the articles are worthless, therefore the money spent is wasted.

All licensed goldsmiths, silversmiths, watchmakers, jewellers, pawnbrokers, and opticians are strongly recommended to join the National Retail Jewellers' or Pawnbrokers' Association. These societies have rendered good service in the past, but much more remains to be done before all unfair competition is done away with.

Counterfeit Antique Silver Plate.

During the last few years there has been a great demand for antique silver, and as this is an article that cannot (lawfully) be multiplied, enormous sums of money can now be had for choice silver plate of the 16th and 17th Centuries. This state of things has led to the establishment of works specially equipped for making duplicate pieces of old silver plate; Ancient marks are imitated and applied so skilfully by these firms as to make even experts doubtful of their origin and genuineness. In some cases the hall-marks have been adroitly cut from an old fork or spoon and sweated into a much larger piece in the form of a tankard or kettle. These large pieces are then sold as genuine articles and fetch a very high price. Another trick of the faker is to purchase an old cup or dish bearing a suitable hall-mark, the cup itself being of very little value is beat up, and with the addition of one or two handles of new silver, is converted into an old George or Queen Anne drinking cup, commanding a price in many cases from £20 to £30 per ounce. The hall-mark in a case like this is real and genuine. Another mode of deceiving the public is, illicit traders often attend auctions and buy small lots of antique silver ware, which are taken or sent to maufacturers who, to order, will turn out any number of duplicates with counterfeit hall-marks. Last year we saw in London two large baskets full of faked silver, with false hall-marks, which was seized and detained by the Goldsmiths' Company, from a Holborn dealer. In this instance, the accused had to pay a fine of £3090, or £10 for each article. Unfortunately for the purchaser, under the Charter this offence is not criminal and the illicit dealer is exonerated, so far as the company is concerned, on payment of the fine. The one thing needed is that the risk run by the forger shall be made so great that "the game shall not be worth the candle."

Some Choice Eighteenth Century Plate.

This is the title of an illustrated article which appeared in *The House*, May, 1899, and the following is an extract taken from it by permission :—

"The collector of old silver who desires to enlarge his knowledge of his favourite pursuit has certainly no very extensive field in which to engage in research.

One of three Jacobean Goblets, sold for £225 2s. 3d.

One of the most interesting places in this country where rare and valuable old silver may be viewed is at Christie's famous sale rooms. Mr. Cote's collection of silver was "put up" on March 24th, 1899, at Christie's, together with some other magnificent pieces, vaguely described as "The property of a gentleman," and the prices reached showed that for really good examples of old silver purchasers are not lacking, and purchasers, too, who will pay heavily for the privilege of acquiring the pieces on which they have set their hearts.

A tea-kettle (1728), on a tripod stand, of a globular shape, was sold for £54 6s. 9d., or 17s. 3d. per ounce.

A pretty little bowl and cover (1731), was knocked down at 29s. per ounce, £10 13s. 2d. in all.

A pierced bread basket, the centre decorated with flowers, shells, and scroll ornament in flat chasing, dated 1737, sold for £77 4s. 5d., or 22s. per ounce.

The next lot was a Queen-Anne tankard and cover (1709), which fetched 15s. 6d. per ounce for thirty-seven odd ounces.

A circular salver was the next lot of interest. It weighed 201 ounces, and was sold at 17s. 3d. per ounce.

A candlestick, by John White (1725), was sold for 17s. 9d. per ounce.

A set of candelabra, on vase-shaped stems and round feet, standing fifteen inches high, and dated, the one 1750, and the other two 1760, went at 14s. 9d. per ounce.

A heavy epergne, weighing over 170 ounces, went at 15s. 8d. per ounce. It was marked T P in an oblong rectangle, and dated 1777, thus suggesting that its maker was in all probability also the maker of two other epergnes, one the property of Mr. Amherst, and dated 1771; the other belonging to Mr. Master, and twelve years older; both cited by Cripps.

The next article of interest put up was a large silver monteith, which had attracted a great deal of notice, and realised £442 15s., or 55s. per ounce. It stood eleven and a half inches high, with a diameter of fifteen inches, and bore the Dublin hall-mark for 1718, viz., a harp crowned and ℵ enclosed in a shield.

The next three lots, which very closely resembled each other, the tallest of which is pictured here, were the gem of the sale. Although they were not 18th Century pieces, it would do injustice to our readers were we to omit a sketch and mention of them. They were Jacobean silver-gilt goblets, small things, weighing about thirteen ounces all three, and yet they sold for the enormous sum of £225 2s. 3d., or £17 5s. per ounce. This price, as collectors will remember, makes no record, for the three famous salt cellars of 1890 figured out at nearly £80 per ounce.

A few Ancient Pieces of Valuable Silver.

Recently we were engaged in taking an inventory of the silver plate belonging to Charles R. Chorley, Esq., of 9, Spring Road, Headingley. We were allowed to take photographs of rare and costly lots from Mr. Chorley's stock, for the purpose of insertion in this work (see plates 5, 6, 7 and 8), a brief account of which we hope will be of interest to our readers.

PLATE 5.

No. 1. Chocolate Pot—maker's mark, $R\frac{T}{C}G$; Leopard's Head crowned; no date-letter.

2. Jug—maker's mark, T W; London date-letter, 1748.

3. Hot-water Jug and Stand—maker's mark, $\frac{I\ L}{I\ R}$; Newcastle date-letter, 1772.

4. Tea-pot and Stand—maker's mark, W T; London, 1776.

5. Jug—maker's mark, F C; London, 1766.

6. 8 inch Paten, stands on three feet—maker's initials, D & S; Dixon and Sons, Sheffield, 1863

7. 12 inch Paten—maker's mark, E C; London, 1764.

8. 10 inch Paten—maker's mark, L W; London, 1766.

9 & 11. Pair of very fine Candlesticks, Sheffield plate.

10. 6 inch Paten, stands on three feet—bears the family crest of Hill's; made in London, 1771.

PLATE 6.

No. 1. Pepper-box—made in London, 1799.

2 & 6. Pair of very fine Sheffield plate Peppers.

3. Mustard-pot—maker's mark, N H; London, 1801.

4. Cruet, with three bottles—maker's initials, E D; London, 1764.

5. Mustard-pot—maker's mark, $\frac{P\ B}{A\ B}$ (Peter and Ann Bateman); 1775.

7. Pepper-box—maker's mark, $\frac{C\ H}{G\ A}$; London, 1775.

8. Cream-jug—maker's mark, T S; London, 1781.

9. Bowl—maker's mark, W S; London, 1813.

10. Cream-jug, stands on three feet—made in London, 1859.

The following fine Tankards are all made of the new standard silver (·959), known as Queen Anne or Britannia Silver. These are a unique and valuable lot of tankards:—

11. Tankard—maker's mark, N B; date, 1719.

12. ,, ,, ,, E S; ,, 1709.

13. ,, ,, ,, worn out; 1702.

14. ,, ,, ,, ,, 1712 probably.

15. ,, ,, ,, C H; ,, 1704.

PLATE 7.

No. 1. Sugar-basin—marks are nearly all worn out, but is evidently a piece of Queen Anne plate.

2 & 4. A pair of Salts—maker's mark, J S; London, 1791.

3. Sugar-basin—Leopard's Head crowned; date-letter worn out.

5. Sugar-basin—made in London, 1779.

6 & 8. Pair Sauce-boats—maker's mark, $\frac{P\ B}{W\ B}$; London, 1808.

7. Sugar-basin—Queen Anne silver, 1710.

9. Cream-jug—maker's mark worn out; London, 1775.

10. Cream-jug—made in the reign of George I., 1718.

11. Cup—maker's mark, W C; London, 1764.

12. Cream-jug—made in London, 1800.

13. Cream-jug—maker's mark, W P; London, 1780.

PLATE 8.

This group consists of 21 articles, nearly all of which are in condition equal to new, and very fine patterns.

No. 1. Sugar-spoon—London date-mark, 1817.

2. Sugar-basin—The bottom of this piece consists of a florin in perfect condition, dated 1787.

3. Cream-jug—maker's mark, W W ; date-letter worn out.

4. Child's Mug—Formerly belonging to Mrs. Chorley's mother ; maker's mark, S H ; London, 1811.

5. Cream-jug—marks worn out except T W M.

6. Cream-jug—The bottom of this jug consists of a florin equal to new, dated 1758.

7. Tea-caddy Spoon—date 1775.

8 & 20. 2 Sauce-spoons—maker's mark, W W ; 1765.

9 & 19. 2 very ancient steel Forks, with silver handles.

10 & 18. 2 Gravy-spoons, twisted handles—London, 1776.

11 & 17. 2 ,, marked S and W E ; date 1826.

12 & 16. 2 ,, marked Wiveliscombe (Club) Newcastle hall-mark, 1821.

13 & 15. Salad-fork and Spoon—very fine make ; London, 1775.

14. Toddy-ladle, whalebone handle—marks worn out.

21. Snuff-box—maker's mark, W P ; Birmingham, 1812.

Rare and Choice Old Silver Plate.

The collection of objects of art of Mr. Richard Wilson, of Westfield, Armley, Leeds, is the largest and best we have ever seen in one day, except at the British Museum—consisting of rare and valuable examples of silver, ivory, English and foreign china, Wedgewood ware, Leeds pottery (the best collection in England), oak and Chippendale furniture, oil and water colour pictures, &c. For more particulars about Mr. Wilson's Leeds pottery, see "*Historical Notices of the Leeds Old Pottery*," by R. and F. Kidson. Since this work was published the cream ware centre-piece, Plate 5, and a number of other fine pieces illustrated in that work, have also been acquired by Mr. Wilson. We have, by

the kind permission of Mr. Wilson, been allowed, more than once, the pleasure of inspecting his varied collection. We have also had the privilege of photographing a number of examples for the use of this work. (The prints were taken by Messrs. Baugh and Swinden, Leeds).

PLATE 1.

Frontispiece.—A tankard, ivory and silver gilt; base silver gilt with arabesques and masks; lid, silver gilt with similar decorations; handle, a satyr with scroll terminations; body, in carving, a bacchanalia with satyrs, fauns, female bacchantes and cherubs. The whole carving is in high relief. On the lid is a small ivory carving of a man carrying off a woman, with another woman prostrate at his feet, probably the rape of Proserpine. Italian workmanship

PLATE 2.

Nos. 1 and 8.—Pair of sauce boats, rich repoussé, or embossed decorations; 3 claw legs; makers' mark, W F, London, 1822.

No. 2.—Hot water jug; ebony handle and nodule to lid; lower half of body fluted; upper half embossed and engraved design, as also on face of spout; maker's initials, S H, London, 1781.

Nos. 3 and 6.—Pair of sauce tureens with lids, oval pointed, boat shape, plain, with beaded rims; maker's initials, H C (Hen. Chawner, 1786-96); London date-letter, 1788.

No. 4.—Coffee-pot; engraved design; maker's mark, $\frac{\text{PB}}{\text{AB}}$ (Peter and Ann Bateman), London, 1813.

No. 5.—Dessert spoon. This is a very rare and interesting piece of old silver. Rat-tail pattern; first maker's mark, T B, second, golden fleece (in a shield), third, maker's initials repeated. This is the Leeds assay mark and is the same and bears the same maker's initials as are found on a paten in Almondbury Church.

No. 7.—Bookcover. This is a very interesting and unique piece of silver. It was in a dilapidated state when Mr. Wilson bought it on the back of an old book. It is now a beautiful and rare article of its kind; embossed and perforated design. First side, floriated design with passion flower in medallions at top and bottom, and in the centre a medallion of the baptism of Christ by John; on either side of the bottom of the medallion is a pelican

in her piety. Second side, like the first but the centre medallion represents the Transfiguration. Back, in the centre two cherubs; above, female figure representing Faith; below, similar figure of Hope. Clasps, scroll work. Probably French or Italian work.

No. 9.—An ancient silver badge (hanging up behind No. 7). In order to describe this fully we will give a quotation from Wardell's *Municipal History of Leeds*, page 27: "The Corporate Seal under this Charter is of silver, and bears the following inscription or legend: 'Sigillvm . . Bvrgi: de Leedes: 1626.' An ancient silver badge, which may perhaps be attributed to this period, and formerly belonging to one of the four waits appointed by the Corporation, is in the possession of the author (now Mr. Wilson's), a drawing of which, of the same size as the original, is given in Plate 3, page 103.

PLATE 3.

Nos. 1 and 9.—Pair of candlesticks. Plated on copper; on each face of the curved base are embossed figures of the Three Graces; in the centre of each face of the body is a figure of Fame.

No. 2.—Vase and lid. Acanthus leaf decoration springing from base up the body of the vase; beaded edge; York assay mark, five lions on a cross, leopard's head crowned, York date-letter, $\frac{R}{P}$ 1793, maker's initials indistinct—probably $\frac{I \times H}{P}$

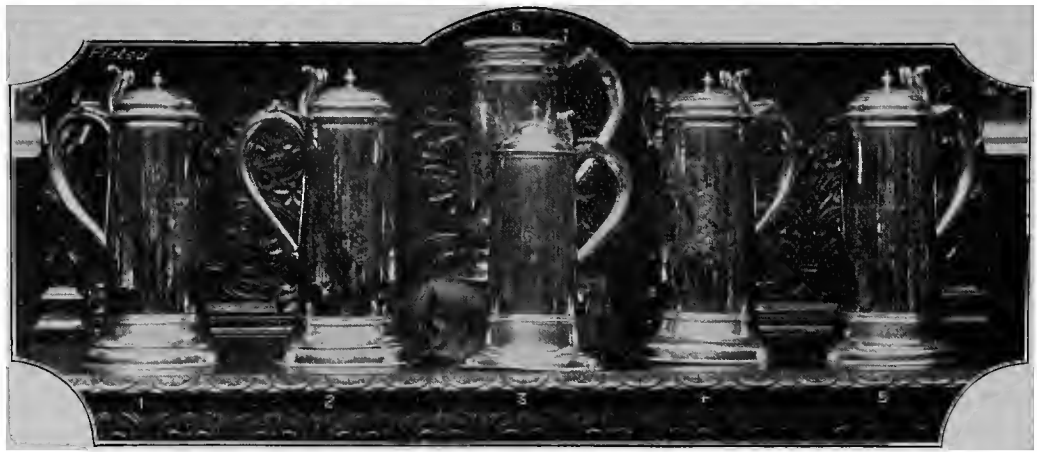
No. 3.—Tazza and lid. Silver embossed floral design round the square base; bottom of cup formed of carved wire, then a rim of fretted silver connected with similar upper rim by following designs: on the centre of each side a seated female figure—one playing the lyre, the others the pipes—and under each handle an acanthus leaf. In the volute of each handle, a pair of doves on a bowl. Blue glass bowl inserted. Italian workmanship.

Nos. 4 and 6.—A pair of candlesticks Silver, leaf shaped and embossed with curved stems as handles—probably French.

No. 5.— Claret jug. Silver, engraved design, made at Sheffield, 1860.

No. 7.—Tazza and lid. Plated on copper, clear glass bowl.

No. 8.— Sugar basin. Silver, embossed design, maker's initials, C F, London, 1796.



LEEDS PARISH CHURCH FLAGONS.—*See page 173.*

PLATE 4.

For really good examples of old silver plate, we have them in this group. All except one piece were made in the 18th Century.

No. 1.– Tankard. Maker's initials indistinct; the first letter is R, marked at London in reign of George I., with lion's head erased and figure of Britannia, 1716.

No. 2.—Cup. Maker's initials, I L (John Longlands); Newcastle assay mark; date-letter, Roman F in a square, probably, 1772.

No. 3.—Tankard. Maker's initials, $\frac{\text{P T}}{\text{A R}}$, London, 1796.

No. 4.—Cup. Lower part of the body fluted; vine leaf pattern round outside rim; London, 1810.

No. 5.—Tankard, similar to No. 3; London, 1795.

No. 6.—Cup. Two handles; maker's initials, H B (Hester Bateman, 1782); London date-letter, 1788.

No. 7.—Mug. Maker's initials, $\text{W}\frac{\text{W}}{\text{P}}\text{S}$; London date-letter, 1758.

Ecclesiastical Plate.

Bradford City Church Communion Plate.

(See Plate 12.)

By the kind permission of the authorities of the Bradford Parish Church we are enabled to present to our readers an illustrated article on this very interesting ecclesiastical silver plate. We thank our friends, Mr. J. H. Wilks, and Mr. W. Claridge, M.A., for information received relating to this article. As is frequently the case in ancient churches, the sacramental plate is not all of one date, nor of one style, but has been acquired by gift from different persons at different times. It now consists of two small and two large chalices; one small and two large patens; and a flagon; all of silver. The two small chalices, Nos. 4 and 5, are 6⅝ inches in height, and weigh 7ozs. 14dwts., and 6ozs. 16dwts. respectively. A reference to the hall-mark shows the cups to have been made in London in the year 1799; maker's mark, $\frac{RH}{DH}$ (Robert and David Henell ent 1795). Both chalices bear the following Latin device round the upper edge: "Ex dono Petri Sunderland: armigeri et ciuitatis, Londoni, senatoris Honorati." (English translation: From the gift of Peter Sunderland, gentleman, and member of the Corporation of London. As will be seen from the following particulars relating to the donor of these chalices, it is not improbable that they were made from a large silver cup and a silver paten which was presented to the church more than 100 years before this date, by Peter Sunderland, of Fairweather Green, Allerton. In James's *History of Bradford* we find the following: "By deed dated March, 1671, Peter Sunderland, Esquire, of Allerton, gave a rent-charge of £40 a year, out of houses and land in Bradford, to the Trustees and Vicar of the Bradford Parish Church for ever, for the purpose of providing a lectureship." He also presented to the Church a large Silver Communion Cup and a Silver Paten, both of which are now missing. His brother, Samuel Sunderland, of Harden, gave the lands for Hipperholme Grammar Schools, which were completed in 1661. These two brothers made large fortunes by

trade in London. Peter died in 1677. He was a governor of the Bradford Grammar School from 1662 to 1677, having previously been one of the committee appointed in 1658 by the Commissioners for charitable uses to rearrange local affairs after the wars of the Commonwealth, and especially to reconstruct the Grammar School. Of this committee Peter Sunderland was chairman, and he gave a Seal to the governors, and this Seal is also now missing. The Coley estate, near Lightcliffe, belonged to the Sunderland family, and is still associated with the Sunderlands. Seeing that these cups are marked as presented by Peter Sunderland 122 years after he died, we are forced to the conclusion that the old missing plate was melted down and re-made, or else the stipend of the lecturer (which was £40 per annum), was utilised for this purpose. Of the larger chalices, Nos. 2 and 3, one is ancient, and the other a modern copy. They measure 8¼ inches in height, and weigh 14ozs. 9½dwts., and 15ozs. 19dwts. respectively. The original, No. 3, as shown by the hall-mark was made in London, 1743, and bears the following legend: "The Gift of John Stead, of Bradford, Staymaker, 1744." The copy is similar to the above, and is thus inscribed: "Bradford Parish Church, 1840, B. B. Popplewell, Geo. Pollard, Churchwardens." The two large patens resemble ordinary plates, having no feet; they are 8 inches in diameter, and weigh respectively 11ozs. 1dwt. and 13oz. 8dwts. They are, like the chalice, of different dates; one, No. 7, made in London in 1788, bears the following: "The gift of Frances Rawson, widow of Jeremiah Rawson, Esq., A.D. 1789;" the other, made to match it, is inscribed as follows: "Bradford Parish Church, 1840, B. B. Popplewell, Geo. Pollard, Churchwardens." The smaller paten, No. 8, is 6 inches in diameter, and has a foot; it weighs 6oz. 11 dwts.; it has no inscription; and though the donor be unknown, yet it is a very interesting piece of silver plate, from the fact that it was made during Queen Anne's reign, in 1710. It is, therefore, stamped with the figure of Britannia instead of the usual lion passant. This shows it to be made of the higher standard silver (·959), which thirteen years before had been made compulsory for the manufacture of plate, because many makers, to save themselves the trouble of refining the metal, had melted down large quantities of coin, a practice which this enactment was designed to prevent.

The remaining piece of silver plate (flagon, No. 1) is by far the most striking and interesting of them all, as well as the most ancient. It is 12 inches in height, and weighs 43oz. 13dwts., and, while simple in outline, has a bold sweep of the handle, and a wide curve at the base, which give it a character of its own. Moreover, the plain trace of hammer marks prove it to be one of those pieces of hand-wrought plate so highly prized by collectors. The inscription—engraved in a style that might well have been followed in the other instances—runs thus: "The Gift of Mrs. Mary Reresby, one of the daughters of John Midgley, of Headley, Gent., 1691." ("About 1638, the Manor of Thornton was sold to the Midgley's and by them it was retained until 1715, when it was conveyed by Josias Midgley, along with the Headley estate, where he resided, to John Cockroft, Attorney, of Bradford." —CUDWORTH.) It is, however, of special interest from the fact that it is without hall-mark, instead of which it is stamped with the maker's mark, a letter, and a mark something like a cogged wheel, probably a trade mark. The want of a proper hall-mark is no doubt to be accounted for in this way: It had been the custom with many silversmiths, owing to the looseness of the regulations on the subject, to make and sell many articles without sending them to be assayed at the Goldsmiths' Hall, and as, unfortunately, all men are not honest, some of them were below the standard. Complaint was made to the Goldsmiths' Company, and in 1675 they issued an order that, not only should all silver wares be brought to the Hall, assayed and stamped with the lion passant and leopard's head, but that every silversmith carrying on his craft within the jurisdiction of the city of London should register the punch with which he stamped his goods, upon a sheet of copper provided for the purpose. On referring to a *fac simile* of this register, we find that the maker of this flagon did so record his stamp. Judging from the quality of the metal, which is fully up to the standard, and the character of this work, he must have been an honest craftsman, and it is therefore preferable to place the date of manufacture prior to 1675, although not given to the church until 16 years later, than to suppose that he had acted in defiance of the law. It is worth noting that, while very few churches possess Communion plate dating earlier than 1660, it is by no means uncommon to find specimens presented during the fifteen or twenty years that follow.

Great quantities that had survived former depredations came to the melting pot during the Civil War, and the loss was supplied by good churchmen after the Restoration, in many cases as a thankoffering for that event. Valuable church plate is generally stored in a strong safe at the church or a bank, and sometimes at a private house.

Leeds Parish Church Communion Plate.

By the kind permission of the present authorities of the Leeds Parish Church, we have had the privilege of inspecting and photographing the sacramental plate used at St. Peter's Church, Leeds. We are informed that no one has ever before had permission to examine this historic ecclesiastical silver communion service.

This Church is well furnished with a large quantity of very interesting eucharistic plate, which has been presented to the church-wardens (or officials of the Church) at different periods and by different persons.

It now consists of 34 pieces, 28 of which are silver—all made in London—four of good metal (silver plated), and two of fine brass. There are six flagons, 12 chalices, 14 patens; and two alms dishes made of brass, not shown in the illustration.

FLAGONS.—Plate 9.

No. 1 weighs 57 ozs. 15 dwts.; height, 14 inches. It was made in the noted reign of Queen Anne, and inscribed as follows: "Ds. Thomas Pease, Mercator, Lagenam hanc Argenteam Ecclesiæ parochiali de Leeds munifice contulit, Anno Dom, 1708." (English rendering: "Dr Thos. Pease, Merchant, bountifully gave this silver wine flagon to the Parish Church of Leeds). Yet it is said to have been a consideration paid for a pew, to which he was admitted by the vicar and church-wardens. (See Thorsby's *History of Leeds*, page 57).

Nos. 2 and 4 weigh 64 ozs. 10 dwts. each; height, 14 inches. These were also made in the reign of Queen Anne, of the new standard silver ·959, and marked with the figure of Britannia and lion's head erased; the date letter is N, 1708; the Leeds Coat of Arms is engraved on the front of each vessel, beneath it the following legend: "Sumptibus incolarvm parochiæ de Leeds."

No. 3 weighs 41 ounces; height, 12 inches; was made in the reign of George II., and is inscribed as follows: "In usum Ecclesiæ de Leeds, 1736."

No. 5 weighs 60 ozs. 10 dwts.; height, 14 inches; maker's mark, T R; the inscription similar to No. 3.

No. 6.—This is the oldest, heaviest and most interesting flagon in the group. The height is 12 inches, and it weighs 67 ozs. It was made in the reign of Charles II. The hall-mark corresponds to the date given. The legend runs as follows: "The gift of Edward Atkinson, late Alderman of Leedes, deceased, for the Service of God's Holy Altar in St. Peter's Church there, Anno Dom, 1676."

CHALICES.—Plate 10.

There are eight ancient silver chalices. They measure 9¾ inches in height, and weigh from 20 to 21 ounces each, and two modern silver cups, which weigh 21 ounces each, and stand eight inches high; also two silver-plated cups of recent date.

Nos. 1 and 9.—These two chalices were presented to the Church in 1869, by Richard Bickerton Turner, Esq. They are not silver, but made of good metal, well plated, and of the best workmanship.

No. 2.—This chalice is a very interesting piece. Maker's mark, IS; date letter not very legible. It is evident, however, that it was made in the reign of Charles II. It was given by the daughter of Alderman Atkinson, Mrs. Ann Crowle (see Thorsby's *History of Leeds*), and engraved as follows: "Ex Dono Dnæ Annæ Crowle xmo Augusti, MDCLXXVI.

Nos. 3 and 7.—These two chalices were presented by the widow of a late vicar of this church as a token of gratitude in memory of her pious and beloved husband. They were made in the reign of George II. The maker's mark is M D; the date letter is nearly worn out. They bear the following legend: "Hunc calicem Eucharistiæ Sacrum Maria Killingbeck, Vidua Rev,di Joannis Killingbeck, Hujus Ecclesiæ quondam Vicarii gratitudiuis ergo Pie & munifice contulit, Anno Dom, 1730.

No. 4.—This chalice was given by a late Vicar, Dr. S. Talbot, now Bishop of Rochester. This cup will vie in point of exquisite workmanship and richness of detail with many productions of the

old masters. It was made in London, in 1895, by Barkenlin and Krall, from a design by F. C. Eden, Esq., M.A., of Keble College, Oxford. It has an inscription round the angles of the base, as follows: "Edwardus S. Talbot, D D, Vic. Leeds et Lavinia Uxorejus connubio per Annos XXV. felicissimo conjuncti, MDCCCLXX—MDCCCXCV Deo Gratias. (The English of which is: "Edward S. Talbot, D.D, Vicar of Leeds, and Lavinia, his wife, for 25 years most happily united in wedlock, 1870—1895, Thanks be given to God.")

No. 5.—This chalice was made in the reign of George II., 1752. Maker's mark, $\frac{W\ S}{P}$; legend: "For the Church of Leeds in Yorkeshier," and the golden fleece within a wreath, and beneath it another inscription: "Sumptibus incolarum parochiæ de Leeds" (which means: "At the cost of the inhabitants of the Parish of Leeds.")

No. 6.—This cup, like No. 4, is of recent date and of excellent workmanship. It was assayed and marked at the Goldsmiths' Hall, London, in 1870. The initials of the makers are $\frac{T\ C}{E\ C}$. It is not quite so elaborate in some respects as No. 4, but has probably cost more than any piece in the collection. The stem and knob are set with a large number of pearls and stones. Donor not known.

No. 8.—This chalice was made in the reign of George III, 1781. Maker's mark, H○. No inscription.

Nos. 10, 11 and 12.—These three chalices were made in the reign of Queen Anne, 1708, and stamped with the figure of Britannia; have the golden fleece within a wreath, and under it is the legend similar to the one on No. 8.

Patens.—Plate 11.

In this group there are eight ordinary shaped 10 inch silver patens, of ancient date, without feet. The weight of each is about 20 ounces. There are four of recent date, two of which, Nos. 1 and 3, are very fine and expensive plated ones. Also a 14 inch plate or dish, and a small 6 inch paten which stands on three feet.

Nos. 1 and 3.—These two silver plated patens are of the best workmanship, and were presented to the church in 1869, by R. B. Turner, Esq. The following device is on the underside of the rims: "Deo et Ecclesiæ S Petri, Leeds, dedit R B Turner."

No. 2.—This handsome paten is by far the most costly in the group. It was assayed and marked at the London Assay Office in 1869. Maker's initials, G A; size, 8 inches; weight, 15½oz. The design and finish are unique. It has six fine gold coin settings, the one in the centre is a Spanish half quadruple Charles III., 1782, in the mint state of preservation, ·893 fine; weight, 208 grains; value in English money, 33s. The fine settings in the flanges are: one 1842 English sovereign; one French 20-franc piece, Louis XVIII., 1819; one Republic 20-franc piece, 1849 (both of these French coins are equal to new); one pistole Charles III. of Spain, 1787; and one half pistole, 1788. These are also in a good state of preservation. There is a tragical account given in connection with this paten. On the underside, round the edge of the flange, the following inscription is engraved: "The coins in this paten were found on the body of Geo. Benjamin Maule, Esq., who was killed, together with 14 fellow travellers, on the night of the 14th of September, A.D. 1850, by being washed down a mountain torrent into the sea near Oropesa, on the coast of Valencia, in the Kingdom of Spain; Dedicated to the Holy Service of Leeds Parish Church, by his brother, the Recorder. One of the present churchwardens, Mr. Richard Wilson, has in his possession the letter which was sent to the vicar (Dr. Woodford) along with this paten, dated January 1st, 1870, and signed by J. B. Maule. Mr. Wilson has also a newspaper cutting which gives an account of the death of Sir J. B. Maule, the donor. He died on the 20th October, 1889, at 47, Eunismore Gardens, S.W. He was born at Kensington in 1817, the son of the late Mr. George Maule, barrister, by Caroline, daughter of the late Mr. J. Forsyth. From 1861 to 1880 he was Recorder of Leeds, and at the latter date he was appointed to the office of director of public prosecutions. In 1882, Mr. John Blosset Maule was treasurer of his Inn, and was knighted upon the occasion of the opening of the Royal Courts of Justice in that year.

No. 4.—This paten was made in the reign of George II. The device is: "In usum Ecclesiæ de Leeds, 1752."

Nos. 5 and 7.—These two patens were made in the reign of George I., of the new standard silver, and marked with the figure of Britannia. Inscription: "Hanc Patellam Deo et Altari Sacram, Thos. Simpson de Leeds, Gen D.D.D., 1720."

No. 6 is a 14 inch circular salver or dish, weighs 45 oz. The engraved device is a fine specimen of art and workmanship, and of an ancient style. The maker's mark is a crown, star, and PY (Benjamin Pyne), made of the new standard silver, and marked with the figure of Britannia and a lion's head erased. Device: "Deo et Altari Sacram Patellam Hanc Sarah Robinson, Rev,di Hen: Robinson. Eccle's D. Iohan Evang, de Leeds, Nuper, Incumbentis Pientissima Conjux Debita Devotione D.D.D.C.Q., Anno Dom 1698. In the centre there is a coat of arms surrounded by a wreath, under which is the 8th verse of the 36th Psalm in Latin: "Saturabuntur pinguedine Domus tuae; and fluvio Deliciarum tuarum potabis eos." (The English rendering is as follows: "Sarah Robinson, the most devout spouse of the Revd. Hy. Robinson, lately incumbent of the Church of St. John the Evangelist, Leeds, with due piety gave this plate to God, and bestowed it upon His altar, in the year 1698.")

Nos. 8, 10, 12, and 13.—These four patens were added at the same time in the reign of George II. Inscription: "In usum Ecclesiæ de Leeds, 1736."

No. 9.—There are no marks or device on the front of this paten. On the underside there are the hall-marks—not very distinct—and 1781.

No. 11 is a small silver 7 inch paten; weighs 5 ozs. It was assayed and marked at the Goldsmiths' Hall, London, in 1870. Maker's initials, $\frac{TC}{EC}$ It is well finished, and a pretty pattern. Around the inner rim there is the following legend: "Agnus Dei Qui Tollis Peccata Mundi Miserere Nobis."

No. 14 is a small 6 inch paten which stands on three feet. It was made in the reign of George I., 1720; maker's mark, BA. It is one of those rare and interesting pieces of old silver plate, made of the new standard silver, and marked with the figure of Britannia and lion's head erased.

There are also at this church two very fine and large alms dishes, made of hammered brass. They are beautifully engraved, and bear suitable mottos worked in an artistic manner.

REDMAN'S CHART OF HALL MARKS ON GOLD AND SILVER PLATE.

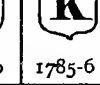
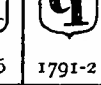
HALL MARKS.		STANDARD AND QUALITY MARKS.							
		GOLD.						SILVER.	
Hall Mark & Standard Mark at London, from 1300 to 1823.		22 Carat.	20 Carat.	18 Carat.	15 Carat.	12 Carat.	9 Carat.	Ordinary Standard ·925	New St'd Britannia ·959
LONDON.		22	No Assay Office except Dublin has authority to Mark 20 Carat Gold Wares.	18	15 ·625	12 ·5	9 ·375		
BIRMINGHAM.		22		18	15·625	12·5	9·375		
CHESTER.		22		22	15·625	12·5	9·375		
EDINGBURGH.					15	12	9		
GLASGOW.		22 W		18 W	625 W 15	·5 W 12	375 W 9		
DUBLIN.					15 625	12 ·5	9 375		
SHEFFIELD.		No Gold Wares are assayed at Sheffield Office.							

London Date Letters.

 HY. VIII. 1509-0	 1519-0	 1529-0	 1539-0	 1549-0	 1559-0	 1569-0	 1579-0
 1510-1	 1520-1	 1530-1	 1540-1	 1550-1	 QUEEN 1560-1	 1570-1	 1580-1
 1511-2	 1521-2	1531-2	1541-2	 1551-2	 ELIZ. 1561-2	 1571-2	 1581-2
 1512-3	 1522-3	 1532-3	1542-3	 1552-3	 1562-3	 1572-3	 1582-3
1513-4	 1523-4	1533-4	1543-4	 MARY 1553-4	 1563-4	 1573-4	 1583-4
 1514-5	 1524-5	 1534-5	1544-5	 1554-5	 1564-5	 1574-5	 1584-5
 1515-6	 1525-6	 1535-6	1545-6	 1555-6	 1565-6	 1575-6	 1585-6
 1516-7	1526-7	 1536-7	1546-7	 1556-7	 1566-7	 1576-7	 1586-7
 1517-8	 1527-8	 1537-8	ED. VI. 1547-8	 1557-8	 1567-8	 1577-8	 1587-8
1518-9	 1528-9	1538-9	 1548-9	 ELIZ. 1558-9	 1568-9	 1578-9	 1588-9

 1589-0	 1599-0	 1609-0	 1619-0	 1629-0	 1639-0	 COMMON. 1649-0	 1659-0
 1590-1	 1600-1	 1610-1	 1620-1	 1630-1	 1640-1	 WEALTH. 1650-1	 CHAS. II. 1660-1
 1591-2	 1601-2	 1611-2	 1621-2	 1631-2	 1641-2	 1651-2	 1661-2
 1592-3	 1602-3	 1612-3	 1622-3	 1632-3	 1642-3	 1652-3	 1662-3
 1593-4	 JAMES I. 1603-4	 1613-4	 1623-4	 1633-4	 1643-4	 1653-4	 1663-4
 1594-5	 1604-5	 1614-5	 1624-5	 1634-5	 1644-5	 1654-5	 1664-5
 1595-6	 1605-6	 1615-6	 CHAS. I. 1625-6	 1635-6	 1645-6	 1655-6	 1665-6
 1596-7	 1606-7	 1616-7	 1626-7	 1636-7	 1646-7	 1656-7	 1666-7
 1597-8	 1607-8	 1617-8	 1627-8	 1637-8	 1647-8	 1657-8	 1667-8
 1598-9	 1608-9	 1618-9	 1628-9	 1638-9	 1648-9	 1658-9	 1668-9

 1669-0	 1679-0	 MARY 1689-0	 1698-9	 1708-9	 1718-9	 1728-9	 1738-9
 1670-1	 1680-1	 1690-1	 1699-0	 1709-0	 1719-0	 1729-0	 1739-0
 1671-2	 1681-2	 1691-2	 1700-1	 1710-1	 1720-1	 1730-1	 1740-1
 1672-3	 1682-3	 1692-3	 1701-2	 1711-2	 1721-2	 1731-2	 1741-2
 1673-4	 1683-4	 1693-4	 Q. ANNE. 1702-3	 1712-3	 1722-3	 1732-3	 1742-3
 1674-5	 1684-5	 1694-5	 1703-4	 1713-4	 1723-4	 1733-4	 1743-4
 1675-6	 JAMES II. 1685-6	 WM. III. 1695-6	 1704-5	 GEO. I 1714-5	 1724-5	 1734-5	 1744-5
 1676-7	 1686-7	 1696-7	 1705-6	 1715-6	 1725-6	 1735-6	 1745-6
 1677-8	 1687-8	 1696-7	 1706-7	 1716-7	 GEO II. 1726-7	 1736-7	 1746-7
 1678-9	 WM. 1688-9	 1697-8	 1707-8	 1717-8	 1727-8	 1737-8	 1747-8

 1748-9	 1754-5	 1760-1	 1766-7	 1772-3	 1778-9	 1784-5	 1790-1
 1749-0	 1755-6	 1761-2	 1767-8	 1773-4	 1779-0	 1785-6	 1791-2
 1750-1	 1756-7	 1762-3	 1768-9	 1774-5	 1780-1	 1786-7	 1792-3
 1751-2	 1757-8	 1763-4	 1769-0	 1775-6	 1781-2	 1787-8	 1793-4
 1752-3	 1758-9	 1764-5	 1770-1	 1776-7	 1782-3	 1788-9	 1794-5
 1753-4	 GEO III. 1759-0	 1765-6	 1771-2	 1777-8	 1783-4	 1789-0	 1795-6

KINGS AND QUEENS OF ENGLAND

FROM 1422 TO PRESENT DAY.

HENRY VI. -	1422	CHARLES II. -	1660
EDWARD IV.	1461	JAMES II.	1635
,, V.	1483	WILLIAM & MARY	1689
RICHARD III.	1483	WILLIAM III.	1695
HENRY VII.	1485	ANNE	1702
,, VIII.	1509	GEORGE I.	1714
EDWARD VI.	1547	,, II.	1727
MARY I.	1553	,, III.	1760
ELIZABETH	1558	,, IV.	1820
JAMES I.	1603	WILLIAM IV.	1830
CHARLES I.	1625	VICTORIA	1837
COMMONWEALTH	1649		

Specimens of Shields used with the Date-letters at Goldsmiths' Hall, London, from 1796-7 to 1915-6.

					
1796-7 1815-6	1816-7 1835-6	1836-7 1855-6	1856-7 1875-6	1876-7 1895-6	1896-7 1916-7

Up to 1844 the Standard Mark for 22-Carat Gold was the Lion passant, same as the Silver Mark.

1796-7 A	1804-5 I	1812-3 R	1820-1 e	1826-7 l	1834-5 t	1842-3 G
1797-8 B	1805-6 K	1813-4 S	1821-2 f	1827-8 m	1835-6 u	1843-4 H
1798-9 C	1806-7 L	1814-5 T	1822-3 g	1828-9 n	1836-7 A	1844-5 J
1799-0 D	1807-8 M	1815-6 U	1823-4 h	1829-0 o	1837-8 B	1845-6 K
1800-1 E	1808-9 N	1816-7 a	London Hall-Mark  since 1823	1830-1 p	1838 9 C	1846-7 L
1801-2 F	1809-0 O	1817-8 b		1831-2 q	1839-0 D	1847-8 M
1802-3 G	1810-1 P	1818-9 c	1824-5 i	1832-3 r	1840-1 E	1848-9 N
1803-4 H	1811-2 Q	1819-0 d	1825-6 k	1833-4 s	1841-2 F	1849-0 O

1850-1	1859-0	1868-9	1877-8	1886-7	1895-6	1904-5	1913-4
P	D	N	B	L	U	i	S
1851-2	1860-1	1869-0	1878-9	1887-8	1896-7	1905-6	1914-5
Q	E	O	C	M	a	k	t
1852-3	1861-2	1870-1	1879-0	1888-9	1897-8	1906-7	1915 6
R	F	P	D	N	b	l	u
1853-4	1862-3	1871-2	1880-1	1889-0	1898-9	1907-8	1916-7
S	G	Q	E	O	c	m	
1854-5	1863-4	1872-3	1881-2	1890-1	1899-0	1908-9	1917-8
T	H	R	F	P	d	n	
1855-6	1864-5	1873-4	1882-3	1891-2	1900-1	1909 0	1918-9
A	I	S	G	Q	e	o	
1856-7	1865-6	1874-5	1883-4	1892-3	1901-2	1910-1	1919-0
a	k	t	H	R	f	p	
1857-8	1866-7	1875-6	1884-5	1893-4	1902-3	1911-2	1920-1
b	l	u	I	S	g	q	
1858-9	1867-8	1876-7	1885-6	1894-5	1903-4	1912-3	1921-2
c	m	A	K	T	h	r	

LEEDS PARISH CHURCH CHALICES.—*See page* 174.

LIST OF DATE LETTERS

At the Assay Office, Birmingham,

FROM JUNE 24, 1773-4 TO 1900.

The Hall-Mark at this Office is an Anchor.

1773-4 A	1784-5 L	1795-6 W	1806-7 h	1817-8 s	1828-9 D	1839-0 P
1774-5 B	1785-6 M	1796-7 X	1807-8 i	1818-9 t	1829-0 E	1840-1 Q
1775-6 C	1786-7 N	1797-8 Y	1808-9 j	1819-0 u	1830-1 F	1841-2 R
1776-7 D	1787-8 O	1798-9 Z	1809-0 k	1820-1 v	1831-2 G	1842-3 S
1777-8 E	1788-9 P	1799-0 a	1810-1 l	1821-2 w	1832-3 H	1843-4 T
1778-9 F	1789-0 Q	1800-1 b	1811-2 m	1822-3 x	1833-4 I	1844-5 U
1779-0 G	1790-1 R	1801-2 c	1812-3 n	1823-4 y	1834-5 K	1845-6 V
1780-1 H	1791-2 S	1802-3 d	1813-4 o	1824-5 z	1835-6 L	1846-7 W
1781-2 I	1792-3 T	1803-4 e	1814-5 p	1825-6 A	1836-7 M	1847-8 X
1782-3 J	1793-4 U	1804-5 f	1815-6 q	1826-7 B	1837-8 N	1848-9 Y
1783-4 K	1794-5 V	1805-6 g	1816-7 r	1827-8 C	1838-9 O	1849-0 Z

1850-1	1860-1	1870-1	1880-1	1890-1	1900-1	1910-1	1920-1
A	L	V	f	q	a	l	v
1851-2	1861-2	1871-2	1881-2	1891-2	1901-2	1911-2	1921-2
B	M	W	g	r	b	m	w
1852-3	1862-3	1872-3	1882-3	1892-3	1902-3	1912-3	1922-3
C	N	X	h	s	c	n	x
1853-4	1863-4	1873-4	1883-4	1893-4	1903-4	1913-4	1923-4
D	O	Y	i	t	d	o	y
1854-5	1864-5	1874-5	1884-5	1894-5	1904-5	1914-5	1924-5
E	P	Z	k	u	e	p	z
1855-6	1865-6	1875-6	1885-6	1895-6	1905-6	1915-6	1925-6
F	Q	a	l	v	f	q	
1856-7	1866-7	1876-7	1886-7	1896-7	1906-7	1916-7	1926-7
G	R	b	m	w	g	r	
1857-8	1867-8	1877-8	1887-8	1897-8	1907-8	1917-8	1927-8
H	S	c	n	x	h	s	
1858-9	1868-9	1878-9	1888-9	1898-9	1908-9	1918-9	1928-9
I	T	d	o	y	i	t	
1859-0	1869-0	1879-0	1889-0	1899-0	1909-0	1919-0	1929-0
K	U	e	p	z	k	u	

LIST OF DATE LETTERS

At the Chester Assay Office,

FROM AUG. 5, 1706 TO 1900.

The Hall-Mark is a Sword between three wheat sheaves.

Date-letters at Chester Office from 1706 to 1796-7 were as follows:

1706-7 to 1725-6 were Roman capitals F to Z omitting J.

1726-7 to 1751-2 ,, Italic capitals *A* to *Z* all.

1752-3 to 1775-6 ,, Roman capitals A to X

1776-7 to 1796-7 ,, Roman small a to v omitting j.

1797-8 A	1806-7 K	1815-6 T	1824-5 G	1833-4 Q	1842-3 D	1851-2 N
1798-9 B	1807-8 L	1816-7 U	1825-6 H	1834-5 R	1843-4 E	1852-3 O
1799-0 C	1808-9 M	1817-8 V	1826-7 I	1835-6 S	1844-5 F	1853-4 P
1800-1 D	1809-0 N	1818-9 A	1827-8 K	1836-7 T	1845-6 G	1854-5 Q
1801-2 E	1810-1 O	1819-0 B	1828-9 L	1837-8 U	1846-7 H	1855-6 R
1802-3 F	1811-2 P	1820-1 C	1829-0 M	1838-9 V	1847-8 I	1856-7 S
1803-4 G	1812-3 Q	1821-2 D	1830-1 N	1839-0 A	1848-9 K	1857-8 T
1804-5 H	1813-4 R	1822-3 E	1731-2 O	1840-1 B	1849-0 L	1858-9 U
1805-6 I	1814-5 S	1823-4 F	1832-3 P	1841-2 C	1850-1 M	1859-0 V

1860-1	1868-9	1876-7	1884-5	1892-3	1900-1	1908-9	1916-7
𝔄	𝔢	𝔫	A	I	R	𝒦	
1861-2	1869-0	1877-8	1885-6	1893-4	1901-2	1909-0	1917-8
𝔅	𝔣	𝔬	B	K	𝒜	𝒥	
1862-3	1870-1	1878-9	1886-7	1894-5	1902-3	1910-1	1918-9
𝔜	𝔤	𝔭	C	L	ℬ	𝒦	
1863-4	1871-2	1879-0	1887-8	1895-6	1903-4	1911-2	1919-0
𝔛	𝔥	𝔮	D	M	𝒞	ℒ	
1864-5	1872-3	1880-1	1888-9	1896-7	1904-5	1912-3	1920-1
𝔞	𝔦	𝔯	E	N	𝒟	ℳ	
1865-6	1873-4	1881-2	1889-0	1897-8	1905-6	1913-4	1921-2
𝔟	𝔨	𝔰	F	O	ℰ	𝒩	
1866-7	1874-5	1882-3	1890-1	1898-9	1906-7	1914-5	1922-3
𝔠	𝔩	𝔱	G	P	ℱ	𝒪	
1867-8	1875-6	1883-4	1891-2	1899-0	1907-8	1915-6	1923-4
𝔡	𝔪	𝔲	H	Q	𝒢	𝒫	

LIST OF DATE LETTERS

At the Assay Office, Sheffield,

FROM JUNE 24. 1773 TO 1918.

The Hall-Mark at this Office is a Crown. Only silver goods are assayed here.

1773-4	1775-6	1777-8	1779-0	1781-2	1783-4	1785-6	1787-8
𝔈	𝔑	𝔜	𝔄	𝔇	𝔅	𝔜	𝔏
1774-5	1776-7	1778-9	1780-1	1782-3	1784-5	1786-7	1788-9
𝔉	𝔎	𝔖	𝔆	𝔊	𝔍	𝔎	𝔚

1789-0	1801-2	1813-4	1825-6	1837-8	1849-0	1861-2
M	H	R	b	r	F	T
1790-1	1802-3	1814-5	1826-7	1838-9	1850-1	1862-3
L	M	W	c	S	G	U
1791-2	1803-4	1815-6	1827-8	1839-0	1851-2	1863-4
P	F	O	d	t	H	V
1792-3	1804-5	1816-7	1828-9	1840-1	1852-3	1864-5
U	G	T	e	u	I	W
1793-4	1805-6	1817-8	1829-0	1841-2	1853-4	1865-6
O	B	X	f	V	K	X
1794-5	1806-7	1818-9	1830-1	1842-3	1854-5	1866-7
M	A	I	g	X	L	Y
1795-6	1807-8	1819-0	1831-2	1843-4	1855-6	1867-8
Q	S	V	h	Z	M	Z
1796-7	1808-9	1820-1	1832-3	1844-5	1856-7	1868-9
Z	P	Q	k	A	N	A
1797-8	1809-0	1821-2	1833-4	1845-6	1857-8	1869-0
X	K	Y	l	B	O	B
1798-9	1810-1	1822-3	1834-5	1846-7	1858-9	1870-1
J	L	Z	m	C	P	C
1799-0	1811-2	1823-4	1835-6	1847-8	1859-0	1871-2
E	C	U	p	D	R	D
1800-1	1812-3	1824-5	1836-7	1848-9	1860-1	1872-3
N	D	a	q	E	S	E

1873-4	1879-0	1885-6	1891-2	1897-8	1903-4	1909-0	1915-6
F	M	S	Y	e	l	r	x
1874-5	1880-1	1886-7	1892-3	1898-9	1904-5	1910-1	1916-7
G	N	T	Z	f	m	s	y
1875-6	1881-2	1887-8	1893-4	1899-0	1905-6	1911-2	1917-8
H	O	U	a	g	n	t	z
1876-7	1882-3	1888-9	1894-5	1900-1	1906-7	1912-8	1918-9
J	P	V	b	h	o	u	
1877-8	1883-4	1889-0	1895-6	1901-2	1907-8	1913-4	1919-0
K	Q	W	c	i	p	v	
1878-9	1884-5	1890-1	1896-7	1902-3	1908-9	1914-5	1920-1
L	R	X	d	k	q	w	

Specimens of Shields used at Edinburgh Office, from 1681 to 1906-7.

LIST OF DATE LETTERS

At the Assay Office, Edinburgh,

FROM 1681 TO 1906-7.

The Hall-mark at this Office is a castle.

								
1681-2 1704-5	1705-6 1729-0	1730-1 1754-5	1755-6 1779-0	1780-1 1805-6	1806-7 1831-2	1832-3 1856-7	1857-8 1881-2	1882-3 1906-7

1681-2	1692-3	1703-4	1714-5	1725-6	1736-7	1747-8
a	m	y	K	V	*G*	*S*
1682-3	1693-4	1704-5	1715-6	1726-7	1737-8	1748-9
b	n	z	L	W	*H*	*T*
1683-4	1694-5	1705-6	1716-7	1727-8	1738-9	1749-0
c	o	A	M	X	*I*	*U*
1684-5	1695-6	1706-7	1717-8	1728-9	1739-0	1750-1
d	p	B	N	Y	*K*	*W*
1685-6	1696-7	1707-8	1718-9	1729-0	1740-1	1751-2
e	q	C	O	Z	*L*	*X*
1686-7	1697-8	1708-9	1719-0	1730-1	1741-2	1752-3
f	r	D	P	*A*	*M*	*Y*
1687-8	1698-9	1709-0	1720-1	1731-2	1742-3	1753-4
g	s	E	Q	*B*	*N*	*Z*
1688-9	1699-0	1710-1	1721-2	1732-3	1743-4	1754-5
h	t	F	R	*C*	*O*	*Ꝛ*
1689-0	1700-1	1711-2	1722-3	1733-4	1744-5	1755-6
i	u	G	S	*D*	*P*	*A*
1690-1	1701-2	1712-3	1723-4	1734-5	1745-6	1756-7
k	w	H	T	*E*	*Q*	*B*
1691-2	1702-3	1713-4	1724-5	1735-6	1746-7	1757-8
l	x	I	U	*F*	*R*	*C*

1758-9	1770-1	1782-3	1794-5	1806-7	1818-9	1830-1	1842-3
D	Q	C	O	a	m	y	L
1759-0	1771-2	1783-4	1795-6	1807-8	1819-0	1831-2	1843-4
E	K	D	P	b	n	z	M
1760-1	1772-3	1784-5	1796-7	1808-9	1820-1	1832-3	1844-5
F	S	E	Q	c	o	A	N
1761-2	1773-4	1785-6	1797-8	1809-0	1821-2	1833-4	1845-6
G	T	F	R	d	p	B	O
1762-3	1774-5	1786-7	1798-9	1810-1	1822-3	1834-5	1846-7
H	U	G	S	e	q	C	P
1763-4	1775-6	1787-8	1799-0	1811-2	1823-4	1835-6	1847-8
J	V	G	T	f	r	D	Q
1764-5	1776-7	1788-9	1800-1	1812-3	1824-5	1836-7	1848-9
K	X	H	U	g	s	E	K
1765-6	1777-8	1789-0	1801-2	1813-4	1825-6	1837-8	1849-0
L	Y	I	V	h	t	F	S
1766-7	1778-9	1790-1	1802-3	1814-5	1826-7	1838-9	1850-1
M	Z	K	W	i	u	G	T
1767-8	1779-0	1791-2	1803-4	1815-6	1827-8	1839-0	1851-2
N	Y	L	X	j	v	H	U
1768-9	1780-1	1792-3	1804-5	1816-7	1828-9	1840-1	1852-3
O	A	M	Y	k	w	J	V
1769-0	1781-2	1793-4	1805-6	1817-8	1829-0	1841-2	1853-4
P	B	N	Z	l	x	K	W

1854-5	1862-3	1870-1	1878-9	1886-7	1894-5	1902-3
𝔈	F	O	W	𝔢	𝔫	𝔳
1855-6	1863-4	1871-2	1879-0	1887-8	1895-6	1903-4
𝔜	G	P	X	𝔣	𝔬	𝔴
1856-7	1864-5	1872-3	1880-1	1888-9	1896-7	1904-5
𝔍	H	Q	Y	𝔤	𝔭	𝔵
1857-8	1865-6	1873-4	1881-2	1889-0	1897-8	1905-6
A	I	R	Z	𝔥	𝔮	𝔶
1858-9	1866-7	1874-5	1882-3	1890-1	1898-9	1906-7
B	K	S	𝔞	𝔦	𝔯	𝔷
1859-0	1867-8	1875-6	1883-4	1891-2	1899-0	1907-8
C	L	T	𝔟	𝔨	𝔰	
1860-1	1868-9	1876-7	1884-5	1892-3	1900-1	1908-9
D	M	U	𝔠	𝔩	𝔱	
1861-2	1869-0	1877-8	1885-6	1893-4	1901-2	1909-0
E	N	V	𝔡	𝔪	𝔲	

LIST OF DATE LETTERS

At the Assay Office, Glasgow.

FROM JUNE 24, 1819 TO 1922-3.

The Hall-mark at this Office is a tree, fish and bell.

1819-0	1821-2	1823-4	1825-6	1827-8	1829-0	1831-2
A	C	E	G	I	K	M
1820-1	1822-3	1824-5	1826-7	1828-9	1830-1	1832-3
B	D	F	H	J	L	N

1833-4 O	1845-6 A	1857-8 M	1869-0 Y	1881-2 K	**1893-4** W	1905-6 *J*	1917-8 *U*
1834-5 P	1846-7 B	1858-9 N	1870-1 Z	1882-3 L	1894-5 X	1906-7 *J*	1918-9 *V*
1835-6 Q	1847-8 C	1859-0 O	1871-2 A	1883-4 M	1895-6 Y	1907-8 *K*	1919-0 *W*
1836-7 R	1848-9 D	1860-1 P	1872-3 B	1884-5 N	1896-7 Z	1908-9 *L*	1920-1 *X*
1837-8 S	1849-0 E	1861-2 Q	1873-4 C	1885-6 O	1897-8 *A*	**1909-0** *M*	**1921-2** *Y*
1838-9 T	1850-1 F	1862-3 R	1874-5 D	1886-7 P	1898-9 *B*	**1910-1** *N*	1922-3 *Z*
1839-0 U	1851-2 G	1863-4 S	1875-6 E	1887-8 Q	1899-0 *C*	1911-2 *O*	1923-4
1840-1 V	1852-3 H	1864-5 T	1876-7 E	1888-9 R	1900-1 *D*	1912-3 *P*	1924-5
1841-2 W	1853-4 I	1865-6 U	1877-8 G	1889-0 S	1901-2 *E*	1913-4 *Q*	1925-6
1842-3 X	1854-5 J	1866-7 V	1878-9 H	1890-1 T	1902-3 *F*	1914-5 *R*	1926-7
1843-4 Y	1855-6 K	1867-8 W	1879-0 I	1891-2 U	1903-4 *G*	1915-6 *S*	1927-8
1844-5 Z	1856-7 L	1868-9 X	1880-1 J	1892-3 V	1904-5 *H*	1916-7 *T*	1928-9

LIST OF DATE LETTERS

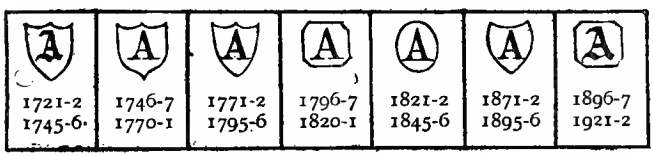
At the Assay Office, Dublin.

FROM MAY, 1821 TO 1920-1.

The Hall-mark at this Office is the figure of Hibernia.

Specimen of Shields used at Dublin Hall, 1721-2 to 1920-1.

Letter J omitted in first 5 cycles.



1721-2 1745-6	1746-7 1770-1	1771-2 1795-6	1796-7 1820-1	1821-2 1845-6	1871-2 1895-6	1896-7 1921-2

1821-2	1829-0	1837-8	1845-6	1853-4	1861-2	1869-0
A	I	R	Z	h	Q	Y
1822-3	1830-1	1838-9	1846-7	1854-5	1862-3	1870-1
B	K	S	a	j	r	z
1823-4	1831-2	1839-0	1847-8	1855-6	1863-4	1871-2
C	L	T	b	k	s	A
1824-5	1832-3	1840-1	1848-9	1856-7	1864-5	1872-3
D	M	U	c	l	t	B
1825-6	1833-4	1841-2	1849-0	1857-8	1865-6	1873-4
e E	N	V	d	m	u	C
1826-7	1834-5	1842-3	1850-1	1858-9	1866-7	1874-5
F	O	W	e	n	v	D
1827-8	1835-6	1843-4	1851-2	1859-0	1867-8	1875-6
G	P	X	f	o	w	E
1828-9	1836-7	1844-5	1852-3	1860-1	1868-9	1876-7
H	Q	Y	g	P	x	F

1877-8	1883-4	1889-0	1895-6	1901-2	1907-8	1913-4	1919-0
G	N	T	Z	F	M	S	Y
1878-9	1884-5	1890-1	1896-7	1902-3	1908-9	1914-5	1920-1
H	O	U	A	G	N	T	Z
1879-0	1885-6	1891-2	1897-8	1903-4	1909-0	1915-6	1921-2
I	P	V	B	H	O	U	
1880-1	1886-7	1892-3	1898-9	1904-5	1910-1	1916-7	1922-3
K	Q	W	C	I	P	V	
1881-2	1887-8	1893-4	1899-0	1905-6	1911-2	1917-8	1923-4
L	R	X	D	K	Q	W	
1882-3	1888-9	1894-5	1900-1	1906-7	1912-3	1918-9	1924-5
M	S	Y	E	L	R	X	

LIST OF DATE LETTERS

At the Assay Office, Newcastle-on-Tyne,

From May 3, 1791 to 1885.

The Hall-mark at this Office was Three Castles.

This Office was closed in 1885.

1791-2	1794-5	1797-8	1800-1	1803-4	1806-7	1809-0	1812-3
A	D	G	K	N	Q	T	X
1792-3	1795-6	1798-9	1801-2	1804-5	1807-8	1810-1	1813-4
B	E	H	L	O	R	U	Y
1793-4	1796-7	1799-0	1802-3	1805-6	1808-9	1811-2	1814-5
C	F	I	M	P	S	W	Z

1815-6	1826-7	1837-8	1848-9	1859-0	1870-1	1881-2
A	M	Y	J	U	g	s
1816-7	1827-8	1838-9	1849-0	1860-1	1871-2	1882-3
B	N	Z	K	W	h	t
1817-8	1828-9	1839-0	1850-1	1861-2	1872-3	1883-4
C	O	A	L	X	i	u
1818-9	1829-0	1840-1	1851-2	1862-3	1873-4	1884-5
D	P	B	M	Y	k	w
1819-0	1830-1	1841-2	1852-3	1863-4	1874-5	1885
E	Q	C	N	Z	l	x
1820-1	1831-2	1842-3	1853-4	1864-5	1875-6	
F	R	D	O	a	m	
1821-2	1832-3	1843-4	1854-5	1865 6	1876-7	
G	S	E	P	b	n	
1822-3	1833-4	1844-5	1855-6	1866-7	1877-8	
H	T	F	Q	c	o	
1823-4	1834-5	1845-6	1856-7	1867-8	1878-9	
I	U	G	R	d	p	
1824-5	1835-6	1846-7	1857-8	1868-9	1879-0	
K	W	H	S	e	q	
1825-6	1836-7	1847-8	1858-9	1869-0	1880-1	
L	X	I	T	f	r	

LIST OF DATE LETTERS

At the Assay Office, Exeter,

FROM AUGUST, 1817 TO 1876-7.

The Hall-mark at this Office was a Castle with Three Towers.

This Office has now become extinct.

1817-8	1825-6	1833-4	1841-2	1849-0	1857-8	1865-6	1873-4
a	i	r	E	N	A	I	R
1818-9	1826-7	1834-5	1842-3	1850-1	1858-9	1866-7	1874-5
b	k	s	F	O	B	K	S
1819-0	1827-8	1835-6	1843-4	1851-2	1859-0	1867-8	1875-6
c	l	t	G	P	C	L	T
1820-1	1828-9	1836-7	1844-5	1852-3	1860-1	1868-9	1876-7
d	m	u	H	Q	D	M	U
1821-2	1829-0	1837-8	1845-6	1853-4	1861-2	1869-0	
e	n	A	J	R	E	N	
1822-3	1830-1	1838-9	1846-7	1854-5	1862-3	1870-1	
f	o	B	K	S	F	O	
1823-4	1831-2	1839-0	1847-8	1855-6	1863-4	1871-2	
g	p	C	L	T	G	P	
1824-5	1832-3	1840-1	1848-9	1856-7	1864-5	1872-3	
h	q	D	M	U	H	Q	

LIST OF DATE LETTERS

At the Assay Office, York.

FROM 1812 TO 1856-7.

The Hall-mark at this Office was Five Lions on a Cross, the Leopard's Head being also impressed as an additional mark.

This Assay Office has now become extinct.

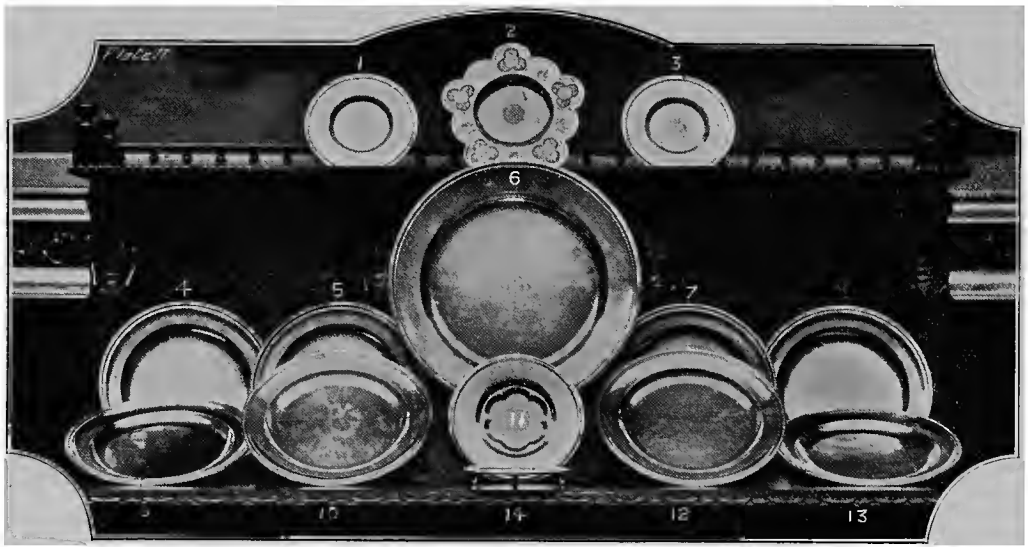
1812-3	1818-9	1824-5	1830-1	1836-7	1842-3	1848-9	1854-5
a	g	n	t	z	F	M	S
1813-4	1819-0	1825-6	1831-2	1837-8	1843-4	1849-0	1855-6
b	h	o	u	A	G	N	T
1814-5	1820-1	1826-7	1832-3	1838-9	1844-5	1850-1	1856-7
c	i	p	v	B	H	O	U
1815-6	1821-2	1827-8	1833-4	1839-0	1845-6	1851-2	
d	k	q	w	C	I	P	
1816-7	1822-3	1828-9	1834-5	1840-1	1846-7	1852-3	
e	l	r	x	D	K	Q	
1817-8	1823-4	1829-0	1835-6	1841-2	1847-8	1853-4	
f	m	s	y	E	L	R	

A Visit to the Bank of England.

It would take up too much space here to give full particulars of our visit to the historic and wonderful Old Lady of Threadneedle Street, so a few words about three or four of the principal departments must suffice. Everybody who has passed the south entrance to the Bank will have noticed the doorkeepers standing there, dressed in brown suit and top-hat with gold band. Inside the courtyard there is a very mild and respectful-looking, beadle-like individual, whose red cloth cloak, trimmed with vari-coloured silk braid and tufts, makes an imposing display. Since the dynamite scares in London it is exceedingly difficult to enter the interior of the Bank; but with the aid of a friend who is connected with the Bank we were allowed the privilege of inspecting the famous piles of gold and bank notes.

After visiting several different departments, and examining a number of large gold coins and medals, we entered a room called the Bullion Office, where all the gold and silver that enters or leaves the Bank passes through to be checked. Here we were first introduced to the scales, or, as it is termed, the "Grand Balance." The scale is worked by hydraulic power, and is the most sensitive weighing machine in existence. The manager set the machine in motion by means of a small wheel; it was then ready for weighing. "We will first weigh a postage stamp," observed the suave gentleman. The gold is made up in 400 ounce bars, and the difference of one-thousandth part of an ounce can be detected. The stamp being added to the 400 ounce weights will make the index jump a distance of six inches. If a bar contains more than this scale is made to weigh the index will not move, but an electric bell commences ringing, which indicates that the machine has been overloaded. This is the only balance of its kind in the world; it cost £2,000 The silver scale is not so finely balanced. The two are called respectively "The Lord Chief Justice" and "The Lord High Chancellor."

Our guide then moved away from the machine, and, turning a handle in the wall (which lighted up a long vault, with finely-groined arches), a gate was opened and we passed in, followed by one of the bodyguards. On small barrows, with strong wheels,



LEEDS PARISH CHURCH PATENS.—*See page* 175.

are about 100 bars of 400 ounces of gold, or about £160,000 worth of metal. We had the privilege of handling one of these gold bricks, worth £1600 each. On shelves in the walls are piles upon piles of bags full of gold coins, each bag weighing 500 ounces. They are of the French, German, Belgian, Dutch, Indian, and American currency.

From this room we passed up a stone staircase, and along a very agreeable gallery to the entrance to the noted "Bank Parlour." The door is opened, and we are ushered into this luxurious boardroom for a minute or two only. We passed the Discount Bill Department, the Secretary's and Indian Offices, as though they existed not.

We now arrive at a room where about thirty weighing machines are at work. This is the room where sovereigns and half-sovereigns are weighed when sent in by bankers and others. A machine completely enclosed in glass—with a long feeder like a tube cut in half down its length, and made of brass—is set at an angle of about 45 degrees, and is filled with a long roll of sovereigns. These turn as they slip down on to a circular movable plate, slightly larger than a sovereign. For a moment the plate seems to be deciding as to the weight of that particular coin. Then, as if it has made up its mind fully, it neatly turns the coin to the right, and it slips down a metal tube into a till below. But if the coin proves to be lighter than the standard weight, the machine turns it to the left and condemns it to the guillotine. These machines weigh coins at the rate of 26 per minute, or £100,000 worth a day. The light coins are clipped; the banker can take them back if he wishes after they are cut. This he never does, but takes the weight value of the gold.

We will pass over the bank-note catacombs and the printing department, and pass on to the wealthiest room in the world. This room is surrounded from floor to ceiling by iron doors of safes, which at their opening are about 5ft. high by the same width. One of these is opened, and shows rows upon rows of bags full of gold coins, which contain £2,000 each. Another door is opened, and we observe a stack of bank notes. The gentleman in charge takes out a parcel of one thousand £1,000 notes and says, "Take hold." We do so, and are told that we are holding £1,000,000 sterling. We were wishing he would say, "You can take that lot home with you," but we had to put it back. This

small safe contained about £9,000,000 sterling. We were told that we were in the richest vault of the Bank of England and of the world. It is said that this small room contains from £80,000,000 to £100,000,000 sterling in values. In the courtyard are the quarters of between 30 and 40 Guardsmen, who nightly patrol the establishment. A double sentry is posted at each gate, and, as they load with ball cartridge, it is not a safe place for burglars. The officer of the guard has a bedroom in the Bank.

Two Model Working Gold Mines.

Mr. William Keast, who for years worked in the gold mines of America, has constructed two interesting and artistic Model Gold Mines, one is on view at Manchester and the other at Greater Britain Exhibition, Earl's Court, London. If we had space a very instructive and wonderful account could be given about Mr. Keast and his Model Mines. He shows to perfection both quartz and placer mining in full operation. A better idea can be obtained in these model mines than any stranger could get in an ordinary working gold mine. In connection with the quartz mine there are 28 different operations going on, and in the alluvial mine there are two experienced miners washing out the gold from the loose soil. These miniature mines are well worth a visit.

The Rarity of Gold Plate.

A popular impression prevails to the effect that there is a large amount of solid gold plate for table use, or for table ornaments, in existence. This is altogether erroneous. The term "gold plate" almost invariably means silver gilt plate, and nearly all the so-called gold services are of this silver gilt metal.

In Great Britain there are not more than a dozen pieces of solid gold plate all told. Two of these belong to the Duke of Marlborough. They consist of a pair of ice pails, weighing no less than 365 ounces, and were presented by Queen Anne to the first Duke of Marlborough, the victor of Blenheim. The Queen has two great salvers of solid gold at Windsor Castle, and there is likewise in the Royal plate-room a third and smaller salver of pure gold, made during the reign of King William IV. from the presentation rings of the Sergeants-at-Law.

Exeter College, Oxford, has a solid gold cup and cover of seventeenth century work, presented by Bishop Hall to the college. The corporation of the ancient city of York has a cup of baluster stem, which was presented to it in 1672, and which was of solid gold. Mr. J. W. Walrond, a cousin of the baronet of that name, has a similar cup of about the same date, while Lord Derby has in his possession a chocolate cup and cover of pure gold, which were found in the lake of his country seat at Knowsley about one hundred years ago, on the occasion of its being drained. These, I believe, constitute the only pieces of solid gold plate, in Great Britain, and it is asserted by experts that they are quite as rare on the Continent.—*M.A.P.*

Gold Standards and Price per Ounce.

				£	s.	d.
1 Carat	=	$\frac{41\frac{2}{3}}{1000}$	... ...	0	3	$6\frac{1}{2}$
3	,,	$\frac{125}{1000}$	... ...	0	10	$7\frac{1}{2}$
6	,,	$\frac{250}{1000}$	... ...	1	1	$2\frac{1}{4}$
9	,,	$\frac{375}{1000}$	... ...	1	11	$10\frac{1}{2}$
10	,,	$\frac{416\frac{2}{3}}{1000}$	... ...	1	15	$4\frac{3}{4}$
12	,,	$\frac{500}{1000}$	... ...	2	2	$5\frac{3}{4}$
14	,,	$\frac{583\frac{1}{2}}{1000}$	... ...	2	9	$6\frac{3}{4}$
15	,,	$\frac{625}{1000}$	... ...	2	13	1
18	,,	$\frac{750}{1000}$	... ...	3	3	$8\frac{1}{2}$
20	,,	$\frac{833\frac{1}{3}}{1000}$	... ...	3	10	$9\frac{1}{2}$
22	,,	$\frac{916\frac{2}{3}}{1000}$	... ...	3	17	$10\frac{1}{2}$
24	,,	$\frac{1000}{1000}$	... ...	4	4	$11\frac{1}{2}$

Price of Standard Gold and Pure Gold from 1 Grain to 1 Ton Troy.

Grains.	Dwts.	Ounces.	Lbs.	Cwt.	Ton.	Standard Gold. £	s.	d.	Pure Gold. £	s.	d.
1								2			$2\frac{1}{5}$
24	1						3	$10\frac{3}{4}$		4	3
480	20	1				3	17	$10\frac{1}{2}$	4	5	0
5760	240	12	1			46	14	6	51	0	0
576000	24000	1200	100	1		4672	10	0	5100	0	0
11520000	480000	24000	2000	20	1	93450	0	0	102000	0	0

22-carat or $916\frac{2}{3}$ fine, is Standard Gold; the exact price per grain is $1\frac{209}{960}$d. It is stated in the Coinage Act of 1870 that 20 lbs. troy of Standard Gold shall be coined into 934 Sovereigns and 1 Half-sovereign.

Price of Pure Gold Avoirdupois.

Grains.	Ounces.	Lbs.	Cwts.	Ton.	£	s.	d.
$437\frac{1}{2}$	1				3	17	$5\frac{11}{16}$
7000	16	1			61	19	7
784000	1792	112	1		6941	13	4
15680000	35840	2240	20	1	138833	6	8

Face Value of 1 Ton of Silver (Troy Weight) 6600 Pounds.
,, 1 Cwt. ,, ,, 6600 Shillings.
,, 1 Lb. ,, ,, 66 Shillings.
,, 1 Oz. ,, ,, 66 Pence.

				Troy Lbs.		£	s	d.
1 Cubic Yard of Pure Gold weighs				39501·08,	Value	2014606	1	$7\frac{1}{5}$
1 ,,	Foot	,,	,,	1463·04	,,	74615	0	$9\frac{3}{5}$
				Ozs.				
1 ,,	Inch	,,	,,	10·16	,,	43	3	$7\frac{1}{5}$

	Tons.	cwts.	lb.	ozs.	dwts.	Grains.
One Million Sovereigns (Troy Weight)	10	14	1	9	16	6

	Tons.	cwts.	lbs.	oz.	dchm.	scple.	grs.
,, ,, (Avoirdupois)	7	17	26	10	1	1	15

701 Sovereigns weigh almost exactly 15 lbs. Troy.

One Pound Avoirdupois contains 14 Ounces, 11 Pennyweights, 16 Grains Troy.

3 Pennies weigh 1 oz. Avoids.; 107,520 Pennies weigh 1 ton, value £448.

80 Half-pence weigh 1 lb. Avoids.

160 Farthings ,, ,,

Scripture Weights and Moneys.

Various accounts are given by commentators and others as to the weights and value of money mentioned in the Scriptures. A talent is a weight or denomination of money, varying both in weight and value among different nations and in different periods. The same may be said of a shekel, which is generally stated to be worth about 3/-, but is given by some writers as worth only 2/3⅜; in gold, £1 16s. 6d. to £2 4s. 1d. We have, in our possession, books which give all the following varied amounts as to the value of a talent in English money :—

		£	s.	d.	
Silver,	...	213	0	0	
,,	..	235	0	0	
,,	...	341	10	4	
,,	...	342	3	9	
,,	...	353	11	10	
,,	...	396	5	10	
,,	...	338	10	10	
,,	...	243	15	0	
,,	Standard	450	0	0	Adam Clark
,,	Pure	486	9	8¾	do.

		£	s.	d.	
Gold,	...	11000	0	0	
,,	...	5075	15	1½	
,,	...	5075	15	7	
,,	...	5475	0	0	
,,	...	5464	5	8	
,,	...	7200	0	0	
,,	Standard	7032	11	1⅜	Adam Clark
,,	Pure ...	7371	8	6¾	do.

The weight of a talent varies from 57 lbs. to 390 lbs. according to the date and place.

For instance, the debtor (S. Matt. 18 and 24) who had been forgiven 10,000 talents, if silver was meant, the estimates of value given vary from £3,000,000 to £4,500,000. Adam Clark thinks gold was referred to and the amount would be 67½ millions sterling.

Judas sold Our Lord for 30 pieces of Silver, which is said to be worth in value from £3 10s. 0d. to £4 4s. 0d. The price received for Joseph is said to be from £2 6s. 0d. to £3.

The amount of Gold and Silver used in the building of Solomon's temple (see *Dictionary of the Bible*, by J. Wood) and the preparations for this temple were immense. David and his princes assigned thereto 108,000 talents of gold and 1,017,000 talents of silver, which together amounted in value to about £942,719,750; its weight would be about 46,000 tons of gold and silver. Dr. Adam Clark gives the cost of gold for the temple at £737,142,857 2s.; and silver at £486,486,486 9s. 8½d.—total, £1,223,629,343 11s. 8½ (see *Clark's Commentary* II. Chron., end of Ch. 9).

Troy Weight with Decimal Equivalents.

Grains.		Decimal.
1	equals	0·002
2	,,	0·004
3	,,	0·006
4	,,	0·008
5	,,	0·0010
6	,,	0·0012
7	,,	0·0014
8	,,	0·0016
9	,,	0·0018
10	,,	0·0020
11	,,	0·0022
12	,,	0·0025
13	,,	0·0027
14	,,	0·0029
15	,,	0·0031
16	,,	0·0033
17	,,	0·0035
18	,,	0·0037
19	,,	0·0039
20	,,	0·0041
21	,,	0·0043
22	,,	0·0045
23	,,	0·0048

Pennyweights.		Decimal.
20	equals	1·000
19	,,	0·950
18	,,	0·900
17	,,	0·850
16	,,	0·800
15	,,	0·750
14	,,	0·700
13	,,	0·650
12	,,	0·600
11	,,	0·550
10	,,	0·500
9	,,	0·450
8	,,	0·400
7	,,	0·350
6	,,	0·300
5	,,	0·250
4	,,	0·200
3	,,	0·150
2	,,	0·100
1	,,	0·050

Ozs. 61·105 would be	
61 oz.	61·000
10 dwts.	0·500
5 grains	0·010

A Half-penny is exactly an inch diameter, and a penny 1⅛ inches. Those struck at Heaton's, Birmingham, have a letter H under the date.

175 Ounces Troy equal 192 Ounces Avoirdupois.

Imperial Weights with Metric Equivalents.

Troy Weight.	Metric.
1 Grain	64·79895 Milligrams ·06480 Grams
1 Ounce (480 grains)	31·10350 Grams
1 Dwt. (24 grains)	1·55517 Grams

Metric.	Troy.
1 Kilogram (1000 grains)	2·20462125 Pounds
or	15432·34874 Grains
1 Gram	·64301 Pennyweights 15·43235 Grains

Comparison of Metals (Troy).

Specific Gravity.	One Cubic Inch.
	Oz.
Gold (pure) 19·25	10·16
Silver „ 10·47	5·525
Copper 8·72	4·602
Equal parts of Copper and Silver	5·0635

Ancient Weights.

The most Ancient Weights of the Greeks were:—

A Drachma, weighing 6 penny-weights, $2\frac{19}{22}$ grains;
A Mina, weighing 1 pound, 1 ounce, $4\frac{44}{49}$ grains; and
A Talent, weighing 65 pounds, 12 penny-weights, $5\frac{48}{49}$ grains.

Jewish Weights reduced to English Troy Weights:—

	lbs.	ozs.	dwts.	grs.
Shekel...	0	0	9	$2\frac{4}{7}$
60 Shekel = Manch	2	3	6	$10\frac{2}{7}$
3000 Shekel = 50 Manch = Talent ...	113	10	1	$10\frac{2}{7}$
N.B.—In reckoning money, 50 Shekels make a Manch; but in weight, 60 Shekels.				
A Talent at Antioch was equal to ...	390	3	13	11
A Talent at Alexandria was equal to ...	104	0	19	14

Relative Weights of different Standards of the Precious Metals.

		Ounces Troy.
1	Cubic inch of Pure Gold	10·160
1	,, ,, 22-carat Gold	9·766
1	,, ,, 18 ,,	8·842
1	,, ,, 15 ,,	8·149
1	,, ,, 12 ,,	7·456
1	,, ,, 9 ,,	6·763
1	,, ,, Pure Silver	5·520
1	,, ,, of Standard Silver (·925)	5·451

Precious Stones and Gems,

By W. E. Streeter, F.R.G.S.

This is considered the best and most interesting work on Precious Stones and Gems ever published, and is most valuable to all who have a desire to ascertain the genuineness and value of precious stones. The author has had over 50 years of practical experience as a merchant and dealer not only in the buying and selling, but also in the cutting and setting of precious stones. Mr. Streeter's practical knowledge in mining, testing, and valuing gems and stones give him a pre-eminence as an authority on the subject.

This work is full of interesting matter from beginning to end, and is without doubt the most complete book of its kind ever issued.

The Standard says:—"Mr. Streeter gives an accurate and complete description of every kind of precious stone and gem known, and makes his book still more attractive and complete by a series of coloured plates of several stones in the rough.

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We make a special feature of attending to Country parcels immediately upon receipt of same, and Cash or Offer (as may be requested) will be forwarded per return of post. In all cases we send a remittance, whether a contra account is standing or not, unless customer specially asks to have the amount placed to the credit of his account.

This department remains under the personal supervision of one of our partners, Mr. Robert Pringle, Junr, but has lately been re-organised. We now have a more experienced and competent staff of assistants and workmen, and under the new arrangements which we have made, customers will receive better attention than in the past.

Members of the Trade wishing to dispose of their lots by Assay, are invited to have the same melted under their own inspection.

Robert Pringle & Sons,

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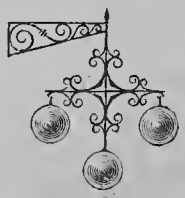

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