William Arthur Shaw

# The History of Currency, 1252 to 1896

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# THE HISTORY OF CURRENCY

## 1252 TO 1896

## BY W.A. SHAW

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# THE HISTORY OF CURRENCY

# 1252 TO 1894

*Being an Account of the Gold and Silver Moneys and Monetary Standards of Europe and America, together with an Examination of the effects of Currency and Exchange Phenomena on Commercial and National Progress and Well-being*

## BY W.A. SHAW, M.A.

LATE BERKELEY FELLOW OF THE OWENS COLLEGE
FELLOW OF THE ROYAL HISTORICAL AND ROYAL STATISTICAL SOCIETIES

SECOND EDITION

NEW YORK: G.P. PUTNAM'S SONS LONDON:
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TO

RICHARD COPLEY CHRISTIE

THIS BOOK IS RESPECTFULLY DEDICATED IN MEMORY OF A FRIENDSHIP OF PECULIAR GRACE AND INSPIRATION

## PREFACE

The purpose of this book is twofold—first and foremost, to illustrate a question of principle by the aid of historic test and application; secondly, to furnish for the use of historical students an elementary handbook of the currencies of the more important European states from the thirteenth century downwards.

Little need be said as to this latter purpose. The total omission of the historic, reasoned, and consecutive study of currency history—the most important domain of practical economics—from the curriculum of every university in the land is matter for surprise and regret, and can only be attributed to the lack of an initiative and of a handbook.

As to the former purpose, there is no field of history so strewn with scientific (*i.e.* comparative and prophetic) possibilities as economic history; and in economic history there is no department in which the study of the experience of other times and nations is more necessary and resultful, lesson-full, wisdom-full, than the domain of currency. The verdict of history on the great problem of the nineteenth century—bimetallism—is clear and crushing and final, and against the evidence of history no gainsaying of theory ought for a moment to stand.

Throughout mediæval Europe and up to the close of the eighteenth century the currency of Europe was practically bimetallic—practically, because actually so without the prescription of a law of tender, and without the allowance of any theoretic grasp or conception of the practice as distinctively what nowadays we understand as bimetallic.

The conception of a law of tender is quite modern.

And the evolution of the idea of such a law has gone hand in hand with the evolution of a conception of monetary theory on the part of the legislator—that is, with the bitter experience which for want of such a conception Europe endured for centuries. In all systems of jurisprudence money and minting appertains to the kingly office, and the development of the law of tender is to be traced in royal proclamations of the King in Council for long before it became the subject of parliamentary legislation. For centuries, such proclamations were issued, referring to a prohibition of export of the precious metals, banishing foreign coins from the land, or, again, permitting their circulation, and, in that case, prescribing the rough tariff or rate according to which (foreign) coin for (native) coin they should be current. In such proclamations there is no idea of separating the two metals, gold and silver; there is no idea of a law of tender; there is no intention to declare a ratio; there is no conception of *bullion* apart from coin. The two metals had grown to be the circulating and exchange medium; they were actually there, and all that had to be done was to keep them there. The advantage which was to be derived from a trade in bullion, and from an understanding of the effects of differently-prevailing ratios in different countries, was known only to the Jew and the Italian. They plied their trade in secret, and the legislator was only apprised of the result by suddenly finding a slipping away and dearth of coinage. Then the legislator altered the tariff, and gradually rose to the conception of the ratio as underlying this process of seduction. Then, as a further defence of a particular class of coins, he imposed a limitation on the tender of such, so as to prevent bullion operations on it. This limitation was the first

development of a law of tender. Throughout, from the thirteenth to the eighteenth century, both gold and silver had been actually employed in European commerce without any idea either of declaring or of restricting the tender, whether of the one or the other.

The final outcome of the application of the law of tender was the development of the modern monometallic system—a system in which alone lay the safeguard against the operation of the bullionist. It was only at the close of the eighteenth century that England evolved this system and flung away the last remains of that mediæval ignorance which had brought with it such a dower of mishap. France has taken almost a century of further experience before arriving at the same point of development.

Another point. At the time that England was shaking off the mediæval system France, too, was accomplishing a reform of her money system. It stopped half-way. The old kingly prerogative of altering the coinage was taken away, the unit of the currency was declared definite and unchangeable, and the seigniorage on minting was abolished. So much was accomplished by her law of 1803. But no further application was made of the law of tender than to throw the sanction of legal enactment over that mediæval system which had been the bane of France since first two metals found circulation in her bounds. As far as tender is concerned, there is no difference between the practice of the French monetary system in 1726 and that of 1803. The system was bimetallic in both cases—in the first case, legally by recognition and as resting on the royal jurisdiction; in the second case, legally by direct legislative or parliamentary enactment. The idea that

the law of 1803 created a new system and a new heaven for France is doubly absurd. It was a continuation of a very old and a very danger-fraught system, with its roots deep in mediæval ignorance and practice.

In addition to this—and quite as demonstrably—there was no conception of a theory of bimetallism in 1803, nor any conception of a bimetallic function to be performed for the good of the human race by bimetallic France. This is a conception of the schools, and bred of later needs and hopes and fears. The modern theory of bimetallism is almost the only instance in history of a theory growing not out of practice, but of the failure of practice; resting not on data verified, but on data falsified and censure-marked. No words can be too strong of condemnation for the theorising of the bimetallist who, by sheer imaginings, tries to justify theoretically what has failed in five centuries of history, and to expound theoretically what has proved itself incapable of solution save by cutting and casting away.

Such a verdict as this of history, negative as it is, must strike many a serious mind with dismay. The following of bimetallism would not be what it is were it not for the despair of any other remedy for the situation at the moment. We are thereby left apparently hopeless and remediless. But the first step to the discovery of a true and possible remedy, if any exists, can only be the casting away of the false and impossible.

The difference between the monetary problem of the seventeenth century and that of to-day lies in this, that while there has been continuity of history and

development there has been a change of needs and circumstance. The danger of arbitrage transactions to the mediæval legislator lay in the fact that they stripped the country, which suffered from them, not, or not merely, of a bullion reserve, but of her actual currency, and rendered even internal trade impossible. He accordingly tried to arrest the drain by threatening imprisonment and death.

To-day the safety and supply of the internal currency of the various states is provided for by a monometallic system or by note issue, while, conversely, trade in the precious metals has become free, and bullion flows automatically from land to land in accordance with the dictates of a now rightly-conceived theory of international trade. Just so far the monetary problem has changed—becoming a question of the evolution of a stable international exchange system. The theoretic pretensions of bimetallism have correspondingly widened, but on any ground, wide or narrow, the only material for the study, comprehension, and judgment of such pretensions lies in the actual experience of Europe during the past five centuries.

A few words of more particular explanation are necessary.

1. To the student of money and monetary standards the perpetually recurring phenomena of reductions of the unit and standard weights and contents of coins will present no difficulty. Three causes underlay the process—(1) the practice of alloying, (2) the competitive and dishonest action of governments, (3) the ideal nature of the unit itself, which permitted, literally, anything in the way of arbitrary manipulation (compare, *e.g.*, the very

different depreciations of the English shilling and the French sou, being both descendants of the solidus; or again, of the French livre and the Italian lire, being both descendants of the libra).

2. A second and much greater difficulty is presented by the confusion of nomenclature. It is often difficult to determine what particular piece is meant by a given name, or, if the identity of the piece can be fixed, its period may still be uncertain. In French numismatic history, for instance, the term florin d'or or denier d'or is used in documents quite generically for the more specific florins d'or à l'agnel, à l'écu, aux fleurs de lis, à la masse, moutons d'or, etc. This quite indeterminate use of the word "florin" (= denier = "piece," or generally, "coin") may possibly explain the crux to be found on pages 3, 9, 301, and 399 of the text (*infra*), where florins d'or are mentioned in French history more than seventy years before the first authentic minting of the gold florin at Florence.

3. With regard to the figures of the ratios there is great difference and divergence among the various authorities. The declared ratio may be of a double nature—(1) mercantile, as calculated on the purchase price of gold and silver in the open market; (2) legal, as settled by law in the terms prescribed for Mint purchase and issue. The former is comparatively simple, but it is not until a quite recent date, the opening of the eighteenth century, that it is statistically determinable. The table of the commercial ratio (pp. 157-9 *infra*) is taken from Soetbeer, and was by him calculated on the Hamburg exchange and London market rates. The competing figures of the commercial ratio drawn up by Ingham in his Report to the Senate of the United States (4th May 1830), and by John White, of the same date (see

*United States Report of the International Monetary Conference of 1878*, pp. 583, 647), I regard as comparatively untrustworthy.

With regard to the legal or Mint ratio (see *infra*, tables, pp. 40, 69-70, 157) there is the greatest discrepancy, and I print the figures with much trepidation and every mental reserve. The differences in the results arrived at by the various authorities are due to the difference in method of calculation, according as the issue price or the purchase price at the Mint is taken (*i.e.* with or without allowance of seigniorage and remedy), or according as the pure or gross content of the piece is calculated from (*i.e.* with or without allowance for alloy). As a matter of fact, hardly any two authorities or sets of calculations agree. See, for instance, duplicate sets of figures for Holland in Appendix 1. to Schimmel's *Geschiedkundig overzicht*; or again, compare Soetbeer's figures with those deduced by Köhler in his *Grundliche Nachricht*; or by Dr. Arnold Luschin, in the *Proceedings of the Congrés International de Numismatique*, 1880, p. 443; or with those deducible from Le Blanc's tables (*infra*, Appendix VI.). It is to this difference that must be attributed the discrepancy in the statement of the ratio by the French Mint authorities in 1640 (see text, *infra*, p. 92 and note, *ibid.*). The difficulty of calculating the European Mint ratio at any moment can be judged from the experience and statements of persons so widely apart as Sir Isaac Newton in England, Mirabeau and Calonne in France, and Morris and Hamilton in the United States (see *infra*, pp. 172-3, 229-30, and 251).

With regard to the scope of the present work, it is confined entirely to the history of metallic currency and standard. There is no reference to the paper-

money experience of any country, not even America or Austria. Such a subject must form matter for a separate treatment. The account of Austrian money is, therefore, to be found in Appendix v., under Germany, and on the effects of the latest Austrian reform (as also of the latest development in India and the United States) no opinion whatever is expressed. I content myself with the simple statement of fact and event.

In appending a list of the authorities used, it is difficult to overcome the feeling of humiliation which has come to me from the contrast of the ephemeral, slight, and unworthy treatment of monetary history to-day, with the grand, solid, scholarly works which the eighteenth century produced. With the exception of Soetbeer's magnificent labours, without which the present work would have been simply impossible as far as the statements of production and relativity of the precious metals are concerned, and of the similar historic work of M. Ottomar Haupt, the literature of this subject to-day is light and polemic and transitory to a nauseating degree.

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I am deeply indebted to H.C. Maxwell Lyte, C.B., Deputy Keeper of the Records, for references to the Patent and Close Rolls, the Exchequer Records, and other sources, which I have attempted to work into the tables of the French coins (Appendix VI.).

The Index of Coins at the end of the present volume is intended mainly for the purposes of historical

research. It has been compiled, along with the General Index, entirely by my sister, Miss Edna Shaw, to whom my warmest thanks are due.

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# THE HISTORY OF CURRENCY

## CHAPTER I

### From the Commencement of Gold Coinages to the Discovery of America, 1252-1492

The monetary history of Europe begins in the thirteenth century, and in the Italian peninsula. Its starting-point is the era of the reintroduction of gold into the coinages of the Western nations, and is definitely marked for us by the minting of the gold florin of Florence in 1252. For all practical purposes gold had gone out of use since the seventh century, and after the submersion of the Roman Empire; and the currencies of the nations of mediæval Europe rested on a silver basis entirely. There are limitations to the truth of this statement, but they are of such a nature as not materially to affect it. In Spain, for instance, the Moors kept up a tradition of gold coinage similar to that of Rome, from the eighth to the middle of the thirteenth century. But its influence on the monetary system of Christian Spain is not even a matter of question. At the other extremity of the Mediterranean, at Byzantium, seat of the Eastern Empire, the best traditions of the coinage system of Rome were preserved for centuries after the imperial city had fallen before the invasions of the northern barbarians. Indeed, the monetary system of the Eastern empire, by becoming, as it did, the model

which Charlemagne copied in his currency enactments, became the basis of all the modern European systems. Further than this, the presence of gold *Byzants* can be traced here and there, at isolated points and dates, all over the darkness of those early centuries of the Middle Ages, when all coining art seemed forgotten among the races of Central Europe.

Notwithstanding such limitations, however, it still remains true that the monetary history of the modern world dates from the thirteenth and not the seventh century, and from the little commercial states of Italy rather than from Byzantium. Previous to the minting of the gold florin of Florence there is no trace of any independent minting of gold coins on a commercial scale by any state of mediæval central Europe. The currency system of England, for instance, from the time of the Saxons to the days of Henry III. was based entirely on silver. In endless variety and under a diversity of names the silver penny was the unit coin current of the realm. Its equivalent in the Frankish Empire was the silver denarius, which Charlemagne had made the unit of his system, and which so continued for both the kingdom of France and the Holy Roman Empire till the fourteenth century. Finally, among the numerous states of Italy, with each their little independent Mint, there is no trace of the coinage of gold until the days of the commercial greatness of Florence and Venice. For eight centuries or more those races of Europe, which were to turn the course of the modern world and build its civilisation anew, were ignorant of the commercial use of what has been through all history the most potent factor in civilisation—gold.

*THE GOLD FLORIN OF*



*FLORENCE*

The explanation of the reintroduction and recoinage of gold is to be found in the history of the Crusades and of the commercial growth of the petty independent states which sprang from the political confusion of Italy. No sooner had they achieved each their little autonomous existence than they threw themselves with feverish energy into the development of the trade with the East. Florence and Venice, Pisa and Genoa, led the way and reaped the fruits; and it was in her most flourishing time, when she had conquered her rivals, Pisa and Siena, and was enjoying a prosperous peace and active trade, that Florence, at the instance of the chief of her merchants, resolved on the coining of the gold florin (1252).[1]

The mere idea of such a gold coinage could only be derived from the East—from Byzantium. But it is a curious fact that the importation of it should be due in the first place to the Crusades. Frederick II. of Sicily was elected Emperor of the Holy Roman Empire in 1212. Sixteen years later he headed the Fifth Crusade, and the gold coin (*Augustale*) which he issued some time between his return from that crusade and his death, probably commemorates his wish to rival the appearance of opulence of the Eastern court. This Sicilian coin is the direct ancestor of the florin of Florence, and to it would fitly belong the honour of leading in a new era, were it not that the superior beauty of the Florentine coin gave it universal currency and reputation, and extinguished the memory of its predecessor.

The gold coin of Genoa (*Genoviva*) is supposed to have issued in the same year as the florin (1252).

Five years later (1257) Henry III. of England imitated the florin in his gold *pennies*, and more than thirty years (31st October 1284) later Venice followed the lead of Florence and instituted a coinage of gold *zecchinos*, under the dogeship of Giovanni Dandolo.

Two conditions were essential to the bringing about so momentous a revolution as this, however little the mind of contemporaries may have known it as such. In the first place, the foreign trade of the Italian republics must have become so extensive as to demand a currency medium of higher denomination than silver; and, secondly, that trade must have developed in such directions as to tap gold-using or gold-bearing regions in order to supply the Italian mints. It is a curious fact that both these conditions were realised through the instrumentality of the Crusades. The quickening effect of these vast movements on the trade of the Mediterranean is well known, but their influence in the second direction has not hitherto been pointed out. In the Fourth Crusade Venice lent the force which captured Byzantium (1203), and when, by her arms, Baldwin, Count of Flanders, had been seated on the Eastern throne, Venice reaped her reward in three-eighths of the territories of the Eastern Empire. She received Peloponnesus and a chain of islands in the Ægean, and by the hold she had on Constantinople secured the virtual control of the Black Sea. In its turn the control of the Black Sea brought with it the monopoly of the overland trade with India.

### *THE TRADE OF VENICE*

At one and the same moment, therefore, Venice

acquired possession of a huge treasure of gold wrested from the conquered city, and of the then only gold-yielding districts—the Crimea—and of an intercolonial trade, demanding a more enhanced currency medium. The result of such a combination of circumstances was irresistible. During the continuance of the "Latin Empire" at Byzantium, Venice and her sister state were practically the only merchants of Europe.

The institution of a gold coinage among the Italian republics, therefore, marks for us an era of commercial expansion which is only fitly to be compared with that of Holland in the seventeenth century, or of our own country in modern times.

We are not concerned with tracing the effects of this extraordinary movement further than as they bore in their train the dower of a currency of gold.

In the European system, Venice was the intermediary between the spice-laden east and the wool-bearing north. England, the wool-growing country of fourteenth-century Europe; Flanders, the home of the weaving industry; the Hanse Towns of Germany and the gradually forming kingdom of France were successively brought face to face with the new medium of currency; and if the story of the gradual adoption of that new medium could be written, it would form one of the most instructive of all chapters of currency and commercial history.

As it is, we have only uncertain and scattered data.

In the case of Germany—of chief importance in the process by reason of her geographical position midway between the Mediterranean and the north—the first minting of gold in imitation of the Italian

states fell in the second quarter of the fourteenth century. Of the two types of gold monies issued by the Emperor Louis IV., surnamed "Bavarian," the first, struck some short time before 1328, was in direct imitation of the florin of Florence. The second, struck some little time later, was a copy of the *écu d'or* of Philip VI. of France.

In 1337 our own King Edward was made vicar-general and lieutenant to the Emperor, with powers to coin monies of gold and silver. He accordingly kept his winter at the Castle of Louvain, and caused great sums of money both of gold and silver to be coined at Antwerp. Two years later, this same Emperor Louis, the Bavarian, granted to the Duke Rainhold of Gueldres the right to mint gold coins, "after the valuation of the gold monies of the Archbishop of Cologne, the Duke of Brabant, and the Counts of Hainault and Holland." In the following year he granted to the free state of Lübeck a similar right—the patent expressly stipulating that their gold coins should not exceed in weight or value the gold florin of Florence.

*BEGINNINGS OF A GOLD COINAGE IN GERMANY*

Sixteen years later (1356) the general liberty of coining gold was conceded to the seven Electoral Princes by the Golden Bull of the Emperor Charles IV., and subsequently state after state and free town after free town purchased or were granted the right. Even as late as 1372, in the patent granting to Frederick of Nürnberg this so eagerly solicited

liberty, the stipulation is made that the gold gulden to be coined should be of as good gold and weight as "the gulden or florin of Florence."

In the case of Lübeck direct documentary evidence of transactions relating to the introduction of a gold coinage has survived among the archives of that state. The privilege of a Mint and of coining (of silver) was first granted to Lübeck by Frederick II. in 1226. But it was not until a century and more later that Louis the Bavarian, by his bull of 28th November 1340, conceded the right of coining gold "in pieces which were to be neither heavier nor of higher worth than the florin of Florence." On the 8th September in the following year the Lübeck Mint made its first purchase of gold from a certain Jacob Grell of Zütphen in Holland. The purchase consisted of 4 marks 1 loth 8 pfen. weight of gold (Lübeck weight), and the price paid was 24 solidi the carat. In other parcels, up to Michaelmas of 1341, the authorities remitted to the Mint a total weight of metal of 50 marks 2 oz. 3 $^{1}/_{2}$ ang., varying in fineness from 15 to 23 carats. The consignment yielded in the pot 46 marks 1 oz. 7 ang. of pure metal, and was coined into 3199 pieces of a total weight of 47 marks 5 oz. 10 ang., being 67.08 gold pieces to the Lübeck mark. The coins were issued on the 18th February 1342, and bore on the one side the lily of Florence and on the other the figure of John the Baptist—all in direct imitation of the florin. The total issues made in the immediately succeeding years from the Lübeck Mint were:—

| | | | |
|---|---|---|---|
| 1342 | 24,783 | florins | 67.26 to the mark. |
| " | 5,483 | " | 67.11 " |
| 1343 | 30,436 | " | " " |

1344 32,590 " " "

With more or less irregularity the earliest German guldens imitated the florin, and maintained something like a steady and uniform denomination quite up to the beginning of the last quarter of the fourteenth century.

*GOLD COINAGE IN FRANCE*

In France, as in Germany, the first coining of gold can only be dated approximately, but for all practical purposes quite safely. The generally accepted view is that the French series of gold coins was initiated in 1254 by Louis IX., "St. Louis," and that the issue was connected with the Sixth Crusade which he had headed five years before. There is documentary evidence extant to disprove this. *Florins d'or appelez Florences* are mentioned as early as 1180, not vaguely but quite definitely with an exact statement of weight standard and equivalence. Unless the record of the first minting of the gold florin at Florence is untrustworthy the coin here referred to can only be an imitation in gold of the silver florin of Florence. The same document which contains this reference (De Saulcy, i. 115) also specifies *petits royaux d'or* as minted not only in 1180 by Philip Augustus, but also in the days of his father, Louis VII. Similar mention of at least two gold coins of Louis IX. occurs as early as 1226, one evidently of the florin type, the other a *pavillon d'or*. It is quite safe to assert, however, that these coins were for show merely, due to an emulation of Byzantine and Italian opulence, and indicate no wide or commercial employment of gold.

Of the gold florins of 1226, for instance, thirteen pieces were struck, twelve for twelve peers of France as a gift, the thirteenth for the King himself, "and know you that this is the most beautiful money that can be found, and the finest and best engraved." The interest of such issues is entirely numismatic and not commercial or monetary.[2] It is not until late in the reign of St. Louis—until 1265 or thereabouts—that there is mention in France of any such gold coinage as could have this commercial rather than merely numismatic importance. For the purposes of metallic or currency history proper the real starting-point for France is marked rather by the *gros royaux d'or*, coined in 1295 by Philip le Bel, than by the more meagre coinage of St. Louis and his predecessors. The *gros royaux* of Philip were double the value of the *petits royaux* of St. Louis, of which latter Philip le Bel speaks thus in his proclamation. "We have commanded to be made in our name money of gold after the *petits royaux d'or*, which shall be 70 to the Paris mark and cut as the *petits royaux* have been used to be, being issued at an equivalence of 11 sols Parisi." From this date (1295) onward the gold coinage of the French Mint became one of the most important factors in the monetary history of Europe.

In Flanders the first gold coins were struck in 1357, under the rule of Count Louis II.[3] Both the coins issued by him are copied directly from French types ——his *real au lion* from the French *écu* of Philip IV., and his *mouton d'or* from the French coin of the same name. And it was the same French original which furnished the types to William V., Count of Holland (1356-77), when he followed the fashion and coined gold. Of the six types minted by Count William during his reign, two are an imitation of the French *mouton*, and the last is derived from the universally

prevailing type, the florin.

*GOLD COINAGE IN SPAIN AND ENGLAND*

In Spain the first coining of gold by the Christian powers fell in the same epoch and derived from the same source. Alfonso XI. (1312-50), surnamed the "Noble," was the first King of Castille who coined the *oro gran modulo* (*doblas de oro*), while in Aragon Pedro IV. (1336-87), "the Ceremonious," in his *oro florines* directly imitated the Florentine type, though his later pieces are more original in design.

Finally, with regard to England,—to whose monetary history a central importance attaches,—the course of events was most evidently controlled by the revolution in the continental currencies. It is, at the same time, comparatively easy to ascertain. The first of our kings to issue gold coins was Henry III., who in 1257 coined a penny of fine gold, of the weight of two silver pennies of the time, and ordered it to be current for twenty pence.

There can be no doubt that the idea of such a coinage was derived from that of St. Louis of France; and, just as in France, the issue seems to have been premature. Probably neither in the one country nor the other did there exist a sufficient store of the precious metal itself, nor sufficient activity of trade to attract such a store, or indeed to make a gold coinage at all a matter of mercantile advantage. It is only a developed and active or considerable trade that demands so enhanced a medium of exchange. Accordingly, just as in France, there is a noticeable

gap between the first actual minting of gold by the predecessors of St. Louis, and the minting of it in such quantities as to make a factor in commercial and monetary history, in the days of Philip le Bel (1295); so, in England, the first issue of Henry III. was followed by an interval of nearly ninety years, during which no coinage of gold by our kings took place. The real introducer of this metal into English currency and commerce was Edward III., and the first practical issue of it is to be dated in 1344, rather than 1257. It will be seen at a glance what this statement implies. The issue of Henry III. in 1257 had been premature—an act of kingly rivalry and show, rather than of commercial necessity. But the succeeding century saw a rapid development in the commerce of Northern Europe, and a gold coinage had gradually become both a possibility and a necessity. One after the other—in the order of time just detailed—the various commercial states with which England had intercourse had adopted it and profited by it. That England should follow in the movement scarcely more than sixteen years later than Germany, and a year or two before Flanders, is some evidence of the organisation of her trade, as well as of the intimacy of inter-commercial relationships. So purely a matter of trade and natural growth was this vast movement of the adoption of a gold coinage—a revolution indeed as it proved, though yet unwritten, more momentous in its influence on European civilisation than either the Renaissance or the Reformation.

*CHARACTERISTICS OF THE FIRST PERIOD*

Approximately, therefore, the fourteenth century may be taken as the starting-point for a history of European bimetallism. The first period of that history embraces all the movements of the previous metals, from such starting-point up to the discovery of America in 1492—a matter of two centuries, roughly speaking.

The characteristics of this period are perfectly well defined, and repeat themselves with almost faithful and exact similarity of recurrence in the several states comprising the Europe of that date. In brief, such characteristics were those of—(1) a period of commercial expanse, necessitating an increasing currency and advancing prices; (2) a period of stationary production of the precious metals, necessitating a struggle among the various states for the possession of those metals; (3) a period of endless change in the ratio between gold and silver, necessitating continual revision of the rate of exchange. Broadly speaking, those characteristics fall into two classes, accordingly as they relate to—(1) the natural movement of prices *i.e.* having regard merely to the supply of the precious metals; (2) to the unnatural struggle for the metals themselves—for the material for currency—due to international rivalry and bad or crafty legislation.

With regard to the former of these, the period was distinctly one of insufficient and relatively diminishing production of the metals. During these two centuries, 1300-1500, the main sources of the derivation of gold were the Eastern trade and the finds on the eastern shores and northern interior of Africa. The chief supply of silver came from the mines in Germany. These latter—in Hungary, Transylvania, Saxony, and Bohemia—were of such

importance and activity, in the fifteenth century and towards the time of the discovery of America, as partially to keep pace with the general trade expanse of the time, thereby helping to arrest a fall of prices that would have been absolutely disastrous to the civilisation of Europe. The combined production during this period cannot even be conjectured. At the close of it—during the reign of Henry VII.—the total coinage of England, both silver and gold, did not probably exceed £3,000,000, while the total stock of both metals in Europe in 1492 has been estimated at no more than £33,400,000. These figures stand alone, for we have no idea of the extent of the commerce which was worked on so small a monetary basis, and very little idea of the amount of aid which was extended to metallic money by such expedients as bills of exchange. To estimate, therefore, whether the period was one of depreciating, stationary, or appreciating currency, we are reduced to the testimony of prices and the Mint records.

*COURSE OF MONETARY DEPRECIATION*

In France, at the beginning of the period (in 1308), the mark of gold was coined into 44 livres, and the mark of silver into 2 livres 19 sols. At the close of the period, or towards it, in 1475, the mark of gold was coined into 118 livres 10 sols, and that of silver into 10 livres.

In Germany the mark of gold was coined into 66 gulden of 23 carats in 1386, and into 71-1/3 gulden of 18 $^1/_2$ carats in 1495—a depreciation of 34.36 per cent. In Spain the mark of silver was coined into 130

maravedis in the year 1312, and into 2210 maravedis in 1474. This latter case is, however, so inextricably complicated with considerations of mere, *i.e.* arbitrary, debasement, as to render it useless for any estimation of the natural appreciation of the metals. In England our earliest gold coin weighed 128 $^{4}/_{7}$ grains, and was tariffed at 6s. 8d. In 1489, 80 grains of gold were equivalent to the same, 6s. 8d.—a reduction of 37.94 per cent. Within the same period the weight of the silver penny sank from 22 to 12 troy grains, a reduction of 45.45 per cent. Eliminating cases of arbitrary debasement, a rough average for the period might fairly give 40 per cent. of depreciation through the two centuries.

The case need hardly be laboured statistically, for the legislative history of all the countries forming the circle of commercial Europe in the fourteenth and fifteenth centuries witnesses this general downward movement—this appreciation and restriction of currency—in grim and unmistakable manner; and it is the expression of this general movement in their legislations that gives the test and measure of the earliest bimetallic troubles of Europe. In many ways the problem before the various Governments was a more difficult one than that which besets the modern world. There was, for instance, nothing like an equal and generally recognised ratio of value between gold and silver prevailing at any one single point of time. At one and the same date a ratio of 7 or 8 to 1 prevailed in the Moorish parts of Spain, and 12 to 1 in the Christian parts (the kingdom of Castile). Similarly, at a later period, in 1474, the ratio in England was 11.15, in Germany 11.12, and in France 11.00, in Italy 10.58, and in Spain 9.82.

The natural result of such a state of chaos, if it had

been permitted to work itself out unhindered, would have been arbitrage transactions of such a nature—a flux and reflux of the European currencies so perpetual—as would have induced a yearly and universal bankruptcy. In spite of frantic efforts on the part of ruler after ruler, such results did partially come about, and they sufficiently account both for the distraction of Governments and the hatred universally visited upon the Jew in the Middle Ages. The measures which were adopted by the various States to counteract this invisible, insidious, and wasting process, partake of the roughness and unscientific character of the age. The export of gold and silver was forbidden on pain of death; and it was no mere paper threat, for prominent London merchants were drawn and quartered for the offence. The rates of exchange of foreign coins were fixed by proclamation, and the office of exchanger limited to a particular place. When all this proved ineffectual, the coins were cried down, and violent and sudden changes in the ratio enacted. What made the jerk and friction of such a process worse was that such measures were not merely defensive, but intentionally offensive. The wish of the fourteenth and fifteenth century ruler was not merely to defend his own stock of precious metals from depletion, but —having gained the conviction of the insufficiency of the production of those metals for the needs of Europe—to attract to himself the stock of his neighbours by whatever craft. There was a general struggle for the coverlid of gold, and the methods of that struggle were almost barbaric in their rudeness, violence, craft, and dishonourableness.

## Italy.

On account of their knowledge and practice of the science of exchanges and finance, the metallic history of the Italian states is of chief importance for this earliest period. At a time when the northern nations show signs of an infancy of commerce merely, Italy was advanced in the art and practice of a most highly developed commercial and financial state. It is to her that we owe our system of book-keeping and the use of bills of exchange, not to speak of the pawnbroking and funding systems; and it is permissible to conjecture that Italy, keeping her finger as she did on the monetary pulsations of Europe, reaped her harvest, and far the largest harvest, from the bimetallic fluctuations of the fourteenth and fifteenth centuries. In their turn those fluctuations acted on herself, and occasionally disastrously. On account of their pre-eminence as the commercial states of the peninsula, Florence and Venice are chosen to illustrate in brief the monetary history of Italy. The account of the general course of depreciation in both these states, and of the fluctuations of Mint rates is given in the Appendix (Nos. I. and II.). As regards the bimetallic influence of these changes of rates, there is one telling record in the history of Florence.

### *THE FLORENTINE TROUBLES OF 1345*

The second quarter of the fourteenth century witnessed a decided rise in the value of silver as against gold. It told immediately upon Florence, on account of her Mint rates. By the regulation of 1324 the ratio in Florence was 13.62, whereas in France the ratio was approximately 12.6, and twenty years

later, 1344, hardly more than 11 in both France and England. The result on Florence was immediate, and silver disappeared from circulation. In 1345, says her historian, Villani, there was great scarcity. There was no silver money with the exception of the *quattrini*. It was all melted down and transported. Silver of the alloy of 11 $^{1}/_{2}$ oz. fine was worth in other parts out of Florence more than 12 *lire a fiorino*, whence arose great discontent to the woollen merchants, who feared that the gold florin, in which they received their foreign payments, should fall too much. Being a powerful factor in the little state, they agitated, and the recoinage of 1345 was the result. The precedent evil and the remedy applied by this recoinage may be thus illustrated:—

By law—

| | |
|---|---|
| Fiorino d'oro | = 29 soldi. |
| 20 of these soldi | = la lira a fiorino. |
| Therefore 12 lire a fiorino (the price of the libbra of silver as above, purchased abroad) | = 8 fiorini 8 soldi. |
| | = 26 lire 8 soldi di piccioli. |

One fiorino d'oro being then current for about 3 lire 2 soldi piccioli.

The silver species current in Florence in 1345 were *quattrini* and *Guelfi del fiore*. These coins were of the

same standard as above (11 1/2 oz.), were coined at a tale of 167 to the libbra, and issued at an equivalence of 30 piccioli. The libbra of this silver, therefore, by Florentine Mint rate was valued at 20 *lire* 17 *soldi* 6 *denari di piccioli*. Abroad, therefore, the price of silver was a matter of slightly more than 5 lire higher than in Florence.

The same result could be got by taking the billon money of Florence and calculating from its silver contents.

The natural result was a disappearance of silver. The only remedy was a recoinage, and this was applied by the law of 19th August 1345. By this law the standard of 11 1/2 oz. was retained, the tale of the *Grossi* was increased to 134 pieces to the libbra (132 being rendered to the merchant, and 2 retained for Mint expenses), and each piece issued at an equivalence of 4 soldi.

4 x 132 = 528 soldi.
(= 26 lire 8 soldi di piccioli.)

It will be seen at a glance that this equalised the internal and external price of silver.

Rather strangely this enactment of the 19th of August was followed by another no more than four days later (23rd August 1345), by which a slight reactionary change was made in favour of silver. The tale was decreased from 134 to 132 pieces, to be struck from the libbra of the same standard, and issuable at the same equivalence.

Slight as the backward change was, it was sufficient to leave the monetary system exposed to the same influence of differential exchanging, and within two

months it had to be repealed by the law of October 1345. Under the name of *Nuovi Guelfi* a fresh coin was thereby instituted of the same standard and equivalence as above, but at a tale of 142 per libbra (140 being rendered back to the merchant, and 2 retained for expenses of coinage).

140 x 4 = 560 piccioli.
(= 28 lire di piccioli.)

This established a considerable advantage, and turned the flow of silver back again to Florence.

*FLORENCE IN 1345*

The process might in many respects be compared to our raising of the bank rate, were it not that the two operations represent quite different and separated financial epochs. It is noteworthy, too, because the process will be found immediately imitated in both France and England, that these laws of 1345 represent preponderatingly the sense of the class of exchangers of Florence,—*i.e.* the financiers professed, —men who would profit individually in their exchange operations as much as the state would in its restored currency of silver. "The above lords," says the preamble to the first-cited Act, "considering the numerous petitions made to them by many artificers, merchants, and honourable citizens, of the incredible lack of silver money in the state of Florence, on account of which the citizens of the said state suffer many inconveniences and wants, have determined to have and have had counsel of the twenty-one guilds of the city, who have [by a roundabout method] chosen eight men, skilled and prudent in the aforesaid, who have had counsel with the officers of

our Mint and with certain others of the trade of exchangers," etc., with such result as above.

Yet even so, the effort was only temporarily successful. Before two years was out the price of silver abroad, outside of Florence, had advanced to 12 *lire* 15 *soldi a fiorino* = 27 *lire* 14 *soldi di piccioli*, whereas the price fixed by a fresh Mint law of 1345 had been again reduced to under 26 *lire* 10 *soldi di piccioli*. The result was a second melting down and disappearance of the silver coins of the state, a second agitation on the part of the Florentine woollen merchants, and renewed legislation.

By the Mint regulation of 1347, a new-named money was introduced called *Guelfi Grossi*, coined at a tale of 117 to the libbra (111 $^{3}/_{5}$ being rendered cash to the merchants, and 5 $^{2}/_{5}$ retained by the Mint for the state), at the same standard as before (11 $^{1}/_{2}$ oz.), but at an equivalence of 5 instead of, as previously, 4 piccioli per piece.

117 x 5 = 585 piccioli.
(= 29 lire 5 soldi di piccioli);

a figure which is considerably above the 27 *lire* 14 *soldi piccioli*, which Villani gives as the price of foreign silver at the time. Even taking the lower tale of 111 $^{3}/_{5}$ pieces, which the importer of silver to the Mint got for his bullion, there is a distinct margin of profit.

111 $^{3}/_{5}$ = 558 piccioli.
(= 27 lire 18 soldi di piccioli.)

Indeed, in its entirety, this operation of 1347 has a sinister look. At home the woollen merchants of Florence were obliged to pay wages in silver, abroad

to receive payment in gold. It was to their interest to cry down the equivalence of silver; they paid less and received more. The means by which they brought the state to put upon silver a price so far removed from the market price could only be the bribe contained in the relinquishing of 5 $^{2}/_{3}$ pieces in each libbra. But such a process is in reality the beginning of debasement.

If this is not the true import of the Act of 1347, it testifies all the more to the only other possible motive—the monetary straits of Florence, her want of silver for currency, and the violent effort she was prepared to make to get it.

Whether by way of effect or cause it is hard to say, but certainly silver in the middle of the succeeding century had so far disappeared in the Italian peninsula, or gold so far increased during the fifteenth century, that the commercial ratio remained persistently low—1: 9.25, both in Milan and Florence; and the Mint regulations of 1460 adopted by the latter state (see under table of Florentine silver coins, Appendix), can only be looked upon as a simple repetition of the measures of 1345 and 1347.

## Spain.

The currency history of Spain up to the conquest of America is one long list of alterations in the coinage, and of petitions from merchants and various Cortes for or against changes in the rating of the coins. The *oro gran modulo* was rated at 100 pesetas, under Alfonso XI. of Castile, 1312-50, and at 1000 under his successor, Peter the Cruel, 1350-69. The *oro dobla Castellana* was rated at 60 pesetas under Henry II.,

1369-74; at 40 under Henry the Crafty, 1390-1406; and at 100 under John II., 1406-54. In the case of this country the troubles in the fourteenth century arose from the proximity of France, the circulation of lower-rated French coins, and the consequent depletion of the treasure of the kingdom. In Aragon, for instance, the charter of Peter IV. in 1346 had ordered the coining of gold after the same weight and fineness as of the florin of Florence. It was found too high, and three years later he was obliged to cancel it by another proclamation, ordering his own gold coins to be made of the same weight and fineness as the *écus* of the French kings. The close of his reign and the early part of that of his successor witnessed acute crisis and distress, which led to Henry II.'s celebrated reduction of the coinage at the Cortes of Medina del Campo in 1371.

In 1391-93 another general proclamation was issued, ordering a reduction of the value of the monies and fixing new rules of exchange, and this was followed by one in 1398, prohibiting the circulation of foreign coins in Spain, except at bullion value. This latter was a common device, as will be seen in the case of our own country. It proved ineffectual to prevent the outflow of the metals, and when re-enacted in 1413 was found to be of as little avail. The Cortes of 1442 (Valladolid) complained bitterly, in a petition, of the money drawn away from the realm by foreign merchants, and in the same year a fresh ordinance was issued to readjust the values of the native monies to the foreign coins. In this schedule, *doblas de la Banda* were rated at 100 *maravedis*, and the *florin d'oro d'Aragon* at 65 *maravedis*. In 1473, only thirty or so years later, by the charter of Henry IV., issued at Segovia, these coins were rated at 300 and 200 *maravedis* respectively. It was only with the

advent of the Catholic sovereigns that the internal disorder and want of unity of the Spanish system was effectually remedied, in the very hour of that discovery of a new world which was to put upon Spain the vital function of distributing the new stores of precious metals (see account of Spanish monies, Appendix III.).

## Germany.

The movements of the precious metals in Germany—which, as far as the ratio of the two metals is concerned, may be held to include the Netherlands up to 1552, when Flanders withdrew from the monetary system of the Holy Roman Empire—is a record of exactly the same process of natural and gradual appreciation of the *metal* (*i.e.* depreciation of the weight and fineness of the *coin*) as in Spain, France, and England. In the accompanying tables the movement of silver is illustrated by means of the groschen, and that of gold by the Rhenish gulden. These coins, it need hardly be said, were not unit coins, nor sole prevailing. They are chosen from the bewildering variety with which the numerous independent Mints of Germany have succeeded in perplexing posterity, as being of relatively greater repute and wider acceptance, and because it is a simply impossible task to combine all the denominations of these coins, in order to deduce an average.

Up to 1375 the German gold coin was minted in close imitation of the Florentine florin. The weight was 53 grs., as was that of the Florentine piece; and the lily and St. John, the guardian saint of Florence,

were both employed in the two coins, the German piece being indeed issued at first under the denomination, *Florin d'or*.

From the above-named date, however, and onwards, each succeeding and various power altered type, weight, or alloy, with more or less arbitrariness, but always to the increasing of the confusion of the system as a whole. And it was to remedy this confusion, or to reduce it somewhat, that the monetary union of the four electoral princes of the Rhine was established (8th June 1386), under the lead of the three towns, Frankfort, Speyer, and Worms; under which the four princes, Frederick, Archbishop of Cologne, Carl, Archbishop of Treves, Adolf, Archbishop of Mainz, and Rupert, Count Palatine of the Rhine, agreed upon a common minting of gold gulden. According to the treaty, 66 such gulden were to be minted from the Cologne mark of gold, each of the alloy of 22 carats 6 grs. gold, and 1 carat 6 grs. silver. In 1402 this coinage was confirmed at Mainz by the Mint edict of Rupert II.[4]

Seven years later, 1409, the three spiritual electors, Frederick, Archbishop of Cologne, John, Archbishop of Mainz, and Werner, Archbishop of Treves, made a new and slightly different treaty, for the purpose of again reducing the alloy of the gulden from 22 $^1/_2$ to 22 carats.

At this rate the system was, in the same year, at Speyer, formally accepted for themselves by the Netherlands, and at Cologne also, in 1409, by the Empire generally.

The detailed and various changes which the

independent princes and powers of Germany subsequently made, it is out of the question to follow. To instance only in brief. In 1419 Frederick of Brandenburg ordered the coining of gulden for his own states, at the rate of 64 $^1/_2$ to the Cologne mark, and of the fineness of 19 carats—a very considerable reduction in the metal value of the coin. In 1422, only three years later, Sigismund was coining gulden 66 $^1/_2$ to the mark and 22 carats 6 grs. fine—a value somewhat higher than that accepted for the empire in 1409. In 1428-29, accordingly, the Emperor Sigismund issued an imperial order, which was formally adopted by the Reichstag meeting at Eger (1437) and Nürnberg (1438), by which the Cologne mark was to be coined into 68 gulden and the fineness reduced to 19 carats. Four years later, 1442, the Emperor Frederick IV. projected a further reform and reduction, proposing to coin 72 pieces of 19 carats fine, but this was not carried into effect, probably as exaggerating the average depreciation of the content of the coin (or appreciation of the metal). The rate, therefore, established by Sigismund practically remained in force for a matter of sixty years.

In the diet of 1495-97 (at Worms), however, a further slight reduction in weight and fineness took place, 69 $^1/_3$ pieces being struck out of the Cologne mark, and the fineness lowered to 18 carats 10 grs.

On the whole, therefore, the movement of gold during these two centuries is remarkably sluggish in Germany, putting aside, *i.e.*, the internal variations between state and state; and remarkably corresponding to, and confirmatory of, that in England. And in all probability the mean of the quantities in the two countries would aptly measure

the perfectly natural or normal appreciation of gold (depreciation of the content of fine metal in the current gold coin) throughout the period.

The movement of silver during the same two hundred years, 1300-1500, is much more excited, but shows an average or mean appreciation that tallies remarkably with that of gold just described, as also with that of silver in England. The various denominations of silver coins which arose in Germany, in those years, make it a work of extreme difficulty even to attempt averages. In the accompanying tables, therefore, the groschen is taken as most fairly averaging and widely current in the empire. In its first form, the *Gros Tournois*, struck at Tours, in France, this coin contained 55 $^{1}/_{10}$ parts of a Cologne mark, and was of the fineness of 15 loth 6 grs. In 1296, when it was first adopted in Germany (in Bohemia, and Meissen), 63 $^{1}/_{2}$ pieces were struck from the mark, and the fineness had been reduced to 15 loth. Its subsequent variations, up to the time of the discovery of America, are detailed in the accompanying table and in Appendix No. V., the principal points in which are marked by the years 1341, 1378 (a notable attempt at reformation by Charles IV. and Wenceslaus), 1390, 1412, and 1444 (marking also an attempt at reformation by treaty between the Duke of Saxony and the Margrave of Meissen).

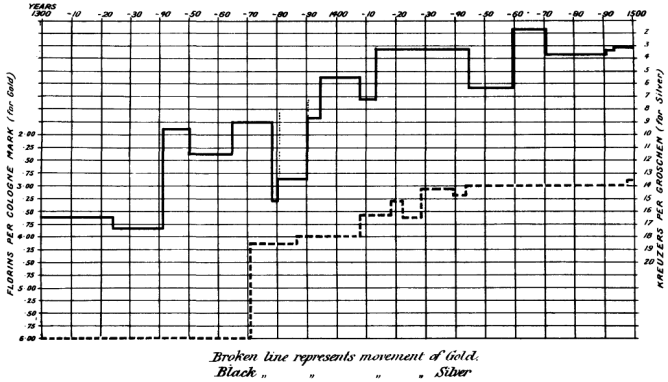
**MOVEMENTS OF SILVER IN GERMANY, 1300-1500, AS ILLUSTRATED BY THE GROSCHEN.**



| Date. | The Cologne Mark coined into | Of Alloy | | Equivalent Value (as expressed in the 20-Florin Standard). | |
|---|---|---|---|---|---|
| | Pieces. | Loth. | Qr. | Kreutzers. | Pfennige. |
| 1226 (Gros Tournois of France) | 55 1/10 | 5 | 6 | 21 | 0 216/551 |
| 1296 | 63 1/2 | 15 | 0 | 17 | 2 110/127 |
| 1309 | 63 1/2 | 14 | 0 | 16 | 2 18/127 |
| 1324 (Meissen) | 64 1/2 | 15 | 0 | 17 | 1 33/48 |
| 1341 | 78 | 10 | 0 | 9 | 2 6/13 |
| 1350 | 91 | 14 | 0 | 11 | 2 14/91 |
| 1364 | 74 1/2 | 9 | 0 | 9 | 0 36/149 |
| 1378 | 70 | 14 | 1 | 15 | 1 1/14 |
| 1380 | 72 | 13 | 0 | 13 | 2 1/6 |
| — (Meissen) | 91 | 11 | 0 | 9 | 0 24/91 |
| 1390 | 85 | 10 | 0 | 8 | 3 5/17 |
| — (Meissen) | 90 | 9 | 0 | 7 | 2 |
| 1407 | 72 40/131 | 8 | 0 | 8 | 1 57/296 |
| 1412 | 82 | 4 | 0 | 3 | 2 26/41 |
| 1444 | 88 | 7 | 13 | 6 | 2 43/132 |
| — | 160 | 16 | 0 | 7 | 2 |
| 1459 | 101 | 5 | 9 | 4 | 0 34/101 |
| 1470 | 100 20/307 | 5 | 0 | 3 | 2 507/512 |
| | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 1490 | 103 | 5 | 0 | 3 | $2\,{}^{58}/_{103}$ |

## TABLE OF THE MOVEMENT OF GOLD & SILVER IN GERMANY 1300-1500.




## THE MOVEMENT OF GOLD IN GERMANY, 1300-1500, ILLUSTRATED BY THE MOVEMENT OF THE GOLD GULDEN (RHEINISCHE GULDEN).

| Date. | Cologne Mark coined into | Alloy. | | Equivalent Val (as expressed in tl Florin Standar | | |
|---|---|---|---|---|---|---|
| | Pieces. | Carats. | Grains. | Florins. | Kreutzers. | P |
| 1252 (Florentine Florin). | $44\,{}^{3}/_{8}$ | 24 | 0 | 6 | 22 | 3 |
| 1371 | 66 | 23 | 1 | 4 | 6 | 2 |
| 1386 | 66 | 22 | 6 | 4 | 1 | |
| 1409 | 66 | 22 | 0 | 3 | 55 | 3 |
| 1419 | $64\,{}^{1}/_{2}$ | 19 | 0 | 3 | 28 | 2 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1428 | 68 | 19 | 0 | 3 | 17 | 3 |
| 1442 | 72 | 19 | 0 | 3 | 6 | |
| 1477 | 69 1/3 | 18 | 10 | 3 | 3 | 3 |

**FRANCE.**

In France during this same period the ratio of gold to silver was changed in a single century more than a hundred and fifty times, and with a roughness that is quite inconceivable to the modern mind. To take a period of ten years for example:—

In 1303 the ratio was 10.26
" 1305 " 15.90
" 1308 " 14.46
" 1310 " 15.64
" 1311 " 19.55
" 1313 " 14.37

France presents the utmost difficulty to the student of metallic money during this earliest period, by reason of these violent and arbitrary alterations of the coinage. The extreme diversity of the coins, and the perpetual changing of the composition or alloy, make it almost impossible to estimate the fluctuations in the value of money in relation to goods, or gold in relation to silver. Apart from the international struggle for the precious metals, France was torn and ruined by the English invasions, and debasement after debasement of the coinage was resorted to as a means of raising money to continue the struggle. Such debasements mark the reign of

Philip le Bel, 1285-1314, and of each succeeding king, from his days to the final ejection of the English invaders, and after. A single instance will serve to show their nature. In 1342 the mark of gold, which in a normal time just preceding was valued at 41 livres 13 sols, was proclaimed equal to 117 livres, and in 1360 the mark of silver, valued normally at 5 livres, rose to 102 livres.[5] It stands to reason that such abnormal movements must be neglected in any attempt to determine the course of such fluctuations in value of the metals, and the ratio of gold and silver, as arose naturally from the metallic and currency history of the time. Eliminating, therefore, this element of forced and accidental debasements, due to political circumstance, the natural history, if it may be so styled, of the French coinage displays the same tendency to an appreciation of money metal which marks the history of the other European countries.

**TABLE OF THE MOVEMENT OF GOLD & SILVER IN FRANCE, 1300-1500.**

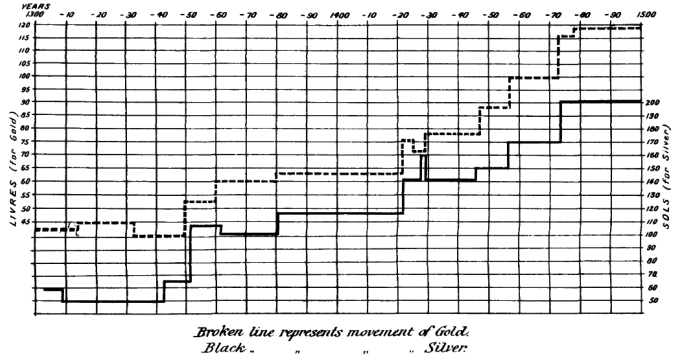


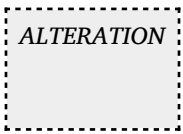

**TABLE OF THE MOVEMENTS OF THE COINAGE OF FRANCE, 1300-1500.[6]**

| Date. | The Mark of Silver coined into | | The Mark of Gold coined into | | |
|---|---|---|---|---|---|
| | Livres (Tournois). | Sols. | Livres (Tournois). | Sols. | Deniers. |
| 1309 (Philp le Bel.) | 2 | 19 | 44 | 0 | 0 |
| 1315 | 2 | 14 | 45 | 0 | 0 |
| 1343 | 3 | 4 | 43 | 6 | 8 |
| 1350 | 5 | 5 | 53 | 18 | 9 |
| 1361 | 5 | 0 | 60 | 0 | 0 |
| 1381 | 5 | 8 | 60 | 10 | 0 |
| 1422 | 7 | 0 | 76 | 5 | 0 |
| 1427 | 8 | 0 | 72 | 0 | 0 |
| 1429 | 7 | 0 | 77 | 10 | 0 |
| 1446 | 7 | 10 | 88 | 2 | 6 |
| 1456 | 8 | 10 | 100 | 0 | 0 |
| 1473 | 10 | 0 | 110 | 0 | 0 |
| 1475 | 10 | 0 | 118 | 10 | 0 |

In this table each of the points or dates taken marks a period of return to good money after a period of debasement, and in the mind of the legislator such return to good money (*monnaie forte*) can only be construed as based on an estimated general or normal rate of monetary values, for each particular succeeding point of time. At every return to good money a proclamation was issued, expressing the determination of the administration to adhere to good money, as in the halcyon days of St. Louis, etc. etc., and fixing the rate at which the monies should be coined and current. By taking these points or

dates of return to good money, therefore, we eliminate the arbitrary action of the Government in periods of debasement, and arrive at a net result showing the *natural* movement of the metals.

The general trend of the table—or of the metals whose movements it portrays—is perceptible at a glance, and will, moreover, be found exactly similar to that of the cases of England and Germany below. On account of the arbitrary debasements by the Kings and of the numerous feudal coinages struck independently by the bishops and subsidiary lords, the question of the friction with which this process of metallic appreciation worked itself out cannot be so well illustrated in the case of France as in that of England. But so much as this may be briefly indicated. In 1294 the scarcity of silver coinage was so great that a proclamation was put forth ordering silver to be brought to the Mint, and forbidding the export of the metals. In consequence of the futility of this ordinance, a further proclamation was issued in 1309, forbidding the circulation in France of English silver sterlings and gold florins of Florence, and crying down the exchange denomination of all other foreign coins. Similar proclamations were issued again and again—notably in 1328. But the complaints as to the depletion of the coin of the realm became much more serious in France after Edward III. had instituted his gold coin in 1344. There was henceforth a process of double friction—(1) as arising from the difference of the declared value of the French King's coin, as compared with foreign tariffs of coins; (2) as arising from the difference between the ratio of gold to silver in France and that prevailing in other countries.



*IN SILVER RATE*

In 1336 Philippe de Valois had fixed the ratio at 1:12, "the cause which moved us to this being that so our people who were in great privations and straits for money may more abundantly and quickly be filled again with money new and current." This was re-enacted in 1339, but proved quite inoperative to rule the market rate, and in 1346 Philippe found himself obliged to tolerate the advance which had been put upon the good monies in the market, by allowing provisionally the *chaise d'or* to be current for 30 sols Tournois. Four years later the silver rate was altered by a proclamation conceived in these terms: "As the changers and merchants who are accustomed to bring bullion to our Mint have ceased, and do daily cease to do so, so that the working of our Mint is greatly impeded, to the great prejudice of our people if no remedy is applied, we therefore order that for each mark of silver brought to the Mint there shall be delivered out by the Mint another 8 sols Tournois in addition to the 112 sols Tournois fixed by law." The immediate consequence was a hoarding and disappearance of the gold coins, and in the following year, 1351, the tale of the *denier d'or aux fleurs de lis* was altered from 50 to 54 to the mark.

There is here no question of an arbitrary debasement. It was simply an attempt to preserve the currency from the action of a changing market ratio, which led to the withdrawal now of the one, now of the other coins, and to the circulation meanwhile of foreign coins at a rate apparently disproportioned to the metallic content.[7] In 1361 evidence was given before the Mint authorities that "in payments the

people do by abuse give foreign monies at a higher rate than they are worth, viz. the *moutons* of Flanders and Brabant at a higher rate than the *franc d'or*, of which said *moutons* the best specimens are worth 18 denars less than the said *franc d'or*; a silver piece called *chartain* for 16 and even 18 denars, which is worth no more than 10," and so on. Two years later it was declared that the Mint at Tournay was on the point of stopping work, "the people having been accustomed for a long time to give a higher price for the mark of gold than in the case of other monies of this kingdom, and this by reason of the foreign merchants." Towards the close of his reign Charles V., finding his kingdom filled with depreciated imported specie, while all the good native pieces had been drawn out of the land, sought and obtained from the Pope, 1372, a Bull of Excommunication against neighbour powers who should counterfeit his monies. It was not until 1391 that the proper defensive measure of a change of ratio was resorted to, and by that time the conditions of the Mint rates in surrounding nations had so altered as to render the change partially inoperative. In 1393, accordingly, there was a great lack of the smaller silver coin, which led to a proclamation by Charles VI. on the 2nd April of that year for encouraging the minting of *petiz deniers Tournois*. The same complaint was, however, re-echoed in 1395 and 1396, but, as it appears, quite futilely, for nine years after another proclamation had to be issued against the currency of foreign coins of Scotland, Navarre, the Rhenish and Netherland provinces, etc., "which have course in our kingdom for a greater value than they are worth, by which means our monies are arrested in their course and greatly withdrawn; the gold and silver *deniers a l'écu* which we have minted having

been melted down."

*ACTION OF THE STATES-GENERAL IN 1420*

When the States-General met at Paris in 1420 the depreciated state of the coinage was laid before the assembly as of prime concernment, and it was by its advice that the proclamation of the following year was issued fixing the *écu d'or* at a tale of 66 to the mark and of the *gros d'argent* at 86 $^1/_4$, "it being come to our knowledge that for some time past the money in our kingdom is so diminished and enfeebled that by this means the gold and silver which abounded is in very great measure drawn away and transported, and the traffic of strangers here almost ceased, and all necessaries of life put at a great height," etc. The result of this reformation of 1421 was that during some portion of the succeeding years of Charles VII.'s reign silver came from all parts in great abundance, although in 1436 complaints were again heard that money was not being coined and did not suffice for the public needs. At this point, however, the complaints apparently ceased, and it was not till twenty years later that the step was again taken of decrying and forbidding the circulation of foreign specie.

The ceasing of the disorders in the French money is attributed to the expulsion of the English invaders, but there can be little doubt that much more simple and natural laws were at work. From the reign of Louis XI. onwards these natural laws had freer play as against the disturbing influence of mere arbitrary

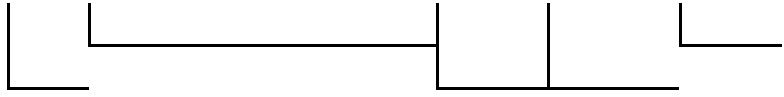
debasements, and it is easier to analyse their influence.

*FRANCE IN 1488*

From his accession in 1461 onwards the monetary history of France displays many analogies with that of the Netherlands (see Chapter II.). Thus in 1470, finding the market rate of foreign coins driven above the home Mint rate by the licence of the people (*i.e.* by normal market action), Louis issued a tariff to regulate the exchange rate in which the prevailing prices of the foreign specie were tolerated as an interim for a period of three months. At the end of that time it was manifestly impossible to secure a permanent reduction, and in order to prevent the transport of specie it was found necessary, 4th January 1473, to raise the value of the home coin both gold and silver (see account of French monies in Appendix No. VI.). Still the export continued, and in 1475 the process of enhancement had to be repeated as a measure of defence for the gold specie. Thirteen years later similar precautions were taken for the silver specie by Charles VIII.'s proclamation of 24th April 1488.

This is the last defensive measure of the first period of the monetary history of France, and no further act is on record previous to the great change in the relative values of the precious metals which ensued upon the discovery of the New World.

**THE RATIO BETWEEN GOLD AND SILVER IN EUROPE, 1300-1500.**



| Date. | Italy. | | | France. | England. | Ger |
|---|---|---|---|---|---|---|
| | Florence. | Venice. | Milan. | | | A. |
| 1252 | 10.75 | .. | .. | .. | .. | .. |
| 1257 | .. | .. | .. | .. | 9.29 | .. |
| 1284 | .. | 10.84 | .. | .. | .. | .. |
| 1296 | 11.10 | .. | .. | .. | .. | .. |
| 1303 | .. | .. | .. | .. | .. | .. |
| 1305 | 10.88 | .. | .. | .. | .. | .. |
| 1308 | .. | .. | .. | .. | .. | .. |
| 1315 | .. | .. | .. | .. | .. | .. |
| 1324 | 13.62 | 13.99 | .. | .. | .. | .. |
| 1338 | .. | .. | .. | 12.61 | .. | .. |
| 1343 | .. | .. | .. | .. | .. | .. |
| 1344 | .. | .. | .. | .. | 12.59 | .. |
| 1344 | .. | .. | .. | .. | 11.04 | .. |
| 1345 | 11.04 | .. | .. | .. | .. | .. |
| 1346 | .. | .. | .. | 11.11 | 11.57 | 11.33 |
| 1347 | 10.91 | .. | .. | .. | .. | .. |
| 1348 | .. | .. | .. | .. | .. | .. |
| 1350 | .. | 14.44 | 10.59 | .. | .. | .. |
| 1351 | .. | .. | .. | .. | .. | .. |
| 1353 | .. | .. | .. | .. | 11.15 | .. |
| 1361 | .. | .. | .. | 12.0 | .. | .. |
| 1365 | .. | .. | .. | .. | .. | 11.37 |
| 1375 | 10.77 | .. | .. | .. | .. | .. |
| 1379 | .. | 13.17 | .. | .. | .. | .. |
| 1380 | .. | .. | .. | .. | .. | .. |
| 1386 | .. | .. | .. | .. | .. | .. |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1391 | .. | .. | .. | 10.74 | .. | .. | |
| 1399 | .. | 11.69 | .. | .. | .. | .. | |
| 1400 | .. | .. | 11.630 | .. | .. | .. | |
| 1402 | 10.58 | .. | .. | .. | .. | .. | |
| 1406 | .. | .. | .. | .. | .. | .. | P |
| 1411 | .. | .. | .. | .. | .. | .. | ( |
| 1412 | .. | .. | .. | .. | 10.33 | .. | |
| 1417 | .. | 12.56 | .. | 10.67 | .. | .. | |
| 1421 | .. | .. | .. | 10.29 | .. | .. | |
| 1422 | 10.16 | .. | .. | .. | .. | .. | |
| 1427 | .. | .. | .. | 9.00 | .. | .. | |
| 1429 | .. | 11.04 | .. | .. | .. | .. | |
| 1432 | .. | .. | .. | 10.87 | .. | .. | |
| 1435 | .. | .. | .. | 12.32 | .. | .. | |
| 1441 | .. | .. | .. | .. | .. | 11.12 | |
| 1443 | .. | 12.1 | .. | .. | .. | .. | |
| 1446 | .. | .. | .. | .. | .. | .. | |
| 1447 | .. | .. | .. | 11.44 | .. | .. | |
| 1450 | .. | .. | 10.965 | .. | .. | .. | |
| 1455 | .. | .. | .. | .. | .. | .. | ( |
| 1456 | .. | .. | .. | 11.77 | .. | .. | |
| 1460 | 9.33 | .. | .. | .. | .. | .. | |
| 1462 | 9.37 | .. | .. | .. | .. | .. | |
| 1464 | 11.42 | .. | .. | .. | 11.15 | .. | |
| 1471 | 10.58 | .. | .. | .. | .. | .. | |
| 1472 | .. | 11.13 | .. | .. | .. | .. | |
| 1474 | .. | 10.97 | .. | 11.00 | .. | .. | |
| 1475 | .. | .. | .. | .. | .. | .. | |
| | | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1480 | 10.83 | .. | .. | .. | .. | .. |
| 1485 | 10.46 | .. | .. | .. | .. | .. |
| 1486 | .. | .. | .. | .. | .. | .. |
| 1488 | .. | .. | .. | 11.83 | .. | .. |
| 1495 | 10.46 | .. | .. | .. | .. | .. |
| 1497 | .. | .. | .. | .. | .. | .. |
| 1500 | .. | .. | 10.975 | .. | .. | .. |
| 1506 | .. | .. | .. | .. | .. | .. |

Germany—*A*, as determined by the purchase prices of the two metals in the Lübeck Mint.
*B*, as determined by the Mint ordinances.

*ENGLAND: COINAGE OF 1344*

## England.

Even before the adoption of a gold coinage by Edward III., England had felt the effect of loss by exchange, owing to the introduction of gold florins by means of the Flemish trade. In the Parliament of 1339, at Westminster, complaint was made of the want of coinage. It was proposed as a remedy—(1) that every merchant should bring in 40s. or more for every sack of wool that he should import, and (2) that it should be considered by the King and his council whether it might not be advantageous to permit *florins de écu* (of France), and florins of Florence (*i.e.* gold), and other good florins to be current with the *esterlings* (*i.e.* the silver penny), "but only esterlings to be compulsory for under 40s. value." In less than four years good money was being carried out of the realm, and false money brought in at such a rate that Parliament was seriously perplexed. In its debate on the matter at Westminster, 1343, the result is thus stated: "All orders of persons in the realm had loss for a long time, on account of the florins which were delivered in payment in Flanders, bearing so high a value there as to occasion a loss of one-third on all merchandise imported thence." Certain goldsmiths of London were therefore ordered to be called in to advise and to refine one or two of each kind of florin, so as to rate the fine gold in them according to the true value.

And it was proposed that of this fine gold one kind of money should be made in England and Flanders, provided the Flemings were willing, to be current in both countries at such an alloy and value as should be determined by the King and Council, and all other gold money to be taken at bullion value, and all silver money to be reckoned thereby ("other sufficient money to be received according to the value of the fine gold").

The result was the first practical issue of English gold. In 1344 an indenture was made between the King on the one part and George Kirkyn and Lotte Nicholyn of Florence, goldmasters and workers, on the other, for the coining of three monies of gold, one to be current at 6s., and to be equal in weight to 2 *petits florins* of Florence of good weight, 50 of these being coined out of the pound Tower of London.

In this indenture Edward copied the ratio prevailing in the French kingdom, viz. that of 12.61 to 1 between gold and silver. That ratio was considerably too high, and he quickly experienced the same effects which were felt by the French King from it. During his reign (1327-50) Philip of Valois coined more species of new money than all his predecessors put together, but owing to the adoption of this too high a ratio the country was gradually depleted of good money. In order to induce people to bring bullion to the Mint he offered to coin free of cost, but found nothing of avail until he followed the example of England and altered the ratio.

In our own country the same truth had been quickly grasped. It was found that the new gold money was rated too high, *i.e.* overvalued in relation to silver, and was therefore refused. By a proclamation of the

same year, therefore, 9th July, it was withdrawn and ordered to be taken only as bullion, and a new indenture was made for the coining of gold nobles—39 $^{1}/_{2}$ out of the pound Tower, and at the value of 6s. 8d. The nobles were at once made current and tenderable along with silver, by proclamation; gold being ordered to be received in payment of 20s. and upwards.

*GOLD NOBLES COINED*

By this indenture the ratio was at once dropped from 12.59:1 to 11.04:1. This attempt to determine the rate of exchange is a common feature in the legislation of France and Spain as well as of England. It stands to sense, and is apparent on every page of the monetary history of the period, that it was absolutely imperative. The friction which accompanied the process can now only faintly be imagined, but that is a secondary consideration. The essential point was, that such changes were normal and inevitable, forced by sheer necessity upon Governments, such an one even as our own, which has always been most jealously conservative in matters of coinage.

**TABLE OF THE VARIATIONS OF THE GOLD AND SILVER COINS OF ENGLAND, 1300-1500.**

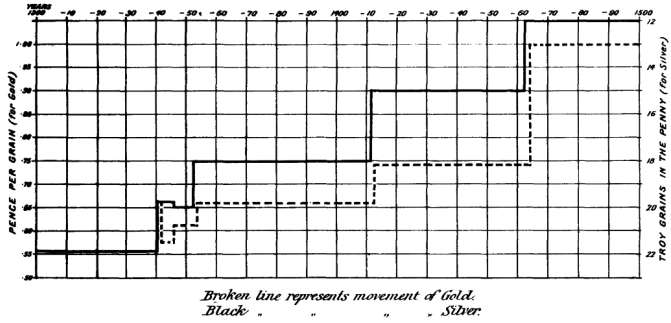
| Silver. | Gold. |
|---|---|
| | |

| Date. | Weight of the Silver Penny in Troy Grains. | Date. | Coin. | Weight in Grains. | Value Declared. | | Price in Pence per Grain of Gold. |
|---|---|---|---|---|---|---|---|
| | | | | | *s.* | *d.* | |
| 1300 | 22 | 1344 | Florin | 108 | 6 | 0 | 0.6666 |
| 1344 | 20 1/4 | 1344 | Noble | 138 6/13 | 6 | 8 | 0.5777 |
| 1346 | 20 | 1346 | ... | 128 4/7 | 6 | 8 | 0.6222 |
| 1351 | 18 | 1353 | ... | 120 | 6 | 8 | 0.6666 |
| 1412 | 15 | 1414 | ... | 108 | 6 | 8 | 0.7407 |
| 1464 | 12 | 1460 | ... | 120 | 8 | 4 | 0.7500 |
| | | 1470 | Angel | 80 | 6 | 8 | 1.0000 |

In the first issue of Edward III. the Troy grain of gold had been valued at .6666 of a penny. At such rate it was overvalued and refused, and in the second issue of the same year the value was dropped to .5777 of a penny. Gradually, as the ratio on the Continent changed, and came to bear on the English rate, this was in its turn found an under-valuation, and only two years later, 1346, the value was raised to .6222, making a ratio of 11.57 to 1. The change was made in consequence of loud and serious complaints of the scarcity of coin, good money being carried out and false "Lussheboumes" (Luxembourgs), worth only 8s. in the pound, being brought in. The grievance was so great that Parliament petitioned Edward most urgently to interfere, instancing in special the Lombards, "that they purchased English florins at a lower rate than that which was appointed," and praying "that such persons should not buy or sell the

said money, nor make any agreement, in the sale of their merchandise, what money they would receive in rejection of English money." To this it was answered, that it should be commanded throughout England that all persons should receive for their merchandise gold, according to the currency ordained, without any agreement to be made, under pain of imprisonment and heavy ransom, and when any agreement had been made it should be at the will of the purchaser to pay money of gold or silver as he should think fit. At the same time, an ordinance was issued forbidding any person to carry out the King's good money or to bring in counterfeit.

**TABLE OF THE MOVEMENT OF GOLD & SILVER IN ENGLAND 1300-1500.**




*EDWARD III.'S CHANGES OF RATIO*

The effect of Edward's change of ratio—from 12.59 (the same as the French rate) in 1344 to 11.04 in 1346—told immediately on the French currency, and at the first return to good money in the first year of King John (1350-64) the ratio in that country was

changed at a stroke from 12.61 to 11.11. This in its turn acted upon precious metals in England, and for three years the English King found himself futilely struggling against an outflow of silver, by such measures as the hanging and drawing of merchants, before he discovered that it was due to an overvaluation of gold. In 1353, accordingly, he lowered the weight of the gold nobles from 128 $^{4}/_{7}$ grs. to 120. At the same time, the contents of the silver penny were reduced in a greater proportion (from 20 grs. to 18). By this means the ratio of 11.04, which had prevailed since 1346, was lowered to 11.15.

That this ratio achieved its purpose, as far as England was concerned, is apparent from the simple fact that it remained unaltered for over sixty years until 1414; that it acted adversely upon and drained France of her gold is apparent from the change of the ratio there at her first immediately succeeding return to good money. Two periods of debasement had marked the short reign of John of France (1350-64), and the effect of these and of the influence of the English ratio was such that in 1360 there was no gold in his kingdom. Towards the end of that year, and in the beginning of 1361, John promulgated a reformation of the coinage—a return to good or "forte" money, and in this reformation he adopted a ratio which would act on the English stock of precious metals.

In England, Edward's action in 1353 in lowering the contents of both silver and gold coins, and altering the ratio, had given rise to great discontent, to an extent which proved how wiser and truer to the nation's interest was the King than his people. This diminution of the value of these coins, says the Chronicle, made all things dearer, so that the

workmen and servants became assuming and demanded greater wages.

There is as little foundation for such an innuendo as there is for the view which regards this depreciation as an issue of base money. It was simply a measure of precaution, as stopping an invisible and insidious outflow of the currency.

*ENGLAND AND FRANCE IN 1360*

Looked at historically, and not at all controversially, such results as have been just described can only be attributed to the European monetary system of the time. Apart altogether from the arbitrary debasement of the coin, as, *e.g.*, in France—apart even from changes of the ratio enacted with the mere crafty design of inducing a flow of gold, the monetary system of the time was so rough, so unscientific; the tariffing of the coins of different nations against each other was so inexact, so much a matter of rule-of-thumb, of hasty average, that it was simply impossible to issue such general tables of equivalents of coins and such a ratio as would have given stability to the various coinages of Europe. If the currency system of England had been of silver alone, a single enactment lessening the content of the unit coin, or crying up its denomination, would have stopped any outflow caused by under-valuation as compared with foreign money value. The same if it had been only gold. But being combined of the two, being, as it was, both gold and silver, it was necessary, in the case of such outflow, not merely to call down one or both of them below the value of

foreign gold or silver, but also and at the same time to establish such a ratio between the two metals for *internal* circulation as would give no advantage to exchangers acquainted with a different ratio prevailing in some particular part of the Continent. And just the same for the other European money systems. If, for instance, the English sterling had been called down to a value which would of itself have forbidden export to the Continent, but at the same time such a ratio had been left standing between these sterlings and the gold nobles (say 12:1) as was so far in excess of the ratio prevailing in some parts of Europe (say 11:1) as to overlap the amount by which the sterling had been called down, then the result could, and doubtless would, be an outflow of silver, in face and spite of the apparent higher tariff of the English sterling, as against the continental silver coins. This is the historic, patent, undeniable defect and weakness in the bimetallic system of the Europe of that day. It must be borne well in mind how different the problem then was from that which now besets the monetary world. To-day the flow of the precious metals is natural, the indicator, facilitator, and safety-valve of international trade. Such a conception was an utter impossibility to the fourteenth century. The rulers of that age had only one idea, the maintenance or increase of the treasure of the realm, first for military purposes, and then for trade; and their mental horizon was limited by the boundaries of each their little dominion. They could not grasp the idea of Europe as a monetary whole, each fought for his own head or land, and each found a ready weapon to hand in the monetary confusion of the time. In any system so rough and so non-uniform as that of Europe in the fourteenth century, any variation of

one metal served as a vantage-point against the other, as a lever to press upon and force it out. One metal would have been safe (so long as no partial depreciation was allowed), two metals served simply as fulcra to each other's oscillations, to the undoing of both. The mediæval legislator could not grasp that there was a double train of principle and event transacting itself under his very eyes—the one, changes of denomination of coins; the other, changes of ratio. In less than thirty years after Edward III. had cried down the English coins to below the competing denominations of the Continent, the changes of the European ratio had produced their effect, and Richard II. found the realm denuded of its treasure and currency.

*ENGLAND IN 1378*

From 1360 the ratio on the Continent gradually sank from 12:1 till towards the end of the first quarter of the fifteenth century, when it stood in France as low as 9:1.

That France experienced the process, which must have been perfectly natural and due simply to relatively diminishing production of silver in those years, 1360-1425, is seen in her alteration of the ratio from 12 to 10.74 in 1380 and to 10.29 in 1422.

In England the same train of events made itself felt at almost the same moment. In 1378 great complaints were made of the export of gold and silver, and of the enfeebled state of the money which remained in the realm, "so that if a remedy be not speedily applied, the King will receive no more than 4s. where he should receive 5s."

*THE MONETARY INQUIRY OF 1381*

Three years later—one year after the French King had lowered his ratio from 12.1 to 10.74—the Commons presented a petition to the King during the sitting of Parliament, 1381, complaining of the wretched want of the kingdom, which was devoid of treasure, monies of gold and silver being carried out of the realm, and those remaining being clipped to one-third their nominal value. No money at all was being minted in the Tower, and a heavy export of our metals to Scotland and Ireland was taking place. Simultaneously the officers of the Mint presented a petition to the King and his Council in Parliament, complaining that no money was being coined. The causes of this, in their opinion, were—

1. That the monies of gold and silver beyond the seas were more feeble than the monies of England, on which account the merchants could not bring bullion into England for their profit nor for the King's advantage. But if any manner of bullion of gold were brought into the kingdom, by persons travelling, it was sold to those who conveyed it out of England, to their great gain and to the injury of the whole realm.

2. That the silver of England which [*i.e.* when it] was found to be good and heavy, was taken into Scotland, because the money of that country was so light.

3. That the gold of England being so good and heavy, and that beyond sea so light, the *nobles* which came from Calais were gone into Flanders, and the English *nobles* were carried beyond the sea, to the great

profit of those who exported them, etc. etc.

4. That the money of gold and silver of England was commonly clipped, so that they who thought they should have £100 would have no more than £90, unless a remedy were speedily applied.

The officers of the Mint were accordingly ordered to be called before the Lords of the Parliament for examination, and they were succeeded by others, private persons but mostly goldsmiths, who were called upon as experts. In the case of these latter the various statements of opinion are preserved for us in the Rolls of Parliament, and they possess a peculiar interest.

Richard Leye thought that the reason why no gold or silver was brought into England, but, on the contrary, that which had been in the kingdom was exported, was this, that the realm expended too much on merchandise, such as grocery, mercery, furs, etc. He therefore proposed that every merchant who imported goods into England should export an equal quantity of the produce of the realm, and that no one should take out gold or silver, contrary to the statutes.

As to the gold not agreeing with the silver (which was Article IV. of the inquiry), he thought that could not be remedied, unless the money were changed, and to change it in any manner would be productive of universal injury to Lords, Commons, etc.

To Article V. he advised that, whereas new money had been made in Flanders and in Scotland, proclamation be made that all manner of coins of Flanders, Scotland, and of all other places beyond the seas, should be no longer current in England, and

that no one should receive them in payment except as bullion to be carried to the King's Mint.

Lincoln, a goldsmith, gave his opinion similarly against the permission to export gold and silver, and proposed that the gold noble should remain of the same weight as it had been, but at a greater value.

To the First Article Cranten said, that no more in value of foreign merchandise should be consumed within the realm than should be exported of commodities, the growth of England; and then, whether the money were enhanced or debased, it would hereafter remain within the realm. Also, that exchanges or other payments by letters should not be made out of Flanders, or other parts beyond the seas, to pay in England for any merchandise.

John Hoo advised a proclamation against the carrying out of gold or silver, and that the money should be received by weight.

The statement of opinion of the succeeding and last witness is extremely valuable and interesting. Richard Aylesbury opined that, provided the merchandise exported from England was properly regulated,—that is, if no more of foreign commodities were allowed to be imported than the value of the native products which should be taken out,—the money then in England would remain, and great plenty would come from beyond the seas.

He also conceived it to be expedient that the Pope's collector [of Peter's Pence] should be an Englishman, and that the Pope's money should be sent to him in merchandise and not in coin, and that the journeys of clerks should be entirely forbidden, on pain, etc.

For the feebleness of the gold, which was occasioned by clipping, he conceived there was no other remedy but that it should be universally weighed by those who received it, and that the proclamation should be made accordingly.

*The agreement of the gold with the silver he believed could not be effected unless the money were changed, but that he dared not to propose on account of the general damage which would ensue.*

On account of the new money which had been made in Flanders and Scotland, he advised that all Scottish monies should be forbidden by proclamation, and also all other monies from beyond the sea, so that they should have no currency in England; and that no one should take them in payment, except at their value as bullion and for the King's coinage; that no one should export gold or silver, according to the statute in that case made, etc.

And, further, he suggested, by way of information, that the pound of gold which was there made into the sum of 45 nobles (but which pound, by reason of clipping and otherwise impairing, was then valued at 41 $^1/_2$ nobles) should be made into 48 nobles, to be current at the same value as before.

This last proposition would have reduced the ratio to a fraction over 11:1—something higher than the ratio prevalent in France. Instead of acting on evidence such as this, however, and so changing the ratio, Richard's Government contented itself with the perfectly useless prohibition of export of gold or silver (statute 5 Rich. II. cap. 1). Four years later, accordingly, the matter was again pressed upon the attention of Parliament, and even by the Chancellor of the realm, Michael de la Pole himself, in his

opening speech. The English money, he said, was in greater estimation and of higher value in all other places than in England. It was therefore sought out and craftily withdrawn, and the chief or greatest remedy was to increase the value or price of the said money.

In spite of such recommendation as this the measure was not adopted, and Richard fell back on his previous expedients, crying down by proclamation the value of the Scotch coins, 1387, and of the gold coins of Flanders and Brabant, 1393, and ordaining by enactment that exporters of goods should bring in 1 oz. of gold for every sack of wool which they sold.

Such an ordinance as this last is of the commonest and most frequent occurrence in the enactments of fifteenth-century England, but always unworkable as warring against the most elementary principles of international trade.

On his accession, therefore, Henry IV. found himself heir to an accumulation of monetary evil, through the impolicy and want of courage of Richard.

### *THE RECOINAGE OF 1414*

He was obliged, at the request of the mayors and merchants of the staple of Calais, to abolish the last unworkable ordinance just referred to, and attempted at the same time to provide a positive remedy by reviving a proclamation against the currency of silver halfpennies brought from Venice, of which three or four only were equal to one sterling in value. In 1401 the Commons complained in Parliament that nobles of Flanders were so

common in England that a man could not receive a sum of 100 shillings without taking three or four such nobles, each of them more feeble than the English noble by two-pence.

A statute was accordingly passed, enacting that all money of gold and silver of the coin of Flanders and all other lands, and of Scotland, should be voided out of the land, or put to coin to the bullion.

It was all in vain. Two years later, 1403, the Commons again complained of the depletion of gold, and again a statute was passed, and so on. This futile process actually reproduces itself yearly up to 1411, when at last the question of a recoinage was fairly faced. By the ordinance for, and regulation of, the money of the realm, of that year, it was provided that, "because of the great scarcity of money at the time," the Master of the Mint should make of every pound of gold 50 nobles, and of silver 30 shillings of esterlings of old alloy.

This recoinage was carried out and finished in the third year of Henry V., 1414. Under it the contents of the silver penny sank from 18 to 15 grs., and of the gold noble from 120 to 108 grs., the consequent change in the ratio being from 11.15, which had prevailed since 1353 to 10.33.

At this latter rate the monetary system of England remained for almost fifty years, viz. up to 1460. But, though the rate endured so long, it is not for a moment to be supposed that the ensuing period was one of repose. Within eight years of the accomplishment of the reform in the English coinage, the ratio in France was lowered to a point somewhat below the established rate in England, and with considerable variation remained lower through all

the years in question, 1414-1460. In 1421 it was changed to 10.29, in 1427 to 9, in 1432 to 10.87, and in 1447 to 11.44.

The effect on England, as recorded in the complaints in Parliament, was almost parallel with that in the days of Richard. In 1414 complaints were made against the circulation of galley halfpence by the merchants of Venice. Three years later proclamation was made against the circulation of the gold monies of Flanders, called *Burgundy nobles*, which were of less value than the English nobles. In 1419 it was found that money was being exported "more largely, and in many other manners, than had been accustomed, to the great mischief and impoverishment of the whole realm." And in the following year the usual statute was enacted, on the petition of the Commons, commanding foreign money to be taken as bullion. Again, two years later, 1422, the enfeebled and depreciated state of the coinage was so apparent that the collectors of the subsidy granted in that year by Parliament were instructed to accept nobles as of the denominational value of 6s. 8d. (*i.e.* the full value), "provided they stretched verily to the value of 5s. 8d. by weight." At the same time silver money was so scarce that "though [*i.e.* even if] a noble were so good of gold and weight as 6s. 8d., yet men could get no white money for it." In 1423 the Commons complained of the want of silver coins in the realm, "to the great unease and harm of the poorer people of this land," "because [says the statute, which was accordingly enacted], that silver is bought and sold uncoined at 32s. the pound of Troy, whereas the same pound is no more of value at the coin than 32s., with an abatement of 12 dens. for the coinage."



*THE MONETARY TROUBLES OF HENRY VI*

From the twenty-fourth chapter of the statute of 1429 it appears, quite consonantly, "that the merchant aliens had of late introduced a custom of refusing to take silver, as they were wont, for their merchandises, and of taking only gold nobles, half-nobles, and farthings, which, from time to time, they carried out of the realm into other foreign countries, where they were changed to their increase and forged into other coins, so that they gained in the alloy of every noble twenty pence, against the tenor of the statutes, etc., and to the prejudice of the King and realm. Therefore the King, willing to provide a remedy, ordained that no merchant alien should constrain nor bind any of his liege people by promise covenant or liege, to make him payment in gold for any manner of debt due to him, nor refuse to receive payment in silver for any manner of such duty or debt, upon the pain of the double value of the same."

In 1439 provision was again ordered to prevent exportation of money by merchant aliens. It was renewed in 1448, and five years later the Commons petitioned that the silver mines of Devon and Cornwall, which had not been worked for a long time, might be again opened, on account of the great scarcity of money.

The confusion of the Wars of the Roses, however, renders it slightly problematical how far the two successive lowerings of the coinage, which took place in 1460 and 1465 or 1470, are to be attributed to arbitrary action or to a natural process. By the

recoinage of 1460 the noble was increased in weight from 108 grs. to 120 grs., and the value from 6s. 8d. to 8s. 4d., being a real appreciation of the grain of gold from .7407 to .7500 of a penny. At approximately the same date, 1464, the weight of the silver penny was lowered from 15 to 12 grs. In the succeeding recoinage of 1465 and 1470 these rates were again altered. A new gold coin, the *angel*, was instituted, weighing 80 grs., and valued at 6s. 8d., while the weight of the silver penny was left unaltered. The ratio was accordingly changed to 11.15.

This was the last change of the coinage made in England before the era of the discovery of America. The internal effects which the changes had on the commerce of the time are hidden from us by the disturbing influences of the Wars of the Roses.

*CONCLUSION OF THE FIRST PERIOD*

But it is, probably, in connection with this change of the English ratio—or with some wider, general movement, acting on both countries alike—that the last monetary ordinances of Louis XI. of France, referred to above, are to be understood.

These acts of conflicting policies mark the conclusion of the first period of European metallic monetary history, for no further changes were enacted previous to the close of the century and the discovery of America. As far as England was concerned, the monetary system remained comparatively unchanged till the days of Henry VII.

On a review of the whole period two simple facts emerge with unmistakable plainness and import.

1. It was a period in which the commercial expanse outstripped the reinforcing supply of the precious metals, and therefore in which a real decline of prices[8] prevails.

2. The evil effects of such decline were enormously increased by shortsighted, crafty manipulation of the currency by the European rulers, and by the rough, unscientific system of the prevailing coinage and exchange rates, and by the inability of the age to understand, or even to perceive, the hidden working of two metals see-sawing against each other—acting as levers against each other—cutting each other's throats. The discovery of America corrected the fall of prices and saved Europe, but it left her rulers as deadly ignorant as before of the workings of bimetallism—to give a name to what they had not even perceived as a phenomenon, much less as a system.

## FOOTNOTES:

[1] This is the date accepted by the numismatic authorities. It is adopted by Orsini (*Storia delle Monete della Repubblica Fiorentina*, p. xxiv, where he states the authority for it). It is nevertheless open to serious doubt. See in De Saulcy, Documents I. pp. 115-131, references to florins d'or from 1180 onwards. On the other hand, as to the nature of the florin de compte and its distinction from the florin d'or, see M.L. Blancard, *Revue numismatique*, 1886, pp. 48, 218, and 1887, p. 259; and Vicomte D'Avenel, *Histoire de la propriété, etc.*, i. p. 41.

[2] Est a notter que le Roi en fit forger aulcune quantité (some slight quantity) d'or du poids de 12 den. 16 gr. chacune pièce laguelle auvrage il dedia seullement pour sou aulmosne aux pauvres ausquels souvent il lavait les piedz par humilité. Et en fut jamais inventée ladite pièce d'or pour aultre cause que dessus et non pour monnaie uzuelle et publicque." (De Saulcy, *Documents, i.* 115, 122, 125).

[3] See, however, in De Saulcy, i. 31, a mention of *manteletz d'or de Flandre* in 1265.

[4] Soetbeer considers the standard in 1386 as 23 fine, and asserts that, by the Mint edict of 1402, it was lowered to 22 $^{1}/_{2}$ carats.

[5] For an estimation of the *commercial* effect of these debasements, see Vicomte D'Avenel, *Histoire de la propriété, etc.*, i. 53-54

[6] For a similar table calculated in francs, see Vicomte D'Avenel, *Histoire de la propriété, etc.*, i. 62, 481, where the figures are very different. On Le Vicomte D'Avenel's method of calculation, see the *English Historical Review*.

[7] See note on p. 397, *infra*.

[8] By prices here, and subsequently throughout this volume, is meant the price or tariff and Mint rate of the coins. There is no reference whatever to general prices.

# CHAPTER II

## From the Discovery of America to the end of

## THE FIRST CYCLE OF THE INFLUENCE OF THE METALS OF THE NEW WORLD ON EUROPEAN CURRENCIES, 1493-1660

The last decade of the fifteenth century witnessed the discovery of America, and therein the monetary salvation and resurrection of the Old World. The end of the second quarter of the seventeenth century in its turn witnessed the end of the first phase, and the most important, of the New World upon the destinies of Europe. Practically and historically the century and a half intervening between 1493 and 1660 may be treated as a single cycle with a single aspect. It was a time of unexampled increase in the imports of the precious metals, of equally unexampled rise of prices, and at the same time of feverish instability and want of equilibrium in the monetary systems of Europe. Two general statements may be premised.

1. Broadly speaking—of prices, *i.e.*—no movement of any note is perceptible, or records itself in legislative enactment until about 1520, so gradual and at first unimportant was the flow of metal from America. What did come at first was not silver so much as gold, and represents the puny and blood-stained plunder of ornaments from the natives. If this import tended to turn the balance in any way, it was in the direction of depreciation of gold as compared with silver. But during this first quarter of the sixteenth century, possibly more influence on the maintaining of equilibrium is to be attributed to the largely increased home production of silver. The silver mining in the Saxon Harz, in Bohemia, and the Tyrol, had received a strong impulse towards the close of the fifteenth century, while gold was obtained during the same period in appreciably greater quantities in

the archbishopric of Salzburg, and in Hungary, as well as from Africa.

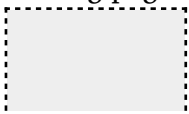
*GENERAL STATEMENT*

2. In this second period of European bimetallic history, the centre of European monetary exchanges passes from Italy to the Netherlands. Antwerp takes the place of Venice and Florence. There is a double and deep significance in the fact. It is not merely that the trade route had changed in such a way as to lay the foundation for that development of European commerce, of which England is the highest expression in our own days; it is that by the change was provided a more effective safeguard against precipitate and overwhelming depreciation. The centre of European exchanges—Antwerp in the sixteenth, as London to-day—has always performed one supremest function—that of regulating the flow of metals from the New World by means of exporting the overplus to the East. The drain of silver to the East, discernible from the very birth of European commerce, has been the salvation of Europe, and in providing for it Antwerp acted as the safety-valve of the sixteenth-century system, as London has done since. The importance of the change of the centre of gravity and exchange from Venice to Antwerp lies therefore in this fact. Under the old system of overland and limited trade, Venice could only provide for such puny exchange and flow as the mediæval system of Europe demanded. She would have been unable to cope with such a flood of inflowing metal as the sixteenth century witnessed, and Europe would have been overwhelmed. But the foundations of the commerce of the Netherlands

were laid wider. Together with Portugal she opened an extensive empire along the coasts of Africa and in the Indian East; and the very time which gave birth to the revolution in the production of the precious metals in America saw provision made for the regulation of its outflow through the commerce and exchanges of Antwerp to India. In the modern system this would be a theoretically perfect world-mechanism, and its working would be normal and healthy, and the safest indicator of commerce. That it was not so to seventeenth-century Europe was simply due to the existence of a disordered, understood bimetallic system, and the crisis to which the working of this mechanism brought her has perhaps not been since equalled at any point of time.

The underlying causes of this crisis have been already described. The currencies of the trading nations of Europe were all unconsciously bimetallic. Throughout, there was in existence one class who grasped the *fact* without any knowledge of the *theory*, and profited by it—the merchant exchangers. There was constant oscillation—change of ratio, and the least alteration of the condition of one metal made it a lever for operations upon the other. These operations were arbitrage merely. They had no relation to the ebb and flow of commerce as modern arbitrage transactions have. It was a financier's opportunity of *private* gain, and for *private* gain the system was worked. The ebb and flow of European currencies, which the sixteenth and seventeenth centuries witnessed, were as unnecessary (*i.e.* for the purposes of her commerce) as they were disastrous.

It is sufficient to indicate the tendency of this argument, and to leave the illustration of it to the following pages.



*PRODUCTION OF THE PRECIOUS METALS*

To return to the yield of precious metals during the years under discussion. Any estimate must be conjectural, in the absence of the accounts of the Spanish Mints.[9] This understood, it may be thus tabularly represented.

| Date. | Annual Average Production of Gold. | Annual Average Production of Silver. | Proportion of Gold in Total. | Proportio of Silver in Total. |
|---|---|---|---|---|
| 1493-1520 | £800,000 | £600,000 | 57% | 43% |
| 1521-45 | 1,000,000 | 1,100,000 | 47% | 53% |
| 1545-60 | 1,200,000 | 3,850,000 | 23.6 | 76.4 |
| 1560-80 | 855,000 | 3,640,000 | 20.8 | 79.2 |
| 1581-1600 | 1,030,000 | 4,945,000 | 17.2 | 82.8 |
| 1601-20 | 1,190,000 | 4,820,000 | 19.8 | 80.2 |
| 1621-40 | 1,157,850 | 3,916,300 | 22.8 | 77.2 |
| 1641-60 | 1,223,400 | 3,516,500 | 25.8 | 74.2 |

The general tendency of the first years of this period (1493-1520), if discernible at all, seems rather in favour of silver, and to the depreciation of gold. The average ratio was 10.75, speaking very generally, and with every mental reservation as to its applicability at any particular time and place. An equally rough average for the preceding time (see Chapter I.) would give a ratio of 11.28, showing apparently a movement in favour of silver owing to the increased production of gold.

The succeeding quarter of a century, 1521-45, covers the time from the conquest of Mexico to the commencement of the exploitation of the silver mines of Potosi. Looked at from the point of view of prices in Europe,—as evidenced most circumstantially in the *Plakkaats* of the Netherlands, to which reference will be immediately made,—these years display stability—*i.e.* a steady maintaining of the advance gradually and already made between the years 1493 and 1520, and chronicled for us in the prices of 1521—rather than any further great and readily perceptible rise. For example in brief. In the Flemish *Plakkaats* the French crown is quoted at an equivalent of 1 florin 15 1/2 stivers in 1499, and of 1 florin 19 stivers in 1522, when an attempt was made to reduce it to 1 florin 15 1/2 stivers again. From 1522 to 1548 no further advance, but retrogression rather is quoted thus:—

| Date. | | | Florin. | Stivers. |
|---|---|---|---|---|
| 1519 | French Crown quoted at | | 1 | 15 1/2 |
| 1522 | " | | 1 | 19 |
| 1526 | " | (Real) | 1 | 19 |
| | " | (Attempted) | 1 | 15 1/2 |
| 1539 | " | (Real) | 1 | 17 |
| | " | (Attempted) | 1 | 15 |
| 1548 | " | | 1 | 17 |
| 1552 | " | | 1 | 19 |

This general conclusion will be found quite invariably illustrated in the tables of Netherland coins (below).

With regard to the annual average production of the

metal, there is perceptible a slight movement towards the depreciation of silver or in favour of gold. This might naturally be expected to express itself in a somewhat higher ratio. But the differentiation is so slight as hardly thus to indicate itself, and certainly not consistently, so far as the ratio is capable of ascertainment.

| | | | |
|---|---|---|---|
| In France the ratio in | 1519 | was | 11.76 |
| | 1540 | " | 11.82 |
| In the Netherlands the ratio in | 1520 | " | 10.68 |
| | 1540 | " | 10.62 |
| In England | 1527 | " | 11.23 |
| | 1552 | " | 11.1 |
| In Germany | 1524 | " | 11.38 |
| | 1551 | " | 11.38 |

*CHARACTERISTICS OF THE PERIOD, 1493-1548*

Broadly speaking, therefore, there is a certain homogeneity about the first two periods, 1493-1520 and 1520-48, of the new era. These fifty-five years mark a time of general advance on prices achieved by 1520 and maintained unequally up to 1548, but an advance which was steadily and almost fairly level on the two lines of gold and silver, so that the perfectly well-established advance of prices generally is accompanied with no great disturbance of the ratio in itself.

In contrast with this all the succeeding periods have, up to 1660, a distinct character and statistical bearing. An enormous and ever-increasing advance

in general prices occurs, but it is no longer, as before, on level lines of the two metals equally. The proportion of the production of the two metals changes, so rich was the yield of the silver mines of Potosi. From being the same with that of gold, the value of silver produced suddenly rises to three times and then to four times that of its rival; and at once the ratio changes, bringing with it all its accompaniment of feverish instability and flux.

*STATEMENT OF THE RATIO, 1500-1660*

The average result in the ratio was as follows:—

| | |
|---|---|
| 1545-60 | 11.30 |
| 1561-80 | 11.50 |
| 1581-1600 | 11.80 |
| 1601-20 | 12.25 |
| 1621-40 | 14.00 |
| 1641-60 | 14.50 |
| 1661 | 15.0 |

As far as can be ascertained the detailed statement of the ratio during the whole period, 1500-1660, is as follows:—

| Date. | England. | Netherlands. | France. | Spain. | Germany (Imperial System). | (V |
|---|---|---|---|---|---|---|
| 1474 | | | | 9.824 | | |
| | | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 1475 | | | | 10.985 | |
| 1480 | | | | 11.555 | |
| 1483 | | | | 11.675 | |
| 1484 | | | | | 11.37 |
| 1489 | | 10.5 | | | 11.2 |
| 1497 | | | 11.83 | 10.755 | |
| 1506 | | | | 10.262 | |
| 1511 | | | | | |
| 1517 | | | | | 10.31 (Erfürt) |
| 1519 | | 10.15 | 11.76 | | |
| 1524 | | | | | 11.38 |
| 1527 | 12.23 | | | | |
| 1529 | | | | | |
| 1537 | | | | 10.760 | |
| 1539 | | | 11.68 | | |
| 1540 | | 10.62 | 11.82 | | |
| 1542 | | | | | |
| 1548 | | 11.0 | | | |
| 1549 | | | 11.86 | | |
| 1550 | | | 12.07 | | |
| 1551 | | | 11.47 | | 10.83 |
| 1552 | 11.1 | | | | (Imperial Edict) |
| 1553 | 11.05 | | | | |
| 1554 | | 10.70 | | | |
| 1559 | 11.79 | | | | 11.44 |
| 1560 | | | 11.77 | | (Imperial Edict) |
| 1561 | | | | | |
| 1562 | | | | | |
| 1566 | | | | 12.294 | 11.55 |
| | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1572 | | 12.42 | | | | |
| 1573 | | | 11.76 | | | |
| 1575 | | | 11.68 | | | |
| 1576 | | 12.67 | | | | |
| 1578 | | | | | | |
| 1579 | | 10.62 | | | | |
| 1582 | | | | | | |
| 1583 | | | | | | |
| 1585 | | | | | | 11.63 |
| 1586 | | 10.66 | | | | |
| 1587 | | | | | | |
| 1589 | | 11.21 | | | | |
| 1590 | | | | | | |
| 1590 | | | | | | |
| 1591 | | | | | | |
| 1593 | | | | | | |
| 1594 | | | | | | |
| 1596 | | 10.90 | | | | 11.50 |
| 1597 | | | | | | |
| 1597 | | | | | | |
| 1598 | | 11.29 | | | | |
| 1599 | | | | | | |
| 1601 | 10.90 | | | | | |
| 1602 | | | 11.88 | | | |
| 1603 | | 11.64 | | | | |
| 1605 | 12.15 | | | | | |
| 1605 | | | | | | |
| 1606 | | 11.92 | | | | |
| 1607 | | | | | | |
| 1608 | | | | | | |
| 1608 | | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 1610 | | 12.54 | | | 12.2 |
| 1611 | 13.32 | | | | |
| 1612 | | | | 13.52 | |
| 1613 | | | | | |
| 1613 | | | | | |
| 1615 | | 12.03 | 13.90 | | |
| 1617 | | | | | |
| 1618 | | | | | |
| 1619 | | 12.10 | | | |
| 1620 | 13.34 | | | | |
| 1621 | | 12.5 | | | |
| 1622 | | 12.65 | | | |
| 1623 | | | | | 11.64 |
| 1624 | | | | | |
| 1624 | | | | | |
| 1626 | | 12.65 | | | |
| 1630 | | | | | |
| 1631 | | | | | |
| 1633 | | 12.65 | | | |
| 1634 | | | | | |
| 1635 | | | | | |
| 1636 | | | 15.36 | | |
| 1637 | | | | | |
| 1638 | | 13.39 | | | |
| 1640 | | | 14.49 | | |
| 1643 | | | 13.5 | | |
| 1645 | | 14.13 | | | |
| 1648 | | | | | |
| 1651 | | | | | |
| 1652 | | 14.13 | | | |
| 1653 | | 14.13 | | | |

| | | | | | |
|---|---|---|---|---|---|
| 1656 | | | 14.71 | | |
| 1660 | | | | | |
| 1663 | | 14.43 | | | |
| 1665 | | | | 16.47 | |
| 1667 | | | | | 12.88 |
| 1669 | 14.48 | | | | 15.13 |
| 1679 | | | 14.91 | | |
| 1690 | | | | | 15.13 |

To treat of these countries in detail.

*THE NETHERLANDS IN SIXTEENTH CENTURY*

## Netherlands.

During the period under consideration, the seventeenth century especially, the monetary history of the Netherlands supplies the key to that of the surrounding nations. The history of her monetary exchanges has yet to be written, and of her Mint ordinances very little is accessible, as compared, *e.g.*, with France. But this is more than compensated by the numerous "plakkaats" or proclamations of the tariff of coins, which are to us practical indicators of the rates of exchange. The Netherlands, as has been already said, were the centre of European commerce in the sixteenth and seventeenth centuries, as the Italian States had been in the fourteenth and fifteenth; and every change in the precious metals or in the coins showed itself in the Antwerp Bourse as

surely and swiftly as to-day in London. As prompt to take knowledge of these changes as Florence had been two centuries earlier, the authorities tabulated the various coinages which were current in the Low Countries,—and practically that meant the coinage of commercial Europe,—tariffed them against their own by proclamation, and instantly accommodated themselves to each new change or variation of value by a new proclamation and a new tariff. These proclamations, therefore, give us the measure and course of the monetary movements of the time in fullest and most welcome details.

It has been already shown that this action of the government of the Netherlands has a twofold aspect. From one side it expresses and regulates the natural flow and ebb of commerce, just as exchange rates and bullion remittances do to-day. And in this sense it was perfectly normal, healthy, and sound, more especially in so far as it provided for the gradual drawing away overplus metal to the East. But the Governments of Europe were yet under the spell of the delusion as to a balance of trade payable in gold —that delusion which was, later, dignified in history by the name of the mercantile theory. Nor had they yet lost the traces of that mediæval craft and lawlessness which rose from, and prompted to, the mere desire of robbing or pilfering their neighbour's store of precious metal as the first act of self-defence. Further than this the monetary system of Europe—unconsciously bimetallic and with an appalling variety of ratio prevalent at the same moment in different places—lay open, helpless and defenceless, and inviting to the bullionist, financier, or arbitragist. In so far as this element of national greed and dishonesty, or private and unprincipled gain, entered into the legislative enactments of the

Netherlands, it condemns them as mercenary, and the monetary straits or tightness, not to say crisis and panic which ensued, as unnecessary and therefore in the highest degree lamentable.

*SIXTEENTH-CENTURY ARBITRAGE*

In a blind way the age saw what was going on behind the financier's screen, however little it understood the theory of it. In many a sixteenth-century document, preserved among the State papers in the Record Office at London, abuse is piled on the Netherlands for their practices in enticing away the coin of the realm. One of the correspondents of the Privy Council in the days of Elizabeth, 1575, writes thus from the Netherlands: "The Low Country merchants return great stores of money hither by exchanges, and by the proceeds, as the exchange may serve for their purposes, they send away her majesty's coin and bullion into the Low Countries in great quantities, and the rather by reason of the Hollanders trading with the East, by which means the realm will be secretly robbed, if it be not prevented." Twenty years later the whole subject was again gone into, for the fiftieth time, for the advice of the English Privy Council, and it was shown how "foreign exchangers contrived, by arranging a rise or fall in particular monies, to undervalue English monies, and draw them out of the kingdom. Prevention has been vainly attempted by Acts of Parliament, by sending over Sir Thomas Gresham to the Low Countries to complain, and by establishing the office of exchanger, which was discontinued as injurious to the State. A bank was proposed, but the Queen had not to spare the £100,000 needed to start

it. It is now proposed to settle the exchange at 10 or 12 per cent., to be fixed yearly, according to the state of affairs, 20 per cent. or more being sometimes paid now."

The *naïveté* and helplessness of the suggestions contained in these concluding words need not blind us to the real and pressing gravity of the monetary situation to which they relate, and which periodically beset each and every European Government throughout the centuries under consideration.

Such, therefore, is the aspect of these monetary ordinances or plakkaats of the Netherlands in the sixteenth and seventeenth centuries.

To speak of them in detail.

The first of the Low Country proclamations, containing an *evaluatie*, or tariff, is dated 2nd January 1516, and it marks the commencement of the influence of the American discoveries. (See table below.) By the succeeding proclamation of 4th February 1520, golden reals were substituted for the golden florin. Its provisions remained nominally in force for twenty years or so, but almost immediately the movement towards higher prices made itself felt, and it was in consequence of this, and after fruitless negotiations with the merchants of Antwerp, that Charles V. issued a series of four closely consecutive proclamations (1521, March 1522, 19th June 1524, 25th November 1525). The first three concern gold, the last only bears witness to the rise of silver by attempting to check it and call it down. Similarly, in his ordinance of 10th December 1526, he enacted that the price ruling on the 4th February 1520 should be again used, and should be reached at two

drops or intervals, so as to create the less disturbance between debtor and creditor. The ordinance proved fruitless, and was twice renewed, in 1531 and 1539. In spite of them all, the rise in prices against which the authorities tried to fight, continued and had to be recognised. By the ordinance of 11th July 1548 a higher limit of values was permitted. Then, for a dozen years or so, attempts were made, by the proclamations of 23rd March 1552 and 24th October 1559, to make those prices of 1548 the basis, and to compel a return to it in the future, while recognising temporarily the higher prices ruling at the moment. And so the process repeats itself continually—a further rise of prices, complaints of the disorder in the currency and exchanges, and a new *evaluatie* issued, regulating the exchanges at the higher rate for the moment, and providing for the reduction of prices to previous limits, from and after such and such a date.

In the accompanying table wherever two figures are coupled together thus,
2 4
1 19
} the higher figure represents the price ruling at the date of the ordinance, the lower figure is the price to which return was to be made from and after some date fixed thereby. A simple glance at the tables will show how futile and foredoomed was every such attempt to rule and compel the exchanges. For the explanation of these tables it will be sufficient to give the dates of the Netherlands ordinances, premising that up to 1586 the series was applicable to the whole Netherlands, but that from that date there is a separate series for the Seven United Provinces, and for the Spanish Netherlands.

## Netherlands Plakkaats.

27th July 1572.

7th February 1573.

22nd June 1574 (countenances the rise of prices over those of 1572 only until the end of the year).

3rd December 1575.

19th April 1576 (for Holland and Zealand, and to continue for only six months, when, by the ordinance of 25th October of the same year, a considerably lower limit was prescribed).

1579. In this year no less than four plakkaats were issued, with the object of enforcing a reduction of prices, but in vain, and the last of the four, issued on the 19th December, was obliged to recognise some portion of the rise of prices which it was attempted to counteract.

9th October 1581. In less than a year the effect of the strenuous attempt in 1579 had been completely swept away, and a further advance had to be recognised.

From 1586 the series of proclamations divides into two, as has been said, owing to the revolt and establishment of the United Netherlands.

The one set, relating to the Spanish Netherlands, includes proclamations of

30th April 1590, again recognising provisionally a further advance, and renewed on

15th December 1593,

21st October 1594,

16th November 1599,

23rd June 1602 (with some slight alterations),

30th December 1605, attempting to restrain a farther advance,

30th June 1607,

13th May 1609,

30th September 1610,

22nd March 1611, again recognising the inevitable advance.

The last named remained in force until 21st May 1618, with the exception of not being applicable in Volkenburg, Dalen, and Limburg, where the abnormal height to which monies had risen necessitated a special ordinance (4th March 1616), lowering the price to the limit of 22nd March 1611, by five separate three-monthly steps or intervals.

*THE PLAKKAATS OF THE UNITED PROVINCES*

The second and separate series of monetary

ordinances issuing from their High Mightinesses, the States-General of the United Provinces, is remarkably parallel to the above. It begins with the ordinance of 2nd September 1594: "In view of the rising price of gold and silver," it says, a "lessening of that price to the limit of 1586 is ordered at three intervals, 15th September 1594, 10th November, 10th January 1595."

Like the contemporary enactment of the Spanish Netherlands, it proved ineffectual, and a further rise had to be recognised in the ordinance of 2nd March 1596, and again of 2nd April 1603. The preambles of these ordinances, which are preserved in the huge collections of Can and Scheltus, generally recite their purpose of providing against the disorders in the coinage, caused by the daily rise in price, by the greed and licence of the times, and by the inrush of the silver coins of other states. Such is specially the tenor of that of 21st March 1606, one of the most famous of these ordinances. Two years later an attempt was made to reduce prices to the limit of 1606. It proved ineffectual, and by the proclamations of 1st July 1610, 26th September 1615, and 13th February 1619, further advances were recorded. By the last-named, renewed on 5th June 1621, an attempt was made to re-establish the prices of 1610.

So much for the ordinances themselves. It is only necessary to add, for their general elucidation, that they generally contain and prescribe in detail the value of each separate coin circulating in the Low Countries at the particular time, coupled with an engraving of the coin, as an assistance to the people in recognising them. Indeed, some of the ordinances, that of 1606 for instance, contain engravings of upwards of 1000 different pieces—a significant

witness to the international welter of coins in the Netherlands exchange. Dissected in detail, with regard to only a few of these coins, the tabular result is as follows:—

**THE NETHERLAND PLAKKAATS**

| German Gold Guldens. (75 to a Mark of Gold, 18 Carats 4 Grs. Fine.) | | | Spanish Ducats. (70 to a Mark of Gold, 23 Carats 7 1/2 Grs. Fine.) | | |
|---|---|---|---|---|---|
| Date. | Declared Value in Netherlands Currency as by the Plakkaats. | | Date. | Declared Value in Netherlands Currency as by the Plakkaats. | |
| | Florins. | Stivers. | | Florins. | Stivers. |
| 1499 | 1 | 8 | 1499 | 1 | 19 |
| 1522 | 1 | 10 | 1522 | 2 | 3 |
| 1526 | 1 | 12 | 1526 | 2 | 4 |
| | 1 | 8 | | 1 | 19 |
| 1539 | 1 | 9 | 1539 | 2 | 1 |
| | 1 | 8 | | 1 | 19 |
| 1548 | 1 | 10 | 1548 | 2 | 1 |
| 1552 | 1 | 11 | 1552 | 2 | 2 |
| 1559 | 1 | 12 | 1559 | 2 | 5 |
| 1572 | 1 | 15 | 1572 | 2 | 7 |
| 1573 | 1 | 19 | 1573 | 2 | 15 |
| 1574 | 1 | 16 | 1574 | 2 | 13 |
| 1575 | 2 | 0 | 1575 | 3 | 0 |
| 1576 | 2 | 0 | 1576 | 3 | 3 |
| | 1 | 17 | | 2 | 12 |
| 1577 | 2 | 0 | 1577 | 3 | 3 |
| 1579 | 2 | 3 | 1579 | 3 | 4 |

| | | | | | |
|---|---|---|---|---|---|
| | 2 | 4 | | 3 | 0 |
| | 2 | 2 | | 2 | 18 |
| | 2 | 3 | | 3 | 0 |
| 1581 | 2 | 8 | 1581 | 3 | 6 |
| 1590 | 2 | 9 | 1590 | 3 | 10 |
| 1605 | 2 | 10 | 1599 | 3 | 15 |
| 1607 | 2 | 12 | 1609 | 3 | 19 |
| 1609 | 2 | 15 | 1618 | 4 | 1 |
| 1611 | 2 | 16 1/2 | | | |
| 1618 | 2 | 17 1/2 | UNITED NETHERLANDS. | | |
| | | | 1586 | 3 | 8 |
| UNITED NETHERLANDS. | | | 1594 | 3 | 12 |
| 1586 | 2 | 8 | | 3 | 10 |
| 1594 | 2 | 12 | | 3 | 8 |
| | 2 | 10 | 1596 | 3 | 9 |
| | 2 | 8 | 1603 | 3 | 16 |
| 1596 | 2 | 10 | | 3 | 15 1/2 |
| 1603 | 2 | 14 | | 3 | 15 |
| 1606 | 2 | 15 | 1606 | 3 | 16 |
| 1608 | 2 | 17 | 1608 | 4 | 0 |
| | 2 | 16 | | 3 | 18 |
| | 2 | 15 | | 3 | 16 |
| | | | 1610 | 4 | 0 |
| 1610 & | 2 | 18 | 1615 | 4 | 1 |
| onwards | | | 1619 | 4 | 2 |
| | | | 1621 | 4 | 4 |
| **Spanish Pistoles. (36 to a Mark of Gold, 21 Carats 10 Grs. Fine.)** | | | **French Crowns. (Old, *i.e.* not "of the Sun," 72 to a Mark of Gold, 22 Carats 4 1/2 Grs. Fine)** | | |

| Date. | Declared Value in Netherlands Currency as by the Plakkaats. | | Date. | Declared Value in Netherlands Currency as by the Plakkaats. | |
|---|---|---|---|---|---|
| | Florins. | Stivers. | | Florins. | Stivers. |
| 1548 | 3 | 12 | 1499 | 1 | 15 1/2 |
| 1552 | 3 | 18 | 1522 | 1 | 19 |
| 1559 | 4 | 0 | 1526 | 1 | 19 |
| 1572 | 4 | 4 | | 1 | 15 1/2 |
| 1573 | 4 | 16 | 1539 | 1 | 17 |
| 1574 | 4 | 10 | | 1 | 15 |
| 1575 | 5 | 0 | 1548 | 1 | 17 |
| 1576 | 5 | 4 | 1552 | 1 | 19 |
| | 4 | 13 | 1559 | 2 | 0 |
| 1577 | 5 | 4 | 1572 | 2 | 2 |
| 1579 | 5 | 10 | 1573 | 2 | 9 |
| | 5 | 10 | 1574 | 2 | 6 |
| | 5 | 5 | 1575 | 2 | 12 |
| | 5 | 8 | 1576 | 2 | 13 |
| 1581 | 5 | 18 | 1577 | 2 | 12 |
| 1590 | 6 | 4 | 1579 | 2 | 15 |
| 1605 | 6 | 9 | | 2 | 15 |
| 1607 | 6 | 12 | | 2 | 12 1/2 |
| 1609 | 7 | 0 | | 2 | 14 |
| 1611 | 7 | 2 | 1581 | 3 | 0 |
| 1618 | 7 | 5 | 1590 | 3 | 3 |
| | | | 1605 | 3 | 6 |
| | | | 1607 | 3 | 8 |
| | | | 1609 | 3 | 12 |
| | | | 1611 | 3 | 12 1/2 |
| UNITED NETHERLANDS. | | | 1618 | 3 | 14 |

| | | | United Netherlands. | | |
|---|---|---|---|---|---|
| 1586 | 6 | 0 | | | |
| 1594 | 6 | 6 | 1586 | 3 | 0 |
| | 6 | 3 | 1594 | 3 | 3 |
| | 6 | 0 | | 3 | 1 |
| 1596 | 6 | 6 | | 3 | 0 |
| 1603 | 6 | 15 | 1603 | 3 | 8 |
| 1606 | 6 | 17 | 1606 | 3 | 10 |
| 1608 | 7 | 1 | 1608 | 3 | 14 |
| | 6 | 19 | | 3 | 12 |
| | 6 | 17 | | 3 | 10 |
| 1610 | 7 | 4 | 1610 | 3 | 14 |
| 1615 | 7 | 6 | 1615 | 3 | 15 |
| 1619 | 7 | 12 | 1619 | 3 | 16 |
| | 7 | 6 | | 3 | 15 |
| 1621 | 7 | 12 | 1621 | 3 | 18 |

| **English Rose Nobles. (32 to a Mark of Gold, 23 Carats 8 1/2 Grs. Fine.)** | | | **English Sovereigns. (40 to a Mark of Gold.)** | | |
|---|---|---|---|---|---|
| **Date.** | **Declared Value in Netherlands Currency as by the Plakkaats.** | | **Date.** | **Declared Value in Netherlands Currency as by the Plakkaats.** | |
| | **Florins.** | **Stivers.** | | **Florins.** | **Stivers.** |
| 1499 | 4 | 5 | | | |
| 1520 | 4 | 5 1/2 | 1548 | 3 | 0 |
| 1522 | 4 | 10 1/2 | | | |
| 1526 | 4 | 17 1/2 | 1552 | 3 | 0 |
| | 4 | 5 1/2 | | | |
| 1539 | 4 | 10 | 1554 | 3 | 0 |
| | 4 | 5 1/2 | | | |

| | | | | | |
|---|---|---|---|---|---|
| 1548 | 4 | 10 | 1575 | 4 | 4 |
| 1552 | 4 | 16 | | | |
| 1559 | 5 | 0 | 1576 | 4 | 6 |
| 1572 | 5 | 3 | | | |
| 1573 | 6 | 10 | 1579 | 4 | 8 |
| 1574 | 6 | 6 | | | |
| 1575 | 7 | 5 | | | |
| 1576 | 7 | 10 | | | |
| 1577 | 7 | 0 | | | |
| 1579 | 8 | 0 | | | |
| | 7 | 10 | | | |
| | 6 | 8 | | | |
| | 6 | 14 | | | |
| 1581 | 7 | 4 | | | |
| 1590 | 7 | 9 | | | |
| 1607 | 8 | 2 | | | |
| 1609 | 8 | 10 | | | |
| 1611 | 8 | 13 | | | |
| 1618 | 8 | 16 | 1586 | 5 | 1 |
| | | | 1594 | 5 | 5 |
| UNITED NETHERLANDS. | | | | 5 | 3 |
| 1586 | 7 | 12 | | 5 | 1 |
| 1594 | 8 | 0 | 1596 | 5 | 2 |
| | 7 | 16 | 1603 | 5 | 9 |
| | 7 | 12 | 1606 | 5 | 12 |
| 1596 | 7 | 13 | 1608 | 5 | 16 |
| 1603 | 8 | 8 | | 5 | 14 |
| | 8 | 7 | | 5 | 12 |
| | 8 | 6 | 1610 | 5 | 18 |
| 1606 | 8 | 9 | | | |
| 1608 | 8 | 16 | | | |

UNITED NETHERLANDS.

| | | | | | |
|---|---|---|---|---|---|
| | 8 | 12 | | | |
| | 8 | 9 | | | |
| 1610 | 8 | 16 | | | |
| 1619 | 9 | 0 | | | |
| | 8 | 16 | | | |
| 1621 | 9 | 0 | | | |

| Philippus Rijder. (67 1/2 and subsequently 70 to a Mark of Gold, 23 Carats 8 1/2 Grs. Fine.) | | | Burgundian Gulden (or Gulden Andries). (72 to a Mark of Gold, 19 Carats Fine, from 1456 to 1567; later, 75 to a Mark, 18 Carats 6 Grs. Fine.) | | |
|---|---|---|---|---|---|
| Date. | Declared Value in Netherlands Currency as by the Plakkaats. | | Date. | Declared Value in Netherlands Currency as by the Plakkaats. | |
| | Florins. | Stivers. | | Florins. | Stivers. |
| 1499 | 1 | 19 | 1499 | 1 | 9 |
| 1522 | 2 | 3 | 1522 | 1 | 12 |
| 1526 | 2 | 4 | 1526 | 1 | 13 |
| | 1 | 19 | | 1 | 9 |
| 1539 | 2 | 1 | 1539 | 1 | 10 |
| | 1 | 19 | | 1 | 9 |
| 1548 | 2 | 1 | 1548 | 1 | 11 |
| 1552 | 2 | 2 | 1552 | 1 | 12 |
| 1559 | 2 | 5 | 1559 | 1 | 13 |
| 1572 | 2 | 7 | 1572 | 1 | 15 1/2 |
| 1573 | 2 | 15 | 1573 | 1 | 19 |
| 1575 | 2 | 18 | 1574 | 1 | 16 |
| 1576 | 3 | 3 | 1575 | 2 | 0 |

| | | | | | |
|---|---|---|---|---|---|
| 1577 | 3 | 0 | 1576 | 2 | 0 |
| 1579 | 3 | 3 | | 1 | 18 1/2 |
| | 3 | 0 | 1577 | 2 | 2 |
| | 2 | 18 1/2 | 1579 | 2 | 3 |
| | 3 | 0 | | 1 | 5 |
| 1581 | 3 | 6 | | 2 | 3 1/2 |
| 1590 | 3 | 8 1/2 | | 2 | 4 |
| 1610 | 3 | 18 | 1581 | 2 | 9 |
| 1611 | 3 | 19 | 1590 | 2 | 11 |
| | | | 1607 | 2 | 14 |
| | | | 1609 | 2 | 17 |
| | | | 1611 | 2 | 18 |
| UNITED NETHERLANDS. | | | | | |
| | | | UNITED NETHERLANDS. | | |
| 1586 | 3 | 8 | 1586 | 2 | 9 |
| 1594 | 3 | 10 | 1594 | 2 | 13 |
| | 3 | 9 | | 2 | 11 |
| | 3 | 8 | | 2 | 9 |
| 1596 | 3 | 9 | 1596 | 2 | 11 |
| 1603 | 3 | 14 | 1603 | 2 | 15 |
| 1606 | 3 | 15 | 1606 | 2 | 16 |
| 1608 | 3 | 17 | 1608 | 2 | 18 |
| | 3 | 16 | | 2 | 17 |
| | 3 | 15 | | 2 | 16 |
| 1610 | 4 | 0 | 1610 | 2 | 19 |

| German Thaler (Silver). | | | Netherland Rijksdaalder (Silver). | | |
|---|---|---|---|---|---|
| **Date.** | **Declared Value in Netherlands Currency as by the Plakkaats.** | | **Date.** | **Declared Value in Netherlands Currency as by the Plakkaats.** | |
| | | | | | |

| | Florins. | Stivers. | | Florins. | Stivers. |
|---|---|---|---|---|---|
| 1539 | 1 | 6 | 1583 | 2 | 2 |
| | 1 | 7 | | | |
| 1548 | 1 | 8 | 1586 | 2 | 5 |
| 1552 | 1 | 9 | | | |
| 1559 | 1 | 10 | 1594 | 2 | 6 |
| 1571 | 1 | 11 | | | |
| 1572 | 1 | 12 | | 2 | 5 |
| 1573 | 1 | 16 | | | |
| | 1 | 14 | 1603 | 2 | 7 |
| 1577 | 1 | 18 | | | |
| 1579 | 2 | 1 | 1608 | 2 | 8 |
| 1581 | 2 | 5 | | | |
| 1611 | 2 | 11 | | 2 | 7 |
| UNITED NETHERLANDS. | | | | | |
| 1586 | 2 | 5 | UNITED NETHERLANDS. | | |
| 1594 | 2 | 6 | | | |
| | 2 | 5 | | | |
| 1603 | 2 | 7 | 1610 | 2 | 8 |
| 1608 | 2 | 8 | | | |
| | 2 | 7 | 1619 | 2 | 10 |
| 1610 | 2 | 8 | | | |
| 1619 | 2 | 10 | 1621 | 2 | 12 |
| 1621 | 2 | 12 | | | |

## France.

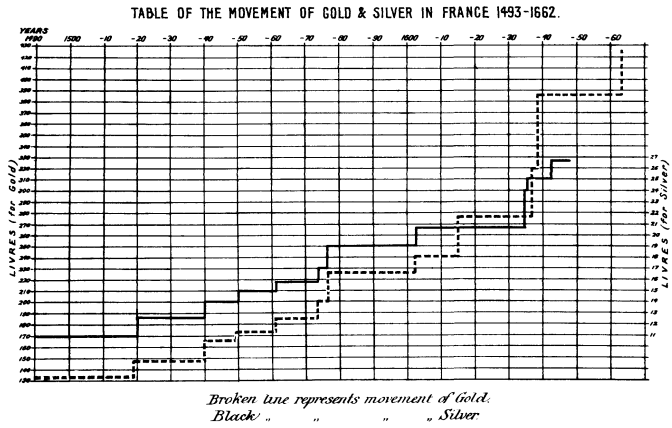
In France the result of the American influx of metals did not make itself felt until the time of Francis I. During his reign the value of the mark of gold

increased 33 livres 4 sols. 2 dens., and that of silver 1 livre 10 sols.

The main reduction took place at two periods, 1519 and 1540, and with a consequent change in the ratio slightly in favour of silver. The earliest find in America was gold, and at first this metal shows a tendency to depreciate. Concurrently silver, as the overvalued metal, commenced to disappear from circulation. It was to prevent this export that in 1519 the *écu au soleil* was advanced to 40 sols., and again in 1532 to 45 sols.—an advance of 12 $^1/_2$ per cent. The silver *testoon* was advanced at the same time from 10 sols. to 10 sols. 6 dens., an advance of 5 per cent. Even so equilibrium was not produced, and disorders in the currency continued, along with the prevalence of lower-rated coins. The town of Marseilles complained of it in a petition to the King (8th May 1539), and the important edict of Blois, 1540, which left the *écus au soleil* untouched at 45 sols., while advancing the *testoon* to 10 sols. 8 dens., was professedly and purposely issued "to more equalise the silver with the value of the gold, and consequently to make the value of our monies, both red and white, corresponding." Two years later the States-General when they met complained of the lack of currency, and demanded the opening of the Mint at Aix. The request was granted, but without visible result.

The same process of advance, unequally maintained, continued under Henry II. and Charles IX. (see accompanying tables).

**TABLE OF THE MOVEMENT OF GOLD & SILVER IN FRANCE 1493-1662.**




## TABLE OF THE MOVEMENT OF GOLD AND SILVER IN FRANCE, 1500-1660

| Date. | Price of the Mark of Gold. | | | Price of the Mark of Silver. | | |
|---|---|---|---|---|---|---|
| | Livres. | Sols. | Dens. | Livres. | Sols. | Dens. |
| 1488 | 130 | 3 | 4 | 11 | 0 | 0 |
| 1519 | 147 | 0 | 0 | 12 | 10 | 0 |
| 1540 | 165 | 7 | 6 | 14 | 0 | 0 |
| 1549 | 172 | 0 | 0 | 15 | 0 | 0 |
| 1561 | 185 | 0 | 0 | 15 | 15 | 0 |
| 1573 | 200 | 0 | 0 | 17 | 0 | 0 |
| 1575 | 222 | 0 | 0 | 19 | 0 | 0 |
| 1602 | 240 | 10 | 0 | 20 | 5 | 4 |
| 1615 | 278 | 6 | 6 | ... | ... | ... |
| 1636 | 320 | 0 | 0 | 23 | 10 | 0 |
| 8th May 1636 | 384 | 0 | 0 | 25 | 0 | 0 |
| 22nd Sept. 1641 | ... | ... | ... | 26 | 10 | 0 |
| 1662 | 423 | 10 | 11 | ... | ... | ... |

*FRANCE: THE MINT INQUIRY OF 1575*

In the case of the latter monarch it is expressly stated that the change, which was effected in 1573, when the ratio was established at 11.77, had been preceded by a period during which "the people" had of themselves augmented the value of the *écu d'or* to 54 sols. At this limit the Government was obliged to fix it, but by the year 1577 it had risen successively to 58, 60, and 65 sols. The evil, as it was thought to be, of the advance of the monies was attributed to the caprice and unscrupulousness of "the people," and the King called several councils of experts to discuss the matter. Still the process continued unabated, and on the 19th December 1575, Henry III. assembled the States-General. The *cour des monnaies*—the officials of the Mint—at once approached him with a petition. Their representation is of peculiar significance:—

"In spite of the bad police prevailing, we draw in times of peace twice as much silver from abroad as the foreigners draw from us. If the reform we advocate were adopted we should double this net gain.... Between us and the Netherlands and Germany, where we generally trade, there is this difference, that 6 *écus*, at the price at which they are exposed here, only come to 5 in the said places, which has induced a sudden and enormous dearness in the merchandise which we export from there, and besides has caused us a great disorder—to wit, that the merchants have transported all our *douzains* and other billon money, to save themselves from the loss they would have had to incur in settling in *écus* or in

any foreign species of gold or silver on which, at the price they are current at by the caprice of the people, there would be a loss in settlement of 15, 20, and 25 per cent.... The cause of the enhancement of prices proceeds from the malice of several who turn into bullion the best of your coins in order to fill the kingdom with others of less goodness, enriching themselves thus with the blood and misery of the people....

*FRANCE: THE REFORM OF 1577*

"The remedy is to lower the rate of the monies.... The *écus* ought to come down to 50 sols., but for the present we would consent to it being put at 60, awaiting a further reduction. The currency of all foreign coins ought to be prohibited as the chief cause of these evils. For although by all your ordinances they have been valued according to the price of the *écu*, yet the people have always increased them more than they have your own monies, so that the *écu* at this moment, to be in accordance, ought to pass for 78 sols. This arises from the craft of the foreigner, and the only exceptions of importance are the *reals* and *pistoles* of Spain, which are of known goodness and profit to the melter. They have never brought us harm, but, on the other hand, they are being melted down all over France, and at the present rate the foreigner gets a profit of about 7 livres on the mark of them, so that we advise prohibition of their circulation. Finally, we advise to do away with the old reckoning by livres and sols, and substitute for it the reckoning by écus."

The States-General, adopting in part the weakest suggestion of this remarkable paper, fixed the écus at 65 sols. The Mint officials at once represented that this only increased the evil. Henry accordingly assembled at Pontoise a conference of experts, and as the outcome of their deliberations decided on the adoption of the chief recommendation of the Mint officials' representation. By his proclamation of 13th November 1577, the reckoning by livres was abolished and that of gold *écus* substituted, values of under 1 écu or 60 sols. to be settled in divisional coinage, and circulation of all foreign coins prohibited, with the exception of Spanish and Portuguese gold ducats. It was forbidden to constrain payment of any sum above 100 sols. in billon money, and in sums below that amount to present more than the third of the total sum in such billon money.

*FRANCE: FAILURE OF THE REFORM OF 1577*

This extraordinary and, on the whole, admirably planned reformation merits so much detail because of the intense importance of its bearing. It in effect anticipated the reformation which was only accomplished in England in our own century. So far as it was actually put in practice it made France monometallic. The instinct of the time had found its way to a comprehension of the evil before it, and of the remedy. The evil was due to a badly-regulated, weltering, bimetallic system; the remedy was a monometallic system. It matters little that such terms were not in use and that the theory of the matter was not enunciated. The essential point was that the *fact*,

the *situation*, was grasped in practice for a moment, dimly it may be, yet sufficiently to illustrate the whole antecedent and succeeding event. As a matter of fact the ordinance remained practically in great part a dead letter. That it did so—that it did not accomplish its purpose—has been attributed to the *malheur*, the unhappiness, of the time. It was due to no such thing. It was due to the simple fact that in the ordinance two quite distinct, and one of them impossible, reforms were projected. The attempt to tie down the *écu* to 60 sols. was foredoomed to failure, and as the eye of contemporaries was fixed more entirely on prices rather than on method of tender, the most significant part of the ordinance passed out of mind; already by the time of the death of Henry III., "the people," it is again said, had increased the *écu* to 64 sols. On the 30th March 1594 a proclamation was issued to call it down to the value prescribed by the celebrated declaration of 1577, *i.e.* 60 sols. but, finding it impossible, the whole system created by that declaration was abolished (September 1602); the reckoning by *écus* was done away with, and the old system of reckoning by livres returned to; the gold *écu* was tariffed at 65 sols., and the circulation of foreign monies was again permitted. Henry IV., in his proclamation abolishing the almost invulnerable system established by Henry III., attributes to the attempts at working that system "the present dearness of everything." It is almost impossible fully to represent the unwisdom of this counter-reformation. To the eye of the then legislator there was only one evil—the rising of prices. If levelly effected it was, as a matter of fact, no evil at all—far the reverse indeed, and he did not need to concern himself about it at all. Besides, it was irresistible. The

evil that escaped his eye, or to which he was blind, was that unceasing process of flux which was caused by the different ratios prevailing in different parts of Europe. The scheme of Henry III. would have proved effective, where no other measure or scheme of the time was or could be, and its abrogation in 1602 by Henry IV. removed a bulwark and a barrier, and made way for catastrophe.

Le Blanc considers that this repeal of the system established in 1577, itself failed of its purpose, *because the increase of prices still continued*. "In the seven years of peace which followed the ordinance of 1602, the depreciation of the gold *écu* was as much as it had been in the preceding sixty-five years of war and trouble." The simple truth was, that it was much more likely to increase in time of peace and trade activity than in time of war. The point to notice was not at all how much the *écu* did depreciate, but the relativity of such its depreciation with that of the standard currency of other countries, and the monetary disorder which the inequality of ratio and of rate of depreciation induced.

Alarmed beyond measure at the evident failure of his plans, Henry IV. summoned monetary conferences of his wisest and best, and they were not even suspended by his assassination. The complaint again was, that the permission to circulate foreign monies had led to the transport of all the good coinage, to the ruin of commerce and great general disorder. Assemblies were held all over France in the trading towns, and the result of the advice of their delegates was the proclamation of 5th December 1614 (issued early in 1615). By this proclamation silver monies were left untouched, the tariff of the gold *écu* was increased from 65 to 75 sols., and the value of the

mark of gold proportionally increased. The ratio was thereby altered from 12.01 to 13.90. It is hardly too much to say that this step and alteration in the ratio saved France from the catastrophe which befell England and Germany in 1622 and 1623. The arrangement established in 1615 endured unaltered until 1636, when a slight reduction in the ratio was made to 13.61 (on the 8th May). Two months later it was found that so serious an export of good coinage was ensuing that "our kingdom would be entirely stripped of good currency, to our great damage, etc." A proclamation was accordingly issued (28th June 1636) attempting to regulate the course of exchange. The effort was vain, and on the following 22nd September the ratio was suddenly and violently altered to 15.36.[10]

*FRANCE: THE REFORM OF 1640*

A glance at the ratio prevalent in other countries will show how masterful was this act of France, but it carried with it the seeds of its own punishment. Such is the nature of the bimetallic law that any overshooting of the ratio, on no matter which side,—in favour of silver or in favour of gold,—establishes a differentiation, and the differentiation at once gives to the one metal a fulcrum or lever point—a purchasing power—against the other, and the undervalued metal, whichever it is, at once tends to disappear. Four years after this autocratic measure of France, it was found that her currency was in so depreciated a state, through exchange, that the only pieces current were lacking one-third of their full weight.

The recoinage established by her proclamation of 31st March 1640, which established the new *louis d'or*, was intended as a complete and permanent remedy, and it may reasonably claim the praise of having effected so much. The alteration of the ratio established in 1640-41 by this recoinage (from 15.36 to 14.49) was only made after most serious deliberation. Monetary conferences of experts were held at Paris; and it was found, after careful assays of all the monies of the surrounding nations, that the prevailing ratios (1640-1) were at one and the same time—

| | |
|---|---|
| Germany | 12:1 |
| Milan | 12:1 |
| Flanders and Netherlands | 12.5:1 |
| England | 13.33 |

It was therefore decided to adopt a higher ratio than all these, viz. 13.5.[11]

The history of the few years succeeding this measure is most instructive. The depreciation of monies continued, and on the 4th April 1652 a proclamation was issued, forbidding the currency of certain old monies of France, and again attempting to restrain the course of the exchanges; and three years later, 1655, under pretext that false moneyers were imitating the *louis d'or* and the silver *écus*, the minting of *lis d'argent* (lilies of gold and silver) was resolved upon. "But," says Le Blanc, "everybody knows that the true motive was the same as when a little later they resolved on the minting of 4-sol. pieces. Under the above pretext, the ratio basis of 1641 was broken. Remonstrances were vain until experience proved their weight, and the minting of

the *lis d'or* had to be discontinued. The pieces already minted received a value of 7 livres, and to correspond the *louis d'or* was increased to 11 livres, by proclamation 15th March 1656." As silver was left untouched, the resulting alteration of the ratio was from 13 $^{1}/_{2}$ to 14 $^{5}/_{7}$.

## Florence.

With the advance of Antwerp as the centre of European exchanges in the fifteenth century, the mercantile pre-eminence of Florence and Venice decayed, and their monetary history loses its former prime importance. But they by no means thereby lose their interest for us. Instead of profiting as of yore by every veer in the winds of exchanges, they are at the mercy of them, as was every other country outside the charmed circle of the Netherlands. The influence of the changed conditions in the production of the precious metals, due to the discovery of America, does not show itself in Florence before 1531, when (4th August) the price was by law advanced. Three years later, 5th March 1534, it was found that the state was receiving damage from the foreign monies circulating, and that the only native coin circulating was in a worn and depreciated state. A recoinage was accordingly ordered, circulation of all foreign monies of silver was forbidden, and all payments and contracts were commanded to be made in gold *scudi* of the state. In order to inform the commercial element, the Mint masters were further ordered to make trial every fifteen days of the value of any foreign *scudi*, and to publish the result.

There is a wonderful simplicity about this enactment. In order to defend themselves from a flood of cheap and cheapening silver, the Florentine authorities adopted a virtual gold monometallism. That the enactment was not permanently regarded and kept can only be attributed to the strength of commercial custom, and to a true perception in the mercantile community at large of the essential difficulty of the problem and its remedy. The Florentines were simply obliged to circulate all coins, gold as well as silver, because such was the universal custom of mediæval Europe. By 1552 silver foreign monies were again current in Florence, in such quantities and with such effects on the native gold currency, that they had to be again prohibited and banished (by law of 18th May 1552); renewed three years later (28th February 1555), and again in 1557 (29th April). Indeed, within the period here treated of, up to, *i.e.*, 1660, there is a series of thirteen or fourteen separate re-enactments of the prohibition relating to these monies and the depreciated Florentine billon money ("*quattrini neri*"). If, during this period, Florence had occupied the commanding position that Antwerp did, quite unique interest would attach to the record of this monetary policy or experiment. But not being in that position, and being, too, quite apparently unable to enforce her own enactments in her own territory, even this merely depressive policy was partially broken down. In so far as it was broken down she lay at the mercy of the monetary changes around her, and of the Netherland financiers, as did every other country of Europe. By the law of 5th April 1630, all species of foreign ducatoons were prohibited, "in consideration that, within the short time they have been introduced, so great a quantity, and of such differing standards, has been imported from the

various foreign Mints." Five years later the gold coin was in so depreciated a state as to call for legislative interference (9th February 1635, renewed on 5th February 1645); and again in 1661 (3rd February) it was found necessary to prohibit the circulation of the silver *reals* of Peru and every other kind of Spanish silver, except at bullion value. These are only a few from a long list of similar enactments, but they serve adequately to show the trend of events on small as well as large fields of operations. What an amount of commercial disturbance and disaster lies behind the dry details of these legal enactments, the case of England will serve to show.

## Germany.

The monetary history of Germany is one of extreme confusion and intricacy. The lack of coercive power in the central authority—in the Emperor himself—was as conspicuously displayed in the monetary ordinances of the empire as in the political sphere. The imperial edicts were disregarded, and each separate circle of the empire, or each separate prince or union of princes, left to shift or act for themselves. Amid all the confusion of such a disorganised and reeling system sufficient is perceptible to indicate the broad tendency of events, and to show how closely analogous was her experience to that of Europe generally within the same period.

In Germany, as in the Netherlands, France, and England, the influence of the discovery of America only begins to express itself about 1520, and in the usual way—influx, movements and disorders in the currency and ratio, and general complaints. In 1520

a monetary convention was summoned to meet at Forchheim. This was followed by the debate in the Reichstag at Nürnberg (1522), where great complaints were made of the unusable, false, and depreciated coinage, "due to the stealing away and exchanging abroad of the gold *gulden* and silver coins." It was in consequence of the representations of this Reichstag that the first of the series of three imperial Mint ordinances was issued by Charles V. (at Esslingen, 1524). The main details of this ordinance will be found in the accompanying tables and in Appendix V.

The effect of the first imperial ordinance was to change the ratio from something between 10 and 11 to 11.38. The *gulden* was raised from 17s. 4 pf. to 17s. 6 pf. All foreign gold was to be taken at equivalent rates, and whoever gave more for foreign coins of gold was to suffer a heavy penalty. Further, the export of gold and silver was forbidden, on pain of life and goods.

The ordinance remained a dead letter, and the monetary disorder of the country only increased.

**THE MOVEMENT OF SILVER IN GERMANY, 1459-1621, ILLUSTRATED BY THE MOVEMENT OF THE SILVER GROSCHEN, ACCORDING TO IMPERIAL AND OTHER MINT REGULATIONS.**

(*See preceding Table on p. 30.*)

| Date. | Cologne Mark coined into Pieces. | Alloy. | | Equivalent Value in Convention Money. | | Treaty or Ordinance. |
|---|---|---|---|---|---|---|
| | | | | | | |

| | | Loths. | Grs. | Krtzrs. | Pfnge. | |
|---|---|---|---|---|---|---|
| 1501 | 126 | 6 | 1 | 3 | 2 37/42 | Treaty of Dukes Henry and Erick of Brunswick and Bishop Barthold of Hildesheim, with the States of Brunswick, Hildesheim, Hanover, Lübeck, and Göttingen. |
| 1510 | 160 | 6 | 0 | 2 | 3 1/4 | Göttingen. |
| 1524 | 136 | 12 | 0 | 6 | 2 8/17 | First imperial Mint edict of Charles V. at Esslingen. |
| | | | | 3 | 1 4/11 | |
| | | | | (1/2 Groat) | | |
| 1533 | 123 | 7 | 0 | 4 | 1 3/4 | Augsburg Mint edict. |
| | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1535 | 91 47/131 | 8 | 0 | 6 | 2 101/874 | Mint treaty between Ferdinand and the Counts Palatine of the Rhine and the States of Augsburg and Ulm. |
| 1551 | 94 1/2 | 7 | 5 | 5 | 3 59/567 | Second imperial Mint edict of Charles V. at Augsburg. (Remained inoperative like that of 1524, *supra*.) |
| | 100 | 7 | 6 | 5 | 2 | |
| 1558 | 88 | 6 | 9 | 5 | 2 7/44 | Saxony Mint ordinances. |
| 1559 | 108 1/2 | 8 | 0 | 5 | 2 26/217 | Mint ordinance of Ferdinand I. |
| | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1572 | " | " | 0 | " | " | Edict of the Lower Saxony Circle. |
| 1610 | 234 | 14 | 4 | 4 | 2 82/351 | Edict of the Lower Saxony Circle. |
| 1617 | 144 | 8 | 0 | 4 | 0 2/3 | Edict of the Lower Saxony Circle. |
| 1622 | 108 1/2 | 8 | 0 | 5 | 2 26/217 | Edict of the Upper and Lower Saxony Circle. |

## THE MOVEMENT OF GOLD IN GERMANY, 1495-1621, ILLUSTRATED BY THE MOVEMENT OF THE GOLD GULDEN (RHENISCHE GULDEN), ACCORDING TO IMPERIAL AND OTHER MINT REGULATIONS.

(*See preceding Table on p. 31.*)

| Date. | Cologne Mark coined into Pieces. | Alloy. | | Equivalent Value in Convention Money. | | | Treaty Ordinai |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

| | | 24 Crts. | 12 Grains. | Flrns. | Krtzs. | Pfnge. | |
|---|---|---|---|---|---|---|---|
| 1506 | 71 1/3 | 18 | 6 gold | 3 | 6 | 0 132/7597 | Treaty between Bamberg Würzbur and Brandenl |
| | | 3 | 6 silver | | | | |
| 1509 | 71 1/3 | 18 | 6 gold | 3 | 6 | 1 3185/7597 | Frankfort Mint ordinanc |
| | | 4 | 0 silver | | | | |
| 1524 | 89 | 22 | ... | 2 | 54 | 3 5019/6369 | Imperial edict of Charles V Esslinger |
| 1551 | 71 1/3 | 18 | 6 gold | 3 | 6 | 0 3682/7597 | Imperial edict of Charles V Augsburg |
| | | 3 | 8 silver | | | | |
| 1559 | 72 | 18 | 6 gold | 3 | 4 | 1 2267/3834 | Imperial ordinanc Ferdinan |
| | | 3 | 8 silver | | | | |

*GERMANY: THE THREE IMPERIAL EDICTS*

In 1530 the Reichstag of Augsburg demanded the holding of a council, in order to enforce the late edict, and for a due consideration of the monetary situation. Several attempts were made with this object, but fruitlessly, and the princes of the empire fell back on the only feasible but fatal plan of smaller Mint conventions between contiguous states. There is an endless series of these, and they render the history of German currency a perfect jungle of intricacies. Nine years later (1539), a monetary convention was summoned to meet at Augsburg by Ferdinand, heir to the empire. It proved fruitless. Again, in 1548, after the expiry of a similar period, the Reichstag at Augsburg declared for another monetary convention to relieve the disorder. The opinions of certain deputies to this convention, which met on the 8th October 1550, were as follows: "For fifty or even eighty years and more the ratio between gold and silver has been between 12 and 13. But in a gulden of those days there was an equivalence of more silver than in seventy-six of our kreutzers. Since then we apprise the Rhenish gold gulden and kreutzers less than foreign nations. Therefore France and England seek them."[12]

A thorough inquest into the subject, or evaluation, was therefore ordered, and it was in accordance with the advice of the convention and with the report of the evaluation that the second imperial Mint edict was issued at Augsburg, 1551. This edict was drawn up on a ratio of 10.83 as a basis, and, as might be reasonably expected from the different ratios ruling abroad at the time, it proved as inoperative as its predecessor. The succeeding ten years witnessed a rise in the relative value of gold, or depreciation in that of silver, and the third and last of these imperial Mint edicts, that of the Emperor Ferdinand, issued at

Augsburg, 19th August 1559, fixed a higher ratio, viz. 11.44. The Rhenish *gulden* was raised from 72 to 75 kreutzers. The increasing production of silver indicated by this change is still more clearly marked in the resumption of the coining of the imperial thalers, at the instigation of the Reichstag at Augsburg, 30th May 1566. The advice of this Reichstag was the outcome of the monetary convention held at Nördlingen two years earlier, at which strong complaints were appointed to be made before the Reichstag of the weak state of the coin, and of its under-valuation.

In matter of fact, the Mint edict of 1559 remained a dead letter; nominally, however, it continued in force up to 1600, although no less than seven attempts were made at succeeding diets, from 1566 to 1596, to enforce it and bring it up to date. In the Reichstag of Speyer, 1570, complaints were made of the universal loss arising from the non-observance of the edict. In place of an imperial coinage, nothing circulated but foreign and counterfeit coins, and the necessaries of life had risen to a prohibitive height. Similar were the complaints at the succeeding diets at Frankfort, 1571, and at Regensburg, 12th October 1576, at which last Ferdinand's edict was again re-enacted, with a command that the Burgundian circle and the Swiss should conform themselves to it. Bitter complaints were made of the bad state of the gold and silver coinage, and of the enrichment of the exchangers on the Rhine. The circulation of Dutch and Swiss thalers was forbidden because of the loss by exchange, and the export of all gold and silver again forbidden. As an instance of the depreciation prevalent in the coinage, it was noted that the silver *albus* had lost one-third of its weight, so that thirty-six were needed to purchase one gold gulden,

whereas formerly twenty-six were equivalent.

*GERMANY: DISORDERS OF 1580*

Four years later, 1580, Ferdinand, as Archduke of Austria, issued a fresh tariff, with the object of checking exports, and in 1582 the states, having consulted as to the condition of the coinage, strongly advised a renewal of the prohibition of the export of coin, especially by the Italians. This advice was adopted in the Reichstag of Augsburg, which met seventeen days later, 20th September 1582. The preamble of the Act then and there passed speaks of the export of a good portion of the native currency, and of the unmeasured rise of prices, coupled with the circulation of forbidden foreign specie, large and small.

This resolution of the Reichstag was followed by the enacting of the Mint edict of 10th December 1582. It proved as futile as any of the others; and two years later, July 1584, the deputies of the three circles of Franconia, Swabia, and Bavaria complained that within the four years immediately preceding several millions had left the country by way of the Rhine provinces for the Netherlands, very little going to Italy by comparison.

On this representation another useless edict was issued by the Emperor Rudolph II., and in the following year the merchants at Frankfort Fair found themselves obliged to agree upon a tariff of *ducats* and *Reichs-thalers*. The *Philipps-thaler* was put at eighty-two kreutzers, and the *Reichs-thaler*, which, by the Imperial Mint edict still nominally in force,

should have been at sixty-eight kreutzers, was put at seventy-four. This arrangement of the merchants established a ratio between gold and silver of 11.4.

Certain of these same merchants, examined as to their opinion of the method of the export in January 1586, explained that it went by way of Nürnberg, and that the arbitrage was attended with 9 or 10 per cent. profit.

*GERMANY: THE KIPPER UND WIPPER ZEIT*

Nominally, however—or in theory—the arrangement of 1559 continued the unenforced law of the land up to 1600, underneath all these attempts at revision and underneath the different regulations of the various monetary unions of contiguous circles or states. With the latter date commences that extraordinary movement of monetary depreciation and panic which is known as the "*Kipper und Wipper*" period. In great part the extraordinary acuteness of the panic which ensued was due to internal monetary confusion of Germany, but that internal confusion simply ministered to the export of all good specie and metal, and in the end it became simply a money corner. The movement began by a coining of the lower denominations of monies on a different and depreciated footing or basis. The *specie* thaler began to part company from the current thaler, and to rise to more than the 24 silver groschen or 36 Marien groschen, to which by the Mint edict of 1559 it was declared equivalent. By 1618 it had risen to 1

thaler 6 silver groschen (= 48 Marien groschen), by 1620 to 2 current thaler, by 1621 to between 7 and 8 current thaler, while the ducat had risen to 13 florins 30 kreutzers.

Tabularly the statement of the movement of the *Reichs-thaler* is this:—

| Date. | Florin. | Krtzers. | Date. | Florin. | Krtzers. |
|---|---|---|---|---|---|
| 1582 | 1 | 8 | 1621 Jan. | 2 | 20 |
| 1587 | 1 | 9 | Feb. | 2 | 24 |
| 1590 | 1 | 10 | March | 2 | 30 |
| 1594 | 1 | 11 | April | 2 | 36 |
| 1596 | 1 | 12 | May 25 | 2 | 48 |
| 1603 | 1 | 14 | May 31 | 3 | 15 |
| 1604 | 1 | 14 | June | 3 | 6 |
| 1605 | 1 | 15 | July | 3 | 15 |
| 1607 | 1 | 16 | Aug. | 4 | 0 |
| 1608 | 1 | 20 | Aug. 10 | 3 | 15[A] |
| 1609 June 15 | 1 | 22 | Sept. | 4 | 30[A] |
| July 7 | | | Oct. | 5 | 0[A] |
| Dec. 19 | 1 | 24 | Nov. | 5 | 30[A] |
| 1610 | 1 | 24 | Dec. | 6 | 30[A] |
| 1613 Sept. | 1 | 26 | Dec. 20 | 3 | 15 |
| 1614 Aug. | 1 | 28 | 1622 Jan. 18 | 7 | 30[B] |
| 1615 March | 1 | 28 | Jan. 27 | 4 | 30 |
| | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Nov. 1 | 1 | 24 | | Feb. 10 | 10 | 0[C] |
| | Nov. 17 | 1 | 30 | | Mar. | 10 | 0[C] |
| 1616 | | 1 | 30 | | Mar. 12 | 6 | 0 |
| 1617 | | 1 | 30 | | June 16 | 3 | 15[A] |
| 1618 | | 1 | 32 | | Oct. | 5 | 0[B] |
| 1619 | Oct. | 1 | 48 | | Nov. | 6 | 0[B] |
| | Dec. | 2 | 4 | 1623 | April | 1 | 30 |
| 1620 | June | 2 | 8 | | | | |
| | Nov. 9 | 2 | 20 | | And at this last figure standing up to 1669. | | |

[A] Nürnberg.

[B] Augsburg.

[C] Vienna.

The course of the *gold gulden* which could be given is exactly parallel.

This table speaks volumes. It marks the acuteness of the monetary panic and crisis of 1621-22—the central time of the commercial ruin induced by the disorder of the *Kipper und Wipper Zeit*. The pamphleteer and polemic literature of this crisis is as rich and instructive as any which has accompanied the bimetallic agitation and silver question of our later days.

At Hamburg the *thaler*, which had gradually risen from an equivalence of 24 schillingen to 33 schillingen in 1609, had a correspondingly excited course during these years.

| | **Schillingen.** | **Pfennige.** | | **Schillingen.** | **Pfenni** |
|---|---|---|---|---|---|
| Oct. 1609 | 36 | 0 | July 1618 | 42 | 6 |
| 1610-13 | 37 | 0 | Sept. | 43 | 0 |
| Dec. 1614 | 37 | 6 | Nov. | 44 | 0 |
| Aug. 1615 | 38 | 9 | Sept. 1619 | 46 | 6 |
| Jan. 1616 | 40 | 0 | Oct. | 48 | 0 |

| | | | | | |
|---|---|---|---|---|---|
| Aug. | 41 | 0 | Aug. 1620 | 52 | 0 |
| April 1617 | 40 | 6 | Feb. 1621 | 53 | 0 |
| Aug. | 41 | 0 | Mar. | 54 | 6 |
| Sept. | 41 | 6 | May | 54 | 0 |
| Nov. | 42 | 0 | May 1622 | 48 | 0 |

It was in anticipation of the approaching disorder that on the 3rd of March 1609 a Mint treaty had been made between Mecklenburg, Schleswig-Holstein, Lübeck, and Hamburg, "for protection against the Mint disorder, which is most disastrous to land and people, and to take precaution against the advance of the larger silver specie." Seven years later, on the 10th January 1616, the merchants and financiers of Hamburg drew up a petition complaining that, through the monetary disorder, trade and exchange was being driven from the city, as within a short period the exchange with Frankfort had fallen from 74 kreutzer (=32 schillingen Lübeck) to 62 kreutzer (=32 schillingen Lübeck), and the exchange with Amsterdam from 46 stivers (=32 schillingen Lübeck) to 39 stivers. To the Senate's proposal for the erection of an exchange bank, the merchants would, however, have nothing to say, considering it unnecessary and dangerous, and called for the suppression of the notes which the merchants had brought into use to facilitate their settlements.

Three years later, however, the Senate declared more strongly for the establishment of a bank, premising in the preamble of their resolution that "it is many ways known and plain how disastrous a disorder has

hitherto been in the currency, both from the rise of the larger silver species and from the excessive importation of smaller depreciated specie, whereby not only private individuals but also common interests, as churches, hospitals, widows, and orphans are greatly pinched in their incomes."

*GERMANY: HAMBURG IN 1619*

It was as the outcome of this resolution that the celebrated Hamburg bank was instituted in 1619, the later life of which was to become of so much importance for the monetary and commercial history of North Germany.

The curious point to observe is the short time—a few months merely—by which the crisis in Germany preceded that in England, and the analogy of some of the manifestations, although there were no such Mint and coinage disorders in England as had aggravated and in the first place partly induced the movement in Germany.

In 1623 a great Mint deputation from all the circles was held, and in accordance with its representations the new imperial basis was established, which remained in force until the conclusion of the period of which we here treat. By that basis the mark of silver was coined into 9 *Reichs thalers* 2 *groschen*. The *thaler* was fixed at 90 kreutzers, the gold *gulden* at 1 florin 44 kreutzers, and the *ducat* at 2 florins 20 kreutzers. This disposition remained the Mint law over all the weary, disastrous period of the Thirty Years' War, which is practically a blank for the monetary history of Germany. It is not until 1665—

the opening of a fresh period—that complaints of the state of the lower denominations of the coinage are again heard. But how far this quiescence is to be attributed to the economic wisdom of the settlement of 1623, or to the mute, dumb, inarticulate agony of Germany during that strife when her commerce, much more even than her national life, was suspended, is hidden from us in almost complete darkness.

## Spain.

*SPAIN: FUNCTION IN SEVENTEENTH CENTURY*

During the sixteenth and seventeenth centuries the function of Spain was a very simple one in the European system. She was the receiver and distributor of the metallic wealth and finds of the New World, and accomplished her task perfectly naturally and efficiently. But it was at the cost of her political and commercial future and greatness. If Spain had been a commercially independent nation, growing for herself and supplying herself with her own manufactures, the metallic wealth of the New World would have stayed much longer in her lap, and Europe would have starved. But she was not. She produced little, and manufactured less, and the ill-gotten, blood-stained gain, which flowed to her shores from America, served only to feed an impractical vanity and to further unfit the nation for manufacturing and commercial life. The, to her,

disastrous influence of Spain's shortlived empire endure to-day, for she is still as unfitted as ever by temperament and natural training for mercantile life. Such is the penalty her dower of New World gold and silver brought her. Finding she could purchase anything and everything with this gold and silver, she threw herself into her work of conquest, and let commerce go. Her manufactures came to her from England and the Netherlands—countries she sought to conquer and enslave; and thither her gold went in exchange, and before the century was out those countries had risen exulting over her. But the point to notice is this. Assuming this distributing function as her own and proper one, the only condition essential to its proper fulfilment was the maintaining of an absolutely unimpeachable coinage. The rapidity with which the precious metals left her possession was simply due to the fact that Spain did so maintain her coinage and for a sufficiently lengthened period. The goodness of her coins exalted them above the prevailing rates in France and the Netherlands, and they were eagerly sought in consequence. The monies that did not, and could not, normally leave her possession by ordinary way of trade left her by means of arbitrages working on the system of bimetallism, which existed unacknowledged.[13] It was this commanding quality of the Spanish coins that led to the adoption of their system by France in 1641. That in the case of Spain we hear no complaints of depletion of coinage and commercial disturbance resulting therefrom, such as mark the history of the other countries of Europe, is simply due to the fact that her stock of metals was continually being replenished, and that she had no commerce to be disturbed. The gold and silver of America came to her in a steady stream and left her

for the Netherlands and elsewhere in a stream as steady; and so long as that flow was turned through her dominion, so long as the main sources of precious metal-mining were American, and the product a monopoly-possession of Spain, she stood above, and felt no immediate harm from, the bimetallic law which insatiably sucked away her wealth. Until the time came, therefore, when she lost her monopolist position in this matter the monetary history of Spain is free from those features of disturbance, commercial agitation, monetary conferences and edicts, which are common to the rest of Europe, and consist merely of a record of Mint ordinances regulating the fineness of her coins and slowly adjusting them to the general movements of the century. Only in the case of the first of these—the edict of Juan and Don Carlos, 1537, by which the standard of *coronas* and *escudos* was fixed at 22 quilates, "which is the standard of the greater escudos of France and Italy"—has the enactment any comparative or international bearing.

For sixty-one years after the settlement of 1497 there had been no alteration of the monetary system. In 1523 the Cortes of Valladolid had petitioned the King, Charles I., to lower the standard and content of the gold coin, "so that in weight and value they may pass equal with the *crowns of the sun* which are made in France, so that by these means they will no longer draw our gold from the kingdom." In its ignorance this Cortes also demanded that the silver monies should be reduced and issued on a relatively depreciated footing. It was a matter of thirteen years before Charles yielded and adopted the measure suggested, in the edict of 1537, already referred to, and it may be safely said that by the time of its adoption the need for the measure had passed away.

Any disturbance and loss of her stock of precious metals caused by the general movement which marks itself in European history about 1519-20, and which shows itself in Spain in the petition of the Cortes of 1523, was quickly redressed by the inrush of metals from America. Finding gold and silver come to her easily, Spain cared little how they went. After the edict of 1537 there is only one complaint of the export of coin recorded in the legislative enactments of the country, viz. in 1552, when it was decided to alter the alloy of the billon money in order to avoid its exportation, "as we are given to understand that its intrinsic value is greater in other countries than here."

*SPAIN: PASSIVE ATTITUDE*

The Mint edicts of Spain during the years 1500-1660 simply follow in the wake of the general movements of prices in Europe generally. The authorities were perfectly passive to the export of the precious metals, and no attempt was made to manipulate the ratio in such a way as to arrest the outflow. The conduct of Philip II., in 1566, in still further raising the denomination of the gold coins by one-seventh has the same passive aspect, although it has been attributed to a mere base desire on the part of Philip to fill his depleted treasury by a partial debasement. A comparison of the movements of metals and prices in France and Spain will show that the advance was only normal and general, and the further changes which were made in 1609 and 1612 have this same normal character, and call for no comment. At the points enumerated it is quite evident that Spain merely and mechanically followed the general trend

of the precious metals and prices through the century. There is no expression of aggrievement, either slight or acute, at the precious metals leaving her. While every other country was occupied seriously, sometimes desperately, with the question of how to guard their stocks of them, the eyes of the Spanish Government and the nation's mind were fixed only on conquest and imperial growth. The cost of her empire was such that at the accession of Philip III., 1598, the national debt was over a hundred million ducats, an absolutely unparalleled sum for the time. When, therefore, the Spanish Government began the enormous issues of base billon money which mark the reign of Philip IV., it is to be looked upon as a financial, or treasury, or budget expedient, and totally unconnected with any currency movement, pure and simple. These issues were so great that, in 1625, the premium on gold and silver, as compared with billon monies, was fixed at 10 per cent.; in 1636, at 25 and 28 per cent.; and, in September 1641, at 50 per cent. (See account of Spanish monies, Appendix III.)

Such base monies always tend to become the only *visible* currency of a land. But, save as thereby facilitating the denudation of Spain's store of precious metals, this matter of the depreciation of her billon money has practically little or no relation to the general movements of the two precious metals which we are investigating. It has more resemblance to an over-issued and depreciated paper currency.

Of that ebb and flow, that oscillation and instability in the metals, which make the study of the other currency histories of Europe during this period so instructive an object-lesson of the effect and influence of a bimetallic law and system, Spain

shows not a trace. She received the metals in a steady stream, and emitted them in a steady stream. They poured *through* her. Her function was that of distributor, and she performed it. When the time came that her monopoly of the metals ceased, her remedy against the ruin of a bimetallic law was removed, and she became as signal an instance of its malignant operation as any—France, England, or Germany. Until that time came she had her remedy against immediate ruin in her yearly argosy, with its blood- and toil-stained tribute.

## England.

To come to England.

*ENGLAND, 1500-1660*

The following tables give a succinct synopsis of the general course of her gold and silver coinage during this period:—

**TABLE OF ENGLISH SILVER COINS, 1500-1660.**

| Date. | Denomination. | Weight in Troy Grains. | Date. | Denomination. | Weig in Tro Grai |
|---|---|---|---|---|---|
| 1504 | Penny, | 12 | 1552 | Penny, | 8 |
| | Groat, | 48 | | Shilling, | 96 |
| | Shilling, | 144 | | | |
| | | | 1553 | Penny, | 8 |
| 1527 | Penny, | 10 1/2 | | Groat, | 32 |
| | Groat, | 42 1/2 | | Shilling, | 96 |

| | | | | | |
|---|---|---|---|---|---|
| 1543 | Penny, | 10 | 1560 | Penny, | 8 |
| | Groat, | 40 | | Groat, | 32 |
| | Shilling, | 120 | | | |
| | | | 1601 | Penny, | 7 3/ |
| 1549 | Shilling, | 80 | | Shilling, | 92 3 |

**TABLE OF THE ENGLISH GOLD COINS, 1500-1660.**

| Date. | | Denomination. | Weight in Troy Grains. | Fineness. | | Equivale |
|---|---|---|---|---|---|---|
| | | | | Carats. | Grains. | |
| Henry VII., | 1489 | Sovereign, | 240 | 23 | 3 1/2 | £1 0 |
| Henry VIII., | 1527 | Rose Nobel or Rial, | 120 | 23 | 3 1/2 | 0 11 |
| | | Sovereign, | 240 | 23 | 3 1/2 | 1 2 |
| | 1544 | Angel, | 80 | 22 | 0 | 0 8 |
| | | Crown, | 57 21/67 | 22 | 0 | 0 5 |
| | | Pound, | 200 | 22 | 0 | 1 0 |
| | 1545 | Crown, | 48 | 20 | 0 | 0 5 |
| | | Pound, | 192 | 20 | 0 | 1 0 |
| Edward VI., | 1549 | Pound, | 169 7/17 | 20 | 0 | 1 0 |
| | 1550 | Angel, | 80 | 23 | 3 1/2 | 0 8 |
| | | Sovereign, | 240 | 23 | 3 1/2 | 1 4 |
| | 1551 | Pound, | 178 8/11 | 22 | 0 | 1 0 |
| Mary, | 1553 | Angel, | 80 | 23 | 3 1/2 | 0 6 |

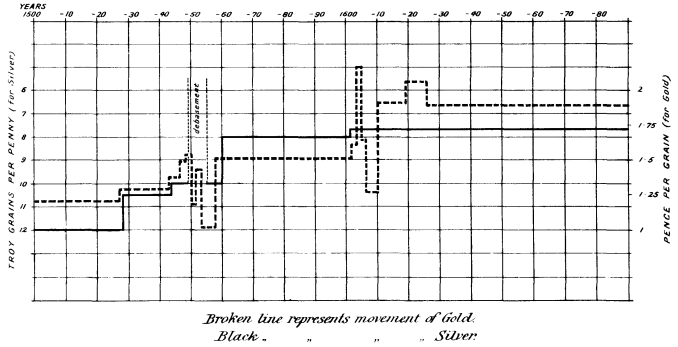
| | | | | | | |
|---|---|---|---|---|---|---|
| Elizabeth, | 1558 | Angel, | 80 | 23 | 3 1/2 | 0 10 |
| | | Sovereign, | 240 | 23 | 3 1/2 | 1 10 |
| | | Pound, | 174 8/11 | 22 | 0 | 1 0 |
| | 1601 | Angel, | 78 66/73 | 22 | 0 | 0 10 |
| | | Pound, | 171 61/67 | 22 | 0 | 1 0 |
| James I., | 1603 | Pound, | 171 61/67 | 22 | 0 | 1 10 |
| | 1604 | Unit and its fractions, the Double Cr., British Crown, and Thistle Crown, | 154 2/3 | 22 | 0 | 1 0 |
| | 1605 | Angel, | 71 1/9 | 23 | 3 1/2 | 0 10 |
| | 1610 | Angel, | 71 1/9 | 23 | 3 1/2 | 0 11 |
| Gold raised 10 p. ct. | | Unit, | 154 26/31 | 22 | 0 | 1 2 |
| | 1619 | Angel, | 64 11/15 | 23 | 3 1/2 | 0 11 |
| Charles I. | 1625 | Angel, | 64 11/15 | 23 | 3 1/2 | 0 10 |
| | | Unit, | 140 20/41 | 22 | 0 | 1 0 |

**TABLE OF THE VALUE IN PENCE OF THE GRAIN OF GOLD** (23 C. 3 1/2 GR. FINE) **IN THE VARIOUS GOLD COINAGES OF ENGLAND, 1500-1660.**

| | | | |
|---|---|---|---|
| | | | |

| Date. | Pence per Grain. | Date. | Pence per Grain. |
|---|---|---|---|
| 1527 | 1.125 | 1601 | 1.626 |
| 1544 (22 carats) | 1.281 | 1603 (22 carats) | 2.236 |
| 1545 (20 carats) | 1.470 | 1604 | 1.655 |
| 1549 (22 carats) | 1.518 | 1605 | 1.27 |
| 1550 | 1.2 | 1610 | 1.856 |
| 1551 (22 carats) | 1.425 | 1619 | 2.052 |
| 1553 | 1.0 | 1625 | 1.851 |
| 1558 | 1.5 | 1625 (22 carats) | 1.838 |
| 1558 (22 carats) | 1.425 | | |

**TABLE OF THE MOVEMENT OF GOLD & SILVER IN ENGLAND 1500-1680**




The testimony of these tables is perfectly general. They establish, roughly speaking, just such an advance of price as befell the whole of Europe. They

do not witness the oscillation in the coinage, and the commercial disaster due to the action of bimetallic law. For the evidence of this latter, however, there is ample store of material in the State papers of England throughout the period.

The moment prices began to rise on the Continent good English gold tended to disappear and flow away, being replaced by continental coins of lower contents (or higher denomination). The stress of this practical diminution of the currency was made all the greater by the simple fact that the increasing trade which accompanied such rise of prices demanded an expanding rather than a contracting currency.

*WOLSEY'S ADMINISTRATION OF THE MINT*

The very year, therefore, 1519, which marks the commencement of the rise for the Continent generally, marks the commencement also of agitation in England with regard to the supply of the precious metals. There is preserved among the State papers at the English Record Office a paper of advice from a German of the name of Herman King to Wolsey, dating in June 1519, "How to provide bullion from Germany for this realm with the greatest profit." He advises contracting for a fixed supply of metal at a certain price, which he puts down, and adds: "If Wolsey will appoint a person to receive the money, I will engage to deliver 2000 or 4000 marks weight yearly at this price, but it must be secretly, as, if the purveyor were discovered, he would be in great danger, and the (German) princes would not suffer

any silver to depart because of their own Mints."

Four years later the effects of the exchange had made themselves so felt that Henry was obliged to make a treaty with the Emperor, Charles V., "for the reformation of old and new money," 1523. An attempt was made to tie down the chief coins in exchange—the gold *real* of Flanders, the gold *carolus* and the *double carolus* of Spain—and it was further agreed (Article IV.) that no new money of Germany, Italy, Spain, France, or elsewhere, should be given in payment to English merchants, unless it had a fixed value in sterling money by consent of both princes.

In December of the following year Wolsey was meditating sending commissioners to the Low Countries to require that all monies valued too high should be reduced to their normal rate, but he was informed by Knight, resident at Mechlyn, that, "having spoken with several who hear daily the council's opinion, they think it is not likely to be done while the war continues, as the chief merchandise now is finances; and, besides, as their 'goldes' are highly esteemed in France, if they lower them they will all be carried thither."

Any such method of procedure as this of Wolsey's was bound to be futile, and Henry's Government fell back on the much wiser plan of altering the denomination of the coins. On the 24th July 1526, a commission was issued to Wolsey "for increasing the sterling value of the coinage to an equality with the rates of foreign currency." The reciting information contained in the commission itself is perfectly succinct and clear in its bearing—"one pound weight of angel gold (*i.e.* 23 carats 3 $^1/_2$ grs. fine) is worth, in current money, £27; by alloy of $^1/_{11}$ it is worth

£29, 6s., of which 11s. is allowed the Mint master for coining. In return he gives the merchants 108 crowns of the rose, at 5s., really worth but 4s. 10 $^{1}/_{2}$d., which makes £26, 6s. 8d. So that there is a clear gain of 48s. 4d."

The investigations of the commission were followed by a proclamation on the 22nd August 1526, fixing an altered tariff of exchange. *Crowns of the sun* were put at 4s. 6d., which only four years before had been at 4s. 4d., while the *ducat* was raised from 4s. 6d. to 4s. 8d.

Finding the enhancing of the gold and the export of specie still continue, an inquest was held, on the 30th October 1526, into the fineness and value of the coins. As a result of the verdict of the jury, a second proclamation was issued in the same year, dated November 5th, "to check the exportation of specie arising from the increased value of currency on the Continent." The sovereign was put at 22s. 6d. (having previously been rated at 20s. 6d.), and other gold coins in proportion. Silver coinage was to pass at previous rates, but a new issue was to be made, in which the ounce Troy was to be coined into 3s. 9d. Finally, foreign *ducats* were to be taken as bullion, no rate of exchange being even fixed.

At the same time Wolsey was attempting to negotiate for a supply of gold from Antwerp to replenish the currency. On this subject there exists a curious letter from his agent in Antwerp, dated 21st November 1526. "These two days," says Hacket, "I have been trying to agree with the principal merchants about the exchange, but none would make any bargain, as you (Wolsey) have limited me to 4s. 6d. for the *ducat*, and as a ducat of such gold as they would be

bound to pay would be worth 4s. 10d. in the Mint. They must receive either *ducats*, or a *crown of the sun* and a *groat*, for every ducat, or the same in *angellets*. The best thing would be for one or two of their factors to see you (Wolsey). The gold can be kept at home for 2 or 3 more per cent., for they would be glad to give that to take it out of the realm."

The new coinage of 1527 was in complete accordance with the proclamation of the preceding November. As far as the tariff or absolute exchange was concerned, it served to redress the balance, and thus to bring the English coin abreast of the continental. In the matter of the ratio, however, hardly any change was made. In the coins of the old standard (*i.e.* 23 carats 3 $^{1}/_{2}$ grs.) the ratio remained as before, 1:11 $^{151}/_{755}$; in those of the new standard (*i.e.* 22 carats) it was raised slightly (to 1:11 $^{59}/_{220}$). Neither in the appointment of the exchange, however, nor in the matter of the ratio, could the measure be more than temporarily successful under the conditions. The necessity remained as constantly as ever to watch the changing continental tariff, and to accommodate the English system to it. One State paper, dating apparently in 1529, thus pictures the situation at the time:—

"Disputes in London between English, Italian, Flemish, and Spanish merchants, as to the exchange, because of the last edict about gold. The writer knows of the importation of 100,000 *crowns* and £10,000 in gold, which will be exported again unless care is taken. In Flanders, directly after this proclamation, gold was publicly put at a higher price than before—a noble at 24 *groats*," and so on. The writer, therefore, recommends that the searchers at the various ports should be warned to attend to their

duty and see that no gold was carried away from the realm.

*ENGLAND AND THE NETHERLANDS IN 1537*

No recoinage, however, or change in the Mint rates, occurred for some years, and it must be taken as *primâ facie* evidence that the basis of 1527 continued for some years efficient, and witnessed a steady growth in the circulation, accompanying a steady expanse of trade and prices. In 1535, however, complaints were again heard of the conveyance of coins out of the realm, and on the 15th July a proclamation was issued against it. This movement is perfectly well authenticated. On the 10th of May 1537, Hutton, writing from Brussels to Thomas Cromwell, says: "*Gold* was formerly carried out of the realm [*i.e.* of England] for gain; now great sums are sent hither [*i.e.* to the Netherlands] in sterling groats [*i.e.* in silver]. This will both diminish the coin at home [*i.e.* in England] and injure the sale of cloth, for here are but three sorts of money current—*crowns of the sun*, sterling *groats*, and '*Riders Gelderus*' coined in Guelderland." On the 6th of August the same hand writes, again from Brussels: "Exchange is stopped, and much money like to be conveyed over [*i.e.* hither], though all coins should be called down here.... The act made for money will stop the [English] trade in kerseys, and great sums will be conveyed out of the realm [of England to the Netherlands]."

That the flow-out of gold in 1526 should change into a flow-out of silver in 1539 was simply due to the

alteration of the continental ratio. The relatively great depreciation of silver only begins in 1550. Up to that time the general trend of the two metals was on level lines, but with occasional traces or evidence of an appreciation of silver or relative depreciation of gold. At such a moment the lower-rated, *i.e.* cheaper, English silver inevitably tended to flow out in the very teeth of searchers and legislators. At almost the same time—and as showing at once how international this trade in money or "finances" was, and how confused, and conflicting the monetary system of Europe was, with a flow-out in one direction and a flow-in from another—the English merchants at their Calais Fair reported great gain of the precious metals. "We have very good sale of clothes," writes a merchant to the King on the 27th August 1538; "here is great plenty of money, which causes all wares to be dear. Your subjects will bring back above £3000 sterling in *angels* and *ducats*. We seek all the *angels* here and give a penny in the piece to have them to carry home, so that I trust there will be few left here in a short time."

### *THE CURRENCY MEASURES OF 1544*

The threatened rise of monetary denomination on the part of the Netherlands was accomplished by their ordinance of 15th April 1539, and almost immediately Henry found himself necessitated to change the basis of his currency from that established in 1527. In 1542 the silver penny was reduced from 10 $^1/_2$ to 10 grains, and shortly after 1544 the angel was advanced from 7s. 6d. to 8s. The proclamation which enforced the change is dated

16th May 1544. Gold was raised from 45s. to 48s. the oz., and silver from 3s. 9d. to 4s. In the purchase price of the two metals, therefore, there was no change in the ratio, but calculating on the basis of the issue price, *i.e.* the pieces issued from the Mint, the alteration of ratio was from 11 $^{59}/_{220}$ to 10 $^{10}/_{23}$. In the proclamation the change was attributed to "the enhancement of the prices of these metals beyond the sea, as well in Flanders as in France, which would have drawn all the coins out of the realm if a remedy had not been applied. And although the customers of the ports of the kingdom had been ordered to put in execution the statutes for the conservation of the coins, yet for the great gain they were still secretly carried abroad."

The coinage measures, therefore, of the year 1544, when justly considered, do not possess the aspect which has been generally attributed to them. It is incorrect to look upon them as the tentative beginning of that debasement of the coinage which disgraced the later years of the reign of Henry VIII. and the days of his son Edward VI. The measures of 1544 were simply acts of justifiable self-defence and currency safeguard. The real debasement began two years later, in 1545-46, when, by indenture, the silver coins (*testoons*) were reduced from 10 oz. to 4 oz. fine silver, the 2 oz. of alloy in the former case being increased to 8 oz. in the latter. In 1550 the content of fine silver in the testoon was further reduced to 3 oz.

The plan of this history makes it incumbent to treat questions of debasement as standing apart from the subject-matter of the book, which is restricted to the natural and normal ebb and flow of the precious metals, due to the action of bimetallic law. The

operation of debasing a coinage—of lowering it, that is, so far and so arbitrarily as to remove it at once from the action of natural law of prices ruling around—means an arrestation of natural economic processes and laws, and the events which follow thereupon stand apart from such laws and ought to be treated as so separate. In reality, debasements always favoured the action of this malignant bimetallic law, and the fact might possibly lead one to attribute to the normal action of a natural law what is in three-fourths of it due to arbitrary action of government.

It would be, therefore, unfair to treat of debasements in a history of bimetallism.

Given, however, the above standpoint, and mental reservation of deduction and innuendo, it is permissible to treat of this debasement as showing *how* or *in what way* a debasement *does actually* facilitate the malignant action of bimetallic law.[14] Further, the present instance of debasement is the only one on record in English currency history, and the testimonies regarding it are of extreme interest.

*THE TUDOR DEBASEMENT*

For the purpose of external or foreign trade, a debasement of currency is fatuous and pernicious. The coins are estimated at their content of pure metal, and the international exchange is so rated. The consequence is an apparent rise of foreign prices proportioned to the extent of the debasement. This at once unsettles internal or home trade prices, and they rise to the same level, but with such inequality

of motion as may happen to follow from friction, local ignorance, want of communication, or from the intricacies of trade. The inequality of exchange-coinage rates which results from this is the bullionist's or the financier's opportunity, and swiftly and invisibly the good species—or any, bad or good, upon which any differential profit can be had—disappear from circulation. The consequence is that the rising prices which instituted the process are no longer accompanied by an expanding or increasing volume of currency, but, on the contrary, with an enormous decrease in the total of acceptable or efficient currency. Hence come decay of trade, and ruin of town and country.

This is no paper, *a priori* argument. It is the patent unmistakable statement of history and fact.

The staple trade of England in the sixteenth and seventeenth centuries was woollen. Coventry was one of the considerable seats of the industry, and known as a flourishing and wealthy town. In the third year of Edward VI.—the time when this debasement of our coinage reached the lowest point—its trade was gone, and its population had sunk to 3000, "whereas within memory there had been 15,000."

In the extraordinary "*Dialogue concerning the common weal of this realm of England*," the scene of which was probably laid in this very decayed town of Coventry, the advance of prices, and the general tendency of the above argument, is more than amply borne out. "I have well experience thereof," says the "cappe" or hat manufacturer, "for I am fain to give my journeymen 2d. a day more than I was wont to do, and yet they say they cannot sufficiently live

thereon. The city which was heretofore well inhabited and wealthy (as ye know every one of you) is fallen for lack of occupiers to great desolation and poverty."

"So the most part of all the towns of England," quoth the merchant, "London excepted; and not only the good towns are decayed sore in their houses, streets, and other buildings, but also the country in their highways and bridges; for such poverty reigneth everywhere that few men have so much to spare as they may give anything to the reparation of such ways, bridges, and common easements. There is such a general dearth of all things as I never knew the like, not only of things growing within this realm, but also of all other merchandise that we bye beyond the seas, as silks, wines, oils, etc. I wot well all these do cost me more now by the third part well than they did but seven years ago."

"Such of us," says the knight, "as do abide in the country still can not with £200 a year keep that house that we might have done with 200 marks but sixteen years ago."

The course of the enhancement of foreign prices is thus argued between the merchant and the doctor.

*Merchant.*—"We that be merchants pay dearer for everything that cometh over the sea, even by the third part well. And because they of beyond the sea will not receive our money for their wares, as they were glad in past times to do, we are fain to buy English wares for them, and that doth cost us dearer by the third part, yea almost the one-half, dearer than they did before time, for we pay 8s. for a yard of cloth that within these ten years we might have bought for 4s. 8d. When we have thus dear bought

outlandish ware, then we have not so good vent of them again as we have had before time, by reason there be not so many buyers, for lack of power, though indeed in such things as we sell we consider the price we bought them at."

*Doctor.*—"I doubt not if any men have licked themselves whole [*i.e.* recovered the loss] you be the same, for what odds soever there happen to be in exchange of things, you that be merchants can espy it anon. *Ye lurched some of the coin as soon as ever ye perceived the price of that to be enhanced. Ye, by and by perceiving what was to be won thereon beyond the sea, raked all the old coin for the most part in this realm and found the means to have it carried over, so as little was left behind within this realm of such old coin [i.e., good undebased coin], at this day, which in my opinion is a great cause of this dearth that we have now of all things.*" "Thereby" he adds again, speaking of this "basing or rather corrupting of our coin and treasure, we have devised a way for the strangers, not only to buy our gold and silver for brass, and not only to exhaust this realm of treasure, but also to buy our chief commodities in manner for nothing. *It was thought it should have been a means not only to bring our treasure home, but to bring much of others, but the experience hath so plainly declared the contrary, so as it were a very dullards part to be in doubt thereof,...* Do you not see that our coin is discredited already among strangers, which evermore desired to serve us before all other nations at all our needs for the goodness of our coins; and now they let us have nothing from them, but only for our commodities, as wool, felt, tallow, butter, cheese, tin, and lead. And whereas before time they were wont to bring us for the same either good gold or silver, or else equally necessary commodities again, now they send us

other trifles as I spake of before, as glasses, gelly pots, tennis balls, papers, girdles, brooches, etc.... As I told you in your ear before, they send us brass for our treasure of gold and silver, and for our said commodities I warrant you you see neither gold nor silver brought over unto us as it was here before used, and no marvel. To what purpose should they bring silver or gold hither, where the same is not esteemed. Therefore I have heard say of a truth, and I believe it the rather to be true, because it is likely that since our coin hath been debased and altered, strangers have counterfeited our coin, and found the means to have great masses transported hither, and here uttered it as well for our gold and silver as for our chief commodity; which thing I report me to you what inconvenience it may bring the King's highness, and this realm, if it be suffered, and that in brief time.... And besides this, have you not made proclamations that our old coin specially of gold, that it should not be current here above such a price? Is not that the readiest way to drive away our gold from us, as everything will go where it is most esteemed? And therefore our treasure goeth over in ships.... I hear say that in France and Flanders, there goeth abroad such [brass and billon] coin at these days, but that doth not exile all other good coin, but they be current withal, and plenty thereof, howsoever they use it. *Therefore I think it wisdom we did learn of them how we might use the one and the other keeping either of them of like rate as they do so, that they should never desire any of our coin for any greater value than they be esteemed at with them nor we theirs for any greater estimate with us than with them, and then we should be sure to keep our treasure at a stay.* And as for recovering of old treasure that is already gone, there might be order that some

commodity of ours were so restrained from them that it should not be sold but for silver or gold, or for the third-part or half in such coins as is universally current, and thus chiefly our treasure might be recovered by the use of means."

When pressed by the knight to show how this merchandise in coins was actually initiated and worked the doctor thus replies: "Well, then, when goldsmiths, merchants, and other skilled persons in metal, perceived that the one groat is better than the other, and yet that he shall have as much for the worse groat as for the better, will not he lap up the better groat always and turn it to some other use, and put forth the worse, being like current abroad? *Yea, no doubt, even as they have done of late with the new gold. For they apperceiving the new coin of gold to be better than the new coin of silver that was made to counter value it, picked out all the gold as fast as it came forth of the Mint and laid that aside for other uses, so that now ye have but a little more than the old current, and so both the King's highness is deceived of his treasures, and the thing intended never the more brought to pass, and all is because there is no due proportion kept between the coins, while the one is better than the other in his degree.*"

"But how," asks the knight, "do they do in France and Flanders, where they have both brass coin, mixed coin, pure silver, and pure gold current together?" "I warrant you," is the doctor's reply, 'by keeping of due proportion every metal towards other, as of brass towards silver 100 to 1, of silver towards gold 12 to 1. For the proportion of silver towards gold, I think, cannot be altered by the authority of any prince, for if it might have been, it should have been ere this, by some one needy prince or other within 2000 years."

So much in brief for this depreciation of Henry VIII., and for this extraordinary dialogue. The doctor's remedy was a recoinage, such as was later effected. The extent of the knowledge of economic laws displayed by this figure throughout the dialogue is astonishing. The divine was the better merchant, and if he had lived—for Miss Lamond's masterly identification of this character with Latimer hardly admits of question—and ruled in later counsels, he might have shown himself the better legislator.

### *ELIZABETH'S RECOINAGE*

The recoinage which he advocated was not effectually completed till the second year of Elizabeth's reign, 1559. The basis on which it was then accomplished was that of a ratio of 11.79, as nearly as possible that adopted in the same or the following year, 1560, by France, and slightly higher than that which was established in Germany by the imperial edict of 1559. The coincidence in these rates is remarkable, and it is quite apparent that the action of Elizabeth dictated that of France, as also that this her action secured for England a steady supply of the precious metals during a period in which France was violently agitated by currency crises.

In the first year of her reign, 1st May, Elizabeth issued a proclamation against the export of bullion. This was followed by one in the second year, 27th September, against the melting of monies, and by two others, of the 4th October and 23rd December of the same year, "for the valuation of certain base monies called *testoons* ... finding that the ancient good gold and silver is daily transported," etc.

Finally, on the 15th November (3 Eliz.), a proclamation was issued forbidding the circulation of French *crowns* and Flemish or Burgundian *crowns*. This series of proclamations is to be regarded as one measure with, and as fortifying, the recoinage and the new ratio established. And the efficiency of the system thus instituted is to be judged by the fact that, with the exception of two unimportant proclamations of 16th October (7 Eliz.), and 1st December (8 Eliz.), no further legislation or Privy Council proclamation was needed for a matter of fifteen years.

*ELIZABETH'S FINAL REVISION*

From 1572-76, however, as has been seen already, the Netherlands issued a closely consecutive series of plakkaats which altered the situation for the whole of Europe, and England, equally with the rest, felt the drain. Contemporary evidence as to this fact has been already quoted (p. 73). Accordingly, on the 20th September (18 Eliz.), Elizabeth issued a proclamation "for the ordering the exchange of monies by enactment, according to laws of the realm, ... because of disorders, ... decay of merchandise, ... and value of monies." Again, in 1582, inquiries were made respecting the export of gold, and one of the London aldermen wrote to Secretary Walsingham, advising the appointment of four skilful merchants as an advisory body. Finding the drain continue, on the 12th October (29 Eliz.) the Queen issued a proclamation "for reforming of the deceits in diminishing the value of coins of gold current in our dominion, and for remedying the losses which might grow by receiving thereof being diminished."

According to the express testimony of this proclamation the gold coins were *exported*, *diminished*, and *returned*, and it accordingly enacted that no coins should be taken as current when beneath such and such a weight, or lacking such and such a remedy.

For a dozen years or so after this no further complaints of a gold drainage are heard, but in 1597 they recommence. "If good provision be not foreseen the coins of gold and silver of England will flow over to the Low Countries as fast as they can be coined," is the testimony of a document of April in that year, "for the *angel* and *sovereign* of England are current in Holland and Zealand at 18s. the piece of Flemish money, and our silver much after the same rate." And the writer adds: "I see no harm to this realm, if the French gold coin was permitted to be current for 6s. 2d., the Spanish gold *pistole* for 6s., and the silver *real of eight* for 4s."

It was under the influence of this movement, of which more complaints exist among the Domestic State Papers, that the final Elizabethan revision of the Mint prices of the metals took place. On the 18th March 1600 she issued a proclamation "concerning coin, plate, and bullion of gold and silver," reciting that "bullion of gold and silver, etc., for these later years, have been much more abundantly transported and conveyed away than in any former times," and commanding the observance of the statutes against such transport.

Finding her proclamation mere waste paper, Elizabeth resorted to the only safe and possible expedient, a change in the issue rate of the coinage. But for once her instinct, or the wisdom of her

councillors, failed her. Instead of raising the ratio of gold to silver, she lowered it from 1:11 $^{1}/_{10}$ to 1:10 $^{5614}/_{5921}$.

It is inconceivable that such a blunder should have been committed at a time when the production of silver had advanced and was advancing by leaps and bounds beyond that of gold, and when the currency of every European country of commercial note was being accommodated to the depreciation of silver with unerring instinct. But so it was, and the blunder only served to accelerate and intensify the catastrophe under James I.

*ECONOMICS OF THE PURITAN REVOLUTION*

In matters of currency history it is impossible to separate the Tudor from the Stuart period, and this last and sole blunder of Elizabeth's administration only serves to show the continuity of principle or event, and how little of moral censure attaches in this matter to abused James any more than to lauded Elizabeth. But it is instructive and curious to note that the currency history of England during all the reign of Elizabeth shows such remarkable quiescence. From 1558 to the fatal blunder of 1601 there was no change in her Mint rates. The complaints of exports of coins, and the evidence of the action of bimetallic law, appears only at three isolated and widely separated periods. The inference can only be—and it is more than an inference—that her reign, besides being a period of currency expansion, was one in which the ratio existing in England facilitated the flow of metals from the

Continent, and secured the permanence of that currency expansion. On this increased basis of currency was built that commercial and national, yea even literary, growth and expansion, which have made the Elizabethan age the glory of our history. Similarly, the unrest and commercial credit crises under James I. and Charles I., which resulted from the same wide causes and principles, underlay and played a vitally determining part in the agitation and revolution-sowing of their reigns, and that, too, in a manner which has never yet been appreciated. The uprisal of England, which resulted in the first dethronement of the Stuarts, was as widely and vitally based upon economic causes as upon legal or religious,—possibly, indeed, much more so, if we only knew it.

At first James was determined to proceed with the monies which were being wrought by Elizabeth's warrant. But on the 11th November, in the first year of his reign, a new indenture was made for the coining of a new piece called the Unite, to commemorate the union of the two crowns of England and Scotland. While preserving the same value as the pound sovereign of Elizabeth's issue of 1601 (viz. 20s.), its weight was only 154 $^{26}/_{31}$ grains, while that of Elizabeth's was 171 $^{61}/_{67}$. In the following year the angel was reduced from 78 $^{66}/_{73}$ grains to 71 $^{1}/_{9}$. The combined effect was to raise the ratio from 10.90 (as in 1601) to 12.15. Elizabeth's blunder was thereby effectually remedied, but it was not before an outcry had been made about the decay in shipping, and in the export of English cloth.

Even this higher ratio did not remain permanently, or for long, effective. In 1607 the transportation of specie rose to such a height that a proclamation had

to be issued against it, 9th July, and there was again talk of establishing "a true and perfect way to keep the money within the kingdom by instituting a register for all payments made by way of exchange." Again, two years later (10th August 1609 and 18th May 1611), the proclamation had to be twice renewed; no less a person than Sir Francis Bacon drafting the clause in the first case. The anxiety which the subject caused to the Privy Council is quite apparent in the State papers, and much division of opinion prevailed before the only possible remedy—a raising of the denomination of the coinage—was adopted. Salisbury was at first adverse to the measure, but set himself carefully to study the question. The slow working of his mind is still traceable in the paper of notes he drew up for his own guidance. "All the proportions of bullion ought to be xij for one between the gold and silver unmixed. Our sterling standard is wrought with a mixture of 18 dwt. in every lb. weight, which is 12 oz.; so as every 18 dwt. is 4s. 6d., and therefore that is wanting.

*SALISBURY ON CURRENCY*

"Now, two things are in question, one the inconvenience of general transportation, the other of the particular, viz. Scotland. In the general this is the mischief, that our gold is not so much alloyed as our silver, and therefore being more worth than silver is bought and carried away. The particular, of Scotland, is more notorious, because it is not forbidden....

"The gold ought to be 24 caretts.

"Now oure angell is not so much but neare it, about 23 caretts 3 grains and $^1/_2$.

"4 grains makes a caret. 24 caretts an oz.

"In silver every pound lacks 4s. 6d.

"A pound is $3^{li}$ in tale.

"In 6 angells wch is in tale $3^{li}$, and in weight one ounce, there is not such an alloy, for in silver we want 4s. 6d., and in gold but—"

The notes end thus imperfectly, but what Salisbury was toilfully figuring for himself lay ready to his hand in the opinions of experts and of the officials of the Mint. Immediately succeeding these broken notes of his in the State Papers, there exists a series of documents which he doubtless had under his eye, and which exposed the situation with a clearness that was more than convincing. "Statement of the Loss sustained by England in the Exchange of Coin." ... "Statement by the Officers of the Mint that the Raising the Value of the English Silver Coins by making a Pound Troy of Silver worth £3, 11s. 6d. only equalises the Value of English Money with those of Foreign Countries, and that to prevent the Export of Gold its Price must be raised in Proportion." And so on.

As the result of such representations, and after ten months of wavering Salisbury gave way, and on the 22nd November 1611 he consented to the issuing of a proclamation raising the denominational value of all gold coins 10 per cent. This proclamation was issued on the following day, and the ratio was thereby at a blow raised from 12.15 to 13.32.

Among the many alternative schemes proposed

before the adoption of this measure, had been one for "raising £500,000 on loan to the King, by coining brass money to that amount, and compelling their acceptance in certain proportions by the people, on promise to repay within seven years in full value silver." It was fondly asserted that this would be a "means of preventing the export of coin and bullion, caused by the rise and value of foreign coin."

Another project brought forward was "for meeting the increase of value laid upon the coins of the Low Countries by issuing a copper coinage, corresponding thereto, and by raising the value of English silver and gold coins in order to prevent losses of merchants in foreign trade, etc."

*ENGLAND: THE AGITATION OF 1611*

A year later a third scheme was proposed to remedy the under-valuation of English monies, "by the coinage of small silver monies of coarser silver, so as to raise the value of the larger money in proportion; the old standard to be observed in payments of rents, the new in ordinary bargains."

The step actually and finally adopted, however, by the proclamation of 1611, did not equalise the exchange for more than a twelvemonth. The rise on the Continent continued, and the outflow recommenced. In 1612 the Council took note of the persons concerned in this trade of transporting, with a view to proceeding against them, while on their side the general commercial public, or such of them as did not share the secret and the gain of bullion-

broking, demanded that the under-valuation of English monies should be redeemed by further raising the value of the coins one penny in the shilling. On the 14th May 1612 a proclamation was issued forbidding merchants to exceed Mint prices in buying bullion. A year later (4th July 1613) we are told that the Privy Council had sat twelve or thirteen hours on the Sunday, and "have been forced to dismiss the gold and silver business, and also that of the fishing, as involving many points in the treaties with Burgundy and Holland."

The State papers of this year contain quite numerous references to the subject: "Statement of the Undervalue set upon English Money in Foreign Countries, as proved by the last Placard of the Low Countries"; "Notes of the Advantage arising to the Crown of England from raising the Shilling to 13 $^1/_2$ Pence, and the Proportion of Gold from 12 $^1/_2$ to 13"; "Suggestions as to the Means of Preventing Foreign Nations from taking Advantage of the English in the Exchange of Monies, viz., raising English Coins in Nominal Value," etc.

On the 23rd March 1615 a further proclamation was issued against the export of gold and silver coin, and in the following year the exports of the East India Company were limited to £6000 in bullion or specie. The Mint officials proposed a raising of the denomination, and again the matter was hotly debated in and out of the Council. But a different race of men from Raleigh had succeeded, and, on the 31st December 1618, the Privy Council determined that "silver shall not be raised in value at present, and uniformity in the weight of the coin is to be observed; the melting of gold for braid or plate forbidden, but further regulations postponed till the

committee for exchanges bring their report."

*ENGLAND: THE MEASURES OF 1619*

As it happened, owing to the necessity of replenishing the King's finances, the question had become complicated, and some of the measures proposed for staying the coin had a more sinister bearing, as is apparent in one of the schemes referred to (*supra*, p. 136), being, in short, cloaked proposals of debasement. In setting its face against such proposals of debasement the Council was right, but such proposals had relation only to the King's finances, and not to the currency crux, and in delaying the proper tariffing of the English against the continental coins the Council did wrong. By 1619 the evil had risen to so great a height that the Council determined to act upon its own proclamations. Eighteen merchants were sentenced in the Star Chamber for exporting gold (8th December 1619), five being acquitted. The total of the fines imposed on the sentenced men reached £140,000, and it was stated that since the beginning of the reign a matter of £7,000,000 of gold had been surreptitiously exported. On the 31st July 1619 proclamation was issued for a new coinage. The gold *angel* was reduced in weight from 71 $^{1}/_{9}$ grs. to 64 $^{11}/_{15}$, being equivalent to an increase of an eleventh in its denominational value: and in January 1620, following the convictions of the merchants referred to, the Council busily debated "the erecting an exchange for monies, to prevent the export of silver by the goldsmiths who have been the offenders."

All these steps were taken too late, and the currency crisis which shook Germany ran its full course, too, in England.

In 1620 there was a great scarcity of silver in the country, and the trade of the Eastland merchant was gone—a scarcity and decay which they attributed "to the rise of foreign coin, especially that of Poland and Holland, during the last four years in which the Hollanders have farmed the King of Poland's Mint." The export of cloth had sunk to one-third the output of the previous year. By May 1621 the situation had become pressing. The secret export of money still continued, and it was again proposed to register bills of exchange, and also to make Spanish and French coins current in the country. In June the Privy Council issued circulars to the East India, Turkey, French, Eastland, and Spanish companies, and the Company of Merchant-Adventurers—practically the whole mercantile corporation of London—desiring them to choose experienced persons from each of these companies, to consult upon the best means of managing the exchange of monies, so as to encourage the import of silver, and prevent its export. Their statement on the 17th June was simply that the export was due to the under-valuation of the English monies. The Council considered their report on the following day, and ordered it to be further considered, "but the Lords think it best for some agreement to be made with neighbouring states for a due correspondence in the value of the coins now used."

*ENGLAND: THE CRISIS OF 1622*

But while the Lords of the Council talked of treaties the crisis came. By the end of the year there was no money in the country, and trade was at a standstill. In February 1622, Locke informs Carleton "money is very scarce. In the clothing counties the poor have assembled in troops of forty or fifty, and gone to houses of the rich and demanded meat and money, which has been given through fear. The Lords ordered the clothiers to keep their people at work, but as they complained that they cannot sell their cloth, usurers and monied men though not in the trade are ordered to buy it." In March the Justices write from Gloucestershire: "The people begin to steal, and many are starving; all trades are decayed; money very scarce." Stocks of cloth accumulated in the London "halls" or warehouses of the various districts, and notes of them were submitted to the Privy Council.

| | Pieces unsold. |
|---|---|
| Gloucester, Worcester, Reading, Somerset, and Suffolk Hall, and Blackwell Hall, | 433 |
| Manchester Hall<br>("Besides many in the country which are not sent off for want of a market.") | 853 |
| Storehouse for Gloucester, Worcester, Kent, Somerset<br>(Mostly belonging to Kent.) | 1163 |
| Wiltshire Hall | 560 |
| Northern Hall | 5159 |
| Leadenhall<br>(Cloths from Suffolk and Essex.) | 3057 |
| Devonshire Kerseys | 423 |

The merchant-adventurers were appealed to, to buy up these stocks, but they were unable. The ordinary taxes of the country could not be levied, or, when levied, proved only a fraction of the estimated amount, and invariably the commissioner attributed the deficiency to the want of money and the general decay of trade. "Wools and cloth are grown almost valueless," write the justices of Somerset, on the 15th of May 1622, "and the people desperate for want of work."

The expectations of outbreaks were great, and in Nottingham musters were held, and the trained bands ordered to be ready for instant service, to suppress riots, if any occurred (July 1622).

Meanwhile the Council was busy conferring with merchant delegates from every part of the country. A new proclamation against exporting coin was talked of (15th June 1622), and a declaration issued (same day), that the King purposed to establish a Royal Exchange, to regulate all exchanges.

"Treatises on Exchanges," "Statements of the Disadvantages of a Low Exchange," and similar documents crowd the State papers; and on the 28th July a proclamation was issued ordering nothing to be worn at funerals but English-made cloth, forbidding the export of raw wool or yarn, and declaring the establishing of a Standing Commission on matters of trade. On the 30th of August the Goldsmiths' Company returned their answers to the Council's queries with regard to the comparative weight and value of Spanish *reals* and English shillings, and suggested that the pound of silver should be cut into 65s. instead of 62s. The officers of the Mint followed up this advice by confirmatory

testimony. "The business is weighty," wrote Sir Robert Heath to Secretary Calvert, in enclosing him the above reports. "For we are drawn dry. Coin must be brought in from elsewhere [*i.e.* abroad], which can only be by assurance of gain to the merchants in equalling our coin to that of other States." As a corollary it was proposed on the following day, August 31, to encourage the bringing in of money by making the Spanish *real* pass current at 4s. 8d., its true value in English coin. "The merchants will bring them in at this profit, though they can gain more for them in Holland, and they press for an immediate reply, as the Spanish fleet is coming in, and the money will be brought hither if the merchant can make a reasonable profit."

In September the clothworkers and dyers of London complained in a petition of their want of employment, and that many thousands of them were in the greatest distress. So great was the want in the country districts that a proclamation was issued ordering all persons of quality in London and Westminster to go to the country, and reside on their estates, for the relief of the poor in the dearth. In January 1623 fears of disturbance in Essex were rife, "because of poor clothworkers, the masters being unable to employ the men, and many who were thought the wealthiest were likely to become bankrupt." On the 7th of February the officers of the Mint reported to the Council that they found the value of the Spanish *real of eight* to be equal to 4s. 6 $^1/_2$d., as compared with the new shilling coin; and on the 4th of March following a proclamation was issued to make these Spanish *reals* current at 4s. 6d., "in hopes of bringing some of that coin to the Mint."

From this time onwards no further references, save

one laconic remark in May 1623, "the poor do not complain much," occur in the State papers to this, one of the acutest currency crises in our history; and we are left to follow the process of recovery and the dumb, inarticulate agony of the widespread ruin in sympathy and imagination merely. The details here given are taken entirely from the State papers, stolid and ungarnished, but the tale they tell is momentous and dire in its importance.

When consulted by the Privy Council, the various committees and delegates of the merchants attributed the crisis to the deceits practised in the manufacture of cloth, to the embargo on its sale, and other such causes, as well as to the scarcity of money, and the loss in exchange. The first suggestion is hardly worth a moment's consideration. Every testimony points to the fact that the crisis was as purely a monetary or currency crisis, as later crises have been distinguishedly credit crises. Between 1613 and 1621 hardly any silver monies were coined in the English Mint; for example, between 1617 and 1620 the total silver coinage was only £1070, whereas in the four succeeding years the silver coinage at the Tower Mint amounted to £205,500.

*ENGLAND: JAMES I.*

"From the year 1621," says one of the informers of 1638, to whose petition reference will be shortly made, "many goldsmiths and cashiers of London culled the weighty shillings and sixpences to make into plate, silver wire, and to other manufactures; for most of that time, we having wars with Spain, little or no silver came from thence; so likewise hath little or no silver from France in that time, and no silver

could be brought out of Holland by reason it went so high by the placard. For sterling silver passed in Holland for 4d. per ounce higher than it was made in our Mint, sterling being in Holland at 5s. 4d. per ounce, so that no silver could be imported from Holland to supply our Mint, which the goldsmiths and others perceiving presently fell a-culling the silver monies current, and the money being coined in the Mint at 5s. 2d., the goldsmiths, finers, and wire-drawers did raise it up to 5s. 3d. per ounce, and melted down into the weight of shillings and sixpences, and left none to pass betwixt man and man but light monies and clipped, and did exceed the rate of the Mint by giving for sterling 5s. 3d. per ounce, and 5s. 3 $^{1}/_{2}$d., and sometimes more; by which means there was no silver brought into the Mint for ten years to speak of but the silver which came from Wales. This will appear by the Mint books."

The testimony only confirms the previous inference. The whole reign of James I. was a period of inefficient attempts to rate the English coinage to the incessant rise in the continental coinages, of consequent drain of specie to the Netherlands, and of practical closing of the Mints at home. The cause, opportunity, channel, or machinery of the drain was the incessantly shifting, badly tariffed, imperfectly understood bimetallic system of the times; and the crisis of 1622 was only the most patent expression of its malignant action. It is doubtful whether the political effect of that crisis has been properly estimated by the constitutional student of the popular revolution under the Stuarts. Its commercial, currency, and economic and theoretic influence has certainly, and much more, been hitherto overlooked.



*ENGLAND: CHARLES I.*

The reign of Charles I., and the period of the Commonwealth, display similar characteristics to that of James I., but in a more modified and less malignant measure. Putting aside, after one nearly fatal slip in August 1626, the various propositions for a debasement which were made early in his reign, Charles made, throughout, no change in the denomination or value of his coins, and no change in the ratio. In 1627 the export of coinage became again perceptible, and a warrant was issued for erecting a Royal Exchange between England and Scotland, September 28, and for a proclamation forbidding all indirect practices of merchants, and underhand buying of uncurrent coin and foreign bullion.

In the following March, 1628, a committee was appointed to advise his Majesty concerning the coins, and to observe from time to time all accidents at home and abroad touching coins. Numerous schemes were proposed for the arresting of the process of export. They bear generally two characters—(1) as proposing a change of the ratio; (2) as proposing a differential issue of the silver issue coinage, *i.e.* coining 4d., 3d., and 2d. silver pieces at a different and higher rate than the larger silver pieces. Such schemes have no importance at the present day, save as foreshadowing the mechanism by which England finally evolved a monometallic system which permitted of the fullest retention of silver. The flow of coinage which these proposals were intended to meet was not now to the Netherlands but to France, and it must be attributed to the course of the French currency already indicated. In 1630 the names of

certain merchants engaged in the transport of gold and silver were reported to the Council, together with the names of the French merchants who received the same in France. In June 1635 certain of these were arrested, and in 1638 not less than thirty-seven of them were prosecuted in the Star Chamber for this unlawful transportation. The drain went steadily on during the whole of the decade. On January 18, 1635-6, a proclamation was issued for restraint of the consumption of coin and bullion. In the following March an order of the King in Council was issued against the exportation of English and Scotch coin, and by gentlemen crossing the sea, and forbidding the wearing of jewels, etc., "because of the great quantity of money exported." Any such enactments were doomed to be futile. The true remedy, or rather the keynote of the situation, was contained in a proposition submitted to the Privy Council for the making current of certain foreign coins. "The forbidding of Spanish money in England," says the author Barrett, "was to enrich the Mint, which brought forth contrary effects, for the French, Dutch, and other nations, by advancing Spanish coins, received the greatest profit." He accordingly proposed that the King should raise the Spanish money to be current in England by proclamation. The double *pistolets* weighing 16s. to be raised to 15s.; the *piece of eight* weighing 5s. to be raised to 4s. 6d., "and when there is store brought into the kingdom, then have a new proclamation to call in these coins to be stamped with a mark and apprised to the intrinsic value." The step was not adopted, and by his Majesty's declaration of 1639 in the Star Chamber, gold and silver were to be considered commodities of merchandise. "By 1640 there was not in the kingdom a million of silver," says Sir Ralph

Maddison in a memorial. "Gold and silver," said Sir Thomas Roe in his speech on trade in the Commons, "are very scarce, and the kingdom is impoverished. Money has been drawn away into other kingdoms, especially into France and Holland, where it is worth more." One of the informants, who had been employed by the Government in the prosecutions of 1638, thus gave his testimony in a petition which he subsequently drew up: "Divers goldsmiths of London are become exchangers of bullion of gold and silver, and buy it of merchants and others, pretending to carry it to the Mint. But indeed they are the greatest instruments for transporting that are, and in a manner they are only those who furnish transporters with English and foreign gold, Spanish money, *rixdollars*, *pistolets*, *cardacues*, etc. Some of the goldsmiths make it their use and practice to buy light English gold of shopkeepers and others, which, by the laws of this kingdom, wanting beyond remedy, ought to be bought as bullion, and upon the sale ought to be defaced and new-coined in the Mint. But they take another way, for they sell all this gold to transport, though it want four, five, or six grains above the allowance, and that a 20s.-piece will not make 19s. to be coined in the Mint. Yet the goldsmiths will not abate above 2d. or 3d., and sometimes but 1d. in the piece, let the gold want what it will, by which means they outgive the Mint, and the gold which the goldsmiths buy of the subjects, thinking it is to carry to the Mint to be new-coined, to pass in current payment, they put it into a dead sea, never to be made coin of in our commonwealth. For, weekly, French and English have bought up this gold, let it be as light as it will, at 19s. 9d., 19s. 10d., 19s. 11d., and so after that rate for all other gold, to the value of many hundred

thousand pounds. Many thousands of *dollars* and Spanish money they furnish yearly to merchants that trade for Norway and Denmark, to transport silver for those parts."

*ENGLAND: THE SITUATION IN 1638*

The drain of coinage to France he distinctly attributes to the raising of the French coins. "At this present in France the native merchants there match us with such a point of policy that it would be hard for our merchants to be master of.... Since the raising of our 20s.-piece to 26s. there ... they have advanced the price of their commodities according to their advanced monies, to the full sum of 6s. in the pound more than they were before."

*ENGLAND: SIR ROBERT STONE ON THE MINT*

During the Civil Wars there is a remarkable paucity of reference to the subject, doubtless owing to the supreme importance of the war itself. On the 26th August 1643, and on the 24th February 1643-4, the Long Parliament issued orders, on the petition of merchant strangers who were prevented from importing bullion by the rigours of the search of their vessels, for their due encouragement. The petitions would argue a tendency towards an importation of specie, but in 1649 this was again changed, and a heavy export became perceptible.

There can be little doubt that the initial impulse came from the new coinage which was instituted by the Act of 17th July 1649, and by the table of weights for the Commonwealth coins which that Act adopted. For two years and more both Council and Parliament were exercised in mind with regard to this export of specie and the consequent decay of trade, and draft Acts to prevent the export, as well as many other propositions, were had under long consideration. No measures were adopted, and an Amsterdam correspondent of Sir Robert Stone, in May 1652, thus gave his opinion of the wisdom of the Mint officials and the Government in this process of drift: "Experience has taught me that when the State does not keep extraordinary watch, and the laws are not put into execution against culling and sorting out the heaviest coins to be transported, and the light and clipped left behind, it is a great debasing of the current value of coin. All your silver money (*i.e.* in England) is thus abused by goldsmiths and others. And when the State does not employ such as can discover those offenders, but puts persons into the Mint who have had no experience, great damage must follow. For there are bankers and exchangers in Holland who know the ignorance of all your present Mint men that have any place of trust, and laugh at them. They say when the Mint in the Tower flourished, old Andrew Palmer, Mr. Rogers, and one Cojan were there, who were all subtle Mint men, and held correspondence here (*i.e.* in Amsterdam), and knew what to do to advance the Mint, and would always find a way to bring grist to the mill. But now your Mint comes to be neglected and money adulterated. Many of our bankers here have a great trade with your goldsmiths and merchants in London for English gold and heavy

English silver. Your Mint will never go until this be discovered, for these men are the sluices that drain all your money. I believe there is at this day forty times more gold and silver in the Low Countries than in England. About twelve years since the French were forced to call in all their money, it being so clipped that their commerce ran into confusion, and you have almost brought yourself to the same point, the coin in Ireland being 20 per cent. less value since the war. In England almost all your gold is transported, and the little that is left is in hucksters' hands, that go to an exchange in Lombard Street, and you must pay from £6 to £10, and sometimes more, to have £100 in gold for silver. For who will take gold to the Tower to be coined, and lose 2s. in 20s. of what they can make by transporting it? We have more English gold in Amsterdam than you have (in England), all sent within those twenty years, and great quantities of English silver have weekly come over in pinks and Dutch men-of-war for years, to the value of many hundred thousands of pounds, in return for coin. I wondered at first how the merchants transported all the weighty and culled English money into Holland, until one of the bankers told me. I would have you inquire it and prevent it, for it is a most pernicious thing. It is the goldsmiths, especially those in Lombard Street, which are the greatest merchants, and London cashiers, and who will receive any man's money for nothing, and pay it for them the same or next day, and meantime keep people in their upper rooms to cull and weigh all they receive, and melt down the weighty, and transport it to foreign parts, sometimes without melting, and keep banks for all the principal coin in Christendom in their shops."

The succeeding years of the Commonwealth saw

little change in the situation. In 1659 and 1660 the Council was still anxiously debating the question of the transport of bullion and coin. But this chain of phenomena refers to the third period in this history, and are to be treated of in that connection.

*CLOSE OF THE SECOND PERIOD: RÉSUMÉ*

In broadest and hastiest résumé, and this by way of justification of the length to which this chapter has been drawn out, the influence of American gold and silver makes itself perceptible in 1520. For forty years a level and equal advance in each of the precious metals and in prices records itself, then the relative and absolute production of silver increases enormously over that of gold, and the ratio is disturbed. The inequality of the rate at which this change of ratio spreads to successive countries, and is adopted in their various Mint regulations, is the bullionist's or exchanger's opportunity, and the disastrous effect of their activity results in the crisis of 1570 in France, and 1622 in England and Germany. Properly speaking there has been no subsequent crisis in European history fitly comparable with the latter of these. If at all, there is only one comparison possible, and that is the currency situation in which the monetary world is at this moment, or which has come upon it since 1850 —a period of bullion inflation in which silver has, finally as yet, outweighed gold, to the violent disturbance of the ratio. But, as will be seen, the other conditions of the comparison are not reducible to, or expressible in, similar terms, and so far the

legitimate deduction fails. None the less, the currency history of Europe during the sixteenth and seventeenth centuries has a vital didactic importance.

## FOOTNOTES:

[9] The only accounts accessible are in Cabrera (see Philippson's "Estimate of the Revenues of Spain," in his *Henrich IV. and Philipp III.*, vol. ii. p. 44), and relate only to the years 1599-1610. The amounts given are not the total yield of the American mines, which is out of the question, but the amount of metal brought yearly to Spain by the Silver Fleet. The amounts (without distinction of the metals) were as follow:—

| | |
|---|---|
| 1599 | 8,000,000 Ducats. |
| 1600 | 9,926,192 Ducats. |
| 1600 | 10,000,000 Ducats. |
| 1601 | 1,000,000 Ducats. |
| 1602 | 10,000,000 Ducats. |
| 1603 | 7,000,000 Ducats. |
| 1604 | 14,500,000 Ducats. |
| 1606 | 9,000,000 Ducats. |
| 1606 | 4,500,000 Ducats. |
| 1607 | 12,200,000 Pesos. |
| 1608 | 9,000,000 Ducats. |
| 1609 | 10,600,000 Ducats. |
| 1610 | 10,000,000 Ducats. |

[10] For further details of the troubles of 1632-36, see Vicomte D'Avenel, *Histoire de la propriété, etc.*, i. 120, 121.

[11] Such is the statement of the proclamation itself. The difference between the ratios as

there proclaimed and the ratios given in the table, pp. 40 and 69, is presumably due to the calculation being made on the mark of pure metal. For the character of these figures of ratios see the Preface.

[12] See Hirsch, i. 318.

[13] "The second (cause for the decay of the trade of Spain) is the residence of many Genoa merchants amongst them, who are found in good numbers to abide in every good city, especially on the sea coasts, whose skill and acuteness in trade far surpassing the native Spaniards and Portuguese, and who, by means of their wealth and continual practice of exchanges, are found to devour that bread which the inhabitants might otherwise be sufficiently fed with; and by reason that the King of Spain is ever engaged to their commonwealth for great and vast sums at interest, he is their debtor, not only for their moneys, but also for their favour, which by many immunities throughout his kingdom he is found continually to requite them, and amongst the rest it is observed that there is no Genoa merchant resident in Spain, or any part, but has a particular licence to transport the *rials* and *plate* of this kingdom to a certain round sum yearly, which they seldom use really to do, but sell the same to other nations that are constrained to make their returns in plate for want of other more beneficial commodities, which, for the certain profit it is found ever to yield in other countries, is often preferred before all the other commodities of the kingdom."—*Lewis Robert's Map of Commerce*, p. 165.

[14] By the action of bimetallic law is meant any action of bad money on good—of worn

money on new—of higher rated (or lower valuable) money on lower rated (or higher valuable) money. It does not at all matter, especially in cases of debasement, whether there are two metals in the process or only one or even three. If a currency is silver, and part of it is debased and part left good there is bimetallic action, and the good disappears. Of course, the case is argumentatively and for deduction's sake much clearer if a currency is truly bimetallic in the ordinary sense.

# CHAPTER III

## From the End of the First Cycle of American Influences to the Present Day, 1660–1894

Up to the close of the eighteenth century the production of silver shows a remarkable steadiness and uniformity—the decrease on the yield of the Potosi mines being compensated by the increased output of Mexican silver. In the condition of the output of gold, however, there is a perceptible alteration, due to the increasing imports of that metal from Brazil. The change in the relative production of the two metals appears from the table on p. 155.

The effect on the ratio of this increased relative and absolute amount of gold was, however, considerably diminished by the increasing favour with which gold

came to be regarded for currency purposes, from the end of the seventeenth century onwards. In general terms this process or tendency in favour of gold continued through the first sixty years of the eighteenth century, at which time the proportion of gold to the production of the two metals had risen as high as 40 per cent., whereas in 1600 it had only formed 17.2 per cent. of the total.

*PRODUCTION OF THE PRECIOUS METALS, 1660-1893*

From 1760, however, such relative preponderance of gold was not maintained. It gradually sank back until, by the beginning of the present century, it had come to form only a little over 23 per cent. of the total. From 1820 to 1840 a recovery took place, but it was not until the Californian gold discoveries that the second great disturbance in the relative production of gold and silver took place; such a disturbance, *i.e.*, as can be fitly compared with that which the sixteenth century witnessed.

| Period. | Annual Production of Gold. | Annual Production of Silver. | Percentage of Gold to Total. | Percentag of Silver t Total. |
|---|---|---|---|---|
| 1661-1680 | £1,291,750 | £3,134,150 | 29.2 | 70.7 |
| 1681-1700 | 1,501,700 | 3,179,650 | 31.1 | 67.9 |
| 1701-1720 | 1,788,400 | 3,253,750 | 35.5 | 64.5 |
| 1721-1740 | 2,661,650 | 3,988,600 | 40.0 | 60.0 |
| 1741-1760 | 3,433,100 | 5,038,200 | 40.5 | 59.5 |
| 1761-1780 | 2,888,350 | 6,201,550 | 31.8 | 68.2 |
| 1781-1800 | 2,481,700 | 8,131,300 | 23.4 | 76.6 |
| | | | | |

| | | | | |
|---|---|---|---|---|
| 1801-1810 | 2,480,000 | 8,002,650 | 23.7 | 76.3 |
| 1811-1820 | 1,596,100 | 4,966,950 | 24.7 | 75.3 |
| 1821-1830 | 1,983 150 | 4,075,950 | 32.4 | 67.6 |
| 1831-1840 | 2,830,300 | 5,278,600 | 34.5 | 65.5 |
| 1841-1850 | 7,638,800 | 6,867,650 | 52.1 | 47.9 |
| 1851-1855 | 27,815,400 | 8,019,350 | 77.6 | 22.4 |
| 1856-1860 | 28,149,950 | 8,235,950 | 77.4 | 22.6 |
| 1861-1865 | 25,816,300 | 9,965,400 | 72.1 | 27.9 |
| 1866-1870 | 27,256,950 | 11,984,800 | 69.4 | 30.6 |
| 1871-1875 | 24,250,000 | 17,250,000 | 58.5 | 41.5 |
| 1876 | 23,150,000 | 18,250,000 | 55.9 | 44.1 |
| 1877 | 25,050,000 | 19,350,000 | 56.4 | 43.6 |
| 1878 | 25,950,000 | 19,750,000 | 56.8 | 43.2 |
| 1879 | 23,350,000 | 19,050,000 | 55.1 | 44.9 |
| 1880 | 22,800,000 | 19,100,000 | 54.4 | 45.6 |
| 1881 | 22,450,000 | 19,800,000 | 53.1 | 46.9 |
| 1882 | 21,450,000 | 20,900,000 | 50.7 | 49.3 |
| 1883 | 20,750,000 | 20,800,000 | 49.9 | 50.1 |
| 1884 | 21,750,000 | 21,850,000 | 49.9 | 50.1 |
| 1885 | 21,750,000 | 21,850,000 | 49.9 | 50.1 |
| 1886 | 22,450,000 | 20,300,000 | 52.5 | 47.5 |
| 1887 | 22,050,000 | 21,950,000 | 50.1 | 49.9 |
| 1888 | 22,950,000 | 23,850,000 | 49.0 | 51.0 |
| 1889 | 24,600,000 | 26,750,000 | 47.9 | 52.1 |
| 1890 | 24,360,000 | 26,620,000 | 47.8 | 52.2 |
| 1891 | 29,000,000 | 36,567,629 | 42.4 | 57.6 |
| 1892 | 30,164,536 | 40,668,247 | 42.5 | 57.5 |
| 1893 | 32,066,591 | 42,963,027 | 42.7 | 57.3[D] |

[D] The figures for the last three years are taken from the Report of the Hon. R.E. Preston, director of the United States Mint, 1893 (*Report*

*on the Production of the Precious Metals*, pp. 274-5). See *ibid.* for a most carefully compiled table of the production of the precious metals from 1493 to 1893, differing from the above in material details.

As far as this *relative* production is concerned, the period, 1660-1840, is one of gradual and not abnormal variation, neither small nor inconsiderable in effect, but certainly not revolution-working, as had been the case in the sixteenth century with American silver, and as was to be in the nineteenth century with Californian and Australian gold, and in our own days with American silver for the second time.

With regard to the *absolute* production—gold shows a rise up to 1760, then a steady decline to 1820, followed by a second rise up to 1840. In the case of silver the decline in the absolute amount was steady from 1600 to 1680, then ensued a steady and strong rise to 1800, followed by an abrupt drop in the second decade of the present century, and then by a strong and steady recovery, commencing from 1830 and continuing until the present.

*WIDE EFFECT OF MINT LAWS*

The larger question of the relative distribution of this mass of precious metals depends for its determination upon a full understanding of the law of the various Mints. Speaking in large, during the eighteenth century the Mint ratio was in favour of silver in France, and her currency was almost

entirely silver throughout the century; conversely the Mints favoured gold in England and Spain, and gold was almost the only constituent of the currency of either country for the greater part of the century. There can be little doubt that these simple facts had a great influence in actually determining the great currency legislation which closed the century and finally decided England in favour of gold, and France and the United States in favour of a bimetallism strongly favouring silver.

The statement of the ratio is as follows:—

| | |
|---|---|
| **South-West Germany.** | |
| 1657-80 | 15.10 |
| **Netherlands.** | |
| 1663 | 14.43 |
| **England.** | |
| 1663 | 14.48 |
| 1690 | 15.39 |
| 1715 | 15.21 |
| **France.** | |
| 1679 | 14.91 |

**COMMERCIAL STATEMENT OF THE RATIO (FROM 1687-1832, FROM THE HAMBURG EXCHANGE RATIO; FROM 1833 ONWARDS, FROM THE LONDON BULLION BROKERS' RATIO).**

| | |
|---|---|
| 1687-8 | 14.94 |
| 1689-90 | 15.02 |
| 1691 | 14.98 |
| 1692 | 14.92 |
| | |

| | |
|---|---|
| 1693 | 14.83 |
| 1694 | 14.87 |
| 1695 | 15.02 |
| 1696 | 15.00 |
| 1697 | 15.20 |
| 1698 | 15.07 |
| 1699 | 14.94 |
| 1700 | 14.81 |
| 1701 | 15.07 |
| 1702 | 15.52 |
| 1703 | 15.17 |
| 1704 | 15.22 |
| 1705 | 15.11 |
| 1706 | 15.27 |
| 1707 | 15.44 |
| 1708 | 15.41 |
| 1709 | 15.31 |
| 1710 | 15.22 |
| 1711 | 15.29 |
| 1712 | 15.31 |
| 1713 | 15.24 |
| 1714 | 15.13 |
| 1715 | 15.11 |
| 1716 | 15.09 |
| 1717 | 15.13 |
| 1718 | 15.11 |
| 1719 | 15.09 |
| 1720 | 15.04 |
| 1721 | 15.05 |
| 1722 | 15.17 |
| 1723 | 15.20 |
| | |

| | |
|---|---|
| 1724-25 | 15.11 |
| 1726 | 15.15 |
| 1727 | 15.24 |
| 1728 | 15.11 |
| 1729 | 14.92 |
| 1730 | 14.81 |
| 1731 | 14.94 |
| 1732 | 15.09 |
| 1733 | 15.18 |
| 1734 | 15.39 |
| 1735 | 15.41 |
| 1736 | 15.18 |
| 1737 | 15.02 |
| 1738-9 | 14.91 |
| 1740 | 14.94 |
| 1741 | 14.92 |
| 1742-3 | 14.85 |
| 1744 | 14.87 |
| 1745 | 14.98 |
| 1746 | 15.13 |
| 1747 | 15.26 |
| 1748 | 15.11 |
| 1749 | 14.80 |
| 1750 | 14.55 |
| 1751 | 14.39 |
| 1752-3 | 14.54 |
| 1754 | 14.48 |
| 1755 | 14.68 |
| 1756 | 14.94 |
| 1757 | 14.87 |
| 1758 | 14.85 |

| | |
|---|---|
| 1759 | 14.15 |
| 1760 | 14.14 |
| 1761 | 14.54 |
| 1762 | 15.27 |
| 1763 | 14.99 |
| 1764 | 14.70 |
| 1765 | 14.83 |
| 1766 | 14.80 |
| 1767 | 14.85 |
| 1768 | 14.80 |
| 1769 | 14.72 |
| 1770 | 14.62 |
| 1771 | 14.66 |
| 1772 | 14.52 |
| 1773-4 | 14.62 |
| 1775 | 14.72 |
| 1776 | 14.55 |
| 1777 | 14.54 |
| 1778 | 14.68 |
| 1779 | 14.80 |
| 1780 | 14.72 |
| 1781 | 14.78 |
| 1782 | 14.42 |
| 1783 | 14.48 |
| 1784 | 14.70 |
| 1785 | 14.92 |
| 1786 | 14.96 |
| 1787 | 14.92 |
| 1788 | 14.65 |
| 1789 | 14.75 |
| 1790 | 15.04 |
| | |

| | |
|---|---|
| 1791 | 15.05 |
| 1792 | 15.17 |
| 1793 | 15.00 |
| 1794 | 15.37 |
| 1795 | 15.55 |
| 1796 | 15.65 |
| 1797 | 15.41 |
| 1798 | 15.59 |
| 1799 | 15.74 |
| 1800 | 15.68 |
| 1801 | 15.46 |
| 1802 | 15.26 |
| 1803-4 | 15.41 |
| 1805 | 15.79 |
| 1806 | 15.52 |
| 1807 | 15.43 |
| 1808 | 16.08 |
| 1809 | 15.96 |
| 1810 | 15.77 |
| 1811 | 15.53 |
| 1812 | 16.11 |
| 1813 | 16.25 |
| 1814 | 15.04 |
| 1815 | 15.26 |
| 1816 | 15.28 |
| 1817 | 15.11 |
| 1818 | 15.35 |
| 1819 | 15.33 |
| 1820 | 15.62 |
| 1821 | 15.95 |
| 1822 | 15.80 |
| | |

| | |
|---|---|
| 1823 | 15.84 |
| 1824 | 15.82 |
| 1825 | 15.70 |
| 1826 | 15.76 |
| 1827 | 15.74 |
| 1828-9 | 15.78 |
| 1830 | 15.82 |
| 1831 | 15.72 |
| 1832 | 15.73 |

***STATEMENT OF THE RATIO, 1660-1893***

| Year. | Price of Silver Pence per Oz. | Ratio. | Year. | Price of Silver Pence per Oz. | Ratio. |
|---|---|---|---|---|---|
| 1833 | 59 3/16 | 15.93 | 1864 | 61 3/8 | 15.37 |
| 1834 | 59 15/16 | 15.73 | 1865 | 61 1/16 | 15.44 |
| 1835 | 59 11/16 | 15.80 | 1866 | 61 1/8 | 15.43 |
| 1836 | 60 | 15.72 | 1867 | 60 9/16 | 15.57 |
| 1837 | 59 9/16 | 15.83 | 1868 | 60 1/2 | 15.59 |
| 1838 | 59 1/2 | 15.85 | 1869 | 60 7/16 | 15.60 |
| 1839-40 | 60 3/8 | 15.62 | 1870 | 60 9/16 | 15.57 |
| 1841 | 60 1/16 | 15.70 | 1871 | 60 8/16 | 15.57 |
| 1842 | 59 7/16 | 15.87 | 1872 | 60 1/4 | 15.65 |
| 1843 | 59 3/16 | 15.93 | 1873 | 59 1/4 | 15.92 |
| 1844 | 59 1/2 | 15.85 | 1874 | 58 5/16 | 16.17 |
| 1845 | 59 1/4 | 15.92 | 1875 | 56 3/4 | 16.62 |
| 1846 | 59 5/16 | 15.90 | 1876 | 53 1/16 | 17.77 |
| 1847 | 59 11/16 | 15.80 | 1877 | 54 3/4 | 17.22 |
| 1848 | 59 1/2 | 15.85 | 1878 | 52 5/8 | 17.92 |
| 1849 | 59 3/4 | 15.78 | 1879 | 51 1/4 | 18.39 |

| | | | | | |
|---|---|---|---|---|---|
| 1850 | 60 1/16 | 15.70 | 1880 | 52 1/4 | 18.04 |
| 1851 | 61 | 15.46 | 1881 | 51 11/16 | 18.24 |
| 1852 | 60 1/2 | 15.59 | 1882 | 51 5/8 | 18.25 |
| 1853 | 61 1/2 | 15.33 | 1883 | 50 9/16 | 18.65 |
| 1854 | 61 1/2 | 15.33 | 1884 | 50 5/8 | 18.63 |
| 1855 | 61 5/16 | 15.38 | 1885 | 48 5/8 | 19.39 |
| 1856 | 61 5/16 | 15.38 | 1886 | 45 3/8 | 20.73 |
| 1857 | 61 3/4 | 15.27 | 1887 | 44 5/8 | 21.13 |
| 1858 | 61 5/16 | 15.38 | 1888 | 42 7/8 | 21.99 |
| 1859 | 62 1/16 | 15.19 | 1889 | 42 11/16 | 22.09 |
| 1860 | 61 11/16 | 15.29 | 1890 | 47 11/16 | 19.17 |
| 1861 | 60 13/16 | 15.26 | 1891 | 45 1/16 | 20.92 |
| 1862 | 61 7/16 | 15.35 | 1892 | 39 3/4 | 23.74 |
| 1863 | 61 3/8 | 15.37 | 1893 | 35 9/16 | 26.49 |

Up to 1878 this table is derived from Soetbeer, *Edelmetall-Produktion*, pp. 130-2. From 1878-1890 I have calculated simply in accordance with Soetbeer's method.

The figures for 1891-3 are taken from the United States Mint Report, 1893, already referred to, p. 251. In the table there printed the director of the Mint gives slightly different figures for several years from 1872 onwards.

As far as the conditions of production of the precious metals are concerned, and the connection between those conditions and the ratio, there is historic and understandable continuity between the period already passed in review and modern times. In the method of expressing that ratio, however, there is a remarkable difference.



## *EVOLUTION OF THE MODERN SYSTEM*

With the close of the seventeenth century the advantage of the process of altering the denomination of the coinage, of diminishing the content and reducing the standard of fineness, began to be impugned on theoretic grounds, and in the course of the eighteenth century that process itself fell into disuse. Since that time no Mint or legislative change such as we have hitherto described was made on the expressed value or content of any European coinage. Bearing in mind the twofold importance which was attached to that process of legislative guarding of the currency, this change must be regarded as of vital import. The legislator, from the middle of the fourteenth century, had attempted two things by this mechanism—(1) to follow the general rise of prices, and meet it by reducing the contents of the coins in such proportion as he thought fit; (2) to prevent any disastrous outflow of the precious metals by altering the ratio. The control of the Mint rates of metal-purchase and metal-coinage was, therefore, a matter of importance financially and politically to the nation, and economically to international commerce. In just such measure, therefore, was the entire ceasing of this State control of the mechanism of international exchange and currency a matter of almost incalculable significance in the history of the European monetary system. In the domain of finance it effected a revolution as signal as that produced in the relations of labour to capital by the disuse of the old labour laws. The ceasing of the artificial arbitrary Mint rates made way for a naturally determined or *commercial* ratio, and the regulation of the

international flow of the precious metals was left to the oscillation of trade balances, and to the action of interest rates and discount. The change is one from a mediæval, State-bound, merely legislative system to the modern system, in which the flow of precious metals is determined by the perfectly natural and automatic action of international trade—is indeed the index and safety-valve of it, and of the whole present commercial world-circle.

This was not merely a change of fact and practice, it was a revolution of theory.

For before the old State belief in the necessity of safeguarding the supply of precious metals at any cost and consideration could go by the board, the whole Mercantile Theory must have lost its force in men's minds.

In the domain of theory the transition from the Mercantile to the modern system was gradual, through the various intermediate steps of Physiocratic and Smithian economics, and the complete abandonment of that system for our own can only be put very late, if indeed its period can at all yet be written, for modern Protectionist ideas are only a lusty survival of it. In the domain of financial practice, however, it—the mercantile system—ceased from the moment that the Governments of Europe left their Mint rates stationary, and gave the flow of the precious metals and the declaration of the ratio to the free unhampered natural action of international trade. The steps of the completed process can hardly be detailed, for there was much fear attending it, and the various Governments frequently retraced their steps in uncertainty. The earliest direct enactment was made by England. By

the Act of 15 Charles II., chap. 7, sect. 12 (1663), the statutes forbidding the exportation of bullion were removed at one blow of astounding boldness. "Forasmuch," says this Act, "as several considerable and advantageous trades cannot be conveniently driven and carried on without the species of money or bullion, *and that it is found by experience that they are carried in greatest abundance (as to a common market) to such places as give free liberty for exporting the same*, and the better to keep in and increase the current coin of this kingdom, be it enacted that from and after the 1st day of August 1663 it shall and may be lawful to and for any person or persons whatsoever to export out of any port of England and Wales in which there is a customer or collector, or out of the town of Berwick, all sorts of foreign coin or bullion of gold or silver, first making an entry thereof in such customhouse respectively, without paying any duty, custom, poundage, or fee for the same, any law, statute, or usage to the contrary notwithstanding."

*FREE TRADE IN THE PRECIOUS METALS*

Standing so early and so almost completely alone as it does, this Act evinces an unexampled prescience and boldness. It doubtless reflects the commercial traditions of Holland, but that it should have been at a single stroke transferred to England at a time when she was so economically different and distant from Holland, needs make us pause in admiration. The only parallel to it, if any, would arise if France should suddenly, and by a single enactment, adopt to

the full the Free Trade policy of England. As a matter of fact this Act of 1663 proved itself for a long time, and through many oscillations, impossible of execution, and far into the eighteenth century the British Government meddled, by legislation and proclamation, with the export of the precious metals, and with the tariff of the coins, as will be seen immediately. It was not till 1780 that a similar Act was passed for Ireland.

In 1803 the Lords of the Treasury were by statute authorised to grant licences for the exportation of silver bullion without any such certificate or document whatsoever as had been required by the statute of 6 and 7 Wm. III. c. 17, sect. 5.

It was almost a century after this action of England that France followed in the same path. By a proclamation of 7th October 1755, permission was given to the free commerce in precious metals and in foreign monies. But in the case of France, as in that of England, the enactment was not immediately nor fully realisable. The exportation of the national specie was still forbidden, and more than once the State found itself obliged to return to the question of the tariffing of its coinage.

It is this vacillation—a vacillation, however, which must in every instance be attributed to sheer State necessity—which makes it impossible to trace in detail and point by point the fall of so much of the Mercantile System as concerned the regulating of international movements of metals. The *practice* of the commercial world was doubtless in advance of the legislator's standpoint, as indicated by such detached references, and was effectual in completing the revolution silently and under the surface,

whether by the aid or in spite of laws and proclamations. The same had been the case, *e.g.*, with the old usury laws.

When effected there are two highly important results which stand as the outcome of this change in the theory of international commerce.

1. The perception of a right theory of international balances opened the way to the separation of finance or currency phenomena pure and simple, and so prepared the ground for a scientific conception and treatment of them. In one direction this treatment resulted in the evolution of a theory and practice of a monometallic system—one, *i.e.*, in which a single metal was made the legal tender, and a second or third metal bound to it in a hard-and-fast, subordinate relationship, so that they could not by their oscillations injuriously affect the tenderable metal. In another direction the same scientific conception and treatment resulted in the evolution (and after a time the practice) of a bimetallic theory. Modern currency history hinges on the antagonism of these two systems.

*FUNCTION OF DISCOUNTS IN MODERN SYSTEM*

This statement of the case will serve to show the enormous difference between nineteenth-century currency situations and problems and those of mediæval and seventeenth-century Europe. To-day the point at issue is between definitely and scientifically conceived rival theories, and the *practical* difficulty before the world is how to provide, not so much a permanent ratio, as a permanent rate of international settlement between countries using different monetary systems, between silver-using and gold-using countries. In the seventeenth century there was no conception of theory at all, and the practical difficulty was how to frustrate the operations of the bullionist and arbitragist and politicians, and the depletion of national treasure due to their activity, and based on a difference of ratio prevailing in different countries.

2. The second practical outcome of the revolution was the development of the modern system of control of the flow of gold balances, viz. by means of the bank rate and the arbitrage transactions depending thereon, and on interest and discount rates generally.

The modern theory of international trade does not say that between two particular countries, or at any one particular point of time there is an equivalence of exchange, but that between a circle of

commercially interconnected countries, and over a certain cycle of time or operations, there is an equivalence of exchange of goods and services. Movements of currency in the most elementary form assist the process, as far as immediate settlements are concerned; bills of exchange assist it when there is need of deferred payments, as, for instance, when a country imports steadily all the year round, but has only one export time, say after harvest; and, finally, bank and discount rates assist the process by providing currency media at times and places which would otherwise be unable to attract a supply. Over the whole circle of completed operations there is equilibrium of exchange, and the machinery by which that equilibrium is accomplished is currency in the widest sense. The index or indicator and safety-valve of the whole is the rate of interest. On these bank rates are based the operations of the modern bullion dealers or arbitragists, which serve to equalise or economise the distribution of the precious metals all over the world.

It will be seen at a glance, therefore, that they fulfil, in an automatic and perfectly natural manner, all that was vainly attempted to be accomplished by the repressive savage action of the State, and the interfering unscientific handling of the Mint and coinage rates. It is in this feature that the great distinction between the modern and the seventeenth-century world consists. Such a difference can only be based upon, and have arisen from, a true theory of international trade. But the process of development which alone made it possible—the development of modern banking, the invention of paper currency media, the breaking down of international trade restrictions, all the mechanical and scientific inventions which have resulted in the binding of the

world together in one whole as far as commerce is concerned,—all this would comprise in brief the essential features of the complete commercial development of two centuries or more, and how far they are related as cause or effect it would be hard to say.

In this secondary period, therefore, the separate history of each individual state gradually loses its distinct or isolated importance, as far as mere Mint edicts are concerned. As a consequence the bimetallic action which we have hitherto sought in the history of each individual currency must now increasingly be sought in the wider field of the world currency, that congeries or completed whole of currency of which each national system now forms only a part, and that not an independent part.

## France.

In this third period the first change which France made in her silver monies was in 1674, when she for a time coined 4-sol. pieces of a quality below that of the *écus blancs* by more than a fifth. A great outcry was made by the Mint officers and mercantile community against this money as implying a debasement.

In 1679 there was a noticeable quantity of Spanish *pistoles* and large *écus d'or* in circulation, and as a remedy it was ordered that they should be recoined into *louis d'or* and *louis d'argent,* the King offering to forego the seignorage as an inducement to bring them to the Mint. In 1686, however, the louis d'or itself was raised from 10 livres to 11 livres 10 sols., and the ratio thus changed to 15 $^1/_2$. This being

found greatly in excess, in the following year it was lowered to 11 livres 5 sols. (a ratio of 15 1/4). In 1689 both silver and gold were again raised, the *louis d'or* to 11 livres 12 sols. and the *louis d'argent* to 3 livres 2 sols., but almost immediately a general recoinage was resolved upon. In this great operation, effected towards the close of 1689, the weight and standard of the previous coinage was exactly retained, but the louis d'or was issued at 12 livres 10 sols. and the louis d'argent at 3 livres 6 sols. Only two years later again the standard had to be altered, and the value of 1693 somewhat raised. It will give some slight idea of the sapping of the coinage that the pieces which in 1691 were minted at 12 livres 10 sols. were, in 1693, called in at a valuation of 11 livres 14 sols. The new species of 1693 were issued at 13 livres and 3 livres 8 sols. respectively.

*FRANCE: THE REFORM OF 1726*

Ten years later a third recoinage was ordered, the louis d'or being issued at 15 livres, and the louis d'argent at 4 livres. By 1709 these species had sunk in equivalence to 12 livres 15 sols. and 3 livres 8 sols. respectively. In that same year, however, their issue value was raised to 20 livres and 5 livres. This extraordinary and arbitrary action was greatly to the detriment of French commerce, and the idea was entertained of gradually reinducing the standard of 14 livres and 3 livres 10 sols. This was ordered by proclamation of 30th September 1713, which was to continue in force till 1715. In the latter year a reformation of the coinage was again undertaken, the reformed species rising to 20 livres and 5 livres,

and the worn species remaining at 16 livres and 4 livres. From this latter date up to 1721 the operations of the financier John Law wrought great disasters in the monies. At the time of the erection of the bank, 2nd May 1716, there were four species of *louis d'or* and three of *louis d'argent*. By 1720 the former had grown to forty in number and the latter to ten. (For the disorders of the period of John Law, see the account of French monetary system, Appendix VI.) It was to remedy this disorder that the great edict of 1726 was enacted. This edict, which formed the basis of the French currency system almost up to the days of the Revolution, prescribed the minting of louis d'or at a tale of 30 to the mark, and issued at a value of 20 livres; and of silver écus at 8 $^{3}/_{10}$ to the mark and issued at 5 livres—divisional coins in proportion. The legal ratio was therefore 14 $^{5}/_{8}$. All foreign coins and the ancient species of gold and silver were decried, and ordered to be brought in for reminting. All the prohibitive regulations of an old régime against cutting and export, etc., were re-enacted with severest penalties. But as the rate at which the Mint was ordered to take in the old coinage did not represent the commercial value at the moment, the old coins were not brought in, and up to as late as 1749 the recoinage had not been accomplished, although the Mint prices had been at different times advanced on the whole a matter of 30 per cent. or more. In 1759 the want of currency had become so great that the King sent his plate to the Mint, and numbers of private individuals followed his example, receiving in reimbursement part payment at the rate of 861 livres 5 sols. 10 den. for the mark of fine gold, and of 59 livres 5 sols. 10 den. for the mark of fine silver.

This latter tariff underwent no change until 1771,

when, under the pretext of the changes which foreign coinage tariffs had undergone, those terms were fixed respectively at 709 livres and 48 livres 9 sols.

In this résumé the mention of billon money has been generally avoided, as unduly complicating the subject. But in the legislative action of France in the eighteenth century there is one act which necessitates a momentary departure from this standpoint.

In 1738 the Government of the United Provinces diminished the value of their *sols.* by one-half. The French Government fearing that this diminution would lead to an immense influx of such sols. decided to follow suit. By a decree of August 1st of the same year, 1738, it was ordered that the *Douzains* and pieces of thirty deniers should have course only for eighteen deniers. The important point to notice in connection with this is that, in order to mitigate the effect of this reduction, the same decree limited the tender of such billon money. It was ordered that in payments up to 400 livres not more than 10 livres should be tenderable in billon, and for payments of more than 400 livres not more than $^1/_{40}$ of the total. The restriction was ineffectual in preventing either the import of foreign billon specie or the operations of billonage or arbitrage, based on the differentiated value of the various kinds of billon circulating. This is quite evident from the preamble of the edict of the following October, 1738, which attempted the calling in of the 30-denier pieces, in order to put a stop to the process.

*FRANCE: THE*

*REFORM OF 1785*

Such a failure is quite in keeping with all previous experience as recorded in these pages, and deserves no special reference. The point to note is rather the gradual evolution and adoption of the idea of limiting the tender of the lower species, so as to contract their action on the main species of the currency. This idea forms the complement of the idea of an agio, involved in the issue of fractional coins on a lower standard or basis than that of the greater specie. The one idea was—in long, over-long, periods *i.e.*—impracticable without the other; but together, when finally evolved, thoroughly seized and put in practice, they formed the main basis of the truest modern currency system.

To return to the pure gold and silver species. The basis of 1726 remained at law unaltered until 1785. The edict of the 30th October of that year commanded a recoinage; no change was made in the silver coinage, which remained according to the tariff of May 1773, namely, 52 livres 9 sols. 2 den. to the mark fine. By the alteration of the tariff of gold, however, to 828 livres 12 sols. to the mark fine, the ratio of 14 $^{5}/_{8}$, which had nominally prevailed since 1726, was altered to the memorable 15 $^{1}/_{2}$. The reason was explicitly stated to be the increase in the value of gold during several preceding years—an increase which had banished or detained gold from the French Mint and even from France.

Writing in 1785, the minister, Calonne, who proposed and executed the recoinage in that year, spoke thus:—

"In 1726 the legal ratio was fixed in France at 14

marks 5 oz. of silver, to a mark of gold, and that which proves with how much sagacity this point was seized is the fact that during a long course of years France retained in her circulating medium a sufficiently large proportion of each metal. Nevertheless, her gold gradually became less common, and for some years this scarcity has rapidly increased, and this precisely because its legal value has always remained the same, while its metallic value has increased from year to year."

He estimated the amount of livres in *louis d'or* existing in the country at the time of the recoinage, 1785, as 650 million livres, which amounted to only a half of the total coinage (1300 million livres) of the period 1726-85. What seems to have determined Calonne to adopt 15 $^{1}/_{2}$ was the fact that Spain had the legal ratio of 16, and that there was a probability that, in future, gold would rise in value. As for the market price, he admits that it was only 15.08-15.12 in 1785. The recoinage, therefore, brought a profit of 7,255,216 livres to the King's purse, and a profit of 21,600,000 livres to the holders of the old *louis d'or*.

*FRANCE: CALONNE'S POLICY IN 1785*

His policy was severely criticised in a report made in 1790 to the National Assembly, which proposed a silver standard, with an authorised circulation of gold coins at the ratio of 14 $^{7}/_{9}$ and the abolition of seigniorage. It is well known that this was nearer to the market rate. Calonne's ratio, therefore, must be regarded as arbitrary and designing. Practically, the latter recommendation of the committee's paper of

1790 had been conceded in the decree of 30th October 1785, as the seigniorage was by it allowed to be no more than the net cost of reminting.

By this celebrated edict of Calonne's, which also enacted a recoinage, the right of seigniorage was practically finally relinquished for France. Fixity was given to silver as the principal money, and a definite ratio was established at which gold was to circulate by its side. In these, its chief points or characteristics, it formed the exact model for the later Act of Republican France, which is ignorantly looked upon as having created the bimetallic system. The Act of 7 Germinal an XI. did but re-enact and perpetuate the edict of 1785.

It is important to reaffirm and emphasise this point, as quite wild and blind estimates have been formed of the later action of Republican France. In merest fact, that later action created no new order, it instituted no new idea, it did not even promulgate its own theory.

*FRANCE: CURRENCY LEGISLATION AT REVOLUTION*

Republican France began her reform of the currency in a very temporary and opportunist manner by issuing a mass of inferior monies of 15 and 30 sous pieces to form the basis of the assignats, and to replace the gold and silver which had almost entirely disappeared from circulation. In the decree of 16 Vendémière an II. (7th October 1793), however, the question of standard was approached, and decided in a remarkable manner. The monetary unit was

decreed to consist of the hundredth part of a kilogram, named *grave*, represented (1) by a piece of silver $^{9}/_{10}$ fine and weighing 10 grms., (2) by a piece of gold of the same weight and standard, to be current at 15 times the value of the silver piece.

This decree remained a dead letter, and two years later the *franc* was definitively adopted as the base of the French system. As determined by the two laws of 28 Thermidor an III. (15th August 1795), that system was based upon the silver franc (weighing 5 grms. $^{9}/_{10}$ fine). A gold coinage was ordained, of the same fineness, in a piece of 10 grms. weight, but the ratio of value of the gold to the unit franc was not fixed. This was exactly the monetary system which Mirabeau had counselled in his memoirs to the Assembly in 1790. The silver *5-franc* pieces prescribed under this system found acceptance, the bronze pieces were refused and had to be withdrawn, and as to the gold piece, its issue was not even attempted. Two years later the "Directoire" pronounced in favour of maintaining the 10-grm. piece of gold, but demanded the fixation of its value, proposing a ratio of 16:1. In opposition to this scheme, Prieur submitted to the "Council of the Five Hundred" a project adopting the silver and gold coinage, as already determined as above, but leaving the value of the gold piece to fluctuate according to the market, its value being declared twice annually by public announcement. After being materially altered in the "Council of the Five Hundred," this scheme was definitively rejected by the "Council of Senators," and for several years the question of the monetary system of the Republic was allowed to slumber. When, in the year X., the consideration of the subject was resumed, it was at the instigation of the Consuls. At their desire the Minister of Finance,

Gaudin, laid before the Council of State a scheme in which he proposed the issue of 20 and 40-franc gold pieces, of a value based on the ratio enunciated in the edict of 1785, namely, 15 1/2. He was, at the same time, careful to explain that silver remained the basis of the currency, and that the gold money could be reissued if a different market compelled a change in the ratio. In his report to the Consuls, Gaudin admits that the commercial ratio had for a long time been under 15. The decisive point which led him to maintain the ratio established in 1785 was, that to change the *status quo* by the adoption of 15 as a ratio would occasion great loss to the holder of gold coins, and that there was no sufficient reason for so great a change.

The Financial Committee of the Council of State at first rejected the scheme, preferring that of Prieur, already described, but on an inquest, ordered by the First Consul, who insisted on pressing the matter to a conclusion, M. Gaudin carried his propositions through the Council of State, but with the important difference that the reference to any future change in the ratio of gold to the basis of silver was tacitly dropped. These propositions became the foundation of the law of 7-17 Germinal an XI. (28th March 1803), on which the monetary system of Republican France was finally built.

The *exposé des motifs* of this law speaks of the gold coins in these words:—

"The gold pieces up to the present in circulation are the pieces of 24 and 48 livres tournois. Article 6 of this law substitutes in their place pieces of 20 and 40 francs. The adoption of the decimal system necessitates this change, which brings all parts of the

system into accord. It is on the same consideration that the standard is fixed at $^{9}/_{10}$, like that of silver."

Not a word is said as to the ratio, and much more stress is laid upon the suppression of billon money and on the abolition of seigniorage, as of greater importance and benefit to the nation's interests. By this law of Germinal XI. the monetary unit of the French system was declared to be the silver franc, weighing 5 grms. of $^{9}/_{10}$ standard. By the side of this franc and its multiples, were to be issued gold pieces of 20 and 40 francs, valued on a basis ratio of 15 $^{1}/_{2}$ to the silver.

*FRANCE: THE REFORM OF 1803*

It will be seen at a glance from the course of this previous history that this law instituted no new principle, or theory, or system in French currency. The decimal system was adopted in place of the old system of livres tournois, seigniorage was abolished, and fixation of value given to the unit money, and billon money discontinued. But in matter of standard and system there was not even innovation. The system of Republican France, as established by this law, was no more and no less bimetallic than in 1785, or than in 1610, or in the days of Francis I. Theories as such did not occupy the mind of the legislator, and of any conception of a bimetallic theory or system such as we have learned to know there is no trace. The First Consul found at hand the two metals which had formed the currency of his country for centuries. The problem of their regulation was the same which had been faced by his

predecessors for centuries, and he settled it in the same practical untheoretic way.

It was only gradually that in its totality of coins the French monetary system was made to conform to the metric system thus established. The old gold coins of 12, 24, and 48 livres were not suppressed until June 1829, the actual extinction of billon money was only accomplished in 1845, and the recoinage of the inferior monies in 1852-56. But such are mere matters of detail and apart from the subject.

The experience of France under this new régime is, therefore, in no wise different *in kind*> from such experience as has been described for the preceding centuries. It is not until the broaching of a bimetallic theory as such, and until the expression of that theory, as a theory, in the formation of the Latin Union, that anything like a special significance attaches to the monetary system and experience of France in the nineteenth century, any more, *e.g.*, than in the seventeenth. The main difference in the situation was not that France had changed her system, and that her experience was henceforth different and of different signification, but that England had changed hers, and that the brunt of the fluctuations of the precious metals about a fixed ratio was left to be borne by a smaller area. The influence and the instance is, therefore, more telling in degree, but in no way different in kind.

The second idea which is commonly entertained with regard to the action of France during this later period, viz. that her action secured for the world at large a fixed and steady ratio, is equally—indeed, still more—fallacious. At no point of time during the present century has the actual market ratio,

dependent on the commercial value of silver, corresponded with the French ratio of 15 $^1/_2$, and at no point of time has France been free from the disastrous influence of that want of correspondence between the legal and the commercial ratio. The opposite notion, which prevails and finds expression in the ephemeral bimetallic literature of to-day, is simply due to ignorance. From 1815 England has been withdrawn from this action of a bimetallic law, and the modern insular pamphleteer has before his eyes no sign of its workings in his own country. He therefore assumes an universality of such experience, and attributes it to the French legislative ratio. It is in no polemic spirit, but simply in the interest of science that this particular misapplication of history to the squaring of a theory is to be branded. The plainest facts of history are thereby absolutely misrepresented, and the assumption of cause and effect is so far from being true that the repose of the English currency history in the nineteenth century is to be attributed to the *absence* of a bimetallic system; to its despite rather than its presence and influence. To instance only by France for the moment.

*FRANCE: COURSE OF THE RATIO*

The course of the actual or market ratio has been already stated in the table (*supra*, pp. 157-59). In the graphic representation of this (*opposite*) the legal ratio of 15 $^1/_2$ is represented by the fixed line *x.y.*, the actual ratio by the fluctuating black line *z*. At no point do these lines coincide. After three years of fluctuations, 1803-06, now above and now below, the ratio sinks persistently below for seven years,

1807-13, touching the lowest point (a ratio of 16.24) in 1813. For the succeeding five or six years, 1813-19, the ratio was as consistently above the legal rate, though with less violence and width of divergence. From the latter year, 1819, up to 1850, its course was undeviatingly below 15 $^1/_2$, then from 1851-67—the period, *i.e.*, of the great gold outputs of Australia and America—as undeviatingly above. From the last-named date until the close of the bimetallic system in France, and, indeed, up to our own days, the course of the commercial ratio has been again unbrokenly below the 15 $^1/_2$ ratio, and, as is too well known, with an ever-increasing enormity of divergence.

So much for the claim that the French law has dowered the world with a steady ratio.

*Secondly*, what has been the influence of this divergence of the commercial from the legal ratio upon France's store of precious metals? It has been exactly similar in effect and force with that wielded by similar trains of event and circumstance, in the monetary history of France during the four preceding centuries. The exact official figures of the import and export of gold and silver are not obtainable before 1822, and in a continuous stream not before 1830 (separably for the two metals, that is to say).[15]

*FRANCE: BIMETALLIC EXPERIENCE, 1803-75*

From the latter date, however, the testimony of the figures is as explicit as it is forceful. From 1830 to 1850, while the ratio remained continually below the

legal 15 1/2, there was a profit on the import of silver, and a persistent and heavy import took place. In 1830 the (balance of the) silver imported amounted to a matter of 6 millions sterling, in 1831 to 7 1/4 millions, in 1834 to 4 millions, in 1837 to over 5 1/2 millions, in 1838 to nearly 5 millions, in 1841 to nearly 5 millions, in 1843 over 4 millions, in 1848 to over 8 1/2 millions, and in 1849 to nearly 10 millions. There was not a single year that was not accompanied by this import, and over the whole twenty-two years the total of importations reached the enormous figure of, approximately, 92 millions sterling. It must be clearly understood that this sum represents not the gross but the net importation or balance of imports over exports, and that the money passed into the currency of the country, taking its place as such and displacing gold *pari passu*. The movement of gold in the same time is represented by the red line in the accompanying diagram. Within the limits of very considerable exceptions, the correspondence of its fluctuations with those of gold is clearly perceptible. The silver, on whose coinage a profit or premium was offered by the existing French law to individuals, could only be bought or paid for by the export of gold or services and goods. During these years, 1830-50, it was quite apparently by the latter method, namely, by remittance of goods, as on the whole period there is a slight gain of gold, nearly 3 millions, contrary to what bimetallic law would have led to expect. The correspondence, however—a simultaneity—of the two movements, of import of silver and export of gold, is strongly marked in the years 1834-39 and 1841-48, and the failure of correspondence of the totals is to be explained by the statistics of French foreign trade balances during the years named.

With the year 1852, the decisive change in the ratio sets in with the new gold influx. The ratio rises above the 15.5 of the French law, and the profit on the importation and coining of silver vanishes. Its place is taken by a corresponding profit on the importation and coinage of gold. The fourteen years during which the ratio remained above the legal 15 $^1/_2$ witnessed the importation into France of a total net (or balance) of gold to the amount of 135 millions sterling, and a total net or balance of exportation of silver of 66 $^2/_3$ millions sterling. The coincidence of actual fluctuation will best be seen by the graphic representation of it in the table. With 1865 the final and, so far as the nineteenth century is concerned, the fatal change of the commercial ratio sets in. It sinks persistently and increasingly below the legal 15 $^1/_2$, in face and spite of the united mintings of the Latin Union, and at once the premium on the importation and coinage of gold changes into one on silver. From 1865 to 1875, one year before the abandonment of the coinage of the 5-franc piece and the consequent relinquishment by France of the bimetallic system, her net imports of silver amounted to 56 millions sterling.

As far as these figures of import and export are concerned, they show only the *final* results of the action of bimetallic law. The metal on whose importation and minting a premium was obtainable *was* imported, and in large quantities. That is the single fact standing out in large. The reciprocal fact —of a corresponding export of the metal over whose head the premium offered—does not emerge so distinctly, simply by reason of the complication of the subject of exports of metals with the wider general movement of trade balances. It also is, however, distinctly perceptible and demonstrable.

But this is to speak only in large and of final results. What the intermediate course of events—of see-saw and flux, was, can only be adequately grasped from the records of the mintings, conjoined with the records of net import or export of the two metals.

**TABLE OF THE NET IMPORTS OR EXPORTS OF GOLD IN FRANCE UNDER THE BIMETALLIC LAW, 1822-75.**

| Year. | Net Import (Francs). | Net Export (Francs). | Year. | Net Import (Francs). | Net Expo (Francs |
|---|---|---|---|---|---|
| 1822 | 4,000,000 | ... | 1852 | 17,000,000 | ... |
| 1823 | ... | 19,000,000 | 1853 | 289,000,000 | ... |
| 1824 | 37,000,000 | ... | 1854 | 416,000,000 | ... |
| 1830 | 10,000,000 | ... | 1855 | 218,000,000 | ... |
| 1831 | 10,000,000 | ... | 1856 | 375,000,000 | ... |
| 1832 | ... | 39,000,000 | 1857 | 446,000,000 | ... |
| 1833 | 24,000,000 | ... | 1858 | 488,000,000 | ... |
| 1834 | ... | 7,000,000 | 1859 | 539,000,000 | ... |
| 1835 | ... | 20,000,000 | 1860 | 311,000,000 | ... |
| 1836 | ... | 14,000,000 | 1861 | ... | 24,000,0 |
| 1837 | ... | 6,000,000 | 1862 | 165,000,000 | ... |
| 1838 | ... | 4,000,000 | 1863 | 12,000,000 | ... |
| 1839 | 24,000,000 | ... | 1864 | 125,000,000 | ... |
| 1840 | 49,000,000 | ... | 1865 | 150,000,000 | ... |
| 1841 | ... | 5,000,000 | 1866 | 465,000,000 | ... |
| 1842 | ... | 12,000,000 | 1867 | 409,000,000 | ... |
| 1843 | ... | 41,000,000 | 1868 | 212,000,000 | ... |
| 1844 | ... | 6,000,000 | 1869 | 275,000,000 | ... |
| 1845 | ... | 14,000,000 | 1870 | 119,000,000 | ... |
| 1846 | ... | 9,000,000 | 1871 | ... | 214,000,( |
| 1847 | ... | 13,000,000 | 1872 | ... | 53,000,0 |

| | | | | | |
|---|---|---|---|---|---|
| 1848 | 38,000,000 | ... | 1873 | ... | 108,000,( |
| 1849 | 6,000,000 | ... | 1874 | 431,000,000 | ... |
| 1850 | 17,000,000 | ... | 1875 | 454,000,000 | ... |
| 1851 | 85,000,000 | ... | | ... | ... |

**TABLE OF THE MOVEMENT OF SILVER DURING THE SAME PERIOD.**

| Year. | Net Import (Francs). | Net Export (Francs). | Year. | Net Import (Francs). | Net Expo (Francs) |
|---|---|---|---|---|---|
| 1822 | 125,000,000 | ... | 1852 | ... | 3,000,00 |
| 1823 | 114,000,000 | ... | 1853 | ... | 117,000,0 |
| 1824 | 124,000,000 | ... | 1854 | ... | 164,000,0 |
| 1830 | 151,000,000 | ... | 1855 | ... | 197,000,0 |
| 1831 | 181,000,000 | ... | 1856 | ... | 284,000,0 |
| 1832 | 60,000,000 | ... | 1857 | ... | 360,000,0 |
| 1833 | 75,000,000 | ... | 1858 | ... | 15,000,0( |
| 1834 | 101,000,000 | ... | 1859 | ... | 171,000,0 |
| 1835 | 74,000,000 | ... | 1860 | ... | 157,000,0 |
| 1836 | 27,000,000 | ... | 1861 | ... | 62,000,0( |
| 1837 | 144,000,000 | ... | 1862 | ... | 86,000,0( |
| 1838 | 120,000,000 | ... | 1863 | ... | 68,000,0( |
| 1839 | 75,000,000 | ... | 1864 | ... | 42,000,0( |
| 1840 | 96,000,000 | ... | 1865 | 72,000,000 | ... |
| 1841 | 117,000,000 | ... | 1866 | 45,000,000 | ... |
| 1842 | 92,000,000 | ... | 1867 | 189,000,000 | ... |
| 1843 | 103,000,000 | ... | 1868 | 109,000,000 | ... |
| 1844 | 82,000,000 | ... | 1869 | 112,000,000 | ... |
| 1845 | 90,000,000 | ... | 1870 | 35,000,000 | ... |
| 1846 | 47,000,000 | ... | 1871 | 15,000,000 | ... |

| | | | | | |
|---|---|---|---|---|---|
| 1847 | 53,000,000 | ... | 1872 | 102,000,000 | ... |
| 1848 | 214,000,000 | ... | 1873 | 181,000,000 | ... |
| 1849 | 244,000,000 | ... | 1874 | 360,000,000 | ... |
| 1850 | 73,000,000 | ... | 1875 | 194,000,000 | ... |
| 1851 | 78,000,000 | ... | | | |

**TABLE OF THE COINAGE OF GOLD IN FRANCE, 1803-75, DURING THE BIMETALLIC RÉGIME.**

| Year. | Gold (Francs). | Silver (Francs). | Year. | Gold (Francs). | Silver (Francs |
|---|---|---|---|---|---|
| 1803 | 10,209,840 | 23,171,988 | 1810 | 46,070,600 | 57,170,2 |
| 1804 | 38,463,980 | 47,517,195 | 1811 | 132,135,740 | 256,399,( |
| 1805 | 20,474,500 | 46,385,909 | 1812 | 97,717,880 | 160,786,4 |
| 1806 | 38,533,760 | 25,241,651 | 1813 | 62,659,680 | 134,900,3 |
| 1807 | 18,019,920 | 5,008,903 | 1814 | 64,544,720 | 61,244,1 |
| 1808 | 32,311,260 | 67,833,922 | 1815 | 55,379,840 | 37,673,8 |
| 1809 | 15,206,440 | 44,296,494 | 1816 | 15,151,280 | 34,917,5 |

**TABLE OF THE COINAGE OF GOLD IN FRANCE, 1803-75, DURING THE BIMETALLIC RÉGIME—*continued*.**

| Year. | Gold (Francs). | Silver (Francs). | Year. | Gold (Francs). | Silve (Franc |
|---|---|---|---|---|---|
| 1817 | 52,197,080 | 37,143,579 | 1847 | 7,706,020 | 78,285, |
| 1818 | 95,410,460 | 12,406,076 | 1848 | 39,697,740 | 119,731 |
| 1819 | 52,410,660 | 21,235,077 | 1849 | 27,109,560 | 206,548 |
| 1820 | 28,781,080 | 18,436,620 | 1850 | 85,192,390 | 86,458, |
| 1821 | 404,140 | 67,533,866 | 1851 | 269,709,570 | 59,327, |
| 1822 | 4,718,100 | 100,679,137 | 1852 | 27,028,270 | 71,918, |
| 1823 | 408,180 | 82,911,680 | 1853 | 312,964,020 | 20,099, |

| | | | | | |
|---|---|---|---|---|---|
| 1824 | 7,071,700 | 114,476,007 | 1854 | 526,528,200 | 2,123,8 |
| 1825 | 45,616,360 | 75,203,291 | 1855 | 447,427,820 | 25,500, |
| 1826 | 925,540 | 90,835,623 | 1856 | 508,281,995 | 54,422, |
| 1827 | 3,160,940 | 153,868,978 | 1857 | 572,561,225 | 3,809,( |
| 1828 | 8,025,740 | 161,466,133 | 1858 | 488,689,635 | 8,663,5 |
| 1829 | 1,118,180 | 102,642,617 | 1859 | 702,697,790 | 8,401,8 |
| 1830 | 23,516,640 | 120,187,089 | 1860 | 428,452,425 | 8,034,1 |
| 1831 | 49,641,380 | 205,223,764 | 1861 | 98,216,400 | 2,518,( |
| 1832 | 2,046,260 | 141,353,915 | 1862 | 214,241,990 | 2,519,3 |
| 1833 | 16,799,780 | 157,482,863 | 1863 | 210,230,640 | 329,6 |
| 1834 | 30,231,200 | 218,288,304 | 1864 | 273,843,765 | 7,296,( |
| 1835 | 4,550,060 | 99,966,149 | 1865 | 161,886,835 | 9,222,3 |
| 1836 | 5,097,040 | 43,242,399 | 1866 | 365,082,925 | 44,821, |
| 1837 | 2,026,740 | 111,858,697 | 1867 | 198,579,510 | 113,758 |
| 1838 | 4,940,140 | 88,489,324 | 1868 | 340,076,685 | 129,445 |
| 1839 | 20,670,000 | 73,637,742 | 1869 | 34,186,190 | 68,175, |
| 1840 | 40,998,240 | 63,795,527 | 1870 | 55,394,800 | 69,051, |
| 1841 | 12,375,060 | 77,517,941 | 1871 | 50,169,880 | 23,878, |
| 1842 | 1,852,720 | 68,391,170 | 1872 | — | 26,838, |
| 1843 | 2,826,600 | 74,148,998 | 1873 | — | 156,270 |
| 1844 | 2,742,260 | 69,134,980 | 1874 | 24,319,700 | 60,609, |
| 1845 | 119,140 | 89,967,609 | 1875 | 234,912,000 | 75,000, |
| 1846 | 2,086,420 | 47,886,145 | | | |

During the years 1820-50, when the ratio remained below the legal 15 $^1/_2$ and there was a profit on the import of silver, the total silver coinage of the French Mint amounted to £127,458,322, while that of gold reached only £19,333,854. In the succeeding period, 1850-66, when the ratio changed and remained for fifteen or sixteen years in favour of gold, the total gold coinage reached £292,416,951, while the total silver coinage was scarcely more than 1 $^1/_4$ millions

(£1,315,532).

At the beginning of this second period, 1851, the Bank of France held in its reserves approximately only 3 1/2 millions sterling of gold, whereas its silver amounted to more than 19 millions. At the close of the period indicated, 1866, the bank was holding 23 millions sterling of gold against nearly 5 1/2 millions of silver. In the former case the proportion of silver formed 85 per cent. of the total, in the latter only 19 per cent.

**TABLE OF THE RESERVES OF THE BANK OF FRANCE, 1851-76.**

| Year. | Gold (Million Francs). | Silver (Million Francs). | Percent of Silver to Total. | Year. | Gold (Million Francs). | Silver (Million Francs). | P |
|---|---|---|---|---|---|---|---|
| 1851 | 83 | 478 | 85 | 1864 | 273 | 94 | |
| 1852 | 69 | 442 | 86 | 1865 | 238 | 208 | |
| 1853 | 102 | 214 | 67 | 1866 | 576 | 136 | |
| 1854 | 301 | 193 | 39 | 1867 | 697 | 318 | |
| 1855 | 72 | 147 | 66 | 1868 | 662 | 474 | |
| 1856 | 94 | 104 | 53 | 1869 | 461 | 798 | |
| 1857 | 110 | 126 | 52 | 1870 | 429 | 69 | |
| 1858 | 294 | 260 | 47 | 1871 | 554 | 80 | |
| 1859 | 250 | 329 | 56 | 1872 | 656 | 134 | |
| 1860 | 144 | 272 | 65 | 1873 | 611 | 148 | |
| 1861 | 225 | 100 | 30 | 1874 | 1013 | 314 | |
| 1862 | 187 | 108 | 36 | 1875 | 1168 | 504 | |
| 1863 | 119 | 72 | 37 | 1876 | 1349 | 540 | |

The statistics of the Latin Union, up to the suspension of the bimetallic system will be separately

dealt with.

Speaking only of the experience of France during these years of bimetallic régime, the ebbing and flowing experience which has throughout been instanced as the chief characteristic of such régime is most strongly marked. The legal ratio did not give the market ratio, and so far was it from giving France a stable currency, it was the one thing which unsettled it and made a stable currency impossible. The *exposé des motifs* of the law of 1876, which will be referred to in another connection below, puts the matter with official brevity. "The variations of the commercial from legal 15 $^1/_2$ ratio remained normal during the years 1824-67. All the same they sufficed to modify greatly the composition of the French circulation. After the predominance of silver, which became marked in 1847, the ratio from 1847-67 introduced gold in a large proportion, and measures had to be taken to retain in France the smaller silver coinage. Our silver *monnaie d'appoint* of .835 fine was created for this purpose."

To regard this question from a theoretic and international point of view, to the exclusion of any regard for the separate national interests of France, is a sheer absurdity. It mattered little or nothing to France that by unloading the stores of silver she happened to possess at the time of the gold discoveries of the Fifties she helped to steady the ratio for the world at large. It did however matter, and very much, that this process of exchange from the one metal to the other was attended with public loss, balanced only by illicit private gain, and with a disturbance of trade in every town of France through the disappearance of the smaller silver specie. Whether or not France or any other country is called

upon to sacrifice herself thus—not once but every time the ratio fluctuates from below to above the legal ratio or *vice versa*—for the sake of an ideal, bimetallic, regulating, function, let common sense decide.

The French monetary commission of 1867 speaks thus of the situation—

"It is well known by all that this ratio [of 1803] by the simple reason of its being fixed could not remain correct. There was quickly a premium on gold, and silver remained almost alone in circulation until near 1850. The discovery of the mines of California and Australia suddenly changed this situation by throwing into the European market a very considerable quantity of gold. By the side of this force, which tended to create a divergence from the legal ratio by lowering gold, there was another which occasioned a rise of silver. Under the influence of various circumstances, too long to enumerate, the needs of the extreme East had grown in unusual proportions, and as silver is alone in favour there, it was exported in enormous masses. There was a premium on silver to the extent of 8 per mille, and it disappeared almost completely from circulation, yielding place to gold.

"Preoccupied by the situation the Government charged a commission to study the measures to be taken. Its labours are summed up in the report of M. de Bosredon (1857). After examining the system tending to preserve silver money intact by lowering the value of gold money, and conversely the system tending to the adoption of the gold standard by reducing the silver money to the state of billon, the commission did not decide between them. It confined

itself, in fact, to counselling the Government to a transitory step—the raising of the export duties on silver.... The exportation of silver, therefore, continued; and if the disappearance of 5-franc pieces was not remarked, because they were replaced by gold, it was not the same with the scarcity of pieces of a smaller value employed in petty payments.

"Being informed of the obstruction to retail commerce by complaints carried before the Senate, and instructed by the example of Switzerland, which had in 1860 reduced the standard of its divisional money, the Minister of Finance appointed a commission, 1861, to study the remedy to be applied to the evil. This commission counselled the reduction of the standard of pieces of less than 5-francs to .834 fine. It did this in complete knowledge of the cause, fully recognising that in so doing the monetary unity of silver, characteristic of our system, would be thereby broken, at anyrate for its circulating form; for while the franc no longer existed in law, the 5-franc was disappearing in fact, so that the change was equivalent to the establishment of a gold standard."

This advice of the commission was however, by the law of 1864, applied only to pieces of 50 or 20 centimes.

The next step in the process was the formation of the Latin Union in the year following. The above-quoted commission speaks of the intentional aspect of this Union in these words: "This convention places in the front rank gold money, and reduces the pieces of silver of 2 francs and less to the *rôle* of token money. It therefore definitely determines [*consacre*] the ascendency of the gold francs, and solves practical

difficulties arising from the double standard."

This was written in 1867, less than two years after the formation of the Latin Union. It is not the view which prevails among bimetallists to-day as to the purpose and intentional bearing of that Union; but it is the historic truth none the less, and it was only the complete revolution in the conditions of production of the precious metals which made itself felt from 1871, which has given the Latin Union the aspect of a theoretic concert for the maintenance of, rather than as a defence against, a bimetallic system. If silver had not fallen in 1871 the Latin Union would still be the bulwark of defence of bimetallic France against the action of bimetallic law.

*THE LATIN UNION*

The formation of the Latin Union, therefore, was a measure of defence against the action of the bimetallic system in those countries which had adopted the monetary system of France, and lay exposed to all its disastrous fluctuations. The first and moving factor in its formation was Belgium. So far as related to silver, Belgium had adopted the French system by her monetary law of 5th June 1832. By the first article of this law the monetary unit was fixed at the silver franc of 5 grms. weight, and 9 fineness. For years Belgium endeavoured to maintain this law in its integrity. Public opinion, however, demanded the admission of French gold at its normal value, and this was conceded and decreed by the law of 4th June 1861. From that moment she felt all the oscillating movement which France was experiencing. The declaration of Article 1. of the law of 1832 became a dead letter; the gold standard took

the place of the silver standard, and equally with France, Italy, and Switzerland, Belgium had to witness the disappearance of her small silver coins. To the previous abundance there succeeded a penury of small change, although the drain was not so immediately felt because of large reserve of silver 5-franc pieces (amounting to 48 millions of francs) held by the National Bank. In slightly over a year, 1st June 1861 to 8th November 1862, this stock of 48,645,000 francs had sunk to 14,629,000 francs, and in alarm the National Bank ceased, on the latter date, all payments in 5-franc pieces. Concurrently with this drain of the 5-franc pieces, the reserve of silver coins of less value began to be seriously affected by the sapping influence. During the two following years, 1861-63, there was little commerce in the precious metals owing to the American war. But in 1863 the movement of drain recommenced. The reserve of 5-franc pieces and the stock of divisional coins of lower denomination fell rapidly, to so low a point indeed as to become quite insufficient for the ordinary trade and small change demanded of the country. After a slight recovery in September 1865, the same downward course continued. The smaller coins, of 1-franc piece, and 50 centimes became so scarce that the bank could not supply the demands of manufacturers for the payment of wages, and the Government had to have resort to the coinage of nickel for small divisional money. The simultaneous experience of Switzerland and Italy is not so capable of statement and exact expression. But it was similar in kind. Previous to 1865 a net balance of over 12 millions sterling (consisting almost if not entirely of silver) had left Italy, and it was known to be the danger of entirely losing her silver which led Italy to the suspension of

cash payments on 30th April 1866, and to her acquiescence in the Latin Union. It was not, however, Italy, but Belgium who first raised the note of alarm. Conscious that her monetary community with France made any independent efforts quite futile, the Belgium Government proposed to France a monetary union for all the countries which had adopted the franc as the basis of their currency. Taking up the proposition France invited Italy and Switzerland, together with Belgium, to send delegates to a monetary conference at Paris. At this conference Belgium proposed the adoption of the single gold standard—the silver pieces including the 5-franc pieces to be lowered by an agio, and made divisional money. Italy and Switzerland were of the same opinion, but their scheme failed before the opposition of France, and the final outcome of the conference was the establishment of the convention of 23rd December 1865.

This convention, which instituted the Latin Union, came into force on the 17th of August 1869; and under it one slight change was made in the internal currency system of France. The hitherto full-valued silver coinage from 2 francs downwards was changed into token money (being reduced to .835 fine), the 5-franc piece remaining as full legal tender.

The union was to last for fifteen years. It established an identity in the monetary system of the four powers, as far as weight and standard were concerned, and prescribed free coinage for any individuals bringing metals to the Mints—of gold into any form, and of silver into 5-franc pieces; and reciprocal acceptance of those pieces in any of the States of the union. Finally the minting of each State for national or currency purposes was limited to 6

francs per head.

This limitation, together with the regulation adopted, that the divisional coins should be issued at a rate inferior to that of the monetary standard, must be regarded as a measure of mutual defence against the sapping of the small coinage which had previously been experienced. According to this clause the maximum of mintings for national or currency purposes was presented thus—

| | **Francs.** |
|---|---|
| For Belgium | 32,000,000 |
| France | 239,000,000 |
| Italy | 141,000,000 |
| Switzerland | 17,000,000 |

For a time everything bloomed, the minting went merrily on, and private individuals (foreigners) reaped a profit at the expense of France. With the heavy fall in the ratio which made itself marked in 1873, however, events became too strong even for the Union, and Belgium took the initiative by passing a law enabling her Government to suspend or limit the coinage of the 5-franc piece. This principle was subsequently adopted by all the states of the Latin Union. During the years, 1874-76, three annual conferences of the Union were held at Paris, with the result that the limitation of the coinage of the 5-franc piece was fixed thus—

| | **1874.** | **1875.** | **1876.** |
|---|---|---|---|
| Belgium | 12,000,000 | 15,000,000 | 10,800,000 |
| France | 60,000,000 | 75,000,000 | 54,000,000 |
| Italy | 60,000,000 | 50,000,000 | 36,000,000 |

| | | | |
|---|---|---|---|
| Switzerland | 8,000,000 | 10,000,000 | 7,200,000 |
| Greece (which had acceded to the Union in 1868) | 12,000,000 | | |

Of these states Switzerland alone did not coin up to her total, and at the conference in February 1876 her delegates pressed strongly for the entire cessation of the coinage of the 5-franc piece, and for the adoption of a gold standard. In this she was strongly opposed by Italy. The latter state, on account of the disappearance of her metallic currency before the inconvertible paper, had no interest in the limitation of the mintings of the Union. In the conference of 1874 she even sought and was authorised to coin beyond the quota accorded her, by a sum of not less than £800,000 in 5-franc pieces, on condition that such amount should be deposited as a metallic reserve of the Bank of Italy.

The force of circumstances, however, soon broke down even this policy of limitation. In the course of 1876 the fall of silver became more disastrously pronounced. In addition, it was no secret that the amounts accorded by the conferences of 1874-75-76 for the mintings of each state, had been assigned as maximum, not minimum limits, under the Latin Union.[16]

The next Mint convention of November 1878 would determine the Latin Union on the 31st December 1885, if not prolonged by further treaty. As the time approached the smaller states, such as Belgium, which had committed themselves to a large minting and thereby to the liability of having to liquidate or take back its own mintings—such 5-franc pieces as happened to be beyond its frontiers—at full value, in the face of a greatly fallen silver market, shrank from

the responsibility, and sought and obtained a prolongation of the *status quo* until the end of 1891, and thenceforward by yearly agreement.

Finding that individuals treated the agreed amounts of mintings as a minimum limit, the French Government resolved to suspend the minting of the 5-franc pieces entirely. Accordingly, on the 21st March 1876, M. Léon Say, Minister of Finance, submitted to the Senate a Bill to that effect. It was followed, eight days later, by a proposition of a law suspending the emission of "*bons*" for the coining of silver money $^{9}/_{10}$ fine. The *exposé des motifs* of this Act is most remarkable:—

"The events which have happened for some time past in the relations of the precious metals have brought to a head the monetary question amongst us, although from 1815 Great Britain has laid down principles which have attracted round her an ever-increasing circle of nations.

"The theory of the double standard, on which our monetary law of the year XI. reposes, has been called in question ever since its origin.

"It is, to our conception, less a theory than the result of the primitive inability of the legislators to combine together the two precious metals otherwise than by way of an unlimited concurrence—metals, both of which are destined to enter into the monetary system, but which recent legislators have learned to co-ordinate by leaving the unlimited function to gold alone and reducing silver to the rôle of divisional money. From 1857 the French Government has studied the question, and it may be stated that since that date the principle of the gold standard has won increasing favour through our

several administrations."

Then follows an account of the monetary history of France during the period, as in brief résumé already given. "If," the preamble continues, "from 1874, certain precautions had not been taken to arrest the effects of that grave perturbation in the ratio, France and her monetary allies would have seen their monetary circulation invaded by silver and correspondingly drained of gold." Hence the conventions of 1874-75-76, limiting the mintings of the members of the Latin Union, although, "according to us, the fall of silver in 1875 prescribed a complete cessation even for that year rather than a simple limitation."

## Germany.

Until the unification of Germany in our own days, and the adoption of the present imperial currency system, German monetary history reproduces perpetually all the elements of that mediæval system, bimetallic in fact though not theoretically so conceived, which England flung away in 1816, and from the toils of which France has not as yet completely emerged.

As safeguards against the evils of that system which she had felt with such bitter experience, and which had culminated in the crisis closing the Thirty Years' War, Germany could only feebly employ the mechanism of ineffectual Mint conventions. For a century she persevered in the effort to establish a common standard and Mint system, but in vain. The attempt had to be abandoned, and the reeling system left to its own process of disintegration; and when at

last the events of 1871 came to give her unity in her coinage, as well as political life, there were not less than nine distinct and independent coinage systems in existence.

Hardly had the crisis of the Thirty Years' War passed out of mind before again the currency system had begun to work its baneful effects.

*GERMANY: THE ZINNAISCHE STANDARD*

In 1665 complaints were loudly made of the corrupt and debased state of the coin, due to export and culling. There is, indeed, quite a literature of these same complaints. The language of the *Reichstattisches conclusum* (Ratisbon, 12th September 1666) expressly attributes this export to the higher value set upon the gold in foreign countries, especially Venice. And the statement of the warden of the Mint of the three corresponding circles—Franconia, Bavaria, and Swabia—delivered in his *Gutachten* of the preceding May, was that the place of these good German ducats had been taken by very depreciated coins of Italy, France, England, and Holland. The three higher circles, accordingly—Franconia, Bavaria, and Swabia—met in conference and determined on a thorough investigation. The advice submitted to them was to raise the thaler from 90 to 96-kreutzer (see account of German coinage, Appendix V.), implying a lowering of the ratio from 15 to 14 $^{1}/_{8}$. This proposed scheme was accepted, *in comitia*, in 1667, the fifth article of the resolution specially mentioning the infliction of numerous intruding base foreign divisional money. From this scheme Brandenburg

and Saxony held off, maintaining that the ratio had not been sufficiently lowered, considering the condition of the production of gold; and, in the same year, by a Mint treaty between Frederick William of Brandenburg and the Elector of Saxony, the so-called *Zinnaische* standard was adopted for those two states. According to this standard, the Reichs thaler was raised to 105-kreutzer (1 florin 45 kreutzers) and a ratio of 13 5/9 was established.

The result of this action of Saxony and Brandenburg was to strip the three higher circles of their silver, and in two years (1669) they anxiously met again to consider the question, not only of the foreign base coin everywhere prevalent, but also of the damaging exchange "and ceaseless melting down and exchange of proper coin from the circles."

By a strenuous effort the three circles carried through the Reichstag of 1680 their resolution to reduce the Reichs thaler to 90 kreutzer (ratio 15 1/4). From this decision the Emperor stood apart, with Bavaria and Salzburg, in putting the Reichs thaler at 96 kreutzer.

In view of such contrariety the impossibility of any general régime for the empire became apparent, and further attempts at it were practically abandoned. It was the perception by the mercantile community, as well as by the various Governments, of the consequences of such disorder, that led to the establishment of the so-called Leipzig standard in 1690. This standard was promoted by John George III. of Saxony, and established by treaty between Saxony, Brandenburg, and Brunswick-Luneburg. According to it the Reichs thaler was raised to 120 kreutzers, or 2 florins, the mark being minted into 12

thalers or 18 guldens.

The result of the introduction of this standard was that in a few years the raising of the Reichs thaler to 120 kreutzers prevailed all over the empire. Sweden accepted it in the same year, 1690, and three years later the three upper circles acquiesced. At the same time the gold gulden was advanced to 2 florins 56 kreutzers. The previous ratio of 15 was thereby advanced to 15.1 (15 $^{128}/_{1278}$).

In 1738 the Reichstag determined on the adoption of the Leipzig standard for the whole empire; no alteration was made in the Reichs thaler, which was still retained at 2 florins and minted at 12 to the mark fine; but a graduated scale of agio was adopted for the divisional coins, which were minted at an equivalence of from 12 $^{3}/_{8}$ to 13 $^{2}/_{3}$ thalers to the mark fine. The difference (varying from $^{3}/_{8}$ to 1 $^{2}/_{3}$ thalers) represented the agio.

*GERMANY: THE CONVENTION STANDARD*

From the first, however, the Leipzig standard had no more real success than any of its predecessors. Although theoretically accepted by all North Germany, and adopted in the Reichstag in 1738, it could obtain no actual general adoption through the empire. Even from the moment of the inception of the system in 1690, the process of competitively raising the course of the coinage had still continued, and pieces of 30, 20, 15, and 10-kreutzers were struck on a basis of from 20 to 21 $^{1}/_{3}$ gulden to the mark. The result was to put upon the *carolus*, which

from 1730 onwards was minted in great quantities in South-West Germany, an agio of 10 per cent., a differentiation which was much increased by the disorders of the war of the Austrian succession. Such an agio swiftly drove the larger, full-valued specie out of currency, and during the continuance of that war the currency of Austria and South Germany was almost entirely reduced to depreciated fractional pieces, while the exchangers reaped untold advantage. It was on the close of this war, in 1748, that, with characteristic Austrian selfishness, though also with a boldness none of his predecessors had approached, the Emperor, Francis I., determined on the erection of the 20-gulden standard as a separate Austrian independent system, minting the mark of fine silver into 13 $^1/_2$ Reichs thalers, or 20 guldens. This latter system, after the accession to it of Bavaria, obtained the name of the Convention Standard, and the 2-gulden pieces minted under it are styled the Species or Convention Thaler. The convention system remained in force in Austria until the Vienna Coinage Convention of 1857, a period during which the *Convention Thaler* found wide circulation through South Germany.

The currency was eked out by the Austrian gold ducats and by vast quantities of foreign silver, French *6-livre thalers* (current for 2 florins 48 kreutzers) and the *crown* or *Brabant thaler* (current for 2 florins 42 kreutzers). From 1807 onwards this latter coin was imitated by the South German States, Bavaria especially, in their *crown thaler*, minted on a fresh basis of 24 $^1/_2$ guldens to the mark of fine silver.

The selfish initiative of Austria was followed by Prussia and the South German States. The latter, the

Rhenish and South German States, adopted in 1761-65 the 24-gulden; subsequently changed into the 24 $^{1}/_{2}$-gulden standard (see Appendix VI.). The overvaluation of the *Kronthaler*, which led to that latest development from a 24 to a 24 $^{1}/_{2}$-gulden standard, was the result of the immense circulation of French 6-livre pieces (known in Germany as *Laubthalers*) in South-West Germany. Graumann quite discredits the theory that the overswimming of South Germany by these French pieces, with all the confusion in the currency which resulted, was due to the wars and the progress of French arms, and directly attributes it to the depreciation of the French specie, and to their quite deliberate departure from the standard of French coinage as fixed in 1726.

### *SOUTH GERMAN AND PRUSSIAN SYSTEMS*

In Prussia the reform of the coinage system was undertaken by her first King, Frederick I., father of Frederick the Great. In 1750 the latter adopted the 14-thaler or 21-gulden standard, subdividing the thaler into 24 groschens of 12 pfennige each. The measure was undertaken expressly to stop the export of gold which was going on. The adoption of a standard lower than the Convention standard effectually prevented the outflow of Prussian money, and it was not until the beginning of the present century, through the new Mint confusion which arose from the French Revolution, that Prussian money spread into Saxony, Hanover, Hesse, and even into the south-west. The second idea of Frederick's reform was to buy gold cheap, but in this it did not

succeed. The intention was to obtain for five Prussian thalers the gold *pistoles*, which were purchasable for five convention thalers. This rate, however, never prevailed in the market, as from the first the *pistole* was valued at 5 1/4 Prussian thalers. During the Seven Years War, when Frederick was driven to a depreciation of his coinage, his system went to pieces. But an active reform was undertaken upon the conclusion of the peace of Hubertsburg, 1763. The 14-thaler system was re-established, although, as far as the smaller divisional silver coinage was concerned, the depreciation, in which Frederick had been imitated by the pettier states round him, continued into the present century.

In 1821 a minor alteration was made in the Prussian system, by subdividing the thaler into 30 instead of as previously 24 groschen, the former being distinguished from the latter by the title of *silver groschen*. To this Prussian or 14-thaler system Saxony acceded, as did also, in 1848, Mecklenburg and Oldenburg, with many minor differences of detail,—Saxony, for example, dividing the silver groschen into 10 pfennige; Mecklenburg dividing the thaler into 48 schillings of 12 pfennige each; and Oldenburg dividing it into 72 grotens of 5 schwarens each. The gold coin was supplied by the Prussian and Hanoverian 5 and 10-thaler pieces, the Friedrichs *d'or*, a favourite trade coin even in South Germany, and by Spanish *pistoles* circulating at an equivalence of 4 6-livre thalers.

*CONFERENCE OF MUNICH, 1837*

The confusion of these various German systems was further increased by the uncertainty and difference which had come to prevail in the unit of weight. In Austria alone there were 2 marks in use, the Vienna mark (= 288.644 grs.), and the Cologne mark (= 243.870 grs.). While in North Germany, and subsequently in the south-west, the Prussian mark (= 233.855 grs.) prevailed. It was as the outcome of a desire to remedy at once the evil condition and confusion of the currency, and the uncertainty as to weight standard, which led to the conference of Munich on 25th August 1837. At that conference, Bavaria, Würtemberg, Baden, Hesse, Darmstadt, and the Free State of Frankfort, adopted the 24 $^{1}/_{2}$-gulden standard as the standard for their several states. At the same time the Prussian mark (233.855 grms. = half the Prussian pound), was established as the Mint mark for the contracting members. For the divisional coinage (6 and 3-kreutzer pieces) a standard of 27 guldens to the mark was adopted, the details of the various fractional pieces being left to the different states. To this convention Hesse, Hamburg, and the two Hohenzollerns acceded in the following years.

This movement of South Germany gave a new impetus to the idea of Mint unification, and led to the General Mint Convention of the States of the Zollverein, agreed upon in full assembly of delegates at Dresden, 30th July 1838, and ratified also at Dresden on the 7th January 1839. The Dresden Convention was practically the first renewed attempt at Mint unification which Germany had seen since 1738. The contracting members to this general Mint convention were Prussia, Bavaria, Saxony, Würtemburg, Baden, Hesse, Saxe-Weimar, Eisenach, Saxe-Meiningen, Saxe-Altenburg, Saxe-Coburg and

Gotha, Nassau, Schwarzburg-Rudolstadt, Schwarzburg-Sondershausen, Reuss, Reuss-Schleiz, Reuss-Lobenstein, Ebersdorf, and Frankfurt.

Briefly, the articles of the convention were as follow: ——

"1. The Mint mark of all these contracting states of the Customs Union shall be the Prussian Mint mark = 233.855 grms.

"2. On this common weight standard the coinages of the contracting states shall be in accordance with the two systems in existence among the said states, viz. by thalers and groschen, according to the 14-thaler (or Prussian) system; or by gulden and kreutzer, according to the 24 $^1/_2$-gulden (or South German) standard. For the purpose of assimilation or equivalating, the thaler to be reckoned = 1 $^3/_4$-gulden, and the gulden = $^4/_7$-thaler.

"3. The 14-thaler system to be that of Prussian Saxony, Hesse, Saxony, and Saxe-Altenburg, Saxe-Coburg and Gotha (Gotha), Schwarzburg-Rudolstadt (Unterherrschaft), Schwarzburg-Sondershausen, and Reuss; the 24 $^1/_2$-gulden system to prevail in Bavaria, Würtemberg, Baden, Hesse, Saxe-Meiningen, Saxe-Coburg and Gotha (Coburg), Nassau, Schwarzburg-Rudolstadt (Oberherrschaft), and the Free State of Frankfurt.

"4. Each state will confine its mintings to such pieces as prevail in the system of which it forms part.

"5. In larger specie, and also in divisional coin, each state to bind itself to exercise the greatest care to preserve the standard and weight.

"7. For the purpose of the commerce of the

contracting states *union* or *convention* coins (*vereinsmünze*) shall be minted seven to the mark of fine silver, at an equivalence of 2 thalers or 3 $^{1}/_{2}$ guldens, fully tenderable throughout the Union.

"8. Alloy to be .9 silver, .1 copper; so that 6 $^{3}/_{10}$ pieces = 1 Mint mark in weight; remedy = .003.

*THE DRESDEN CONVENTION, 1838*

"9. From 1st January 1839 to 1842, at least 2,000,000 of these *vereinsmünze* to be coined, one-third value except part each year, and by the various states *pro rata* of their population. From 1842 onwards, in case of no new treaty, the rate of minting to be two millions *vereinsmünze* every four years, *pro rata* as before; each state to give an account of its mintings.

"10. Also of their separate trials of standard and weight.

"11, 13. None of the contracting states to set its particular internal specie at any different on a three months' notice, and to renew its currency at face value in case of depreciation.

"12. The states bind themselves not to issue divisional coins in excess of such *pro rata* requirements as above.

"14. For the divisional coinage the standard of the convention of Munich, 1837 (viz. 27 gulden), is adopted.

"18. The treaty to endure till the end of 1858. States

intending to retire then to give two years' notice. From that date, if not discarded, the treaty to be periodically renewed (five-yearly)."

This treaty continued in force nominally until the later and still more famous convention of Vienna in 1857, before which date Hanover, Brunswick, and Oldenburg had also given in their adherence to it.

At the time of the Mint Conference and Convention of Vienna, therefore, there were, broadly speaking, three competing systems in Germany, viz. of Austria, Prussia, and South Germany or Bavaria.

One aspect of this latter conference of 1857, viz. its deliberations with regard to gold coinage, will be referred to separately. As far as relates to its attempted systematisation of these three German currencies the agreement took the following form:—

1. The pound of 500 grammes decimally subdivided, to be used as the basis of the coinage.

2. The competing systems to be assimilated to this basis by the following regulation:—

The thaler (or Prussian) standard of 30 thalers to the pound of silver to take the place of the 14-thaler standard, and to prevail in Prussia, Saxony, Hanover, Hesse, and a string of minor states.

The Austrian standard to be on the basis of 45 guldens out of a pound of fine silver, and to prevail in the Empire of Austria and the principality of Lichtenstein.

The South German standard to be on the basis of 52 $^1/_2$-gulden to the pound of silver (instead of the 24 $^1/_2$-florin standard formerly used), and to prevail in

Bavaria, Würtemburg, Baden, Hesse, Frankfurt, and a few other places of South Germany.

The equivalence of the systems was to be—

One-thaler convention piece ( $^1/_{30}$ pound) = 1 $^1/_2$ florins in Austrian currency = 1 $^3/_4$ florin in South German currency.

All the coins to be of unlimited validity in all the states, divisional coinage to be of a lighter standard than the coinage standard of the country, but lighter only within limits fixed. The tender of these latter to be limited to 20-thaler or 40-gulden.

### *THE VIENNA CONFERENCE, 1857*

The regulations adopted by this Vienna Convention as to the gold coinage are very significant, and deserve special note.

The advance in the gold price of silver, due to the Californian and San Franciscan gold finds, acted on the silver-using countries. As soon as the price of bar silver exceeded 60 $^7/_8$-pence per standard oz., there resulted a melting down and export of the silver, in the countries which had adopted bimetallism at the 15 $^1/_2$-ratio.

It was this experience in France, and the allied group of countries, which led to the formation of the Latin Union in 1865. In mere point of date, that union had been preceded by the Vienna Conference and Convention by a matter of eight years. And as far as the regulations of this latter relating to gold coinage are concerned, there is evidence that the bimetallic

action of France had driven Germany to her union of 1857, as a mere matter of self-defence, just as it later drove the Latin states to their union of 1865. In both cases the underlying motive was a wish to protect that part of their currency system which was threatened by bimetallic law. The premium on gold, on its minting, *i.e.* the profit to be made on minting it at 15 $^1/_2$ in France, while its market value was considerably less in Germany and elsewhere, drew the gold to France. It is a mistake to think that France attracted gold simply from California and Australia. She attracted it by the action of bimetallic law from her neighbour Germany, and replaced it by 5-franc silver mintings. The circulation of French 5-franc pieces was so extensive in South Germany, in the period preceding the Vienna Convention, that the cash reserve of the Frankfort bank was at one moment composed almost entirely of them.

The manner in which the Vienna Convention met the difficulty has the appearance of plausibility, though it proved in the end ineffectual. It determined not to establish a fixed ratio but to follow the market price of gold, apparently in the hope of attracting a natural or market supply.

"For the purpose of further facilitating mutual transactions, and for the promotion of trade with neighbouring countries, the contracting powers may coin convention trade coins in gold, under the names *crown*, and *half-crown*.

"1. The crown = $^1/_{50}$ of a pound of fine silver.

"2. The half-crown = $^1/_{100}$.

"The contracting powers may not coin any other gold piece, except Austria, which retains the right of

coining *ducats* of the present value, to the end of 1865.

"The silver value of the convention gold coins in ordinary intercourse is entirely fixed by the relation of the supply to the demand. They must not, therefore, be considered as a medium of payment of the same nature as the legal silver currency of the country, and no one is legally bound to receive them as such.

### *THE VIENNA CONVENTION, 1857*

"Each state is at liberty to permit convention gold coins to be paid into their offices instead of silver, according to a previously settled fixed rate, and to extend this permission either to all transactions and offices, or only to some. Such previous settlement of the rate is, however, never to last more than six months, and must at the expiration of the last month always be renewed for the following official treasury period of exchange. The rate cannot be fixed at a higher value than that given to such coinage by the average of the official commercial rate of exchange during the previous six months. Each government also reserves to itself the right to alter the rate at any time within the period fixed, and to suspend it when it thinks proper.

"A treasury rate of exchange shall henceforth only be fixed for convention gold coins, and not for other kinds of coined gold.

"The widest circulation to be given to the notices by which the official rate of exchange is fixed. They

must be published beforehand, even when a change in rate for the next fixed period is not intended, and must contain—

"1. The statement of the average trade exchange at the principal places of exchange, during the six months immediately preceding.

"2. The treasury rate fixed accordingly.

"3. The duration of the value of the same.

"4. The reservation to alter or recall this rate of exchange if necessary, even before the expiration of the term named.

"5. The declaration that such rate of exchange only affects payments to be made into offices of the state.

"In the countries of the contracting powers pay-offices of the State, as well as public institutions, banks, etc., shall not be allowed in future, in payments to be made by them, to make any proviso with regard to the medium of payment in silver or gold, in such a way that for the latter a certain fixed relative value should be expressed beforehand in silver money."

From the point of view of Austria, this convention had been entered upon with the desire of effecting a gradual adoption of gold coinage, together with a concurrent ceasing of the compulsory note circulation. The outcome of the conference was, however, in quite distinct opposition to this desire, as the agreement which was finally arrived at established the maintenance of a pure silver currency. The continuance of the gold *crown* of 10-grs. fine gold was recognised only as a trade medium. This experiment of a trade gold coin failed

completely, though it is none the less interesting intrinsically, as well as for its reflex bearing on the similar schemes which were proposed in the early years of the French Revolution. The premium on the minting of gold drew it to France, in preference to any other place where a simple market price prevailed. And the 20-franc gold pieces of France overflowed, while the German crowns could not struggle into existence.

*GERMANY: ATTEMPTS AT REFORM, 1860-70*

The attempt which was made by a commercial conference at Hamburg, at the time of the meeting of the Vienna Conference, to secure the introduction by the Hamburg Bank of a gold instead of a silver *valuta*, remained equally ineffectual.

As far as concerns the establishment of a simple and single monetary system for Germany was concerned, this Vienna Convention, the last great convention which Germany saw previous to the reconstruction of her system in 1871, was as futile as that of Dresden in 1838, or as all the conventions of the seventeenth and eighteenth centuries previously.

The consciousness of the need of such simplification and unification, however, became thereby only the more apparent. Four years later the first German Handelstag, which met in May 1861 at Heidelberg, turned its first and special attention to the erection of some common currency system. The recommendation which it finally concluded upon was the adoption of the *Dritteltha*ler as the unit mark,

with a decimal subdivision. Four years later the third Handelstag, which met at Frankfort (September 1865), confirmed the resolution, with the additional proposition of the minting of a gold piece identical with the 20-franc piece, the value of which should be regulated from time to time; the scheme being, therefore, as before, that of a silver standard, with gold as trade money. The fourth Handelstag met at Berlin in October 1868, and again the matter was most seriously discussed. With the single exception of the Berlin members, all the deputies declared for the adoption of the gold standard. As, in the preceding year, Austria had withdrawn from the German Monetary Union of 1857, she no longer stood in the way of this proposition, and the erection of the North German Union distinctly favoured the project.

In June 1870 the Bundesrath of the North German Union resolved upon a reform and unification of the paper money, as preparatory to a complete currency reform, and in the same month the Chancellor of the North German Union had decided to call a Mint Convention. The outbreak of the Franco-German War immediately afterwards put a short stop to the proposal.

A long train of preparation had thus been laid, and there can be little doubt as to what the ultimate direction of German monetary legislation would have been, even without the war, and the consequent erection of the Empire. That the latter event, however, enormously facilitated the process cannot for a moment be questioned.

*GERMANY: NEW*

*IMPERIAL SYSTEM, 1871*

When the subject was taken up after the Franco-German War, the determination to adopt a gold coinage was only gradually arrived at. In the original plan, as drafted soon after the conclusion of peace, the new gold coinage proposed was intended not to be tenderable, for the meantime, in private commerce. Such a provision roused all the opposition of the mercantile community, and in consequence of the agitation the scheme, as finally submitted to the Reichstag, was for a gold monometallic system. The law passed on the 4th December 1871, and the great operation of recoinage and conversion was immediately entered upon. It was greatly favoured by the ratio existing at the moment, and by the metallic condition of the world. The ratio taken as the basis of the computation was the French 15.5, accepted because of its long and present wide employment.

The previous silver standard thalers were taken as equivalent to 3 marks.

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30 thaler = 90 mark = 1
pound fine silver.
90 × 15.5 = 1395 marks.
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The gold piece of 10 marks was therefore coined at a tale of 139 $^{1}/_{2}$ to the pound of fine gold.

Propositions were made to the Reichstag that the 20-franc piece should be made equivalent to the English sovereign, or to the 25-franc piece, giving respectively a ratio of 15.17 or 15.31, but at the moment the price of silver in the London market

ruled between 60 $^{7}/_{8}$ and 60 $^{3}/_{4}$ pence per ounce, *i.e.* at a mercantile ratio of 15.49-15.52. It was this fact which decided the adoption of the French ratio.

The chief Acts which have accomplished the reform are of dates 5th December 1871 and 9th July 1873, the first declaring the monetary system and the latter the law of tender.

The unit of the system is the mark, which is the $^{1}/_{1255}$.5 part of a pound of gold of 500 grammes at $^{9}/_{10}$ fine, and is coined into pieces of 20 and 10 marks. The gold crown is a 10-mark piece, is $^{9}/_{10}$ fine, and struck at a tale of 139 $^{1}/_{2}$ pieces to the German pound; charge for coinage, 3 marks per pound of fine gold.

The pound of fine silver is struck into 100 marks, $^{9}/_{10}$ fine. The total amount of silver coin not to exceed 10 marks per head of population. No individual need accept more than 20 marks of imperial silver coin in payments. They are accepted in any amount by the Empire and by the Federal States.

All other German coins are no longer legal tender, and have been withdrawn, with the single exception of the thaler pieces. Whatever pieces of this kind still exist are legal tender to any amount, like the imperial gold coins, each being equal to 3 marks. An Act of 20th April 1870 provides that *Vereinsthalers* coined in Austria before 1867 should also be full legal tender. An Act of 6th January 1876 has authorised the Bundesrath to put the thaler pieces and the Austrian *Vereinsthalers* on the same footing as imperial silver coins, *i.e.* to make them legal tender only up to 20 marks, the thaler being still reckoned at 3 marks. Since the suspension of silver

sales and of the withdrawal of the silver thalers (May 1879) there is no likelihood that the Bundesrath will make use of this authority conferred upon it.

In briefest résumé, the course of the silver coinage during the preceding century may be presented thus: —

**GERMANY—COURSE OF THE 1-THALER PIECES.**

| | | **Thalers.** |
|---|---|---|
| Total minted during 1750-1816 | | 64,380,936 |
| Withdrawn by the Government of the States | 27,788,956 | |
| Withdrawn under the new Imperial System, 1871-3 | | 5,652,999 |
| " " 1874 | 6,319,170 | |
| " " 1875 | 2,900,202 | |
| " " 1876 | 2,582,123 | |
| " " 1877 | 1,465,424 | |
| " " 1878 | 864,253 | |
| | | 47,573,127 |
| Leaving a balance not accounted for of | | 16,807,809 |
| | | **Thalers.** |
| Total minted during 1817-22 | | 24,261,735 |

| | | |
|---|---|---|
| Withdrawn under the new Imperial System, 1871-3 | 3,623,511 | |
| " " 1874 | 5,147,970 | |
| " " 1875 | 2,580,580 | |
| " " 1876 | 2,373,496 | |
| " " 1877 | 1,421,719 | |
| " " 1878 | 766,908 | |
| | | 15,914,184 |
| Leaving a balance not accounted for of | | 8,347,551 |
| | | **Thalers.** |
| Total minted during 1823-1856 | | 91,031,741 |
| Withdrawn under the new Imperial System, 1874 | 40,000 | |
| " " 1875 | 566,677 | |
| " " 1876 | 11,250,277 | |
| " " 1877 | 5,753,269 | |
| " " 1878 | 4,640,068 | |
| | | 22,250,291 |
| Leaving a balance not accounted for of | | 68,781,450 |
| | | **Thalers.** |

| | | |
|---|---|---|
| Total minted during 1857-71 | | 215,863,120 |
| Withdrawn by the Government of the States | 2,538 | |
| Withdrawn under the new Imperial System, | 1875 | 3,000 |
| " " | 1876 | 25,958 |
| " " | 1877 | 64,806,347 |
| " " | 1878 | 18,915,167 |
| | | 109,635,938 |
| Leaving a balance not accounted for of | | 106,177,182 |

| | **Thalers.** |
|---|---|
| On the whole period, 1750-1871, the total minted 1-thaler pieces amounted to | 395,537,532 |
| Total withdrawn | 195,423,540 |
| Leaving a balance not accounted for of | 200,113,992 |

Allowing 83,062,882 thalers as a rough equivalent for the loss by attrition, there is still a deficit of 117,051,000 thalers, or about £17,557,650 sterling to be accounted for (and laid to the account of remintings and loss by arbitrage).

**ACCOUNT OF THE MINTING OF THE RECONSTRUCTED GERMAN EMPIRE—GOLD—**

**FROM 1872 TO DEC. 1878**

| Origin of the Bullion supplied to the Mint. | Supplied for the Empire. | Supplied fo Accou |
|---|---|---|
| | Pounds Weight Fine Gold. | Pounds Weigh |
| German gold coin of the old type | 64,092.3 | 1 |
| Bars | 402,382.6 | 214,82 |
| Austrian gold coins | 381.7 | 71 |
| Francs and Napoleons | 391,166.5 | 80 |
| Sovereigns | 30,181.3 | 22 |
| Russian gold coins | 28,252.3 | 20,86 |
| Isabellas | 12,822.9 | ... |
| Dollars and Eagles | 16,860.1 | 20,54 |
| Turkish gold coins | 51.0 | 1,08 |
| | 946,191.2 | |

Making a complete total, with odd amounts from various sources, and including imperial gold coins minted in 1877-78 but now no longer current, of 1,205,786 lbs. weight = £84,103,584.

SALES OF SILVER BY THE

GERMAN GOVERNMENT FROM 1873 TO THE SUSPENSION OF THE SALES IN MAY 1879

**SALES OF SILVER BY THE GERMAN GOVERNMENT FROM 1873 TO THE SUSPENSION OF THE SALES IN MAY 1879**

| Date. | Pounds of Fine Silver. | Product. | Price Per oz. |
|---|---|---|---|
| | | Marks. | Pence. |
| 1873 | 105,923.372 | 9,296,682.77 | 59 5/16 |
| 1874 | 703,685.175 | 61,135,670.29 | 58 3/4 |
| 1875 | 214,898.594 | 18,208,449.08 | 57 1/4 |
| 1876 | 1,211,759.204 | 93,936,482.37 | 52 3/8 |
| 1877 | 2,868,095.533 | 230,424,238.51 | 54 5/16 |
| 1878 | 1,622,696.403 | 126,203,852.08 | 52 9/10 |
| 1879 | 377,744.712 | 27,934,417.89 | 50 |
| | 7,104,895.993 | 567,139,992.99 | |

The total silver withdrawn from circulation up to the close of 1880 was 1,080,486,138 marks.

Of this amount 382,684,841 marks were delivered to the Mint for coinage into the new imperial silver coins.

The remaining 696,797,069 marks were melted into silver and produced 7,474,644 pounds of fine silver. Of this quantity 7,102,862 were sold up to May 1879. The balance of unsold silver still in the hands of the Imperial Government is 339,353 pounds of fine silver.

## England.

Charles II. began his regulation of the currency by the proclamation of 29th January 1661, fixing the coins to be current and their tariff. This proclamation was followed by another, of 10th June 1661, against the export of gold or silver, and against buying or selling the metals at higher rates than were given at the Mint, a practice to which the proclamation attributed the scarcity of money. This edict proved of no avail, for, in spite of it, the gold coins were exported in such quantities that they were current more abundantly in foreign parts than in England. As the result of deliberation of the Privy Council, assisted by the Commissioners of Trade and officers of the Mint, who all attributed the export to the higher price of gold abroad, it was determined to raise the price of the gold coins to or near the value which they had on the Continent at the moment. Accordingly, by proclamation of the 26th August 1661, the value of the gold *unite* was raised from 22s. to 23s. 6d., and other gold coins in proportion, the silver currency being left unaltered.

In referring to the Act for the free trade in gold and silver (*supra*, p. 162), mention has already been made of the motive of the legislator, namely, to increase the importation of the metals to the Mint. Exactly similar was the intention, as expressed in the preamble of the succeeding Act of 1666 (8 Charles II. c. 5), which abolished the right of seigniorage, thereby establishing free and gratuitous coinage in England—the principle of minting still in force in this country.[17]

*ENGLAND: CHARLES II*

The testimony of both Act and declaration as to the

scarcity of money is confirmed by actual record. In the following year, 1667, there was a great scarcity of money, and *dollars* and *pieces of eight* were bought up by the goldsmiths and bankers for 4s. 3d. each, and instead of being brought to the Mint were at once exported to France for 4s. 10d. and to Ireland and Scotland for 5s.

According to the new indenture for the coinage of 1670, a slight reduction in the standard of the gold took place, the pound of crown gold (22 carats fine) being to be minted at a tale of £44, 10s. The scarcity of money still continued, however, and the separate experience of Ireland only corroborated that of England. The general statement of the case as to the fate of the coined money since the Act of 18 Car II., which instituted free coinage, is thus put by Sir Dudley North, in his *Discourses upon Trade*: "I call to witness the vast sums that have been coined in England since the free coinage was set up. What is become of it all? Nobody believes it to be in the nation, and it cannot well be all transported, the penalties for so doing being so great. The case is plain—the melting-pot devours it all; and I know no intelligent man who doubts but the new money goes this way. Silver and gold, like other commodities, have their ebbings and flowings; upon the arrival of quantities from Spain, the Mint commonly gives the best price, *i.e.* coined silver for uncoined silver, weight for weight. Wherefore it is carried into the Tower and coined. Not long after there will come a demand for bullion to be exported again. If there is none, but all happens to be in coin, what then? Melt it down again; there's no loss in it, for the coining costs the coiners nothing. Thus the nation hath been abused and made to pay for the twisting of straw for asses to eat."

By the time of the accession of William III. the scarcity of silver had become so great as to cause a petition from divers working goldsmiths in and about the City of London to the House of Commons (9th April 1690). It stated "that upon search at the Customs they found that since last October entries had been made of 286,102 oz. of silver in bullion, and 89,949 *dollars* and *pieces of eight* for exportation by divers private persons, and they doubted not but it would appear that not only the East India Company, but also divers Jews and merchants, had of late bought up great quantities of silver to carry out of the kingdom, and had given 1 $^1/_2$d. per oz. above the value, which had encouraged the melting down of much plate and milled monies; whereby for six months past, not only the petitioners in their trade, but the Mint itself had been stopped from coining."

*ENGLAND: THE EXPORT IN 1690*

The petition was referred to a committee of the Lower House, which reported on the 8th May that great quantities of silver had been exported, of which seven-eighths had been shipped off by the Jews, who would do anything for their profit. The reason for the exportation, too, was plain, for the French king, of late finding his money very scarce, had raised his coin 10 per cent., which was an encouragement to send silver to fill his coffers, and therefore the Jews exported it daily in very great quantities. The melting down of £1000 of milled money for exportation was attended with a profit of £25 ready money and upwards, silver being coined at the Mint

at 5s. 2d. per oz., but at the time of exportation sold generally at 5s. 3 1/2d. The remedies proposed to the committee were either a prohibition of export or the enhancing of the English monies.

Not less than three measures were presented to the House for the prohibition of export—one of them by Sir Richard Temple—but were all lost; and, meanwhile, the exports to Holland and France continued. In November 1690 it was calculated that during the preceding sixteen months about 140,000 oz. had been exported.

In addition to this actual drain of coinage, the processes of culling, clipping, and counterfeiting, which had been going on through the reigns of Charles II. and James II., had resulted in an unexampled depreciation of so much of the coinage as remained. A large portion of the currency consisted of iron, brass, or copper-pieces plated, and such coins as were of good silver were worth scarcely one-half their current value.

This statement is more than borne out by quite reliable computations which were made in the process of the recoinage five years later. A medium lot of 5 1/2 bags, containing in tale £57,200 of the called-in currency, and which should have weighed 221,418 oz. 16 dwt. 8 grs., was found to weigh only 113,771 oz. 5 dwt. According to the accounts of Neale, then master and warden of the Mint, 4,695,303 dwt. 15 oz. 2 grs. of the clipped silver money produced only 790,860 lbs. 1 oz. 19 grs., implying a depreciation in weight alone of over 47.75 per cent.

The process of stripping the country of currency was increased by the continual pouring out of money in

aid of William's wars, and the loss in exchange on such large remittances made the evil only too apparent. The one or two millions yearly remitted to the Continent for the British armies were negotiated in Holland in a thousand ways to England's prejudice. Partisan statements were made that whereas in the beginning of the war the Dutch allowed 43 schillings for an English pound they gradually lowered the exchange to 28 schillings. Guineas, which were equal in value to 21s. 6d. in silver, rose to 30s.; and they would have risen to a still higher rate if the officers of the exchequer and the receivers of public revenue had not refused to receive them in payment at the increased value.

In 1695 the matter was taken up in the House of Commons, and a committee appointed. The report of this committee, which was never passed, was based on the proposition of a reduction of standard. By Montague's influence the proposals were dropped, and it was not till the 22nd November that the Act for remedying the ill state of the coins passed. It is well known that the unwise determination of the Government of William III. to adhere to the pre-existing standard was due to the action and contrivance of Montague as Chancellor of the Exchequer, and to the influence of Locke's writings. By a subsequent series of Acts, based on the complaints of merchants representing the evils resulting from the unsettled price of gold, the price of the guinea was ordered to be gradually reduced from 30s. to 28s., 26s., and finally 22s., before 10th April 1696.

ENGLAND: RECOINAGE OF 1696

This great recoinage scheme was only completely accomplished in 1699, having occupied the greater part of four years, and after a long series of Acts and proclamations of, occasionally, very doubtful wisdom.

According to the accounts of the officers of the Mint, the new silver coin amounted in tale to £6,882,908, 19s. 7d. The worn and clipped money called in was estimated roughly at £4,000,000, on which the loss was about £2,000,000; the whole charge and loss being stated at not less than £2,700,000. It is significantly affirmed that, in a manner, all the called-in silver was found to consist only of pieces coined between the days of Edward VI. and 1662, a sure indication of the fate which had befallen the coinage issued since the Restoration.

Before the transaction was finally complete the last safeguard and complement of the system had been adopted, in fixing the relation of the gold coinage to the new silver issue. On the 22nd September 1698, a report was given in to the House of Commons, signed by four names, including that of John Locke, stating that the value of gold in Holland and the neighbouring countries was, as near as could be computed upon a medium, 15:1 in silver; and that, according to this value, the currency of the guinea at 22s. was too high, and occasioned a disproportionate importation of gold and an exportation of silver. The bringing down of the guinea to 21s. 6d. would make the value of English gold and coin very near 15 $^1/_2$:1 to silver, which, though not so low as the rate in Holland, would in their opinion be sufficient to correct the error.

In consequence of this report the Commons resolved

that, under the Act 7 and 8 William III. chap. 19, no person was obliged to take guineas at 22s. a piece. The price then fell to 21s. 6d., at which rate they were received by the officers of the revenue. With the exception of this merely declaratory tariffing of the guinea, it is to be borne in mind that this recoinage of William's reign was carried out on the principle enunciated by Montague, and backed by the authority of Locke, namely, that of a retention of the old standard, although in the face of a clearly established advance in the value of silver, and in face of quite irrefutable answers to all Locke's arguments. Momentarily the scheme succeeded; the adverse exchange was instantly redressed, while the renewal of the coinage and the ratio of 1698 was sufficiently above the continual ratio to turn the flow of gold, as doubtless was the (unexpressed) design in adopting it. According to Burnet the packet-boat from France seldom came over during the following winter without bringing 10,000 *louis d'or*, and often more. "The nation was indeed filled with them, and in six months a million of guineas was coined out of them. The merchants in fact said that the balance of trade was then so much turned to our side that whereas we were wont to carry over a million of our money in specie, we then sent no money to France, and had at least half that sum sent over to balance the trade."

ENGLAND: EFFECTS OF THE RATIO OF 1698

The circulation of French and other foreign gold became so great that on the 5th February 1701 the Council issued a proclamation that the *louis d'or* and

Spanish *pistole* should not pass for above 17s. Such action at once brought those coins to the Mint, and nearly 1 1/2 millions were coined out of them.

It was not seen at the moment that the establishment of this ratio so favourable to gold was *pari passu* unfavourable to silver. The idea was entertained that the French gold came over to bribe English members, *i.e.*, on mere political causes. The hypothesis was needless as it was incorrect. Gold came over because it was higher priced in England than abroad through the ratio of 1698, and for the same reason silver left the country to pay for the gold. The one movement was the essential counterpart of the other, and made itself at last only too visible.

As early as the seventh year of Anne's reign—only nine years after the completion of this great recoinage, it was found necessary to give further encouragement to the coinage of silver by offering a premium on every ounce of foreign coins which should be brought to the Mint within a limited time. The premium was not to exceed 2 1/2d. per oz., and the time limited was from the 17th April to the 1st December 1709.

Such a measure has been already noticed in the history of France; it was indeed a design frequently employed there under the title of *Surachat*, and it always proved as futile as the Government of Anne found it to be. As the drain continued, representations were made by the officers of the Mint to the Treasury, and in 1717 the House of Commons requested these representations to be laid before it (December 20th). On the same and following day a remarkable speech was made by a member, Mr. Aislabie, who took notice of the great

scarcity of the silver species, and proposed the remedy of lowering the gold species. On the second day he was seconded by Mr. Caswall, who suggested that the overvaluation of gold in the current coins of Great Britain had caused the export of great quantities of silver species, "and to that purpose [*i.e.* the purpose of his argument] laid open a clandestine trade, which of late years had been carried on by the Dutch, Hamburgers and other foreigners, in concert with the Jews and other traders here, which consisted in exporting silver coins and importing gold in lieu thereof; which being coined into guineas at the Tower, near 15 pence was got by every guinea, which amounted to about 5 per cent.; and as these returns might be made five or six times in a year considerable sums were got by it, to the prejudice of Great Britain, which thereby was drained of silver and overstocked with gold." He concluded by proposing to lower the price of guineas and all other gold specie.

ENGLAND: SIR ISAAC NEWTON'S REPORT, 1717

His speech was received with applause, and the House unanimously petitioned the King to call the guinea down to 21s., and other gold species in proportion. To this George I. immediately acceded, and the proclamation to that effect *verbatim* was issued on the following day, 22nd December 1717.

The report for which the House had called two days earlier, and which was produced on the 21st December, was the celebrated report made some

months before by Sir Isaac Newton as master of the Mint, at the demand of the Commissioners of the Treasury. It is a document deserving the careful attention of every student of currency history. Newton reviews the ratio in each of the then commercial nations, and shows the effect of difference of ratio in producing export and disturbance of one or other metal. "Gold in Spain and Portugal is of sixteen times more value than silver of equal weight and alloy; at which rate a guinea is worth 21s. 1d. net; this high price keeps their gold at home in good plenty, and carries away the Spanish silver into all Europe. So that at home they make their payments in gold, and will not pay in silver without a premium. Upon the coming in of a plate [silver] fleet the premium ceases or is but small, but as their silver goes away and becomes scarce the premium increases and is most commonly about six per cent."

In France the ratio was 15:1, and the guinea therefore worth 20s. 8 $^{1}/_{2}$d. In Holland it was worth 20s. 7 $^{1}/_{2}$d., in Italy, Germany, Poland, Denmark and Sweden, from 20s. 7d. to 20s. 4d. "In China and Japan the pound weight of fine gold is worth but 9 or 10 lbs. weight of fine silver, and in East India it may be worth 12 lbs., and the low price of gold in proportion to silver carries away the silver from all Europe." "If gold were lowered only so as to have the same proportion to the silver money in England, which it hath in the rest of Europe, there would be no temptation to export silver rather than gold to any part of Europe, and to compass this last there seems nothing more requisite than to take off about 10d. or 12d. from the guinea."

ENGLAND:

THE STATE OF COINAGE IN 1760

In a subsequent report of the 21st September 1717, Newton stated that, since the beginning of 1702 to September 1717, the gold coined at the Mint amounted to £7,127,835, while the silver within the same period only amounted to £223,380, of which £143,086 had been brought to the Mint in response to the premium offered; in 1709 and 1711, of their own free will, the goldsmiths had only brought a matter of £21,220 to the Mint. In the House of Lords, early in the following year, it was proved that during the year 1717 the East India Company had exported nearly 3,000,000 oz. of silver.

The immediate purpose of the above proclamation of 22nd December 1717 was for a time thwarted by a speculative hoarding of silver in expectation of a further calling down of the gold species; and it was to cut the ground from under this speculation that in January 1718 both Houses declared their determination not to alter the standard of gold and silver coins in the kingdom, and proceeded in place of such alteration to prepare a bill for preventing the melting down of the coins of the kingdom.

It is demonstrable, even from Sir Isaac Newton's own figures, that the calling down of the guinea to 21s., though largely, was not completely effective in destroying the profit of arbitrage transactions with Holland. With the guinea at 21s., the ratio was still 15 $^{14295}/_{68200}$ while in France and Holland the ratio was 15 or under. That the process of culling and exporting the heaviest silver specie still continued is proved by the state of silver coinage twenty years

later, when shillings were found to be deficient in weight, by between 6 and 11 per cent., and sixpences between 11 and 22 per cent., and all species so scarce as to threaten greatest confusion in every branch of trade. At the accession of George III., 1760, the silver coinage was found in so imperfect a state that the crown pieces had almost entirely disappeared, though minted since 1795 to the amount of over a million and a half sterling. Of half-crowns, likewise minted to the value of £2,329,370, only defaced and impaired specimens remained current, while shillings and sixpences had lost every sign of impression. Up to 1763 only a matter of £5791 in silver had issued from the Mint—practically no coinage at all.

Gradually however, owing to the force of wider principles at work, the matter of the ratio righted itself. Ever since 1756 the value of gold had been rising all over Europe. In 1759 the continental ratio was still calculated at 14 $^1/_2$, as compared with 15 $^1/_5$ in England; but by 1773 the continental ratio had overtaken the English, and the market price of standard silver had risen to 5s. 2d. per oz.—the English Mint rate. In the greatly depreciated state of the silver coinage—three-fourths of it was said to be base—even the approach of a fair ratio acted prejudicially on gold. Already, in 1771, the export of gold to Holland had become noticed, and it was asserted that the gold coins had never before been so deficient. They were sent over to Holland, and there filed and returned and put into circulation—a bimetallic phenomenon that always recurs in a currency containing two differently depreciated elements.

ENGLAND:

STATE OF THE COINAGE IN 1774

The idea that bimetallic action replaces one good metal by another, an equal weight of one metal for that of the other, a good undepreciated coinage of silver for a good undepreciated coinage of gold, or *vice versâ*, is not borne out by a single instance in history. Bimetallic action always substitutes the less for the greater, whether weight or value, the more depreciated for the less, or the depreciated for the perfect standard coin. In this particular instance, 1774, the depreciation of silver had been the result of the action of a too high ratio from 1717 onwards; the depreciation of gold was effected in a much less time between 1770 and 1773, simply because the already depreciated state of the silver causing that differentiation of value, which is the bullionist's opportunity, happened to coincide with a natural rise of the value of gold all over the Continent. The result, therefore, of fifty years of bimetallic régime left England with a currency depreciated in both its limbs, in both gold and silver, and as deficient in the quantity current as in the weight of the individual pieces. This is not in keeping with the theory of bimetallism as developed to-day, according to which the transition from one coin to the other would only be made at the point of equation, and the substituted metal would equalise that displaced. This is theory. The facts of the situation in 1774 are not theory but history, and tell a different tale.

"The evil was so great," says Lord Liverpool, "that the Government found it necessary to take this difficult subject into their immediate consideration. On this

occasion I addressed a letter to a noble Lord, who was then Chancellor of the Exchequer, suggesting what appeared to me the proper remedy for this evil. I proposed that, with a view to the general reform of the coins of the realm, all the deficient gold coins should in the first place be called in and recoined, and that in future the currency of the gold coin should be regulated by weight as well as by tale, and that the several pieces should not be legal tender if diminished below a certain weight. Your Majesty was pleased to approve of this advice and to propose to your Parliament, on 13th January 1774, the calling in and recoining of all the deficient gold coins; and the Chancellor of your Exchequer opened the whole of this plan to the House of Commons, who approved of the measure, which was carried into immediate execution without any complaint and with great success. The defects which had previously existed in this species of coins were thereby removed, and the regulation, then established, of weighing the gold coin has been the means of preserving it at nearly the state of perfection to which it was then brought."

ENGLAND: RECOINAGE OF 1774

The resolutions of the House of Commons on which this recoinage depended were passed on the 10th May 1774. After stating the depreciation existing in the gold coinage the House asserted—(3) that it has been a practice to export and melt down the new and perfect gold coin soon after it is issued for private advantage, to the great detriment of England; (4) that while pieces of gold coin, differing so greatly in weight, are allowed to be current under the same denomination and at the same rate and value, great quantities of the new will continue to be exported and melted down, and, and perfect pieces there is reason to apprehend, will be recoined into pieces the most deficient that are allowed to be current."

The House then goes on to adopt the principle of limiting the depreciation to be allowed on any single coin, *i.e.* of making the coins current by weight as well as tale within the limits allowed.

The House next turned its attention to the silver element of the currency. At the outset it was met by the patent fact that the depreciated silver coinage had been made the handle or lever, or *point d'avantage*, in all the operations against gold. "Whereas," is the recital of the Act of 14 George III. c. 42, "considerable quantities of old silver coin of this realm, or coin purporting to be such, greatly below the standard of the Mint in weight, have been lately imported into this kingdom, and it is expedient that some provision should be made to prevent the

practice," etc. The Act therefore decrees the prohibition of importation of light silver coinage into the kingdom, and its confiscation in case of discovery as such. "And be it further enacted ... that no tender in the payment of money made in the silver coin of the realm, of any sum exceeding the sum of £25 at any one time, shall be reputed in law or allowed to be a legal tender within Great Britain or Ireland for more than according to its value by weight, after the rate of 5s. 2d. per oz. of silver, and no person to whom such tender shall be made shall be any way bound thereby or obliged to receive the same in payment in any manner than as aforesaid; any law, statute, or usage to the contrary notwithstanding."

The importance of this latter epoch-making clause is vital. It is the first enactment of a law of tender in the history of English monetary legislation, and it was the first step towards the shaking off the incubus of that mediæval currency system which was even then only coming to be understood in all its fatal perniciousness. For statesmanship, the only parallel to it is that Act of Henry III. of France, which proved so shortlived in its adoption (see *supra*, pp. 87-88). It was the first step in the evolution of that system of a safeguarded currency which was finally constructed in 1816.

This Act prohibiting the importation of light silver was renewed in 1776 for a further two years, and was again, in 1778, continued until the 1st day of May 1783, and from thence to the end of the next session of Parliament. On the 21st June 1798 the Act, being then expired, was revived and further continued to the 1st day of June 1799 by a new statute, and on the 12th July 1799 the Act was made perpetual by statute of 39 Geo. III. c. 75.

The later legislative action with regard to silver belongs to the final construction of the English currency system. In the main, the recoinage of gold was accomplished in the year 1774, though it lingered over the three succeeding years as appears by the items in the Appropriation Acts.

The accounts of grants for recoinage were as follows: —

| | | | | |
|---|---|---|---|---|
| 1774. | The first grant | £250,000 | 0 | 0 |
| 1775. | To the bank for receiving the deficient gold coin | 46,846 | 0 | 0 |
| | For extraordinary charges of the Mint | 22,824 | 19 | 0 |
| 1776. | Further grant | 92,421 | 14 | 1 1/4 |
| 1778. | Further grant | 105,227 | 8 | 3 |
| | | £517,320 | 2 | 2 1/4 |

The scope of this series of Acts of 1774 will be seen at a glance; as well as the tendency in policy, namely, in favour of gold, which it indicated. The gold coinage was renewed, and as a safeguard against its future depreciation the existing depreciated coin was cut off from any sapping action upon it by the above restriction as to tender by weight. For the renewal of the silver coinage itself no actual measures were taken save the prohibition of the import of light coins.

For more than twenty years the defective state of the silver coin continued quite unheeded; evidently as no longer causing international embarrassment, now that its function and differentiating action upon the

companion metal had been partially tied down and limited.

In 1787 the depreciation of the silver coinage was ascertained experimentally, when it was found that half-crowns were defective by over 9 per cent., shillings by over 24 per cent., and sixpences by more than 38 per cent. of their proper weight. To this depreciation was added an exterior cause of drain by the action of France, who in 1792 increased the scarcity of silver coins and bullion by the issue of her assignats. In that year not less than 2,909,000 oz. of silver were purchased with assignats and sent into France. Five years later an attempt was made to supply the deficiency of the silver coins by the issue of Spanish *dollars*, countermarked with the hall mark of the King's head. This was after the Bank of England had, in accordance with the minute of the Privy Council of 26th February 1797, suspended cash payments.

*ENGLAND: ACT OF 1798*

On the 7th of February of the following year, 1798, the subsisting Committee of Council for Coins was dissolved, and a new committee appointed to consider the state of the coins and Mint. During its deliberations, and until it established the new rule, the further coining of silver was suspended by the Act already spoken of, which (21st June 1798) revived the old law against importation of light silver. This suspension of silver coinage was simply a temporary precaution. "Whereas," says the Act, "His Majesty has appointed a committee of his Privy Council to take into consideration the state of the

coins of this kingdom, and the present establishment and constitution of His Majesty's Mint, and inconvenience may arise from any coinage of silver until such regulations may be framed as shall appear necessary; and whereas from the present low price of silver bullion, owing to temporary circumstances, a small quantity of silver bullion has been brought to the Mint to be coined, and there is reason to suppose that a still further quantity may be brought, and it is therefore necessary to suspend the coining of silver for the present, be it therefore enacted that no silver bullion shall be coined at the Mint, nor shall any silver coin that may have been coined there be delivered."

There can be little doubt that this enactment was due to Lord Liverpool, and if so that it was intended as an arrest, with a particular intent or bearing; for Liverpool had formed his conception of a monetary theory as early as 1773. None the less it is quite inadmissible to state, as has been done, that this restriction, so evidently and expressly only a temporary or interim measure of self-defence, was equivalent to a placing upon the statute-book of Lord Liverpool's gold monometallical theory. There was as yet no restriction on the legal tender of silver. It was still legal tender to any amount,—it was indeed the standard coin of the realm,—only, in order to avoid the effects of depreciation, and to prevent further depreciation, it was now the law of the land that payments of silver of sums over £25 should be made by weight, and the further coinage of silver was temporarily stopped.

This was not a gold monometallic system, and the Act which established that system was passed eight years after the death of Lord Liverpool, and six years

after the Bullion Report of 1810 had been printed.

*ENGLAND: THE BANK RESTRICTION*

Further than incidentally it is inconsistent with the design of this book to refer to the period of suspension of cash payments and the Bullion Report. These latter are banking phenomena, and will find their place in a treatise of currency in the fuller acceptance of the term, rather than in a treatise definitely restricted to the subject of the metallic currencies. The events of 1797 which led to the suspension,—the remittances to the Continent for war purposes, a failure of credit, a run on the country banks, and then upon the London banks,—had been experienced in 1793 as acutely as in 1797; and, according to the express statement of the report itself, even in the years 1796 and 1797, when the country bankers were making great demands in order to increase their deposits, the market price of gold never rose above the Mint price. These events were therefore one phase of the internal experiences of the country, and have no relation to an international outflow of gold, caused by the heightened ratio which definitely set in in 1794. On the mere ground of first principles, therefore, it is inadmissible to make argumentative use of this event, known as the Bank Restriction, for judgment and illustration in the wider question of bimetallism. Further, the argumentative use that has been made of it—viz. that if from 1773 to 1797 England had possessed a true rather than a halting bimetallic régime, she would have been supplied by its means with an amount of silver that would have increased the metallic reserve and strength of the country, and

enabled it to avoid suspension—is inadmissible: and the argument itself is untenable. Such bimetallic action supplying silver could only have begun to operate in 1794, three years before the suspension. It could only have operated by substituting one metal for the other, not by adding silver to gold, but by taking away higher valued gold, and furnishing lower valued silver, *i.e.* by actually decreasing the metallic strength and reserve of the kingdom. And, lastly, there is the peculiar fact still requiring explaining, that the years of the bank restriction, until, that is, the new Mint law of 1816, saw the heaviest export of silver probably that England has ever experienced. During the ten years, 1801-10, nearly 10 millions sterling of silver was exported from England (over 38,176,016 oz.), while the gold exports amounted only to £2,088,483, so that, of the total export, silver formed 82 per cent. (net amounts used in both cases). It is still well known to what straits this export of silver put the country. In almost every town where there was any employment of labour the tradesmen were obliged to issue token money of their own—shilling tokens, sixpenny tokens, half-crown and five-shilling promissory-notes. Every conceivable form of hand-to-mouth unauthorised currency was resorted to, in order to relieve the needs of the situation caused by the want of silver coins. And stories are still remembered of the straits to which the working classes were driven in order to make their purchases at the week end with one pound notes, for which they could get no change. The explanation of such a phenomenon can only be that the one pound notes having driven gold out of circulation, by a law which is merely another form of the bimetallic law, left only silver available for remittance to the Continent for loans and war

purpose. But, whatever the explanation, the fact cuts the ground from under the argument that bimetallism would have saved England from the bank restriction. If silver had not been legal tender to any amount (up to £25 by tale, and beyond that by weight), or again if it had been protected by an agio in 1808 as it was in 1816, it could not have left the country. The straits of the poorer classes in those years of hardship were *due* to the existing bimetallic system, and to it must, therefore, be attributed the aggravation rather than alleviation of the bank restriction.

If anything is required to confirm such view it can be found in the very terms of that statute of 1816 (56 Geo. III. c. 68), which established the gold standard in England. They reveal the fact that the Act was not so much a philosophical or theoretical declaration of monometallism, such as might have been expected if Lord Liverpool had still lived to dictate it, but a measure for the protection of and relating almost entirely to silver.

*ENGLAND: THE ACT OF 1816*

"Whereas the silver coins of the realm have, by long use and other circumstances, become greatly diminished in number and deteriorated in value, so as not to be sufficient for the payments required in dealings under the value of the current gold coins, by reason whereof a great quantity of light and counterfeit silver coin and foreign coin has been introduced into circulation within this realm, and the evils resulting therefrom can only be remedied by a new coinage of silver money...."

The Act therefore prescribes the coining of silver, 11 oz. 2 dwts. fine, at a tale after the rate of 66s. per Troy pound, whether the same be coined in crowns, half-crowns, shillings, or sixpences, or pieces of a lower denomination, but to be issued to the importer of the silver, or to the public, after a rate of 62s. per pound Troy.

"And whereas at various times heretofore the coins of this realm of gold and silver have been usually a legal tender for payments to any amount, and great inconvenience has arisen from both these precious metals being concurrently the standard measure of value and equivalent of property, it is expedient that the gold coin made according to the indentures of the Mint should henceforth be the sole standard measure of value and legal tender for payment, without any limitation of amount, and that the silver coin should be a legal tender to a limited amount only, for the facility of exchange and commerce." The Act therefore prescribes the limit of 40s. for the tender of silver.

This Act was repealed, but in substance re-enacted by the Coinage Act of 1870, and is still in principle and fact the law of the land and the basis of our monometallic system.

*ENGLAND: 1816-93*

From the date of its enactment England has been withdrawn from that action of bimetallic law which had been her bane for centuries. The flow of gold in or out became automatic, representing the natural flow of world-balances, and therefore proving the greatest trade help and indicator; and such

commercial crises as have come upon her have arisen from the peculiarly sensitive organisation of credit which distinguishes the modern system, and are to be classed with banking rather than metallic currency phenomena.

The total coinage in England from 1816 to 1875 inclusive was £234,139,886 gold and £24,663,309 silver.

| Year. | Coinage of Gold. | Imports of Gold Bull Specie. |
|---|---|---|
| 1855 | 9,008,663 | ? |
| 1856 | 6,002,114 | ? |
| 1857 | 485,980 | ? |
| 1858 | 1,231,023 | 22,793,000 |
| 1859 | 2,649,509 | 22,298,000 |
| 1860 | 3,121,709 | 12,585,000 |
| 1861 | 8,190,170 | 12,164,000 |
| 1862 | 7,836,413 | 19,904,000 |
| 1863 | 6,607,456 | 19,143,000 |
| 1864 | 9,535,597 | 16,901,000 |
| 1865 | 2,367,614 | 14,486,000 |
| 1866 | 5,076,676 | 23,510,000 |
| 1867 | 496,397 | 15,800,000 |
| 1868 | 1,653,384 | 17,136,000 |
| 1869 | 7,372,204 | 13,771,000 |
| 1870 | 2,313,384 | 18,807,000 |
| 1871 | 9,919,656 | 21,619,000 |
| 1872 | 15,261,442 | 18,469,000 |
| 1873 | 3,384,568 | 20,611,000 |
| 1874 | 1,461,565 | 18,081,000 |
| 1875 | 243,264 | 23,141,000 |

| | | |
|---|---|---|
| 1876 | 4,696,648 | 23,476,000 |
| 1877 | 981,468 | 15,442,000 |
| 1878 | 2,265,069 | 20,871,000 |
| 1879 | 35,050 | 13,369,000 |
| 1880 | 4,150,052 | 9,455,000 |
| 1881 | ... | 9,963,000 |
| 1882 | ... | 14,377,000 |
| 1883 | 1,403,713 | 7,756,000 |
| 1884 | 2,324,015 | 10,744,000 |
| 1885 | 2,973,453 | 13,377,000 |
| 1886 | ... | 13,392,000 |
| 1887 | 1,908,686 | 9,955,000 |
| 1888 | 2,277,424 | 15,000,000 |
| 1889 | 7,257,455 | 17,570,000 |
| 1890 | 7,662,898 | 23,900,000 |
| 1891 | 6,869,119 | 29,500,000 |
| 1892 | 13,944,963 | 21,250,000 |
| 1893 | 9,318,021 | 23,630,000 |

| Year. | Coinage of Silver. | Imports of Silver B and Specie. |
|---|---|---|
| 1855 | 195,510 | ? |
| 1856 | 462,528 | ? |
| 1857 | 373,230 | ? |
| 1858 | 445,896 | 6,700,000 |
| 1859 | 647,064 | 14,772,000 |
| 1860 | 218,403 | 10,394,000 |
| 1861 | 209,484 | 6,583,000 |
| 1862 | 148,518 | 11,753,000 |
| 1863 | 161,172 | 10,888,000 |
| | | |

| | | |
|---|---|---|
| 1864 | 535,194 | 10,827,000 |
| 1865 | 501,732 | 6,977,000 |
| 1866 | 493,416 | 10,777,000 |
| 1867 | 193,842 | 8,021,000 |
| 1868 | 301,356 | 7,716,000 |
| 1869 | 76,428 | 6,730,000 |
| 1870 | 336,798 | 10,649,000 |
| 1871 | 701,514 | 16,522,000 |
| 1872 | 1,243,836 | 11,139,000 |
| 1873 | 674 | 12,988,000 |
| 1874 | 890,604 | 12,298,000 |
| 1875 | 594,000 | 10,124,000 |
| 1876 | 222,354 | 13,578,000 |
| 1877 | 420,948 | 21,711,000 |
| 1878 | 613,998 | 11,552,000 |
| 1879 | 549,054 | 10,787,000 |
| 1880 | 761,508 | 6,799,000 |
| 1881 | 997,128 | 6,901,000 |
| 1882 | 209,880 | 9,243,000 |
| 1883 | 1,274,328 | 9,468,000 |
| 1884 | 658,548 | 9,633,000 |
| 1885 | 720,918 | 9,434,000 |
| 1886 | 417,384 | 7,472,000 |
| 1887 | 861,498 | 7,819,000 |
| 1888 | 755,113 | 6,000,000 |
| 1889 | 2,215,742 | 9,000,000 |
| 1890 | 1,708,415 | 10,300,000 |
| 1891 | 1,049,113 | 10,500,000 |
| 1892 | 773,353 | 12,375,000 |
| 1893 | 1,089,707 | 11,320,000 |

## United States

Under British dominion the American colonies retained the silver standard, as did their mother country, with such variation of actual coins and of their tariff as the situation of the country and the immense variety of metallic values prevailing in the different colonies gave rise to. The coin most commonly current was the Spanish *piece of eight*, but the system of weights and measures was the English system, and reckoning was by pounds, shillings, and pence. The method by which such a composite system was regulated consisted in those coinage tariffs with which early European monetary history is so well acquainted. According to a tariff issued in 1750, the ounce of silver was declared worth 6s. 8d. the Spanish milled *piece of eight* was to be equal to 6s.; and "whereas there is great reason to apprehend that many and great inconveniences may arise in case any coined silver or gold or English halfpence and farthings should pass at any higher rate than in a just proportion to Spanish pieces of eight, or coined silver at the ratio aforesaid," a tariff list was appended according to which the guinea was 28s., the *English crown* 6s. 8d., and so on for other European coins.

*UNITED STATES: MORRIS'S SCHEME, 1782*

In accordance with this system the earliest financial steps of the Continental Congress in 1775—its issues of bills of credit—were based upon, and the bills

were declared payable in, the Spanish *dollar* or *piece of eight*, to which, on the report of a special commission, appointed on 19th April 1776, the various gold and silver coins circulating by different standards in different colonies were rated by a tariff. According to this tariff the guinea weighing 5 dwts. 8 grs. was to be equivalent to 4 $^{2}/_{3}$ dollars, and the English crown equal to 1 $^{1}/_{9}$ dollar.

Gold bullion was rated 17 dollars per oz. Troy weight; sterling silver at 1 $^{1}/_{9}$ dollar per oz.

Assuming the coins to be of full weight, the ratio here established is nearly the English ratio of 15.21. The ratio for bullion is slightly different, but hardly materially.

Six years later, at the request of a committee of Congress, the superintendent of finance, Robert Morris, submitted a scheme for a national coinage (15th January 1782). This scheme is remarkable for its clear-sightedness and grasp, as well as the testimony it bore to the European monetary system of the time. After deciding on silver as a necessary unit, the report thus proceeds:—

"The various coins which have circulated in America have undergone different changes in their value, so that there is hardly any which can be considered as a general standard unless it be Spanish dollars. These pass in Georgia at 5s., in North Carolina and New York at 8s., in Virginia and the four Eastern States at 6s., in all the other States except South Carolina at 7s. 6d., and in South Carolina at 32s. 6d."

As a common denominator, calculated from part of these figures, Morris proposed a monetary unit of $^{1}/_{4}$-grain in fine silver, the multiples to be by the

decimal system, the dollar containing 1440 units, and the Mint price of fine silver being 22,237 units per pound.

On the following 21st February 1782 Congress approved of the establishment of a Mint, and directed Morris to prepare and report a plan for conducting it.

In a concurrent paper of notes on the establishment of a money unit, and of a coinage for the United States, Jefferson proposed, in opposition to Morris's scheme, a decimal system resting on the dollar, and with a ratio of 15:1.

*UNITED STATES: REPORT OF 1785*

"Just principles," he says, after stating the legal ratio in the chief European countries, "will lead us to disregard legal proportions altogether, to inquire into the market price of gold in the several countries with which we shall be principally connected in commerce, and to take an average from them. Perhaps we might well safely lean to a proportion somewhat above par for gold, considering our neighbourhood and commerce with the sources of the coins, and the tendency which the high price of gold in Spain has to draw thither all that of their mines, leaving silver principally for our and other markets."

The settlement of the matter was, however, delayed, although in the course of the year Morris declared that "all our dollars are rapidly going to the enemy in exchange for light gold, which must eventually cause

a considerable loss and a scarcity of silver which will be seriously felt."

In this undetermined state the matter rested till 13th May 1785, when the grand committee on the money unit made its report.

The proposed ratio was justified thus: "In France 1 grain of pure gold is counted worth 15 grs. of silver. In Spain 16 grs. of silver are exchanged for 1 of gold, and in England 15 1/5. In both England and Spain gold is the prevailing money, because silver is undervalued. In France silver prevails. Sundry advantages would arise to us from a system by which silver might become the prevailing money. This would operate as a bounty to draw it from our neighbours, by whom it is not sufficiently esteemed. Silver is not exported so easily as gold, and it is a more useful metal. Certainly our exchange should not be more than 15 grs. of silver for 1 of gold." The charge for coinage was to be 2 1/2 per cent. for gold, and slightly over 3 per cent. for silver. The unit was to be a dollar of 362 grs. of pure silver, with a multiple gold piece (5 dollars) and decimal aliquot pieces.

On the 6th July following, 1785, the Congress by vote adopted the silver dollar as the basis of the currency on a decimal system, but the resolution was not followed by the establishment of a Mint, although the States were experiencing great loss by the circulation of base copper coins made in Birmingham.

On the 8th April 1786, a report was made in triplicate by the Board of Treasury to the President of Congress, the first of the three forms of the report advocating a silver dollar of 375.64 grs. fine and a

ratio of 15.256. These proposals were adopted by resolution on the 8th August following, and on the 16th October of the same year, 1786, the ordinance for the establishment of the Mint of the United States of America, and for regulating the value and alloy of coin, finally passed Congress.

In accordance with the resolutions of 8th August, the mint price of the pound Troy of gold (11 parts fine) was fixed at 209 dols. 7 dimes, 7 cents, and of silver at 13 dols. 7 dimes, 7 cents, and 7 mills.

The Mint charge here comprised is about 2 per cent. on both silver and gold, "bringing the ratio of bullion at the Mint to 15.22, a little below the ratio in the coin."

*UNITED STATES: HAMILTON'S REPORT, 1791*

For several years all these regulations of Congress were not put in force, and it was not until 5th May 1791 that the matter was again brought before the Senate by the report of the Secretary of the Treasury, Alexander Hamilton.

Hamilton's scheme, as contained in his most remarkable paper, was for a silver unit or dollar of 371 1/4 grs. of pure silver and a ratio of 15, and instead of the allowance of 2 per cent. for waste and coinage the principle was adopted of free coinage—of delivering at the Mint the same weight of pure metal coined as should be brought to it in bullion or foreign coin. Hamilton justifies his ratio thus: "The difference established by custom in the United States

between coined gold and coined silver has been stated to be nearly 1:15.6. This, if truly the case, would imply that gold was extremely overvalued in the United States, for the *highest actual* proportion in any part of Europe very little, if at all, exceeds 1:15, and the average proportion throughout Europe is probably not more than 1:14.8." He also deduces his ratio of 15 as a mean between the two lately preceding issues of dollars. "Taking the rate of the late dollar of 374 grs., the proportion would be as 1:15.11. Taking the rate of the newest dollar of 374 grs., the proportion would be as 1:14.87. The mean of the two would give the proportion of 1:15 very nearly, less than the legal proportion in the coins of Great Britain, which is as 1:15.2, but somewhat more than the actual or market proportion, which is not quite 1:15." As to the express selection of one or other metal for the unit, Hamilton makes a departure which marks clearly that he was creating and not continuing a system, and that if bimetallism is a feature of modern conception that conception is due to American rather than French statesmanship:[18] —"Contrary to the ideas which have heretofore prevailed in the suggestions concerning a coinage for the United States, though not without much hesitation arising from a deference for those ideas, the secretary is, upon the whole, strongly inclined to the opinion that a preference ought to be given to neither of the metals for the monetary unit ... because this cannot be done effectually without destroying the office and character of one of them as money and reducing it to the situation of mere merchandise, which, accordingly, at different times, has been proposed from different and very reputable quarters, but which would probably be a greater evil than occasional variations in the unit, from the

fluctuations in the relative value of the metals, especially if care be taken to regulate the proportion between them, with an eye to their average commercial value. To annul the use of either of the metals as money is to abridge the quantity of circulating medium."

*UNITED STATES: SCHEME OF 1792*

This scheme was accepted in its entirety by the Act of 2nd April 1792, with the slight change that the standard of silver was changed from $^{11}/_{12}$ to 1 $^{485}/_{1664}$ fine. The silver dollar, therefore, weighed 416 grs. gross (371 $^{1}/_{4}$ grs. pure silver); on this basis, at a ratio of 15, the equivalent gold piece would contain 24.75 grs. (371 $^{1}/_{4}$/25 = 27 $^{3}/_{4}$). This was accordingly established as the basis of the gold *eagle* or ten-dollar piece, which was to contain 270 grs. gross (247.5 grs. pure gold).[19] The Act was followed by another on the 9th February 1793, for regulating the rate of foreign coins. The gold coins of Great Britain and Portugal of their then standard were made a legal tender for the payment of all debts and demands, at the rate of 100 cents for every 27 grs. of their actual weight, those of France and Spain at the rate of 100 cents for every 27 $^{2}/_{5}$ grains.

For a period the system established in 1792 went on, although the ratio established was prejudicial to gold. But, twenty years after, the natural result arrived in America, as in England, and the circulation of gold was completely extinguished in the States by the unseen withdrawal of the metal.

In obedience to a resolution of the Senate of 3rd March 1817, John Quincy Adams, Secretary of State, produced a report on weights and measures, in which he impugned the correctness of the data on which Hamilton had based his reckoning in 1791.

Two years later, 26th January 1819, a committee of the House reported an ill-considered scheme, recommending a change in the ratio in favour of gold, and the imposition of a heavy seigniorage on silver. On the 1st of March following, the House of Representatives directed the secretary to report such measures as might be expedient to procure and retain a sufficient quantity of gold and silver coin in the United States.

In this report, in referring to one feature in the previous crisis, namely, the necessity in 1814 for the suspension of specie payments, Secretary Crawford stated that, from the commencement of the war until that event of 1814, a large amount of specie was taken out of the United States by the sale of English Government bills, at a discount frequently of 15 to 20 per cent.

He concluded by suggesting a raising of the value of gold in relation to silver, 5 per cent., implying a ratio of 15.75.

In the report to the House of Representatives, dated 17th March 1832, quite a different statement was made, namely, that there was no export of gold from the United States from 1792 to 1821, and that "there were certainly no indications that gold was rated too low in our standard of 1:15 earlier than 1821, when the English demand commenced."



*STATES: GOLD EXPORT OF 1820*

The terms of the report of the committee on the currency, which was communicated to the House of Representatives on the 2nd February 1821, must be contrasted with this statement. "The committee are of opinion that the value of American gold compared with silver ought to be somewhat higher than by law at present established. On inquiry they find that gold coins, both foreign and of the United States, have in a great measure disappeared, and from the best calculation that can be made there is reason to apprehend they will be wholly banished from circulation, and it ought not to be a matter of surprise, under our present regulations, that this should be the case.... There have been coined at the Mint of the United States 6 millions of dollars in gold. It is doubtful whether any considerable portion of it can at this time be found within the United States.... It is ascertained that the gold coin, in an office of discount and deposit of the Bank of the United States in November 1819, amounted to 165,000 dollars and the silver coin to 118,000; that since that time the silver coin has increased to 700,000 dollars, while the gold coin has diminished to 1200 dollars, 100 only of which is American."[20]

The committee proposed a bill in the sense of their report, but for seven years—years of acute commercial crises and distress—no actual step was taken. In November of the following year the subject of the disappearance of gold from the currency was brought before the lower house of Congress by Mr. Lowndes. In December 1828, however, the Senate

required the Secretary of the Treasury to ascertain the ratio and to state such alterations in the gold coins as might be necessary to conform those coins to the silver coins in their true relative value.

In his report Secretary Ingham insisted on the advantage of a single standard, but, in case of a determination to maintain both gold and silver, he proposed to approximate as near as could be to the French system by establishing a ratio of 15.625. In case of no change of the ratio he proposed to discontinue the gold coinage, whenever the premium for gold should exceed 2 per cent.

No action was taken on these reports, nor on the similar proceedings in the two following years, nor very little more on the report which in June 1832 the select committee on coins produced. Part of the instructions given to this committee were "to inquire into the expediency of making silver the only legal tender, and of coining and issuing gold coins of a fixed weight and fineness, which shall be received in payment of all debts to the United States, at such ratio as may be fixed from time to time but shall not otherwise be a legal tender."

In the House of Representatives the converse proposition of a gold standard with a restricted legal tender had been made by M. Wilde, 26th March 1832, but when the report appeared it advocated a silver standard.

*UNITED STATES: THE ACT OF 1834*

While Congress was thus delaying over a vital

question the New York bankers, May 1834, pressed for the regulation of the gold coins, so as to retain them in the country.

Two months later, 31st July 1834, the long-sought measure passed, but in an extraordinary form. At a blow the ratio was changed from 1:15 to 1:16 (15.988), by the reduction of the weight of the fine gold in the gold coins to 23.20 Troy grains, soon afterwards, by an Act of 18th July 1837, changed to 23.22 grains, the standard being changed at the same time from $^{11}/_{12}$ to $^{9}/_{10}$ fine.

The motives and amount of wisdom which underlay this sudden close of a long period of agitation can be measured from Benton's own words, in his *Thirty Years' View*:—

"A measure of relief was now at hand, before which the machinery of distress was to balk and cease its long and cruel labours—it was the passage of the bill for equalising the value of gold and silver and legalising the tender of foreign coins of both metals. The bills were brought forward in the House by Mr. Campbell H. White of New York, and passed after an animated contest in which the chief question was as to the true relative value of the two metals, varied by some into a preference for National Bank paper; 15 $^{5}/_{8}$ was the ratio of nearly all who seemed best calculated from their pursuits to understand the subject. The thick array of speakers was on that side, and the eighteen banks of the city of New York, with Mr. Gallatin at their head, favoured that proportion. The difficulty of adjusting this value, so that neither metal should expel the other had been the stumblingblock for a great many years, and now this seemed to be as formidable as ever. Refined

calculations were gone into, scientific light was sought, history was rummaged back to the times of the Roman Empire; and there seemed to be no way of getting to a concord of opinion either from the light of science, the voice of history, or the result of calculations. The author of this *View* had, in his speeches on the subject, taken up the question in a practical point of view, regardless of history and calculations and the opinions of bank officers; and looking to the actual and equal circulation of the two metals in different countries he saw that this equality and actuality of circulation had existed for above three hundred years in the Spanish dominions of Mexico and South America, where the proportion was 16:1. Taking his stand upon this single fact, as the practical test which solved the question, all the real friends of the gold currency soon rallied to it. Mr. White gave up the bill which he had first introduced, and adopted the Spanish ratio. Mr. Clowney of South Carolina, Mr. Gillet, and Mr. Cambreleng of New York, Mr. Ewing of Indiana, Mr. McKim of Maryland, and other speakers gave it a warm support. Mr. John Quincy Adams would vote for it, though he thought the gold was overvalued, but if found to be so the difference could be corrected hereafter. The principal speakers against it and in favour of a lower rate were Messrs. Gorham of Massachusetts, Selden of New York, Binney of Pennsylvania, and Wilde of Georgia, and eventually the bill was passed by a large majority, 145 to 35. In the Senate it had an easy passage. Messrs. Calhoun and Webster supported it, Mr. Clay opposed it; and on the final vote there were but seven negatives—Messrs. Chambers of Maryland, Clay, Knight of Rhode Island, Alexander Porter of Louisiana, Silsbee of Massachusetts, Southard of New Jersey, Sprague

of Maine. The good effects of the bill were immediately seen. Gold began to flow into the country through all the channels of commerce, old chests gave up their hordes, the Mint was busy; and in a few months, as if by magic, a currency banished from the country for thirty years overspread the land and gave joy and confidence to all the pursuits of industry."

The panacea thus magnificently lauded soon proved itself worse than inefficient. The ratio was too high, and the silver dollars could not be maintained. They were unduly exported, especially between the years 1848 and 1851. And in order to retain within the country a sufficient amount of small coin the amount of silver in the small coins, from the half-dollar downwards, was reduced by an Act of 24th February 1853. It was at the same time provided that they should be coined only on Government account, and they were made legal tender only up to the sum of five-dollars.

The direction of this step will be seen at a glance—it was in the direction of the gold valuation. This is as plainly the case as it was in the Latin Union, already exemplified (p. 190). Further, it was so conceived and explicitly stated by Dunham, who piloted the bill through the House. "We have had," he said, "but a single standard for the last three or four years. That has been and now is gold. We propose to let it remain so, and to adapt silver to it, to regulate it by it." Legally, the old silver dollar was left untouched, and the gold and silver valuation was not expressly abolished. No reference whatever was made to the silver dollar in the Act, for the simple reason that for years nothing had been seen of them. They did not and could not circulate. There was plenty of gold,

and the absence of silver with the change in standard therein practically implied was either unnoticed, or regarded, if at all, only with indifference.

The final step in the simplification and unification of this system was commenced in 1870, when a bill was prepared for a revised coinage law with a pure gold standard, silver being demonetised as a legal tender money. The bill did not become law till 12th April 1873. And no opposition was expressed in either the House of Representatives or the Senate to the abolition of the double standard. The silver dollars previously coined (of which, however, but few were in existence) maintained their quality as legal tender; but the coining of new dollars, whether on Government or private account, was forbidden.

*UNITED STATES: THE LEGISLATION OF 1873-74*

This Act was therefore simply the complement of the preceding legislation of 1853.

The completion of this system thus established was provided in section 3586 of the Revised Statutes of 1874, by which the silver coins of the United States were declared legal tender only up to five dollars, thus completing, from December 1873 onwards, the demonetisation of silver, and the establishment of gold monometallism on the English plan. As an effective scheme it meant little because of the prevalence of paper.

Within a very short time of the passing of this bill, however, began the great change in the relative

value of the precious metals which has continued since. The silver-producing interest, at that moment on the eve of receiving an enormous accession of strength by the Nevada finds, made itself heard. At the same time the prospect of the resumption of cash payments brought an additional incentive and interest. A commission to investigate the question of standard was therefore appointed, 14th August 1875, and a majority of this commission recommended the establishment of the double standard. Thereupon Bland, one of the members of the commission, proposed in the House of Representatives the re-establishment of the double standard, at the old ratio of 1:15.988, with free coinage of silver.

The question of resumption was pressing near. On the 1st January 1879 the States were to return to cash payments. On what basis should that return be effected? Should the Act of 1873 be maintained, or should a return be made to the bimetallic system which had prevailed before then? The Government was of the former opinion; the majority of Congress of the latter.

The silver party, finding the measure could not be carried over the veto of the president, agreed to a compromise, under which the free coinage clause was dropped, and it was as a compromise that the Bland Act so-called, the "Act to authorise the coinage of the standard silver dollar, and to restore its legal tender character," passed on the 28th February 1878.

To the favourers of a gold system it was conceded that in the maintenance of the previous legal ratio of 15.988, the silver dollar should be reserved for Treasury reckonings, and a maximum minting limit of 4 million dollars monthly should be fixed. The

bimetallists gained the fixing of a minimum limit of 2 million dollars monthly of silver coinage, and the clause enjoining the President of the United States to take steps for the meeting of an international conference.

*UNITED STATES: BLAND AND SHERMAN ACTS*

This scheme became law immediately, and on the 1st January 1879 the United States resumed specie payment. As far as the actual circulation of the country is concerned this return is only nominally effective. The habit of employing redeemable paper had grown too strong and continuous, and even the rule of the New York banking-houses, to employ only gold in clearing-house settlements, has been formally, though not absolutely, abolished by the Act of Congress of 12th July 1882, which provided that no national bank should be a member of a clearing-house at which gold and silver certificates were not accepted in payment of balances. The Bland Bill deceived the hope of both parties, as such a compromise might be expected to do. It remained in force, notwithstanding, till August 1890, and during the twelve years, 1878-1890, the United States coined a matter of 370 million silver dollars, employing therein 9 million kilogrammes of silver—a third of the total contemporary production.

Almost yearly, up to 1887, the repeal of the silver purchase clauses of the Bland Bill and the suspension of the silver coinage was recommended to Congress

by presidential message, and in the reports of the Secretary of the Treasury.

In December 1889 President Harrison and Secretary Windam definitely proposed to cease the coining of silver, and to limit the issues of silver certificates to the value of the silver bullion as deposited, reckoning that value at its then market price. From these proposals sprang, by the same peculiar process of committee gestation which had produced the Bland Act, the compromise which passed on the 14th July 1890, under the title of the Sherman Act.

This act represents a compromise not of principles but of self-seeking interests. The main regulations of the law, which came into force on the 13th August 1890, were:—

1. The Secretary of the Treasury is to purchase silver to not more than the monthly amount of 4,500,000 oz. at the market price, so long as that price is below 129.29 cents per oz.

2, 3. To issue Treasury notes against the purchases, the said notes to be full legal tender, and capable of forming part of bank reserves.

5. Up to 1st July 1891, 2 million oz. monthly of this silver to be coined into dollars. That coinage to cease after the date specified, except so far as necessary to secure the Treasury notes. At the same time the Act declares the intention of the American Government to preserve the parity of gold and silver.

The fillip given by this legislation to the price of silver was over in a moment, and almost immediately the question recurred for pressing consideration, on the strong demand of the silver

party for free coinage in place of these as yet ineffectual purchase schemes. The impotent close of the international monetary conference at Brussels, in February 1893, was followed by the Act of the Governor-General of India in Council of June 26th closing the Indian Mint to the free coinage of silver. Left practically alone in her stand in defence of silver, America, in the simple interest of her gold reserve, was obliged to abandon the field, and after a bitter fight the repeal of the clauses of the Sherman Act, which had enacted the compulsory purchase of silver, was carried in November 1893.

*UNITED STATES: COINAGE 1793-1893*

We are too near the event to estimate these later developments of the situation, but as yet two remarkable facts have hinged upon this report—(1) the immediate depreciation of the value of silver and the effect on the export of silver to India were not such as might *a priori* have been conjectured; (2) the ceasing of the silver purchase deprived the currency of the United States of its only remaining element capable of expansion, and of all the countries of the world the United States stands most in need of an expanding and expansible currency.

**COINAGE OF THE MINTS OF THE UNITED STATES.**[21]

| Years. | Gold (Dollars). | Silver (Dollars). | Years. | Gold (Dollars). | Sil (Dol |
|---|---|---|---|---|---|
| 1793-5 | 71,485.00 | 370,683.80 | 1813 | 477,140.00 | 620, |
| 1796 | 77,960.00 | 77,118.50 | 1814 | 77,270.00 | 561, |
| | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 1797 | 128,190.00 | 14,550.45 | 1815 | 3,175.00 | 17, |
| 1798 | 205,610.00 | 330,291.00 | 1816 | ... | 28, |
| 1799 | 213,285.00 | 423,515.00 | 1817 | ... | 607, |
| 1800 | 317,760.00 | 224,296.00 | 1818 | 242,940.00 | 1,070, |
| 1801 | 422,570.00 | 74,758.00 | 1819 | 258,615.00 | 1,140, |
| 1802 | 423,310.00 | 58,343.00 | 1820 | 1,319,030.00 | 501, |
| 1803 | 258,377.50 | 87,118.00 | 1821 | 189,325.00 | 825, |
| 1804 | 258,642.50 | 100,340.50 | 1822 | 88,080.00 | 805, |
| 1805 | 170,367.50 | 149,388.50 | 1823 | 72,425.00 | 895, |
| 1806 | 324,505.00 | 471,319.00 | 1824 | 93,200.00 | 1,752, |
| 1807 | 437,495.00 | 597,448.75 | 1825 | 156,385.00 | 1,564, |
| 1808 | 284,665.00 | 684,300.00 | 1826 | 92,245.00 | 2,002, |
| 1809 | 169,375.00 | 707,376.00 | 1827 | 131,565.00 | 2,869, |
| 1810 | 501,435.00 | 638,773.50 | 1828 | 140,145.00 | 1,575, |
| 1811 | 497,905.00 | 608,340.00 | 1829 | 295,717.50 | 1,994, |
| 1812 | 290,435.00 | 814,029.50 | 1830 | 643,105.00 | 2,495, |

| Years. | Gold (Dollars). | Silver (Dollars). | Years. | Gold (Dollars). |
|---|---|---|---|---|
| 1831 | 714,270.00 | 3,175,600.00 | 1863 | 22,445,482.00 |
| 1832 | 798,435.00 | 2,579,000.00 | 1864 | 20,081,415.00 |
| 1833 | 978,550.00 | 2,759,000.00 | 1865 | 28,295,107.50 |
| 1834 | 3,954,270.00 | 3,415,002.00 | 1866 | 31,435,945.00 |
| 1835 | 2,186,175.00 | 3,443,003.00 | 1867 | 23,828,625.00 |
| 1836 | 4,135,700.00 | 3,606,100.00 | 1868 | 19,371,387.50 |
| 1837 | 1,148,305.00 | 2,096,010.00 | 1869 | 17,582,987.50 |
| 1838 | 1,809,765.00 | 2,333,243.40 | 1870 | 23,198,787.50 |
| 1839 | 1,376,847.50 | 2,209,778.00 | 1871 | 21,032,685.00 |
| 1840 | 1,675,482.50 | 1,726,703.00 | 1872 | 21,812,645.00 |
| 1841 | 1,091,857.50 | 1,132,750.00 | 1873 | 57,022,747.50 |
| 1842 | 1,829,407.50 | 2,332,750.00 | 1874 | 35,254,630.00 |

| | | | | | |
|---|---|---|---|---|---|
| 1843 | 8,108,797.50 | 3,834,750.00 | 1875 | 32,951,940.00 | 1 |
| 1844 | 5,427,670.00 | 2,235,550.00 | 1876 | 46,579,452.50 | 2 |
| 1845 | 3,756,447.50 | 1,873,200.00 | 1877 | 43,999,864.00 | 2 |
| 1846 | 4,034,177.50 | 2,558,580.00 | 1878 | 49,786,052.00 | 2 |
| 1847 | 20,202,325.00 | 2,374,450.00 | 1879 | 39,080,080.00 | 2 |
| 1848 | 3,775,512.00 | 2,040,050.00 | 1880 | 62,308,279.00 | 2 |
| 1849 | 9,007,761.50 | 2,114,950.00 | 1881 | 96,850,890.00 | 2 |
| 1850 | 31,981,738.50 | 1,866,100.00 | 1882 | 65,887,685.00 | 2 |
| 1851 | 62,614,492.50 | 774,397.00 | 1883 | 29,241,990.00 | 2 |
| 1852 | 56,846,187.50 | 999,410.00 | 1884 | 23,991,756.50 | 2 |
| 1853 | 39,377,909.00 | 9,077,571.00 | 1885 | 27,773,012.50 | 2 |
| 1854 | 25,915,962.50 | 8,619,270.00 | 1886 | 28,945,542.00 | 3 |
| 1855 | 29,387,968.00 | 3,501,245.00 | 1887 | 23,972,383.00 | 3 |
| 1856 | 36,857,768.50 | 5,142,240.00 | 1888 | 31,380,808.00 | 3 |
| 1857 | 32,214,540.00 | 5,478,760.00 | 1889 | 21,413,931.00 | 3 |
| 1858 | 22,938,413.50 | 8,495,370.00 | 1890 | 20,467,182.50 | 3 |
| 1859 | 14,780,570.00 | 3,284,450.00 | 1891 | 29,222,005.00 | 2 |
| 1860 | 23,473,654.00 | 2,259,390.00 | 1892 | 34,787,222.50 | 1 |
| 1861 | 83,395,530.00 | 3,783,740.00 | 1893 | 56,997,020.00 | |
| 1862 | 20,875,997.50 | 1,252,516.50 | | | |

*UNITED STATES: MOVEMENTS OF METALS, 1851-1893*

**IMPORT AND EXPORT OF THE PRECIOUS METALS INTO AND FROM THE UNITED STATES.**

| Gold and Silver. | | |
|---|---|---|
| | **Import (Dollars).** | **Export (Dollars).** |
| | | |

| | | | |
|---|---|---|---|
| Yearly average, | 1851-55 | 5,151,817 | 39,432,522 |
| " | 1856-60 | 10,385,770 | 59,589,841 |
| " | 1861-63 | 24,112,923 | 43,611,777 |

**Gold.**

| | | Import (Dollars). | Export (Dollars). |
|---|---|---|---|
| Yearly average, | 1864-70 | 11,117,584 | 58,757,484 |
| " | 1871 | 6,883,561 | 66,686,208 |
| " | 1872 | 8,717,458 | 49,548,760 |
| " | 1873 | 8,682,447 | 44,856,715 |
| " | 1874 | 19,503,137 | 34,042,420 |
| " | 1875 | 13,696,793 | 66,980,977 |
| " | 1876 | 7,992,709 | 31,177,050 |
| " | 1877 | 26,246,234 | 26,590,374 |
| " | 1878 | 13,330,215 | 9,204,455 |
| " | 1879 | 5,624,948 | 4,587,614 |
| " | 1880 | 80,758,396 | 3,639,025 |
| " | 1881 | 100,031,259 | 2,565,132 |
| " | 1882 | 34,377,054 | 32,587,880 |
| " | 1883 | 17,734,149 | 11,600,888 |
| " | 1884 | 22,831,317 | 41,081,957 |
| " | 1885 | 26,691,696 | 8,477,892 |
| " | 1886 | 20,743,349 | 42,952,191 |
| " | 1887 | 42,910,601 | 9,701,187 |
| " | 1888 | 43,934,317 | 18,376,234 |
| " | 1889 | 10,284,858 | 59,951,685 |
| " | 1890 | 12,943,342 | 17,274,491 |
| " | 1891 | 45,298,928 | 79,187,499 |
| " | 1892 | 18,165,056 | 76,735,592 |
| " | 1893 | 73,280,575 | 80,010,633 |

| Silver. | | | |
|---|---|---|---|
| | | **Import (Dollars).** | **Export (Dollars).** |
| Yearly average, | 1864-70 | 5,469,798 | 16,818,279 |
| " | 1871 | 14,382,463 | 31,755,780 |
| " | 1872 | 5,026,231 | 30,328,774 |
| " | 1873 | 12,798,490 | 39,751,859 |
| " | 1874 | 8,951,769 | 32,587,985 |
| " | 1875 | 7,203,924 | 25,151,165 |
| " | 1876 | 7,943,972 | 25,329,252 |
| " | 1877 | 14,528,180 | 29,571,863 |
| " | 1878 | 16,491,099 | 24,535,670 |
| " | 1879 | 14,671,052 | 20,409,827 |
| " | 1880 | 12,275,914 | 13,503,894 |
| " | 1881 | 10,544,238 | 16,841,715 |
| " | 1882 | 8,095,336 | 16,829,599 |
| " | 1883 | 10,755,242 | 20,219,445 |
| " | 1884 | 14,594,945 | 26,051,326 |
| " | 1885 | 16,550,627 | 33,753,633 |
| " | 1886 | 17,850,307 | 2,954,219 |
| " | 1887 | 17,260,191 | 26,296,504 |
| " | 1888 | 15,403,189 | 28,027,949 |
| " | 1889 | 18,678,215 | 36,689,248 |
| " | 1890 | 21,032,984 | 34,873,929 |
| " | 1891 | 27,910,193 | 28,783,393 |
| " | 1892 | 31,450,968 | 37,541,301 |
| " | 1893 | 27,765,696 | 47,463,399 |

In 1878 the currency total of America was thus composed:—

| | | |
|---|---|---|

| | 1878. | 1879. |
|---|---|---|
| Gold (dollars), | 82,500,000 | 123,700,000 |
| Silver (dollars), | ... | 11,100,000 |
| Silver (small coin), | 53,600,000 | 54,100,000 |
| Gold Certificates, | 44,400,000 | 14,800,000 |
| Silver Certificates, | ... | 12,000,000 |
| State Notes, | 311,400,000 | 327,700,000 |
| Notes of the National Banks, | 313,900,000 | 330,000,000 |
| Totals, | 805,800,000 | 862,600,000 |

In 1893—

| Metallic. | |
|---|---|
| **1893.** | **Dollars.** |
| Gold bullion, | 84,631,966 |
| Silver bullion, | 128,479,587 |
| Gold coin, | 582,366,998 |
| Silver dollars, | 419,332,777 |
| Subsidiary silver coins, | 76,267,586 |
| | 1,291,078,914 |
| **Paper.** | |
| Legal tender notes (old issue), | 346,681,016 |
| Legal Tender Notes Act, 14th July 1890, | 153,160,151 |
| Gold certificates, | 77,487,769 |
| Silver certificates, | 334,584,504 |
| National Bank notes, | 208,538,844 |
| Currency certificates, | 39,085,000 |
| | 1,159,537,284 |

Of the total of silver dollars in the above, only a

matter of 57,869,589 are in circulation. The balance, 361,463,188, are in the Treasury vaults.

*THE NETHERLANDS IN 1816*

## Netherlands.

During the eighteenth century the monetary history of the Netherlands loses its central and determining importance. The details of the Mint laws, which precede the later developments of the nineteenth century, are therefore relegated to the Appendix (No. IV. Holland).

When the United Provinces of the Netherlands and Belgium were united under a single sceptre, both countries had an immense variety of coins, for formerly nearly every province claimed a right of coining money. To meet the desire for a simple and single system, a monetary law was passed in 1816 under King William I. Its object was to arrive at a currency having the old florin, called the florin of 200*as*, as the unit. But at the same time a gold piece of 10 florins was allowed. The florin contained 9.63 grms. of silver and the 10-florin piece 6.056 grms. of gold. The ratio was therefore 15.873, whilst in France it was 15 $^{1}/_{2}$.

Moreover, to respond to the desire of the inhabitants of Belgium, the franc was accepted in the public treasuries, but at too high a rate, viz. at 47 $^{1}/_{2}$ cents, whereas it was worth only 46.8 cents. The result was that the new 3-florin pieces on leaving the Brussels Mint went to the Lille Mint, to come back in the

shape of 5-franc pieces.

The law was languidly carried out. Gold pieces were principally coined, and in proportion as gold was coined it became more and more difficult to coin silver.

In 1830 Belgium was separated from Holland, and it was not till 1844 that the recoining of the old money was seriously undertaken. The monetary law had been already altered in 1839. Side by side with the worn silver coins there were issued 5 or 10-florin gold pieces, which had been coined to the amount of 172 $^1/_2$ millions of florins. The worn and clipped silver coins not being available for international transactions, gold formed the basis of exchange. This was regulated not by the florin but by $^1/_{10}$ of the 10-florin gold piece. All difficulties it was thought could be obviated by adopting a florin of exactly 10 grms. weight, corresponding to the decimal metric system, and .945 fine. As long as the gold coins remained in circulation, and they were of great use while the recoinage was going on, there was thus a bimetallism with a ratio of 1:15.504. From 1842-49 more than 85 $^1/_4$ millions of florins in nominal value were called in and were recoined in new silver pieces. The operation cost the State 8 millions of florins, 7 millions being the loss on the old coins.

Before actually commencing the recoinage, the question of standard had been carefully considered. Silver was resolved on. For more than a century and a half the florin had been the unit of all transactions. As the recoinage advanced, further attention was devoted to the necessity of instituting the single standard. By the law of 26th September 1847, the system of single silver standard was adopted. In June

1850 the gold coins were called in. A total of 50 millions, not one-third of what had been coined, was offered by the public. It was sold in 1850-51 by the Government, which thereby lost rather more than 1 million.

*HOLLAND IN 1872*

There is a very noticeable point connected with this reform. The law of September 1847 admitted trade coins in gold by the side of the legal silver coins and fractional money. Besides the ducats, which are still in demand from time to time, there were *Guillaumes d'or*, *double-* and *half-Guillaumes*. These pieces were inscribed only with the weight and fineness.

This system failed completely. Though the gold Guillaume was coined of the same weight and fineness as the old 10-florin piece, which was much in request, people would not have it. The uncertainty of its value made it unpopular. Between the years 1851 and 1853 only 10,000 Guillaumes, 10,000 half-Guillaumes, and 2636 double-Guillaumes were coined, and since 1853 not a single one has been coined.

All through the Californian and Australian gold finds and until 1872, the price of silver remained stationary for large transactions. Only in small transactions did it exhibit from time to time some slight fluctuations.

| | |
|---|---|
| From 1847-72 everybody was invariably able to sell his silver to the Netherlands Bank at | 104 fl. 65 cents. |

| | |
|---|---|
| Bank retained for recoinage, etc | 1 fl. 17 cents. |
| | 105 fl. 82 cents. |

which, equal to value of 1 kilogramme of silver, .945, was as by the Netherlands standard.

At Amsterdam also the price of silver did not change.

With the change in 1871 this repose was disturbed. A commission was thereupon appointed, in October 1872, to consider the situation, which reported in the following December. It proposed to prohibit the free minting of silver, and this was enacted by the law of 21st May 1873. As long as there was still a hope of Germany continuing her old system, the commission merely proposed to coin a gold piece side by side with the silver money. When, however, Germany adopted the gold standard, the commission, in its additional report of 26th June 1873, proposed to do the same by the introduction of a legal tender currency of 10- and 5-florin pieces in gold, and the withdrawal of the silver standard coins issued under the law of 1847. This measure did not meet the approval of the States-General. For the moment Holland had therefore no standard of value, the Mint being closed to silver, and gold being unrecognised. The consequent heavy fall in the exchange led to an agitation which resulted in the enactment of the law of 6th June 1875, which opened the Mint to the public for the coining of golden 10-guilder pieces of .9 fine, to be legal tender concurrently with the silver florins at the ratio of 1 to 15.625 (calculated on a quotation of 60.35 price per oz. of silver). The law was only enacted for a year, and in the following May 1876 an attempt was made to pass a bill for the

introduction of an exclusive gold standard, and for the demonetisation of silver. The bill was rejected by the First Chamber, and the law of 1875 renewed for another year, and then (by the law of 9th December 1877) renewed "until otherwise determined upon by law."

The result was the permanence of the limping standard—a gold piece with free minting, side by side with silver pieces whose minting is restricted, but gold and silver pieces being alike of unlimited legal tender.

On the 28th March 1877 the States-General passed a law establishing, in the Dutch East Indies, the double standard on the same basis as in Holland, *i.e.* with the formal suspension of the further coinage of silver. This law was promulgated in Java on the 7th June 1877.

*PORTUGAL IN 1868*

## Portugal.

The first law respecting gold in Portugal is dated 4th August 1688.

By that law the price to be paid in the Lisbon and Oporto Mints for a mark of gold (22 carats) was 96,000 reis (533 fr. 33 cents). This same gold was valued at 102,400 reis (568 fr. 88 cents). For a mark of silver of 11 dinheiros (*i.e.* $^{11}/_{12}$ fine) the value was fixed at 6000 reis (33 fr. 33 cents), producing, when minted, 6300 reis (35 francs). The legal ratio at that date (1688) was 1:16 (for purchase price of the

metal), 1:16.25 (for the Mint issue rate).

In 1747 the value of a mark of coined silver was changed, and rose from 35 francs to 41 francs 66 cents (7500 reis), an enactment which changed the ratio at a blow to 13.6.

This ratio remained until the beginning of the present century, and led in short to the expulsion of gold from the monetary circulation.

The law of the 6th March 1822 gave to a mark of coined gold a fixed value of 120 milreis (666 francs 666 cents), and the gold piece, whose value was 6400 reis (35 francs 55 cents), had a value of 41 francs 66 cents (7500 reis). This law was repealed shortly afterwards, together with those passed in the Cortes of 1820, but was restored and ratified by another law of the 24th November 1823, and by a special charter of 5th June 1824.

The preamble of the law of 1822 had declared that the equivalence of 13.5 between gold and silver was very far from expressing the proportion of their mercantile value, and that gold did not practically come into circulation on account of the legal value of such money being below its corresponding value in bullion, the legal ratio was therefore raised to 16 in 1825.

In 1835 a new law, of the 24th April, gave the coined silver mark the value of 7500 reis (41 francs 66 cents), which brought the equivalence to about 15.5, a figure which was considered the average rate of exchange of money, whether national or foreign.

On the 3rd March 1847 a new law was passed raising the value of the gold mark to 128,000 reis (711

francs 11 cents), and the gold piece, whose value had been fixed in 1822 at 41 francs 66 cents (7500 reis), rose to 44 francs 44 cents (8000 reis). After this law other legal measures were taken which established the legal ratio of 16.5.

It was these incessant alterations of ratio which led Portugal to abandon bimetallism. The preamble of the law of 1854, which instituted the gold single standard, expresses this, attesting that the circulation felt the lack of harmony and the disorder produced by alterations in the ratios, that the legal ratio being higher than the commercial ratio hampered the transmission of money and burdened all transactions.

The law was adopted unanimously by the Portuguese Chambers.

## The International Conferences.

The chief feature of the modern monetary agitation —the international conferences and the attempt at international system—is due to the rapid development of bimetallic theory in France, and to the initiative of the United States, as well as to the universal or world-embracing needs of the situation, and the extension of the domain of international law or morality.

It is a mistake to suppose that this new era dates from 1871, from the change in the German monetary system and the commencement of the wide divergence between the two metals. The formation of the Latin Union was the initial step in the process, although, in a smaller sphere, German monetary history for centuries had been acquainted with Mint

conventions between very divergent systems, and had shortly before furnished another illustration in the Conference of Vienna in 1857. The first widely-embracing international conference proper, however, was the outcome of an expression of opinion in the conclave of the Latin Union. It was called at the invitation of France, and met at Paris on the 17th June 1867. The States represented were Austria, Baden, Bavaria, Belgium, Denmark, Spain, the United States, France, Great Britain, Greece, Italy, the Netherlands, Portugal, Prussia, Russia, Sweden and Norway, Switzerland, Turkey, and Würtemberg. The eight sessions of the conference occupied till the 6th July 1867. All the states except Holland declared in favour of a gold standard. It closed without arriving at any actual or practical conclusions, but the president, De Parieu, in his concluding oration, considered himself justified in asserting that the sense of the conference was in favour of a gold monometallic standard, approximating, as near as the occasions of future Mint change in the various states would permit, to a unit based on the 5-franc piece (620 tale to a kilogramme of gold).

### *THE CONFERENCE OF 1868*

Though without immediate practical result, the conference initiated a wide movement. In England it was followed by the appointment of a commission, 18th February 1868, "to consider and report upon the proceeding of the said international monetary conference, ... and to examine and report upon the recommendations of the conference, and their adaptability to the circumstances of the United Kingdom, and whether it would be desirable to make

any and what changes in the coinage of the United Kingdom, in order to establish, either wholly or partially, such uniformity as the conference had held in contemplation."

The commission sat from the 13th March to the 8th July 1868, but closed without practical decision, in regard of the difficulties lying in the way of an international coinage. In particular, the proposition of a reduction of the pound sterling to the 25-franc piece was rejected.

In France the whole course of public opinion, both before and after the conference of 1876, and in the concluding examination of the *Enquête* of 1865-69, ran strongly in favour of gold monometallism, and the opinion has been unflinchingly held and expressed that only the breaking out of the Franco-German War prevented the adoption of that system in France and in the states of the Latin Union. It is hardly too much to say that the conclusion of the war, with the heavy war indemnity which she thereby suffered, took the initiative in monetary legislation out of the hands of France.

Along with the latest reconstruction of her hoary imperial scheme, Germany effected her great and greatly-needed monetary unification and reform. She accomplished it on the basis of the old or French ratio of 15:5, and for two years after the reception of the scheme the price of silver maintained itself moderately. On the 9th July 1873, however, she completed the system by the Legal Tender Law, which demonetised the silver currency, and gradually more than two-thirds of the total old German silver money was called in, melted into bullion, and flung on the market. Concurrently, other

changes were at work on the Continent. In 1872 the Scandinavian States followed the example of Germany and adopted a gold in place of a former silver standard. By the treaty of 18th December 1872 a common system was established between Sweden, Norway, and Denmark. For Sweden the conversion of the silver currency was based on a ratio of 15.57, for Denmark 15.43, and for Norway 15.44. Three years later the Netherlands followed suit. By their law of 6th June 1875 and 10th May 1876 they adopted a gold in place of their previous silver standard at a basis ratio of 15.625.

Before the completion of these widespread changes, the great fall in the gold price of silver had begun, and the United States in her silver-producing interests, Great Britain in the interests of her Indian dependency and in those of her trade with silver-using countries, and the whole commercial world generally in the dislocation of international exchange, found themselves menaced by gravest danger.

*THE DEPRECIATION OF SILVER*

Before the inrush of silver to the Mint, caused by such a fall, the Latin Union first limited and then abandoned its coining of the 5-franc piece.

The fall of silver became thereby only the more acute and confirmed. By July 1876 it had sunk to 46 $^{3}/_{4}$ per oz. Apprehension was universally felt, and in both England and the United States fresh commissions were appointed to consider the question. The English commission on the

depreciation of silver was appointed in March 1876, and sat from the 20th March to the 8th May, under the presidency of Mr. Goschen. The investigation turned upon the causes of the prevailing situation, without any attempt at the suggestion of a remedial positive system.

Later, in the same year (15th August), the American Congress voted the appointment of a like commission, to inquire into the causes of the depreciation of silver and into the feasibility of a reconstruction of a bimetallic system, as well as to devise a ratio and measures for the facilitation of a return to cash payments in the United States. This commission resulted in a double report, the 'majority' and the 'minority' report. The majority, comprising Messrs. Jones, Bogy, Willard, Groesbeck, and Bland, recommended the remonetisation of silver and the recourse to a fresh international conference. This latter proposition was expressed in the compromise known as the Bland Bill, the "Act to authorise the coinage of the standard silver dollar, and to restore its legal tender character, 28th February 1878." Section 2 of this law imposed it upon the President of the United States to invite the members of the Latin Union and the other interested nations to an international conference. On the invitation of France this conference met in Paris on 10th August 1878. The American delegates proposed the free coinage of silver in an international agreement and its unrestricted employ on a full equality of tender with gold. The delegates of Belgium, Switzerland, and Norway combated the proposals, and, on the part of England, Mr. Goschen declared that while the complete demonetisation of silver portended a commercial crisis to which no parallel could be found, England could consent to no serious

modification of her currency system. Germany was not represented, and in her absence France adopted a waiting policy, and the conference closed with an impotent expression of opinion that, in view of the difference of opinion, it was useless to discuss an international ratio, and that, while it was necessary for the world to maintain the currency of silver, the choice and treatment of each or either metal must be left to the particular monetary situation and needs of each separate state.

It was not to be expected that so lame a conclusion could stand before the needs of the situation. On the 19th May 1879 the landed interest in Germany succeeded in driving the Chancellor of the Empire to suspend the further sale of silver. The circumstance gave fresh hope to the bimetallists, and a busy propaganda was carried on throughout Europe and the States. The renewed international conference of 1881 is to be regarded as an outcome of this movement.

### *THE CONFERENCE OF 1881*

On the invitation of the United States and France the third international conference met in Paris on the 19th April 1881. All the European States, Canada, India, and the United States were represented.

France, through her delegates, Magnin, the president of the conference, and Henri Cernuschi, at once and boldly declared for bimetallism. The United States, Italy, Austria, the Netherlands, and British India followed suit. On behalf of their states the British and German delegates declared that no change in the

currency systems of their countries could be entertained, but in case of an agreement among the chief nations certain regulations to increase the monetary employment of silver might be devised. Belgium, Switzerland, Greece, and the Scandinavian kingdoms declared against bimetallism. After a recess from the 30th June to the 19th May the conference closed on the 8th July 1881 with a nominal adjournment to the 12th April 1882, so as to give room for possible currency legislation in the meantime. On the day fixed, however, the conference, as need hardly be said, did not reassemble.

Practically, in the interval between the second and third of these international delegations, the monetary situation had not perceptibly altered. The price of silver in 1878 had been 52 $^{9}/_{16}$, in 1881 it was 51 $^{11}/_{16}$: the general level of prices had, if anything, slightly improved, while the production of silver had not materially increased (from 2,551,000 kilogrammes in 1878 to 2,593,000 kilogrammes in 1881), though that of gold had certainly decreased. The close of the conference was, however, followed by a strong bimetallic agitation in England and Germany, which found united expression in the Bimetallic Congress at Cologne in October 1882.

This congress unanimously adopted the following resolutions:—

"That in order to the establishment of a firm ratio between gold and silver, it is desirable for England and Germany—

"1. To increase the employment of silver by minting full tender silver by the side of the divisional restricted tender silver.

"2. That Germany should withdraw all gold and paper below the value of 10 marks [and replace it by silver].

"3. That Germany should sell no more silver.

"4. That the Bank of England should put in practice the clause of her charter which allowed her to employ silver as part of the bank reserve."

The conclusions of this congress had, however, no practical influence on the course of policy of either nation.

In the United States a parallel though more interested agitation was conducted, centring round the yearly proposed repeal of the compulsory minting clauses of the Bland Bill.

*THE ENGLISH GOLD AND SILVER COMMISSION*

In England the commercial depression, consequent upon falling prices and the dislocation of exchanges with India and the East, ran its full course, and gave fresh ground for activity to the then recently formed Bimetallic League.

In the course of 1886 silver had sunk to 42d. per oz., and when the royal commission on the depression of trade and industry closed its investigations, with the expression of a desire for an inquiry into the state of the precious metals, the British Government only too gladly acceded. On the 20th September 1886 the royal commission "to inquire into the present changes in the relative values of the precious metals"

was appointed. Its final report was made in October 1888, and, as is well remembered, was of a divided nature. All the members of the commission agreed that the action of the Latin Union in 1873 broke the link between gold and silver, which had kept the price of silver, as measured by gold, constant at about the legal ratio, and thereby left silver exposed to the influence of all the factors which go to determine the price of a commodity. On the question of bimetallism, in reference to the actual and to any possible currency system, the commissioners disagreed, and made separate reports. Lord Herschell, Sir C.W. Fremantle, Sir John Lubbock, Sir Thomas Henry Farrer, J.W. Birch, and Leonard H. Courtney expressed themselves adversely.

"Though unable to recommend the adoption of what is commonly known as bimetallism, we desire it to be understood that we are quite alive to the imperfections of standards of value, which not only fluctuate but fluctuate independently of each other, and we do not shut our eyes to the possibility of future arrangements between nations which may reduce these fluctuations. One uniform standard of value for all commercial nations would, no doubt, be a great advantage. But we think that any premature and doubtful step might, in addition to its other dangers and inconveniences, prejudice and retard progress to this end.

"We think also that many of the evils and dangers which arise from the present condition of the currencies of different nations have been exaggerated, and that some of the expectations of benefit to be derived from the changes which have been proposed would, if such changes were adopted, be doomed to disappointment.

"Under these circumstances we have felt that the wiser course is to abstain from recommending any fundamental change in the system of currency under which the commerce of Great Britain has attained its present development."

From these opinions dissent was directly expressed in Part III. of the report by the remaining members—Sir Louis Malet, A.J. Balfour, Henry Chaplin, Sir D. Barbour, Sir W.H. Houldsworth, and Sir Samuel Montague.

*DISSENT FROM REPORT OF COMMISSION*

"We cannot doubt that if the system which prevailed before 1873 were replaced in its integrity most of the evils which we have above described would be removed; and the remedy which we have to suggest is simply the reversion to a system which existed before the changes above referred to were brought about—a system, namely, under which both metals were freely coined into legal tender money at a fixed ratio over a sufficiently large area.

"The remedy which we suggest is essentially international in its character, and its details must be settled in concert with the other powers concerned.

"It will be sufficient for us to indicate the essential features of the agreement to be arrived at, viz.:—

"1. Free coinage of both metals into legal tender money.

"2. The fixing of a ratio at which the coins of either metal shall be available for the payment of all debts

at the option of the debtor.

"We submit, therefore, that the chief commercial nations of the world, such as the United States, Germany, and the states forming the Latin Union, should, in the first place, be consulted as to their readiness to join with the United Kingdom in a conference, at which India and any of the British colonies which may desire to attend shall be represented, with a view to arrive, if possible, at a common agreement on the basis above indicated."

Such a report was claimed as a victory for either side, but its doubtful tenor only confirmed the rooted suspicion of the English administration as regards any change of the currency system. And when, on the occasion of the Paris Exhibition in 1889, a free International Monetary Congress was held, as one of the numerous special congresses connected with the celebration, Great Britain was not represented among the 194 members who attended on the invitation of the organising committee. M. Magnin, governor of the Bank of France, presided at the sittings, which covered from the 11th to the 15th September. Like its predecessor, the international conference, this congress closed without direct or practical resolution. Putting out of view this congress as of a more informal nature, a period of eleven years elapsed between the still only prorogued conference of Paris of 1881 and the conference of Brussels in 1893. This—as yet the last—conference was summoned on the initiative of the United States, but from the commencement a distinct difference of tone and method made itself felt; the Government of the United States recognising that some European countries might not be willing to adopt the remedy which they would prefer, namely, "the establishment

of some fixity of value between gold and silver, and the free use of silver as a coin metal, upon a ratio to gold to be fixed by an agreement between the great commercial peoples of the world." The invitation to and purpose of the conference were conveyed in quite general terms, namely thus, "For the purpose of considering what measures, if any, could be taken to increase the use of silver in the currency systems of nations."

### *THE BRUSSELS CONFERENCE*

The invitation was accepted by all the most important states, and at the first meeting, on 26th November 1892, the delegates of twenty Governments were present, namely, Austria, Hungary, Belgium, Denmark, France, Germany, Great Britain, British India, Greece, Italy, Mexico, The Netherlands, Norway, Portugal, Roumania, Russia, Spain, Sweden, Switzerland, Turkey, and the United States.

The proceedings were opened by M. Beernaert, President of the Council and Finance Minister of Belgium. M. Montefiore Levi, senator, and delegate of Belgium, was chosen as president, and his Excellency, M. Edwin H. Terrell, Minister of the United States at Brussels, and one of the delegates of the United States, was chosen vice-president.

At the second meeting the American delegates submitted a scheme for international bimetallism, but, in conformity with the terms of the invitation, at the same time expressed a hope that the powers represented would consider and submit other plans

for the enlarged use of silver. Two such proposals they themselves suggested for discussion—(1) the plan of M. Moritz Levy, proposed at the conference of 1881, and (2) the plan proposed by the late Dr. A. Soetbeer. The main design of both these proposals was to increase the use of silver, by substituting silver coins or notes based on silver, for such small gold coins and small notes based on gold as are at present in circulation.

At the same session the delegates of Germany, Austria, and Russia explained that they were instructed not to express an opinion or to vote upon any resolution. Roumania, Portugal, Turkey, and Greece not having special instructions, felt themselves compelled to take up a similar attitude. Finding that France and the States of the Latin Union were apparently more disposed to criticism of, rather than to cordial co-operation with, the objects of the conference, the delegates of the United States did not press for a resolution on the wider question of bimetallism, and the attention of the conference was accordingly fixed on the subsidiary suggestions. To these latter, as above, was added on the same day a third, made by Mr. Alfred de Rothschild, to the effect that on condition of the United States continuing her purchases of 54 million oz. of silver yearly the different European powers should combine to make certain yearly purchases, say to the extent of £5,000,000 yearly; these purchases to be continued over a period of five years, at a price not exceeding 43 pence per oz. On a rise of silver above that price the purchases for the time being to be immediately suspended.

In committee this latter proposal was thus modified —

1. The European states which agree, upon the basis of this proposal, will buy in each year 30 million oz. of silver, on condition that the United States agree to continue their present purchases, and that unlimited free coinage be maintained in British India and Mexico.

2. The proportion of the purchases to be made by each country will be determined by agreement.

3. The purchases will be made at the discretion of and in the manner preferred by each Government.

4. These amounts of silver will be devoted in each country to the monetary uses authorised by the legislation of that state, and the silver will be either coined or made the guarantee for an issue of ordinary or special notes, as Government may think fit.

5. The arrangement will be made for five years. The obligatory purchase of silver will be suspended should the metal reach in the London market a price determined by agreement between the Governments. The purchases may be renewed, if the delegates of the different countries interested should agree upon the fixing of a new limit of price. They should be renewed in any case if the price falls below the original limit.

With regard to the Soetbeer plan it was abandoned in committee, while the Levy plan was drawn up in the following terms:—

"1. The withdrawal from circulation within a period of ... of gold coins containing a weight of less than 5.806 grms. of fine gold (20-franc pieces).

"2. The withdrawal of notes of a less value than the

coin of 20 francs or its equivalent, an exception being made of notes representing a deposit of silver."

The manner of adopting and recommending these schemes to the conference from the committee was peculiar. The British delegate, Sir C. Fremantle, declared that he could not entertain the "Levy" except in conjunction with the "Rothschild" scheme, and while recommending the latter to the conference for discussion, the states of the Latin Union declared that even if passed, they could not recommend the plan to their Governments.

At the fourth session M. Boissevain declared that there were insurmountable obstacles to its adoption by the Government of the Netherlands. General Strachey said that unless it received more favour than was indicated by the report, he would be unable to support it. Mr. Allard, one of the Belgian delegates, declared that it was insufficient, and Sir Rivers Wilson declared, on behalf of himself and Sir Charles Fremantle, that recognising that this want of support would prevent them from recommending the plan to their Government, they would refrain from taking part in a detailed discussion of it, although they did not consider it inconsistent with the monometallist opinions which they held. Mr. M'Creary (delegate for the United States), then stated that he did not consider M. de Rothschild's proposal, as it stood, equitable to the United States, and therefore that he would be unable to support it.

*CLOSE OF THE BRUSSELS CONFERENCE*

In view of the various declarations, M. de Rothschild withdrew his plan, and there was left before the conference only the Levy plan. This latter was favourably regarded, but was radically insufficient for the situation, and not considered important enough to receive really vigorous support.

The course of the conference thereupon returned to the general discussion of the bimetallic proposal of the United States. In this discussion the attitude of reserve which the French delegates had maintained was abandoned, and M. Tirard declared with the greatest clearness that he could not advise his Government to open the French Mints to the free coinage of silver, unless there was a general agreement on the part of other nations to open their Mints also. Until, therefore, there should be a decided change of opinion on the part of Great Britain, Germany, Austria, the Scandinavian States, and other monometallic states, the question of returning to the free coinage of silver must be looked upon as settled.

In view of such declarations the delegates of the United States declared that they would not press for a vote upon the question of bimetallism. And the conference closed with a formal adjournment, should the Governments approve, to the 30th May 1893.

The close of the conference was a heavy blow to the bimetallic cause, as illustrating so fully the impossibility of any arrangement. Germany, Denmark, Sweden, and Norway, declared clearly that no change would be made on the gold basis of their currency. The delegate of Austria Hungary was equally explicit in his statement that his Government had every intention of abiding by the gold standard

they were in the course of adopting.

The decided lead of France was followed punctually by Switzerland, Italy, Belgium, and Greece. The Netherlands were prepared to join a bimetallic union, provided that Great Britain formed a part of it; and Spain and Mexico were willing to adopt bimetallism, or other measures which would have the effect of raising the price of silver. No declaration was made on the behalf of Russia, though one of the delegates, speaking personally, was an active supporter of the gold standard. The Roumanian Government did not consider bimetallism a practical possibility, and Turkey and Portugal expressed no opinion.

Practically, the United States stood alone in advocacy of bimetallism. In addition to this fact, the situation was rendered much more trying for her delegates by the fact that since their appointment the presidential election had placed the Democratic party in power, and great uncertainty prevailed as to the attitude and intentions of a new President and Congress. "In these circumstances it soon became evident that the delegates were anxious for an adjournment of the question to give the new Government the opportunity of expressing their views, and that the conference would adjourn without any practical result. But, nevertheless, some very important statements and declarations were elicited in the course of the debates. In the first place, in addition to the distinct declarations on the part of some of the most important European powers that they would not entertain bimetallism, the representatives of the United States announced in very clear language that at any moment their Government might be disinclined to continue their purchases of silver, and

that they were determined to protect their stock of gold. The Indian delegates alluded to the possibility of their Government finding itself under the necessity of closing its Mint to the free coinage of silver."

*GOLD STANDARD FOR INDIA*

Already, before the calling of the Brussels Conference, it had been recognised that, in case of failure to arrive at a bimetallic agreement, it would be essential thus far to close the Indian Mint, and to attempt the establishment of a gold standard in India. This impression, together with a draft scheme for a gold currency, was conveyed in a minute of Sir David Barbour's, addressed to the Secretary of State, 21st June 1892. As the result of correspondence between the Secretary of State for India in Council and the Government of India the British Government, on the 21st October 1892, *i.e.* a month before the meeting of the Brussels Conference, nominated a committee to consider the proposals submitted by the Indian Government for stopping the free coinage of silver in India, with a view to the introduction of a gold standard.

The committee consisted of—The Lord High Chancellor; The Right Hon. Leonard H. Courtney, M.P.; Sir Thomas Henry Farrer, Bart.; Sir Reginald Earle Welby, G.C.B.; Arthur Godley, Esq., C.B.; Lieutenant-General Richard Strachey, C.S.I.; Bertram Wodehouse Currie, Esq.

A hope was at first expressed that the committee would be able to make its report before the meeting of the conference at Brussels. But it was not actually

made until the 31st May 1893.

## India.

The part which India has played in the currency history of the world has been characteristic and uniform from the first. India is, and has been, from the birth of international commerce, the receptacle or sink for the precious metals of the civilised Western world. The fact that in so being she has constituted herself the safety-valve of the world's currencies is not confined to the present day merely. It is peculiarly applicable to the present day, with our organisation of banking and credit, which has concentrated the metallic reserves in certain burning central spots, and built thereon a superstructure of credit transactions so vast and in so delicately poised a manner that any undue addition to the metallic reserve sends a shudder of excitement and speculation through the whole, inducing over-trading and over-funding, and in the end a crisis. Such is the structure of the world's commerce that India provides an outlet or drain for any sudden crisis-bringing inflow of precious metal, and preserves the equilibrium of our system. The fact is patent to-day, because the nature of our credit and banking system is understood. But in reality this function India has performed through ages.

The influence she now exerts through impact with a highly delicate credit system, she formerly exerted on a less uniform and delicate system by the rougher influence of prices generally. The gain attending the Eastern trade in the sixteenth and seventeenth centuries was not measured by modern conceptions

of dividends or trading margins. To the European trader the intercourse was attended with a double gain, commercial and financial—the latter really bimetallic in nature from the higher ratio then prevailing between silver and gold in India.

To India it meant a perpetual balance of trade in her favour, if such a phrase can be used of such a situation,—a continual inflow of precious metal. Her capacity of absorption of metal seems as large and unsatisfied as ever, and, on the assumption of an unaltered situation in Europe and America, her function in the world's currency system still remains —feasible and beneficent. It is the most difficult question attending the modern currency crisis, whether such assumption of an unaltered situation is permissible.

Further than this, as a simple matter of fact, the currency difficulty with India at the present moment is purely governmental and commercial. The Indian Government has yearly to remit a very large sum to this country in discharge of its gold obligations. In 1873-74, before the great fall in silver commenced, the amount remitted was £13,285,678, which, at the rate of exchange of 1 rupee = 1s. 10.35d., meant 142,657,000 rupees. During the year 1892-3 the amount remitted was £16,532,215, which, at the average rate of exchange in that year, 1s. 2.985d., required a payment of 264,784,150 rupees. If this could have been remitted at the exchange of 1873-74, it would only have needed 177,519,200 rupees, making a difference of 87,274,950 rupees. The result of this is to turn what would be a surplus of revenue into a large deficit. At an estimated exchange of 1s. 4d. per rupee for the past year, a surplus of revenue over expenditure was shown of

1,466,000 rupees. The exchange having fallen to an average of rather less than 1s. 3d., this surplus has been converted into an estimated deficit of 10,819,000 rupees. Notwithstanding the improvement of the revenue by 16,533,000 rupees over the budget estimate, the situation at the close of 1892 was fraught with a double danger to the Indian Government. The fall of silver—which had been such that during the year exchange could scarcely be maintained at 1s. 2 $^{5}/_{8}$d. for the rupee by the refusal to sell bills in India below that rate—might still proceed. And, secondly, in case of failure attending the Brussels Conference, the United States would be inevitably driven to abandon her single-handed attempt to keep up the price of silver by her silver purchases. In that case an unexampled fall of silver might be expected. The only practical solution of the difficulty was the adoption of a gold standard for India, and in order to do so at a workable rate for the rupee it would be necessary to anticipate such further fall.

So much, in very brief, for the Government situation. For the commercial,—the harassment of trade by fluctuations of exchange, the check to investments, the handicapping of the Lancashire manufactures, and so on,—all this ground is still strewn with the débris of debate and difference. As far as the currency question, pure and simple, is concerned—such, that is, as is conceived of throughout this book, viz. metallic—it is almost incapable of presentation or realisation. Through the extraordinary preference of the Indian for the precious metals as metals or as a commodity, quite apart from currency use, the ordinary action of such monetary laws as have been at work in Europe for centuries is nullified—to how great an extent it is quite impossible to estimate. The

minting of silver has been such as might be expected under the conditions of free minting of a cheapening metal—*i.e.* it has risen on an average to the full amount of the net imports of silver. But, conversely, there has been no such reactionary influence of such mintings on the gold store of the country as would have taken place in Europe. The importations of silver have gone hand in hand with a net importation, not exportation, of gold, with no traceable evidence of bimetallic action.

The establishment of the gold standard for India is, therefore, primarily and in greatest part a governmental measure. As far as relates to such purely scientific phenomena and considerations, as have governed the European currencies for centuries, India still presents field for little or for very questionable observation.[22]

## TABLE OF THE SURPLUS OR NET IMPORTS OF THE PRECIOUS METALS INTO INDIA

| Year. | Gold. | Silver. | Council Bills. |
|---|---|---|---|
| 1835-6 | £329,918 | £1,611,896 | £2,045,254 |
| 1836-7 | 419,724 | 1,338,882 | 2,042,232 |
| 1837-8 | 430,870 | 1,966,944 | 1,706,184 |
| 1838-9 | 258,925 | 2,645,130 | 2,346,592 |
| 1839-40 | 226,643 | 1,650,471 | 1,439,525 |
| 1840-1 | 137,312 | 1,401,670 | 1,174,450 |
| 1841-2 | 165,623 | 1,283,228 | 2,589,283 |
| 1842-3 | 211,161 | 2,952,445 | 1,197,438 |
| 1843-4 | 406,523 | 3,695,442 | 2,801,731 |
| 1844-5 | 710,100 | 1,988,561 | 2,516,951 |
| 1845-6 | 544,476 | 932,490 | 3,065,709 |
| 1846-7 | 846,949 | 1,378,249 | 3,097,042 |
| 1847-8 | 1,039,116 | (*-491,191*) | 1,541,804 |
| 1848-9 | 1,348,918 | 313,904 | 1,889,195 |
| 1849-50 | 1,116,993 | 1,273,607 | 2,935,118 |
| 1850-1 | 1,153,294 | 2,117,225 | 3,236,458 |
| 1851-2 | 1,267,613 | 2,865,357 | 2,777,523 |
| 1852-3 | 1,172,301 | 4,605,024 | 3,317,122 |
| 1853-4 | 1,061,443 | 2,305,744 | 3,850,565 |
| 1854-5 | 731,290 | 29,600 | 3,669,678 |
| 1855-6 | 2,506,245 | 8,194,375 | 1,484,040 |
| 1856-7 | 2,091,214 | 11,073,247 | 2,819,711 |
| 1857-8 | 2,783,073 | 12,218,948 | 628,499 |
| 1858-9 | 4,426,453 | 7,728,342 | 25,901 |
| 1859-60 | 4,284,234 | 11,147,563 | 4,694 |
| 1860-1 | 4,232,569 | 5,328,009 | 797 |
| 1861-2 | 5,184,425 | 9,086,456 | 1,193,729 |
| 1862-3 | 6,848,159 | 12,550,155 | 6,641,576 |
| | | | |

| | | | |
|---|---|---|---|
| 1863-4 | 8,898,306 | 12,796,719 | 8,979,521 |
| 1864-5 | 9,839,964 | 10,078,798 | 6,789,473 |
| 1865-6 | 5,724,476 | 18,668,673 | 6,998,899 |
| 1866-7 | 3,842,328 | 6,963,074 | 5,613,746 |
| 1867-8 | 4,609,467 | 5,593,961 | 4,137,285 |
| 1868-9 | 5,159,352 | 8,601,022 | 3,705,741 |
| 1869-70 | 5,592,117 | 7,320,337 | 6,980,122 |
| 1870-1 | 2,282,121 | 941,937 | 8,443,509 |
| 1871-2 | 3,565,344 | 6,512,827 | 10,310,339 |
| 1872-3 | 2,543,362 | 704,644 | 13,939,095 |
| 1873-4 | 1,382,638 | 2,451,383 | 13,285,678 |
| 1874-5 | 1,873,535 | 4,642,202 | 10,841,615 |

**_NET_ IMPORT OF SILVER AND MINTING OF _NEW_ SILVER, 1870-92**

| Year. | Net Imports (Rupees). | New Coinage (Rupees). |
|---|---|---|
| 1870-1 | 9,419,240 | 17,181,970 |
| 1871-2 | 65,203,160 | 16,903,940 |
| 1872-3 | 7,151,440 | 39,809,270 |
| 1873-4 | 24,958,240 | 23,700,070 |
| 1874-5 | 46,422,020 | 48,968,840 |
| 1875-6 | 15,553,550 | 25,502,180 |
| 1876-7 | 71,988,720 | 62,711,220 |
| 1877-8 | 146,763,350 | 161,803,260 |
| 1878-9 | 39,706,940 | 72,107,700 |
| 1879-80 | 78,697,420 | 102,569,680 |
| 1880-1 | 38,925,740 | 42,496,750 |
| 1881-2 | 53,790,500 | 21,862,740 |
| 1882-3 | 74,802,270 | 65,084,570 |
| 1883-4 | 64,051,510 | 36,634,000 |

| | | |
|---|---|---|
| 1884-5 | 72,456,310 | 57,942,320 |
| 1885-6 | 116,066,290 | 102,855,660 |
| 1886-7 | 71,557,380 | 46,165,370 |
| 1887-8 | 92,287,500 | 107,884,250 |
| 1888-9 | 92,466,790 | 73,122,550 |
| 1889-90 | 109,378,760 | 85,511,580 |
| 1890-1 | 141,751,360 | 131,634,740 |
| 1891-2 | 90,221,840 | 55,539,700 |
| 1892-3 | 128,635,690 | 127,052,100 |
| Total of 23 years | 1,652,256,020 | 1,525,044,460 |

**NET IMPORT AND MINTING OF GOLD**

| Year. | Rupees. | Rupees. |
|---|---|---|
| 1875-6 | 15,451,310 | 171,500 |
| 1876-7 | 2,073,490 | Nil |
| 1877-8 | 4,681,290 | 156,360 |
| 1878-9 | (*Export of 8,961,730*) | 850 |
| 1879-80 | 17,505,040 | 147,300 |
| 1880-1 | 36,551,990 | 133,550 |
| 1881-2 | 48,439,840 | 339,700 |
| 1882-3 | 49,308,710 | 174,950 |
| 1883-4 | 54,625,050 | Nil |
| 1884-5 | 46,719,360 | 129,650 |
| 1885-6 | 27,629,350 | 225,850 |
| 1886-7 | 21,770,650 | Nil |
| 1887-8 | 29,924,810 | Nil |
| 1888-9 | 28,139,340 | 226,090 |
| 1889-90 | 46,153,030 | 230,500 |
| 1890-1 | 56,361,720 | Nil |

| | | |
|---|---|---|
| 1891-2 | 24,137,920 | 248,010 |
| 1892-3 | (*Export of 28,126,830*) | ... |

## FOOTNOTES:

[15] The returns for the years 1825-29 give no separate figures for gold and for silver, but give only the total of the two together.

[16] From 1865-1878—

| | | |
|---|---|---|
| France | minted | 625,466,380 francs. |
| Belgium | minted | 350,497,720 francs. |
| Italy | minted | 359,059,820 francs. |
| Switzerland | minted | 7,978,250 francs. |
| | | 1,343,000,000 francs. |

[17] As far, that is, as relates to gold. So far as silver is concerned, it was practically abrogated by the clauses for the prohibition of silver coinage in 38 Geo. III. c. 59 (1798), and finally repealed by the Act of 56 Geo. III. c. 68 (1816). See *postea*.

[18] Professor Laughlin brings out very strongly that even in such action Hamilton shows no trace of the modern conception of bimetallism, that his report expresses an emphatic preference for gold over silver, and that his object in adopting bimetallism was, while retaining silver, to leave a door open, if possible, for the introduction of gold.—*History of Bimetallism in the United States*, pp. 13, 14.

[19] By the law of 1837 the alloy for both gold and silver coins was fixed at $^1/_{10}$. The pure gold in the eagle, which by the Act of 1834

was fixed at 232 grs. (258 grs. gross for the piece), was thereby changed to 232.2 grs. At the same time the pure metal content of the silver dollar was maintained at 371 1/4 grs., the (gross) weight per piece being changed to 412 1/2 grs.

[20] See the case more fully established in Laughlin's *Bimetallism in the United States*, pp. 29, 57.

[21] Viz. of Philadelphia, New Orleans, Dahlonega, Charlotte, San Francisco, and Carson City.

[22] On the subject of the history of the Indian Currency System under the East India Co., in the eighteenth and early nineteenth centuries, see a very interesting communication made in the pages of the *Nineteenth Century* by Mr. H.D. Macleod (*Nineteenth Century*, November 1894, p. 777). The question of the system established by the Order in Council of January 1841 (authorising officers in charge of public treasuries to freely receive gold coins struck in conformity with the provisions of Act xvii. of 1835, establishing the 15-rupee pieces), which continued till its rescinding in December 1852, is discussed in the evidence of Mr. T. Comber before the Royal Commission on Gold and Silver (*Second Report of the Commission on Changes in the Relative Values of the Precious Metals*, 1888, p. 27). For an excellent and succinct history of the Indian currency system from the end of the 18th century, see Robert Chalmers' *History of Currency and the British Colonies*, p. 336.

# APPENDIX I

## THE MONETARY SYSTEM OF FLORENCE DURING THE DAYS OF HER COMMERCIAL ACTIVITY AND INDEPENDENCE

Throughout the history of independent Florence her gold coin type is always the florin. In its first beginning her monetary system had relation to that of the restored Empire. The *silver fiorino* of which the first mention occurs was equivalent to 12 denari, as in the Charlemagne system. Presumably this would be equal to some hypothecated *soldo*, and the multiple of it a hypothecated fiorino d'oro, gold florin (= 20 soldi), would be equal to the lira or libra, or unit of weight. This will explain how it is possible to have mention of gold florins almost a century before the actual issuing of a real coin so named. Such mention occurs in the monetary ordinances and schedules of France as early as 1180. (See Preface, *supra*, p. xiii, also De Saulcy, *Documents*, i. 115. Le Blanc was unable to explain this apparent contradiction of history.)

What the particular Florentine weight unit or lira (libbra) was, however, is uncertain. According to the researches of Neri (in *Argelatus*, i. 157) the scheme of weights was—

| | | **Denari.** | **Grani.** | |
|---|---|---|---|---|
| Silver florin | = | ... | 38 | 23 26 |
| Lira (or 20 popolini) | = | 32 | 11 | 15 21 |

When it actually emerges, the gold florin has a weight of 53 (English) grs., or 72 Florentine; which would give a mark of 6912 grs. Its standard was of

absolute fineness, 24 carats, a standard which was never departed from through the whole of its history. Very little change, too, was made in the weight, hardly more than 4 1/2 grs. in all (or 6 1/4 per cent.).

It was issued at an equivalence of 20 soldi, which were represented by 20 silver florins, already known.

The variation of this coin with regard to the unit coin of lower denomination will be found in the Table below.

There is a second variation of the gold florin, *apparently* with regard to itself, which has given rise to much misunderstanding, and requires explanation. As the process of wear and tear and abrasion went on in the coins, with lapse of time the custom grew of subdividing or hypothecating a gold florin of ideally perfect weight and condition as the standard for transactions. This became book or bank money, and the actually circulating medium was rated to it at a certain discount. This ideal florin is known as *fiorini di suggello* or *sigillo*, florin of the public seal, and there is a series of such denominations. The first apparent adoption of such a method—which also emerges in the currency history of Hamburg and Amsterdam—was in 1321, and the florins of that date are styled "of the first sigello"; the second was in 1324, the third in 1345, and so on. Between the years 1328 and 1462 there was a series of eight, as follows:—

| | | | |
|---|---|---|---|
| 1328 | 5 | per cent. | advantage. |
| 1345 | 3 | " | " |
| 1347 | 5 | " | " |
| 1402 | 5 | " | " |
| 1402 | 1 1/4 | " | " |

| | | | |
|---|---|---|---|
| 1442 | 4 | " | " |
| 1461 | 7 | " | " |

Subsequently, by law of 30th May 1464, this various advantage was transferred from the *fiorini di suggello* to a new denomination, *fiorini d'oro larghi*, with an advantage of 20 per cent. above the *fiorini di suggello*; and once again, by the law of 14th October 1501, the process was repeated. An advantage of 19 per cent. over the *fiorini d'oro larghi* was announced in favour of the newest denomination, *fiorini d'oro larghi in oro*. The advantage of these last, therefore, over the *fiorini di suggello* of 1461 amounted to 39 per cent.

It appears quite clear that this advantage represents a differentiation, not of good bank abstract florins from worn current gold florins, but of the former from the actual current medium of payment, and that this latter was *silver*.

The cause of the advantage was the depreciation of the silver denomination, from the aggregate of which was formed the lira, in which was expressed the value of the gold florin.[23]

For illustration:—

In 1464—

120 fiorini di suggello = 100 fiorini d'oro larghi at 4 lire 8 sol. 4 den. each = 530 lire.

Therefore each fiorino d'oro largo ought to = 5 lire 6 sol., which by the tables of the time it

> actually did.

Similarly, in 1501—

> 100 fiorini larghi d'oro in oro = 119 larghi di grossi at 5 lire 11 sol. 4 den. = 660 lire.
>
> Therefore fiorino largo d'oro in oro should = 6 lire 12 sol. which it actually did.

The SILVER MONIES of Florence were based on the silver florin = $^1/_{20}$ of gold florin (= 38 $^1/_2$ grains).

From the time of the Mint Law of 1296, these silver coins are styled *grossi*, and subsequently *soldi*, *grossi*, *Guelfi*, etc. etc.

The alloy gradually sank—

| | **Onza.** | **Denaro.** |
|---|---|---|
| | 11 | 18 |
| | 11 | 17 |
| (1280) | 11 | 15 |
| (1314) | 11 | 12 |

remaining at the last-named figure until the reopening of the Pisan Mint in 1597.

As the gold rose in value by the process already indicated, and the idea of the lira as 20 soldi = 1 gold florin, became inapplicable, the lira came to be looked on as a fractional part of the gold piece or florin. This usage grew up in Florence from the

beginning of the twelfth century, and so continued till the days of Cosimo I., who in 1534 coined the first lira, *i.e.* an actual silver coin.

This imaginary lira of mediæval Florence was itself divided, like the florin, into soldi and denari, similar aliquot parts. Hence the custom of keeping Florentine accounts, (1) *a oro*, or (2) *a moneta di piccioli*, the one in terms of the florin of gold, the other in terms of the imaginary lira.

The confusion to which this led was due to the unstable nature of the imaginary money, which from 1312 continually depreciates in value, as compared with the actual hard florin money. In 1314, as some measure of reform, it was ordained that the florin of gold should not equal more nor less than 29 of the soldi of this lira, and that it should never change from such course—the distinction of *moneta bianca* and *nera* being introduced for the purpose. The ceasing of the observation of this regulation in the sixteenth century made way for every kind of confusion.

For the explanation of the text in Part I., pp. 19-23, it need only be added that 20 of these imaginary soldi formed the *lira a fiorino* spoken of.

**TABLE OF THE SILVER COINS STRUCK IN FLORENCE, 1252-1534.**

| Year. | Denomination. | Standard. | | Weight of each Piece. | Fine Silver in each Piece. | Tal per Mar mint |
|---|---|---|---|---|---|---|
| | | | | | | |

| | | Silver. | | Alloy. | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Oz. | Gr. | Oz. | Gr. | Grains. | Grains. | |
| 1252 | Fiorino d'argento | ... | | ... | | 43 1/5 | ... | 160 |
| 1280 | Do. | 11 | 15 | 0 | 9 | 45 3/4 | 45 1/4 | 151 |
| 1296 | Soldi grossi | 11 | 15 | 0 | 9 | 40 9/19 | 39 3/19 | 171 |
| 1305 | Grossi popolini | 11 | 12 | 0 | 12 | 40 9/19 | 38 3/4 | 171 |
| | | (= Argento popolino.) | | | | | | |
| 1314 | Guelfi del fiore (Half and quarter of same.) | 11 | 12 | 0 | 12 | 41 5/8 | 39 7/8 | 166 |
| 1345 (Aug. 19) | Nuovi Guelfi | 11 | 12 | 0 | 12 | 51 7/12 | 49 5/12 | 134 |
| 1345 (Aug. 23) | Grossi Guelfi | 11 | 12 | 0 | 12 | 52 4/11 | 50 2/11 | 132 |
| 1345 (Oct. 23) | Grossi Guelfi | 11 | 12 | 0 | 12 | 48 2/3 | 46 5/8 | 142 |
| 1347 | Guelfi grossi | 11 | 12 | 0 | 12 | 59 1/13 | 56 8/13 | 117 |
| 1368 | Popolini | 11 | 12 | 0 | 12 | 23 1/25 | 22 2/25 | 300 |
| 1390 | Grossi | 11 | 12 | 0 | 12 | 56 8/41 | 53 35/41 | 123 |
| 1402 | Grossi | 11 | 12 | 0 | 12 | 52 4/11 | 50 2/11 | 132 |
| 1448 | Grossi | 11 | 12 | 0 | 12 | | | |
| 1460 | Grossoni | 11 | 12 | 0 | 12 | 54 | 51 3/4 | 128 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1471 | Grossi | 11 | 12 | 0 | 12 | 49 $^{1}/_{47}$ | 46 $^{38}/_{47}$ | 141 |
| 1481 | Grossoni | 11 | 12 | 0 | 12 | 47 $^{1}/_{49}$ | 45 $^{3}/_{49}$ | 147 |
| 1489 | Grossi | 11 | 12 | 0 | 12 | 47 $^{1}/_{49}$ | 45 $^{3}/_{49}$ | 147 |
| 1503 | Grossoni | 11 | 12 | 0 | 12 | 40 $^{1}/_{2}$ | 38 $^{19}/_{24}$ | 170 $^{2}$ |
| 1503 | Grossoni | 11 | 12 | 0 | 12 | 71 $^{72}/_{345}$ | 68 $^{76}/_{145}$ | 96 $^{2}$ |
| 1504 | Carolino or barile | 11 | 12 | 0 | 12 | 71 $^{73}/_{145}$ | 68 $^{76}/_{145}$ | 96 $^{2}$ |
| 1506 | Grossoni | 11 | 12 | 0 | 12 | 39 $^{165}/_{173}$ | 38 $^{50}/_{173}$ | 173 |
| 1508 | Grossoni | 11 | 12 | 0 | 12 | 39 $^{201}/_{347}$ | 38 $^{62}/_{347}$ | 173 $^{1}$ |
| 1508 | Grossetti | 11 | 12 | 0 | 12 | 28 $^{268}/_{731}$ | 27 $^{135}/_{731}$ | 243 $^{2}$ |
| 1524 | Barili | 11 | 12 | 0 | 12 | 68 $^{1}/_{4}$ | 65 $^{13}/_{32}$ | 101 $^{1}$ |
| | (The half-barile and the teston (= 3 barili) in proportion.) | | | | | | | |
| 1531 | Grossi | 11 | 12 | 0 | 12 | 38 | 36 $^{5}/_{12}$ | 181 $^{17}/_{1}$ |
| 1531 | Barili | 11 | 12 | 0 | 12 | 70 | 67 $^{1}/_{12}$ | 98 $^{46}/$ |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1531 | Quinto di Ducato | 11 12 | 0 12 | 152 | 145 2/3 | 45 9/ |

## TABLE OF THE GOLD COINS OF FLORENCE, 1252-1534.

(From *Zanetti*, i. 439.)

| Year. | Denomination. | Standard. | Weight. | Tale per Mark. | Value whic circula |
|---|---|---|---|---|---|
| | | Karati. | Grains. | | Soldi. I |
| 1252 | Fiorino d'oro | 24 | 72 | 96 | 20 |
| 1275 | Do. | 24 | 72 | 96 | 30 |
| 1282 | Do. | 24 | 72 | 96 | 32 |
| 1286 | Do. | 24 | 72 | 96 | 36 |
| 1296 | Do. | 24 | 72 | 96 | 40 |
| 1302 | Do. | 24 | 72 | 96 | 51 |
| 1321 | Fiorino of the first suggello (5 per cent. advantage) | 24 | 69 | 100 | ... |
| 1324 | Fiorino of the second surgely | 24 | 70 1/2 | 98 1/4 | 60 |
| 1328 | Fiorino stretti | 24 | 70 1/2 | 98 1/4 | 66 |
| 1331 | Do. | 24 | 70 1/2 | 98 1/4 | 60 |
| 1345 | Fiorini of the third surgely (5 per cent. advantage) | 24 | 70 1/2 | 98 1/4 | 62 |
| 1347 | Do. do. | 24 | 70 1/2 | 98 1/4 | 68 |
| 1352 | Do. do. | ... | ... | ... | 67 |

| | | | | | |
|---|---|---|---|---|---|
| 1353 | Do. do. | ... | ... | ... | 68 |
| 1356 | Do. do. | ... | ... | ... | 70 |
| 1375 | Fiorino nuovo | 24 | 71 3/5 | 96 2/5 | 70 |
| 1378 | Do. | ... | ... | ... | 68 |
| 1380 | Fiorino nuovastro | ... | ... | ... | 70 |
| 1402 | Fiorino nuovo of the fifth suggello (6 1/4 per cent. advantage) | 24 | 68 | 101 11/117 | 73 |
| 1422 | Fiorino nuovissimo or largo di Galea | 24 | 71 3/5 | 96 2/5 | 80 |
| 1442 | Fiorino largo | 24 | 72 | 96 | ... |
| | Fiorino of the sixth suggello (10 per cent. advantage) | 24 | 72 | 96 | ... |
| | Fiorino stretto di Camera of the seventh suggello (7 per cent. advantage) | 24 | 69 1/8 | 100 | ... |
| 1448 | Fiorino of the eighth suggello (4 per cent. advantage) | 24 | ... | ... | 85 |
| 1460 | Fiorino of the ninth suggello (7 per cent. advantage) | 24 | 71 6/7 | 96 1/3 | 86 |

| | | | | | |
|---|---|---|---|---|---|
| 1462 | Fiorino (of Pisan weight) | 24 | 71 6/7 | 96 1/2 | 87 |
| 1464 | Fiorino largo (20 per cent. better than the fiorino di suggello) | 24 | 72 | 96 | 106 |
| 1471 | Do. do. | 24 | 72 | 96 | 108 |
| 1480 | Do. do. | 24 | 72 | 96 | 111 |
| 1485 | Do. do. | 24 | 72 | 96 | 111 |
| 1501 | Fiorino d'oro largo in oro (19 per cent. advantage on the fiorino largo) | 24 | 72 | 96 | 140 |
| | | | | | (neri 111 (gross |
| 1508 | Do. do. | 24 | 72 | 96 | 142 (neri |
| 1531 | Ducato d'oro | 24 | 72 | 96 | 150 |
| 1534 | | | | | (piccic |

**TABLE OF THE BILLON MONEY (MONETA NERA OR EROSA) STRUCK IN FLORENCE, 1300-1534.**

| Year. | Denomination. | Standard. | | Weight of each Piece. | Fine Silver in each Piece. | Ta pe Ma coi |
|---|---|---|---|---|---|---|
| | | Silver. | Copper. | | | |
| | | | | | | |

| | | Oz. | Gr. | Oz. | Gr. | Grains. | Grains. | |
|---|---|---|---|---|---|---|---|---|
| 1316 | Fiorin da sei | 1 | 0 | 11 | 0 | ... | ... | .. |
| 1321[E] | Fiorini neri | 1 | 0 | 11 | 0 | 12 4/5 | 1 1/15 | 54 |
| 1325 | Piccioli | 1 | 0 | 11 | 0 | 12 4/5 | 1 1/15 | 54 |
| 1332 | Quattrini lanajuoli | 2 | 0 | 10 | 0 | 26 1/2 | 4 5/12 | 26 |
| 1337 (July 19) | Quattrini | 2 | 0 | 10 | 0 | 21 45/327 | 3 11/24 | 32 |
| 1337 (July 28) | Do. | 2 | 0 | 10 | 0 | 21 3/4 | 3 5/8 | 31 |
| 1366 | Piccioli neri | 1 | 0 | 11 | 0 | 8 1/4 | 2/3 | 84 |
| 1371 | Do. | 0 | 23 | 11 | 0 | 8 | 5/8 | 86 |
| | Quattrini | 2 | 0 | 10 | 0 | 18 5/12 | 3 1/12 | 37 |
| 1417 | Piccioli neri | 1 | 0 | 11 | 0 | 6 78/83 | 7/12 | 99 |
| 1432 | Quattrini | 2 | 0 | 10 | 0 | 18 5/12 | 3 1/12 | 37 |
| 1462 | Soldini | 6 | 0 | 6 | 0 | 15 | 7 1/2 | 46 |
| 1471 | Quattrini | 2 | 0 | 10 | 0 | 26 42/87 | 4 5/12 | 26 |
| | Soldini | 6 | 0 | 6 | 0 | 13 2/3 | 6 5/6 | 50 |
| | Piccioli neri | 1 | 0 | 11 | 0 | ... | ... | .. |
| 1472 | Quattrini | 1 | 12 | 10 | 12 | 16 1/2 | 2 1/24 | 42 |
| | Piccioli | 0 | 6 | 11 | 18 | 8 | 1/6 | 86 |
| 1490 | Quattrini bianchi[F] | 2 | 0 | 10 | 0 | 16 | 2 2/3 | 43 |
| | Quattrini | 1 | 0 | 11 | 0 | 14 7/8 | 1 1/4 | 46 |
| 1509 | Do. | 1 | 0 | 11 | 0 | 16 5/12 | 1 1/3 | 42 |
| 1512 | Crazie | ... | | ... | | ... | ... | .. |

[E] Beginning of the distinction of white and dark monies (moneta bianca and la nera).
[F] Three of which equal one quattro de'ner.

**FOOTNOTES:**

[23] For a corroboration of this, see the texts of the laws of 1460 and 1470.

1460. "Veduta una legge del anno 1452, che provide che in qualunque pagamento si avesse a fare, si potisse pagare, e cosi fosse accettato, per ogni fiorino di suggello 4 lire 5 soldi delle monete di grossi d'Ariento, per la quel cosa e seguito che i grossi sono scemati tanto di peso che i fiorini larghi per ragguaglio di quelli, dove solevano essere meglio comuneménte da fiorini 10 in 12 per cent., che i fiorini di suggello sono iti a fiorini 22 per cent—"

1471. "Che i fiorini di suggello in moneta bianca o nera non abbiano pregio firmo nè a grossoni, nè a quattrini ma vagliano quello e quanto sara la sua commune valuta dì per dì e secondo saranno alla camera e all' Arte del Comtis—"

# APPENDIX II

## THE MONETARY SYSTEM OF VENICE

The Venetian monetary system of history employed a double basis or unit:—

1. The *lira di piccioli*, the principal system, and the one which endured through the whole life of the

Republic, from the tenth century to the introduction of the decimal system in 1806.

2. The *lira di grossi*—an ideal system, *i.e.* money of accompt only, and of importance for a much less extensive period. It originated in the thirteenth century, and was abandoned by the end of the sixteenth.

The "lira" of the first of these systems is derived from the "libra" of Charlemagne, and, like it, was divided into 20 soldi, each soldo being subdivided into 12 denari.

For long the only coin actually minted was this denaro (*parvus*, *parvulus*, *piccolo* or *minuto*), a silver coin. The first of these thus issued appertain entirely to the system of the Empire of Charlemagne. They bear the name of Louis the Pious (814-40), and approximate in weight to his pieces. The dismemberment of Charlemagne's Empire is followed by a gap in the Venetian coinage, and the series only recommences in the eleventh century. These latter still appertain to the system of the revived Roman (Germanic) Empire, and bear the names of Henry II. (1002-24), Conrad II. (1027-39), and Henry IV. (1056-1106).

From this latter date onwards the imperial monies cease at Venice, and the series of Ducal monies—the monies of the republic of Venice—begin with the Dogeship of Vitale II. (1156-72). From the same period there is noticeable that deterioration in weight which marks all the systems of mediæval Europe. The denari of Doge Sebastiano Ziani (1172-8) and of the two succeeding Doges are scarcely one-quarter the weight of the Charlemagne denarius.

This depreciation led, in the year 1200, to the issue of a piece of higher denomination, namely, the *grosso*—still a silver coin, but valued at 26 piccioli or denari; and for about seventy years the grosso displaced the picciolo. About 1270, however, the coining of the picciolo recommenced under Doge Lorenzo Tiepolo, but at a slightly reduced value, 28 piccioli being rated to the grosso, instead of 26 as in the year 1200. Up to the great recoinage of 1476 the grosso remains the main coin of reference. Its gradual but incessant depreciation can be traced in the table of silver coins given on p. 318.

Under the eleventh doge, Giovanni Dandolo (1280-89), the coining of gold began in Venice. In 1284, the date of the first issue, the gold ducat or sequin (zecchino) of Venice was valued at 18 grossi, giving a ratio of gold to silver of 10.6. The subsequent changes of the ratio have already been stated (see text, *supra*, p. 40). From 1282, 67 ducats were coined from the Venetian mark. This number was increased in 1491 to 67 $^{1}/_{2}$, and in 1570 to 68 $^{1}/_{4}$. The course of the sequin throughout is given in the table on p. 316. It was the monetary trouble which they produced that led to the great recoinage accomplished under Doge Nicolo Tron (1471-73) and his successors, Nicolo Marcello (1473-74) and Pietro Mocenigo (1474-76).

From the date of this recoinage onwards the silver grosso was abolished *as a coin*, and a new silver coin, the lira, valued at 20 soldi, was instituted. This is the first appearance of a real and effective lira as a coin. Hitherto the name had only been that of a weight. By the decree of 1472, 36 of these lira were to be coined out of the mark of silver.

On account of the name of the doge this coin was known as the *Lira Tron* for centuries. In its turn it underwent a ceaseless depreciation (see table on p. 318).

In the middle of the sixteenth century there was so much silver in the Venetian Mint waiting to be coined for the merchants that the State, finding it could only issue 35,000 pieces a month, which, in small pieces of 442 soldi, would take a year to exhaust the stock, determined for the ease and encouragement of the merchants to issue a large silver piece, the *ducato d'argento*, 7 1/4 to the mark of silver by tale, and rated at 124 soldi.

Under Doge Nicoló da Ponte (1578-85) this piece becomes the *scudo d'argento*, which begins in 1578 with an equivalence of 7 lira.

| | | | | | | |
|---|---|---|---|---|---|---|
| In | 1578 | the | scudo | was rated at | 7 lira | 0 soldi. |
| " | 1608 | " | " | | 8 " | 8 " |
| " | 1621 | " | " | | 8 " | 10 " |
| " | 1630 | " | " | | 9 " | 0 " |
| " | 1635 | " | " | | 9 " | 6 " |
| " | 1665 | " | " | | 9 " | 12 " |
| " | 1702 | " | " | | 10 " | 0 " |
| " | 1703 | " | " | | 10 " | 10 " |
| " | 1704 | " | " | | 11 " | 0 " |
| " | 1705 | " | " | | 11 " | 4 " |
| " | 1706 | " | " | | 11 " | 8 " |
| " | 1708 | " | " | | 11 " | 10 " |
| " | 1709 | " | " | | 11 " | 12 " |
| " | 1718 | " | " | | 11 " | 14 " |
| " | 1739 | " | " | | 12 " | 8 " |

On this basis the monetary system of Venice continued till the seizing of the Mint by the Democrats in 1797.

For several years, during which they held possession, they issued a coin called *Tollero*, of the nominal value of 10 Venetian lire, *i.e.* 5.16 Italian lire, but really only equal to 4.99 of the latter.

In 1802 the Italian Republic was erected by Buonaparte. The monetary law of the Republic, dated 30th April 1804, provided for the coining of a national money on a unit or basis of the silver lira, of the weight established by the law of 27th October 1803, namely, 4 deniers, and of .9 standard.

The unit gold coin to be $^{1}/_{125}$ of the new established livre in weight (= 8 deniers), and of .9 standard, to equal 31 lire.

In 1805 Napoleon declared himself King of Italy, but the change was not followed by any radical revolution of the coinage system.

From 1806 the decimal system was introduced into Italy, and on the reduction of the numerous independent monetary systems the Venetian lira was computed at .5116 of the Italian, *i.e.* 51.16 centesimi.

As a matter of fact, however, the Venetian lira did not totally thereupon disappear from use.

By decree of December 21, 1807, the ducat (zecchino) of 67 $^{47}/_{41}$ Venetian grs. was rated at 12.03 lire Italiane.

Under the Lombardo-Venetian kingdom, which succeeded, the main Italian monies were assimilated

to those of Austria. The money of account was, at Milan, the Austrian lira (= 100 centesimi = 20 Austrian soldi at 5 centesimi each).

There remains to be described the second and less important basis of the Venetian system, that of the lira di grossi. It was throughout—*i.e.* from the thirteenth century, when it originated, to the close of the sixteenth, when it disappeared—an ideal system, *i.e.* of account only.

A supposititious lira di grossi was taken and divided into 40 soldi, each soldo was subdivided into 12 denari, and each one of these denari was equivalent to the grosso, the actual coin existing in the system—already described.

The lira di grossi therefore maintained at first the same relativity to the lira di piccioli that the actual grosso did to the actual picciolo, namely, 26:1. This relation, however changed subsequently with the depreciation of the actual grosso (the lira).

| | | |
|---|---|---|
| In 1278 | the ratio of the two was | 28:1 |
| " 1282 | " " | 32:1 |
| " 1343 | " " | 48:1 |
| " 1472, | onwards the discontinuance of the to system | 62:1 |

A curious feature about this system was that in its turn it subdivides. In 1343 a double (hypothetical) grosso was adopted; one of 48 piccioli, the other of 32, both of them subdivided into thirty-two parts as, again, an ideal system.

In 1472, therefore, the Venetian silver system

consisted of—

1. *Lira di piccioli*, an actual coin represented by the Troni, and containing 128 grs. of silver, .9472 fine.

2. The ideal *lira di grossi*, then equivalent to 10 ducats, divided into 20 ideal soldi, each equivalent to $^1/_2$-ducat, each soldo again subdivided in 12 grossi, the grosso being now no longer the actual coin of that name but ideal, like the above multiples; and each grosso in its turn subdivided into 32 parts, to which the name of *piccioli* was given, though as ideal as its multiple the grosso. For distinction's sake probably, these ideal grossi and piccioli occur in history as *grossi a oro* and *piccioli a oro*.

**TABLE OF THE GOLD DUCAT OR SEQUIN OF VENICE.**

(ACCORDING TO NICOLO PAPADOPOLI, *Sul Valore Delia Moneta Veneziana*, p. 33.)

| Date. | Coin. | | | Declared or Deduced Value in Venetian Lira of History. | | Value in Modern Italian Lire of the Venetian Lira of History. | |
|---|---|---|---|---|---|---|---|
| | | | | Lire. | Soldi. | Lire. | Centesimi. |
| 1284 | Ducat | = 18 | grossi of 32 piccioli each | 2 | 8 | 5 | 012 |
| 1324 | " | = 24 | grossi. | 3 | 2 | 3 | 883 |
| 1350 | " | = 96 | soldi. | 4 | 16 | 2 | 506 |
| 1399 | " | = 93 | " | 4 | 13 | 2 | 587 |
| | | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1417 | " = 100 " | 5 | 0 | 2 | 406 |
| 1429 | ... | 4 | 4 | 2 | 313 |
| 1443 | ... | 5 | 14 | 2 | 110 |
| 1472 | ... | 6 | 4 | 1 | 940 |
| 1517 | ... | 6 | 10 | 1 | 850 |
| 1520 | ... | 6 | 16 | 1 | 769 |
| 1529 | ... | 7 | 10 | 1 | 604 |
| 1562 | ... | 8 | 0 | 1 | 504 |
| 1573 | ... | 8 | 12 | 1 | 398 |
| 1594 | ... | 10 | 0 | 1 | 203 |
| 1608 | ... | 10 | 15 | 1 | 119 |
| 1638 | ... | 15 | 0 | 0 | 802 |
| 1643 | ... | 16 | 0 | 0 | 752 |
| 1687 | ... | 17 | 0 | 0 | 707 |
| 1739 | ... | 22 | 0 | 0 | 546 |

## TABLE OF THE GOLD DUCAT OR SEQUIN OF VENICE.

**(According To Vincenzo Padovan, *La Nummografia Venziana Documentato*, pp. 135, 365.)**

| Date. | Value of Ducat in | | Date. | Value of Ducat in | |
|---|---|---|---|---|---|
| | Lire. | Soldi. | | Lire. | Soldi. |
| 1284 | 3 | 0 | 1594 (October 12) | 10 | 0 |
| 1287 | 3 | 2 | 1601 | 10 | 12 |
| 1310 | 3 | 4 | 1605 | 10 | 14 |
| 1320 | 3 | 6 | 1608 | 10 | 15 |
| 1360 | 3 | 10 | 1633 | 14 | 0 |
| 1370 | 3 | 12 | | 14 | 10 |
| | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 1377 | 3 | 13 | 1638, November 20 | 15 | 0 |
| 1378 | 3 | 14 | 1643 | 16 | 0 |
| 1379 | 3 | 16 | 1687 | 17 | 0 |
| 1380 | 3 | 18 | 1697 | 17 | 10 |
| 1382 | 4 | 0 | 1698 | 17 | 15 |
| 1384 | 4 | 4 | 1699 | 18 | 0 |
| 1399, October 7 | 4 | 13 | 1701 | 18 | 10 |
| 1401 | 4 | 18 | | 18 | 15 |
| 1417, November 11 | 5 | 0 | 1702 | 19 | 0 |
| 1421 | 5 | 3 | | 19 | 5 |
| 1429, July 29 | 5 | 4 | | 19 | 10 |
| 1433 | 5 | 10 | | 20 | 0 |
| 1443, January 23 | 5 | 14 | 1704 | 20 | 5 |
| 1472, March 29 | 6 | 4 | 1707 | 20 | 8 |
| 1517, October 16 | 6 | 10 | 1708 | 20 | 10 |
| 1518 | 6 | 14 | | 20 | 15 |
| 1520 | 6 | 16 | 1711 | 21 | 5 |
| 1524 | 7 | 4 | | 21 | 10 |
| 1529 | 7 | 10 | 1713 | 21 | 15 |
| 1533 | 7 | 18 | 1716 | 21 | 18 |
| 1562 | 8 | 0 | Thenceforward to the fall of the Republic | 22 | 0 |
| | | | | | |

| | | | | |
|---|---|---|---|---|
| 1573 | 8 | 12 | | |
| | 8 | 16 | | |
| 1584 | 9 | 0 | | |
| | 9 | 12 | | |

**TABLE OF THE SILVER COINAGE OF VENICE.**

(From PAPADOPOLI, *ubi supra*, with additions.)

| Year | Coin. | Value in Lire of Venice declared or calculated. | | Weight of the Lira in Venetian Grains. | Standard. |
|---|---|---|---|---|---|
| | | Lire. | Soldi. | | |
| 1200 | Grosso instituted by Enrico Dandolo; weight in Venetian grains, 42.1; value = 26 piccioli; 9 $^{6}/_{16}$ grossi to a lira | 0 | 108 | 388.61 | .9652 |
| 1270 | Grosso = 28 piccioli; 8 $^{16}/_{28}$ grossi to a lira | 0 | 116 | 360.85 | ... |
| 1282 | Grosso = 32 piccioli; 7 $^{1}/_{2}$ grossi to a lira | 0 | 13 | 315.75 | ... |
| | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 1350 | Grosso = 48 piccioli; 5 grossi to a lira | 0 | 2 | 210.5 | ... |
| 1379 | Weight of the grosso reduced to 38.4 Venetian grains; 5 of these grossi to a lira | | ... | 192.0 | ... |
| 1399 | Weight of grosso reduced to 35.17 Venetian grains | | ... | 175.85 | ... |
| 1429 | New regulation; the mark of silver to yield 31 lire of money | 1 | 0 | 148.64 | ... |
| 1472 | Lira (Tron), 36 to mark | | ... | 128.0 | ... |
| 1527 | Lira (Mocenigo) | 1 | 4 | 105.0 | .9479 |
| 1561 | Institution of the silver ducat; weight = 635.5586 Venetian grains; 7 1/4 to a mark | 6 | 4 | 102.51 | ... |
| 1578 | Institution of the scudo | 7 | 0 | 87.86 | ... |
| 1608 | Scudo raised to | 8 | 8 | 73.21 | ... |
| 1630 | " " | 9 | 0 | 68.33 | ... |
| 1665 | " " | 9 | 12 | 63.96 | ... |
| 1704 | " " | 11 | 0 | 55.81 | ... |
| 1718 | " " | 11 | 14 | 52.47 | ... |
| 1739 | " " | 12 | 8 | 49.35 | ... |

| | | | | | |
|---|---|---|---|---|---|
| 1797 | Tollero of the Democrats; weight = 550 Venetian grains | 10 | 0 | 55.0 | ... |

# APPENDIX III

## THE MONETARY SYSTEM OF SPAIN

The monetary system of Christian Spain dates from the Gothic invasions, and differs from that of Germany, Italy, and France in being derived in the first place from the Roman system without the intermediation of that of Charlemagne.

Under the Goths the monetary basis was the Roman libra, subdivided thus—

```
1 libra = 8 onzas = 4608 grs.
1 onza = 8 ochavas = 576 grs.
1 ochava = 6 tomines = 72 grs.
1 tomin = 3 quilates or siliqua = 12 grs.
```

The unit denomination was the sueldo de oro (gold sueldo) = $^1/_6$ onza of the fineness of 23 $^3/_4$ quilates (=.989 fine), corresponding exactly to the Roman *aureus* of the times of Julian.

The unit denomination of the silver money was twofold—(1) the silver *sueldo* (= $^1/_6$ onza like the gold), and (2) the *denario* ( $^1/_8$ onza or ochava). The silver coins were at first of 12 dineros fine, but subsequently only *10.12* (=.875 fine).

Of these two units, the latter, the silver denario was far the more usual and frequent in use.

With one important change of name, and infinite change of incident and detail, it was this system which obtained till the great reform of the Spanish monetary system under Ferdinand and Isabella.

The change of name consists in the introduction of that of the *maravedi*, which was adopted from the conquered Moors, and applied to designate the sueldo d'oro from the time of the conquest of Toledo.

In a comprehensive way it may be said that the history of this word or name, maravedi, sums up the monetary history of Spain. From being the original gold coin of highest denomination, it came to be a silver coin, then a billon coin of the very lowest denomination, as it is to-day. The process of its degeneration is quite unexampled even in Europe. In addition, also, to the confusion of idea produced by this depreciation there is a further uncertainty, caused by the quite general use of the word or name, *i.e.* not as the name of a particular coin or money series, but perfectly generally for almost any and every coin—as synonymous, in fact, with the simple word money itself.

Neglecting this latter question, however, as one of nomenclature merely, the course of depreciation of the maravedi may be thus illustrated:—

Maravedi (Moorish coin), fine gold, about 56 grs. By the time of James I. of Aragon, the contents in fine gold had sunk to 14 grs.

Having been still further reduced to 10 grs. under Alfonso the Wise, it was made into a silver coin, as being too small to be expressed in gold.

Its depreciation in this latter form and through its third form of billon money was as follows:—

| Date. | Number of Maravedis to the Cologne Mark. | Contents of Fine Silver, Grains. |
|---|---|---|
| 1312 | 130 | 25.85 |
| 1324 | 125 | 26.86 |
| 1368 | 200 | 16.79 |
| 1379 | 250 | 13.43 |
| 1390 | 500 | 6.71 |
| 1406 | 1000 | 3.35 |
| 1454 | 2250 | 1.49 |
| 1550 | 2210 | 1.52 |
| 1808 | 5440 | 0.62 |

To return. At the time of its adoption by the Christian powers of Spain, the maravedi (or sueldo de oro) was equal to $^1/_6$ onza of gold.

To this maravedi de oro was subsequently given the name of *Alfonsi*, supposititiously from Alfonso VI., the first to issue them.

The first important change in this monetary system of Gothic Spain—though one of detail rather than system—was effected by Ferdinand II. of Leon, who, in 1157, coined the silver *leones* of the value of half the silver sueldo (= 12 dineros).

In 1222 S. Ferdinand introduced the *sueldo pepiones*.

```
Sueldo de oro = 10 metales
or mitgales, 1 metale = 18
pepiones.
```

But both these importations were suppressed by Alfonso X., the Wise, of Castile.

In 1252 he coined his *maravedis blancos*, or *Burgaleses*, to replace the sueldos pepiones.

```
6 dineros = 1 sueldo,
15 sueldos = 1 maravedi
Burgalese.
```

This maravedi bore the ratio of 1: 6 to the old maravedi de oro.

This money (Burgalese) was subsequently known as *moneda viejo*, *maravedis viejos*, or *moneda blanca*.

Six years after its introduction, however, Alfonso demonetised his own Burgaleses to make room for his *maravedises negros*, or *prietos*, a money of billon which lasted till the days of Ferdinand and Isabella.

Twenty-three years later Alfonso issued a second "white money" (1281), so called as distinguished from the Burgaleses, mention of which recur.

To the "second white" (*blanco segundo*) was also given the (commoner) name of new (*novenes*). It was issued at one-fourth the value of the *prietos*. The relationship of the novenes to the prietos and to the standard (now supposititious) gold maravedi is thus expressed:—

```
15 dineros prietos = 1
```

maravedi,
Old maravedi = 75 sueldos,
∴ 1 prieto = 5 sueldos.
Old maravedi = 60 maravedis novenes,
∴ 1 prieto = 4 maravedis novenes.

Under Alfonso the Wise, therefore, the system was as follows:—

10 dineros = 1 noveno,
4 novenes = 1 maravedi de los prietos (= 5 sueldos of 8 dineros each).
10 novenes = 1 maravedi de los Burgaleses.
60 novenes = 1 old maravedi.

These *novenes*, or *maravedis blancos segundos*, continued current through the fourteenth century, and in the laws of John III. are spoken of as "maravedises of our present currency," and as still = $^1/_{10}$ of the maravedises Burgaleses, which latter are spoken of as "maravedises of good currency" (*maravedis de los buenos*).

But by the close of the fourteenth century, owing to the depreciation of the currency, the novenes had come to be looked upon as of better denomination than the then current coin, and are accordingly spoken of as "old" (*viejos*) for distinction's sake.

The only material additions to this system of Alfonso the Wise were briefly—

1. The *coronados*, an innovation of his successor, Sancho IV. (1284-95), who, in 1286, introduced them as = 1 old dinero. They subsequently appear as *cornados*.

In the Cortes of Toledo their relation to the novenes was thus determined:—

6 coronados = 10 novenes = 1 maravedi de moneda vieja (= Burgaleses).

2. The series of gold coins initiated by Alfonso XI. (1302-50).

It was in the reign of this latter King that the general movement of adoption of gold coinage first touched Spain. The earliest gold coins were Alfonso's *doblas*, subsequently known as *castellanos*. The weight of this coin has been variously assigned as 48 to a mark or 50 or 51.

Taking the tale of 50 to the mark, the weight per piece would be 92 $^{4}/_{25}$ grms. (= 4.60090 grms.) of 23 $^{3}/_{4}$ quilates fine (= .989 fine).

Pedro I. made gold doblas of the weight of 90 grs., and this endured till the days of John I., 1379-90, who preserved the same weight but lowered the standard. Under Henry III. the standard of 23 $^{3}/_{4}$ quilates was again restored. For the movement of the gold coins subsequent to Ferdinand and Isabella, see the Table.

3. The silver *real* first appears under Pedro I., 1350-69. It was issued at a tale of 66 to a mark, and 11 dineros 4 grs. fine.

Under Henry II. of Castile, 1369-79, these reals undergo extraordinary debasement, the standard

being reduced to .279, .129, .060, and so on; but a recovery took place under his successor, John I., 1379-90, who returned to the standard of Pedro I., substituting for the debased real his own vellon money, under the titles of *blancos* and *Agnus Dei*, a money known later as *blancas* and *maravedises de moneda blanca*.

The restorer of the Spanish coinage was, however, not John so much as his son, Henry III., 1390-1406. By his ordinance of 21st January 1391, issued at the instance of the Cortes of Madrid, 1390, the blancos of John I. were reduced in equivalence to 1 coronado. Gold coins were restored to the tale and standard of Alfonso XI., and the silver real to those of Pedro I.

The vellon money, however, of this reign—the blancos in particular—present a confusion which has hitherto baffled the most learned. It has been computed that one hundred and thirty-two monies of various denominations circulated in Castile under this King.

In brief, the system from his day till the time of Ferdinand and Isabella may be thus tabularly expressed:—

| Reign. | GOLD Denomination. | Value as Issued. | Value in Reals. | SILVER Denominati |
|---|---|---|---|---|
| | | | Reals | |
| Henry III. 1393 | Florin of Aragon | 21 maravedis viejos | 19.420 | Silver Real |
| | | | | |

| | | | | |
|---|---|---|---|---|
| 1394-1406 | Florin of Aragon | 22 maravedis viejos | 20.350 | Half, Quarter, Fifth, |
| | Lower and higher denominations occur separately in 1393, 1398, and 1402 | | | In the course of silver was 7 1/2, and 8 nuevos |
| | Ducados (In the Kingdom of Navarre) | 30 viejos | 27.750 | |
| | Many other and different denominations | | | |
| | Doblas Castellanos | 35 viejos | 32.375 | |
| | (Doblas castellanos de la Banda | | | |
| | Cruzados | | | |
| | Cruzados de la Banda | | | |
| | Doblas) | | | |
| | Many different denominations | | | |
| John III. 1406-1454 | Florin | 22 1/2 maravedis viejos | 22.662 | Reals, 11 dineros 4 grs fine, 66 to a mark |
| | Many other different denominations | | | |
| | | | | |

| | | | | |
|---|---|---|---|---|
| | Doblas and coronas | 35 maravedis viejos | 32.375 | |
| | Many other and different denominations | | | |
| 1434<br><br>1442 | Dobla de la Banda<br>100 nuevos<br>"<br>(19 quilates fine, 49 to a mark) | 104 nuevos<br>46.2 | 48.048 | |
| Henry IV. 1454-74 | Florin of Aragon<br><br>(18 quilates fine)<br><br>56 other species of same, and of other, and different denominations | 20 maravedis viejos | 18.220 | Real of silver |

| | | | |
|---|---|---|---|
| 1455 | Ducado<br><br>(23 3/4 quilates fine, 65 1/3 to a mark), 38 other species of same, and of other and different denominations | 165 maravedis viejos | 30.074 |
| | Doblas | 150 maravedis viejos | 27.340 |
| | Castellanos | 420 maravedis viejos | 37.040 |
| | Enriquez | 210 maravedis viejos | 38.276 |

The reign of John II. (1406-54) marks a period of exceeding confusion, coupled with inefficient attempts at legislative remedy. The disorder of his reign was further increased under his successor,

Henry IV. (1454-74), years which represent the apogee of Spanish depreciation. By grants of the right of private minting the six official Spanish Mints were increased to not less than 150, with a resulting monetary disorder, dearness of necessaries, and commercial panic which it would be difficult to estimate. The gold monies varied in fineness from 23 $^{1}/_{2}$, 19, 18, 17, and so on, even to 7 quilates, and the same extraordinary variations marked the silver monies. Of billon monies there were eight distinct classes, representing a succession of fractional parts of the silver real, $^{1}/_{6}$, $^{1}/_{7}$, $^{1}/_{8}$, $^{1}/_{12}$, $^{1}/_{16}$, $^{1}/_{22}$, $^{1}/_{24}$, $^{1}/_{58}$.

Taking, for the mere purpose of generalisation or average, the gold *Enrique* of this reign at a tale of 50 to a mark, 23 $^{3}/_{4}$ quilates fine, and the silver real (= 30 maravedis de blancas) at a tale of 67 to a mark, and standard of 11.4 fine, the ratio of gold to silver for the reign would be 9.824:1.

The monetary situation which the advent of the Catholic kings, Ferdinand and Isabella (1475-1506), was to alleviate and reform was the most deplorable that Spain has ever seen. Not less than eleven ordinances of reform were issued before the close of the century. For practical purposes only the first and last of these require notice. By the Mint indenture, issued on the 26th June 1475 to the Mint master of Seville, the gold coinage was ordered on the following basis:—

> Excellentes (at a tale of 25 to a mark, 23 $^{3}/_{4}$ quilates fine, in value = to 2 castellanos).

And silver on the following basis:—

> Silver Reals (at a tale of 67 to a mark, 11 din. 4 grs. fine, in value equal to 30 maravedis).

First and chiefest importance, however, attaches to the ordinance of 1497, issued at Medino del Campo, and so named. By this ordinance all the previous existing systems and monies were abrogated, and a new system instituted which forms the starting-point for the monetary history of that Spain which was to be the receiver and distributor of the gold and silver of the New World.

The standard of gold was fixed at 23 $^{3}/_{4}$ quilates. The basis of the gold coins was to be the *excellente de la Granada*, issued at an equivalence of two of the antecedent excellentes, and at a tale of 65 $^{1}/_{3}$ to the mark.

The system of the silver real was as in 1475, but it was issued at an equivalence of 34 maravedis, at which it ever after remained.

The billon money was to consist of *blancas* (7 grs. fine, and at a tale of 192 to a mark).

| | | | |
|---|---|---|---|
| One excellente = | 11 reals 1 maravedi | = | 375 maravedis. |
| | 1 real | " | 34 maravedis. |

The changes subsequently effected in this system may be presented in skeleton form (see also accompanying Tables).

In 1523 the Cortes of Valladolid presented a petition

referring to the changed relation of the two metals, and asking for a recoining on a different ratio. Its proposals were incorporated in the ordinance of 1537, when the scheme was as follows:—

| | | |
|---|---|---|
| Gold | Standard, | 22 quilates. |
| " | Tale, | 68 to a mark. |
| | Value, | 350 maravedis. |
| Silver | Left untouched. | |
| Billon | Standard increased to 7 $^1/_2$ granos. | |

Under Philip II., by the ordinance of 23rd November 1566, the equivalence of the gold coins was increased a seventh, the silver monies being again left untouched. The increase was partly arbitrary and unprincipled, partly due to the normally prevailing depreciation of silver.

Under Philip III. the intrinsic value or content of the gold monies was decreased $^1/_{10}$, silver being again left intact.

The innumerable calamities which overtook Spain under Philip IV. (1621-65) and Charles II. (1665-1750) led to an immense introduction of billon money, to so great an extent, indeed, that it fell to one-eighth its previous value, thereby only complicating and increasing the evils. The result was an increasing premium on good monies, coupled with the usual disappearance of them. By the proclamation of 8th March 1625 it was prohibited, on severest penalties, to carry such premium above 10 per cent.; by the succeeding proclamations of 30th April 1636 and 7th September 1641 this limit

was raised respectively to 25 per cent, and 50 per cent.

Philip IV. also instituted the first change in the silver system which it underwent since the great reform of 1497.

The tale was increased from 67 to 83 $^{3}/_{4}$ per mark, the *real of eight* being henceforth issued at an equivalence of 10 reals.

This change was equivalent to a reduction of 25 per cent. in the silver monies.

Under Charles II. this corruption proceeded in an ascending scale until 1680, when the gold *doblon* had arrived at an equivalence of 110 reals of billon, and the *real of eight* to 29 reals of billon.

By the law of 14th October 1686 an attempt was made to re-create and reform the tottering system. The mark of silver (11 din. 4 grs. fine) was to be coined at a tale of 84 pieces. The real of eight received a new name, *Escudo de plata*, and was to issue at an equivalence of 10 reals of the new silver.

The effect of this apparent reform was to lower the weight of the silver money 25 per cent., to incorporate the premium of 50 per cent. on the billon money, and to institute or sanction a matter of four separate monetary units:—

1. The real of old silver = $^{1}/_{67}$ mark.
2. The real of new silver = $^{1}/_{84}$ mark.
3. The real of billon = $^{1}/_{126}$ mark.
4. The real of billon = $^{1}/_{38}$

of the double escudo.

At the close of the reign the monetary system was as follows:—

| | **Silver Reals.** |
|---|---|
| Mark of fine gold, | 1408.94 |
| Of intrinsic value of | 1363.15 |
| The seigniorage being | 45.79 |
| Mark of fine silver, | 90.32 |
| Of intrinsic value of | 88.11 |
| The seigniorage being | 2.21 |
| | **Maravedis.** |
| Mark of copper, | 76 |
| Of intrinsic value of | 68 |
| The seigniorage being | 8 |

Philip V. was for many years prevented by the enormous expenditure caused by the revolt of Don Carlos from reform of this system, which he ultimately undertook and carried out. In 1707 he reduced the standard of silver to 10 dineros, of a tale of 75 reals to the mark, creating the money which is distinguished thenceforward by the name of *Plata provincial*.

By the regulation of 9th June 1728 the series of *Plata nacional* was lowered to 11 dineros fine (= .917) and a tale of 68 reals.

Of more importance was the Mint regulation of 16th July 1730, by which—

| | **Reales de Plata Provincial.** |
|---|---|

| | | |
|---|---|---|
| Mark of gold of 22 quilates fine was coined into | 1360 | |
| Delivered to the importer | 1280 | |
| Seigniorage | 80 | = 5.88 per cent. |
| Mark of silver of 11 dineros fine coined into | 85 | |
| Delivered to the importer | 80 | |
| Seigniorage | 5 | = 5.88 per cent. |

This ideal system could not be retained, as the billon money fell within a short time a matter of 5 $^1/_2$ per cent. in relation to it. The latter change was incorporated by the proclamation of 16th May 1737, which fixed the silver *escudo* of 10 reals (the old piece of 8 reals) at 170 cuartos, equivalent to the 20 reals of billon at which it continued to be valued. By the subsequent Mint order of 22nd June 1742 the attempt was made to bring the billon money into exact relationship with the gold by the coining of gold pieces equal to 20 reals billon (*veintenes*) struck at a tale of 128 per mark, and fineness of 21 $^3/_4$ quilates, in place of the previously existing standard of 22 quilates.

These veintenes correspond to the escudos of 21 $^1/_4$ reals still to be found in circulation.

No change of any importance was effected under the short reign of Ferdinand VI. (1746-59), under whom the custom inaugurated by Philip V. of expressing values in reals of billon rather than of silver (*plata provincial*) still continued.

His successor, however, Charles III. (1759-88)

effected profound reforms. By the ordinance of 29th May 1772 he accomplished a complete recoinage of the Spanish money. The standards he established were—

| | | Quilates. | Granos. |
|---|---|---|---|
| Of gold | Escudos (oro nacional) | 21 | 2 1/2 |
| " | Veintenes (oro provincial) | 21 | 1 1/2 |
| | | **Dineros.** | **Granos.** |
| Of silver | (plata nacional or gruesa) | 10 | 20 |
| " | (plata provincial or menuda) | 9 | 18 |

being a lowering per cent, of standard as follows:—

| | | |
|---|---|---|
| Oro | nacional | 1.31 |
| " | provincial | 2.84 |
| Plata | nacional | 1.59 |
| " | provincial | 2.49 |

The bearing of this change on the question of the ratio at large in Europe has been already referred to. It was again and still further for the protection of gold that the seigniorage was increased to 7.48 per cent. by the law of 17th July 1779. The later system established in 1786 (see Tables *postea*) has a similar bearing.

His son, Charles IV. (1789-1808), made no alteration in this latter system of Charles III.

Under Ferdinand VII. (1808-32) currency was given (1813-1823) to French gold and silver monies on a certain footing, and the seigniorage on the coins was

reduced. Both under Ferdinand, however, and under his successor, Isabella II. (1832-61), this latter regulation proved ineffectual in attracting merchants to bring the metals to the Mint to be coined; and under the circumstances the circulation of French Napoleons was considered a benefit. A profound alteration was projected by the two laws of 1834; the first of which proposed to lower the equivalence of the *real* to 32 from 34 maravedis, and the standard of silver to 10 dineros 12 granos (=.875), and the second, to prevent the circulation of French money. This scheme was intentionally bimetallic. It failed, however, of accomplishment, and the monetary system remained as before up to 1847.

By the decree of 31st May 1847—(1) the decimal division of the real was adopted; (2) the weight of the real was established at 25 granos and standard at .900; (3) a new gold coin of 100 reals of the weight of 161 $^1/_2$ granos of the same alloy was introduced.

This system was of course a reproduction of that of France; but in the following year it underwent slight alteration, as already related. By the law of 1st January 1859 the French metrical system was adopted in its entirety by Spain, and since 1st January 1876 Spain reckons in pesetas (representing the French franc) and centesimos (representing the French centime)—100 centesimos = 1 peseta. The new gold coins are pieces of 5, 10, 20, and other multiples of the peseta. The peseta (5 grms. silver, .835 fine) is token money, but the 5-peseta pieces (25 grms. silver, .900 fine) are legal tender.

5 pesetas = 1 duro ("hard dollar," "Spanish dollar," or piastre).

```
1 duro = 2 escudos.
1 escudo = 10 reals.
1 real = 34 maravedis.
```

## TABLE OF THE GOLD COINS OF SPAIN FROM THE REFORMATION OF THE COINAGE IN 1476.

(From *Breve Reseña Historica Critica de la Moneda Española*, p. 93.)

| Reign. | Coins and Ordinances. | Tale or Number of Pieces per Mark. | Standard. | Mint<br>Bull<br>Val |
|---|---|---|---|---|
| Ferdinand and Isabella. | *Mint Ordinance of* Feb. 22, 1476, June 14, 1497— | | Quilates. Granos. | Rea |
| | Excellentes majores | 25 | | |
| | Medios excellenes | 50 | | |
| | Doblas | | | |

| | | | | |
|---|---|---|---|---|
| | Castellanos<br>Excellentes de la Granada<br>Ducados | 65 1/3 | (= .989) | |
| | Aguilas<br>Florines | 67 | | |
| | Escudos<br>Coronas | 68 | | |
| Charles V. | 1537—<br>New coining of escudos | 68 | 22 0<br>(= .917) | 696 |
| Philip II. | Nov. 23, 1586—<br>The escudo increased to 400 maravedis. | 68 | 22 0<br>(=.917) | 766 |
| Philip III. | 1609—<br>The escudo increased to 440 maravedis<br>Dec. 13, 1612— | 68 | 22 0<br>(=.917) | 847 |

| | | | | | |
|---|---|---|---|---|---|
| | Castellanos of 22 quilates at 576 maravedis | | | | |
| Philip IV. | Dec. 23, 1642—<br>Escudo increased to 550 maravedis | 68 | 22 | 0 | 1058 |
| | | | (=.917) | | |
| | Jan. 12, 1643—<br>Escudo increased to 612 maravedis | 68 | 22 | 0 | 1178 |
| | | | (=.917) | | |
| Charles II. | Oct. 14 and Nov. 26, 1686—<br>Escudo increased to 646 maravedis, and castellano to 850 maravedis of the new silver | 68 | 22 | 0 | 125 |
| | | | (=.917) | | |
| Philip V. | March 17, 1719— | | | | |
| | | | | | |

| | | | | |
|---|---|---|---|---|
| | Castellanos reduced to 714 maravedis<br><br>Jan. 14 and 23, and Feb. 8, 1726— | 68 | 22 0<br>(=.917) | 105 |
| | Escudo increased from 544 to 612 maravedis<br><br>Sept. 2, 1728— | 68 | 22 0<br>(=.917) | 118 |
| | Escudo increased to 680 maravedis<br><br>July 16, 1730— | 68 | 22 0<br>(=.917) | 131 |
| | New monetary scheme<br><br>June 23 and 29, 1742— | 68 | 22 0<br>(=.917) | 128<br>Reals(V |
| | Creation of Veintenes de oro | 130 $^{56}/_{100}$ | 21 3<br>(=.906) | 240 |

| | | | | |
|---|---|---|---|---|
| Ferdinand VI. | Aug. 19 and Sept. 16, 1755— Increase of the pastas de oro from 118 to 119 reales las tres ochavas. | | | |
| | Escudos (oro nacional) | 68 | 22 O (=.917) | 253 |
| | Veintenes (oro provincial) | 130 56/100 | 21 3 (=.906) | 253 |
| Charles III. | May 21 and 25, 1772— General reformation and lowering of the standard. | | | |
| | Escudos (oro nacional) | 68 | 21 2 1/2 (=.901) | 249 |
| | Veintenes (oro provincial) | 130 56/100 | 21 1 1/2 (=.891) | 247 |
| | July 16, andAug. 24, 1779— | | | |
| | | | | |

| | | | | |
|---|---|---|---|---|
| | The doblon of 8escudos reducedto 320 reals (oro nacional) | 68 | 21 2 1/2 (=.901) | 251( |
| | The doblon of 8 escudos reduced to 320 reals (oro provincial) | 130 56/100 | 21 1 1/2 (=.891) | 248( |
| | March 7, 1781— Oz. of bullion increased to 336 reals | 68 | 21 2 1/2 (=.901) | 264 |
| | Feb. 26 & June 5, 1786 — Lowering of standard. Oro nacional. | 68 | 21 0 (=.875) | 256: |
| | Oro provincial | 131 23/35 | 20 1 1/2 (=.849) | 260( |
| Fernando VII. | Oct. 19, 1821 — Reform of the rating. Oro nacional | 68 | 21 0 (=.875) | 268( |

| | | | | |
|---|---|---|---|---|
| | Oro provincial<br><br>Aug. 20, 1824—<br>Similar reform. | 131 $^{23}/_{35}$ | 20 1 $^{1}/_{2}$<br>(=.849) | 260( |
| | Oro nacional | 68 | 21 0<br>(=.875) | 266( |
| | Oro provincial | 131 $^{23}/_{35}$ | 20 1 $^{1}/_{2}$<br>(=.849) | 258 |
| Isabel II. | April 15, 1848—<br>Reform of the monetary system. | | | |
| | Centenes<br><br>May 17, 1850 — | 27 $^{6}/_{10}$ | 21 2 $^{3}/_{5}$<br>(=.900) | 273 |
| | Augmentation of the tale<br><br>Feb. 3, 1854 — | 28 | 21 2 $^{3}/_{5}$<br>(=.900) | 273 |
| | Reform of the monetary system<br><br>Jan. 18, 1861 — | 27 $^{43}/_{100}$ | 21 2 $^{3}/_{5}$<br>(=.900) | 271( |
| | | | | |

| | | | | |
|---|---|---|---|---|
| | Reform of the tariff | 27 $^{43}/_{100}$ | 21 2 $^{3}/_{5}$ (=.900) | 272 |

**TABLE OF THE SILVER COINS OF SPAIN FROM THE REFORMATION OF THE COINAGE IN 1497.**

| Reign. | Denomination. | Tale (per Mark). | Standard. | Valu the M by M Regula in Bul |
|---|---|---|---|---|
| | | Silver Reals. | Dineros. Granos. | Silver I |
| Ferdinand and Isabella | June 2, 1497— General reform of the Monies | 67.0 | 11 4 (=.930) | 66. |
| Philip IV. | December 23, 1642— January 12, 1643— Recoinage | 83.75 | 11 4 (= .930) | 81. |
| Charles II. | October 14, 1686— Recoinage | 84.0 | 11 4 (=.930) | 82. |
| Philip V. | 1706— Reales sencillos of 4, 2, and 1 1707— | 84.0 | 11 4 (=.930) | 68. |

| | | | | |
|---|---|---|---|---|
| | Reales sencillos of 4, 2, and 1 (and parts and multiples) | 75.0 | 10 0 (=.834) | 60.8 |
| | July 15, 1709 — | 68.0 | 11 0 | 65. |
| | Reals of 8 and 4 | | (=.917) | |
| | February 8, 1719— | | | |
| | Decrease of the reals of 8 to 9 1/2 | 80.75 | 11 0 (=.917) | 77.1 |
| | August 10, 1728— | | | |
| | Reals (and parts) plata provincial | 77.0 | 10 0 (=.834) | 63.( |
| | September 8, 1728— | | | |
| | Decrease of the real of 8 to 10 | 85.0 | 11 0 (=.917) | 81.3 |
| | July 16, 1730 — | | | |
| | New monetary regulation (plata nacional) | 85.0 | 11 0 (=.917) | 80. |
| | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | May 10, 1737 — | Reals of Billon | | | |
| | Decrease of the real of 8 to 20 reals (1 real of silver = 1 real 30 maravedis of billon) | 85.170 | 11 | 0 | 160 |
| | | | (=.917) | | |
| | Decrease of the real of 8 to 20 reals (plata provincial) | 77.154 | 10 | 0 | 145. |
| | | | (=.834) | | |
| Charles III. | May 21, 1772 — | | | | |
| | General reduction of the standard (plata nacional) | 170.0 | 10 | 20 | 157. |
| | | | (=.903) | | |
| | General reduction of the standard (plata provincial) | 154.0 | 9 | 18 | 141. |
| | | | (=.812) | | |
| Ferdinand VII. | October 19, 1821— | | | | |
| | Reform (plata nacional) | 170.0 | 10 | 20 | 164. |
| | | | (=.903) | | |
| | Reform (plata provincial) | 154.0 | 9 | 18 | 150. |

| | | | | |
|---|---|---|---|---|
| | | | (=.812) | |
| | August 21, 1821— Reform (plata nacional) | 170.0 | 10 20 | 163. |
| | | | (=.903) | |
| | Reform (plata provincial) | 154.0 | 9 18 | 147. |
| | | | (=.812) | |
| Isabel II. | April 15, 1848 — | | | |
| | General reform of the monetary system | 175.0 | 10 19 | 172. |
| | | | (=.900) | |
| | October 14, 1849— | | | |
| | Reduction of the tale of silver | 176.25 | 10 19 | 172. |
| | | | (=.900) | |
| | February 3, 1851— | | | |
| | General reform of the monetary system | 177.20 | 10 19 | 174. |
| | | | (=.900) | |
| | January 18, 1861— | | | |
| | Reform of the tariff | 177.20 | 10 19 | 175. |
| | | | (=.900) | |

**TABLE OF THE BILLON MONEY OF SPAIN FROM THE REFORMATION OF THE COINAGE IN 1497.**

| Reign. | Denomination. | Representative Value of each Money. | Tale (per Mark.) | Weigh Eac Piec |
|---|---|---|---|---|
| Ferdinand and Isabella. | June 14, 1492 — | | | Granc |
| | Coining of blancas | Half maravedi | 192 | 24.0 |
| Charles V. | May 23, 1552 — | | | |
| | Lowering of the standard of billon | Half maravedi | 192 | 24.0 |
| Philip II. | December 14, 1566— | | | |
| | Vellon rico | Cuartillos of 8 1/2 maravedis | 80 | 57.6 |
| | | Cuartos of 4 maravedis | 170 | 27.105 |
| | | Medios of 2 maravedis | 340 | 13.552 |
| | Blancos | Medio maravedi | 220 | 20.945 |
| | 1599— | | | |
| | (Pure copper) | Cuartos of 4 maravedis | 34 | 135.52 |
| | | Ochavas of 2 maravedis | 68 | 67.764 |

| | | | | |
|---|---|---|---|---|
| Philip IV. | December 23, 1642— | | | |
| | Vellon rico | Cuartillos of 8 1/2 maravedis | 80 | 57.6 |
| | | Cuartos of 4 maravedis | 170 | 27.105 |
| | | Medios of 2 maravedis | 340 | 13.552 |
| | October 29, 1660— | | | |
| | Issue of "Molino" | Pieces of 16 maravedis (8, 4 and 2 in proportion) | 51 | 90.352 |
| Charles II. | May 22, 1680— (This and succeeding issues are of pure copper) | | | |

# APPENDIX IV

## THE MONETARY SYSTEM OF THE NETHERLANDS

In its earliest known form the Netherlands monetary system reproduces those features of the Carlovingian system which reappear alike in Italy, France, and

England.

The ideal Flemish pound was divided into 20 schellingen, the schelling into 12 grooten.

This was entirely an ideal system; the actual coins being, at first, the silver denarius, divided into obols. This ideal system of pounds, schellings, and groots survived in Flanders and the Southern Netherlands (now the kingdom of Belgium) long after it had been superseded in the Northern Provinces (the United Netherlands) by another equally ideal system, that of the gulden and stiver.

According to this latter system the Flemish pound was divided into 6 gulden, the gulden into 20 stivers. As between the two systems, therefore, the Northern gulden was equal to 3 $^1/_3$ Southern schellings, and the Northern stiver to 2 Southern groots.

The earliest mention of the stivers occurs in 1355, but it was a considerable time before the new system displaced the old one in the Northern Provinces, and the reckoning by schellings and groots as well as, or alongside of, that by gulden and stivers occurs in Holland even as late as the sixteenth and seventeenth centuries.

The weight system employed for the precious metals was as follows:—

```
1 pound troy = 2 marks.
1 mark = 8 oz.
1 oz. = 20 engels.
1 engel = 32 azen.

So that 160 engels or 5120
azen made up the mark.
```

In reckoning the standard or alloy, the weight system was—

```
For silver—1 mark = 12
pfennige or deniers.
For silver—1 mark = 288
grs. (12 x 24).
For gold—1 mark = 24
carats.
For gold—1 mark = 288 grs.
(24 x 12).
```

Although forming part of the Holy Roman Empire (being included in the Burgundian Circle), the Mint system of the Empire has apparently never obtained in the Netherlands. The Counts of Holland, from the days of Floris II. and Jan I. (*i.e.* from 1256 onwards) have minted on their own account, as have also the Counts of Flanders from a much more remote date. The silver *deniers* of the Counts of Flanders date from at least the days of Count Arnold II. (964-989). The introduction of "la grosse monnaie" (whence gros and groots), in imitation of the French money, dates from the reign of Marguerite, Countess of Flanders (1244-1280), or possibly earlier; and the gold coinage (*royaux*, in imitation of those of Philip the Long of France, and *florins*, in imitation of those of Florence) dates from Count Louis de Crécy (1322-1346).

The interest, however, attaching to the monies of the Counts of Flanders and Holland up to the close of the fifteenth century is prevailingly numismatic, as, in the absence of a continuous series of Mint indentures, it is a matter of almost insuperable difficulty to construct tables of the coins. The chief indications are contained in the tariffs already

referred to (*supra*, text, pp. 79-83), but their testimony bears more expressly on exchange rates rather than upon Mint rate and standard.

The table of the groot, according to this source, is as follows:—

| | | | **Engel.** | **Azen.** |
|---|---|---|---|---|
| 1336. | 9-pfennige weight, | | 1 | 9 |
| 1376. | 4.16 | " | 2 | 4 |
| 1388. | 5 | " | 1 | 23 |
| 1393. | 5 | " | 1 | 20 |
| 1422. | 4 | " | 2 | 16 |
| 1489. | 5 | " | 1 | 5 |

The foundations of a national Mint, or monetary system for the Netherlands, were first laid by the ordinance issued by the Emperor Maximilian at Breda on the 14th December 1489.

According to this ordinance the gold *double florin* was to be struck at a tale of 44 $^{3}/_{4}$ to the mark Troy, of a fineness of 23 $^{7}/_{8}$ carats, and issued at an equivalence of 80 gros.

The remaining gold coins were to comprise the *St. Andries florin* = 40 groschen (and its half); while the silver coins were to comprise—

```
Gros = 1 gros.
Pattart = 2 gros.
Double pattart = 4 gros.
Grand double = 8 gros.
```

In great part this is to be regarded as an ideal or

unrealised system. The first effectual regulation of the silver coinage was made in the ordinance of Charles V. of 22nd February 1542.

This ordinance prescribed the minting of the silver *carolus*, in imitation of the Dutch thaler.

Weight to be 14 engels, 30 azen.
Standard to be 10 pfennige (= .853 fine).
Equivalence to be 20 stivers.

The practical effect of this measure, therefore, was to introduce a coin equal to, and therefore representative of, the hitherto fictitious or merely ideal *gulden*.

The remaining tariffs of the succeeding hundred years or so, together with the bimetallic experience of the Netherlands, have been already briefly described in the text (*supra*, pp. 71, 77). On the declaration of independence by the Northern Provinces, and the separation of the United Netherlands from the Southern or Spanish Netherlands, which succeeded, the monetary history of these two portions of the Low Countries bifurcates.

We are here concerned only with that of the Northern or United or Dutch Provinces, as being of more commercial interest in European history of the seventeenth and eighteenth centuries.

By Article 12 of the Union, each of the seven United Provinces was bound to conformity in the course or tariffing of its money, while left free to determine the species and mere numismatic detail of the coins.

The various tariffs therefore, already described,

contain the Mint law as applied to the United Provinces; but it was not until 1606 that a serious attempt at systematisation was made. By the great plakkaat of 21st March 1606, completed by that of 6th July 1610, a new and very full tariff was imposed; an important regulation was made, declaring all coins which lacked more than 1 $^1/_2$ engels over and above the remedy, to be taken as bullion and not current as coin, and the indenture details of the gold coins were fixed, as it proved, throughout the life of the Republic.

The gold rijder and the gold ducat were prescribed as follows:—

GOLD RIJDER.

Weight (gross), 207.2 azen (= 9.95 grs.).
Weight (of fine gold), 187.77 azen (= 9.11 grs.).
Standard, 22 carat (= .9167).
(Equivalence = 10 fl. 2 st.).

GOLD DUCAT.

Weight (gross), 72 $^1/_2$ azen (= 3.494 grs.).
Weight (of fine gold), 71.43 azen (=3.432 grs.).
Standard = 23 carat 8 grs. (= .9826).
(Equivalence = 3 fl. 16 st.).

By Article 23 of this same ordinance of 1606, the further minting of billon money was forbidden, and at the same time it was enacted, with regard to the lower denominations of silver coins (schillings and smaller pieces), that not more than one-tenth of any total settlement should be tenderable in them, in case of sums exceeding 100 guldens.

The succeeding experience of the effect of these

tariffs, involving, as they did, the almost total disappearance of the great silver coins, even already by the year 1638, led in 1659 to the institution of two new silver coins—(1) the silver ducat, .868 fine, and containing 507 azen fine silver; and (2) the silver rijder, .937 fine; and containing 634.75 azen fine silver.

By the plakkaat of 25th December 1681, the states of Holland and West Friezland prescribed the minting of the gulden piece, thus at last making the gulden, so long simply an ideal money or money of account, a real coin, and laying the basis of a truer national currency system.

By subsequent proclamations and resolutions of the States-General of the 17th March 1694, and 31st December 1699, this was adopted for all the United Provinces.

The single gulden piece was to be of the standard of 10 pf. 22 $^1/_2$ grs., and to contain 200 azen fine silver.

This coin remained the mint coin of the Dutch system, without any further alteration of tariff, or any need of it till 1806.

With regard to the development of a specific law of tender, the legislation of the United Provinces was peculiarly involved. The first declaration of a wide nature was that of the 26th September 1686, which reduced certain coins,—the silver ducat and two others—to the position of trade money merely. This was repeated in the declaration of the States-General of the 7th August 1691. The declaration of the 1st August 1749 ascribed a similarly restricted character, of trade money merely, to all gold coins except the gold rijder and its half. These latter were fixed at an

equivalence of 14 and 7-florin respectively. The gold ducats were not fixed, their course as trade money might fluctuate daily. They might be taken freely by weight, and at values determined by the course of trade.

The meaning of this provision can only be read in the light of the experience of the preceding half century. Up to this date (1749) there had existed, in theory, a silver standard with gold rated to it by each succeeding tariff. The fall of silver throughout the seventeenth century had acted adversely on gold, and for long the currency had consisted almost entirely of silver. This fall received some slight check in the earlier part of the eighteenth century, and the result was a reverse tendency. Gold came back into circulation, and the full weighted silver coins began to flow out and away. A bitter cry was accordingly raised in 1720 by the commercial community, and already in 1720 the Mint authorities had proposed the adoption of the gold rijder as standard, in order to stop the drain.

In 1749, however, the Mint officials felicitated themselves on the non-adoption of this proposal, and prayed that the ducat should be merely declared trade money (26th March 1749); and it was on this advice that the plakkaat of 31st March 1749 passed. It proved insufficient to prevent the export of silver, and on the 1st August following, the States-General issued an order creating the gold rijder provisionally the standard. The right of coining it was reserved to the State, so that there was no standard in the modern sense.

The influence of this measure proved to be very slight, and 172 merchants of Amsterdam petitioned

the States-General to declare the tenderableness of the ducat again. The result of a further communication from the Mint officials was the proclamation and ordinance of 1st May 1750, according to which only the gold rijder and half-rijder were declared standard, and all other gold species only trade money. Gradually, however, what the Government had been unable to effect by legislation was accomplished by the mere force of a rise in gold or fall in silver. The gold rijders began to disappear, the complaints as to the disappearance of silver ceased, and the regulations of 1749 and 1750 were superseded. At the time of the French Revolution, therefore, the silver standard was actually in force. Nominally the gold rijder was still legal tender at 14 florins, but actually few specimens of it were in circulation.

In 1798 the establishment of the Batavian Republic necessitated the creation of a Batavian Mint, and on the 12th February 1800 the First Chamber was called upon to consider the coins.

It was not, however, until the year 1806, after the Republic had been superseded by the imposition of Louis Napoleon as King of Holland, that an effectual system was enunciated. By the resolution of 15th December 1806, a double standard was adopted.

GOLD STANDARD COINS.

*Gold Penning* of 20 francs, 18 to the mark.

Alloy, 22 carats gold, 16 grs. silver.

Weight, 8 engels 28 $^{4}/_{9}$ azen.

Content of fine gold, 260 $^{3}/_{4}$ azen.

STANDARD SILVER COINS.

*Fifty-stuiver piece*—9 $^{5953}/_{17543}$ to the mark.

Weight, 17 engels 4 $^{7}/_{32}$ azens.

Standard, 10 pen. 22 $^{3}/_{4}$ grs.

*Gulden*—23 $^{6111}/_{17543}$ to the mark.

Weight, 6 engels 27 $^{23}/_{80}$ azens.

With the annihilation of the Napoleonic structure this scheme perished, and the law of 28th September 1816 erected a system in which elements of both those previously existing were combined.

The coinage was prescribed to consist of gold and silver standard pieces, and gold and silver trade pieces.

The standard coins were—

1. *The Silver Gulden*—
   Weight = 7 engels (= 10.766 grms.).
   Content of fine silver = 200 azen (= 9.613 grms.).
   Standard = .893.

This was to be the unit, and divided decimally.

2. The gold piece of 10 *Gulden* .900 fine.
   Weight 140 azen (6.729 grms.).

TRADE COINS.

1. *Silver Dukaat*—
   Weight 18 engels 8 $^{2209}/_{11200}$ azen (28.78 grs.).
   Standard, 10 pen. 10 grs. (= .868).

2. *Silver Rijder*—

Weight, 21 engels 5 $^{59}/_{80}$ azen (= 52.574 grs.).
Standard, 11 pen. 5 $^{3}/_{4}$ grs. (= .937).

3. *Gold Dukaat*—
Weight, 2 engels 8 $^{24}/_{55}$ azen (= 3.494 grs.).
Standard, 23 kr. 7 grs. (= .983).

The trade money was only minted for private accompt. The unit gulden and the 3-gulden piece were also minted for private accompt, but the divisional silver money, the copper money, and the gold standard 10-gulden piece were only to be minted on Government account.

By Article 15 of this law the franc was adopted in the Southern provinces on a footing of

1 franc = 47 $^{1}/_{4}$ carats.
1 gulden = 2 francs 11 $^{61}/_{100}$ centimes.

Finally, by Article 18, the tender of copper was limited to 1 gulden, and that of the smaller silver denomination to one-fifth of the amount of settlement.

By the succeeding law of 22nd March 1839, the silver Netherland gulden was prescribed to be of the weight of 10 wigtje's or grms., and .945 fine.

This prescription was retained as to the gulden in the more important Act of 26th November 1847.

This Act definitely established the silver standard. The standard coins were declared to be the gulden (and its half) and the rijksdaalder (= 2 $^{1}/_{2}$ guldens). The gold *William* and the gold *dukaat* were declared to be trade money, and the minor or divisional silver

coins (25 cents and under) were fixed at a fineness of .645. The gold William was to weigh 6.729 grms., .900 fine (content of pure gold, therefore, to be 6.056 grms.). The gold dukaat was to weigh 3.494 grms., .983 fine (therefore to contain 3.4345 grms. fine gold).

The coinage of standard silver coins, and of gold trade coins, was left free to individuals (Article 18). The trade money was expressly declared to be no legal tender (*geen wettig betaalmiddel*, Article 20).

The tender of silver divisional coins was limited to 10 guldens, and that of copper coins to 1 gulden.

This silver standard continued in force until 1872. In that year, however, in consequence of the fall of silver, a Bill was passed to suspend the coining of silver for private accompt. The Mint was closed to its coinage, and for a time Holland had no metallic standard at all, as gold was only merchandise or trade money. This state of things led to the enactment of the law of 6th June 1875, which introduced the gold standard, but under peculiar arrangements.

The standard coins were declared to be—*beside*, or in addition to, the silver standard coins minted previously to the new law—the gold 10-gulden piece, .900 fine, containing 6.048 grs. fine gold (weight, therefore, 6.720 grms.).

The minting of these latter was declared free to the individual, and the minting of the gold Williams ordered to cease (Articles 5 and 6).

No further declaration was made as to tender, so that the standard is to be regarded as a limping rather

than a gold standard proper.

**TABLE OF THE SILVER COINS OF THE NETHERLANDS.**

From Mees, '*Geschiedenis van het bankwezen in Nederland,*' with additions from 1690.

| Date of Law. | Name of Species. | Weight. | Standard. | | Weight of Metal Fine. |
|---|---|---|---|---|---|
| | | Eng. Az. | Penn. | Grein. | Az. |
| Feb. 22, 1542 | Karolus gulden | 14.30 | 9 | 23 | 396.674 |
| June 4, 1567 | Bourgondrische or Kruisdaalder | 19.1 | 10 | 16 | 541.333 |
| Feb. 10, 1577 | Staten daalder | 20.0 | 8 | 22 | 475.555 |
| Apr. 19, 1583 | Nederland rijksdaalder | 18.28 | 10 | 15 | 534.792 |
| Aug. 4, 1586 | Nederland reaal | 22.13 | 9 | 23 | 595.01 |
| Mar. 21, 1606 | Nederland rijksdaalder | 18.28 | 10 | 12 | 528.5 |
| " | Leeuwendaalder | 18.0 | 8 | 22 | 428.0 |
| " | 10-stuiver piece | 3.28 | 11 | 0 | 113.666 |
| Tolerantie, June 28, 1608 | Nederland rijksdaalder | 18.28 | 10 | 12 | 528.5 |
| Tariff, July 6, 1610 | Leeuwendaalder | 18.0 | 8 | 22 | 428.0 |
| | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | 10-stuiver piece | 3.28 | 11 | 0 | 113.66 |
| Sep. 26, 1615 | Nederland rijksdaalder | 18.28 | 10 | 12 | 528.5 |
| " | Leeuwendaalder | 18.0 | 8 | 22 | 428.0 |
| Feb. 13, 1619 | Leeuwendaalder | 18.0 | 8 | 22 | 428.0 |
| July 21, 1622 | Nederland rijksdaalder | 18.28 | 10 | 12 | 528.5 |
| Tolerantie, | Leeuwendaalder | 18.0 | 8 | 22 | 428.0 |
| Oct. 9, 1638 | Nederland rijksdaalder | 18.28 | 10 | 12 | 528.5 |
| Mar. 6, 1645 | Dakaton of Brabant | 21.7 | 11 | 6 1/2 | 637.741 |
| " | Patacon (or kruisdaalder or kruisrijksdaalder) | 18.12 | 10 | 11 | 512.458 |
| Aug. 11, 1659 | Nederland silver rijder | 21.5.72 | 11 | 6 | 635.362 |
| " | Nederland silver dukaat | 18.8.2 | 10 | 10 | 507.118 |
| Sept. 25, 1681 | | | | | |
| Dec. 22, 1686 | 3-gulden piece | 20.17 86/100 | 11 | 0 | 603.038 |
| Aug. 7, 1691 | Gulden | 6.27 46/100 | 10 | 22 1/2 | 200.035 |
| March 17, 1694 | | | | | |
| 1806 (Louis Napoleon) | Gulden | 6.27 23/20 | 10.22 3/4 | | ... |
| | 50-stuiver piece | 17.4 7/32 | 10.22 3/4 | | ... |

| | | | | |
|---|---|---|---|---|
| Sep. 28, 1816 | Gulden | 7.0 | 0.893 fine | 200 azen |
| Nov. 26, 1847 | Gulden | 10 grms. | 0.945 fine | 9. $^{450}/_{1000}$ grms. |

**TABLE OF THE GOLD COINS OF THE NETHERLANDS.**

(From Mees, as above, with additions.)

| Date of Law. | Name of Species. | Weight. | Standard. | | Weight of Metal Fine. | Equi |
|---|---|---|---|---|---|---|
| | | Eng. Az. | Kar. | Grein. | Az. | Gui |
| Dec. 14, 1489 | Hungary dukaat | 2.8 $^{24}/_{35}$ | 23 | 7 | 71.424 | 1 |
| Feb. 4, 1520 | " " | 2.8 $^{24}/_{35}$ | 23 | 7 | 71.424 | 1 |
| July 11, 1548 | " " | 2.8 $^{24}/_{35}$ | 23 | 7 | 71.424 | 2 |
| Feb. 7, 1573 | " " | 2.8 $^{24}/_{35}$ | 23 | 7 | 71.424 | 2 |
| Dec. 3, 1575 | " " | 2.8 $^{24}/_{35}$ | 23 | 7 | 71.424 | 3 |
| May 7 and 20, 1583 | Holland dukaat | 2.8 $^{24}/_{35}$ | 23 | 7 | 71.424 | 3 |
| Aug. 4, 1586 | Nederland dukaat | 2.8 $^{24}/_{35}$ | 23 | 7 | 71.424 | 3 |
| | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| April 2, 1603 | " " | 2.8 $^{24}/_{35}$ | 23 | 7 | 71.424 | 3 |
| Mar. 21, 1606 | Nederland rijder | 6.16 | 22 | 0 | 190.666 | 10 |
| | " dukaat | 2.8 $^{24}/_{35}$ | 23 | 7 | 71.424 | 3 |
| July 6, 1610 | Nederland rijder | 6.16 | 22 | 0 | 190.666 | 10 |
| | " dukaat | 2.8 $^{24}/_{35}$ | 23 | 7 | 71.424 | 4 |
| Sept. 26, 1615 | " rijder | 6.16 | 22 | 0 | 190.666 | 10 |
| | " dukaat | 2.8 $^{24}/_{35}$ | 23 | 7 | 71.424 | 4 |
| Feb. 13, 1619 | " rijder | 6.16 | 22 | 0 | 190.666 | 10 |
| | " dukaat | 2.8 $^{24}/_{35}$ | 23 | 7 | 71.424 | 4 |
| July 21, 1622 | " rijder | 6.16 | 22 | 0 | 190.666 | 11 |
| | " dukaat | 2.8 $^{24}/_{35}$ | 23 | 7 | 71.424 | 4 |
| Tolerantie, Oct. 9, 1638 | " rijder | 6.16 | 22 | 0 | 190.666 | 12 |
| | " dukaat | 2.8 $^{24}/_{35}$ | 23 | 7 | 71.424 | 4 |
| March 6, 1645 and Jan. 6, 1653 | " rijder | 6.16 | 22 | 0 | 190.666 | 12 |
| | " dukaat | 2.8 $^{24}/_{35}$ | 23 | 7 | 71.424 | 4 |

| | | | | | |
|---|---|---|---|---|---|
| March 31, 1749 | " rijder | 6.16 | 22 0 | 190.666 | 14 |
| 1806 (Louis Napoleon) | Gold penning | 8.28 $^{4}/_{9}$ | 22 carat gold 16 grs. silver | 8.4 $^{3}/_{4}$ | 10 |
| 1816 | 10-gulden piece | 4.12 | 0.900 fine | ... | |
| 1875 | " " | 6 $^{720}/_{1000}$ grms. | 0.900 fine | 6.048 fine gold | |

# APPENDIX V

## THE MONETARY SYSTEM OF GERMANY

The German Mint system inherited from that of Charlemagne the common features noticed already in the case of Florence, the Netherlands, and other countries, namely, the division of the silver libra into 20 solidi (*schillingen*), and of the solidus into 12 denarii (*pfennige*), so that 240 denarii = 1 libra. The solidus occurs (theoretically or in accompt) in both gold and silver. The gold solidus of the German system originally weighed less than the Frankish, which was 72 to the libra, while the German was 80 to the libra.

The ratio of gold to silver was 12:1, so that theoretically 1 pound silver = 1 oz. gold = 6 $^{2}/_{3}$ gold schilling.

In actual coins, 1 gold schilling = 3 silver schillingen = 36 pfennige.

Gradually this system was superseded by that of reckoning by the mark. The particular mark which obtained widest acceptance was the Cologne mark, which was thus subdivided—

Cologne mark = 8 Oz.
= 16 Loth.
= 64 Quintlein.
= 256 Pfennige.
= 512 Heller.
= 4352 Eschen or Grain.

For the purpose of standard of alloy the mark was differently subdivided. Thus—

Gold alloy weight—

1 mark = 12 carats
= 288 grs. (12 x 24).

Silver alloy weight—

1 mark = 16 loth
= 288 grs. (16 x 18).

Subsequently, when the gold gulden began to be minted, and to displace in reckoning the gold solidi (6 $^{2}/_{3}$ to the oz.), a third system of reckoning by

gulden, schillingen, and pfennige was adopted. But long before this had become general, the downward course of the pfennige had proceeded apace.

In 1255, in Swabia, the silver mark was minted into 660 pfennige; and in 1276, in Magdeburg, the mark of silver (15 loth fine) into 528 pfennige.

Originally heller and kreutzer were only alternative forms of the pfennige, not subdivisions of it (heller = Hällische pfennige); but the irregular course of depreciation established a difference in character.[24]

In 1407, in the Bishopric of Würzburg, pfennige were minted at a tale of 400 to the mark and 6 loth fine; Heller 544 to the mark and 4 loth fine. Fifty years later, at Nürnberg, pfennige were being minted 512 to the mark and 5 $^{1}/_{4}$ loth fine (= 1560 $^{8}/_{21}$ to the mark of fine silver), and Heller at 704 to the mark and 3 $^{1}/_{2}$ loth fine (= 3218 $^{2}/_{7}$ to the mark fine).

The course of depreciation proceeded from the unregulated, irresponsible mintings of the small states, and from base financier craft. During the fourteenth century it proceeded apace, in spite of the attempts at a reform made by the Emperor Charles IV. In 1356 he prescribed the minting of the mark of silver into 31 schillingen 4 heller (or 376 hellers), but the ordinance remained ineffectual.

The depreciation against which it vainly strove was not confined to the lower species, such as pfennige and heller. The close of the thirteenth century had witnessed the introduction of a new large silver money, which for a time stood by the side of the schilling, and then gradually displaced it. The new coin—the *groschen*, minted in imitation of the gros Tournois of France—made its first appearance in

Bohemia in 1296, when its tale was 63 $^1/_2$ to the mark, 15 loth fine. The same process of depreciation at once began to affect it, and during the fourteenth century the downward course of the coin was very rapid, especially in Saxony (see Tables *infra*, and pp. 30, 97). With the commencement of a gold coinage in the middle of the same century, a third element of confusion was introduced, and quickly the same diversity of weight, alloy, and type began to prevail as in the silver coinage (see Table of the depreciation of the gold gulden, *infra*, and pp. 31, 98).

The Reichstag, which met at Nürnberg in 1438, found itself driven to record, in simple terms, the right of everybody who could mint to do so according to what standard of fineness and weight he pleased, "seeing the impossibility of a common standard and weight."

The close of the century witnessed the introduction of the last of these numerous confusing elements, but one which was to become of prime importance in the history of German currency, namely, the *thaler*. In its first form it was intended as the silver equivalent of the *gold gulden*, being minted 8 to the mark (*i.e.* 1 oz. weight per piece), and of fine (or 16 loth) silver. It received the name *gulden groschen* when first coined by Archduke Sigismund of Austria in 1484; but in the sixteenth century, on account of its great manufacture in Bohemia, it became known as the *Joachims thaler* (or *Schlicken thaler*, or *Löwen thaler*). The subsequent depreciation of the thaler, which came as a matter of course, was very unequal in the different circles, being most strongly marked in Saxony.

By the first of the Imperial Mint Ordinances, which

will be spoken of immediately, the weight of this piece was still retained at 1 oz., but the standard was reduced to 15 loth fine. In 1549 the Elector Maurice fixed the standard at 14 loth 8 grs. fine, while still retaining the tale of 8 to the mark.

The second Imperial Mint Ordinance of 1551 was constructed as a double basis—

1. Of the gulden groschen (*i.e.* thaler) = 1 gold gulden = 72 kr.
2. Of the gulden groschen (*i.e.* thaler) = 1 gold gulden = 60 kr.

The tale was altered from 8 to 7 $^{1}/_{2}$ to the mark, but the standard was lowered still further to 14 loth 2 grs. fine (= 8 $^{120}/_{254}$ to the mark of fine silver). But in the accompanying tariff the actual specie thaler-piece was set at 22 groschen, or 66 kreutzers.

The third Imperial Mint Ordinance established an important difference from this system. The actual thaler or silver gulden (= 72 kreutzers) was ordered to be discontinued, and no more minted, and a different basis adopted of silver Reichs guldens = 60 kreutzers, at a tale of 9 $^{1}/_{2}$ to the mark, 14 loth 16 grs. fine.

This intended exclusion of the thaler, however, proved quite ineffectual. Protestations were raised against it, and in the Reichstag at Augsburg the minting of the thaler was again authorised—8 to the mark, 14 loth 4 grs. fine.

The immediately succeeding movement of the thaler is given in the text (see Table, p. 103).

Further than, as above, it is out of the question in so brief a résumé to specify the minuter confusions and conflicting variations of the German monetary system at the opening of the sixteenth century. During the course of that century three separate attempts were made to establish an imperial system that should displace all minor ones, and thus remedy the confusion.

The first attempt was made by Charles V. in his Imperial Mint Ordinance issued at Esslingen on the 10th November 1524.

The basis of this ordinance was the mark of silver = 8 florins 10 schillings 8 heller, and the pieces ordained were—

1. A silver piece = 1 Rhenish gold gulden, 8 to the mark, 15 loth fine (see the account of the thaler above).
2. *Orth*, 32 to mark, 15 loth fine.
3. *Zähender* = $^{1}/_{10}$ Rhenish gold gulden, 80 to mark, 15 loth fine.
4. *Groschen* = $^{1}/_{21}$ Rhenish gold gulden, 12 loth fine, 136 to mark.

Besides these coins, the ordinance recognised temporarily a whole series of then-current pfennige. Thus—

| | | |
|---|---|---|
| Strasburg pfennige, | 126 | to the gulden. |

| | | | |
|---|---|---|---|
| Würtemberg | " | 168 | " |
| Rappen | " | 157 1/2 | " |
| Rhenish | " | 210 | " |
| Saxon | " | 252 | " |
| Räder | " | 312 | " |

As explained in the text (p. 96), this ordinance came nowhere into observance, and twenty-nine years later Charles V. issued his second Imperial Ordinance at the Reichstag of Augsburg (1551).

The system then attempted to be instituted was based on a mark of fine silver = 10 florins 12 1/2 kreutzers but in denomination a double system was employed—

1. Gold gulden = 60 kr.
2. Gold gulden = 72 "
   Gulden groschen

1. The Reichs gulden (= 1 gold gulden = 72 kreutzers) was prescribed thus—7 1/2 to the mark, 14 loth 2 grs. fine (see account of thaler, *supra*).

2. The kreutzer-piece was prescribed—237 to the mark, 6 loth 1 gr. fine (= 626 3/4 to the mark of fine silver).

3. The groschen (= 1/24 Reichs gulden)—94 1/2 to the

mark, 7 loth 5 grs. fine (= 207 $^{99}/_{131}$ to the mark of fine silver).

Accompanying these regulations, however, there was a tariff as before, but more comprehensive, for the temporary recognition of a miscellaneous mass of coins of the Rhine, the Netherlands, Lower Saxony, Higher Saxony, Franconia, and the mark of Brandenburg. Thus—

**GROSCHEN.**

| | | | | |
|---|---|---|---|---|
| Reichs groschen, at 12 pfennige, | 24 | = | 1 gulden, | at 72 kreutzers. |
| Groschen of Misnia and Franconia, at 12 pfennige, | 25 $^{1}/_{5}$ | = | " | " |
| Rhenish *albi* and Netherland stuyvers, at 8 pfennige, | 28 | = | " | " |
| Lübeck schellingen, at 12 pfennige, | 28 $^{4}/_{5}$ | = | " | " |
| Groschen of the Mark, at 8 pfennige, | 38 $^{2}/_{5}$ | = | " | " |

**PFENNIGE.**

| | | | | |
|---|---|---|---|---|
| Of the Tyrol, | 300 | = | 1 gulden, | at 60 kreutzers. |
| Of Lübeck, | 288 | = | " | " |
| Of the mark of Brandenburg, | 256 | = | " | " |
| Of Saxony and Franconia, | 252 | = | " | " |
| Of Austria, 4 loth fine, 649 to the mark, | 240 | = | " | " |

| | | | | |
|---|---|---|---|---|
| Of Bavaria, | 210 | = | " | " |
| Of the Rhine, | 186 $^{2}/_{3}$ | = | " | " |
| Of Swabia, | 180 | = | " | " |
| Of Würtemberg, | 168 | = | " | " |
| Rappen, | 250 | = | " | " |
| Of Strasburg, | 120 | = | " | " |

This ordinance obtained no more vogue than its predecessor, the main cause of its slighting being the dissatisfaction of the powers of Upper and Lower Saxony at the tariffing of the thaler, which they declared to be too low, and accordingly advanced (1555) to 24 groschen (= 32 Marien groschen = 72 kreutzers).

The third Imperial Ordinance was issued at Augsburg on the 19th August 1559. Practically the same standard and basis was maintained as in the preceding ordinance, the mark of fine silver being coined into 10 florins 13 $^{1}/_{2}$ kreutzers in the larger species.

But in the detail of these larger species an important difference was established.

The silver gulden had hitherto been equal to the gold gulden. The actual specie silver gulden in pieces of the time was nominally equivalent to 60 kreutzers. But since 1551 there had been minted a Reichs gulden in specie equal to 72 kreutzers.

In order to mark the difference it was determined to coin in future only silver gulden = 60 kreutzers, while the gold gulden was put at 75 kreutzers.

The specie authorised by this third Imperial

Ordinance therefore were—

1. Gold gulden, 72 to mark, 18 1/2-carat fine, to equal 75 kreutzers.

2. Silver Reichs gulden, 9 1/2 to the mark, 14 loth 16 grs. fine, to equal 60 kreutzers.

3. Thaler, or 72 kreutzers silver gulden, to be discontinued.

4. Kreutzer, to equal 1/80 gulden, 243 1/2 to the mark, 6 loth 4 grs. fine (= 626 1/7 to the mark fine).

5. Reichs groschen, to equal 1/24 gulden, 8 loth fine, 108 1/2 to the mark; and a few other species.

The lower denominations (pfennige and heller) were minted on the basis of the mark = 11 florins 5 kreutzers.

Almost immediately, protestations were raised against this ordinance, especially by the Lower Westphalian Circle, and it remained quite inoperative. The succeeding Reichstag at Augsburg again authorised the issue of the thaler (8 to the mark, 14 loth 4 grs. fine, so that the fine mark = 10 florins 12 kreutzers).

As late as the Reichstag of Regensburg (1594) desultory attempts were made to establish a uniform

system, but all practical idea of it had long ceased, and the regulation of Mint matters henceforth fell into the separate jurisdiction of the various Circles. The Lower Circles went their own way at their meetings at Cologne (1566, 1572, and 1582), as did the Upper Circles in their separate meetings in 1564 and 1572 at Nördlingen and Nürnberg.

At its meeting at Lüneburg in 1568 the Lower Saxon Circle adopted a system not far removed from that of the third Imperial Mint Ordinance of 1559. The mark of fine silver was to be coined into 10 florins 43 $^{11}/_{67}$ kreutzers, and the thaler was fixed at 24 groschen (=72 kreutzers).

Underneath this separately concerted action of the Circles, however, licence and disorder prevailed in the issue of smaller pieces of a grossly depreciated nature, before which the good heavy silver species disappeared, leaving the greatest confusion, together with a continual rise in prices or fall in the standard. The imperial proclamations of 20th January and 24th September 1571 were of no avail against this process, and by 1585 the mercantile rate had risen, thus—

| | |
|---|---|
| Philipps thaler | = 82 kr. |
| Reichs thaler | = 74 " |
| Gulden groschen | = 64 " |

In 1596 the Imperial Commissioners at Frankfort provisionally recognised as a tariff—

| | |
|---|---|
| Gold gulden | =80 kr. |
| Reichs thaler | =72 " |
| Gulden groschen or thaler | = 64 " |

But later in the same year these authorities at Strasburg set the Reichs thaler at 84 kreutzers (mark of fine silver = 12 fl. 36 kr.). As the disorder of the *Kipper und Wipper Zeit* broke over the Empire, in consequence of the process of wilful depreciation, the Emperor made several public attempts at its arrestation by letters addressed to the various Circles separately (1601, 1603, and 1607). Meanwhile, the Reichs thaler had risen to 90 kreutzers (mark of fine silver = 13 $^{1}/_{2}$ florins).

According to this valuation the gulden of 1551 of 72 kreutzers was set at 94 kreutzers, and the gulden of 1559 of 60 kreutzers was set at 79 kreutzers.

It was on this latter basis (of the 60-kreutzer Reichs gulden of 1559 = 79 kreutzers) that was founded the later Misnian, Franconian, and Kammer-Gerichts currencies of the eighteenth century, which did not materially differ amongst themselves, thus—

Misnian gulden @ 31 groschen (= 78 $^{2}/_{3}$ kr.)
Franconian gulden @ 20 batzen (= 80 kr.)
Kammer-Gerichts gulden = 78 kr. 2 $^{10}/_{23}$ thalers.

In 1623 the Higher Circles adopted by their Mint determination the following system:—

Thaler = 90 kr.
Gold gulden = 1 fl. 44 kr.
Ducat = 2 fl. 20 kr.

In the smaller pieces the basis was the mark of fine silver = 16-florin = 10 $^{2}/_{3}$ thaler.

For example—

| | | | | |
|---|---|---|---|---|
| 1/2-Batzen, | 7 | loth fine, | 210 | to the mark. |
| Kreutzer, | 5 | " | 300 | " |
| 3-Heller piece, | 3 1/2 | " | 560 | " |
| Pfennige, | 3 | " | 720 | " |

To this system the Lower Circles acceded, in the same year 1623, after an ineffectual attempt to enforce the interim standard of 1596, which had set the Reichs thaler at 21 batzen or 84 kreutzers.

From this united action of the Upper and Lower Circles Saxony stood apart, following quite a different course. While elsewhere the thaler was raised, here they lowered it to its old equivalence of 24 groschen. In actual practice, however, the step proved only half effective, as the depreciated thaler was persistently minted. There resulted accordingly, in Saxony, a double system of "good" and "bad" money, with a difference of something like 25 per cent. between them. To increase the confusion there was for a time a difference between the practice of Lower Saxony and Electoral Saxony. The former, Lower Saxony, had in 1610 adopted the following system:—

| | | |
|---|---|---|
| Reichs thaler | = 28 | groschen. |
| Reichs gulden thaler of 1559 | = 24 | " |
| Philipps thaler | = 30 2/3 | " |
| Silver groschen, | = 234 to the mark, 14 loth, 4 grs. fine. | |

" schillingen, = 306 "

(So that the mark of fine silver = 12 fl. 9 kr.)

Finding it impossible to maintain this system, they altered it in 1617, and finally in 1622 conformed with Higher Saxony, setting the Reichs thaler at 24 silver groschens.

As settled in this and the following year, the system of Electoral and Lower Saxony was as follows:—

| | | |
|---|---|---|
| Reichs thaler | = 24 | gulden groschen. |
| Gulden thaler of 1559 | = 21 | " |
| Philipps thaler and gold gulden | = 30 | " |
| Ducat | = 36 | " |

Contemporaneously (1623), the Brandenburg system was as follows:—

| | | |
|---|---|---|
| Reichs thaler | = 24 | good groschen. |
| Gold gulden | = 27 | " |
| Ducat | = 38 | " |

Through the remaining period of the Thirty Years' War very little is on record with regard to the German Mint system. The closing period of the strife was marked by such complaints as to excess of depreciated small specie as had prevailed in 1620, bringing with it a further enhancement of the price of the larger silver specie. In 1665, accordingly, the

three Higher Circles, Franconia, Bavaria, and Swabia met together. They found on a trial that the mark of fine silver was selling commercially at from 14 florins 15 kreutzers to 14 florins 20 kreutzers, and that it was impossible to mint the larger silver specie unless the Reichs thaler were set at 96 kreutzers. This would raise the mark of fine silver to 14 florins 24 kreutzers. At the same time it was resolved to declare the ducat at 3 florins (mark of fine gold = 203 florins 49 kreutzers, 3 $^{31}/_{71}$ pfennige), the ratio being accordingly changed from 15 to $14^{1}/_{8}$.

In 1667 this scheme was provisionally adopted *in comitiis*. From this scheme Saxony and Brandenburg held off, maintaining that the advance of the Reichs thaler was not sufficient. They accordingly, in the same year, adopted the so-called *Zinnaische* standard, setting the Reichs thaler at 1 florin 45 kreutzers (105 kreutzers), equal to 18 good groschens (mark of fine silver = 10 $^{1}/_{2}$ thalers, or 15 florins 45 kreutzers).

The enactment of this system gave rise to a new species of heavy silver coins:—

Guldener = $^{2}/_{3}$ thaler.
" = 60 kr.
" = 16 good groschen.
" = 32 schillingen.

Two years later, 1669, the three Higher Circles determined, as a measure of protection to their gold, to alter the ratio, and for that purpose to reduce the thaler from 96 to 90 kreutzers again, while leaving the ducat = 3 florins, and the gold gulden = 2 florins 20 kreutzers.

The mark of fine silver was thus = 3 fl. 30 kr.
" gold " = 204 "
(Ratio = 15 1/9.)

The divisional coins were to be minted on a graduated and enhanced standard. Thus—

| | | |
|---|---|---|
| 6-kr. and 4-kr. pieces (Batzen), | at 13 fl. 55 | kr. to the mark fine. |
| Groschen (3 kr.) | at 14 fl. 10 | " " |
| Kreutzer | at 14 fl. 40 | " " |
| Pfennige (3760 to the mark fine), | at 15 fl. 43 | " " |

There were thus three contemporary systems in Germany in 1670—

| | | | |
|---|---|---|---|
| 1. Reichs thaler, | at 90 kr. | , mark of fine silver | at 13 fl. kr. 30 |
| 2. " | at 96 " | " | at 14 fl. " 24 |
| 3. " | at 105 " | " | at 15 fl. " 45 |

The three Upper Circles, however, could not maintain their last enacted order. In spite of its enactment, the Reichs thaler rose again to 96 kreutzers, and the ducat to 3 florins 12 kreutzers.

The confusion and general harm which resulted has been referred to in the text (p. 199), and it is to be regarded simply as a stop-gap at any cost that the measure proposed by the Three Circles of fixing the

thaler at 90 kreutzers was carried through the Reichstag of 1680.

From this system, however, the Emperor, with Bavaria and Salzburg, stood apart, putting the Reichs thaler at 96 kreutzers; and ten years later, 1690, Saxony, Brandenburg, and Brunswick and Lüneburg established again a distinct system—the well-known Leipzig standard.

By this system the Reichs thaler was set at 120 kreutzers or 2 florins (mark of fine silver = 12 thalers 18 gulden).

In a few years this valuation of the thaler prevailed all over the Empire. Sweden acceded to it in 1690, with Bremen and Pomerania, Mainz, Treves, the Palatinate, and Frankfort, and three years later the Higher Circles followed suite. Contemporaneously the gold gulden was advanced to 2 florins 56 kreutzers.

Although the Emperor subsequently joined in the recognition of the Leipzig standard, it did not remain effective in actual practice, and while no further advance of the thaler was officially recognised, the lower denominations were again depreciated by the Mint competition of the various states, 10-kreutzer pieces being minted on a standard of 20 $^1/_3$ to 21 $^1/_3$ gulden to the mark fine. In 1736 the question of a standard was again brought before the Reichstag; and on the 10th September 1738 it was resolved to adopt the Leipzig standard for the Empire, with the Reichs thaler = 2 florins, ducat = 4 florins, gold gulden = 3 florins; while, for the divisional coins, a basis of fine mark silver = 13 $^2/_3$ thaler was enacted.

This system, if it endured at all, did so only for a

couple of years. The outbreak of the war of the Austrian Succession brought with it a new period of conflicting depreciations, and at the close Austria took a decisive step. Without taking any measure to secure the co-operation of the Circles, or any part of the Empire, the Emperor Francis I. adopted the 20-gulden standard (the mark of fine silver = 13 $^{1}/_{3}$ Reichs thalers = 20 guldens). It was at once adopted in Hungary and Bohemia, the territories of Maria Theresa.

Frederick Augustus, Elector of Saxony and King of Poland, was the first to adopt this Austrian standard, at Dresden in 1750, though with a very slight variation (putting the mark of fine silver at 13 $^{3}/_{8}$ Reichs thalers instead of 13 $^{1}/_{3}$). In 1753 Bavaria also acceded to the 20-gulden standard, after a brief attempt (1747-1753) at the erection of a 24-gulden standard, and in the following year the Austrian system was adopted by Brandenburg-Anspach, Bayreuth, Würzburg, and Nürnberg.

The Convention of Vienna (21st September 1753) which formally established this Austrian or Convention standard (20-gulden system), prescribed as follows:—

1. Gold—

> Mark of fine gold = 283 fl. 5 kr. 4 $^{47}/_{74}$ pf. Chief coin = Reichs ducat, 67 to the mark (Cologne mark), 23 kr. 8 grs. fine (= 67 $^{67}/_{71}$ to the mark of fine gold), to = 4 fl. 10 kr.; the Holland and other ducats then current in Germany being

tariffed at 4 fl. 7 $^{1}/_{2}$ kr.

2. Silver—

Mark of fine silver = 20 guldens for all manner of silver coins down to the groschen or 3-kreutzer piece (ratio of silver to gold 1:14 $^{11}/_{21}$).

The silver coins authorised were—

1. Thaler (specie or convention thaler = 2 fl.), 10 to the mark, 13 $^{1}/_{3}$ loth fine.

2. Gulden (or $^{1}/_{2}$-specie thaler), 20 to the mark, 13 $^{1}/_{3}$ loth fine.

3. 30-kreutzer piece ( $^{1}/_{2}$-gulden or $^{1}/_{4}$-specie thaler), 40 to the mark, 13 $^{1}/_{3}$ loth fine.

4. 17-kreutzer piece, 70 $^{10}/_{17}$ to the mark, 8 $^{2}/_{3}$ loth fine (only for Austria).

5. 7-kreutzer piece, 171 $^{3}/_{7}$ to the mark, 6 $^{13}/_{18}$ loth fine (only for Austria).

6. 20-kreutzer piece, 60 to the mark, 9 $^{1}/_{3}$ loth fine.

7. 10-kreutzer piece, 120

to the mark, 8 loth fine.

8. Groschen or 3-kreutzer piece, 400 to the mark, 5 1/2 loth fine.

For the lowest denomination of divisional coins, half-groschen, kreutzer, and pfennige, quite varying standards were permitted, according to the piece or locality, namely, from 20 3/4 to 33 guldens to the Koln mark.

For tolerated coin the following tariff was fixed:—

GOLD

| | |
|---|---|
| Bavarian maxd'or and double gold gulden | = 6 fl. 8 kr. |
| Bavarian carolus or 3-gold gulden piece | = 9 fl. 12 kr. |
| Kremnitz ducat<br>Florentine gigliati<br>Venetian zecchino | = 4 fl. 12 kr. |

All other gold coins to be taken as bullion at a value of 280 fl. for the Cologne mark of fine gold. All silver species of other states below the value of 1/2 florin forbidden.

Such was the Convention System or Standard, which, by the accession of the Electoral Palatinate, and of Salzburg might be practically regarded as the Imperial system.

This Convention system, and these Convention or

specie thaler and other coins, remained the Mint system of Austria until modern times.

The changes which were made in the Austrian system by the Vienna Convention of 1857 have been already detailed (see text, pp. 209-12).

Ten years later Austria withdrew from this monetary treaty (in accordance with the terms of the treaty of Berlin, 13th June 1867), with the intention of acceding to the contemplated French currency treaty of 31st July 1867. She ceased the coining of German gold crowns and half-crowns, and instead minted 4 and 1-ducat pieces. From 1870 onwards she coined, in conjunction with Hungary, 8 and 4-florin gold pieces, the former 77 $^1/_2$ to the pound, .900 fine.

By a decree of 6th November 1870, the 8-florin gold piece was tariffed at 8.10 florin. At this it was made legal tender, on the basis of the French ratio of 15 $^1/_2$; but it was practically nothing more than commercial money, like the preceding *crowns* and *half-crowns* of the convention of 1857. The standard of Austria remained nominally the silver florin of the convention of 1857, although in actual practice the currency was paper. In March 1879 the Austrian and Hungarian Mints were closed to the coinage of silver on private account, preparatory to a reorganisation of the Austrian monetary system on a gold basis. This reform was decided on in 1892, and briefly prescribed as follows:—

The monetary unit is the krone or crown = 2 florins; but to be minted in 10 and 20-crown pieces, 1 kilogramme pure gold = 3280 crowns, .900 fine. The crown is divided into 100 hellers.

For the purpose of basing the new system on gold, a

ratio between the old silver and the new gold standard of 1:18.22 was adopted, the existing florin being declared = 2 francs 10 cents.

Silver is fractional money only, the old florins passing as 2 crowns.

## South Germany.

From the Convention or 20-gulden system (the old Austrian system) sprang the accompanying system, the 24-gulden standard, which was nothing but the 20-gulden or Austrian standard under another name. Very soon after the establishment of the Convention standard, the Elector of Bavaria perceived or concluded that the continuance of that standard in his dominions would produce disorders so long as the other circles did not accede to the convention. He accordingly arrested the execution of the convention in his territories, and adopted a provisional arrangement. At the end, however, of a long correspondence with the Austrian state (Maria Theresa), an agreement was made that he should conform his coins in standard and weight to the convention system, but should be permitted to tariff them at one-fifth higher rate, putting *i.e.* the specie thaler not at 2 florins but at 2 florins 24 kr., and so on (the mark of silver being consequently worth 24 guldens, instead of, as in the Austrian or Convention system, 20 guldens).

This was the origin of the 24-gulden standard, which gradually spread over the whole of South Germany, with the exception of Austria. The three Upper Circles acceded in 1761, Salzburg in 1765, and in the following year the Rhenish powers, Mainz, Treves,

the Palatinate, Hesse-Darmstadt, and Frankfort.

From this 24-gulden standard sprang towards the close of the eighteenth century a later development, due to the circulation of the kronen thaler or Brabant thaler, which, from 1755 onwards, Austria minted for her Netherland possessions. The Rhenish provinces drove this piece above its Mint rate, setting it at 2 florins 42 kreutzers, although in the 24-gulden standard its value was only 2 florins 38 $^{10}/_{19}$ kreutzers. This implied a standard of $24^{6}/_{11}$ guldens to the mark of fine silver, and gradually, about the beginning of the present century, Bavaria, Würtemberg, and Nassau minted convention thalers on the same footing. Baden, Hesse, and Saxe-Coburg followed suit in their minting of kronen thalers until, by the Mint Convention of the South German states in 1837, the new standard (the 24 $^{1}/_{2}$-gulden standard) was formally recognised as the South German standard. In this convention Austria had no part.

The standard here detailed, the 24 $^{1}/_{2}$-gulden or South German standard, was assimilated to the Prussian system in the Dresden Convention, 1838 (see text, p. 205), and in that connection remained intact until the developments of modern times detailed in the text, p. 215.

## Prussia.

The Prussian monetary system, as a separate identity, took its rise in that same period which witnessed the independent action of Austria, above detailed. Its builder was Frederick the Great, who, for this purpose, called in the advice of a Dutch merchant,

Philip Graumann. It is to this latter that is due the introduction in 1750 of the 21-gulden or 14-thaler standard, otherwise known as the Graumann standard.

> Thaler = 10 1/2 to the mark, 12 loth fine (mark of fine silver therefore = 14 thalers or 21 guldens).
>
> Thaler = 24 groschens = 288 pfennige (24 × 12).
>
> Groschen and 1/2-groschen minted as divisional coins (= 1/24 and 1/48 thaler) of billon.

After the temporary debasement during the Seven Years' War, the Graumann standard was re-established in 1764, but with two differences.

1. The minting of 1/2 and 1/4-thaler pieces of 12 loth silver was ordered to cease from 1766, and to be replaced from 1764 by—

| | | | | | | |
|---|---|---|---|---|---|---|
| 1/3 thaler, | 10 2/3 | loth, | 28 | to the mark | 14-thaler standard. |
| 1/6 " | 8 1/3 | " | 43 3/4 | " | |
| 1/12 " | 6 | " | 63 | " | |

2. The billon divisional money (minted primarily for the Provincial States of Prussia) was greatly increased in the amount of its issue, but depreciated in standard on a varying scale according to the districts intended, Silesia, Cleves, etc., reaching in some cases even to an 18-thaler standard. Up to

1772 there was issued in these depreciated single and double-groschen pieces an amount equal to 8,979,189 thalers. Subsequently, the standard of divisional money was reduced to 21 thalers, and at this rate, up to the death of Frederick in 1786, there were issued in 6-pfennige and other pieces 12,586,863 thalers' worth. From this time onward, up to the decrying of this depreciated divisional money at the peace of Tilsit, there was minted a matter of 29,628,807 thaler worth.

The total, therefore, was 42,215,670 thalers; the pure silver content of which was only 28,243,780 thalers.

By the publicandum of 4th May 1808, and the edict of 13th December 1811, the value of this mass was reduced, the coins being set at from two-thirds to four-sevenths of their normal value, so that—

| | | |
|---|---|---|
| 42 | groschens | = 1 good thaler. |
| 52 1/2 | " (Bohemia) | |

but it was not till the law of 30th September 1821 that a recoinage could be accomplished.

The provisions of this law of 1821 were as follows:—

1. Gold—

> Friedrichs d'or as hitherto, viz. 35 to the mark = 5 thalers.

4. Silver—

> Prussian thaler as before, 10 1/2 to the mark gross (= 14 to the mark fine).

> 7. Thaler to be subdivided into 30 groschens 12 pfennige; the latter tenderable only up to 1/6 thaler.
>
> 8. Silver groschen = 106 2/3 to the mark, 2/9 silver (= 16 thalers to the mark fine).

By the law of 1821, this standard came into operation in 1626, and it remained the standard for Prussia and her provinces until the developments in modern times, specified in the text, p. 215.

At the convention of Dresden, 30th July 1838, the Prussian 14-thaler or 21-gulden standard was adopted, along with the South German or 24 1/2-gulden standard as the standard of the German Zollverein.

Subsequent to that date the Prussian system was adopted by Hanover, Brunswick, Oldenburg, Mecklenburg, Waldeck, Lippe, etc.

**PRUSSIAN MINTINGS FROM THE REFORM OF 1809 TO THE END OF 1836.**

| | | |
|---|---|---|
| Thaler pieces | 70,850,560 | |
| 1/6 " " | 16,942,307 | |
| | | 87,792,867 |
| Full-weighted silver previously in currency | | 95,709,282 |
| Total of full-weighted silver | | 183,502,149 |
| One-third pieces, minted 1809-11 | | 237,151 |

| | | | |
|---|---|---|---|
| Billon divisional money, minted 1821-36 | | | 2,949,760 |
| | | Thalers | 186,689,060 |
| Withdrawn since 1809-36— | | | |
| 1/5 -thaler pieces | 319,522 | thalers | |
| 1/12 " " | 135,504 | " | |
| 1/15 " " | 428,256 | " | |
| | | | 883,282 |
| | | | 185,805,778 |

The gold coinage had, in Prussia, little relativity to the silver.

From 1750 this state minted double, single, and half-pistoles, under the name, Friedrichs d'or, on the basis of 35 to the mark, 21 3/4 carats fine, for the single piece.

From 1770 the standard was lowered to 21 2/3 carats, and at this it was confirmed by the law of September 1821.

The ascertained mintings of these were as follows:—

| | | |
|---|---|---|
| 1764-86 | 29,599,482 1/2 | thalers. |
| 1787-1808 | 26,515,490 | " |
| 1809-36 | 13,922,960 | " |

But long before 1840 almost the whole of this amount had disappeared or been melted down.

In state payments the Friedrich d'or was taken at 5 thalers, but in ordinary commerce up to 1783 they were taken at 5 1/4 thalers, a tariff which gradually rose to 5 1/3 and 5 1/2 thalers. The purchases of gold which the Bank of England made in 1816, in order to

its resumption of cash payments, drove the pistole or Friedrich d'or up to 5 3/4 thalers, and it was not for ten years that it fell back to 5 2/3 thalers.

Although paid by Government at this latter, and so continued till the Mint Convention of 1853, it was only as a mercantile commodity. The only legal standard and tender in Prussia was silver (the silver thaler), to which gold was varyingly ratable, according to market fluctuations.

The Prussian system thus described remained in force until the Vienna coinage treaty of 24th January 1857, the details of which have been already stated in the text. The resolutions of that treaty were adopted by the Prussian Mint law of 4th May 1857, as follows:—

1. The Prussian pound of 500 grms., decimally divided, is substituted for the previous standard of 233.865 grms.

2-6. The thaler continues the regular silver coin of the country—

Thirty thalers to the pound of pure silver, .900 fine.

Thus the 30-thaler standard to take the place of the old 14-thaler standard, but the two to be treated as the same.

The thaler to be coinable as a convention thaler or Vereins thaler; thaler to be subdivided into 30 groschens, at 12 pfennige.

7-8. Divisional coin limited in tender to 1/6 thaler as before, and both minted on a 34 1/2-thaler standard.

11. Gold commercial coins shall be coined under the names of "crown" and "half-crown," in the form and

with the attribution of confederation coins, viz.—

1. Crown, $^1/_{50}$ of a pound of fine gold (.900 fine).
2. Half-crown, $^1/_{100}$ " "

These coins shall be the special gold coins of the country, and other gold pieces shall not henceforth be coined.

14. The silver value of the gold coinage shall be entirely fixed by the relation of the supply to the demand, and no one is bound to take gold in the place of the legal silver value of the country.

16. Our Finance Minister is empowered to settle the price at which the crown and the half-crown shall be taken into our pay offices.

The established rate, as well as the permission to receive crowns and half-crowns instead of silver coins in our offices, may at any time be revoked or restricted by the publication of a proclamation by our Finance Minister.

19. Our Minister of State is also authorised to fix the value above which foreign gold and silver coins must not be offered or given in payment in ordinary transactions.

The subsequent course of events and the existing Prussian (Imperial German) system have been already specified (see text, p. 215).

## Hamburg.

The origin of the common Mint standard of Lübeck and Hamburg was the division of the mark into 16 schillingen, and each schilling into 12 pfennige. The

metal mark and the Mint mark soon parted company, and by the time of the treaty of 1255 the two states agreed to mint the mark of fine silver into 38 schillingen 10 pfennige (= 2 marks 6 schillingen 10 pfennige).

The Wendish standard was established by the adoption in 1325 of the Hamburg-Lübeck treaty by Wismar and Lüneburg.

In 1433 this Wendish standard adopted the Cologne mark as its weight basis.

**COURSE OF DEPRECIATION OF THE STANDARD.**

| | | | | Mks. | Sch. | Pf. |
|---|---|---|---|---|---|---|
| 1226 | The | of fine | coined | 2 | 2 | 0 |
| — | mark | silver | into | | | |
| 1255 | " | " | " | 2 | 9 | 5 |
| 1293 | " | " | " | 2 | 9 | 8 |
| 1305 | " | " | " | 2 | 15 | 5 |
| 1325 | " | " | " | 3 | 0 | 9 |
| 1353 | " | " | " | 3 | 10 | 11 |
| 1375 | " | " | " | 4 | 3 | 0 |
| 1398 | " | " | " | 4 | 15 | 2 |
| 1403 | " | " | " | 5 | 1 | 11 |
| 1411 | " | " | " | 5 | 12 | 5 |
| 1430 | " | " | " | 8 | 8 | 0 |
| 1450 | " | " | " | 9 | 12 | 2 |
| 1461 | " | " | " | 11 | 8 | 10 |
| 1506 | " | " | " | 12 | 8 | 0 |

The Mint Union of the Wendish states continued until the beginning of the seventeenth century, when it expired unperceived. The experience of Hamburg in the *Kipper und Wipper Zeit*, with its resultant

establishment of the Hamburg Bank, has been already referred to.

In 1667 Hamburg freely joined the *Zinnaische* standard, according to which the mark of fine silver was coined into 10 $^1/_2$ thalers (= 31 marks 8 schillingen, *Hamburger courant*). She, however, hesitated to follow the German system in its change over to the Leipzig standard in 1690, and after an interim period of weltering disorder, during which the standard varied from 30 marks to 34 marks 8 schillingen per mark fine of silver, the State adopted in 1725 the so-called Lübeck standard (1 mark fine = 34 marks), as the Hamburger courant.

This standard had existed in Holstein from 1693. In 1788 and 1789 long and serious debates were held in Hamburg on the question of the substitution of a lighter (or lower) standard. And seventy years later a change in such direction had practically effected itself, although not legislatively recognised. By 1850 the actual currency of the state consisted mostly of silver coins of the Prussian (or 14-thaler) standard, circulating at an equivalence of 1 thaler = 2 $^1/_2$ marks Hamburger courant (= 40 schillingen), an equivalence implying a standard of 35 marks courant to the mark of fine silver.

Legally, however, the 34-marks standard remained in force until the coalescence of the free state of Hamburg with the new imperial German system in our own days.

The question of the agio of the *Hamburg banco* system belongs rather to the history of banking.

## German Standards: Silver.

In brief résumé, the historic standards of the German monetary system have been as follows:—Nos. 4, 5, 7, 9, 11, 12, 13 representing the systems in existence at the time of the projection of the great currency reform of 1871:—

1. Old imperial standard of 1559, based on the Reichs Münz ordnung of Ferdinand I., mark of fine silver = 8 thalers. Altered in 1622, so that 9 thalers 2 grs. = 1 mark fine silver.

2. The *Zinnaische* standard, agreed upon by Saxony and Brandenburg at Zinna, 1667, 1 mark fine silver = 10 $^{1}/_{2}$ thaler = 15 $^{3}/_{4}$ guldens.

3. Leipzig standard or Torgau standard (see text, p. 200), mark fine silver = 18 gulden.

4. The Prussian standard, 14 thalers or 21 guldens = 1 mark fine silver (see above, p. 379).

5. Convention standard or Austrian standard, mark fine silver = 20 gulden (see above, p. 375).

6. The 24-gulden standard or new imperial standard of 1766 (see above, p. 377), 1 mark fine silver = 24 guldens.

7. The 24 $^{1}/_{2}$, or South German standard (see above, p. 378), 1 mark fine silver = 24 $^{1}/_{2}$ guldens.

8. The kronen-thaler standard, existing more or less between 1808 and 1837 in such of the states of the South as had adopted the minting of the Brabant or crown thaler-piece, 9.18 to a mark fine, and issued at 2 guldens 42 kreutzers, representing a 24 $^{4}/_{5}$-gulden standard. It was this system which called into being the 24 $^{1}/_{2}$-gulden standard, by the evolution of which it was itself completely superseded.

9. Wechselzahlung, or Wechselgeld, the bank reckoning system of Frankfort-on-the-Maine, 20 $^{4}/_{55}$ guldens = 13 $^{21}/_{55}$ thalers = 1 mark fine silver. The standard was, therefore, $^{4}/_{11}$ lighter than the 20-gulden or convention standard.

10. The Augsburg girogeld, a system which existed till 1st July 1845, and in which the exchange with Amsterdam and Hamburg was expressed. Mark of fine silver = 15 $^{95}/_{127}$ gulden giro (100 gulden giro = 127 gulden of the convention standard). This system was displaced by the introduction of the 24 $^{1}/_{2}$-gulden standard.

11. The Lübeck courant (or Hamburg courant, as described above), the mark of fine silver = 11 $^{1}/_{3}$ thaler, or 34 marks.

12. Hamburg banco, the system of reckoning of the Hamburg Bank. From 1790 the bank reckoned the mark of fine silver = 9 $^{5}/_{24}$ thaler-banco, or 27 $^{5}/_{8}$ mark-banco. The issue rate was, however, 9 $^{1}/_{4}$ thaler, or 27 $^{3}/_{4}$ mark-banco, the slight premium simply covering the expenses of the bank. In 1846 this difference was abolished, the mark of fine silver both for receipt and disbursement being reckoned at 27 $^{3}/_{4}$ marks (27 marks 12 schillings). The Hamburg banco was, therefore, appreciated above the Hamburg courant by a matter of 22.5225 per cent.

13. The Schleswig-Holstein courant, mark of fine silver = 11 $^{9}/_{16}$ thaler, or 34 $^{11}/_{16}$ marks.

## Gold Standards.

1. Imperial or ducat standard. The Imperial Mint Ordinance of 1559 contains the first mention of the

ducat in German legislation, prescribing it 67 to the mark, 23 $^{1}/_{2}$-carat fine. Subsequently the standard varied slightly. Austria minted them 23 carat 8 grs. for herself (*kaiserlichen*), at 23 carat 9 grs. for Hungary (*kremnitzer*). The other German states approximated between a 23-carat 6 grs. and a 23-carat 8 grs. standard. Baden struck ducats 22 carat 6 grs. fine, 63.697 to the mark.

2. The *Pistole* standard (*Friedrichs d'or*, *August d'or*, *Wilhelms d'or*, *Carls d'or*, or generally, *Louis d'or*), mostly in the Northern States of Denmark, mostly 35 $^{1}/_{6}$ to the mark, 21 $^{1}/_{2}$ carats fine, though with considerable variations (*e.g.* the Saxon *august d'or*, 35 to the mark, 21 carats 8 grs. fine. In Bremen this was the legal currency, the *louis d'or* being taken at 5 thalers at 72 groot, each groot at 5 schwaren). For a considerable period, far into the present century, the merchants of Mecklenburg, Hanover, and Brunswick kept their accounts in gold pistoles (= 5 thalers). Prussia (as above, p. 382) fixed the pistole at 5 $^{2}/_{3}$ thalers, but elsewhere it had a varying (mercantile) equivalence.

3. The gold gulden standard. The last of the three Imperial Mint Ordinances (1559) prescribed gold gulden 72 to the mark, 18 $^{1}/_{2}$ carat fine. They continued to be coined in Southern German states and in Hanover up to the middle of the eighteenth century.

**TABLE OF THE GOLD COINS OF GERMANY—GULDEN, DUCAT, AND FRIEDRICHS D'OR.**



| Year. | Tale to the Cologne Mark. | Standard. | | Value of the Piece as expressed in Coin of the 20-Florin Standard. |
|---|---|---|---|---|
| | | Kar. | Grs. | Fl. Kr. Pfge. |
| 1252— | | | | |
| Florentine florin or gold gulden (64 to the Florence mark) | 44 3/8 | 24 | 0 | 6 22 3 405/2911 |
| 1371— | | | | |
| Gold gulden of Cune, Archbishop of Treves, Wenceslaus of Bohemia | 66 | 23 | 0 | 4 6 2 434/781 |
| | | (and 1 | 0 of silver) | |
| 1386 and 1399— | | | | |
| Gold gulden of the Rhenish Princes. Adopted by Rupert II. in 1402 | 66 | 22 | 6 | 4 1 1 85/781 |
| | | (and 1 | 6 of silver) | |

| | | | | |
|---|---|---|---|---|
| 1409— The gulden of the three Spiritual Electors (adopted in the same year by the Netherlands at Speyer, and by the States of the Empire at Cologne) | 66 | 22 | 0 | 3 55 $\frac{3}{517/721}$ |
| 1419— Gold Gulden of Elector Frederick of Brandenburg (66 to the Nürnberg mark) | 64 $\frac{1}{2}$ | 19 | 0 | 3 28 $\frac{1}{2851/3053}$ |
| 1422— Gold gulden of King Sigismund (68 to the Nürnberg mark) | 66 $\frac{1}{2}$ | 22 | 6 | 3 59 $\frac{1}{3049/3052}$ |
| 1428 and 1429 — | | | | |
| | | | | |

| | | | | |
|---|---|---|---|---|
| Gold gulden of Emperor Sigismund (confirmed at Frankfort and Nürnberg, 1433, 1438, and 1442) 1438— | 68 | 19 | 0 | 3 17 $18\frac{3}{1207}$ |
| Gold gulden of the Elector of Mainz, 1442— | 67 | 19 | 0 | 3 20 $3886\frac{2}{4757}$ |
| Gold gulden of Emperor Frederick IV. 1477— | 72 | 19 | 0 | 3 6 $14\frac{3}{213}$ |
| Gold gulden as adopted by agreement of several Electoral Princes at Frankfort | 68 $\frac{2}{3}$ | 19 | 0 | 3 15 $2421\frac{3}{7313}$ |
| 1495 and 1497 — | 69 $\frac{1}{3}$ | 18 | 10 | 3 12 $3669\frac{0}{3692}$ |
| Gold gulden as adopted at Worms, and in 1498 at Lindau and Freiburg 1506— | 71 $\frac{1}{3}$ | 18 | 6 | 3 3 $3104\frac{2}{15194}$ |
| | | | | |

| | | | | |
|---|---|---|---|---|
| Gold gulden as by treaty between Bamberg, Würzburg, and Brandenburg<br>1509— | 71 1/3 | 18<br>(and 3 6 of silver) | 6 | 3 6 0 132/7597 |
| Gold gulden adopted by the Reichstag at Frankfort<br>1524— | 71 1/3 | 18<br>(and 4 0 of silver) | 6 | 3 6 1 3185/7597 |
| Gold gulden as determined by the Imperial Mint Ordinance of Charles V. at Esslingen<br>1551— | 89 | 22 | 0 | 2 54 3 3019/6319 |
| Gold gulden as determined by the Imperial Mint Ordinance of Charles V. at Augsburg<br>1559— | 71 1/3 | 18<br>(and 3 8 of silver) | 6 | 3 6 0 3682/7597 |
| | | | | |

| | | | |
|---|---|---|---|
| Gold gulden as determined by the Imperial Mint Ordinance of Ferdinand I. | 72 | 18 6 (and 3 8 of silver) | 3 $4\frac{1}{2267/3834}$ |
| Gold ducat (*ibid.*) | 67 | 23 $^{2}/_{3}$ | (10 = 1 fl. 44 kr.) |

**TABLE OF THE GOLD GULDEN AND DUCAT—*continued.***

From 1559 the Tale and Standard remained legally unaltered; the only variations being thenceforward in equivalence or tariff, thus—

| | | |
|---|---|---|
| Fair of 1585 | | Set the Rhenish gold gulden and Philipps thaler at 82 kr. |
| 1596 | | Imperial Commissioners at Frankfort set the gold gulden at 80 kr. |
| About 1600 | | Gulden of 1551, of 72 kr., set at 94 kr. |
| | | Gulden of 1559, of 60 kr., set at 79 kr. |
| 1602, April 10 | | Brandenburg ducat set at 2 fl. |
| | | Philipps thaler and Reichs gold gulden set at 20 batzen. |
| 1601 and 1602 | Franconia<br>Bavaria<br>Swabia | ducat, 67 to Cologne mark, 23 carats 8 grs. |

| | | |
|---|---|---|
| 1604 | | *Ibid.* (*Münz Probations Tag*), gold gulden, 72 to Cologne mark, 18 carats 6 grs. fine. |
| 1623, July 31 | | Mint Edict of John George, Duke of Saxony, Rhenish gold gulden set at 1 gulden 6 good groschen. |
| 1623 | | Higher Circles gold gulden = 1 fl. 44 kr. |
| " | | Higher Circles ducat = 2 fl. 20 kr. |
| " | August 23 | Würtemberg gold gulden = 1 fl. 44 kr. |
| " | " | Würtemberg gold ducat = 2 fl. 20 kr. |
| " | " 29 | Archduke Leopold of Austria set the gold gulden at 1 fl. 52 kr. |
| " | " | Archduke Leopold of Austria set the ducat2 fl. 30 kr. |
| " | October 19 | Strasburg gold gulden = 1 fl. 52 kr. |
| " | " | Strasburg ducat = 2 fl. 30 kr. |
| " | | Electoral Saxony, Philipps or gold gulden = 30 groschen. |
| " | | Electoral Saxony, ducat = 36 groschen. |
| " | | Brandenburg gold gulden = 27 groschen. |
| " | | Brandenburg ducat = 38 groschen. |
| " | October 23 | Frankfort gold gulden = 1 fl. 44 kr. |
| " | " | Frankfort ducat = 2 fl. 24 kr. |
| " | | Lower Saxony gold gulden = 26 $^{2}/_{3}$ groschen (= 1 fl. 40 kr.). |

| | |
|---|---|
| 1624 | Three Circles (Franconia, Bavaria, Swabia) |
| | gold gulden = 1 fl. 50 kr. |
| " | ducat = 2 fl. 30 kr. |
| 1637 | gold gulden tolerated at 2 fl. |
| " | ducat gulden tolerated at 3fl. |
| | (But to be reduced respectively to 1 1/2 fl. and 2 fl. 24 kr.) |
| 1659 | Three Circles gold gulden = 2 fl. 10 kr. |
| " | Three Circles ducat = 3 fl. |
| 1665 | Three Circles (Franconia, Bavaria, Swabia) ducat = 3 fl. |
| 1669 | Three Circles ducat = 3 fl. |
| " | Three Circles gold gulden = 2 fl. 20 kr. |
| 1690 | In consequence of Leipzig standard, gold gulden = 2 fl. 56 kr. |
| " | In consequence of Leipzig standard, ducat = 4 fl. |
| 1695 | Austrian ducat = 4 fl. |
| 1736 | Austrian gold gulden = 3 fl. |
| 1738 | Austrian ducat = 4 fl. (but circulating at 4 fl. 15 kr.). |
| 1748 | Austrian ducat = 4 fl. 10 kr. |
| 1751, May 2 | Austrian Imperial ducat = 4 fl. 10 kr. |
| " " | Austrian Kremnitz ducat = 4 fl. 12kr. |
| " " | Austrian Other ducat = 4 fl. 7 1/2 kr. |

| | |
|---|---|
| 1771, March 23, Austria (Imperial Patent) | Kremnitz ducat = 4 gulden 18 kr. |
| " " | Imperial, Bavaria, Salzburg ducat = 4 gulden 16 kr. |
| " " | Holland and others ducat = 4 gulden 14 kr. |
| 1783, Sept. 1, | Kremnitz ducat and zecchini = 4 gulden 22 kr. |
| " " | Imperial ducat = 4 gulden 20 kr. |
| " " | Holland ducat = 4 gulden 18 kr. |
| 1786, Jan. 12, | Imperial ducat = 4 gulden 30 kr. |
| " " | Kremnitz Bavarian Salzburg ducat = 4 gulden 20 kr. |
| " " | Holland ducat = 4 gulden 18 kr. |
| | (This equivalence of 4 fl. 30 kr. remained till the Vienna Convention (at 67 to the Koln mark, 23 $^{2}/_{3}$ fine = 4 $^{1}/_{2}$ gulden, ratio = 1:15 $^{102}/_{355}$ (15.2873)), the ratio prescribed by the Edict of the Emperor Joseph II., of 12th January 1786.) |
| 1756 | Souverain, or souverain d'or (originally Netherlands), minted in Vienna Mint, 22 carat $^{3}/_{4}$ gr., 42.091 to mark gross (45.874 fine) = 6 gulden 11 kr. 1 pf. |
| 1786, Jan. 12, | Souverain, or souverain d'or = 6 gulden, 40 kr. (makes a ratio of 15.2923). |
| 1750 | Prussian Friedrichs d'or, 35 to mark, 21 $^{3}/_{4}$ carat fine (= 261 grs. of fine gold to the piece). |

| | |
|---|---|
| 1770 | Prussian Friedrichs d'or, 35 to mark, 21 $^{2}/_{3}$ carat fine (= 260 grs. fine gold to the piece). (Confirmed by law of 30th Sept. 1821.) |
| 1857 | Vienna Convention trade money (see p. 210). |
| 1871 | 10-mark piece, 139 $^{1}/_{2}$ to the German pound, .900 fine. |

## TABLE OF THE THALER.

1555, Brunswick, Luneberg, Hanover, etc.—Thaler = 32 Marien groschen = 24 silver groschen.

1558, Saxony Mint Ordinance (renewing previous ordinances in spite of the Imperial Ordinance)—Thaler or gulden thaler, 14 loth 8 grs. fine, 8 to mark (= 8 $^{56}/_{65}$ to mark fine) = to 24 groschen: mark fine therefore equal to 10 fl. 38 kr.

1559, Imperial Ordinance—forbidden.

1566, Reichstag of Augsburg—again authorised; 14 loth 4 grs., 8 to the mark fine; equal 72 kr.; mark fine therefore = 9 thalers 68 kr. (10 fl. 12 kr.).

1585, Frankfort Fair—Philipps thaler = 82 kr.

1596, Imperial Commissioners at Frankfort—Philipps thaler provisionally set at 72 kr.

Same year, December 1596, Imperial Commissioners at Strasburg—Reichs thaler = 84 kr. (or 21 batzen), according to which mark of fine silver = 12 fl. 36 kr.

Beginning of seventeenth century (Imperial letters)—Reichs thaler recognised at 90 kr. as highest limit.

1603 (Higher Circles)—Reichs thaler recognised at 90 kr.

Electoral Saxony—Reichs thaler = 24 good groschen.

1610, Lower Saxony—Reichs thaler = 28 good groschen; Philipps thaler, 30 1/3 good groschen (mark fine silver = 12 fl. 9 kr.).

1617, Lower Saxony—Reichs thaler = 30 silver groschen.

1665 (Three Circles, 1667 *in comitiis*)—Reichs thaler = 96 kr. (fine mark = 14 fl. 24 kr.).

1667, Saxony and Brandenburg (Zinnaische Fuss)—Reichs thaler = 1 fl. 45 kr. = 28 good groschen (fine mark = 15 3/4 fl.).

1669 (Three Circles)—Reichs thaler reduced to 90 kr. (fine mark = 13 fl. 30 kr.).

1680 (the Three Circles carried it *in comitiis*)—Reichs thaler reduced to 90 kr. (fine mark = 13 fl. 30 kr.).

1681, Emperor at Salzburg set the Reichs thaler = 96 kr.

1690 (Leipzig Mint, for Saxony, Brandenburg, Brunswick, Luneburg)—Mark fine = 12 thalers = 18 fl.; Reichs thaler = 2 fl. (120 kr.).

1691, rejected by Hamburg, Lübeck, and Bremen, who stuck to Reichs thaler = 24 groschen, or 48 schillingen, or 90 kreutzers, or 3 marks (to be reduced to this by three drops).

1750, Prussia—Frederick V. 14-thaler, or 21-gulden fuss (14 thalers to the mark fine), thaler = 24 groschen, 1 groschen = 12 pfennige.

1821, Thaler = 30 groschen.

1857, Thaler = 30 to the pound of pure silver, .900 fine.

1871, Thaler = 3 marks (see p. 216).

**TABLE OF THE GROSCHEN.**

| | Tale to the Cologne Mark. | Standard. | |
|---|---|---|---|
| | | Loth. | Grs. |
| 1226— | | | |
| The Gros Tournois minted at Tours in France (58 to the troy mark) | 55 1/10 | 15 | 6 |
| 1296— | | | |
| Groschen of Bohemia and Meissen | 63 1/2 | 15 | 0 |
| 1324— | | | |
| Groschen of Meissen | 64 1/2 | 15 | 0 |
| 1341— | | | |
| Groschen of Bohemia | 78 | 10 | 0 |
| 1350— | | | |
| Meissen | 91 | 14 | 0 |
| 1364— | | | |
| Bohemia | 74 1/2 | 9 | 0 |
| 1378— | | | |
| Bohemian groschen, as by the Constitution of Charles IV. and Wenceslaus | 70 | 14 | 1 |
| 1380— | | | |

| | | | |
|---|---|---|---|
| Meissen | 72 | 13 | 0 |
| 1407— | | | |
| Würzburg (74 to the Würzburg mark) | 72 $^{40}/_{131}$ | 8 | 0 |
| 1444— | | | |
| Saxony and Meissen | 88 | 7 | 13 |
| 1444— | | | |
| Frederick II. of Saxony (four kinds of groschen) | 160 | 16 | 0 |
| | 120 | 12 | 0 |
| | 104 | 8 | 0 |
| 1484— | | | |
| Archduke Sigismund of Austria (8 gulden groschen to the Vienna mark) | 6 $^{206}/_{307}$ | 16 | 0 |
| 1490— | | | |
| Schwart groschen | 103 | 5 | 0 |
| Large groschen of Hesse | 112 | 6 | 0 |
| Hamburg | 104 | 9 | 15 |
| Lübeck | 107 | 9 | 13 |
| Bohemia | 84 | 6 | 12 |
| (18 other species concurrent.) | | | |
| 1524— | | | |
| Imperial Mint Ordinance of Charles V. | 136 | 12 | 0 |
| 1551— | | | |
| Imperial Mint Ordinance of Charles V. (16 contemporary species.) | 94 $^{1}/_{2}$ | 7 | 5 |
| | 100 | 7 | 6 |
| 1559— | | | |

| | | | |
|---|---|---|---|
| Imperial Mint Ordinance of Ferdinand I.—Reichs groschen | 108 1/2 | 8 | 0 |
| 1572— | | | |
| Lower Saxony—Silver groschen | 108 1/2 | 8 | 0 |
| Lower Saxony—Marien groschen | 155 1/2 | 7 | 11 |
| 1573— | | | |
| Brandenburg | 108 | 8 | 3 1/2 |
| 1610— | | | |
| Lower Saxony | 116 | 14 | 4 |
| 1617— | | | |
| Lower Saxony | 144 | 8 | 0 |
| 1622— | | | |
| Higher and Lower Saxony | 108 1/2 | 8 | 0 |
| 1667— | | | |
| Brunswick and Luneberg— | | | |
| Good groschen | 160 | 10 | 0 |
| Marien groschen | 192 | 8 | 0 |
| 1669— | | | |
| The Three Circles (Franconia, Bavaria, and Swabia) | 141 2/3 | 8 | 0 |
| 1680— | | | |
| The Three Circles (Franconia, Bavaria, and Swabia) | 141 | 8 | 0 |
| 1690— | | | |

| | | | |
|---|---|---|---|
| Leipzig standard—Good groschen | 150 | 8 | 0 |
| Leipzig standard—Marien groschen | 162 1/2 | 5 | 14 |
| 1738— | | | |
| As adopted *in comitiis*— | | | |
| Groschen | 125 | 6 | 2 |
| Imperial groschen | 134 49/64 | 5 | 13 1/4 |
| Marien groschen | 171 | 6 | 0 |

**FOOTNOTES:**

[24] Heller were first minted in 1228 at Halle, but by the year 1420 they had sunk to the equivalence of a half-pfennige. Of the origin of the kreutzer less is known, as few, if any, records of it occur before its minting in the Tyrol in 1490. Its subsequent variation in different parts of Germany, and at different times, it is almost impossible to give account of.

# APPENDIX VI

THE MONETARY SYSTEM OF FRANCE

The metric system on which the French Mint was worked throughout the period treated of in this work

up to the Revolution was as follows:—

1 mark = 8 oz.
" = 64 gros. (8 × 8).
" = 192 dens. (64 × 3).
" = 4608 grs. (192 × 24).

An alternative subdivision of the ounce was as follows:—

1 oz. = 20 esterlings.
" = 320 mailles (20 × 16).
" = 640 felins (320 × 2).

For the alloy or standard the mark was thus subdivided:—

For gold mark = 24 carats each subdivided into 32 parts.
For silver mark = 12 dens. each subdivided into 24 grms.

In France fine gold was only refined to 23 $^{26}/_{32}$ carats, and fine silver 11 deniers 18 grs. In calculation the absolute fineness of 24 carats and 12 deniers must be used.

The system of reckoning was as follows:—

1 livre = 20 sols.
1 sol. = 12 den.
1 den. = 2 oboles.
1 obole = 2 pites.

1 pite = 2 semipites.

The reckoning by livres, sols., deniers was derived from the Frankish kings. For a time the system of reckoning by the mark threatened to replace it, but in 1313 it was again authorised by Philippe le Bel.

The origin of the difference between the livres Tournois and the livres Parisis is to be sought in the feudal Mint franchises of the barons. At one time there was a difference between the two systems of 25 per cent., the barons who had the right of minting preferring to do so at Tours, or according to the Tours weight, which was the more depreciated of the two, while at Paris the French kings attempted to keep up a tradition of a better weight standard.[25]

The distinction of livres Tournois and livres Parisis was maintained until the days of Louis XIV., when (1667) it was abolished, and the reckoning by a single livre, sol., denier, was established. (For the intermediate experiment of Henry III. see text p. 87.) [26]

The monetary system of Charlemagne was the precursor and source of the chief currency systems of mediæval and modern Europe, with the exception of Spain. It was itself an imitation of the system of the Eastern Empire.

Its basis was the *libra* or pound, which occurs in two forms—(1) the gold pound, (2) the silver pound. Under the first race of the French kings the monetary divisions of the former were—

1. The gold solidus, a name which gave birth to the Spanish and Italian soldo and the French sol. (*sou*).

2. The third of the gold solidus (Triens or Tremissis).

Of the latter the aliquot parts were—

1. The silver solidus.
2. $^{1}/_{3}$ silver solidus (Tremissis).
3. The denarius.

1 gold solidus = 3 $^{1}/_{3}$ silver solidi = 40 denarii.
1 silver solidus = 12 denarii

Under the system of the Eastern Empire the gold solidus had weighed 85 $^{1}/_{3}$ grs. and under the Merovingian Kings 70 $^{1}/_{2}$ grs. Under the rule of the Second House a considerable alteration took place. Charlemagne adopted for the basis of his system the East Frank or Rhenish libra, which was one-fourth heavier than the Roman libra adopted by the Merovings. His denarius accordingly weighed 32 grs. If ideally constructed the system, as far as silver is concerned, would be this—

12 denarii = 1 solidus.
20 solidi = 1 libra.
32 × 20 × 12 = 7680 grs. = 1 libra.

As far as the more precious metal is concerned, the gold solidus was, as a matter of fact, hardly to be met with under the second race. But, theoretically, it was still considered equal to 40 denarii.

40 × 32 = 1280 grs.
$^{1280}/_{12}$ = 106.6 grs. for the gold solidus.

But there are some actually met with containing 132 grs.

*Sols d'or* as a reminiscence of the first and second race are said to have still lingered in use at the commencement of the third race of kings. Under Philip I. they occur as *francs d'or* and *florins d'or*. In speaking of this latter term in the account of Florentine money (Appendix I. *supra*, p. 301), it has been pointed out as possible that it is merely the name for an ideal money, not an actual coin. (See however, preface, p. xiii.)

The actual reinstitution of gold monies in France has been already dealt with (text, p. 10). Of the species of the gold monies it would be almost an impossibility to speak.

Putting aside the disputed florin d'or, the first authenticated type of the gold monies was the *aignel d'or* or *denier d'or a l'aignel*, so called from the lamb (agneau = aignel), stamped on it. Under St. Louis, to whom it is first assigned, it weighed 3 deniers 5 grs., was of fine gold and worth 12 sols. 6 deniers Tournois.

Philippe le Bel, Louis Huttin, Philippe le Long, and Charles le Bel maintained this coin at the same weight and standard. Those of King John were of the same standard or fineness, but were slightly heavier, weighing 3 deniers 16 grs. Under Charles VI. and Charles VII. both weight and fineness were considerably reduced. Under the various names of *agnels d'or*, *moutons d'or à la grande laine*, *moutons d'or à la petite laine*, this species had currency in France for nearly two hundred years. The imitations of it in surrounding countries were almost numberless.

*Royal* (for the origin of the piece, see text, p. 10). Philippe le Bel minted *petits royaux d'or fin*, 70 to the mark and with an equivalence of 11 sols. Parisis. Gros royaux were the double of the petits royaux. Charles le Bel and Philippe de Valois struck royaux 58 to the mark. King John struck royaux or *deniers d'or au Roial* 66 and 69 to the mark, Charles V. 63 to the mark, and Charles VI. 64 and 70 to the mark.

*Masses* or *chaises* (*cadieres*, *Royaux durs*), were coined by Philippe le Bel, 22-carat fine and 5 deniers 12 grs. the piece. The *chaises d'or* of his successor varied greatly from these. Philippe de Valois coined them of fine gold, and 3 deniers 16 grs. the piece, and Charles VI. of fine gold 4 deniers 18 grs. the piece. Under Charles VII. the standard was reduced to 16 carats and the weight to 2 deniers 29 grs.

Of other early gold species it is sufficient to mention —

| | | | |
|---|---|---|---|
| *Reines*, | coined by | Philippe le Bel. | |
| *Florin George*, | " | Philippe de Valois. | |
| *Parisis d'or*, | | 32 2/5 to mark | = 20 sols. Parisis. |
| *Lion* | | 50 to the mark. | |
| *Pavillon* | | 48 " | |
| *Couronne* | | 45 " | |
| *Ange or angelot* | | 33 2/5 " | |
| *Denier d'or à l'écu* | | 54 " | |

The last of these species (*deniers d'or à l'écu*) continued to be minted, and had wide currency through the reign of John up to their cessation in 1354. There was, however, great variation in the standard from fine gold to 23, 22 $^{3}/_{4}$, 21, and even 18 carats.

The reign of John was marked, 1361, by the commencement of the coining of the important *franc d'or* of fine gold, 63 to the mark = 20 sols. or 1 livre.

Its standard (of fine gold) was maintained under Charles V. and until Charles VII., but under the latter monarch the weight was reduced (to a tale of 80 to the mark).

*Fleurs de lis d'or* (or *Florins d'or aux fleurs de lis*) were first minted in 1365 by Charles V. They were of fine gold, and weighed exactly 1 gros. Being equivalent to the franc (*i.e.* equal to 1 livre or 20 sols.), it received the same name, being styled *Franc à pied* to distinguish it from the *Franc d'or* proper, which was styled *Franc à cheval*.

*Saluts* were first minted by Charles VI. in 1421 of fine gold, and of the same weight as the *francs à cheval*, but equal to 25 sols.

*Couronnes* or *écus à la couronne* were first coined by Charles VI. in 1384 of fine gold, weighing 3 deniers 4 grs. (*i.e.* 64 to the mark), and equal 22 sols.

This was the most celebrated gold coin of mediæval France. It lasted down to the time of the louis d'or, and was in high repute all over Europe.

Under Charles VI. and Charles VII. numerous changes were made in this piece both in weight and standard. At one time, under Charles VI., the standard fell as

low as 16 carats. In 1436, however, they were again made of fine gold, but 70 to the mark, and issued at an equivalence of 25 sols. In 1455 they were issued 23 1/8 carats fine, 71 to the mark, and = 27 sols. the piece.

In 1473 Louis XI. issued them 72 to the mark; but two years later he began the issue of *écus d'or au soleil* (*crowns of the sun*), of the same fineness as the couronne, but slightly heavier (70 to the mark).

From the days of Charles VIII. the *crown of the sun* (*écus d'or au soleil*, also called *écus au porc-epi*) took the place of older crowns. Under Francis I. they were generally 23 carats fine and 71 1/6 to the mark, under Charles IX. 23 carats fine and 72 1/2 to the mark. At this latter they remained till the days of Louis XIV. The change of equivalence must be followed in the accompanying tables.

From the old *écus à la couronne* must be distinguished the *écus heaumes*, which were issued in small quantities under Charles VI., generally 48 to the mark and 22 carats fine.

*Henris d'or* occur only under Henry II., 23 carats fine, 2 deniers 20 grs. weight, and issued at an equivalence of 50 sols.

*Louis d'or* (see text, p. 91), first issued in 1640 under Louis XIII. in imitation of the Spanish standard; 22 carats fine, 36 1/4 to the mark, and = 10 livres. Standard and weight remained unchanged until 1709. See tables below for subsequent change.

*Lis d'or* have merely a transitory importance. They were issued in 1656 and shortly after, but almost immediately discontinued; 23 1/4 carats fine, 3

deniers 3 $^1/_2$ grs. the piece (60 $^1/_2$ to the mark) = 7 livres (to be distinguished as a third type from the *fleurs de lys d'or* of King John, and the separate *fleur de lys d'or* of Charles V.).

## Silver Coins.

The silver deniers of the first royal race of France averaged 21 grs. in weight. Under the second race a much heavier system was adopted, those of Charlemagne weighing 28 grs., and those of Charles the Bold 32 grs. At the commencement of the third race they were still of fine silver, and weighed about 23 or 24 grs. The process of diminution by alloy and in weight began under Philippe I. For the question of the existence of a silver solidus, see Le Blanc, Introduction, p. xii. If they ever existed their place as a large silver specie was at an early date taken by that of the *gros Tournois* (called also *gros deniers d'argent*, *gros deniers blancs*, and *sols d'argent*), attributed to S. Louis; 11 deniers 12 grs. fine, 7 grs. weight (58 to the mark), and issued at an equivalence of 12 deniers or 1 sol.

In the commencement, therefore, of this piece the gros Tournois was synonymous with the sol. Tournois. With the degeneration of the standard, however, the coin (the gros) parted company from the sol., which remained as a system of reckoning.

Up to the time of Philippe de Valois this money continued of undiminished weight and standard, and of the greatest celebrity. When that prince, in 1343, returned to good money after a period of debasement, he coined the gros Tournois 60 to a mark, of fine silver, and at an equivalence of 15

deniers Tournois. For its subsequent course, see tables *infra*. It is noticeable that while in weight and value the gros Tournois was frequently changed, in fineness no diminution was made.

*Parisis d'argent*, issued only by Philippe de Valois (of fine silver, 4 deniers in weight = 15 deniers Tournois or 1 sol. Parisis).

*Testoons* are to be regarded as the successors of the gros Tournois. They were first issued by Louis XII. in 1513; 11 deniers 18 grs. fine, 7 deniers 12 $^{1}/_{3}$ grs. weight, and = 10 sols. This species continued until its interdiction by Henry III. in 1575, who replaced them in that year by.

*Francs d'argent*, 10 deniers 10 $^{10}/_{23}$ grs. fine, 11 deniers 1 grain weight (or 17 $^{1}/_{4}$ to the mark), and = 20 sols. This piece continued until the days of Louis XIII.

*Quart d'écus*, also issued by Henry III., 11 deniers fine, 7 deniers 12 $^{1}/_{2}$ grs. weight, and = 15 sols. (*i.e.* a quarter the value of the écu d'or, then set at 60 sols.). This piece endured till 1646.

*Louis d'argent*, issued by Louis XIII. (see p. 402, *Louis d'or*), 11 deniers fine, 21 deniers 8 grs. weight for the écus blancs. This money continued till the Revolution.

*Lis d'argent*, issued for a few months in 1656, 11 deniers 12 grs. fine, 6 deniers 5 grs. weight, and = 20 sols.

*Franc*, modern (see text, p. 176).

The history of the French monetary system has been briefly told in the text, pp. 10, 31-40, 83-95,

167-197. The tables of the present Appendix afford particular information as to the course of the above-mentioned coins, down to the last great change in the French system. They bring out also, in strong relief, the numerous and arbitrary and excessive debasements which that system underwent in the Middle Ages. The particular episode of the eighteenth-century depreciation, which followed upon the erection of the system of John Law, may be, in brief, more appropriately sketched here than in the text.

The third of the three great recoinages of 1689, 1693, and 1703 had left the louis d'or tariffed at an equivalence of 15 livres, and the louis d'argent at 4 livres. By the end of 1708 these figures had sunk to 12 livres 15 sols. and 3 livres 8 sols. respectively. By the decree of April 1709 quite a different standard was adopted. The louis d'or was minted 32 to the mark, 22 carats fine, and = 16 livres 10 sols., while the louis d'argent was minted 8 to the mark, 11 deniers fine, and = 4 livres 8 sols. In the month of May 1709 a second edict raised these equivalences to 20 livres and 5 livres respectively. The sufferings of French commerce under this extraordinary tariff led to its annulling by the decree of 30th September 1713, by which a reduction of equivalence was made to 14 livres and 3 livres 10 sols. respectively. In December of the same year a reformation was again attempted. The new species were of the same content and fineness as the old, but were tariffed at 20 livres for the louis d'or, and 5 livres for the louis d'argent, while the unreformed specie were tariffed at 16 livres and 4 livres respectively. Three years later began the period of the monetary disorder of the minority of Louis XV. In November 1716 a new louis d'or was issued, 20 to the mark, 22 carats fine. In

May 1718 again a new issue took place—louis d'or 25 to the mark, 22 carats; louis d'argent 10 to the mark, 11 deniers fine.

There were thus, at the time, four different louis d'or in existence, namely:—

| | | |
|---|---|---|
| The old louis d'or | 36 1/4 | to the mark. |
| The old louis d'or of 1709 | 30 | " " |
| " " 1715 | | |
| " " 1716 | 20 | " " |
| " " 1718 | 25 | " " |

And similarly three kinds of louis d'argents or écus:—

| | | |
|---|---|---|
| The old louis d'argent | 9 | to the mark. |
| The old louis d'argent of 1709 | 8 | " " |
| " " " 1715 | | |
| " " " 1718 | 10 | " " |

On the 25th July 1719 the Compagnie des Indes obtained the profit and farm of the French Mint for a term of nine years. The first outcome of their activity was the issue of the following tariff:—

| | **Livres.** | **Sols.** | **Deniers.** |
|---|---|---|---|
| Écu of 1718 | 5 | 13 | 4 |
| Louis d'argent of 1709 | 7 | 1 | 8 |
| Old louis d'or | 34 | 0 | 0 |
| Old louis d'or of 1709 | 28 | 6 | 8 |

In the same year (1719, the first of their lease) this corporation further issued quite new species, namely, Quinzains d'or = 15 livres, and livres d'argent = 1/6-écu (both being cut at a tale of 65 5/11 to the mark).

On the 5th March 1720 all the species were raised 41 $^{3}/_{11}$ per cent., the louis d'or of 1709 thus rising to an equivalence of 40 livres, and the louis d'argent of the same issue to 10 livres. On the 11th March 1720 the use of the gold specie was forbidden, and a recoinage determined on. These regulations, however, were not carried out, and by July the louis d'or had risen to 60 livres (= 1963 $^{7}/_{17}$ livres to the mark of fine gold), and the louis d'argent to 15 livres (= 130 $^{10}/_{11}$ livres to the mark of fine silver). The same enhancement prevailed in the divisional coin, and the confusion endured till the end of 1720. In September the louis d'or had fallen to 45 livres (= 1472 $^{8}/_{11}$ livres to the mark of fine gold), and the louis d'argent to 11 livres 5 sols. (= 98 $^{2}/_{11}$ livres to the mark of fine silver). At the same time (September) a new fabrication of species, according to the standard of 1718, was undertaken. Louis d'or, 25 to the mark, to issue at 54 livres; louis d'argent (or $^{1}/_{3}$-écu), 30 to the mark, to issue at 3 livres. But from the 24th October a gradual diminution in this tariff was prescribed, and from the 1st of January 1721 these coins were to circulate respectively at 45 livres and 2 livres 10 sols. From the same date the louis d'or of 1709 was to circulate for 22 livres 10 sols., and the louis d'argent of 1709 for 5 livres 12 sols. 6 deniers.

On the 5th January 1721 the contract for coinage held by the Compagnie des Indes was annulled, and an intermediate attempt at reform was made in 1723, when the louis d'or was minted at 37 $^{1}/_{2}$ to the mark = 27 livres, and the louis d'argent at 10 $^{3}/_{8}$ to the mark = 6 livres 18 sols. The downward course of the specie set strongly in, and by 1726 they had fallen to 12 livres and 3 livres respectively. This facilitated the great reform and recoinage of 1726 (see text, p. 169). This recoinage was carried out on

the basis of the edict of 1709—

> Louis d'or, 30 to the mark = 20 livres. Louis d'argent, 8 to the mark = 5 livres.

By the edict of May of the same year their equivalence was raised 20 per cent.—the louis d'or to 24 livres, the louis d'argent to 6 livres.

### TABLE OF THE FRENCH GOLD COINS.

(*Up to 1689, from Le Blanc; 1690 onwards, continued from various sources.*)

| Date. | Price of Mark of Gold. | | | Species. | Star |
|---|---|---|---|---|---|
| | Liv. | Sol. | Den. | | |
| 1226 (S. Louis) | ... | | | Agnel | Fine |
| 1295 (Philippe le Bel) | ... | | | Gros royal | . |
| 1305 | 44 | 0 | 0 | Petit royal | Fine gold |
| 1308, April 16 | 44 | 0 | 0 | Chaise | . |
| 1310, August 12 | 49 | 10 | 0 | Masse | 22 c |
| 1310, January 22 | 55 | 11 | 9 | Agnelet | Fine |
| 1312, August 24 | 55 | 10 | 4 | ... | . |
| 1314 (Louis Huttin), August 25 | ... | | | ... | . |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1314, | November | 29 | 55 | 10 | 0 | ... | . |
| 1315, | May | 6 | | ... | | Agnelet | Fine |
| " | January | 15 | 45 | 0 | 0 | ... | . |
| 1316 (Philippe le le Long), Easter | | | 38 | 0 | 0 | ... | . |
| | December | 8 | 55 | 10 | 0 | Agnelet | Fine |
| 1321 (Charles le Bel), | | | | | | | |
| | February | 20 | 58 | 0 | 0 | Agnel[H] | |
| 1322, | October | 15 | 53 | 6 | 9 | ... | . |
| 1325, | February | 16 | 67 | 10 | 0 | Royal double | Fine |
| 1329 (Philippe de Valois), Dec. 26 | | | | ... | | Parisis | |
| | ... | | | ... | | Royal double | |
| 1330, April 8 (poste monnaie) | | | 41 | 13 | 0 | Parisis | |
| | | | | ... | | Royal double | . |
| | | | | ... | | Agnel | . |
| 1331, | January | 9 | 39 | 0 | 0 | Royal | . |
| 1332, | April | 19 | | ... | | ... | . |
| 1336, | February | 1 | 50 | 0 | 0 | Écu | Fine |
| 1338, | November | 14 | 58 | 0 | 0 | Lion | |
| 1339, | May | 25 | 61 | 10 | 0 | ... | . |
| " | June | 14 | 66 | 0 | 0 | Pavillon | Fine |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | " | August | 10 | 69 | 0 | 0 | ... | . |
| | " | June | 20 | 71 | 0 | 0 | ... | . |
| | " | February | 7 | 82 | 0 | 0 | Couronne | Fine |
| | " | February | 15 | 86 | 0 | 0 | ... | . |
| 1340, | April | | 16 | 96 | 0 | 0 | Double | Fine |
| | | ... | | | ... | | Simple | |
| | " | May | 27 | 100 | 0 | 0 | Doubles | 23 c. |
| | " | October | 7 | 108 | 0 | 0 | ... | . |
| | " | January | 31 | 114 | 14 | 0 | ... | . |
| | " | February | 7 | 115 | 0 | 0 | Anges | Fine |
| | | ... | | | ... | | Demi anges | . |
| 1341, | August | | 23 | 130 | 0 | 0 | Anges | Fine |
| | " | January | 19 | 136 | 0 | 0 | ... | . |
| 1342, | June | | 28 | 168 | 0 | 0 | ... | . |
| | " | September | 16 | 171 | 0 | 0 | ... | . |
| | " | April | 10 | 117 | 0 | 0 | Écu | Fine |
| 1343, | September | | 22 | | ... | | ... | . |
| | | (Forte monnaie) | | 43 | 6 | 8 | ... | . |
| 1344, | March | | 27 | 44 | 3 | 9 | ... | . |
| 1346, | July | | 17 | 50 | 0 | 0 | Chaises | Fine |
| | " | February | 24 | 72 | 0 | 0 | ... | . |
| | " | March | 4 | | ... | | ... | . |
| 1347, | April | | 6 | 75 | 0 | 0 | ... | . |
| | " | April | 14 | 44 | 3 | 4 | Écu | Fine |
| | " | September | 27 | 75 | 0 | 0 | Chaises | Fine |
| | " | January | 11 | 51 | 10 | 0 | Écu | 23 c. |
| 1348, | August | | 30 | | ... | | ... | 22 3/ cara |

| | | | | | | |
|---|---|---|---|---|---|---|
| " | March 12 | 51 | 15 | 3 | ... | 22 c |
| 1349, | May 23 | 52 | 1 | 6 | ... | 21 c |
| " | December 5 | 53 | 0 | 0 | ... | . |
| 1350, April 22 (forte monnaie) | | | ... | | ... | . |
| 1350, September 1 (John I.) | | 53 | 18 | 9 | Écu | 21 c |
| 1351, | June 20 | 54 | 17 | 6 | ... | 20 1/ cara |
| " | July 23 | | ... | | ... | 20 c |
| " | August 18 | 96 | 0 | 0 | ... | . |
| " | August 20 | | ... | | Fleur de Lys | Fine |
| " | September 17 | 56 | 5 | 0 | Écu | 20 c |
| " | September 24 | 58 | 2 | 6 | ... | 18 c |
| " | November 20 | 60 | 0 | 0 | ... | . |
| " | February 3 (forte monnaie) | | ... | | ... | . |
| 1352, | April 21 | 60 | 18 | 9 | ... | . |
| " | May 18 | | ... | | ... | . |
| " | January 18 | 60 | 17 | 6 | ... | . |
| " | February 3 | | ... | | ... | . |
| 1353, | May 1 | | ... | | ... | . |
| " | October 26 (forte monnaie) | 62 | 16 | 4 | ... | . |
| 1354, | November 24 | 60 | 0 | 0 | Moutons | Fine |
| 1355, | June 3 | 61 | 5 | 0 | ... | . |
| " | June 19 | 62 | 10 | 0 | ... | . |
| " | January 3 (forte monnaie) | | ... | | Moutons | . |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1356, | November | 25 | | ... | | Moutons | . |
| " | January | 25 | 63 | 2 | 6 | " | . |
| 1357, | June | 15 | | ... | | Petits moutons | Fine |
| 1358, | August | 31 | 78 | 15 | 0 | Royal | |
| " | April | 20 | 80 | 12 | 6 | " | |
| 1359, March 31 (forte monnaie) | | | | ... | | " | . |
| 1360, January 12 (forte monnaie) | | | 60 | 0 | 0 | Franc | Fine |
| 1361, | April | 23 | 60 | 0 | 0 | ... | . |
| 1363, | July | 29 | 61 | 0 | 0 | ... | . |
| 1364 (Charles V.), May 3 | | | 62 | 0 | 0 | ... | . |
| 1364, | August | 5 | | ... | | Royal | Fine |
| " | September | 10 | | ... | | Franc | |
| 1365, | May | 5 | 62 | 10 | 0 | Fleur de Lis | |
| 1381, (Charles VI.), | | | | | | ... | . |
| | April | 25 | 60 | 10 | 0 | " | |
| 1384, | March | 18 | 65 | 10 | 0 | Écu à la couronne | . |
| 1386, | August | 31 | 66 | 0 | 0 | ... | . |
| 1387, | February | 28 | 66 | 10 | 0 | ... | . |
| 1391, | April | 8 | 67 | 0 | 0 | ... | . |
| 1392, | " | 1 | 67 | 10 | 0 | ... | . |
| 1394, | September | 5 | 68 | 5 | 0 | ... | . |
| 1405, | August | 8 | 68 | 15 | 0 | ... | . |
| 1407, | February | 11 | 68 | 5 | 0 | ... | . |
| 1411, | November | 7 | 70 | 0 | 0 | ... | . |

| | | | | | | |
|---|---|---|---|---|---|---|
| " | February | 12 | | ... | | ... | 23 11 cara |
| " | March | 5 | 70 | 15 | 0 | ... | . |
| 1414, | September | 6 | 72 | 0 | 0 | ... | . |
| 1417, | May | 17 | 92 | 0 | 0 | Moutons | 23 c |
| " | October | 21 | 96 | 0 | 0 | ... | . |
| " | " | 28 | | ... | | ... | 22 c |
| " | December | 9 | 92 | 0 | 0 | Écu heaume | |
| 1418, | July | 2 | 94 | 0 | 0 | ... | . |
| " | March | 7 | 150 | 0 | 0 | Écu à la couronne | 23 c |
| 1419, | June | 18 | 144 | 0 | 0 | Moutons | . |
| " | October | 24 | | ... | | Chaises or doubles | Fine |
| " | February | 26 | 171 | 13 | 4 | Écu à la couronne | . |
| | ... | | | ... | | Moutons | . |
| 1420, | October | 27 | | ... | | Doubles | 22 1/ cara |
| 1421 (forte monnaie), April 26 | | | 72 | 0 | 0 | Écu à la couronne | Fine |
| " | November | 8 | 76 | 5 | 0 | Saluts | |
| 1422 (Charles VII.), January 20 | | | | ... | | Écu à la couronne | 22 1/ cara |
| 1423, | May | 22 | 84 | 0 | 0 | ... | Fine |
| " | January | 28 | | ... | | Moutons | 22 c |
| " | February | 8 | | ... | | Franc à cheval | Fine |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| " | July | 1 | 79 | 0 | 0 | ... | . |
| 1424, | August | 23 | | ... | | Écu à la couronne | 23 c. |
| " | September | 2 | 87 | 0 | 0 | ... | . |
| " | November | 3 | | ... | | Moutons | 22 c. |
| 1425, | October | 3 | | ... | | Écu à la couronne | 23 |
| " | January | 12 | 87 | 10 | 0 | ... | . |
| 1426, | August | 27 | 105 | 0 | 0 | ... | . |
| " | September | 11 | 108 | 0 | 0 | ... | 22 c. |
| " | October | 12 | | ... | | ... | . |
| " | January | 9 | 90 | 0 | 0 | ... | . |
| " | January | 17 | | ... | | ... | 23 c. |
| " | March | 19 | | ... | | ... | . |
| 1427, | May | 27 | 72 | 0 | 0 | ... | . |
| " | July | 19 | | ... | | ... | 21 c. |
| " | August | 28 | 90 | 0 | 0 | ... | 22 |
| " | October | 15 | | ... | | Moutons | 20 |
| " | November | 20 | 80 | 0 | 0 | Écu à la couronne | 20 |
| " | February | 21 | 92 | 10 | 0 | ... | 21 |
| 1428, | July | 31 | 97 | 10 | 0 | ... | 20 |
| " | October | 26 | | ... | | Moutons | 19 |
| " | April | | 88 | 0 | 0 | Écu à la couronne | 18 |
| " | March | 2 | 105 | 0 | 0 | ... | . |
| 1429, | June | 17 | | ... | | ... | 16 c. |
| " | November (forte monnaie) | 14 | 77 | 10 | 0 | Royal | Fine |
| 1429, | December | 7 | | ... | | Écu à la couronne | 22 c. |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1430, | July | 7 | 97 | 0 | 0 | Chaises | 16 |
| " | November | 9 | | ... | | Écu à la couronne | 22 |
| 1431, | May | 30 | 77 | 10 | 0 | Royal | Fine |
| " | September | 27 | 102 | 0 | 0 | ... | . |
| " | February | 9 | | ... | | ... | . |
| " | March | 24 | 88 | 11 | 10 | Écu à la couronne | 20 c |
| 1432, | January | 16 | 78 | 15 | 0 | ... | . |
| " | December | 31 | | ... | | Royal | Fine |
| 1435, | October | 14 | 103 | 10 | 0 | Écu à la couronne | |
| " | February | 21 | 86 | 5 | 0 | ... | . |
| 1437, | September | 1 | 87 | 10 | 0 | ... | . |
| " | November | 22 | 92 | 10 | 0 | ... | 21 c |
| 1438, | April | 30 | 86 | 5 | 0 | ... | Fine |
| 1443, | November | 19 | 87 | 3 | 6 | ... | . |
| 1444, | December | 17 | 87 | 10 | 0 | ... | 23 1/ cara |
| 1445, | September | 24 | 88 | 7 | 6 | ... | . |
| 1446, | June | 1 | 88 | 2 | 6 | Écu à la couronne | 23 3/ cara |
| " | January | 21 | 97 | 15 | 0 | ... | 23 1/ |
| 1447, | July | 27 | 97 | 5 | 7 1/2 | ... | 23 1/ |
| " | October | 27 | 97 | 15 | 0 | ... | 23 1/ |
| 1450, | June | 15 | 99 | 0 | 0 | ... | 23 1/ |
| " | February | 3 | 99 | 5 | 0 | ... | . |
| 1454, | May | 18 | 99 | 10 | 0 | ... | . |
| 1456, | June | 26 | 100 | 0 | 0 | ... | . |
| 1472 (Louis XI.), March 12 | | | | ... | | ... | . |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1473, | June | 18 | 103 | 0 | 0 | ... | . |
| " | January | 8 | 110 | 0 | 0 | ... | . |
| 1475, | November | 2 | 118 | 10 | 0 | Écu au soleil | 23 1/ cara |
| 1487 (Charles VII.), July 30 | | | | ... | | Écu à la couronne | . |
| ... | | | | ... | | Écu au soleil | . |
| 1488, | April | 24 | 130 | 3 | 4 | ... | . |
| 1497 (Louis XII.), April 7 | | | 130 | 3 | 4 | Écu au soleil | . |
| 1507, | November | 24 | | ... | | Écu au porc épi | . |
| 1514 (Francis I.), January 1 | | | | ... | | Écu au soleil | . |
| 1516, | November | 27 | | ... | | " | . |
| ... | | | | ... | | Écu à la couronne | . |
| 1517, | May | 25 | | ... | | Écu au soleil | . |
| 1519, | June | 10 | 147 | 0 | 0 | ... | 22 7/ cara |
| " | August | 18 | | ... | | ... | 23 |
| 1532, | March | 5 | | ... | | ... | . |
| 1539, | February | 24 | | ... | | Écu à la salemand | 23 c |
| 1540, | May | 18 | 165 | 7 | 6 | Écu à la croisette | . |
| 1549 (Henry II.), January 23 | | | 172 | 0 | 0 | Henris | 23 c |
| 1561, (Charles IX.), August 30 | | | 185 | 0 | 0 | Écu au soleil | 23 c |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1569, November | 23 | | ... | | ... | . |
| 1570, August | 30 | | ... | | ... | . |
| 1572, July | 1 | | ... | | ... | . |
| 1573, June | 9 | 200 | 0 | 0 | ... | . |
| 1574 (Henry III.) September | 22 | | ... | | ... | . |
| 1575, June | 17 | | ... | | ... | . |
| " May | 31 | 222 | 0 | 0 | ... | . |
| " June | 15 | 222 | 0 | 0 | Écu au soleil | 23 c |
| " November | 20 | | ... | | ... | . |
| 1602 (Henry IV.), September | | 240 | 10 | 0 | ... | . |
| 1615 (Louis XIII.), February | 5 | 278 | 6 | 6 | ... | . |
| 1630, February | | | ... | | ... | . |
| 1631, August | | | ... | | ... | . |
| 1633, July | | | ... | | ... | . |
| 1636, March | 5 | | ... | | ... | . |
| " May | 8 | 320 | 0 | 0 | ... | . |
| " June | 28 | | ... | | ... | . |
| " September | 22 | 384 | 0 | 0 | ... | . |
| 1640, April | 3 | | ... | | Louis d'or | 22 c |
| 1652 (Louis XIV.), April | 4 | | ... | | ... | . |
| 1655, December | 23 | | ... | | Louis d'or | 23 1/ cara |
| 1662, July | 7 | 423 | 10 | 11 | ... | . |
| 1679, April | 10 | 437 | 9 | 8 1/2 | ... | . |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1686, | July | 29 | 437 | 7 | 5 | Louis d'or | . |
| 1687, | October | 27 | 447 | 7 | 2 | ... | . |
| | | | (Pite) | | | | |
| 1689, | December | 10 | ... | | | ... | . |
| | | | ... | | | Écu d'or | . |
| 1693 | | | 514 1/11 | 0 | 0 | Louis d'or | . |
| 1703 | | | 584 1/4 | 0 | 0 | " | . |
| 1708 | | | ... | | | " | . |
| 1709, | April | | 576 | 0 | 0 | " | 22 c. |
| " | May | | 654 6/11 | 0 | 0 | " | . |
| 1713, | September | 30 | ... | | | " | . |
| " | December | | ... | | | " | . |
| 1716, | November | | ... | | | ... | 22 c. |
| 1718, | May | | ... | | | Louis d'or | |
| 1719, | July | 25 | 927 3/11 | 0 | 0 | " | . |
| | ... | | 1008 | 15 | 0 | Quinzains d'or | . |
| 1720, | March | 5 | ... | | | Louis d'or (of 1709) | . |
| " | March | 11 | 1963 7/11 | 0 | 0 | Louis d'or | . |
| " | September | | 1472 8/11 | 0 | 0 | " | . |
| | ... | | ... | | | " | . |
| 1721, | January | 1 | ... | | | " | . |

| | | | | |
|---|---|---|---|---|
| 1723 | ... | " | . |
| 1726 | ... | " | . |
| " (Recoinage) | 678 15 0 | " | 22 c |
| " May | 740 9 1 | " | Rais per |
| ... | ... | Écu | . |
| 1785, October 30 (recoinage) | 828 12 0 | Louis d'or | 22 c |
| 1803, March 28 | 3444 4/9 francs per kilog. fine = 3100 fcs. per kilog. 9/10 fine. | 40 and 20-franc pieces | Issu pric bein 4/9 p kilo 3091 kilo 9/10 |
| 1830 November 8 | ... | 100 and 10-franc pieces | . |
| 1850 | ... | 10-franc piece | . |
| 1835, February 25 | Mint change = 6 francs per kilog. | ... | . |
| " June 30 | Issue price of kilog. of fine gold altered from 3434 4/9 fcs. to 3437 7/9 fcs. | ... | . |

[G] See De Saulcy, *Documents*, i. 73, where it is stated that the fineness of these pieces was

occasionally below 20 carats.

[H] 1 Edward III. 4496 florins of the lamb worth 3s. 10 1/2d. a piece = £871, 2s. sterling (Exchequer Q.R. Ancient Miscellanea, 624/3. Expenses of Adam, bishop of Worcester, going to Rome).

## TABLE OF FRENCH SILVER COINS.

(*From the same sources, extended as above, p. 408.*)

| Date. | Price of Mark of Silver. | | | Name of Species. |
|---|---|---|---|---|
| | Liv. | Sol. | Den. | |
| 1144 | 0 | 40 | 0 | ... |
| 1158 | 0 | 53 | 4 | ... |
| 1207 | 0 | 50 | 0 | ... |
| 1222 | 0 | 50 | 0 | ... |
| 1226 | 0 | 54 | 7 | Gros Tournois |
| 1283 | 0 | 54 | 0 | ... |
| 1285 | 0 | 54 | 6 | ... |
| 1293 | 0 | 61 | 0 | ... |
| 1295 | | ... | | Petits Tournois |
| 1296, May 20 | 3 | 8 | 0 | ... |
| 1297, July 4 | 3 | 10 | 0 | ... |
| 1298, May 25 | 3 | 15 | 0 | ... |
| 1299, June 7 | 3 | 18 | 0 | ... |
| 1302, April 23 | 4 | 8 | 0 | ... |
| " February 2 | 5 | 4 | 0 | ... |

| | | | | |
|---|---|---|---|---|
| 1303, August 15 | 6 | 0 | 0 | ... |
| 1304, May 7 | 6 | 5 | 0 | ... |
| " June 25 | 6 | 14 | 0 | ... |
| " September 8 | 6 | 15 | 0 | ... |
| " December 13 | 7 | 5 | 0 | ... |
| " March 1 | 7 | 10 | 0 | ... |
| 1305, April 18 | 8 | 10 | 0 | ... |
| 1306, October 1 | 2 | 15 | 6 | ... |
| (forte monnaie) | | ... | | |
| 1308, April 16 | 2 | 19 | 0 | Gros Tournois |
| 1310, January 20 | 3 | 7 | 6 | Bourgeois Forte |
| | | ... | | |
| 1311, July 8 | 3 | 5 | 1 1/2 | Bourgeois |
| | | ... | | Singles |
| 1313, June | | ... | | ... |
| | | ... | | |
| " September 19 | 2 | 14 | 7 | Gros Tournois |
| ... | | ... | | |
| | | ... | | Denier Tournois |
| | | ... | | |
| ... | | ... | | Denier Parisis |
| | | ... | | |
| 1314, November 29 | 2 | 4 | 7 | ... |
| 1315, May 6 | | ... | | Denier Parisis |
| | | ... | | |

| | | | | |
|---|---|---|---|---|
| " | January 15 | 2 | 4 | 0 | Denier Tournois |
| | | | ... | | |
| 1317, | March 1 | 3 | 7 | 6 | Gros Tournois |
| | ... | | ... | | Denier Parisis |
| 1321, | February 20 | 3 | 7 | 6 | Gros Tournois |
| 1322, | October 15 | 3 | 8 | 9 | Denier Parisis |
| " | March 2 | 4 | 0 | 0 | Obole Blanche |
| | | | ... | | |
| 1326, | July 24 | 4 | 10 | 0 | ... |
| | | | ... | | |
| " | January 20 | 5 | 0 | 0 | ... |
| 1327 | " 8 | 5 | 8 | 0 | ... |
| 1328, | November 7 | 5 | 11 | 0 | ... |
| 1329, | December 26 | 4 | 4 | 0 | Gros Tournois |
| | | | ... | | |
| 1330, | April 8 | 2 | 18 | 0 | " |
| | (forte monnaie) | | ... | | |
| | ... | | ... | | Gros Parisis |
| | | | ... | | |
| 1331, | January 9 | 2 | 17 | 6 | ... |
| 1333, | June 12 | 2 | 15 | 6 | Denier Parisis |
| 1336, | February 13 | 3 | 12 | 6 | Gros à la Couronne |
| | | | ... | | |
| | | | | | |

| | | | | |
|---|---|---|---|---|
| 1338, November 14 | 4 | 12 | 0 | " |
| " January 3 | 5 | 0 | 0 | ... |
| 1339, August 19 | 5 | 0 | 0 | ... |
| " February 5 | 6 | 15 | 0 | ... |
| " April 6 | | ... | | ... |
| 1340, August 1 | 7 | 0 | 0 | ... |
| " December 4 | 7 | 10 | 0 | ... |
| " January 27 | 8 | 14 | 0 | Gros à la Fleur de Lis |
| | | ... | | |
| " February 8 | 9 | 4 | 0 | ... |
| " " 13 | 9 | 12 | 0 | ... |
| 1342, June 30 | 12 | 10 | 0 | ... |
| " September 7 | 13 | 0 | 0 | ... |
| 1343, April 9 | 13 | 10 | 0 | ... |
| " September 22 | 9 | 10 | 0 | ... |
| ... | | ... | | Gros Tournois |
| " October 26 | 3 | 4 | 0 | ... |
| (forte monnaie) | | ... | | |
| 1344, February 16 | 3 | 8 | 0 | ... |
| 1345, April 9 | 3 | 10 | 6 | ... |
| 1346, July 17 | 4 | 10 | 0 | Double Parisis |
| " January 27 | 5 | 0 | 0 | ... |
| " February 24 | 6 | 15 | 0 | ... |
| " March 3 | | ... | | ... |
| | | ... | | |
| 1347, July 21 | 7 | 10 | 0 | ... |
| " January 11 | 4 | 16 | 0 | Double Tournois |

| | | | | |
|---|---|---|---|---|
| | | ... | | |
| 1348, August 31 | 5 | 0 | 0 | ... |
| | | ... | | |
| " December 31 | 6 | 0 | 0 | ... |
| | | ... | | |
| 1349, May 12 | 6 | 13 | 0 | ... |
| " August 7 | 6 | 15 | 0 | ... |
| " December 5 | 7 | 7 | 0 | ... |
| " January 20 | 7 | 15 | 0 | ... |
| 1350, April 23 | 5 | 0 | 0 | Double Parisis |
| (forte monnaie) | | ... | | |
| " August 23 | 5 | 5 | 0 | " |
| | | ... | | |
| " October 26 | 5 | 12 | 0 | ... |
| " February 5 | 6 | 0 | 0 | ... |
| " March 6 | 6 | 8 | 0 | ... |
| 1351, May 17 | 6 | 18 | 0 | Blancs |
| | | ... | | |
| " June 23 | 7 | 8 | 0 | ... |
| " August 18 | 8 | 15 | 0 | ... |
| " September 12 | 10 | 0 | 0 | Blancs |
| | | ... | | |
| " October 10 | 10 | 10 | 0 | ... |
| " December 16 | 11 | 0 | 0 | ... |
| " January 25 | 12 | 0 | 0 | ... |
| " February 4 | 14 | 12 | 0 | Gros Tour. |
| | | ... | | Blancs |
| " March 27 | 5 | 6 | 0 | ... |
| (forte monnaie) | | ... | | |
| | | | | |

| | | | | |
|---|---|---|---|---|
| 1352, June 2 | | ... | | ... |
| " July 24 | 6 | 2 | 0 | ... |
| | | ... | | |
| " August 16 | 6 | 10 | 0 | ... |
| " October 24 | 6 | 18 | 0 | ... |
| " November 25 | 8 | 0 | 0 | ... |
| | | ... | | |
| " December 31 | 9 | 0 | 0 | ... |
| " February 6 | 10 | 0 | 0 | ... |
| 1353, April 22 | 12 | 0 | 0 | ... |
| " July 30 | 12 | 15 | 0 | ... |
| " August 2 | 13 | 15 | 0 | ... |
| " October 26 | 4 | 15 | 0 | ... |
| (forte monnaie) | | ... | | |
| " November 27 | | ... | | ... |
| | | ... | | |
| " February 5 | 5 | 7 | 0 | ... |
| " " 17 | 5 | 17 | 0 | ... |
| 1354, April 26 | 6 | 15 | 0 | ... |
| | | ... | | |
| " May 28 | 9 | 12 | 0 | ... |
| | | ... | | |
| " July 5 | 10 | 12 | 0 | ... |
| " September 7 | 12 | 0 | 0 | ... |
| " November 24 | 4 | 4 | 0 | Blanc à la |
| (forte monnaie) | | ... | | Couronne |
| " January 23 | 4 | 16 | 0 | ... |
| " April 4 | 5 | 6 | 0 | ... |
| 1355, May 20 | 6 | 10 | 0 | ... |

| | | | | |
|---|---|---|---|---|
| " | July 6 | 7 | 10 | 0 | ... |
| " | " 17 | 10 | 0 | 0 | Blancs à la Couronne |
| " | August 22 | | ... | | ... |
| " | August 26 | 11 | 0 | 0 | ... |
| " | September 28 | 12 | 10 | 0 | ... |
| " | October 9 | 14 | 0 | 0 | ... |
| " | November 10 | 16 | 0 | 0 | ... |
| " | December 15 | 18 | 0 | 0 | ... |
| " | January 3 (forte monnaie) | 5 | 5 | 0 | ... |
| " | January 5 | | ... | | Blanc à la Couronne |
| " | " 16 | | ... | | Blanc à la Fleur de Lis |
| 1356, | August 3 | 6 | 10 | 0 | ... |
| " | September 19 | 7 | 5 | 0 | ... |
| " | October 28 | 8 | 17 | 0 | ... |
| " | November 23 | 7 | 8 | 0 | Gros |
| " | " 28 | 7 | 8 | 0 | Gros Blancs |
| " | February 7 | | ... | | ... |
| " | March 26 | 6 | 10 | 0 | Gros à la Couronne |
| 1357, | January 23 | 8 | 10 | 0 | Blanc à la Fleur de Lis |

| | | | | |
|---|---|---|---|---|
| 1358, | May 9 | 10 | 0 | 0 | ... |
| " | July 1 | 12 | 0 | 0 | ... |
| " | August 8 | 13 | 10 | 0 | ... |
| " | August 30 | 6 | 15 | 0 | Blancs à la Couronne |
| " | November 13 | 7 | 0 | 0 | |
| " | " 22 | 8 | 0 | 0 | |
| " | December 3 | 8 | 12 | 0 | |
| " | " 9 | 9 | 10 | 0 | |
| " | February 22 | 7 | 0 | 0 | |
| " | " 27 | | ... | | |
| 1359, | April 20 | 7 | 10 | 0 | |
| " | May 28 | 11 | 10 | 0 | |
| | | | ... | | Gros Blancs |
| " | June 5 | 9 | 0 | 0 | Blancs aux trois Fleurs de Lis |
| " | June 12 | | ... | | |
| " | July 9 | | ... | | |
| " | " 12 | | ... | | |
| " | " 31 | 16 | 4 | 0 | |
| " | September 18 | 22 | 13 | 0 | |
| " | October 5 | | ... | | |
| " | " 22 | 29 | 8 | 0 | |
| " | November 27 | 12 | 0 | 0 | Gros à l'estoile |
| " | December 5 | 15 | 0 | 0 | |
| " | " 19 | 18 | 9 | 0 | |

| | | | | |
|---|---|---|---|---|
| " | " | 31 | 23 12 6 | |
| " | January | 2 | 24 12 6 | |
| " | " | 22 | 34 12 6 | |
| " | February | 17 | ... | |
| " | " | 27 | 53 17 6 | |
| " | March | 4 | 77 16 0 | |
| " | " | 21 | 102 0 0 | |
| " | " | 31 | 11 0 0 | Gros Blancs |
| (forte monnaie) | | | ... | |
| 1360, April | | 27 | ... | |
| " | May | 4 | ... | |
| " | " | 26 | ... | |
| " | June | 2 | 7 0 0 | Blancs à la Fleur de Lis |
| " | " | 27 | ... | |
| " | " | 28 | 9 0 0 | |
| " | " | 29 | 10 10 0 | |
| " | August | 7 | 15 0 0 | |
| " | " | 18 | 17 0 0 | |
| " | " | 22 | 18 10 0 | |
| " | September | 7 | 7 0 0 | Blanc à la couronne |
| " | October | 22 | ... | ... |
| " | November | 13 | 8 0 0 | ... |
| " | " | 19 | 9 0 0 | ... |
| " | January | 12 | 5 8 0 | Blanc à la fleur de lis |

| | | | | |
|---|---|---|---|---|
| " | April 3 | 5 | 0 | 0 | Gros Tournois |
| (forte monnaie) | | | ... | | |
| 1364, May | 3 | 5 | 0 | 0 | Gros d'argent |
| 1365, May | 2 | 5 | 5 | 0 | Blanc |
| 1370, June | 19 | 5 | 15 | 0 | Gros d'argent |
| 1372, August | 9 | 5 | 16 | 0 | ... |
| 1374 " | 12 | | ... | | ... |
| 1378 " | 19 | | ... | | ... |
| 1381, April | 16 | 5 | 8 | 0 | Gros d'argent |
| " | August 15 | 5 | 16 | 0 | ... |
| 1384, March | 22 | | ... | | Blanc à l'écu |
| 1386, October | 31 | | ... | | ... |
| 1389 " | 30 | 5 | 18 | 0 | ... |
| " | July 4 | 6 | 3 | 9 | ... |
| 1391, April | 8 | 6 | 5 | 0 | ... |
| 1399, November | 27 | 6 | 8 | 0 | ... |
| 1401, July | 26 | | ... | | Gros |
| 1405 " | 6 | 6 | 12 | 6 | Blanc à l'écu |
| 1411, November | 5 | 6 | 15 | 0 | ... |
| 1413, July | 12 | 7 | 0 | 0 | Gros d'argent |
| 1414, June | 26 | 7 | 2 | 0 | Blanc à l'écu |
| 1417, May | 17 | 8 | 0 | 0 | Gros |
| " | October 21 | 9 | 0 | 0 | ... |
| 1418, May | 28 | 9 | 10 | 0 | ... |

| | | | | |
|---|---|---|---|---|
| " | January 19 | 10 | 0 | 0 | ... |
| " | March | 14 | 0 | 0 | ... |
| " | " 7 | 16 | 10 | 0 | ... |
| 1419, | February 17 | | ... | | Blanc |
| 1420, | April 9 | 18 | 0 | 0 | ... |
| " | May 8 | 26 | 0 | 0 | Gros |
| " | February 11 | | ... | | ... |
| 1421, | April 26 | 7 | 0 | 0 | Gros d'argent |
| 1422, | October 30 | 7 | 10 | 0 | Blanc |
| 1423, | December 31 | 7 | 0 | 0 | ... |
| " | March 10 | | ... | | ... |
| 1424 | " 17 | | ... | | Blanc |
| 1425, | June 9 | 6 | 5 | 0 | Gros |
| " | August 17 | 7 | 0 | 0 | Blanc |
| " | January 23 | 7 | 10 | 0 | Grand Blanc |
| " | ; March 16 | 7 | 5 | 0 | Blanc |
| 1426, | May 28 | 8 | 10 | 0 | ... |
| " | August 20 | 9 | 10 | 0 | ... |
| " | November 19 | 11 | 0 | 0 | ... |
| " | January 11 | 7 | 0 | 0 | ... |
| 1427, | August 26 | 8 | 0 | 0 | ... |
| " | October 4 | 8 | 10 | 0 | ... |
| 1428, | July 31 | 11 | 0 | 0 | ... |
| " | January 24 | 13 | 10 | 0 | ... |
| " | March 2 | 15 | 0 | 0 | ... |
| 1429, | May 4 | | ... | | ... |
| " | June 10 | 20 | 0 | 0 | ... |
| " | November 5 | 7 | 0 | 0 | ... |
| | (forte monnaie) | | ... | | |
| " | January 16 | 7 | 0 | 0 | ... |

| | | | | |
|---|---|---|---|---|
| 1430, December 22 | 6 | 15 | 0 | Gros |
| 1431, January 9 | 7 | 5 | 0 | Blancs |
| 1432, April 11 | 9 | 6 | 1 | ... |
| " August 22 | 9 | 10 | 2 | Gros |
| " September 29 | 9 | 16 | 0 | ... |
| " January 16 | 7 | 5 | 0 | ... |
| 1434, May 28 | | ... | | Petit blanc |
| 1435, September 22 | 9 | 0 | 0 | Blanc |
| " February 21 | 7 | 0 | 0 | ... |
| 1436, May 24 | | ... | | Blanc à l'écu |
| " April 21 | 7 | 8 | 0 | ... |
| 1437, November 27 | 9 | 0 | 0 | ... |
| " April 3 | 7 | 10 | 0 | ... |
| 1440 | 7 | 8 | 0 | ... |
| 1441 | 7 | 10 | 0 | ... |
| 1447, July 7 | 8 | 0 | 0 | Blanc à l'écu |
| " " 27 | 8 | 10 | 0 | Gros d'argent |
| ... | 7 | 10 | 0 | Blanc |
| 1456, June 26 | 8 | 10 | 0 | " |
| ... | 8 | 15 | 0 | Gros d'argent |
| 1465, July | | ... | | ... |
| ... | 8 | 10 | 0 | Blanc |
| 1473, January 8 | 10 | 0 | 0 | ... |
| ... | | ... | | Gros d'argent |

| | | | | |
|---|---|---|---|---|
| 1475, November 2 | | ... | | Blanc au soleil |
| 1488, April 24 | 11 | 0 | 0 | Blanc au soleil |
| 1497 " 7 | 11 | 0 | 0 | Blanc à la couronne |
| 1513 " 6 | 12 | 10 | 0 | Testoons |
| 1514, January 1 | 11 | 0 | 0 | Blancs |
| " February 17 | 12 | 15 | 0 | Testoons |
| 1519, June 10 | 12 | 10 | 0 | Blancs à la couronne |
| 1521, September 20 | 13 | 5 | 0 | Testoons |
| 1532, March 1 | | ... | | ... |
| 1539, February 24 | 12 | 10 | 0 | Blanc à la Salemand |
| 1540, May 18 | 14 | 0 | 0 | Testoons |
| 1541 " 4 | | ... | | Douzains à la croisette |
| 1547, March 31 | | ... | | Douzains |
| 1549, October 25 | 14 | 10 | 0 | Testoons |
| " January 23 | 15 | 0 | 0 | ... |
| 1550, April 20 | 14 | 5 | 0 | Douzains |
| 1561, August 30 | 15 | 15 | 0 | Testoons |
| 1572, June 13 | | ... | | Douzains |

| | | | | |
|---|---|---|---|---|
| 1573 | " 9 | 17 | 0 | 0 | Testoons |
| 1575 | " 17 | | ... | | " |
| " | May 31 | 19 | 0 | 0 | Francs |
| " | " | 17 | 15 | 0 | Douzains |
| 1577, | June 15 | | ... | | Testoons |
| " | November 20 | | ... | | " |
| 1580, | October 17 | 19 | 0 | 0 | Quart d'écu |
| 1602, | September | 20 | 5 | 4 | " |
| " | " | | ... | | Franc |
| " | " | | ... | | Testoons |
| 1636, | May 8 | 23 | 10 | 0 | ... |
| " | June 28 | | ... | | Franc |
| " | September 22 | 25 | 0 | 0 | ... |
| 1641, | November 18 | 26 | 10 | 0 | Louis d'argent |
| | | | ... | | |
| 1652, | April 4 | | ... | | " |
| 1655, | December 23 | | ... | | " |
| 1679, | April 10 | 29 | 11 | 0 | " |
| 1689, | December 10 | | ... | | " |
| " | " | | ... | | Recoinage new species of Louis d'argent |
| 1693, | " | 33 | 16 | 0 | Louis d'argent |
| 1703, | December 10 | 38 $^{10}/_{11}$ | 0 | 0 | Louis d'argent |
| 1709, | April | 38 | 8 | 0 | " |

| | | | | |
|---|---|---|---|---|
| " | May | 43 7/11 | 0 | 0 | " |
| 1713, | September 30 | ... | | | " |
| 1718, | May | ... | | | Louis d'argent or écu |
| 1719, | July 25 | 61 9/11 | 0 | 0 | ... |
| " | ... | 69 1/8 | 0 | 0 | Livres d'argent |
| 1720, | September | 98 2/11 | 0 | 0 | Louis d'argent |
| | ... | ... | | | " |
| 1721, | January 1 | ... | | | " |
| 1723, | ... | ... | | | " |
| 1726, | ... | 46 | 18 | 0 | " |
| 1726, | May | 51 | 3 | 3 | " |
| 1785 | | Silver coins unaltered | | | ... |
| 1803 | | Kilog. fine silver =222 2/8 Francs (218 8/9 Francs being returned to the importer) | | | Franc |

| | | |
|---|---|---|
| 1835, June 30 | Kilog.fine silver =222 $^{2}/_{9}$ Francs (220 Francs being returned to the importer.) | " |
| 1865, Latin Union | ... | ... |

**FOOTNOTES:**

[25] "En 1359 année de grandes secousses dans le prix du marc d'argent le public adopte comme unité l'écu d'or qui n'a pas varié." Vicomte D'Avenel, *Histoire de la propriété, etc.*, i. p. 54.

[26] For an account of the remaining species of *livres*, all differing in value, and amounting to at least twenty in number, *la livre de Provins*, *du Mans*, *de Bretagne*, *Languedoc*, *Dauphiné*, *Bourgogne*, *la livre Augevin*, etc. etc., see Vicomte D'Avenel, *Histoire de la propriété, etc.*, i. 37-39, 482-494.

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## Transcriber's Notes:

There are many possible inaccuracies in the non-English references in this book. The non-English portions are left as printed, unless noted below.

Some fractions, such as 67 $^{47}/_{41}$ on page 314 have a numerator larger than the denominator. Even though these are most likely incorrect, they are left as in the original as there is no way to confirm what they should be.

The following errors in the original text were corrected. In the text they are noted with a dotted underline and a hover text explaining the change as noted below.

Page XIX, Preface: "Dei Münzen der deutschen" corrected to "Die Münzen der deutschen"

Page XXX, Table of Contents, Chapter III: "recoinage of, 1696, 222;" corrected to "recoinage of 1696, 222;"

Page 5, Chapter 1: "in order to the supply of the Italian mints" corrected to "in order to supply the Italian mints"

Page 7, Chapter 1: "the Archbishop of Cologne the Duke of Brabant" corrected to "the Archbishop of Cologne, the Duke of Brabant"

Page 8, Chapter 1: "50 marks 2 oz. 3 1/2 aug." corrected to "50 marks 2 oz. 3 1/2 ang."

Page 79, Chapter 2, in the table "German Gold Guldens:" "1591" corrected to "1581" to match right hand column and date sequence.

Page 87, Chapter 2: "Spanish and Portugese gold ducats" corrected to "Spanish and Portuguese gold ducats"

Page 89, Chapter 2: "the celebrated declaration of 1577, i.e 60 sols." corrected to "the celebrated declaration of 1577, i.e. 60 sols."

Page 141, Chapter 2: "The merchant-adventurers were appealed to to buy up these stocks, but they were unable." corrected to "The merchant-adventurers were appealed to, to buy up these stocks, but they were unable."

Page 155, Chapter 3, in untitled table: second occurrence of "1841-1850" corrected to "1851-1855" to match sequence in table.

Page 169, Chapter 3: "a value of 20 livres; and of silver ecus at 8 3/10 to the" corrected to "a value of 20 livres; and of silver écus at 8 3/10 to the" as écus has the accent on every other occurrence.

Page 176, Chapter 3: "It is on the same conideration" corrected to "It is on the same consideration"

Page 184, Chapter 3: Table header "Silver. (Francs)." corrected to "Silver (Francs)." to match format in other headers and other tables.

Page 198, Chapter 3: "—Franconia, Bavaria, and Suabia—" corrected to "—Franconia, Bavaria, and Swabia—"

Page 206, Chapter 3: "Schwanzburg-Rudolstadt (Unterherrschaft)" corrected to "Schwarzburg-Rudolstadt (Unterherrschaft)"

Page 207, Chapter 3: "each state to give an account of its mintings," corrected to "each state to give an account of its mintings."

Page 219, Chapter 3: heading "England" corrected to "England." to match other headers.

Page 233, Chapter 3: "On this occassion I addressed a letter to a noble Lord," corrected to "On this occasion I addressed a letter to a noble Lord,"

Page 246, Chapter 3: "the ounce of silver was declared worth 6s. 8d" corrected to "the ounce of silver was declared worth 6s. 8d."

Page 251, Chapter 3: "that gold was extremely over-valued in the United" corrected to "that gold was extremely overvalued in the United" as all other occurrences of overvalued are not hyphenated.

Page 287, Chapter 3: "by substituting silver coin or notes based on silver" corrected to "by substituting silver coins or notes based on silver"

Page 294, Chapter 3: "history of the world has been characterstic and uniform" corrected to "history of the world has been characteristic and uniform"

Page 325 appears to be a continuation of the table on page 326. These pages reversed by transcriber.

Page 326, Appendix III: "Cornados viejos" corrected to "Coronados viejos"

Page 353, Appendix IV: "1 gulden 2 francs 11 $^{61}/_{100}$ centimes." corrected to "1 gulden = 2 francs 11 $^{61}/_{100}$ centimes."

Page 364, Appendix V: "The third Imperial Mint Ordinance established an important difference from this system," corrected to "The third Imperial Mint Ordinance established an important difference from this system."

Page 369, Appendix V:

Pfennige 3 " 720 "

corrected to

Pfennige, 3 " 720 "

Page 393, Appendix V: The following 2 dates were a best guess based on the text. The dates were obviously incorrect.

"1855, Frankfort Fair—Philipps thaler = 82 kr." corrected to "1585, Frankfort Fair—Philipps thaler = 82 kr."

"1623 (Higher Circles)—Reichs thaler recognised at 90 kr." corrected to "1603 (Higher Circles)—Reichs thaler recognised at 90 kr."

Page 404, Appendix VI: "15 sols (*i.e.* a quarter the value of the écu d'or, then set at 60 sols)" corrected to "15 sols. (*i.e.* a quarter the value of the écu d'or, then set at 60 sols.)"

Page 407, Appendix VI: "1626 they had fallen to 12 livres and 3 livres respectively." corrected to "1726 they had fallen to 12 livres and 3 livres respectively."

Page 408, Appendix VI: "1329 (Philipp de Valois), Dec. 26" corrected to "1329 (Philippe de Valois), Dec. 26"

Page 411, Appendix VI: "Écu á la" corrected to "Écu à la" under 1425 and 1427

Page 412, Appendix VI: "1487 (Charles VII.)" corrected to "1487 (Charles VII.),"

Page 425, General Index: "Calonne XV., 172." corrected to "Calonne, XV., 172."

"Chambers, Mr., 259." corrected to "Chambres, Mr., 259."

Page 427, General Index: "Freemantle, Sir C.W., 283, 290." corrected to "Fremantle, Sir C.W., 283, 290."

Page 431, Index of Coins: "Angelets, 117." corrected to "Angellets, 117."

"à l'ecu, 420." corrected to "à l'écu, 420." as l'écu is accented on page 420.

Page 432, Index of Coins: "Dukaton of Brabant, 357" spelled "Dakaton of Brabant" on page 357. Don't know which is correct. Both left as printed.

Header starting F was added.

"di sugello, 302, 304." corrected to "di suggello, 302, 304."

Page 433, Index of Coins: "Florens d'or aux Fleurs de lis" corrected to "Florins d'or aux Fleurs de lis"

"Gigliali, 375. (See Florentine.)" corrected to "Gigliati, 375. (See Florentine.)"

"Grosseti, 307." spelled as "Grossetti" on page 307. Don't know which is correct, both left as printed.

Page 434, Index of Coins: "Joachims

thaler or Schlicken o Löwen thaler, 363." correct to "Joachims thaler or Schlicken or Löwen thaler, 363."

Page 435, Index of Coins: "Nobles, 48, 53, 55, 57. (See Rose Nobels, Burgundian.)" corrected to "Nobles, 48, 53, 55, 57. (See Rose Nobles, Burgundian.)"

Page 436, Index of Coins: "Riders Gelderns, 119. (See Rijder.)" Gelderns spelled as "Gelderus" on page 119. Don't know which is correct, both left as printed.

"of esterlings, 55." ditto mark added to represent Shilling

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