enables a large series of coins to be formed.[1] The main reason, however, for the adoption of a duodecimal system appears to have been the preference for the number 12 so frequently shown by early societies; thus, among the Semitic races, the Jews were organized in 12 tribes, and in Italy the Etruscan league consisted of two groups, each of 12 cities. In connexion with this it may be noted that a duodecimal system of currency prevailed south of the Apennines. At Rome the *as* was divided into 12 *uncias*. The modern tendency, however, has been to adopt a decimal scale. This method of notation, which is found very widely in use among savage tribes, is undoubtedly derived from the ten fingers of the human hands. Though the base 10 is not so convenient as 12, it is firmly established as the only system of counting, and is in process of extension to weighing and measuring.[2] For the purposes of currency this scale is not very convenient, as 10 can be only resolved into two factors (2 and 5), and one of these is a rather high number. This disadvantage has retarded the adoption of decimal coinage, and is the base of the objections made to it. It has been contended that it is unsuitable for small purchases, and for such fractions as one-third.[3] France adopted the decimal system of coinage in 1799, and it has now extended over all the countries of the Latin Union (see Table II.). It is also in use in Germany, Denmark, Sweden and Norway, the Netherlands, and Finland, as well as in the United States. But none of these countries has a decimal coinage pure and simple. Intermediate coins are introduced, *e.g.*, in France, 2-franc and 5-franc pieces. In fact, most modern currencies are a combination of the decimal and binary systems, England alone adhering to a modified duodecimal scale. A decimal coinage has for the last sixty years been proposed for England, and it is almost certain that if any one scheme could be pointed out as much preferable to any other it would be accepted. As it is, there are two or three proposals, each commanding some support, while many advocates of the decimal system prefer to wait till an international agreement for its adoption can be obtained. One of the schemes advanced takes the present *farthing* as its base; then 10 *farthings* = 1 *dôit* (2½d.); 10 *doits* = 1 *florin* (2s. 1d.); 10 *florins* = 1 *pound* (20s. 10d.). The advantages of this plan are: (1) that the smaller coins now in use could be preserved (the penny being 4 farthings), (2) retail prices, which are for the smaller articles estimated in pence, need not be altered, (3) nor need those which affect postage, tolls, and mileage charges. Against these may be set the loss of the unit of value, the pound, which should be raised to 20s. 10d., so that all accounts, and all large

[1] J. R. M'Culloch in *Ency. Brit.*, art. "Money," vol. xv. p. 431 (8th ed.).

[2] Tylor, *Anthropology*, pp. 311-312.

[3] Laing and M'Culloch, as quoted above. The former unfortunately prophesies that "the decimal division never will come into general use in France or anywhere else."

TABLE II.—*The Coinage Systems of Continental Europe, exhibiting the gold and silver coins, their weight, fineness, remedy, and approximate value in English and United States money.*

Coins.		Material.	Weight in Grammes.	Millesimal Fineness.	Rem. p. 1000. In Fineness.	Rem. p. 1000. In Weight.	Approximate Money Value. English.	Approximate Money Value. United States.
AUSTRIA-HUNGARY[1]—							£ s. d.	$ c.
100 *Kreutzer* = 1 *Gulden.*	8 Gulden piece	Gold	6·45161	900·	2·	2·5	0 15 10	3 89
	4 " "	"	3·22580	900·	2·	2·5	0 7 11	1 93
	2 " "	Silver	24·6914	900·	2·	2·5	0 3 11½	0 96
	1 " "	"	12·3457	900·	2·	2·5	0 1 11½	0 48
	½ " "	"	5·3419	520·	2·	2·5	0 0 5½	0 12
	20 Kreutzer "	"	2·666	500·	2·	2·5	0 0 4½	0 10
	10 " "	"	1·666	400·	2·	2·5	0 0 2½	0 5
BELGIUM. See FRANCE.								
DENMARK[2]—								
100 *Öre* = 1 *Krone.*	20 Kroner piece	Gold	8·960572	900·	1·5	1·5	1 2 1	5 36
	10 " "	"	4·480286	900·	1·5	2·	0 11 0½	2 68
	2 " "	Silver	15·000	800·	3·	3·	0 2 2½	0 53
	1 Krone "	"	7·500	800·	3·	3·	0 1 1½	0 27
	50 Öre piece	"	5·000	600·	3·	3·	0 0 6½	0 13
	40 " "	"	4·000	600·	3·	3·	0 0 5½	0 10
	25 " "	"	2·420	600·	3·	3·	0 0 3½	0 6½
	10 " "	"	1·450	400·	3·	3·	0 0 1½	0 2½
FRANCE[3]—								
100 *Centimes* = 1 *Franc.*	100 Franc piece	Gold	32·25806	900·	2·	1·	3 19 2½	19 30
	50 "	"	16·12903	900·	2·	1·	1 19 7½	9 65
	20 "	"	6·45161	900·	2·	2·	0 15 10	3 86
	10 "	"	3·22580	900·	2·	2·	0 7 11	1 93
	5 "	"	1·61290	900·	2·	3·	0 3 11½	0 96
	5 "	Silver	25·	900·	2·	3·	0 3 11½	0 96
	2 "	"	10·	835·	3·	5·	0 1 7	0 38
	1 "	"	5·	835·	3·	5·	0 0 9½	0 19
	50 Centimes	"	2·5	835·	..	..	0 0 4½	0 10
	20 "	"	1·	835·	..	..	0 0 2	0 4
GERMANY[4]—								
100 *Pfennige* = 1 *Mark.*	20 Mark piece	Gold	7·964954	900·	..	..	0 19 7	4 76
	10 "	"	3·982477	900·	..	..	0 9 9½	2 38
	5 "	"	1·991239	900·	..	..	0 4 10½	1 19
	5 "	Silver	27·7777	900·	..	..	0 4 10½	1 19
	2 "	"	11·1111	900·	..	..	0 1 11½	0 48
	1 "	"	5·5555	900·	..	..	0 0 11½	0 24
	50 Pfennige	"	2·7777	900·	..	..	0 0 6	0 12
	20 "	"	1·1111	900·	..	..	0 0 2½	0 5
GREECE.* See FRANCE								
ITALY. See FRANCE.								
NETHERLANDS[5]—								
100 *Cents* = 1 *Guilder.*	10 Guilder piece	Gold	6·720	900·	1·5	2·	0 16 6	4 2
	5 "	"	3·360	900·	1·5	2·	0 8 3	2 1
	2½ "	Silver	25·	945·	2·5	2·5	0 4 2	1 0
	1 "	"	10·	945·	2·5	2·5	0 1 8	0 40
	½ "	"	5·	945·	2·5	2·5	0 0 10	0 20
	25 Cents	"	3·572	640·	2·5	2·5	0 0 5	0 10
	10 "	"	1·400	640·	2·5	2·5	0 0 2	0 4
	5 "	"	0·685	640·	2·5	2·5	0 0 1	0 2
NORWAY. See DENMARK.								
PORTUGAL[6]—								
1000 *Reis* = 1 *Milrei.*	Crown or $10·000	Gold	17·735	916·666	2·	2·	2 4 5	10 80
	Half-Crown or $5·000	"	8·867	916·666	2·	2·	1 2 2½	5 40
	One-fifth Crown or $2·000	"	3·547	916·666	2·	2·	0 8 10	2 16
	One-tenth Crown or $1·000	"	1·773	916·666	2·	2·	0 4 5	1 8
	500 Reis	Silver	12·500	916·666	2·	3·	0 2 2½	0 54
	200 "	"	5·000	916·666	2·	3·	0 0 10½	0 21
	100 "	"	2·500	916·666	2·	3·	0 0 5½	0 11
	50 "	"	1·250	916·666	2·	3·	0 0 2½	0 5
ROUMANIA. See FRANCE.								
RUSSIA*[7]—								
100 *Copecks* = 1 *Rouble.*	Imperial or 10 Rouble piece	Gold	13·068	916·666	null	2·	1 11 3	7 72
	Half Imperial or 5 Rouble piece	"	6·544	916·666	"	2·	0 15 10	3 86
	3 "	"	3·926	916·666	"	2·	0 9 6	2 31
	1 "	Silver	20·7315	868·056	"	2·	0 3 2	0 77
	½ "	"	10·3660	868·056	"	2·	0 1 7	0 38
	¼ "	"	5·183	868·056	"	2·	0 0 9½	0 19
	20 Copecks	"	4·146	750·0	"	2·	0 0 7½	0 15
	10 "	"	2·073	750·0	"	2·	0 0 3½	0 7
	5 "	"	1·037	750·0	"	2·	0 0 2	0 4
SERVIA. See FRANCE.								
SPAIN.[8] See FRANCE.								
SWEDEN. See DENMARK.								
SWITZERLAND. See FRANCE.								
TURKEY*[9]—								
100 *Piastres* = 1 *Medjidie.*	Medjidie or Lira	Gold	7·216	916·666	2·	2·	0 18 0	4 40
	½ "	"	3·608	916·666	2·	2·	0 9 0	2 20
	¼ "	"	1·804	916·666	2·	2·	0 4 6	1 10
	20 Piastres	Silver	24·055	830·	3·	3·	0 3 7	0 88
	10 "	"	12·027	830·	3·	3·	0 1 9½	0 44
	5 "	"	6·013	830·	3·	3·	0 0 10½	0 22
	2 "	"	2·405	830·	3·	3·	0 0 4	0 9
	1 "	"	1·203	830·	3·	3·	0 0 2	0 4

* Inconvertible paper currency.

[1] Present system introduced in 1870, in place of system of 1857; 8-gulden piece equivalent to 20 francs; silver not freely coined. The Maria Theresa dollar (28·0644 grammes, 833 fine) is coined as commercial money.

[2] The system now in use in the Scandinavian Union (Denmark, Sweden, and Norway) came into force 1st January 1875. It is a monometallic gold standard on the decimal system.

[3] The coinage system of France came into force 6th May 1799. It was extended to the countries composing the "Latin Union" (France, Belgium, Italy, Switzerland) by the convention of 1865, and has since been adopted by Greece, Roumania, Servia, and Spain. It is thus the most widely-extended system in Europe. Austria, too, has established some connexion with it by its gold coinage. The population using the Latin system has therefore been estimated (*Journal des Economistes*, April 1879) at 148,000,000. The system is theoretically a double standard one, with a ratio of 15½ to 1; but the states composing the Union have restricted the coinage of silver to a small amount, thus producing what is called the *étalon boiteux*, or "limping standard." By it coined silver is kept above its market value. The unit in the different states is called by different names: in France, Belgium, and Switzerland, *franc* and *centime*; in Italy, *lira* and *centesimo*; in Greece, *drachme* and *lepta*; in Roumania, *lei* and *bani*; in Servia, *dinar* and *para*; in Spain, *pesets* and *centesimo*; but in all cases the value is the same.

[4] The substitution of the *mark* for the older *thaler* came into force 1st January 1875. The German coinage law is modelled on the English system, but is not yet completely settled, owing to the large quantity of silver in circulation.

[5] The Dutch standard has been several times changed. In 1847 a silver standard was adopted, and continued till 1872, the unit being the *silver guilder*. In June 1875 the free coinage of gold was decreed, the silver coinage having been restricted since 1872. The ratio of gold to silver is 15·625 to 1, but practically the "limping standard" exists.

[6] The single gold standard is in force in Portugal. The English sovereign is legal tender for 4500 reis.

[7] The coins of the Russian mint are exceptionally good. They pass as commercial money at varying prices. Finland has a decimal system resembling the French since 1877, the mark in gold and silver being equivalent to the franc.

[8] The Spanish coinage was assimilated to the Latin Union in 1871. Spain, however, coins a 25-peseta piece; the other countries of the Union do not.

[9] The Medjidie coinage was introduced in 1844. English sovereigns circulate at 125 piastres, 20-franc pieces at 100 piastres.

TABLE III.—*Currencies of the more important non-European States.*

Coins.		Material.	Weight in Grammes.	Millesimal Fineness.	Rem. p. 1000. In Fineness.	Rem. p. 1000. In Weight.	Approximate Money Value. English.	Approximate Money Value. United States.
A. NORTH AMERICA.								
BRITISH DOMINIONS[1]—								
100 *Cents* = 1 *Dollar.*							£ s. d.	$ c.
MEXICO[2]—								
100 *Cents* = 1 *Dollar.*	16 Dollar piece	Gold	27·067	875·	..	..	3 4 9	15 74
	8 "	"	13·583	875·	..	..	1 12 4½	7 87
	4 "	"	6·767	875·	..	..	0 16 2½	3 93
	2 "	"	3·383	875·	..	..	0 8 1	1 96
	1 "	"	1·692	875·	..	..	0 4 0½	0 98
	1 "	Silver	27·067	900·	..	..	0 4 0½	0 98
	50 Cent piece	"	13·533	900·	..	..	0 2 0	0 49
	25 "	"	6·767	900·	..	..	0 1 0	0 24
UNITED STATES[3]—								
100 *Cents* = 1 *Dollar.*	20 Dollar piece (Double Eagle)	Gold	33·436	900·	2·	1·	4 2 6	..
	10 Dollar piece (Eagle)	"	16·718	900·	2·	2·	2 1 3	..
	5 Dollar piece	"	8·359	900·	2·	2·	1 0 7½	..
	3 "	"	5·015	900·	2·	2·	0 12 4½	..
	2½ "	"	4·179	900·	2·	3·	0 10 4	..
	1 "	"	1·671	900·	2·	3·	0 4 1½	..
	1 "	Silver	26·729	900·	3·	5·	0 4 1½	..
	50 Cent piece	"	12·500	900·	3·	5·	0 2 0½	..
	25 "	"	6·250	900·	3·	5·	0 1 0½	..
	10 "	"	2·500	900·	3·	..	0 0 5	..
	5 "	"	1·250	900·	3·	..	0 0 2½	..
	3 "	"	0·802	750·	3·	..	0 0 1½	..
B. SOUTH AMERICA.								
ARGENTINE REPUBLIC *[4]—								
100 *Centesimos* = 1 *Dollar* (*Peso*).	20 Peso piece	Gold	33·333	900·	..	..	3 1 8	19 94
	10 "	"	16·666	900·	..	..	2 0 10	9 97
	5 "	"	8·333	900·	..	..	1 0 5	4 98
	1 "	Silver	27·11	900·	..	..	0 4 1	0 99
BRAZIL*[5]—								
1000 *Reis* = 1 *Milrei.*	20 Milreis piece	Gold	17·927	916·6	..	..	2 4 10½	10 91
	10 "	"	8·963	916·6	..	..	1 2 5	5 45
	2 "	Silver	25·500	916·6	..	..	0 4 5	1 9
	1 "	"	12·250	916·6	..	..	0 2 2½	0 55
	½ "	"	6·375	916·6	..	..	0 1 1	0 27
CHILI*[6]—								
100 *Centavos* = 1 *Peso.*	10 Peso piece (Condor)	Gold	15·253	900·	..	..	1 17 6	9 10
	5 Peso piece	"	7·626	900·	..	..	0 18 9	4 55
	2 "	"	3·051	900·	..	..	0 7 6	1 82
	1 "	Silver	25·00	900·	..	..	0 3 9	0 91
	50 Centavos	"	12·50	900·	..	..	0 1 10½	0 45
	20 "	"	5·00	900·	..	..	0 0 9	0 18
	10 "	"	2·50	900·	..	..	0 0 4½	0 9
	5 "	"	1·25	900·	..	..	0 0 2	0 4
STATES OF COLOMBIA[7]—								
100 *Centavos* = 1 *Peso.*	20 Peso piece	Gold	32·258	900·	..	..	3 19	19 30
	10 " (Condor)	"	16·129	900·	..	..	1 19 8	9 65
	5 Peso piece	"	8·065	900·	..	..	0 19 10	4 82
	2 "	"	3·225	900·	..	..	0 7 11½	1 93
	1 "	Silver	25·0	900·	..	..	0 3 11½	0 96
	20 Centavos	"	5·0	835·	..	..	0 0 9½	0 19
	10 "	"	2·5	835·	..	..	0 0 5	0 10
	5 "	"	1·25	835·	..	..	0 0 2½	0 5
PERU*[8]—								
100 *Centesimos* = 1 *Sol.*	20 Sol piece	Gold	32·258	900·	..	..	3 19	19 30
	10 "	"	16·129	900·	..	..	1 19 8	9 65
	5 "	"	8·065	900·	..	..	0 19 10	4 82
	2 "	"	3·225	900·	..	..	0 7 11½	1 93
	1 "	"	1·613	900·	..	..	0 3 11½	0 96
	1 "	Silver	25·0	900·	..	..	0 3 11½	0 96
	50 Centesimos	"	12·5	900·	..	..	0 1 11½	0 48
	20 "	"	5·0	900·	..	..	0 0 9½	0 19
	10 "	"	2·5	900·	..	..	0 0 4½	0 10
	5 "	"	1·25	900·	..	..	0 0 2½	0 5
VENEZUELA. See COLOMBIA.								
C. ASIA.								
INDIA (BRITISH)[9]—								
8 *Pie* = 1 *Pice.* 4 *Pice* = 1 *Ana.* 16 *Anas* = 1 *Rupee.*	30 Rupee piece	Gold	23·321	916·6	..	..	3 0 0	14 58
	15 Rupee piece (Mohur)	"	11·665	916·6	..	..	1 10 0	7 29
	10 Rupee piece	"	7·772	916·6	..	..	1 0 0	4 86
	5 "	"	3·886	916·6	..	..	0 10 0	2 43
	1 "	Silver	11·665	916·6	..	..	0 2 0	0 48
	½ "	"	5·832	916·6	..	..	0 1 0	0 24
	¼ "	"	2·916	916·6	..	..	0 0 6	0 12
	⅛ "	"	1·458	916·6	..	..	0 0 3	0 6
JAPAN*[10]—								
100 *Sen* = 1 *Yen.*	20 Yen piece	Gold	33·333	900·	..	..	4 2 0	19 94
	10 "	"	16·666	900·	..	..	2 1 0	9 97
	5 "	"	8·333	900·	..	..	1 0 6	4 98
	2 "	"	3·333	900·	..	..	0 8 2	1 99
	1 "	"	1·666	900·	..	..	0 4 1	0 99
	50 Sen piece	Silver	10·	800·	..	..	0 2 0½	0 50
	20 "	"	4·	800·	..	..	0 0 10½	0 20
	10 "	"	2·	800·	..	..	0 0 5	0 10
	5 "	"	1·	800·	..	..	0 0 2½	0 5

* Inconvertible paper currency.

Remarks.—The currencies of such of the non-European States as were capable of being presented in tabular form have been given above, but a brief outline of the currencies of less-advanced countries where a settled coinage does not prevail may be here added. The systems of the various European colonies in America are, as a rule, similar to their mother-countries. Some of the English possessions acquired by conquest preserve their original currency. In Cayenne the pre-Revolution French money is retained. In Paraguay and Uruguay a much-depreciated paper currency circulates. The Central American states reckon in dollars. The Australian colonies have a currency identical with that of England; the same currency exists in South Africa. In Mauritius the Indian system has been recently introduced. The various Turkish vassal states possess peculiar coinages. In Egypt, the coins of various European nations form the chief money. The Asiatic currencies are generally composed of silver. Ceylon has the Indian rupees. The money of Java has since 1877 been assimilated to the latest form of the Dutch monetary system. In China the *cash* forms the unit, and is made of copper, iron, and tin; silver passes by weight—a *tael*, which varies from place to place, being the unit; while the silver *sycee* is the usual medium of exchange. The other Asiatic currencies do not require particular notice.

[1] There is no currency issued in Canada; English and American coins circulate. The standard is gold (£1 = 84·80). There were formerly different methods of counting, viz., English sterling, Halifax currency, and Canadian sterling, the respective ratios being 100 : 120 : 108.

[2] The decimal coinage has existed in Mexico since 1867. The gold coins are practically commercial money, and command a premium.

[3] The dollar was introduced in 1786 as the unit. In 1794 the ratio of gold to silver was fixed at 1 to 15. This valuation underrated gold, consequently silver became the standard. In 1834 the ratio was altered to 1 to 16, and it was again changed in 1837. In these changes gold was overrated, and silver was driven out of circulation. This led, in 1853, to the reduction of the metal in the silver coins, which therefore became a token-currency. The suspension of cash payments took place in 1861. In 1873 silver was demonetized, and gold became the standard. In 1878 the "Bland Bill" was passed, making the silver dollar a legal tender, but confining its coinage to the executive, and fixing the amount at from two to four million dollars per month. These silver dollars have not got into circulation. The United States coin a trade dollar of 420 grs. (27·212 grammes), to compete with the Mexican dollar.

[4] The Argentine Confederation professes to have a gold standard. The old South American *onza* weighed 27 grammes, was 875· fine, and worth £3, 4s. 6d.

[5] The Brazilian system is a depreciated form of the Portuguese.

[6] Chili has nominally a double valuation at 1 to 16⅔. Gold coins are no longer struck.

[7] The Colombian States have the Latin Union system, with a ratio of 1 to 15½.

[8] When Peru returns to cash payments the system will be almost identical with that of Colombia.

[9] British India has a single silver standard, as the gold coins are only commercial money. The price of the rupee varies; generally in recent years it has been about 1s. 8d. (= 40 cents).

[10] The old Japanese coinage consisted of gold cobangs and silver itzibus, with a ratio of 1 to 4. The system was recast in 1871, and the present decimal coinage adopted, the ratio being 1 to 16·17. The standard is now practically silver. In 1875 a trade dollar exactly similar to the American trade dollar was introduced.

price quotations, would have to be altered, while the new unit of the farthing would not be assimilated to any other unit. This plan has therefore no chance of acceptance. Another proposal starts from the present *pound* as unit. It is to be divided into 10 *florins* (2s.), which would contain 100 *mils* (or *farthings* reduced 4 per cent.). A new coin, 10 *mils* (2s. 4d.), would probably have to be introduced. The advantages of this plan are: (1) the *pound* would be preserved as unit, (2) the *florin* and *shilling* would also be retained—the latter being 50 *mils*, (3) accounts for large amounts need not be altered. The objections are such as follow—(1) the copper coins, which are those most used by the poor, would all be changed, thus causing great confusion, (2) all charges expressed in pence would be altered to the loss of one of the parties. Still, this scheme is much to be preferred to the one first mentioned. A third plan is based on the fact that 8s. in English money is only ¾d. more than 10 francs. Having regard to this link between the English and French systems, it is proposed to coin a 10-*franc* piece in gold to serve as a token for 8s. If the penny were then reduced by 4 per cent. this piece would contain 100 pence, and, by coining a franc or tenpenny piece in silver, a perfect decimal currency would be obtained. This arrangement would involve the abolition of the *pound* as well as of most of the present English coins. In fact, it is as yet premature to expect a system which will be international as well as decimal, and the most that can be hoped for is some progress towards that ultimate end. All that can be said at present is that all schemes for the introduction of the decimal system should be considered with regard to their tendency to help towards the assimilation of the English system to other currencies. The problem of international money has during the last twenty years acquired much prominence. In previous historic periods the idea was partially realized. Thus the drachme was an international Hellenic coin, though it had three different values.[1] Under the Roman hegemony and the succeeding empire the denarius became the coin of the west, the drachme that of the east.[2] The next currency which can be called international was the frequently-mentioned Carlovingian system. The growth of the different European nationalities, and their frequent wars, prevented any common coinage system being adopted by them. Each state debased its own coin at different times, so that any original resemblances disappeared. The question of unification of the various monetary systems was thus left open for the present century, when increased facilities for intercourse have led to more complex international relations. An association for promoting unity in weights, measures, and coins was founded in Paris in 1855, and actively advocated its principles. In pursuance of this object a series of conferences and congresses were held on the subject, the first of them in 1860. The congress of 1863 was held at Berlin, and adopted a series of important resolutions. Its report advocates the superior convenience of a gold system with a subsidiary coinage of silver; the millesimal scale of 900 as to fineness of the higher coins was also approved of, as well as the definition of the weights of coins on the metric system. The first practical outcome of the movement was in the monetary convention of 1865, which founded the so-called Latin Union, by which France, Belgium, Italy, and Switzerland became a single monetary region, with the franc or lira as unit. The subsequent accessions to the Union are given in the note to the French coinage system (Table II.). In 1867 a monetary conference was held at the same time as the Exhibition of that year, when the idea of a universal coinage was advocated, and three leading principles were laid down as necessary to that result, viz.—(1) the universal adoption of a single gold standard, (2) the general use of the decimal scale for this coinage, (3) that all coinages should be co-ordinated with the French system.[3] Owing to the accidents of historical development, certain points of connexion existed between the leading European systems. Thus, the franc being regarded as a unit, the Austrian florin was as 2·47, the American gold dollar as 5·18, and the English pound as 25·22. Very slight changes would bring these coins into a series of $1 \cdot 2\frac{1}{2} : 5 : 25$, and it was proposed by the congress of 1863 that, when thus modified, they should have international currency in all countries where any of the four units prevailed. All outside nations were recommended to select whichever of these units they preferred. The subsequent monetary changes in the various European systems have, however, ended rather in the formation of international systems without any tendency towards the establishment of a universal one. Thus, of the three principles laid down by the conference of 1867, two only have been adopted in recent currency reforms. On the creation of a united Germany after the Franco-German war of 1870-1871, it was the aim of the rulers of that country to develop as much as possible all outward expressions of that unity, and, in accordance with that conception, a German currency was devised which was monometallic and decimal (see Table II.), but which was not easy to assimilate to the French system, thus rejecting the third principle laid down by the Paris conference, and rendering future progress more difficult. The Scandinavian Union proceeded on very much the same lines as the German reform, and was, in fact, mainly caused by it. The Dutch Government, under the pressure of circumstances, have abandoned the silver standard and coined some gold, but their position is still undecided. The Austrian Government have made a slight step by issuing as gold coins 8- and 4-gulden pieces, which are the same as the 20- and 10-franc coins. In one part of the Russian dominions, Finland, the French system has been introduced, the new mark being equivalent to the franc. The main Russian system has not been changed, nor have any alterations been made by England, Turkey, or Portugal.[4] The question of universal coinage has become implicated with the question of the proper standard, and the strong ground taken up in 1867 has certainly to some extent been abandoned. It may, however, be considered that the present systems of coinage are capable of being assimilated. A comparison of the amount of pure metal in English, French, German, United States, and even Japanese coin shows how small is the difference.[5] An ingenious proposal was made in 1868 to the English commission on the question, by which the sovereign would be made identical with the French 25-franc piece (if that were coined). It was based on the fact that the sovereign contained only about 1 grain more of gold than the amount in 25 francs. It was proposed to deduct this small amount from the bullion brought for coinage as seigniorage, so that no change need be made. The advocates of this scheme contended that prices would not be affected by the alteration. This reasoning did not commend itself to the commission. They accepted the view put forward by Newmarch, who argued that all contracts would have to be altered to allow for the depreciation caused by the change, and this position seems impregnable, so long as metallic currency alone is considered. Another ingenious plan was that of Bagehot to assimilate the English and American systems, as a step towards a wider change.[6] At the present moment the great monetary systems of (1) France and her allies, (2) England and the larger part of her colonies, and (3) the United States are so firmly established in their several countries, and the advantages of each system are so equal, that it is hard to see which is to give way. The wide area of the Latin Union, and the perfect decimal division of its coinage, are arguments in favour of the franc; the greater value of the pound, and the immense extent of the English colonies and English trade, are in favour of the British unit of value; while the dollar, from its convenient size and the prospect of the future growth of the United States, has claims to be considered in the discussion. The most probable conclusion, however, seems to be that the future unit will not be any of these coins, but the result of a compromise, which will lead to a new system being established. The difficulties which arise when universal coinage schemes are brought forward ought not to conceal from us the solid advantages which such an institution would confer on the world. The arguments urged in its favour are various, and are regarded as being of different relative importance by their advocates. They may, however, all be stated as follows. (1) Increased facility of travelling. Though there is a tendency to under-estimate this element of the question, it seems impossible to doubt that the saving of trouble to travellers by any universal coinage system would be very great. The abolition even of the local currencies of Germany and Italy, and their replacement by uniform national systems, has been a great boon to tourists, but an arrangement which would obviate the necessity for procuring any different money whatever would be a still greater advance. In the interests of peace, which is greatly promoted by extended international communication, it is very desirable to remove any obstacle which retards increased intercourse among persons of different countries. (2) Greater ease in adjusting the foreign exchanges. This argument has been sometimes pushed too far. It has been apparently held that, were a universal currency adopted, the problems of the foreign exchanges would no longer exist. There are, however, other factors in the question, namely, those of time and place, which could not be eliminated by the adoption of a single coinage system.[7] Still, the removal of even one complicating element would simplify exchange dealings. The question of mint pars would no longer arise, and the specie points would be stated more simply. The friction which sometimes arises from the necessity of recoining the exported gold would also be removed, and the profits of those dealers who gain by

[1] The Attic, Eubœic, and Æginetan; see Smith, *Dict. Gr. and Rom. Ant.*, s. v. "Drachma."

[2] Mommsen, *Hist. of Rome*, iii. p. 415.

[3] See E. de Parieu in *Journal des Economistes* (Feb. 1, 1878).

[4] As Austria, Russia, and Turkey possess inconvertible paper currencies, and various foreign coins circulate in the last-named country, the question does not possess much importance for them. Portugal is closely connected with England, and will probably follow her example. It may also be noticed that the gold coins of all these countries have a fineness of $\frac{11}{12}$ths.

[5] Sovereign = 7·32 grammes fine gold.

25 francs = 7·20	,,	,,
U. S. half-eagle = 7·02	,,	,,
German 20 mark = 7·16	,,	,,
Japanese 5 yen = 7·50	,,	,,

[6] See his pamphlet reprinted from the *Economist*. It is nearly the same as the first proposal mentioned above, but it differs in contemplating the assimilation of American money, the 5-dollar piece being equivalent to the new pound.

[7] See, for this, Goschen, *Foreign Exchanges*, p. 5, and the article Exchange (vol. viii. p. 784 *sq.*). A practical illustration is the case of Australia, where, though the currency is identical with that of England, bills on England are at a premium.

their special knowledge would be saved to ordinary traders. (3) The improvement of the currencies of backward states. Many countries still possess those mixed currencies which were once common all over Europe, and much confusion consequently arises. The commercial coins have been introduced for international circulation,[1] and a universal currency would perform their function more satisfactorily. (4) Greater facility in comparing price-lists, &c. This advantage, which is reserved for the last, has been regarded by competent judges as the greatest.[2] It has a practical and a theoretical interest: the former, since trade with foreign countries would be rendered easier and safer; the latter, since statistical inquiries would be very much facilitated. At present, it is quite impossible for an ordinary trader to understand a set of foreign price-lists, each perhaps expressed in terms of a different currency from the others,—a difficulty which is enhanced by the variations of gold and silver values, not to add the case of an inconvertible paper currency. The existence of a common monetary language would remove these difficulties, and the premium on gold could be allowed for in the case of depreciated paper. A much wider development of smaller trading transactions would become possible, and would add to the world's wealth. Nor would the greater ease of statistical inquiry be unimportant; the rates of wages in different countries, and the profits on different transactions, would be readily compared, and the movements of labour and capital to the most advantageous points rendered more rapid. Against these great gains can be set only a certain and a possible disadvantage—namely, the loss and trouble involved in change, which would, of course, for the time be considerable, but would soon be over, and the chance that some states might issue a depreciated currency, which would expel the other and better coins. In the case of a universal coinage this case would hardly arise, since there would be no field of employment for the purer coins, and they would consequently remain in circulation, but the whole currency would become depreciated. Proper mint regulations, however, would obviate this danger, and could surely be devised. It may be said that the principal hindrance to one coinage system for all civilized states is the as yet unsettled question of the standard to be employed. Till the debate on this problem is closed it is vain to expect monetary unification. The establishment of a universal system based on gold seemed quite feasible to the conference of 1867, but doubtful to that of 1878, while a double standard was the proposal discussed in 1881.

9. *Considerations on the Questions arising from the Conflict of Standards.*—In the preceding section the various possible monetary systems were set forth, but no discussion was entered into with respect to their comparative merits. Only three of these systems need be here examined, namely, the *single* standard system, the *multiple* standard system, and, lastly, the *composite* system. Nor even is there any need for examining the various possible single or multiple standards. The single silver standard is the only one of the former, as the double gold and silver standard is the only one of the latter, which need be taken into account. It is true, historical inquiry has shown that the problem of the proper proportion between two different metals when used together presented itself to the Chinese with regard to their iron and copper coinages; but the course of monetary evolution, as discussed in section 3, has resulted in the rejection of the less valuable metals and in confining the material of the principal coins to silver and gold. The use of silver as a principal coinage was, as we have seen, widely diffused. The Hellenic coins were composed of that metal, gold being afterwards introduced as a variable commercial money; and copper was brought in still later as a token currency. Though copper preceded silver as money in Rome, the latter, soon after its introduction, succeeded in displacing it, the ratio first fixed being 1 to 250. A regular gold coinage did not exist at Rome till the empire, but gold in bars passed, the legal ratio being 1 to 11·91. Still the questions connected with the use of a double standard do not seem to have arisen.[3] The various European monarchies had silver as their principal money (see p. 726 *sq.*, above), gold where it was used being, as in Greece, a commercial money. The advance of gold to a position parallel to silver was commenced in the 13th and continued in the 14th century, the method of regulating the mixed gold and silver currencies being by proclamation, which fixed the varying ratios from time to time. In England this course was followed from the first introduction of gold coins (1257) to 1663.[4] From 1663 to 1717 silver was the standard, and the gold coins passed at their market value. As the silver coins were very much debased, the gold guinea sometimes was deemed equivalent to 30s. After the recoinage of 1696 the guinea passed at 21s. 6d. At this ratio silver was underrated, and was accordingly exported to Continental Europe and to India. The loss of the silver coins aroused the public attention, and the matter was submitted to Sir I. Newton, whose answer was given in his *Third Representation*. He proposed to reduce the guinea from 21s. 6d. to 21s. as an experimental measure.[5] The proper reduction for the object in view would have been to 20s. 8d. The silver drain, therefore, continued, and England came to have a gold currency. An opposite arrangement gave France a silver coinage. The recent facts of French monetary history, as well as those of the United States, illustrate the same condition of affairs. The difficulty of constituting a double standard system on a secure basis is thus made clear, so far at least as regards a single country. For the continuance of the two metals in the currency depends on the market ratio and the legal ratio between gold and silver being the same. The slightest examination of the history of these metals will show how variable they have been. Without accepting the estimates which regard silver as being more valuable than gold,[6] the well-attested variations of the precious metals have been very considerable. Thus, Herodotus estimates the ratio as 1 to 13, Plato 1 to 12, Menander 1 to 10, and in Cæsar's time the ratio was 1 to 9.[7] Table I. contains the variations since the discovery of America. In the 14th century the value of gold rose remarkably, and the gradual movement has ever since been towards an appreciation of gold relatively to silver. Another point, previously noticed, is the tendency, as wealth increases, to adopt a more valuable form of currency. Greece, Rome, and England all afford illustrations of this movement. The experience of the evils of a mixed currency led the earlier writers on coinage in England to regard a single standard system as the best, and silver as the most suitable metal for the standard. Locke, Petty, and Harris all advocated this view. The earlier Italian writers proposed to combine gold and silver at a ratio of 1 to 12, which they conceived to be the actual proportion. The theory of a composite system was, as before mentioned, first given by Lord Liverpool.[8] This method

[1] The principal of these are—the Austrian Maria Theresa dollar, the Mexican dollar, and the United States trade dollar, which is 7½ grs. heavier than the national coin of the same name. See also Tables II. and III.

[2] *E.g.*, Bagehot and Prof. Jevons. The former dwells on the commercial aspect; the latter naturally places the scientific side first.

[3] See Mommsen, *Hist. of Rome*, ii. p. 382 and iv. p. 553.

[4] The various changes made can be estimated from the Tables given in James's *Essays on Money*, &c.; see also *Ency. Brit.*, 8th ed., article "Money." A careful statement will be found in Lord Liverpool's work, ch. xi.

[5] Newton's report will be found in *Select Tracts on Money*, edited by J. R. M'Culloch for the Political Economy Club (1856). One passage is worth quoting. "The demand for exportation arises from the higher price of silver in other places than in England in proportion to gold, . . . and may therefore be diminished by lowering the value of gold in proportion to silver. If gold in England, or silver in East India, could be brought down so low as to bear the same proportion to one another in both places, there would be here no greater demand for silver than for gold to be exported to India. And if gold were lowered only so as to have the same proportion to the silver money in England which it hath to silver in the rest of Europe, there would be no *temptation to export silver rather than gold to any other part of* Europe" (p. 277). The italics are in the original passage, which has been much discussed in recent controversies.

[6] Del Mar, *Hist. of the Precious Metals*, p. 221. According to this writer, the variation has been 200 degrees—*i.e.*, from silver being 10 times as valuable as gold, gold has come to be 20 times more valuable than silver.

[7] See Smith, *Dict. of Ant.*, s. v. "Argentum."

[8] See above, p. 731.