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A  
SELECT COLLECTION  
OF  
SCARCE AND VALUABLE  
TRACTS ON MONEY,

FROM THE ORIGINALS OF

VAUGHAN, COTTON, PETTY, LOWNDES, NEWTON,  
PRIOR, HARRIS, AND OTHERS.

WITH A PREFACE, NOTES, AND INDEX.

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Querenda Pecunia primum est.

HOR.

Ibit in immensos in providentis abusus, præclara res Numaria.

BUDELIUS, *de Monetis*,

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## P R E F A C E.

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THIS collection of scarce and valuable Tracts and Treatises on Metallic Money, comprises the following articles, viz.

- I. A Discourse of Coin and Coinage, &c. By Rice Vaughan, of Grayes Inn, Esq. 1675.
- II. Speech of Sir Robert Cotton, Knt. and Bart., before the Privy Council, in 1626.
- III. Advice of His Majesty's Council of Trade concerning the Exportation of Gold and Silver in Foreign Coin and Bullion. 1660.
- IV. Sir William Petty's *Quantulumcunque*. 1682.
- V. A Report containing an Essay for the Amendment of the Silver Coins. 1695.
- VI. Note on the Recoinage of 1696-99.
- VII. Representations, by Sir Isaac Newton, on the Subject of Money. 1712-17.
- VIII. Tables, illustrative of the Changes in the Standard and Weight of English Money.
- IX. Note on Scotch Money, with Tables, shewing its Successive Changes.
- X. Observations on Coin in General, with Proposals for Regulating the Value of Coin in Ireland, by

the Author of the List of Absentees from Ireland.  
1729.

- XI. An Essay upon Money and Coins. Parts I. and II.  
1757-1758.
- XII. Reflections on Coin in General, on the Coins of  
Gold and Silver in Great Britain in Particular,  
&c. 1762.
- XIII. An Inquiry into the Value of the Ancient Greek  
and Roman Money, by Matthew Raper, Esq. 1771.
- XIV. Tables of Greek and Roman Money.

The first of these tracts, by a member of the legal profession, though published in 1675, must have been written long previously, probably in the interval between 1630 and 1635.\* It is the earliest work in the English language that gives a general view of the origin of money, the materials of which it has been formed, its uses, and the abuses to which it has been subjected. It could hardly be expected that a treatise on subjects involving so many rather abstruse principles and delicate considerations, should be put forward at this early period with uniformly correct or just views. On the whole, however, the reader will, perhaps, be disposed rather to wonder at the general soundness of the writer's conclusions than at the errors into which he has occasionally fallen. The old and deeply-rooted heresy that the value of coins was to a considerable extent dependent on the stamp by which they were impressed, retained, in the  
early

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\* It is evident from the statement on p. 29 that it must have been written during the reign of Louis XIII. of France, who died in 1643, and apparently some eight or ten years before that date.

early part of the 17th century, a powerful influence. And this circumstance, combined with the erroneous notions then very prevalent respecting various points in the theory of exchange, have, in great measure, occasioned the tedious discussions in which the author engages in regard to the effect of reductions in the standard of the coin, of the expediency of regulating the coins of one country with reference to those of others, and so forth. In most instances, however, he arrives, though by a very circuitous route, at the right conclusion; and the correct principles on the subject are so admirably stated in the treatise of Harris, in a subsequent part of the volume, that the errors in that of Vaughan can no longer impose on any of its readers.

The editor of this treatise, though, as he tells us, a near relation of the author, appears to have been very ill-fitted for his duty. It is printed with such extreme incorrectness that the statements are frequently quite erroneous, and in parts all but unintelligible. And though we have endeavoured to obviate these defects, we are not sure that we have always succeeded in apprehending the meaning of the author, or that the dates and figures we have supplied are in all instances correct. But we flatter ourselves that the errors by which it may still be infected are of no great consequence, and that they cannot sensibly influence any part of the reasoning.

The next tract in this volume,\* the "Speech of the celebrated Sir Robert Cotton, before the Privy-Council in  
1626,"

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\* See note p. 123.

1626," has been much referred to, and possesses a very high degree of merit. It was made in opposition to a proposal then entertained for degrading the standard of the coin. And we do not know that the arguments against such a proceeding have ever been stated more briefly or with greater force. It is creditable to the parties to whom it was addressed that they were so impressed by it that they abandoned the project.

The prohibition of the exportation of the precious metals was long regarded as a sound principle, which it was endeavoured to enforce in this and most other countries. But the opening of the trade to India, which has always afforded an advantageous outlet for these metals, and more especially for silver, gradually led to the adoption of a more liberal policy. The old system had been relaxed in favour of the East India Company, when it was established in 1600. And the advantages resulting from this relaxation, with the experience of the impossibility of enforcing the prohibition, produced in the end a strong desire among commercial men for its repeal. In 1660, the matter was referred to the consideration of the Council of Trade; and the "Advice" or "Report" of the latter forms the third article in this volume. It is a clear, well-reasoned, conclusive paper. The reference to the Council related only to the exportation of bullion and foreign coins, the trade in which they recommended should be made perfectly free. But no one who reads the Report can doubt that such, also, was the opinion of its authors, in regard to native coins. But, while the latter did not  
officially

officially come under their cognizance, they probably thought that their free exportation would be reckoned too bold a measure; and that by recommending it they might endanger the loss of the other, which was of incomparably more importance. The Council's recommendation was carried into effect in 1663, by stat. 15, Ch. II. c. 7, § 12.

The next tract, by the famous Sir William Petty, entitled "*Quantulumcunque* Concerning Money, addressed to the Marquis of Halifax," was printed in 1682. It was republished in 1695, during the discussions on the re-coinage; but it has been excluded from the collection of Petty's tracts published in Dublin in 1769, and is now very scarce. In this brief but remarkable tract, Petty shows the folly of supposing that we should gain anything in our intercourse with foreigners by reducing the value of the coins, a measure which can be productive only of the most injurious consequences. He has also condemned the laws which then, and down to a late period, limited the rate of interest, justly observing that there may as well be laws limiting the rate of exchange and the premium of insurance.

The tract next in order, which attracted a great deal of attention when published, viz. a "Report, containing an Essay for the Amendment of the Silver Coins," by Mr. William Lowndes, Secretary to the Treasury, appeared in 1695. This Essay contains an elaborate and valuable investigation of the successive changes made in the standard and weight of English coins, from the earliest times  
down

down to the period when it was written. But its notoriety rests on a very different and less solid foundation, that is, on the proposal made by the author, and which he has strongly recommended, for adding 25 per cent. to the nominal values of the coins. We regret to have to add that this nefarious project met with considerable encouragement both in and out of Parliament. Happily, however, it was defeated, principally by the efforts, which cannot be too highly appreciated, of Montagu, Chancellor of the Exchequer, in the House of Commons, and of Locke, out of doors. It was then that this great philosopher published his tracts on money, which, though involving sundry errors, refute the various arguments brought forward by Lowndes and others, in favour of a reduction of the standard, with an amplitude, or rather a redundancy, of illustration, that leaves nothing to be desired. We have not reprinted Locke's tracts, because they may be found in all the editions of his works, and would make of themselves rather a large volume. But we have printed a Note on the re-coinage of 1696-99; and have given tables which exhibit in a brief space the various changes in the purity and weight of English and Scotch coins, from the Conquest down to 1717.

It would be an impertinence to direct the reader's attention to the "Representations by Sir Isaac Newton," which follow Lowndes' tract. Sir Isaac was then Master of the Mint, and in this capacity he was called upon to advise government in regard to the rating of the coins in Ireland, and the exportation of the new silver coins  
from

from England. Nothing can be clearer or more conclusive than his statements. The disorders which were at the time incident to the coins of both countries, were, to some extent, similar, and sprang in a considerable degree from the same causes. In England the silver coins of the great recoinage of 1696-99, had no sooner been issued than they began to be melted down and exported; and the inconveniencies thence arising forced themselves, in no long time, on the public attention. On Newton being consulted, he saw at once that the exportation complained of resulted from the over-valuation of the guinea, which passed current for 21*s.* 6*d.* Having inquired into the comparative values of gold and silver, he suggested that the value of the guinea should be reduced to 21*s.* or 20*s.* 8*d.*; and pursuant to this advice, the guinea was made legal tender in 1717 for 21*s.* But despite this reduction, it still continued to be over-valued; and it consequently became in practice the only legal tender, while all silver coins of the standard weight and purity were either melted down or exported.\*

The next tract, "Observations on Coin in general, with some Proposals for regulating the Value of Coin in Ireland," was published at Dublin in 1729. It is by the author of the "List of Absentees from Ireland," that is by Thomas Prior, Esq., of Rathdowney, a genuine patriot, the friend and correspondent of Bishop Berkeley and the Earl of Chesterfield. The "List of Absentees," which was long looked upon as of standard authority, is valuable  
for

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\* See Note on the Recoinage of 1696-99.

for the information which it gives with respect to the number of absentees, the value of their estates, and so forth. But, while the reasoning in regard to the injurious influence of absentee expenditure is as fallacious as can well be imagined, it tended, by fostering and perpetuating popular prejudices on the subject, and fixing the public attention on an imaginary grievance, to withdraw it from the real causes of the poverty and barbarism of the Irish. The tract here reprinted is of a very different character, and is, speaking generally, correct in its statements and sound in its principles. With the exception, indeed, of Mr. Simon's "Treatise on Irish Coins" (4to. Dublin, 1749), it is the most valuable work on the coins of Ireland that had appeared down to a recent period.

We come now to one of the best and most valuable treatises on the subject of money that has ever seen the light, the "Essay on Money and Coins," in two parts, which respectively appeared in 1757 and 1758. Though anonymous, it is known to be the work of Joseph Harris, Esq., then Assay-master of the mint. It is clearly and forcibly written. And, in addition to an exposition of the circumstances which determine the value of coins and the course of exchange, it contains some good illustrations of the influence of commerce and of the division of labour in furthering the increase of wealth. Part II. is principally occupied with an investigation and refutation of the various statements that have been from time to time put forward in vindication or excuse of a degradation of the standard; and all who read this convincing and masterly exposition, will be inclined to sympathise with the author,  
when

when he says that, "Whatever may be the fate of future times, and whatever the exigencies of affairs may require, it is to be hoped that that most awkward, clandestine, and most direful method of cancelling debts, by debasing the standard of money, will be the last that shall be thought of." (See post. pp. 502, 503.)

But though there be no longer much to fear from any attempt being made to disturb the measure of value by tampering with the coins, we must not fancy that there is in this respect any material improvement in the morality of statesmen, or of the public. What was formerly done by degrading the standard of coins, is now done with greater facility, and to an inconceivably greater extent, by making that paper legal tender which has ceased to be exchangeable for the coins it professes to represent. This though a less direct, is a more dangerous and disgraceful species of fraud. A degradation of the standard is an open and avowed act of injustice, of which the extent and limits are defined and known to every one; but none can tell how far the depreciation of paper may be carried. It has frequently, indeed, arrived at such an excess, as to appear almost incredible. In France, for example, after the explosion of the Mississippi Scheme, and again, after the country had been deluged with assignats, a man might have died of want, with notes of the nominal value of 100,000 frs. or 1,000,000 frs. in his pocket! Even in this country, we have had, and at no distant period, ample experience of the baleful influence of the over-issue, and consequent depreciation, of paper. This, in truth, is one of the sins which most easily beset us ;  
and

and there is none that should be more vigilantly guarded against. Instead of weakening in any degree the obstacles that stand in the way of a more copious supply of paper, they should be carefully maintained and strengthened. Its depreciation necessarily subverts every existing contract and engagement. And while it produces universal confusion and insecurity, it enriches certain classes who have no peculiar merits, at the expense and by the spoliation of others quite as deserving, and as well entitled to that protection against injustice which it is the bounden duty of every government to afford to every portion of its subjects.

The short treatise, entitled "Reflections on Coin in general, on the Coins of Gold and Silver in Great Britain in particular, &c.," was published in 1762. It contains a singularly clear and neat summary of the principles that should be kept in view in the issue of coins. It also shows the cause, arising from the over-valuation of gold as compared with silver, why coins of the latter of full weight were sent to the melting pot and exported. It further shows the advantage of using only one metal, and that the most precious for the standard of the currency; and of employing paper as a substitute for gold.\*

The last treatise in this volume, "An Inquiry into the Value of the Ancient Greek and Roman Money," by  
Matthew

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\* Literature of Political Economy, p. 163.

Matthew Raper, Esq., F.R.S.,\* was printed in the Philosophical Transactions for 1771. It is a work of the highest excellence, and in its own line is probably unrivalled. But notwithstanding their importance, inquiries into the values of the monies, weights, and measures of the Ancients, were for a lengthened period but little attended to in this country. And, owing partly to this circumstance, and partly to its being buried in the vast mass of the Royal Society's papers, this Treatise was almost entirely lost sight of, and its existence generally ignored. Latterly, however, these inquiries have begun to command some portion of the attention to which they are eminently entitled; and Raper's Tract has in consequence been brought to the knowledge of the public, and elicited the most honourable mention. In his valuable Essay, on the monies, weights, and measures of the Greeks and Romans (8vo. Oxford, 1836), Mr. Hussey refers to it as follows:—"In 1771, his (Raper's) Essay appeared in the Transactions of the Royal Society; a work of which it is not too much to say, that it is the best attempt yet made to combine a general view of the money of the Greeks and Romans in their best times, with an accurate statement of the proofs on which the system rests." (Introduction p. 8.) And Mr. Smith, the learned author of the excellent articles, on weights, measures, &c., in Smith's Dictionary of Antiquities, does not hesitate to call

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\* Mr. Raper also translated from the German, and published in 4to. in 1787, the learned and interesting work of Grellmann on the "History, &c., of the Gipsies."

call Raper, "the best of all writers on metrology." Nothing that we could say could add to the weight of these recommendations; and we beg to congratulate the reader, on his being at length supplied with this admirable Essay in an accessible and commodious shape.

To complete the work, we have added from Smith's Dictionary of Antiquities, tables showing the denominations and values of the principal Greek and Roman Coins.

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A  
DISCOURSE  
OF  
COIN  
AND  
COINAGE:

The first *Invention, Use, Matter, Forms, Proportions and Differences*, ancient & modern : with the *Advantages and Disadvantages* of the *Rise or Fall* thereof, in our own or Neighbouring Nations : and the Reasons.

Together with a short Account of our *Common Law* therein.

By *Rice Vaughan*, late of *Graycs-Inn*, Esq;

London, Printed by *Th. Dawks*, for *Th. Basset*, at the *George*, near *Cliffords-Inn*, in *Fleet-street*. 1675.



TO

*The Right Honourable*

H E N R Y

*Earl of Clarendon, Viscount  
Cornbury, and Baron Hide of  
Hindon; Lord Chamberlain to the Queens  
most excellent Majesty.*

*Most noble Lord,*

IT being become a thing so usual in this most scribbling Age, (*nam scripturire quam parturire mallet hoc sæculum*) to crave shelter under the Wings of some renowned Person, from the severity of Censurers; without which, Learning shall scarcely have Admittance: and this piece though not my own, yet coming to my hands amongst other manuscripts of a Gentleman of *Grayes Inn*, lately deceased; (and very near related to me) whose *Genius*, I may safely say, was not a little curious in the search of other knowledge than the Law, (to which he served five Apprenticeships.) And humbly conceiving nothing could more seasonably appear in View  
for

*The Epistle.*

for the better instructing our worthy Countrymen in the knowledge of a thing whose want is so generally complained of, yet the Invention, Use, and *Species* with their Advantages scarce truly understood ; I presumed through that true knowledge of your Lordships Person, and most zealous Honour of your greatly to be admired Endowments, with your Love to Learning, which the most *plebeian* ears and eyes were not ignorant of, to recommend unto your Lordships hand this *Treatise*, in a more ample and different manner than that lately published out of the Mss. of the never to be forgotten *Earl* of *Sandwich*, shewing the first Invention, Use, Matter, Forms, Proportions, and Differences, Ancient and Modern of that Coy Lady *Pecunia*, with the Advantages and Disadvantages of the Rise or Fall thereof in our own and neighbouring Nations; and the Reasons *Pro* and *Con*, with other things in the other piece not contained. And here I cannot, without great unworthiness, be silent in the due praises of his most Excellent Majesty that now is, who with abundance of Royal Care and Wisdom, with no small charge, hath set forth a Coin in Form, Shape, Goodness and Beauty, not second to any used in the World, in Common Commerce, and so uneasy to be patterned or imbellished, a thing of no small consequence in Commonwealths. Herewith you have a short account  
of

*Dedicatory.*

of our Books of Law ; as also Tables of the value of all sorts of *Pearls, Diamonds, Gold, Silver,* and other *Mettalls*.\* I shall not undertake to say, but that in the Tables of values, in these mutable times, some variation may happen, to the common practice of Artists, in that nature, whose private unmeasurable Ends are, to some more their Gods than Justice or Honesty their Practise : but the Grounds being herein plainly stated ; a pregnant wit, with a little Commerce, may soon rectify those *diary Deceits*, and for the other part, whose *Theory* perhaps in some places, may be thought too much to reflect on the too often practised Abuses of the *Gold-Smiths* in that Nature ; I hope all but themselves will readily grant me Pardon for the Publishing, and they being but a few, and Justice on our side, the Authors Bones I trust will not disturb, nor I much suffer by the selfish Censures of a People so obstinately unreasonable. My Lord, I shall now only beg pardon for this presumption, in hopes of success, till time give opportunity to testify how much I am

My Lord,

truly devoted to your Lordships service,

and your Admirer,

HENRY VAUGHAN.

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\* These tables have been omitted in this reprint, as being no longer of any value.

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Of the First  
**Invention**  
AND  
**USE of MONEY.**

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CHAP. I.

**T**He first Invention of *Money* was for a Pledge and instead of a Surety, for when men did live by Exchange of their *Wants* and *Superfluities*, both parties could not always fit one another at the present; in which case the Corruptions of Man's Nature did quickly grow to make it behoofful, that the party receiving should leave somewhat worthy to be esteemed for a Pledge, to supply the givers want upon the like occasion: Time did easily find out that this Pledge should be something not too common, not easy to be consumed with use, or spoiled for want of use, and this was *Money*.

The first use of *Money* was then by it to supply every man's particular wants. This introduced a second use of Cauponation, when men did by the Pledge of Moneys procure not only those things which they themselves wanted, but which they might sell to others for more money: and under that kind is all Trades comprehended, whether it be gross sale, or retale; and this use hath brought in a third use of Money, for the gain of cauponation did give a Colour to those that lent Money to such

as did encrease it by Trade, to take usury for it, which is therefore termed the most unnatural use of Money, because it is most remote from the natural Institution. Of this there are many kinds of which the most refined is that of *Exchange*, which is mix'd with an usury of place, as that is of time.

Thus did Money grow inseperably necessary to all *Exchange*, to make the things exchanged equal in value, for that all exchange is either by the actual or intellectual valuation of Money; that is to say, Either the thing is exchanged for Money, or if it be exchanged for another thing, the measure of that exchange is how much Money either of the things exchanged is conceived to be worth; and Practice hath found out that in values, which the *Geometricians* have found out in quantities, that two lines which are equal to a third line, are equal to one another: So is money a third line, by which all things are made equal in value, and therefore it is not ill compared to the *Materia Prima*, because, though it serves actually to no use almost, it serves potentially to all uses. It is not impertinent to examine these things from their ground in nature, or in use: For intending to treat by what means the course of money may best be governed to the advantage of the Common-Wealth, (a matter of so curious and subtil a search as the most solid understandings are dazled with it) it is necessary, first to lay down the first and plainest principles of the Subject, by which the understanding of the Writer and the Reader may be guided in the Labyrinths ensuing; and this subject being much obscured, not only by the intricacie of its own nature, but by the Art and Terms of those who do manage these affairs, I do intend to lay open all the mysteries to the comprehension of the attentive Reader. And for that purpose, I intend first *Historically*, to set down by what Degrees, and upon what Reasons the forms of Money and of Coinage, now practised are grown into use, and without

any censure or observation upon them : and I will afterwards treat a part of the inconveniences grown into this Subject of Money, and of the Remedies that may be applied thereunto.

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## CHAP. II.

*Of the Matter of Money.*

**O**F all things whereof *Money* could be made, there was nothing so fit as *Metalls*, as *Copper*, *Silver*, but above all, *Gold*; for they are first *useful*, which doth give them a value, then they are not over common, which doth increase it; they may be divided into as little parts as you will, and then returned into a greater mass: they are susceptible of any form, mark or impression to be made and fit to conceive it; they are of an exceeding long indurance against the Injuries of time or accident, they are hardly subject to any natural corruption, especially *Gold*, of the continuitie and incorruptableness whereof the *Alchemists*, who have most vexed that body, do write wonders; so as one affirmeth, *That it is harder to destroy Gold than to make it*; and they have sundry other properties accomodating them for the matter of Money; as the world hath by a general consent, and from all times received them for that purpose, especially *Gold* and *Silver*, of which chiefly I mean to treat: It is true that many particular Countries, have antiently, and do at this day use other things in stead of Money: (as to instance in some of the modern) in *Æthiopia* they use certain stones of *Salt* in stead of *Money*; in *Guinney*, *Shells*; in *New Spain*, *Cacao*, *Coco* in *Peru*, one of which is a fruit, the other an herb: but in all these Countries you shall find that there is a certain value set upon *Gold* and *Silver*, by which chiefly the value of all other things is *raised*, and that these other things do but serve as base Money doth in sundry Countries of *Europe*, where it is current in certain limits, by

the Law or Custom of the Place; but yet they cannot be without Gold and Silver *Money*, unless they will barr themselves from all commerce with other Nations: And to that purpose the Invention of *Licurgus* was admirable, who desiring to lock up his Citizens from all commerce with other nations, did upon great penalties banish all Gold and Silver out of the City; and as long as that Prohibition was observed, the manners and Customs of the City were preserved entire from the mixture of other Nations: but when their ambition and voluptuousness had entangled them in the Commerce of other Nations, then did Gold and Silver grow into use in despite of all Laws, by this universal value given unto Gold and Silver. I shall convince\* hereafter an important and a popular Error, by which many are perswaded, that Princes can give what value they list to Gold and Silver, by enhansing and letting fall their Coins, when as in truth Gold and Silver will retain the same proportion towards other things, which are valued by them, which the general consent of other Nations doth give unto them, if there be a Trade and Commerce with other Nations: By which intercourse it comes to pass, that if the price of Gold and Silver be raised, the price of all Commodities is raised according to the raising of Gold and Silver; so as let any particular Prince or State raise the price of Gold and Silver as they list, yet they will still hold the same proportion towards other things valued by them, which the general consent of other Nations neer about them doth give unto them: and this universal value of Gold and Silver, the mint, even in money, do call *Intrinsical*, and the local value they call *Extrinsical*, as depending upon impression of the mark and ordinance of the State. Now Money is said to have an *Intrinsical* value so much as there is Gold & Silver in it in fineness & weight, which

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\* Make evident

is computed in *France* (and was antiently likewise the Computation in *England*.) first for Gold, it is divided into 24 parts, which are called Carrats, and so when they say, the Gold is 23 Carrats fine, then it is understood there is a 24th part base, which is Allay mingled with Gold; or if they say, it is 22 Carrats fine, then there is a 12th part of Allay: or if they say 22 Carrats and one quarter fine, then there is so much Allay as there wants to make up 24 parts.

Silver is divided into 12 Deniers, and every Denier into 24 grains; as if it be said, that Silver is jj Deniers and 12 grains fine, then there is 12 grains of allay, which is a 24th part; or if it be said to be jj Deniers and 6 grains fine, there is then so much allay as it wants in the fineness to make it 12 deniers: But with us in *England*, ever since the time of *Edward* the third, the Computation hath been dividing the Gold into 24 carrats, and every carrat into a 4 grains, and every grain into so many parts as there is occasion offered to divide it; as for Example, The antient Standard of the sterling\* Gold was 23 Carrats, 3 grains, and one half of fine, and half a grain of Allay, which is the 192nd part; and the Silver is divided in *England* into 12 Ounces; every Ounce into 20 Pence, every Penny into 24 grains; as for Example, The old sterling standard is jj Ounces fine, and two Penny weight, then there remains eighteen Penny weight of Allay and, if there were jj Ounces two Penny weight, and 6 grains fine, then there would remain 17 Penny weight, and 10 grains of Allay: and again, when mention is made of a Pound of Silver fine,

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\* Much controversy has taken place in regard to the origin of this term. The better opinion seems to be that it is derived from the Easterlings, or foreigners so called (most probably Jews and Italians), employed at an early period, or between 1080 and 1160, in regulating the coinage of the kingdom Ruding, 3rd ed. v. I. p. 7: but see, also, Hearne's Discourses, vols. I. and II; Menage Dictionnaire Etymologique, voce Sterlin; Clarke's Connexion of the Roman, Saxon, and English Coins, p 80, &c

and Gold fine, the meaning is so much Gold or Silver pure, is a pound weight, besides the Allay which is mingled with it, but a pound of Gold or Silver wrought, is but just a pound weight as it is wrought either in Money or in Plate. The Allay being mingled with it according to the ordinance of the State, for the practise is now, almost in all States, to set a price upon Silver and Gold, according to the weight and fineness, above which price Gold-Smiths or others who trade in those metals wrought in Money, may not sell them; which price is in certain proportion underneath the value which is given to the same metals wrought in Money; the over-value allowed to the Money, being so much advantage given to the State in recompence of the charge of Coynage, and in Acknowledgment of the Sovereignty, which hath with it likewise this necessary use, that it makes the Money so much the less valuable to him that either would transport it into forreign parts, or melt it, and consequently retaineth the Money so much the better within its proper limits and natural form.

### CHAP. III.

#### *Of the Forms of the Money anciently and now in use.*

**I**T follows in the next place to be Considered, by what degrees Gold and Silver came into these forms of Money, which are now in use. And for that purpose it is most manifest that the most proper measure in nature for mettals is weight; and the notice of Antiquity doth confirm it that it was so in practice; for when the use of money hath excited the industry of men to search for these rich metals and by study and practice to discover their natures, it was easily found out that there was no measure so fit to them as weight: But it was speedily found out and discovered that weight alone was not a

sufficient measure for them, by reason that they are subject to mixture, and therefore there was an examination made of the pureness of them, and a mark impressed upon them to shew that they were approved; which was of no other nature, but as the Assaymaster in the West Indies doth mark the wedges of Silver to shew that they were approved of such a fineness, and as the Corporation of Gold-smiths in *London*, and other Cities, do mark the Bullion which is melted as a Testimony of fineness, but not to make it Current at any price, because the mark hath no relation to the weight but onely the fineness. The most ancient and most undoubted Testimonies whereof are in Scripture: as that of *Abraham*, when he had bought the field of *Ephron* for the burial of *Sarah*, for which it is not said that he *paid*, but *weighed* four hundred shekels of silver, approved among Merchants; which denoteth the fineness. And it is said that the sons of *Jacob* brought back their Silver in the same weight that they carried into *Egypt*; and *Tobit* lent unto *Gabael* the weight of ten Talents: By which it is manifest they did not count their Moneys in pieces, as they did in succeeding Ages, or by imaginary, or abstracted sums, as we do make their valuation, but by weight, the fineness only is approved of by the mark. It were tedious to search the proofs of *Antiquity* in this kind, but it is manifest that almost all the Names of Moneys, both among the *Hebrews* and *Greeks*, were not properly the names of any *species* of Money, but of several *sorts* of weight. As of *Sicle*, *Mina*, *Talent* and *Drachma*; so likewise the Original Moneys, both of the *Romans*, the *Francks*, and of the Monarchy of *England*, were the *As*, the *Livre*, the *Pound* and the *Mark*; and amongst the *Romans*, the ancient Receivers were not called *numeratores*, but *libripendes*; the names of Moneys being originally only the proportions of weight, and the mark serving only for a proof of the pureness of the Metal: There did succeed

a form of Money, wherein the impression did not only signify the fineness, but the weight also. This among the *Romans* was called *moneta*, from whence our name of Money is derived a *Monendo*: it is attributed to *Servius Tullius*, to have bin the first in *Rome*, to have stamped with an Impression a certain piece of Money which was called *As* (*as* being of Copper, and weighing a pound weight) and that he coyned lesser parts, distinguished by ounces: it was long after in the Consulat of *Quintus Fabius*, that the first Silver coin was made, called *Denarius*, because it was valued at ten *As*, and at the same time were made half and quarters of the *Denarii*, called *Sestertii*, marked *LLs*, to signifie *duas libras cum semisse*. The first *Denarii* were made of *Sextula* or six in the ounce: it was above threescore years after 'ere any Gold was coined, the first pieces were of such a weight as 40 made a pound: which Example of the *Roman* Coins, I do not alledge as the first, for it is manifest, that both the *Median*, *Persian* and *Grecian* states did use Coins, which by their Impression did signify both the weight and fineness; but because they were the first, whereof I have any certain relation, and upon whose ground all these parts of the World have formed their Coins and made their divisions of weight. It doth not appear what Allay was mingled or what Tribute was charged in the first *Roman* moneys of Gold and Silver; by which word of *Tribute*, I do understand whatever was subtracted out of the Intrinsic value of the Money, and allowed to it as an over-value towards the charge of Coinage, or right of Sovereignty, rated by the State, or what remedies were allowed for their weight and fineness; only it appeareth by their medals that they were cast in a mold. But after ages did grow to stamp their Coins finding how useful it was to have lesser coins than could well be cast in a mould, and also to avoid counterfeiting, which is with more difficulty in Coins stamped: and because it was hard to observe an exact

proportion of weight, there was a certain remedy of grains, beyond which, if the pieces of Coin did not fail of their just weight, they were to be received of Officers appointed, otherwise they were rejected to be new coyned. There was a Remedy of fineness, for when Alloy grew to be mingled in the Coins, the workmen could not constantly and precisely hit upon the mixture, and therefore had allowed them a certain proportion for Remedy, which if they did not exceed, their work was not subject to censure. This Allowance of Remedy hath been of two sorts, for when States would Coin their Money strong and rich in value, they did not give any allowance to any pieces of Coin under the just weight and fineness: but if they were of a just weight and fineness, not exceeding the grains of Remedy, then they were allowed; so as in this case, the Coins were upon accompt to be recompence for so much as the over-put in the Money, being within the remedy permitted, and this they call in French *Battre le fort*. But all States rather inclining to make their Moneys weak than strong, there is in these latter Ages another way practised, which is more general; that is, that Coins are not made one jot above the just proportion of weight and fineness, but (notwithstanding) the fail of either, so as it be no more than the grains of remedy, they are allowed as compleat: and by this means, upon Accompt, the Coiners are to make recompence to the State of so much as is short in their Coins, of the just weight and fineness, being within the permission of their remedy, which in French they call *Battre Sur le foible*. This is as much as I hold fit to be spoken of the Antient and Modern forms; Except I should discourse of the Inscriptions or Characters, or of the Figures of Money, which in some times and places, have been *long*, *oval*, or *square*, and are now almost everywhere round, which to the searchers of Antiquity might prove grateful, but to my purpose would be of no use.

## CHAP. IV.

*Of the Proportions held between Gold and Silver, Antient and Modern.*

USE and *Delight*, or the opinion of them, are the true causes why all things have a Value and Price set upon them, but the Proportion of that value and price is wholly governed by Rarity and Abundance: And therefore the Proportion of value between *Gold* and *Silver* must needs differ in several Times and Places, according to the scarcity or abundance of those *Mettals*. There is much Variety amongst Authors what Proportions Gold and Silver held to one another amongst the *Hebrews*, not out of the Difference of *Times*, but out of the Difference of Interpretations; for *Bodine* doth alledge the same places to prove that the Proportion was twenty five for one, which other Authors do alledge to prove it to have been 45 for one; and others 10 for one. There is a Passage in *Thalia*, of *Herodotus*, (§ 95) by which it appears, that Thirteen Talents of Silver were valued at one of Gold in the Revenues of *Darius*. And there is an Opinion received, That in the time of the flourishing of the *Grecian* Common-wealths, those *Mettals* were in the Proportion of twelve to one. It is also reported in *Pliny*, (without mentioning any certain time) That antiently the *Romans* did value a scruple of Gold at twenty *Sestertii* of Silver, which, if it were when the *Sestertii* were at the greatest weight, made the Proportion of twenty for one: and if it were when they were at their least weight, it made the Proportion of fifteen for one. But there is a clear Passage, in the 8th Book (§ 11) of the 4th Decade of *Livy*, of an Accord between the *Romans* and *Ætoliens*, that the *Ætoliens* might pay, instead of every Talent of Gold, ten Talents of Silver; and (in *Suetonius*) it is said, that *Cæsar*, at his coming out of *Gallia* brought such a quantity of Gold, that the Proportion betwixt Gold and Silver abated to seven and

one half of Silver to one of Gold:\* the abatement had not been credible, if the Proportion of *Pliny* had been twenty for one, or fifteen for one. But to come to later times, and to our Neighbours, which have therefore a more near Relation to us, both in time and place.

The proportion in *France*, in the time of King *John*, who was contemporant with *Edward* the Third, was 11 for one: and in the time of *Charles* the Fifth, who succeeded next to him, it was 11 and almost 12 for onc. And ever since the Proportion has been held between 11 and 12 for one. But by the Edict of this *French King* now reigning, *December* 1614, the mark of Gold fine is valued at 27*l.* 16*s.* 7*d.* the mark of Silver called *Argent le Roy*, is valued at 14*s.* 6*d.* and almost one half penny. But adding a 24th part to the two, to make it fine, which the Silver called *Argent le Roy* doth want of fineness, the proportion will arise into 13, wanting about a seventh part to one of Gold. In *Germany* about the year 1610, the Proportion held 13 for one, sometimes a little more, sometimes a little less; though antiently the Proportion was eleven for one. The Proportion in *Spain* hath a long time remained near about twelve for one. The Proportion in the *United Provinces*, by the Placcard 1622. (which is yet in force) is about 12 and two thirds fine silver, to one of Gold. But before I come to set the Proportions that have been held in this Kingdom of *England* I shall first set down, How I do inquire and resolve of the said Proportions, to the end I may satisfy such whose Curiosity may carry them to examine the truth of the said Proportions.

I do first examine by the Records of the several times, how much the Gold, then coined in work, is valued at, then I do examine what proportion of Allay is mixed in

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\* This is the inference drawn from the statement of Suetonius by Budæus and Casaubon (Sueton. Pitisci, vit. Jul. § 54). But other authorities reckon the proportion at about 8 to 1

the said Gold coined in work, and add to the same the said proportion of Allay, as if it were fine Gold, and so make up a full pound of fine Gold; and do just in the same manner, value the full pound of fine Silver and then calculate what proportion is between the value of the pound of fine Gold and the value of the pound of fine Silver. To which examination, I cannot conceive what can be objected other than this, That the remedies which are allowed, being different in the Gold from the Silver, and different in themselves, in different times, must needs breed an error in this Calculation. But to that objection I answer, that the remedies do make so small a difference that it is not considerable; and besides it were impossible to consider the remedies in this Calculation, because they are casual in the work and are supposed to fall out sometimes as well beyond the just standard as deficient: And from all Antiquity it is provided in the Indentures, that the remedies shall be allowed, if the defects appear to be casual and not voluntary. The Truth is, that they were an invention by which the Masters of the Mint made their advantage under colour of Contingency of the work, which appears to have bin first apprehended by King *Henry* the VII. who in the first year of his reign made the Masters of the Mint accountable to himself for so much of the remedie as was found deficient from the standard. The first clear record that I can find for the values of our Moneys, is in the eighteenth year of *Edward* III. and then a full pound of fine Gold was valued at 11*l.* of fine Silver, and eight pence over: From that time to the 25th of *Edward* III. there was some variety in the Moneys, but not worth the mention. But in the 25th a full pound of fine Gold was valued at 11*l.* of fine Silver, and 3*s.* 2*d.* over; and so it remained all *Edward* III. time, and all *Richard* II. time, and until the 13 of *Henry* IV; at which time both Gold and Silver were raised by advice in Parliament,

upon complaint that by reason of the low prices of Gold and Silver, the Money of the Realm was exhausted. And by that Ordinance a pound of fine Gold was valued at ten pounds of fine Silver and almost one half, and so it remained all his time, and all *Henry V.* time, and until the 49 of *Henry VI.* time, and then the Gold and Silver was again raised, and a pound of Gold fine was valued at 11*l.* of fine Silver and 6*s.* over. In the fourth of *Edward IV.* the Gold was abased in value, and the Silver left at the same price; by which means a pound of fine Gold was valued at ten pound of fine Silver, and 6*s.* 7*d.* over. But in the 8 of *Edward IV.* the Gold was again raised to the former price, as it was in the 49 of *Hen. VI.* and so the proportion remained just the same both all *Edward IV.* time, and *Henry VII.* time, and the beginning of *Henry VIII.* time: In 18 of *Henry VIII.* there were Letters Patent granted to the Cardinal of *York* and to such of the King's Council, as he should call unto him, authorizing them to give such Directions, as they should think meet, for the alteration both of the standard and values of the Kings Moneys, and a Commission was accordingly issued to the Officers of the Mint to pursue the said Directions; the Colour whereof was, That the Moneys of the Realm were transported secretly by reason of the excessive raising of Moneys in *France*, and in the *Low-Countries*, and that the King, having sent unto other Princes, could obtain no redress for the raising of their Coyns: Upon this Commission did arise great confusions in the prices and standards of the Moneys; which, with certainty I cannot trace any further, because the matter passing by private direction, there are no publick Records extant of them. In the third of *Edward VI.* a Commission was granted to coin Gold at 22 Carrats fine, of the value of 34*l.* the pound: and Silver of 8 ounces fine, of the value of 4*l.* 16*s.* the Pound. whereby a pound of Gold fine was valued at 37*l.* and almost 2*s.* and a pound

of Silver fine was valued as 7*l.* 4*s.* and by that rate, a pound of fine Gold was as five pound of fine Silver and 22*s.* over: which could not so fall out but through the excessive gain which the King did make upon the Silver more than on the Gold: and it seems that the proportion was much other between the Merchants in Bullion, for neer about the same time the King gave Commission to buy Gold for the Mint of 24 Carrats fine, at 58*s.* the ounce; and Silver of 12 ounces fine 5*s.* 4*d.* which is almost  $\frac{11}{12}$  for one. These confusions did still remain all King *Edward* and Queen *Maries* Reigns, but in 14 of Queen *Elizabeth* the antient sterling standard both of Gold and Silver was renewed, and a pound of Gold fine valued at 11*l.* of fine Silver, and 7*s.* 10*d.* over: In the 24th of *Elizabeth* the standard of Gold was abased one quarter of a grain, and of Silver one pennyweight, but the proportion between two metals near upon the same point: And although in these times the Crown Gold was coined upon another standard, yet the proportion in the Intrinsical value was kept the same. In secundo *Jacobi*, the proportion was 12 for one; but every 20*s.* being afterwards by Proclamation raised to 22*s.*; one pound of fine Gold of 24 carrats, is valued at 13*l.* of fine Silver of 12 ounces fine and one fifth over.

And these are the Antient and Modern proportions of Gold and Silver to one another in price, as punctually and authentically as by diligent search I could gather them. There is yet another proportion between mettals, which is not unnecessary to our purpose to be understood, which although I have not by mine own trial examined, yet having taken it from good Authors, I will not omit; and that is a natural and a constant proportion which mettals do hold differently to one another in weight in the same value and superficies: which is, that Gold weighs 48 parts, Quick Silver 27 parts, Silver 24 parts, Lead 22 parts, Tinn, Iron, Coper, 15 parts; which different proportion

of weight was the ground of that Conclusion of *Archy-medes* whereby he found out how much Silver the workmen of *Hiero* put into his Crown of Gold; and which is likewise the ground of many other subtil Conclusions, which have bin found out for the deprehension of mettals, and other mechanical works; and by this proportion those of *China* do examine the fineness of the Gold which is current amongst them, who by constant Relation, being said to be most subtile and exact in mechanical trials of mettals, have not the Gold which is current amongst them coined, but reduced into powder, which they do pass to one another in their commerce by weight, and do easily deprehend if there be mixture of Alloy amongst it by measuring the powder, and then tempering the weight and measure together.

## CHAP. V.

*Of the raising of the Price of Money both of Silver and Gold.*

**I**T is to be understood that there are three ways of raising the price of Moneys either Gold or Silver: The first is without alteration of the *Species* of the Money, by encreasing the value of it, by giving more parts to it than originally it had, as by ordaining an Angel or a Sovereign to be valued at eleven shillings, which was coined for ten, or a shilling to be valued at fourteen pence. The second way is by diminishing the matter, but leaving the same name and value to the Money which it had before, as if Shillings or Angels, or Sovereigns were coined by the same name and value as before, but were diminished so many grains in weight: or, if new names were given to them and the same value retained, but the weight diminished; for in this case, there being really less Gold and Silver in weight in the picce than there was before and the value remaining the same, the Silver and

Gold which remains hath a higher price set upon it. The third is when the value remaining the same of the species of Money, and the weight of the same, the fineness is abased by putting more Allay into it, for then there is really less Gold and Silver in fineness.

There are two causes of the raising of Money: the first and most antient cause of raising Money, was a gain which the State made of it in their Necessities, which hath not often been practised in this Kingdom. But the second and most frequent cause hath been, an Art which States have used to rob one another of their Money, by setting on higher prices upon it; so that some States being induced, by an unjust device, to draw to themselves the Money of their Neighbours, and others by a necessity to keep their own. All these parts of the world, for some few hundreds of years, have done nothing but vye one upon another who shall raise their Money highest, which hath brought great Confusion in all States; and doth threaten much greater, if it be not prevented.

But first to shew the Antiquity of the practice of raising of Monies we will begin with the *Romans*. The *As*, which was originally coyned of a pound weight, was, during the first *Punick* War for help of publick necessities, brought to 2 ounces, and all the lesser parts of the *As*, as ounces and others, were abated in proportion. During the *Dictatorship* of *Fabius Maximus* the *As* was brought to one ounce weight, and yet reduced again by *Papirius* to half an ounce. The *Denarii* of Silver were at first current for ten *As*, and the *Sestertii*, which were quarters of the *Denarii*, for two and a half *as*. But when the weight of the *as* was diminished to one ounce the *denarius* was made worth sixteen *as*, and the *sestertius* worth four *as*. They did likewise make sundry abasements (by means) of the Allay, whereof that of *Livius Drusus* was excessive, mixing an 8th part of Copper. And hereby the confusions grew so great, that *Tullie* in a passage

of his Offices saith, *Jactabatur enim Temporibus illis Nummus, sic ut nemo posset scire quid haberet (in pecunia)*; whereupon *Marius Gratidianus*, who being *Triumvir monetæ cudendæ*, brought in an exact Ordinance for the regulating of this Money, had *Statues* erected to him by the people.\* The first gold pieces were coined of 40 pieces in the pound, and in the time of *Justinian*, the same pieces, called *Solidi aurei*, were 72 in the pound. After the great inundations of the Barbarous people into the Roman Empire, the Confusions in this subject of Money grew incredible.

*Charles the Great*, in whose time the Monarchy of the *Francks* grew to the Height, made a new *Reglement* of Moneys, which is the same that continues to this day in *France*, and is the same which we do now practice in *England*, for the division of Moneys, though for the Values of them the difference is grown exceeding great: For he renewed again the Account by *Livres* or Pounds, and divided the Pounds into twenty *Solidi*, which in *France* they call *Sols*, and we *Shillings*; The *Solidus* again into 12 *Denarii*, which in *France* they call *Deniers*, and we *pence*. But the values are grown so different as every of our *Shillings*, our *Pounds*, our *Pence* are valued at ten of theirs: and yet in intrinsical value are more. Many do hold that by the Institution of *Charles the Great*, twenty *Sols* contained in them a Pound of *silver*. But it is authentically to be proved, both by unquestionable Records, and by Pieces themselves, of which I have some extant, that many hundred of years after, in the time of *St. Lewis*, who was contemporary with our *Henry the Third*, that the *Sols* then contained in intrinsical value near six *Sols* of this present King, so much hath the Money since that time been raised in price, and abased in substance, which is the same. In the Reign of *Philip the Second*, in the year 1181, the *French Mark* of fine Gold,

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\* Cicero de Officiis, lib. iii. § 20.

which makes almost 8 ounces of our Pound, was valued in the Moneys then at 44 *livres*, and the *Mark* of the King's Silver was valued at 2 *livres*, 13 *sols*, and 4 *deniers*. And by the Edict of this present King, in the year 1614, the *Mark* of the same Gold was valued at 278 *Livres*, 6 *Sols*, 6 *Deniers*. And the *Mark* of the same silver was valued at 20 *Livres*, 5 *Sols*; so that in this time, the Gold hath been raised to six times, and almost the third part of the price which then it did bear; and the Silver hath been raised much above seven times the value which then it did bear.

I will not trouble the Reader to set down by what degrees this Price has grown to so great an height which have been very various, the Price having been sometimes excessively raised and sometimes sudainly reduced back again by the *French Kings*, and most commonly to make a Levy of Monies upon the People, which hath bred infinite Confusions, and sometimes Rebellions in that Kingdom.\*

But I will now come to the Kingdom of *England*, where the raising of the Price hath been with a more constant hand, and, almost alwayes, out of a kind of Necessity to follow the raising of other States; yet, from time to time we shall not finde the Rates of the raising much to differ from those of *France*. But I cannot begin from so antient (a date) as in *France*; The first Record that I can find for this purpose being in the eighteenth year of *Edward* the Third, which was in the year of *Grace* about 1314. And then a pound of Gold of sterling Standard, which is 23 carrats, 3 grains, and one half fine, was valued at 13 pound 4*s.* 8*d.* and a pound of Silver of sterling Standard, at 22*s.* 2*d.* The 20th of *Edward* the Third, the pound of Gold of the same Standard was raised to 14 pound, and the pound of Silver to 22*s.* 6*d.* In the 27th

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\* See Henault "Abregé Chronologique." Anno, 1364.

of *Edward* the Third, the same Gold was raised to 15 pound, and the same Silver to 25*s.* the pound: the rest of the reign of *Edward* the Third, and during all the Reign of *Richard* the Second, and until the Thirteenth of *Henry* the Fourth, the same prices remained. And then by the Advice of the Parliament, to prevent Transportation, the same Gold was raised to 16 pound, 15*s.* and the same Silver to 30*s.* the pound; and this price remained all the rest of the reign of *Henry* the Fourth, and during all the Reign of *Henry* the Fifth, and until the 49th of *Henry* the Sixth; and then the same Gold was raised to 22*l.* 10*s.* and the same Silver to 37*s.* 6*d.* But in the fourth of *Edward* the Fourth, the price of the same Gold was brought back to 20 pound 16*s.* 8*d.* the Silver remaining as before. And in the eighth of *Edward* the Fourth, the Gold was again raised to the former price of 22*l.* 10*s.* the Silver still remaining at 37*s.* 6*d.* And this price remained all the rest of the Reign of *Edward* the Fourth, all the Reign of *Richard* the Third, all the Reign of *Henry* the Seventh, and all the beginning of *Henry* the Eighth: But in 18th of *Henry* the Eighth, a Commission issued forth for the Alteration of the Standard, and of the Prices of Moneys, according to the Directions to be given by the Cardinal of *York*, and such other of the King's Council as he should call unto him: from whence issued so great a Confusion, both in the prices and Standard of the Moneys, as would prove very difficult to trace out, and tedious to read, as well for the Obscurity as for the great Variations, which succeeded: And therefore I pass over all the rest of his Reign, as also those of King *Edward* and Queen *Mary*, and until the fourteenth of Queen *Elizabeth*, when was again coined Gold and Silver of the antient sterling Standard, the Gold at 36*l.* the pound, and the Silver of the old Standard at 3*l.* the pound: and although there were at the same time and after much crown Gold coined, yet the intrinsical value of

it was governed by (the weight and fineness of) the Angel of Gold: In the 25th and 26th of the Queen, she abased the standard of the Gold one quarter of a grain, and the standard of the Silver one penny weight, whereby the price of the Gold was raised one shilling 10 pence in the pound, and the price of Silver 3*d.* in the pound.\* But in the second year of King *James*, the price of the Sovereign,† in gold which is but 22 carats fine, was raised to 37 pound, 4 shill. being almost one eleventh part more; and by the Proclamation,‡ by which every 20 shilling piece was made current for 22 shillings, the said Gold was yet raised another tenth part; so that the increase of the price of Gold has been such by the Degrees before specified, that every pound sterling, by reckoning of Gold-coin, and every part of a pound, as Marks, and Shillings, &c. in coin of Gold, did in the eighteenth of *Edward* the Third contain in intrinsical value (*id est*) in pure Gold, thrice as much and above a third part more than the same pound sterling in reckoning of Gold-coin, marks, shillings, &c. does at this day contain. And every pound sterling in reckoning of Silver-coin, and every part of a pound, as marks, shillings, &c. in Silver-coins did in the 18th year of *Edward* the third, contain in intrinsical value, (*id est*) in pure Silver, thrice as much, wanting about 1-6th part as the same pound sterling, in reckoning of Silver-coins, marks, shillings, &c. does at this day contain.§

There is yet another Proportion of Gold and Silver to be inquired into as necessary to be known; and peradventure

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\* In the 43rd of Elizabeth a pound of standard silver, Troy weight, was coined into 62 s.

† That is the *pound* sovereign; the *fine* sovereign, a distinct coin from the other, was 23 car., 3½ gr. fine. Snelling's "Gold Coinage," p. 21.

‡ Issued 28 November, 1611, the 9th James I.

§ The exact proportion was 2,622 to 1. For a fuller and more accurate account of the successive changes in the standard of money and in the weight of the coins, see Mr. Lowndes' Report and the Tables in a subsequent part of this volume.

ture more necessary than either of these: And that is to enquire what Proportion our *Gold* and *Silver* holds in Value, being in Bullion, as it is presented to the Mint by the Merchant, in Comparison of the near adjoining Countries: For by this Proportion we shall discover the Reason why the Merchant Brings *Gold* into *England* rather than *Silver*, and *Silver* into *Holland* rather than *Gold*, or, why he carries both, or either of them, into one Country rather than into another. And for that purpose, I will first begin with *England*, and then compare it with some of the nearest neighbouring Countreys.

In *England*, where the Merchant for so much *Gold* fine of 24 carats, as makes a pound, Tower weight, doth receive 43*l.* 7*s.* 1*d.* according to the rate of the Mint, which is 41*l.* 5*s.* for a pound weight of Sterling *Gold*.

In *France*, according to the Edict of this King, *Anno* 1614, which is yet in force, the Merchant receiveth at this Mint for so much *Gold* of 24 Carats, as makes a pound of Tower weight, but 426 *livres*, 4 *sols*, so as receiving ten *livres* French for a pound sterling: the Merchants in *England* for the same *Gold* receive 14*s.* and about 9*d.* sterling, or 7 *livres*, and about 7 *sols* and one half French more at the Mint in *England* for the same quantity of *Gold*, than the Merchant doth receive at the Mint in *France*. Of *Silver*, the Merchant, at the Mint in *England* receives for so much fine *Silver* as makes a pound, Tower weight, 31*l.* 4*s.* 6*d.* the Merchant receives at the Mint in *France*, for the same quantity of fine *Silver*, 34 *livres*, 7 *sols*: so that the Merchant receives at the Mint in *France*, for the same quantity of *Silver*, 2 *livres*, and 2 *sols* French, or 4*s.* and almost 2*d.* half penny more than the Merchant receives at the Mint of *England*. This Account I do make reckoning the 12 ounces, Tower weight to make, as by tryal it has been proved, 12 ounces and 6 *deniers*, *Paris* weight.

As for the *United Provinces*, &c.

## CHAP. VI.

*Of Base Money.*

**I** Do not mean by base *Money*, Money of pure Copper, which in all States and in all Ages hath almost always been used, at the first for want of Gold and Silver, and now since, for the necessity of the poorer sort onely, and not for Commerce and Trade, as our farthings have lately bin introduced : But I mean that mixture of Metals, wherein Silver is incorporated with other baser Metals, not for Allay but to the extinction of the denomination of Silver; as Wine, when it is watered beyond a certain proportion looseth the name of Wine. And in all the Countries of *Europe*, as far as I can learn, except *England* and *Muscovia*, is used for Commerce and Trade amongst the people: which mixtion of mettals however it hath been practised at times in former Ages, out of the extream Necessities of the Common wealth, yet I do not find that it hath been constantly embraced (as now it is in all parts) until about Eightscore years since, about which time it was introduced into *France* by *Charles* the Seventh. The pretences whercof were these.

First, That there was no Intention thereby to raise the price or to diminish the weight of *Silver*, but that this Money should be as good in intrinsical value, as in the Money of purer Silver, save only a small charge laid upon it for the Coinage: then that by coining small pieces of a penny, two pence, or three pence, or thereabouts, the pieces, by the mixtion should have a greater bulk, and so be preserved from loss, which must needs frequently happen by reason of the smallness of the pieces, if they were made of pure Silver, so likewise they should be preserved from wearing: and again, that the Gold-Smith should by

this means be kept from melting them, and the Stranger from exporting them, because the charge of refining them and drawing the pure Silver out of them would far exceed the profit: These are the Pretences by which base Money was first introduced, but if they be weighed against the Inconveniences, which have followed upon it, it will be found one of the most mischievous Inventions that ever was found in matters of *Money*. I could hardly resolve with myself to insert this Chapter in this Discourse, because having mine aim only at the good of this State, it seemed unnecessary to treat of this Subject, since we have no base Money in *England*; but when I consider, that in some unhappy seasons heretofore we have had base Money; and that it is not impossible, but that the like Projects may again be revived, I determin'd not only to treat, but to go through with it all at once, and not to interrupt this Discourse any more with that Subject: And therefore to set down the Inconveniences that have followed it, which in the former Chapter I did forbear, reserving both the Inconveniences and the Remedies to be treated of apart. The first Inconvenience then of the great mixture of Mettals, is the falsifying of them; for both in reason it is too true, that by this mixture both the Colour, Sound, Weight, and the other more hidden Qualities of the different mettals are so confounded as the falsity cannot be discovered, but with extream difficulty: and by experience it is verified, that in all those Countries where base Money hath course, the greatest part of it is not coyned by the State, but either counterfeited by the Natives, or brought in by several Strangers.

Secondly, It is true that the *base Money* was first coined in *France*, of an intrinsical value, almost equal to that of purer mettals, and so it continues to this day, for so much of it as is coined by ordinance of the State, (the greatest part being falsified:) But in most other Countries (as namely in *Spain*) the State it self, to raise a

Tribute upon the people, hath extreamly falsified the intrinsical value, by which means both the State hath for gain, Coins much more than there is occasion to use, and there is incomparably more counterfeited by others, so as the mischief doth hourly multiply.

Thirdly, The values of Money are continually raised from time to time, which is no new Device (as is already more particularly declared) the *base Money* must then in Proportion be likewise raised, which cannot be done by increasing the value of the particular pieces for being of so small price, the fractions would be irreconcilable, so as there is no other way left to raise the *base Money*, but by coining new, of a weaker Intrinsical value. I would then gladly know what becomes of all the old *base Money*, either it is melted down by the *Bullioners*, which is the name in *French* of those who by culling and trying of Coins make their profit to melt them; or it is transported by strangers, so as in effect the use of *base Money* doth bring that inconvenience, the avoiding whereof was made one of the chiefest Pretences for Coinage of it.

Fourthly, It is truly observed, that in all those Countries where *base Money* is current, there the price of Gold and Silver is daily raised by the people, not only without the Ordinance of the State, but contrary to, and in despite of all Prohibitions to the contrary, which draws with it extream disorders and mischiefs, so it is in the *Low Countries*, so it is in *France*, so in *Germany*, and in *Spain*; although the Ordinance for the value of the Gold and Silver may securely be maintained by this help, that no Forrein Coin is there current; yet when you come to change *base Money* for Silver or Gold, you shall find how the people there raise the price unto you of the *purser Money*; But in *England* and *Muscovia*, where no *base Money* is in use, there the people never raise the price of Gold and Silver (except by Ordinance of the State it be directed,) neither doth Experience only try

this Conclusion, but Reason also; for the people when they see the Money of base and uncertain mixture, do disesteem it, and in comparison thereof do esteem the Money of purer Gold and Silver above the proportion, and so do raise the price of it; and this esteem is not merely out of opinion, for that really, that piece of *base Money* which hath as much fine Silver as a penny, is notwithstanding not worth a penny, because the mixture makes that you cannot extract this penny in pure mettall, without loss and charge: and if the people do hold this base esteem of this mixture which hath in it the intrinsical value for which it is current, how much more base esteem must they hold of that mixture, which they know hath not neer in it that intrinsical value for which it is current, and how much more must they needs raise the Silver. And certainly *base Money*, when either it is at first coined much in the intrinsical value under the extrinsical, or is by degrees brought unto it and long so continued, doth in the end breed either *Insurrections* among the People, or rejections of it; whereof the examples of *Insurrections* are very frequent, and therefore I will forbear to instance in them. But I cannot omit one example of *Rejection*, because it is so fresh in Memory, which was in *Ireland* in the end of the Reign of Queen *Elizabeth*; which Country although it was newly vindicated from Rebellion, and did patiently endure all the imperious Directions which a late fresh Victory did bring with it, yet as soon as the Exchanges of *base Moneys* sent thither did cease in *England*, it was instantly rejected there, and would not pass current for so much as in the true intrinsical value it was worth, but was bought up at under rates by such as made profit by melting it.

Fifthly, The Dishonour that accompanies *base Moneys*, is of a more important Inconvenience than all the rest, for what can be more dishonourable than to have the Image of the Prince, or the Mark of the Publick Attestation

tion impressed upon false and counterfeit'd stuff: according to the saying of an Emperour, *Quid enim erit tutum si in nostra peccetur Effigie?* And if there be gain made of it, it is a manifest breach of the publick Faith, for that it hath no other course than as it hath publick warrant to be good. Nay, this point of Honour hath so far prevailed in the World, that it hath been made an Observation by many, that in all great Divisions in States and Monarchies, that party hath infallibly the juster cause which doth most loyally use this publick trust of Money, and doth most warily proceed, either to the *raising* of the price, or the *abasing* of the matter thereof: which Observations are not without warrant of Experience nor of Reason also; for that all raising of the price and abasing of the matter of Money for gain, drawing with it an unjust, ruinous and unequal burthen upon the people, they that maintain the better cause, like the true Mother, will choose to loose the cause than that the Child should be destroyed. In which loyal maintenance of the publick Faith in matters of Money our Kings do incomparably outshine all other Princes and States of *Europe*: for if *Spain*, and some other States do equal them in the pureness of the mettals, and the low values of their Monies of Gold and Silver, yet they have made themselves farr inferior unto them by filling their Countries with *base Money*. And if in *Muscovy* they have coined no *base Money*, yet they have raised the Standard of their Silver so high, by diminishing both the fineness and weight, that the Silver itself scarcely deserves that name. And this I hold for a glorious mark of the equitable Government of this Kingdom; and let them that list admire foreign matters, for my part, I am perswaded both out of what I have seen and can learn by other means, that there is no State in the World more excellently tempered than this of *England*, or wherein the Prince is more absolute in all things, wherein it is good for himself and the publick,

that he should be absolute; or where the great men are more honoured without license of oppressing the People; or where the People do live more freely or so happily as in *England*. As for the Remedies of this Inconvenience of *base Money*, I do leave those Countries to struggle with them that are afflicted with it, for us in *England* the remedy is plain and easy, which is mainly and constantly to keep it out. Thus far I have proceeded in the History of Money to set down, as briefly as I could, by what degrees Money hath grown into that *form* and *state* as now it is governed; but have forbore to speake of the Inconveniencies grown therein, and of the Remedies thereof, save only in this last Chapter, which I mean to propound and debate in the rest of this Discourse, for the opening of the Readers understanding without making any positive conclusion, but leave that to every ones private Judgment.

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## CHAP. VII.

Of the *Inconveniencies* in general grown in the matter of Money.

THE Inconveniencies which are accident to this Subject of Money are in general but two, *Raritie* and *Confusion*; which although they do *coincide* many times in the subject, that is, that *Rarity* breeds *Confusion*, and *Confusion* breeds *Rarity*, yet in their Nature they do differ, and many times likewise in the Subject; and there is seen *Confusion* without *Rarity*, and *Rarity* without *Confusion*: yet this latter branch of Confusion will yield small matter to our discourse, because in *Egland* no forreign Coins are current, nor *base Money*; there is no variation in the Mints, there being but one; and there is very small

Varieties in Allayes ; in the Silver Money none at all, and in the Gold, but two, all which are occasions of confusion in the matter of Money. As for the other branch of *Rarity*, the causes thereof, when we come to handle them, will appear both very various and very intricate. And, if I were to handle this Subject as part of a Treatise of the best Form of a Common-wealth, I would first endeavour to search out what proportion of Money were fittest for the Common-wealth, for if Money were invented for the Exchange of things useful to man's life, there is a certain Proportion for that use, and there is, as well a too much as a too little: Because that the want of Money makes the life of the Citizens penurious and barbarous, so the over-great Abundance of Money makes their lives luxurious and wanton, by reason of the great Commutability of all things for Money, by which the vain and vicious Fancies of men are presently supplied with all that they do affect. But I must apply my Conceit to the Common-wealth as it is, not as a *Philosopher* may frame it by discourse: and therefore ought rather to Imitate a good Rider, than a good Breaker of Horses, whose part it is to perfect the Horse in all his natural actions, and to redeem and win him from all vicious affections; but for the Rider it is enough if he do use him to the best Advantage such as he finds him.

Now all the Common-wealths of the World are grown to such a Depravation, that not only the exchange of Necessaries, for which Money was first invented, but all things else are valued by Money, the services and duties of the Common-wealth, the virtue and the lives of the Citizens; so that in the common opinions, that State that abounds in Money, hath Courage, hath Men, and all other Instruments to defend itself and offend others, if it have wisdom how to make use of it: and upon this ground it was said, during the time of the late Wars in *France*, that *that side that had the last Crown to spend must be infallibly*

*victorious.* And it seems that in the *Low-Countries*, on both sides they are of the same opinion; for so they may draw Money by it from their Enemies, they do furnish them with Victuals and other Provisions to sustain their Armies by Pasport and publick Avowal. Hence it is that in the modern Forms of Common-wealths there is no Proportion, no Mediocrity of Money, but all do strive to abound with it, without any stint. And hence it is that *Rarity* is almost the sole Inconvenience in matter of Money; The *Rarity* of Money doth grow out of these Four Causes following, *viz.*

First, Want of means to bring in the Materials of Money.

Secondly, Facility of exporting them.

Thirdly, The wasting of them in the Kingdom.

Fourthly, The great encrease of the proportion between Gold and Silver, and the things valued by them.

*First*, the want of means to bring in the Materials of Money, may be reduced into these heads.

First, The want of Manufactures, for Manufactures do breed Money, and Money again doth breed Manufactures, which is apparent in divers States and Cities, that have no natural commodities of their own, either to exchange for other Commodities or to bring in Gold and Silver, which do yet notwithstanding abound with both by reason of their Manufactures, and as the Stocks of their Money do encrease, so do their Manufactures encrease withall. But the ways of encreasing and maintaining Manufactures do depend upon other considerations in civil Government, and in no sort upon the course of Money except by accident, that the good Government of the course of Money may breed plenty of Money, and plenty of Money doth help to encrease Manufactures, and therefore to speak no more of this Subject; I propose

A Second Cause of want of Means to bring in the

Materials of Money, is the want of *Sumptuary Laws* to be made and executed, for as in private Families there is no so easie and certain way to thrive, as the cutting off superfluous expences, so is it in the Common-wealth; and that which the Industry and Will of the Master doth perform in every Private Family, that the Magistrates and Law ought to perform in the Common-wealth. But this Title likewise hath no Coherence with my Subject; and therefore I do omit to speak any further of it.

A Third cause, is the want of Sufficient Search of these Mettals in the Bowels of the Earth within the Kingdom, and it is a certain Experiment that there are sundry Mines of Silver in this Kingdom: and there is ground to believe both that they are of great Profit and of long continuance, if the working of them shall be well regulated by the State, and judiciously prosecuted by the Undertakers: but this also hath no dependance upon my Subject, and therefore here I leave it.

The fourth cause of the want of means to bring in the Materials of Money is the *impediments of Trade*, which are very many, and of subtile disquisition; but have no dependance upon our Enquiry, but by accident; and therefore I leave them to be discussed where it appertaineth.

A fifth Defect, in the bringing in of the Materials of Money, is the Prohibition of Forrein, especially *Spanish*, and this Title hath entirely relation to our Subject, and hereof I purpose hercafter to examine the *Inconvenience* apart, together with the *Remedies* propounded.

A sixth cause, is the Low price of our Moneys, especially of our Silver Moneys, which is the cause assigned by many that much of the Materials that would be brought hither into *England*, if the price were higher, is now transported into other parts: And in this Title I mean first to examine apart the disproportion between our

Money of *Silver* and *Gold*. But the low price of our Money in respect of our Neighbours and the raising of it higher, or not raising of it, or the reducing of it yet lower, according to the values of more ancient times, and the Inconveniencies that may grow by the one or the other, and the remedies propounded will occur to be considered in every division of the causes of the *Rarity* of Money. But to avoid Confusion, I do purpose to handle them all together in one Chapter.

The Second cause of the *Rarity* of Money and the Materials thereof, is the facility of exporting them out of the Kingdom which doth arise out of these Causes ;

First, out of raising of prices of Moneys by our Neighbours, which in effect is the samē with the former of the low prices of our Moneys ; for by giving a greater price for our Moneys, than it is valued here with us, they allure both our own and Forrein Merchants to carry our Moneys to them.

A Second Cause is the unequal Coinage of our Moneys, by which it cometh to pass that those pieces which are over heavy and of finer Allay, are tried and culled out, and either exported into Forrein parts, or melted down for other uses. And although it might be thought that the strict care used by the State in this behalf should have prevented this mischief, yet daily experience doth shew that great Quantities of the weightiest and best Moneys are daily exported, and that the Silver which remaineth amongst us is so much under the Standard as is hardly credible : which matter I purpose to handle, being naturally incident to this subject. The want likewise of Manufactures and *Sumptuary Laws*, are two causes of the facility of the exporting the Money and the Materials thereof out of this Realm, for by the encrease of Manufactures, the Commodities of the Kingdom are increased, and by *Sumptuary Laws* Forrein commodities are made less useful, both which conduce to the keeping of the

Money and Bullion within the Realm. But these causes are not of our consideration.

A *third* cause of the *Rarity* of Money and the Materials thereof, is the *wasting* and *consuming* it within the Kingdom, as in *guildings*, *gold* and *silver-thread*, and *inlayings*, all which is consumed in a manner to nothing; the excessive use likewise of *Plate* maketh Money scant, but all these Defects are to be remedied by *Sumptuary Laws*. The laying up of Money also in Treasure, is likewise a Cause of *Rarity*: But the Interest of Money is so high and quick in *England*, as I believe that cause doth little prejudice.

The *fourth* cause of the *Rarity* of Money and Materials thereof, which is the great Encrease of the Proportion between *Gold* and *Silver*, and things valued by them is entirely of our Consideration. And this cause doth diminish the quantity or decrease the weight or fineness of the *Gold* and *Silver*, but doth encrease the use and want of *Gold* and *Silver*, and so maketh the Money and Bullion of the Realm in general, and of every man in particular, less in effect and value, though the quantity do increase. As for Example: If a pound of Silver of the sterling Standard, coined into Money in *Edward* the Thirds Reign, would have bought two fat Oxen, or seven quarters of *Wheat*; and that now at this day, two pounds of Silver of the sterling Standard coined into Money, will do no more than buy one fat Ox, or three quarters and one half of *Wheat*: and, if other things are increased in price according to that value, and that the like proportion doth hold also in Gold; it doth then follow that although the Realm in general, and every man in particular should have now twice as much of Gold and Silver in weight and fineness, as in King *Edward* the Thirds Reign; yet in use and effect they should have but half as much as then, because this double quantity in *weight* and *fineness* would in proportion to things valued by *Gold* and *Silver*, arise

but to half so much as then; and so the great Increase of the Proportion between *Gold* and *Silver*, and things valued by them, doth induce a *Rarity* and *Scarcity* of these *Mettals*, though the Quantity should increase. But what the just increase of this Proportion is, and by what means it may be certainly proved, and how the *Raritie* may be remedied, I purpose to treat hereafter.

Thus I have set down in general all the constant and certain Causes of the *Rarity* of Money: of so many of which as are incident to our Subject, I purpose to treat in particular: As for the other Branch, of the *Inconveniencies* of the matter of Money, which is Disorder and Confusion, I purpose not to make any title a part of it, both because, as I have said before, the occasions of Confusions in *England*, in this Subject are very few; and that I shall aptly have cause to speak of it by the way, in the Causes of *Rarity*, which I mean to handle, not in the Method set down in this Chapter, but begin with the plainest and easiest Titles. and of most certain Proof, first to the end that they may serve both to the opening and facilitating the Proof of the more difficult and obscure.

## CHAP. VIII.

*Of the low Price of our Silver.*

**I**T hath been declared in the Chapter concerning the Proportion between *Gold* and *Silver*, that now in *England* Thirteen pound and one fifth of *Silver* doth but answer in value to one Pound in *Gold*, which Proportion is much above the Practice of former Ages in *England*, and other Countries about, both heretofore and at the present, which is principally grown by the great raising of *Gold* 2s. in the pound, in the 9th year of his late Majesty's Reign, at which time or at any time since, *Silver* hath not been raised: the first Effect whereof hath been, That

great Quantities of Gold have since been coined, but little or no Silver, except now very lately. And of that Silver which we before had, the weightiest hath been culled out, and transported or melted, and that which doth remain amongst us, is so light, as the lightness only doth preserve it in use, and the scarcity thereof is so great, that a man may go into a great many shops in *London*, of great Trade and Commerce before he shall get a 20s. piece in *Gold* to be chang'd into *Silver*: and far the greatest part of all payments is made now in Gold, contrary to former times; whereas the true Rule for the good of the Commonwealth is, That there should be such a Proportion kept between *Gold* and *Silver*, as that they might equally abound, and of the two Silver most abound: the Reason whereof is, That the greatest part of the Commerce of the Kingdom, and almost all the Inland Commerce, is made in *Silver*, the want whereof doth greatly prejudice the same. The Remedy of this *Inconvenience* is plain and easy in the general, and *Theory*, which is to reduce the *Gold* and *Silver* to an equal Proportion, but when you come to the *Practick*, there does arise two great Difficulties, the *first* to find out what this equal *Proportion* is, the *next* how to settle it, whether by *reducing* the Gold unto the Silver, or by *advancing* the Silver unto the Gold.

I. Concerning the *first*, Many are of opinion, that the Proportion should be left as it is; for they say, Although our *Gold* be very high priced, yet it answereth the weight of the King's Ordinance, being continually weighed, and rejected if it be not weighty. But our Silver is not so, being much lighter than the King's Ordinance, as will easily be found by whomsoever will make the Experiment, and yet passeth current, being never weighed; so that although by the King's Ordinance, the Silver be above 13 fine in Silver, for one fine in Gold; yet in Practice, by reason of the lightness of the Silver, the Proportion is

much short of that. But they that give this reason do not consider, That in this manner, although our Silver will remain still in use amongst us, as long as it lasteth, by reason of the lightness of it, yet of all that is new coined according to this Ordinance, the weightiest and loyallest will be continually culled out, and transported, or melted: and therefore since the Experience of the *scarcity* which we have of Silver doth sufficiently prove unto us the Inconvenience of the Proportion, it ought to be altered. Others would have the Proportion to be eleven or thereabouts, because that was the ancient Proportion, both amongst us here in *England*, and amongst our Neighbours. But since that Proportion is under that of all our neighbours at this present, it would in time fall out thereupon that we should suffer as much scarcity of Gold as we do now of Silver. But the most, and the most Judicious Propositions that I have seen, both at home and in other parts, do agree upon twelve for one, as the most equal Proportion; and it agrees with the Proportion of *Spain*, upon which in this Subject, we ought principally to have our eye fixed: and for my part, I do the rather incline to this Proportion, because 12 of all the numbers is most proper for Money, being the most clear from fractions and Confusion of an Accompt, (which ought not to be neglected) by reason That of all other numbers it is most divisible, being divisible into unites as all numbers are; into two parts as no odd number is; three parts as no even number is but six, and the numbers that consist of sixes; fourths into which six is not divisible; and into sixths: This Proportion seems like to square with the Concept of the *Alchymists*, who call Gold *Sol*, and Silver *Luna*, whose Motions do come near upon the point of 12 for 1, and the Concept of many men hath run so strongly upon the Proportion of 12 for 1, that they'd have it hold as well in Money wrought, as in Gold or Silver fine, so as the Pieces of Silver and

Gold should weigh one the other; and 12 in Silver should answer in value one of Gold.

But the Proportion cannot hold both in Money wrought, and Silver and Gold unwrought, except the Alloy should be likewise made equal, and then it follows that there should be 12 times as much over-value allowed to the Gold as to the Silver, which were a rate beyond the present allowance, and would much weak'n the Money of Gold in *intrinsic* value; yet that point doth justly meet with the practice which in ancient time was in *France*, there being in an ancient *Reglement* of Moneys, this following Article, *Que l'on face Monoye d'or a 23 carrats & rendra aux Merchans d'un Marc d'or fine, vn Marc d'or ouvré, & Monoye a ladite loy.* And by the same *Reglement* the Silver Money was made of 11 deniers and 12 grains fine, called *Argent le Roy*; and some others do find it a very subtle Inconvenience in the want of laying so many times a greater Charge and Tribute upon the Gold than upon the Silver, as the Gold doth exceed the Silver in value, proportion for proportion; alledging that for one main reason, why the Gold is always raised and esteemed somewhat higher than the publick Ordinance, because the Gold Money is really so much more in value than the Silver Money, according to their rates, by how much there is less Charge and Tribute laid upon the Gold in proportion than upon the Silver. But admitting the *Objection* made, that if there should be 12 times as much charge laid upon the Gold as upon the Silver, it would be too great a weakning of the Gold Money, and it would be too great a *discouragement* to the Merchant to bring his Gold to be coined, it may easily be salved here in *England*, according to the custom of our Mint, by making the price of Gold fine unwrought, somewhat more than 12 for one, and allowing so unto the Merchant, leaving the charge the same, which now it is.

For the Second point to wit, *whether the Proportion*

*should be settled by raising the Silver in price unto the Gold, or by reducing the Gold unto the Silver.*

First, In speaking thereof, I do not mean to anticipate that Question, *Whether it be beneficial for the Commonwealth, that the prices should at any time be raised or not?* which is the proper Subject of another Chapter, and is indeed the most Importunate, and the most difficult Question of any other in matter of Money: Although it be true, that the raising one of the Materials of Money doth produce all the Inconveniencies that are produced by raising of both the Materials; and it doth likewise breed this further Mischief, that it causeth a greater scarcity of the other Materials which is not rais'd; yet in the present Estate and Condition wherein our Silver doth now stand, we shall find by the subsequent Discussion of this Question, that by the raising of the Silver to a more equal Proportion to our Gold, these Inconveniencies have no place.

And *First*, If you shall abase the Gold to hold a proportion of 12 to 1 with the Silver, besides the general Objection against all Abasements, which is *Exportation*, there will this particular Inconvenience follow, as we now stand, That you cannot abase it to the just Proportion without new coyning of all the Gold, which will produce both an extream *trouble* and *Confusion*, and exceeding loss unto the Kingdom, and is by the Prescripts of many excellent *Roman* Emperors condemned, as savoriug of Injustice and Envy towards the memorie of precedent Princes to deface their Coins. And besides the scarcity of the Silver will still remain, for their continuing still so great a disproportion between the new Silver which shall be coyned according to the antient standard weighty and good, and the old Silver grown so much over-light, partly by the wearing, but especially by that culling out and exporting that which was coined either over-heavie, or of just weight; and that which was coyned over-light only

remaining; how will it be possible, but that so much of the new Silver which shall be coined either of over-heavy, or of a just weight, will still be culled out, either to be transported, or to be melted down for other uses? If on the other side the Silver shall be coined hereafter of a new standard answering to a proportion of 12 for one of the Gold, as now it stands; the Merchant will be encouraged to bring more in, the reminting of the antient Money shall be avoided; and if that supposition be true, that the antient Silver is so much too light, then neither will the antient Silver be exported upon the raising of the new, neither will the price of the things be raised, since the new Money (although in standard it differs) yet in truth of weight will hold so near a Proportion with the antient: and here it will be necessary to observe the Examination which we have made in several places of this Treatise.

First, In what Proportion, for the values of our Gold and Silver, it is most useful for this Kingdom to stand, in respect of our Neighbours neerest about us, and then examine how indeed we do stand with them? Where I do find an exceeding great abuse, because those who do manage the affairs of the Mint do make their Computation of the Standard of Forreign Coins, meerly as the Gold-Smiths do by melting of them: the error of which Computation will easily be apprehended, if any man shall go about to discover the sterling standard by melting of sterling money, the pieces whereof being so unequally coined, as they are the difference between a piece that is over-light, and again of a piece of the absolute fineness of the standard, and another deficient the full extent of the *Remedy* allowed, will be so great, as whosoever shall compute the standard by the one or by the other, must needs run into extream Error.

## CHAP. IX.

Of the Prohibition of Forreйн Moneys, especially  
*Spanish.*

**I**T is the Opinion of wise men and intelligent in this Subject of Money, that the Prohibition of forreйн Moneys especially *Spanish* is a great hindrance to the coming in of Gold and Silver : and they do ground themselves upon two Arguments :—

The first, in reason, that *Spain* being the *Cistern* and *Receptacle* of almost all the *Gold* and *Silver*, which is thence dispersed into the rest of *Europe*, to forbid *Spanish* Money to be current, is, in effect, to forbid the coming in of Gold and Silver, and that rather we ought to draw it in by setting an high price upon it. The other Argument is out of the Example of other Nations, which do abound with Moneys, where *Spanish* Money is not only current, but it is current at higher rates then their own Money, value for value, who have therefore more *Spanish* Money among them, then of their own coining. These reasons gave occasion to sundry Propositions, to have *Spanish* Money to be made current. But before it be fit to resolve of that, it should be first maturely considered, What reasons did induce the Prohibition of all Forreйн Coins, and how they may be satisfied, least in seeking to salve one mischief we do introduce a greater, and do fall into the complaints of those Countries, which do crie out against the Inconveniences which they do feel by forreйн Moneys, and know not how to remedie themselves. If you make forreйн Moneys current but just at the rate of the intrinsical value you gain nothing, for they will as well be now brought in for *Bullion* as then for Money ; only this disadvantage you shall have, that whereas that which is now brought in for *Bullion*, is good and weighty, you shall instead thereof have the same quantity brought in for Money

abased and light; which was one of the many reasons why it was made not current. If you make forreign Money current above the intrinsical value, allowing them an over-rate for charge of coyning and tribute to the Prince that coined them; Observe then the inconveniences which follow upon it;

First, The dishonour, in that you do communicate a principal point of Sovereignty unto a Stranger, and you do pay a Tribute to a forreign Prince out of your own Country, and you shall never have any material Coin to be coined in your own Mint.

Secondly, You shall fill the Country with light Money of Silver, which is hardly ever weighed, and with counterfeit and base Money of Gold; The punishment whereof lieth not in your hands, the act being done in forreign parts and is so much clear loss to the Country.

Thirdly, You shall give the people occasion to raise it to a higher rate than the publick Ordinance, which is an effect that follows forreign Moneys in all those Countries where it is permitted; or if the people do not raise, yet strangers will raise it higher, and then it will go out faster than it came in, and you have gained this Inconvenience, to have it higher rais'd: the mischief whereof I shall have more occasion to declare hereafter. But if forreign Money shall come to be current at an over-rate, to the intrinsical value, greater than your own, value for value, as *Spanish* Money is both in *France* and in the *Low Countries*, and as *English* was in both, till it was discried and valued only as *Bullion*; but daily varies the value in those parts, then shall you give occasion to have the weightiest of your Money culled out and transported into forreign parts to be coined for Advantage, to be brought back in forreign coin: but above all, your materials in Bullion of Silver and Gold will be transported to that purpose, and the Common-wealth shall cleerly loose so much in substance of Gold and Silver, as the Trans-

porter doth get; as for Example, In the years 1607 and 1608, our *Jacobus* pieces were ordinarily current in *Paris* after the rate of 22*s.* when as three *French* Crowns, were current but after the rate of 21*s.* sterling: The *Jacobus* weighs 7 deniers and 20 grains, and is 22 carrats fine. The *French* Crown *Sol*, is 23 Carrats fine bating the Remedy, and weighs by the ordinance 2 deniers, 15 grains, so as three *French* Crowns full weight, weigh one grain more than a *Jacobus*, and are worth one 24th part more in fineness, and yet were current in *France* for 12*d.* less than a *Jacobus*. The *Jacobus* was worth in *Holland* after the rate of 25*s.* sterling, in the years 1621, and 1622; then was the *Ryder* there current, but after the rate of 22*s.* sterling or little more, and yet the *Ryder* in intrinsical value is not two pence worse than the *Jacobus*. In the year 1622, at the Mart at *Francfort* in *Autumn*, *English* shillings were current at a higher rate, fineness for fineness, and weight for weight, than their own *Dollars* coined in that Town, so as in these times there was great profit by transporting *Dollars* out of *Francfort*, *Ryders* out of *Holland*, and *French* Crowns out of *France*, and carrying them back again coined in *English* Coins; and there is no doubt to be made, but that great Numbers were accordingly transported, the *subtilty* of the *Bancquers* not omitting any opportunity to make their Advantage of the popular Errors, which daily do exceed in this Subject of Money. But if the permission of *Forrein* Money at least of *Spanish* be so useful, and yet the practice so full of danger as hath been expressed, we must then search by what means the Permission may be so qualified as the Usefulness may be retained, and yet the Dangers may be avoided therein. Now that the Dangers are exposed, I do exhort all the furtherers of the Common good to exercise their Invention, as in all other Inconveniences propounded in this Subject. The most probable Proposition that I can find, is that *Spanish* Money should be

made current, but not that any *Realls* of Silver or *Pistolets* of Gold should be current at any rate according to the price. But that the *Spanish* Money of Gold and Silver should be made current according to a certain Rate by the Ounce, which rate should be so proportioned, as that the *Spanish* Money should have allowed unto it at one value, as great as may answer the charge of coinage, without allowing any thing for the King's Tribute, to draw it the easiest into the Kingdom. By this means the Dishonour would be avoided, for, although it would be frequently current amongst Merchants, and in all great payments, yet in Fairs and Markets and the Commerce within the Kingdom, it would have no place being not current by the piece. And this defect of the Currencie of the pieces would make a great part of them piece by piece drop into his Majesties Mint. Especially if the Officers of the Mint use their endeavour to buy them for the use of the Mint: then it would necessarily keep out all light Money, or if any were brought in, it would be without disadvantage to us. For,

First, Upon our occasion of raising it, strangers could not raise it higher; both because it would be most concealed from them, and they should not be able to proportion their raising to ours, except they should take the same course, which is almost impossible for them to do, who have *Spanish* Money in so great abundance already current by the piece.

And lastly, not allowing to it a greater over-value than to your own Money, it will be impossible to transport your own Money for profit to bring it back coined in *Spanish* Money. Others have propounded that the *Spanish* Money both of Gold and Silver should be made current by the piece, allowing an over-value unto it both for the Coinage and the King's Tribute equal unto our own, but that being of a weight allowable, it should receive the addition of a new stamp at the King's Mint, for which the King should

receive upon the pound, so much as his own clear Profit amounts unto upon his own Coin; and the Merchants in the currency of the pieces should have allowance of so much as the charge of the Coinage amounts unto. But this inconvenience would probably happen in this Proposition, that if the pieces that should have the Addition of the stamp unto them, were made current at a price, the people would likewise receive those that had not the said Addition at the same price.

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## CHAP. X.

## Of the unequal Coinage of our Moneys.

**T**HIS Title doth wholly depend upon the Mechanical part of making Money, which because I am unskilful in, I do handle with much *scruple* and *retention*, being forced to apply my self to what I read in others; and peradventure may in some points misunderstand, yet because this is a very main and principal cause of the exportation of Money I cannot omit it: And the first cause of the inequality of the coinage, is the greatness of the Remedies both of the weight and fineness: and I do find that some men of great experience and understanding even in this *Mechanical* part do hold, that the Moneys both of Gold and Silver may be made without any Remedy to be allowed either for weight or fineness. This I am sure that it doth appear by the Records of former times, that the Remedies allowed have been many times less than now they are, and have been heretofore very variable according to the favour or the skill which the Masters of the Mint did use to make their own Advantage: since *Henry VII*th's time, the Mint Masters have bin tied to account to the King for half the Profits of the Remedies allowed, by which means it is manifest that half the Remedies allowed might be cut off, and the Kings profits

might be better recompenced upon the price of the Coinage. By the Indentures of the Second of King *James*, The Officers of the Mint are tied to account to the King for the whole profit of the Remedies; but then there is a clause that the King shall give them allowance for so much as they shall over-put above the standard, which clause seemeth to me very captious: But if all the inequality of the Moneys coined did consist in the Remedies, the matter were not so much; but the great profit which hath been made by culling of the Coins by Goldsmiths and Cashiers to Merchants and others, through whose hands great Sums of Money do pass, doth manifestly prove that the inequality of the Moneys is much greater than the allowance of the Remedies can make it; yet when I consider upon what great Penalties the Mint Master is tied, how exact a Course is set down by his Indenture, and observ'd for the Examination and Trial of his work, I cannot imagine much less find out, where the Error lieth, but that there is an Error, and such an one as deserveth strict Enquiry and Redress by the State, I am verily perswaded. The Mint Master knoweth exactly how many pieces he is to sheer out of every pound weight, but whether these pieces are shorn so equal to one another in weight, as there shall be no advantage in culling out the heaviest from the lightest, that is the Scruple: The course is this, out of every proportion of Silver and Gold coined, there is a piece taken at adventure, by certain Officers trusted, and put into a Pix\* under their several Keys, and then at the years end, this Pix is opened in the Star Chamber, and telling out so many pieces as are to make a pound, they melt them and examine whether they hold the weight and fineness, within the Remedies required; which Course for the examination of the Fineness seemeth exact enough, but for the weight it may fall out that the pieces taken out of the several Proportions of

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\* Box.

Money coined, being melted together may hold the weight required within the Remedies, and yet the pieces of those several Proportions may differ in weight from one another, more than the Remedy allowed. The Remedies that are propounded for this inequality are divers:

Some think that it may be redressed by a strict and severe Course to be held with all those, through whose hands the work doth pass for the perfection of their works.

Others are much pleased with belief of some invented Engines, which have been by some work-men offered for a more perfect and exact coining of Moneys, than can be performed by the stamp, and the ways that are now practised.

Others find no so good way as by the Mill, whereof divers experiments have been made both in this Kingdom and in other parts. Of which, because I dare in my self deliver no Opinion, I will only translate what I find written by a *French* Author, a man of great practise and experience in these Mysteries, but because in some places he hath words of Art which admit of no translation, I must be fain use the original Terms: He saith, *That against the Establishment of the Mill it is objected, that after the Invention of it, by reason of the great clipping that belongs to it; the Conductor of it was of Necessity to have an Augmentation for the Workmanship.*

2. *That the Ressorts, and Wheels, and Squares and Pieces, by which it is governed, are very subject to break and bruise one another.*

3. *That it wants Expedition, and dispatches but a little work.*

4. *That makers of false Money will easily counterfeit it.*

5. *That no man will undertake to make Money with the Mill, but at the same price which is paid for the marks for Silver Counters made with a Mill.*

To which five objections I answer.

1. That the quantity of Clipping Mill Money, is no loss to the Farmer nor to the Workman, and is done without Pain, Charge or Travel; besides the Charge of the wasting is taken away, which is both an expence to the Master and to the Farmer: That the augmentation for the workmanship was not allowed for the new melting of the Clippings, but because there was no reason that the Masters of the Mill should without recompence give those several fashions to the work, which the work-man is paid for, and hath 3 *sols* allowed him upon the mark, and besides furnish great Cizers, three sorts of Hammers, Anvil and other Instruments. Now the Money being made in the Mill by the Industry of the Master who doth give other like fashions to the work, as the Minters now do, it was but reason to attribute the same right unto him. And in those places where Mill-Money hath remained in use, as at *Pau* and at *Bearne*, the fee of the work-man is attributed to the Master of the Mill, as likewise of the *Carver* and *Graver*, and that very justly.

2. For the Second Objection, *That the Ressorts, Wheels, Squares, &c., are subject to breaking*; It may be answered that at the new setting up of the first Mills, the *Artisans* were not so perfect and expert as they have shewed themselves since by Practice, since the Mills are grown common as now they are: *There is nothing harder than to invent, nor more easie than to adde to things invented.* There are Mills set up not only at *Paris*, but at *Lyons, Tholouse, Aix, Amiens, Nants, Bordeaux, Poitiers*, so that the use of them is now universal, for the Coinage doubles base and abject Money.

3. For the third Objection, *That there is no Expedition in Mills, and that the work is not so soon dispatched as with the Hammer*: It shall suffice to answer, That it proceeds from a Man that hath no experience in this Subject of Money, because that four Men bred and used to the making of Money in a Mill will do more work than twelve work-men or Moneyers with the Hammer.

4. For the fourth Objection, *That the Counterfeiter of Money will imitate the Money made in a Mill*: This Objection were credible if the author could produce one piece of Silver or Gold made in the Mill counterfeited since the Introduction thereof brought into *France*; and there is nothing that the counterfeiters of Money and their foster Fathers the *Alchymists*, do more fear and apprehend, knowing that they cannot suborn base and abject mettals, as *Copper, Lead, Tinn*, (the materials of Counterfeiters) for Gold or Silver, but that the piece will instantly be discovered, because the Moneys made in the Mill will always be equal and of like volume, greatness and thickness, because it all passeth by the same *Coupier* which cutteth equally, which cannot be the case with the Moneys made with the Hammer, (the Hammer not being governed with an equal force and measure, as in the Mill.) Neither can they be clipped, but that the exposers thereof will be discovered, taken and punished. And it may be avowed that the *Teston* made in the Mill hath not been seen clipped in *France*, the perfect representation of the King's Image seeming to have been retained, and terrified the Clippers.

5. As for the last Objection, *That no man will undertake to make Money in the Mill, but at the rate which is paid for the mark of the Silver Counters*: This objection proceeds out of Ignorance, because the matter of Silver Counters is *Argent le Roy*, and therefore of greater fineness than the Money, and requires a greater charge to refine it to that title and degree. Besides the maker of Silver Counters must have a great diversity of Chisels, and Prints of a different sort from those of Moneys, and almost as many as there be different Noble men, Corporations, and Town-houses, that take pleasure to have their Arms or Devises engraven in Silver or Copper Counters; whereof sometimes the very square will cost 20 *Livres*, which shall serve only for one purse of two marks of Counters; and for

proof thereof let the Masters of the Mills for coining of Doubles be called, and he will undertake for the same wages and fees that the Moniers have, to make the Moneys in the Mill. Thus far this Author: but as I said before, I undertook this Discourse of the Mechanical part of Money with *Scruple*, so I do leave it with *Alacritie*.

#### CHAP. XI.

Of the great increase of the Proportion between GOLD and SILVER, and the things valued by them; by which there is grown a greater want of Money in *England* than was in Antient times, and of the Causes thereof, and of the Remedies which may be applied.

**B**ECAUSE this Title is of a very curious and perplexed Search, I am inforced contrary to a *Logical* Method, to set down my Conclusion first, and to explain by the cleerest Expressions I can think of, what it is I intend to prove, and by what ways, and then to set down my *Probations* afterwards. I intend then to prove that the price of all things, which is the Proportion between Money and the things valued by Money, at this present is much encreased from what it was in antient times: and because I will set down a time certain of Antiquity, I will take the 25th year of *Edward* the Third, when a pound of Gold of sterling standard made 15*l.* sterling, and a pound of Silver of the same, made 25*s.* sterling. I intend to prove that this increase of price and Proportion is not meerly according to the raising of the Money, which hath bin since that, and is about the rate of three for one, as the Money hath been raised, for then the price and proportion should be only nominally, and not really encreased, for that if we pay now 3*s.* for that which in the 25th year of *Edward* the Third cost but 1*s.* and if we pay now 3 Crowns for that which cost then but one; yet

if then there was as much fine Gold in one Crown as now there is in 3, the price should only be increased in name; but the Proportion between Gold and Silver, and the things valued by them, would remain the same. But I intend to prove that this increase of Proportion hath bin real, and that the price of things in general is now grown six times as much or eight times as much as then they cost, in name of Shillings, Crowns and Pounds and in reallity of fine Gold and Silver, to double, and almost treble the Proportion of all things, valued by Gold and Silver, in respect of what it was in the 25th year of *Edward* the Third. Then I intend to prove that this real increase of Proportion, by which all things valued by Money, are valued at more than double, almost treble, the quantity of fine Silver and Gold, that then they were, is grown principally, and in a manner solely, out of the great quantities of Gold and Silver come into the Kingdom of *Spain* out of the *West* and *East-Indies*, within this Hundred years or thereabouts, and thence dispersed into other parts of the World, whereby it is come to pass that the value of Gold and Silver is become more vile and cheap; and generally all things valued by them, are rated higher, at double and almost treble as much Gold and Silver as they were rated at in the 25th year of *Edward* III. or thereabouts; as one Scale pres't down doth necessarily make the other rise higher: From those Proportions it will necessarily follow that if the Kingdom of *England* should have at this day as much Gold and Silver in fineness and weight, or peradventure half as much more, as it had in the 25th year of *Edward* the Third; yet, because the increase of the Proportion between Gold and Silver and the things valued by them is so much greater than it was then, to wit, above double and almost treble; that the Kingdom of *England* is so much poorer and more disabled than it was then, by how much it wants of that quantity of Gold and Silver, which may, in Proportion to

things valued by them, countervail the quantity which then was in *England*, and this great Mischief and Disability doth not only hold in the present Stock, but in the Fruit and growing Wealth of the Kingdom.

Lastly, Having discovered this great Evil, the Danger whereof is not apprehended as it deserves, together with the Causes of it, I intend to set down what Remedies are propounded unto it.

Now when I shall compare the Prices of things at this day with those of antient times, if I should go to set down all things particularly the Labour and Search were beyond measure, and the variety of the Proportions of prices would not be very great between several things, but the same things in several seasons would exceedingly differ in price, and the proofs, would be very disputable so as no certain conclusion would be drawn from them: as for Example, of *Corn*, *Cattel*, and *Fish*, the Proportions of price would not hold the same, and every of these would differ in several seasons for several causes; as *Corn* through unseasonable weather, *Cattel* through murrain, *Fish* through Warr; and every one of these through many other accidents are able to raise or draw down the price again: *Cloth*, *Linnen*, *Leather*, and such like, would have the like variety of prices through the same, and through other causes, as through *Impositions* laid upon them, new *Inventions*, whereby the Manufactures may be the more easily and speedily made, engrossing of them, false making of them, want of work-men.

And if these things, which are most necessary for man's life, are subject to so many varieties of Prices through several causes; how much more uncertain would those Materials prove, which serve only to delights and magnificence, as precious *Stones*, *Pearls*, *Hangings*, *Pictures*, *Embroideries*, and such like; which are subject to so many causes of varieties of price, as things necessarie,

and are moreover subject to the Humours and Fancies of the Times, by which their price is raised or abased.

[But there is only one thing, from whence we may certainly track out the prices, and which carries with it a constant resultance of the Prices of all other things which are necessary for a Mans life; and that is the price of Labourers and Servants Wages, especially those of the meaner sort.] And as there is to be found no other certain and constant Cause of the raising of the Prices of all things, but two; viz. the one the raising of the values of Moneys, the other the great abundance of Gold and Silver coming into these parts, in this latter Age, out of the *Indies*: And although the hire of Labourers did continually rise (when Money was raised), yet it did rise so much and no more, as its value was raised; but after the Discoverie of the *Indies*, you shall finde the price of the Laborers wages raised in Proportion far exceeding the raising of Moneys, and therefore, for my part, I am certainly perswaded that as long as the values of Moneys are raised, and the *Indies* do yield that abundance of Gold and Silver which they do, that both the hire of Labourers, and generally the price of all things, especially of things necessary for life, will rise, although for a year, two or three, through uncertain Accidents, sundry particulars may stand at a stay or abate: But that the hire of Labourers and Servants carrieth with it a resultance of the prices of all things generally necessary for a mans life: [Besides, that Reason doth convince that there must be a convenient Proportion between their Wages and their Food and Raiment, the Wisdom of the Statute doth confirm it, which doth always direct the Rate of Labourers and Servants to be made with a regard of Prices of Victuals, Apparel, and other things necessary to their use.] In the 25th year of *Edward* the Third, it was provided that in time of *Hay*-making, none should pay above one penny in the day; that for threshing of one

quarter of *Wheat* or *Rye*, none should pay above  $2\frac{1}{2}d.$ , and for threshing of a quarter *Oats*, *Barly*, *Beans* and *Pease*, above one penny half penny ; that a Master Carpenter shall have 3 pence, another Carpenter but  $2d.$  a day ; a Master free-Mason but 4 pence, a Tyler 3 pence ; but either of their servants, a penny half penny : all this is in the Summer time, for in the Winter Wages lessened, and without meat or drink, or any other courtesie, and that in the Country, where *Wheat* was wont to be given, they shall take for the Bushel ten pence, or *Wheat* at the will of the Giver.\*

In the Twelvth year of *Richard* the Second these Rates did still continue (so likewise the Money did still continue the same in goodness) but there was further added likewise a yearly rate for Servants wages ; and there was allowed by the year for a *Bailiff* 13s. 4 pence, with a Livery : a Master *Hind* was rated at 10s. a *Carter* at 10s. a *Shepherd* at 10s. an *Ox-heard* or *Cow-heard* at 6s. 8d. a *Driver of the Plough* at 7s. at the most : and all these but the *Bailiff*, without cloathing or other courtesie. In the Thirteenth of *Richard* the Second, It was provided that the Justices of the Peace might rate the Day-labourers according to the dearth of Victuals, which seemed to have growth through some accidental Dearth, which then hapened : in the Thirteenth of *Henry* the Fourth there was raising of Moneys to about the 6th part more, by Advice in Parliament, but there was no new Rate for Servants Wages, until the sixth of *Henry* the Sixth, the price of things growing higher by reason of the raising of Moneys : It was provided by Statute that the Justices of the Peace might rate as well the Hire of day-labourers as the Wages of Servants, as they should find fit in the Sessions, notwithstanding the former Statute of the 25th of *Edward* the Third, and 12th of *Rich.* the Second, and notwithstanding the Money had not been raised above a sixth

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\* See Sir F. M. Eden on the Poor, I. pp. 32-33.

part, which I attribute to the great want of Servants and Laborers, the Kingdom being then exceedingly exhausted by the long continuance of the Wars in *France*: but in the 49th of *Henry* the Sixth Money was exceedingly raised, so as a pound of Sterling Gold made 22*l.* 10*s.* and a pound of Sterling Silver made 37*s.* 6*d.* which accounting Gold and Silver together was half as much more as they were valued, in the 25th of *Edward* the Third.

In the 11th of *Henry* the Seventh (c. 22) there was a new Statute for the rating of Servants wages and the hire of Day-laborers, which in a manner doth agree with the 23rd of *Henry* the Sixth: but I find this almost only difference between them, that by the 23rd of *Henry* the Sixth, the Meat and Drink of the Day-labourer is valued but three halfpence, but by the 11th of *Henry* the Seventh, it is valued at 2*d.*, which correspondeth almost exactly with the raising of the Money in the 49th of *Henry* the Sixth, the Pound of sterling Gold being (then) brought from 16*l.* 13*s.* 4*d.* to 22*l.* 10*s.* 0. and the Silver from 30*s.* to 37*s.* 6*d.*: From the 11th of *Henry* the Seventh until the 6th of *Henry* the Eighth, there was no new Rate upon hire of Labourers or Servants wages: but that year there was a new Statute, which notwithstanding was little or nothing different in the Rates from the former, except in some Particulars which are not pertinent to this Inquiry.

So likewise hitherto did the value of the King's Money remain the same, and so continued until the 18th of *Henry* the Eight, when the Commission was given for the Alteration of the Coins to Cardinal *Wolsey*, which brought in great Confusions among the values of Money, which together with the excessive quantities of Gold and Silver, which about those times began to be brought into *Christendom* out of the *West-Indies*, were the occasion that the Statutes for Labourers and Servants were no further observed because the prices of all things being much inhanced, Labourers and Servants could not live upon

their Hire and Wages ordained by the Statute: and this is acknowledged in the Preamble of the Statute of the 5th of Q. *Elizabeth* (which is the next Statute for the rating of Servants and Labourers wages, after the 6th of *Henry* the Eighth) by which Statute all former Statutes for Labourers and Servants are repealed, and an exact Course set down how the Rates for the wages of Servants, and Hire of Labourers shall hereafter be set down by the Justices of Peace, in Sessions, having regard to the price of victuals, and other things for maintenance: so having thus deduced the Rates of Servants and Labourers from time to time. It remaineth now only that I examine some of the late Rates set down in the Counties Adjacent, and compare them with those of the 25th of *Edward* the Third, and 12th of *Richard* the Second, and that I do calculate how much these later Rates do exceed the Ancient: and deducting from the later Rates so much as the values of the Moneys of Gold and Silver hath been raised, which induceth rather a *nominal* than a *real* Increase of the price, it will follow, That whatsoever increase hath been more of the Rates, that it hath grown from the great quantities of Gold and Silver brought into *Spain* out of the *Indies*, within these Hundred years.

In the Statute of 25th of *Edward* the Third, the threshing of a Quarter of *Wheat* or *Rye*, is rated at *ijd.* ob. By the Rate, in *Middlesex*, of the 17th of King *James*, which is the last Rate made there, the Threshing of a quarter of *Wheat* is eighteen pence, which is above seven times as much as in the old Statute; the stone, either of *Wheat* or *Rye* in *Essex* by the rate now in force is *16d.* which is above six for one, wherein it is to be observed that in that they shall give more: and yet we know that the Bushel, and consequently the Quarter in many of the remoter sheirs containeth half as much more as in these Counties near unto *London*. The threshing of a quarter of *Barley*, *Oats*, *Pease*, or *Beans*, by the Statute of 25th

of *Edw.* the Third, is rated at  $1\frac{1}{2}d. ob$ ; but by the said Rate in *Middlesex* the quarter of *Barley* is rated at  $10d.$  and *Beans* and *Peas* at nine pence, which, by a *medium* comes to be between six and seven times as much. And by the said rate in *Essex* they are rated at ten pence and eight pence which by a *medium*, comes to six times as much; and in this likewise the aforesaid Observation of the difference of the measure doth hold.

By the said Statute of 25th *Edward* III. it is provided that in time of *Hay-making* none shall pay above a penny for *Hay-making*, but by the said rate in *Middlesex*, the hire of a man a day for *Hay-making* is 10 pence, for a woman is viii pence, and by the same rate in *Essex*, the hire of a man is rated at xii pence, and the hire of a woman at ix pence, which, by the *medium*, is ten times as much as the old rate. By the said Statute of 25th *Edward* III. the work of a master-Carpenter is rated at iii pence a day, a second Carpenter ii pence, a Tyler iii pence, and the Servant of either of them one penny half penny, in the *Summer* time, without meat or drink or any other courtesie. By the said rate of *Middlesex*, (17th *James* I.) master Carpenters and Tylers are rated at xx pence a day, which accounteth to near seven times the old rate. The second sort of the said work-men at 16 pence a day, which amounteth unto 8 times the old; and Labourers of the best sort at 12 pence a day, of the second sort at ten pence a day, which, by *medium*, is neer eight times the old rate. By the said rate in *Essex*, Master-Carpenters and Tylers are rated at 16 pence a day, which is not six times the old rate, their Servants 12 pence, which is eight times the old rate.

It is said in the said Statute of 25th of *Edward* III. That in those Counties where *Wheat* was wont to be given for work, they should take ten pence for the Bushel, or *Wheat* at the will of the Giver, by which clause it appeareth that 10 pence was then a large price, even in

those Counties where the Bushel was bigger, or else it had been a great Rigour to leave it to the will of the Giver.

By the Statute of the 12th *Richard* the Second, the yearly wages of a *Bayliff* was rated at thirteen shillings and four pence, and by the aforesaid rate in *Essex* the wages of a *Bayliff* is rated at three pounds three shillings and eight pence, which is (near) five times the old Rate. By the said Statute of 12 *R.* a master *Hind* is rated at ten shillings, a *Carter* at ten shillings, a *Shepherd* at ten shillings, an *Ox-heard* at six shillings and eight pence, a *Cowheard* at six shillings and eight pence. By the said Rate in *Middlesex* *Carters* are rated five pound wages, which is ten times the old rate. By the said rate in *Middlesex* the best sort of *Plough-men*, *Carters*, or *Shepherds* are rated at three pound. The second sort of *Hinds* and all Servants in Husbandry at two pound six shillings and eight pence, which amounteth in the first, to six times the old rate, and in the second to seven times the old rate ; a woman labourer or Dairy woman by the said Statute at Six shillings. By the said rate in *Middlesex*, the best women servants are rated at forty shillings a year, the second sort at thirty three shillings and fourpence, which by *medium* amounts to six times the old rate, and somewhat more ; and by the said rate in *Essex*, the best women are rated at thirty three shillings and four pence, the second sort at one pound six shillings and eight pence, which by a *medium* amounts to five times the old Rate.

And if any man shall object, *That the present rates will not, generally through the whole Kingdome, hold thus high, though they are thus rated in the parts near adjoining to London :*

It may be answered. That by the old Statutes it was provided, that in no place any higher rates than these should be given ; but they might give less, where less in former times had been used to be given.

But on the other side it may be much more probably objected, That the rates are now greater than they are here set down, because it is not so strictly observed as it should be; whereas when the old Statutes were first made it is probable that the Rates were with the largest, and were more strictly observed than they now are: and although this computation of the wages and hire of Servants and Labourers be (as I conceive) the most certain way of comparison of the prices of all things between that time of King *Edward* the Third and this present; yet for Confirmation I will add unto it another Observation, wherein we shall find the same Proportion to hold in a Subject much more general, and therefore so exactly calculated. But therein I must appeal to the well grounded Judgment of my Reader, and that is that I will set down the entire receipts as I find them by undoubted Records of divers years of *Edward* the Third; and then I will briefly represent the actions of War in the said years, besides the ordinary expence within the Kingdom, and will appeal to the Judgment of the Reader, whether the said ordinary expence and the said actions of War could be now maintained, but by a Proportion so much larger as the rates of wages are now increased, which I compute between six and eight times as much as they were in the 19th year of *Edward* the third.

The whole receipts of the Kingdom, as appeareth by the Pell of the *Introitus* amounted to 72,826 pound 11 shillings 5 pence; in that year the King sent over six hundred men of Arms, and six hundred Archers into *Gascoign*, under the Conduct of the Earl of *Derby*, and divers other great Lords, who gathering unto them the other Garrisons, did not only maintain a body of an Army in the field a great part of that year, but recovered divers Towns by Siege: all that year the King did likewise maintain some auxiliary forces of good importance, the Number is not set down, for the aid of the Duke of *Brit-*

*tany* under the Command of Sir *Thomas Dayworth*. And that Year the King likewise made a voyage in great magnificence into *Flanders*, and continued there long in Treaty with *Jacques van Arteveld* and the *Flemings*, to withdraw them from the Homage of their *Earl* unto his Allegiance. The 20th year of *Edward* the Third, the whole Revenues of the Kingdom in the *Pell*, amounted to 154,139 pound, 17 shillings 5 pence. This year the same forces were maintain'd in *Gascoign*, which did freely ransack and spoil all *Xaintong* and *Poitou*, by the favour of the Kings great Victories elsewhere.

And in *July* the King went over in person, and landed in *Normandy*, and wasted a great part of that Province, and ransacked many of the principal Towns: his forces transported thereto, are by *Hollingshead* reckoned 4,000 men at Arms, and 10,000 Archers, besides a great Number of Footmen, but not defined. In the end of Summer he fought that famous Battel of *Cressey*; and in the beginning of Winter did set his Siege before *Calais*. This Year likewise was the King of *Scots* taken prisoner at the Battel of *Durham*, by the Queen: The 21st year of his Reign his Receipts amounted unto 226,113 pound, five shillings and five pence; almost all this year the King continued his Siege before *Calais*, having reinforced his Army, both out of *England* and *Gascoign*, and kept the Sea by his own Shipping and the *Easterlings*; and in the end of the year, notwithstanding that the King of *France* having assembled all his Puissance, sought to rescue it, the Town was yielded, and an *English* Colony transported thither, and Victuals besides; all this year the King continued his auxiliary forces in *Brittany* with great success.

Now if King *Edward* the Third had with his Revenue furnished out Money for these great actions of War, besides the Magnificence of his own house and other necessary expences of his Kingdom, I do appeal to the Judgment of the Reader whether the ordinary expences

of the King's house, and other necessary things within his Kingdom, and the like actions of War could be maintained (not speaking of the success) at this day with any frugality without any other increase of comings in, equal in Proportion to the increase of the hire of Labourers and Servants wages; which I compute at six times or rather at 8 times as much as then it was. And I am sure that whosoever shall exactly weigh all Circumstances, shall find that of the two, this latter comparison will exceed the former.

Having thus, with as much exactness as possible I can, and as I conceive is incident to this subject, made proof of the Proportion between Gold and Silver and the things valued by them, as it now stands compared with what it antiently was; and namely in the 25th year of *Edward the Third*; the next that I have undertaken to prove, is, that the different Proportion which is really grown between Gold and Silver, and the things valued by them, doth principally and indeed solely arise of the great quantities of the said Mettals, which in these hundred years was brought out of the *East and West-Indies*. Now although there be many other causes which may produce this effect, as Scarcity or Abundance of the things valued by Money, *War, Depopulation*, and all other Accidents, by which, either these Mettals are exhausted, or the things valued by them are consumed or made less useful; yet, as before is shewed, all those are temporary and subject to continual variety up and down, and therefore cannot be the causes of a constant effect as this is. And, as for the continual raising of the values of Moneys, it is formerly shewed, that really that breeds no disproportion between Gold and Silver and the things valued by them; but only it breeds an alteration in the Proportion between the *species* of Money, so named, as Pounds, Crowns, Shillings, &c. and the things valued by them; and accordingly in the Examination of the Rates of the hire of

Servants and Labourers, it might be observed that it punctually arises according to the raising of the value of Moneys, until the discovery of the *West Indies*, and the navigation of the *East-Indies*, which have brought in so great a glut of these mettals. There is no other constant cause to produce the real disproportion, but only the abundance of Gold and Silver, by which of necessity they must grow cheaper and abased in their value. A certain Author who wrote about the year 1620, doth calculate, that in the space of 100 year there was at that time brought into *Spain* and *Portugal* 900 Millions of *Pezoës*, worth six shillings and sixpence sterling a piece in Gold and Silver; which calculation doth seem to be excessive amounting to nine millions every year of Gold and Silver out of the *Indies*, of all which infinite Summ, not one jot did come into these parts in former times out of the *West Indies*, and very little or nothing out of the *East*: how is it then possible but that it must abase the value of the Mettals?

And if it be said that we waste this excessive supply in our excesses of Luxurie, as in *Guildings*, *Embroideries*, *Inlayings*, and the like, so as the mass of the said Mettals increaseth not; it is answered, That neither were former times exempt from those vanities; neither are they now sufficient to consume the greatest Proportion of this stock.

And if it be objected that the greatest part of the Stock is drayned away every year to the *Eastern* Countries:

It is answered, That this is only true of Silver; and yet the Silver cannot be so drained away, but that a great part doth remain in *Europe*. Now if the Rate of things valud by Money be six times as great as it was in 25th of *Edward* the Third, allowing the values of Moneys to be raised to treble what they then were by the same names, yet there will be a real Increase of a double Proportion, to what then was of Gold and Silver in weight and fineness, to things valued by them; and if the rate be

raised to eight times what it then was, the real increase of the Proportion will be almost treble to what it then was.

To understand then whether this Kingdom be now of the same Wealth and Ability which then it was: We must find out whether there be now double or treble the quantity of *Gold* and *Silver* in weight and fineness in this Kingdom which then was, and whether the fruits and growing wealth of the Kingdom will produce double and almost treble the quantity of *Gold*, in weight and fineness, to what it then did. I am absolutely perswaded that we shall fail of it very much, of which the most certain and assured proof were to calculate for so many years together the quantity of *Gold* and *Silver* coined in those days; and then by a *medium* to compare it with so many years in these times; though this proof were not demonstrative, but probable.

But in those days the Mint was kept at *Calais*, as well as in the Tower, and much more of the Money of this Kingdom was coined there than here, the Records whereof are all lost and dissipated.

But that our Wealth doth not answer that increase of Proportion at this day, I will endeavour to satisfy the Reader by two Arguments; the one drawn from the Abundance or Scarcity of *Gold* and *Silver*; the other from an Effect of it.

For the first it is this, I have always understood it to be observed by all men intelligent and practised in matters of Trade, that although all Commodities in general are raised in price, in comparison of what they antiently were, yet in general that our domestick Commodities are not raised answerable in proportion to Forrein. Now we have a very small quantity of *Silver* produced within our own Countrey, and of *Gold* none at all, so that the Stock of these Mettals is in a manner raised wholly out of the over-balance of our domestick Commodities with forrein: if then ours do not rise in price from what antiently they

did bear proportionable unto Forrein, it is a strong Argument to prove that our Stock of these Mettals does not increase in a Proportion answerable to the increase of the Price of other things valued by Money.

The second Argument is from the Effect ; now one of the greatest Effects of the abundance of Gold and Silver, is, the Ability which the Kingdom hath to set forth and maintain great actions of War in forrein parts : then let us set forth before our eyes the many and great Armies which *Edward* the Third did raise and maintain both of Strangers and his own Subjects in the first year of his Warrs against *France*, and withal let us take into our consideration the Calculation made, in *Anno* by expert Commissioners, of the charge of one Army to be raised, transported, and maintained for one year, in Forrein Countries, 25,000 Foot and Horse, and proportionable Artillery, which doth account unto \_\_\_\_\_ and then I doubt not but that every mans own Conscience will convince him that at this day the Kingdom is not able to maintain the like actions in forrein parts which then it did : and yet at that time there were forces maintained against *Scotland* ; a great part of the Realm was imployed upon Monks and Friers improfitable members ; besides the substance of a great part of the Wealth of the Kingdom (drawn of) by the See of *Rome* : and the trade of the Kingdom was in no comparison so great as it is now, and this is an undoubted Effect of this truth, That the increase of our stock of Gold and Silver is not in a Proportion answerable to the increase of the price of other things valued by Money ; neither can there be any other *analogical* reason given of the present disability but this, That although that we do draw some drops of this *Indian* spring, whereof *Spain* is the Cistern, yet we do draw them at the second hand, we draw them upon hard terms and conditions, and we do not draw them neer in that Proportion as the prices of all things do arise upon our hands, by the great

increase of those Mettals; and the consequence of this hath more advanced the affairs of *Spain* in these times than can be imagined, for that hereby all the other States of *Europe* have bin abated half in half. I will propound *France* for Example, which Kingdom notwithstanding draweth much more Money out of *Spain* than we do, by reason that the *French* consume little of the *Spanish* commodities, make the return of their own for a great part in Gold and Silver.

The Author of the *Denier Royal* undertaketh to prove that *St. Lewis* in *France*, who was contemporary with *Henry* the Third of *England*, whose whole Revenues in those days amounted not unto 300,000 *French livres*, did notwithstanding in Proportion to all things valued by Money, raise more out of his Kingdom than *Lewis* the thirteenth who now reigneth, and whose Revenue amounteth, unto 3,600,000 pound sterling.

And although he bringeth such Arguments and Authorities for his assertions, as for my part, I cannot see how they can be answered: yet the difference is so great that I could hardly assent to his Conclusion, were it not for this reason. In the time of *St. Lewis*, *Provence*, *Dauphiny*, *Gascoign*, *Brittany* and other parts were distracted from the Crown of *France*, and yet did he transport such Armies and maintain them so long in the *Holy-Land*, *Egypt* and *Affrick*, besides the payment of an excessive Ransom to the *Mammalukes* for his Liberty, as this present King was not able to do the like, though his Revenue were three times as much as it is, of which there can be no other cause answerable to the effect, but the excessive increase of the price of all things, more than the increase of Gold and Silver in the Kingdom. And if these Kingdoms of *England* and *France* are so much impaired in ability by this Means, how much more must those Kingdoms be disabled which are more *remote*, and draw these

Mettals from *Spain* but at a second or third hand: I am perswaded that the consequence of this hath more advanced the affairs of *Spain* in these later times than the success of their Armys: neither can any other Remedy be propounded to this Mischief but one, which is to fetch these materials of Money from the fountain it self. And for my part I do confidently believe that future times will find no part of the Story of this Age so strange, as that all the other States of *Europe* have endured this ruinous Inconvenience with so great Indifference, or rather *Stupidity*, so long, and that they have not combined together to enforce a liberty of Trade in the *West Indies*; the restraint whereof is against all Justice, Trade being *de Communi Jure* an appendant of Peace, and against the Example of former Ages.

It is true, that the *Romans* who of all other Nations were most advantageous in their publick Contracts, did enjoyn the *Carthaginians*, that they should not sail beyond certain Promontaries with their vessels of War, but never debarred Commerce and Trade into any parts.

And the *Muscovites* and those of *China*, who forbid all Access unto Strangers into their Dominions, do notwithstanding permit all Fairs and Markets in their parts and entries of their Countries for commerce with other Nations, with whom they have no Capitulations of Peace.

But the *Spaniards* and *Portugals* do not only forbid all access and commerce to the *West* and *East Indies* within their Dominions, but do define and bound their Dominions, in a manner unheard of to all former Ages, and with an arrogancy more than humane; for whereas all other Nations, since the World began, have claimed and denominated their Dominions either from their own possession or the possession of their Ancestors, the *Spaniards* and *Portugals*, in a contrary way, draw certain imaginary Mathematical lines through Heaven and Earth,

and claim for theirs all that lieth within the compass of these lines, as if they would inroach upon God in Heaven, as well as upon Men on Earth.

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## CHAP. XII.

Of the raising of the Price of Moneys by our Neighbours, and the defect of our not raising of our Moneys accordingly.

**B**OTH these Causes are assigned of the Rarity of Money, and are indeed the same, and do both stand and fall together, and both are assigned for causes of Exportation of our Gold and Silver, and for Impediments of the importation of these Materials unto us: For if it be true that our Neighbours by the raising of the price of their Moneys of Gold and Silver, do the more abound in Gold and Silver, it is true likewise, that if we do not raise ours in the same Proportion, we shall much less abound in the same Materials: And if it be true, that they by raising theirs do draw a greater quantity of Gold and Silver into their States, it is likewise true, that they do not only thereby withdraw from us that quantity of Gold and Silver, which would otherwise be imported unto us, but they do facilitate the exportation from us, of that whereof we are already possessed: But, on the contrary, if these Positions be not true, then all the Consequences inferred upon them are not true likewise; Now because almost all the deliberations in matters of Money do resort to the one or the other side of this main Question, Whether the raising of the price of Moneys doth really and stably increase the abundance of Money in any State, or if it do increase the quantity, whether that increase be not more prejudicial than beneficial to the Commonwealth? I intend to handle this Question, and all the incidents pertaining to it, as exactly as I can. And

First I purpose to set down the benefits that do grow to the State by the raising of the Moneys, and the Prejudices that do grow by the not raising of Moneys : And then I intend to set down the Benefits that do grow by the not raising of Money, and the Prejudices that do grow by the raising of Money : Then I purpose to examine, and to answer, or allow the Reasons made on both sides.

And lastly, I intend to set down what Remedies have been propounded for the avoiding of all Inconveniencies which may grow to the State either by the raising or not raising of Moneys, or both of them, and to examine the same : And here I must again require an extraordinary Patience and Attention in the Reader, because that upon the hinges of this Question, the whole Mystery of the Government and ordering of Moneys in the Commonwealth is moved, and the question it self is very intricate and perplexed, and the Reasons alledged on both sides are full of Subtilty.

### CHAP. XIII.

Of the Benefits which do grow unto the State by the raising of Moneys, and the Prejudices which do by not raising of it.

**T**HEY which propound to have our Moneys of Gold and Silver raised to a parity at the least with other Nations in general, have their *aim* and *scope* but upon one only Benefit to redound thereby to the Common-wealth, which is, the encrease of Money and the Materials thereof ; but with that there are many other important *Benefits* concurring ; as

First, *The encrease of Trade and Manufactures*, which are always best managed, where Money doth most abound. The venting of *domestical Commodities*, for that if our

own Moneys be as high in value, as those of other Nations, our own Commodities must be vented with them whether we have need of their Commodities, or they have need of ours; because there will be no Profit to fetch their Commodities with our Moneys: and again, the raising of our Moneys doth make Commodities vented in other parts at an higher price; because, when our Neighbours do raise their Moneys, they do still hold in common estimation that Proportion in value to our Moneys, which they held before they were raised, though in *Intrinsical* value they want so much thereof as they are raised, by which means our Commodities being sold for the same Rates which they were sold for before, are sold for so much less as the *Intrinsical* value is impaired: But if our Moneys were likewise raised, then our Merchants must of necessity sell our Commodities at higher Rates in name than they did before, or else they should not make their Reckonings. The abundance likewise of Money doth enable Tenants the better to pay their Rents, and all men in general to keep up and maintain their Credits, and to pay all publick Charges and Contributions; and these Benefits may suffice in general without specifying many others, which have concurrency with these or consequently from them.

And for the Prejudices, which do grow by the not raising of our Moneys in a parity to other Nations, they are easily expressed by these, for admitting these Benefits to grow by the raising of Money, the Prejudices which will grow by the not raising of them, will be the contrary to these.

But the main knot of the business is to prove, that the raising of Moneys doth really encrease the quantity of Money in any State, or doth preserve it from diminution. For that they do alledge these reasons:

First, The Practice of all antiquity, in all States whatsoever, which could not possibly fall out except there were

found an inevitable *necessity* to raise themselves to a parity with their Neighbours, of which the Examples are laid down in the former part of this Treatise; but specially that of the thirteenth of *Henry* the Fourth is very pregnant, where, by advice of Parliament, Money was raised, the reason being alledged, That for want of raising it, the Realm was impoverished and exhausted of Money.

A second Reason which they alledge is the general and constant observation, that when Moneys are raised they grow plentiful, whereof we do see with our eyes an evident demonstration in this Kingdom, for that *Gold* having been raised in price of late years is grown much more plentiful than it was in the days of Queen *Elizabeth*: but the Silver having not been raised in Proportion, is grown very scant and rare in respect of the abundance which was then seen.

But these are rather *Authorities* and *Observations* than *Reasons*; but the main Reason whereon the maintainers of this side do stand is this, When your Money is richer in substance and lower in price than that of your Neighbour Nations, as our Silver is than the Silver in the *Low-Countries*, how can you expect that the Merchant, who only seeketh his profit, will ever bring hither any Silver, when he can sell it in the *Low Countries* at a higher Rate, and make more money of it here by returning of it from thence hither, or by Exchange, or by Commodities? or, if any Merchant do bring Silver hither, it is to sell it to such who will give a higher rate for it, than can be produced at the Mint, as the price of our Silver Coins now stands; in which manner although there be much brought over, yet being sold in that sort, it is not only directly against the Law but turns to no use of the Common-wealth.

And again, whatsoever laws are made against Transportation of our Moneys, if our Silver be so rich as the Merchant by transporting it into the *Low-Countries*, or elsewhere, can make profit by returning it in Commodities,

ties, or by Exchange; or that, which is yet more clear and evident, by returning it in Gold, must not our Silver be inevitably exhausted? And certainly these Reasons seem to me so evident to sense and apprehension, that instead of propounding the Arguments I should resolve the Question, if the reasons on the other side did not appear at the least as clear and strong as these, to which I will now proceed.

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## CHAP. XIV.

The benefits which do grow to the State by the not raising of Money, and the Prejudices which do grow by the raising of it.

**T**HE Benefit which groweth to the State by the not raising of money, is only this, *To avoid alteration*: But the Prejudices which are alledged to grow by the raising of it, are many;

First, by the Injustice and Oppression which all they undergo who contract for Money current, at the time of the Contract, and are after paid with extream Disadvantage in other Money really less in value, though in Name the same: and although to this it be said, The Creditor is not interested herein, because he paieth away the Money which he receiveth at the same rate he received it; yet that answer is not satisfactory, because admitting this Position for true, *That when the Intrinsical value is diminished, the Price of things bought with Money doth rise in Proportion*, the Creditor when he paieth out his Money at the same rate, at which he received it cannot notwithstanding with it buy the same Commodities, which he might have bought with the Money, for which he contracted, and consequently is diminished so much thereby, as the price of things is raised.

And although I did in a former Chapter shew, That the price of things doth rise by experience, as the value of Money is raised, yet because the Truth or Falsehood of this Position doth mainly import all the Deliberations incident to this subject of Money, as I have formerly observed in some Experiments where it did so fall out; so I will now set down the Reasons, why of necessity it must be so, One reason is this:

When the Merchant stranger brings his Commodities, whether he intends to make his return in Moneys or in Commodities, he maketh his own sale by the measure of the Money here, and then examines how much this Money will amount to in the Moneys of his own Countrey, where he bought his Commodities; and if he find the Money here diminished in intrinsical value, he must then demand so much the higher price, or else he cannot make his Accompt.

One other Reason is this, when the extrinsical value of the Money is raised, by which the intrinsical is abased, there is then so much the more profit to return Money into the Kingdom, instead of Forrein Commodities; and by daily experience it is seen that more is returned when the price of Money is raised. Now it is manifest that the less importation you have of forrein Commodities the price of them is so much the more: and both these Reasons do shew, and Experience it self doth confirm, that when Money is raised, the price of forrein Commodities doth first rise: And the price of forrein being once raised, the price of Domestick Commodities will of necessitie be raised also; for the price of forrein Commodities will make great plenty of them to be imported, and the high price of Money will inforce that they must be returned in domestick Commodities: By which means domestick Commodities being much sought for, will of necessity be raised in price, and, the price of both these being raised, it follows that the rate of all mens sallaries and hire of

Labourers and Endeavorers must rise in Proportion, or else men shall be forced to defer their Trades and Endeavours, and then the scarcity will encrease the price. By these means it comes to pass, by the raising of Money, that all those who have contracted for antient Rights and Rents are prejudiced, and such as have Rights and Rents settled in perpetuity, can never receive help in this case; and therefore in divers other Countries, there have been very many famous Judgments giv'n in this case, and great volumes written by the *Civilians*, to prove that the Rents which they call *feodats* and *fanniers*, *penalties* and *amerce-ments*, which are set down uncertain, ought to be paid according to the value of the Moneys then Current when the said Rents and Penalties were established; and if we do examine it, we shall find it, that much the greatest part of the Common-wealth is prejudiced whensoever Money is raised.

First, all those who have let Leases of their lands. Then all such as live upon Pensions and Wages.

All those that live by their professions either Civil or Military.

All those that live by Trade or Handy crafts, or Labourers. And although it be true when the Leases do come out, the Lords may recompence themselves, and that when the hire and salaries of several professions and endeavorers shall be raised, (as I have showed) that of necessity in time it must come to pass, that Prejudice doth cease unto them, yet in mean time they suffer. But the King who is head of the Common-wealth, and whose Revenue is only truly publick, doth of all suffer most, and most irreparably: Colledges are helped by the *Stat.* of Corn, and other Corporations do in some sort repair themselves by the fines they take. But the King's Revenue, which of necessity is managed by multitude of Officers, doth perpetually diminish, as much as the price of Money is raised, so as the same lands yield, in name the same

Revenue to the King which they did in *Edward* the Thirds time, but in truth not the third part: and besides much of his Revenue is assessed by the Parliament by prescription to a certain Summ, all which doth continually diminish so much as the price of Money riseth.

One other Mischief that groweth by the raising of Money is this, When you do so raise your Money, as that you do give a greater price than before unto the Merchant, yo do conceive that he is thereby the rather allured to bring the Materials of Money to your Mint, and so withdraw them from other Nations. But if other nations find that, they will raise the price of their Money likewise, and then what shall you get by raising of yours? or if you raise upon them again, there will be no period to rest in, but you shall continually sow Confusion, until you be constrained to abolish your coins and invent new *species*, and new measures of weight and fineness, or else with infinite loss to the people, to bring the price back again to an ancient standard.

One other Mischief that groweth by the raising of Money is this, a very great part of the Gold which cometh into *Europe*, and almost all the Silver doth first aboard in *Spain*: so that when you raise the price of these mettals, you raise the proper commodities of *Spain*, and by that means you encrease the greatness and power of that King, of whose greatness and power, of all others, you have cause to be most *jealous* and *apprehensive*: And again, in a Kingdom as this is, which hath more Commodities to vent into Forrein parts than it hath occasion to consume of Forrein Commodities, and which hath no materials of Money, as this hath not in any considerable quantity, but must have all their Gold and Silver supplied by the return of their Commodities, as ours is, it is most expedient to keep the price of Money as low as may be, to the end your Commodities may return you the greater quantity of these materials in fineness and weight.

As for Example, If you should raise the ounce of sterling standard to six shillings; then the Real of eight would be worth near hand six shillings likewise; would it not then follow of Necessity, that you should have by so much the fewer of them in number, for the return of your Commodities? And the like may be said of Gold.

Lastly, when you raise your Money, it bringeth a great confusion.

First, by giving stop and hindrance to Trade and Commerce, all men being fearful and doubtful how to make their Contracts and Exchanges, until there be a settlement by time.

And again, if you coin new *species* of less intrinsical value than the old either in weight or fineness, or both, there is danger of melting or exporting the old; if you raise the price of the old *species*, you introduce Fractions and Confusions in reckoning, and do many times inforce him that pays to give more than he intends, especially in reward and gratifications and fees, which are more exactly defined.

## CHAP. XV.

Examinations of the Reasons for the raising of Money.

**T**HE first Reason for the raising of Money, is the practise of *Antiquity*: it is true, as I have shewed before, that the *Grecians* and the *Romans* did successively raise the values of their Moneys, but it was not to draw thereby the materials of Money from other States unto theirs; but to supply the State, by that means on great and desperate Necessities, of the Wages thereof; and of the advantage, or disadvantage growing thereby to the Common-wealth, I intend to speak hereafter.

But this *invention* of raising of Money to draw a quantity of Gold and Silver from your Neighbours, or to pre-

serve our own from being exhausted, is a conceit unknown to the ancient world, and introduced long since the decay of the *Roman Empire*; when as those Monarchies that are now settled in *Europe*, by succession from those *Northern Nations*, which did over-throw the antient *Roman Empire*, having together with many other necessary Arts, lost the knowledge and orders of the Mint, were fain to use the *Subtilty* and *Industry* of the *Jews*, and those of *Genoa* and *Lucca* (who did succeed the *Jews* in this Trade) for the coining of their Moneys, who for their own Advantage did (by subtil and specious Reasons many times by a seeming and not considerable Profit as Projectors use to do) allure Princes to make unnecessary alterations in their Moneys, from whence this Art of robbing Gold and Silver from one state to another is grown.

And therefore I will speak no more concerning the practise of Antiquity, but will examine the other Reasons: as for the second Reason, which is the Observation, that since King *James* raised the Gold so much as he did, Gold is grown much more plentiful in the Kingdom than it was before, but Silver having not been raised in Proportion is grown much more scant and rare:—

It is confessed that the Observation is true in this, that whensoever you raise the Material of (one sort of) Money, that material will encrease, and the other will grow scanty in Proportion. And what doth the Commonwealth gain by that, if there be more Gold now than heretofore, if there be less Silver in Proportion? But it is denied, That if you raise equally both the materials of Money, that then either of them will ever a whit the more abound; and this reason is given for it, Whatsoever the value of Money be in other Countreys, they will spend no more of your Commodities than they have use for: if so, the over-value of your (exported) Commodities must of necessity be returned to you either in Gold or Silver, whatsoever the value of them be, high or low: or suppose that, by reason of the low value

of Gold and Silver in respect of their price in other parts, the Merchants do forbear the return of the over-values of your Commodities in those Materials, and do choose rather to return Forrein Commodities more than you can vent; this may fall out thus for one year, but two or three or more years, it is impossible it can hold, for that the Merchant should have these Forrein Commodities which are not consumed perish in his hands. And this Reason doth likewise answer

The third Argument made for the raising of Money which is, That if you do not raise your Money to a parity with your Neighbours, the Merchant, who always seeks his profit, wil carry his materials of Gold and Silver, where he may have most for them; for if this reason stand good, the Merchant shall be constrained to bring his Gold and Silver hither, what price soever they bear.

But because this reason seems so evident and unanswerable in the Judgment of many, and that if it stand good, it doth absolutely confute the practise of all the States of *Europe*, who have continued many years raising of the values of their Moneys, upon this ground, To attract thereby greater quantities of Gold and Silver.

I intend to make a more strict Examination of this Reason.

And first for a most clear understanding of the Case, Let us suppose that all the *Commodities*, any way exported out of this Kingdom in one year, be worth one Million of pounds sterling, and that the *Commodities* imported, be worth but 900,000 pound, and that this Proportion, or near thereabouts, be constant; Then of Necessity, it follows, That an hundred thousand pounds must be brought in in *Gold* and *Silver*, what price soever Money bear.

But if it shall appear that the *Low values* of our Money doth cause the Kingdom to vent more forrein *Commodities* than otherwise it would vent; and, that where otherwise it would vent 900,000 pound, the *Low values* of Money

cause it to vent a Million or more : then is the force of this argument lost ; and it follows, That the *low values* are the cause why the Materials of *Gold* and *Silver*, or less of them than otherwise would do, come not in.

Now then this may come to pass several ways, *First*, If the value of your Moneys be so low as the Merchant shall lose by bringing you *Gold* and *Silver*, he will rather return you forrein Commodities, though he sell them as cheap as he bought them, and so gain nothing by them, than bring you *Gold* and *Silver* by which he shall loose.

As for Example, the Merchant trading into *Muscovia*, will rather return his *Cloth* in *Furr*, or in *Silk* of *Persia*, though he sell them as cheap as he bought them there, than in *Silver* and *Gold*, by which he shall loose the fourth part. Now the cheapness of forrein *Commodities* makes the greater quantity of them to be spent, as we see of *Calico's*, of which few or none were heretofore vented in this Kingdom, the cheapness of them making greater Quantities of them to be spent.

And again, the *Lowness* of the values of Money may cause a greater Proportion of Forrein Commodities to be consumed, though not in quantity, yet in value.

As for Example, Though the Lowness of the value of Money should not make a greater quantity of *Silver* to be spent in *England*, than otherwise would be, yet it would make a greater Proportion in value to be spent, by reason that the Merchant, who in the return of his Commodities brings such a quantity of *Silk* as he judgeth may be vented here, if he find an over value of his Commodities exported, to those he doth import, he will rather, instead of *raw Silks*, return *Silks manufactured*, to equal the over-value by which he may save himself, than return the over-value in *Gold* and *Silver* by which he shall loose. As if our *Gold* were as our *Silver* in prices, by which the *Turkey* Merchant shall loose as much by bringing *Gold* from thence, as he should if he brought *Silver*, is it not

manifest, that instead of *Gold*, which he now brings with his *raw Silk*, in return of his *Commodities*, he would carry both *Gold* and *Silk* into *Italy*, and imploy them in *manufactured Silks*, though he should sell them here almost as cheap as he bought them, rather than return the over-value in *Gold*, by which he should loose? And so though the same Proportion in quantity were vented here in *Silk*, yet a greater Proportion in value would be vented.

As the same may be said of divers other *Commodities*: and for confirmation of this, it is to be observed, That from *Italy*, *France* and the *Low Countries*, and the *East Indies*, in all which places the values of Moneys are as high or higher than with us, we draw hardly any *Commodities* but fully manufactured, and they receive none of our *Commodities* but either not manufactured at all, or, but so much manufactured as the *Severity* and *Penalty* of the Laws do otherwise prohibit to be exported: But in *Spain* where the Moneys are yet of a lower value than with us, it is clean contrary.

And although it may be Objected that that this Observation doth not hold in *Turky* and *Muscovie*, though in *Turky* the *Silver*, and in *Muscovie* both *Gold* and *Silver* be much higher valued than here in *England*;

To that it may be answered, That these barbarous Countries receive our Manufactures by *Necessity*, because they afford none of their own.

#### CHAP. XVI.

##### Examinations of the *Reasons for the not raising of Money.*

THE first and main *Reason* against the raising of Money, is, *The INJUSTICE and OPPRESSION done to all those, who are in place of Creditors to receive, all which are forced to receive less in Intrinsical value than is due unto them, and less in faculty and extent to supply their own uses.* To which reason I never understood any

answer made that could have examination but only this : *That however the Creditors do receive less in intrinsical value, and less in faculty and extent, to supplie their use by reason that as the Extrinsicall value of the Money is raised, the price of the things do likewise rise with it, yet that price doth not rise but by degrees and time, in which time all these Creditors by renewing their Contracts do repair themselves, some sooner, some later, according to the state of their Contracts.* But then it is manifest that all those who have any Rents or other Rights which are defined to a certain sum in perpetuity, and the King for the best part of his Revenue are extremely damnified by the raising of Moneys without Repair, except there should a Law be made that all those kind of payments should be payable according to the values of Money current when they were first created, which, though it were an innovation full of Danger and Confusion, and Impracticable in this State, yet it seemeth to have a foundation in Justice.

A second Reason, made against the raising of Money, is this, *If you do raise your Moneys out of the Misconceit to draw you more Gold and Silver, the other Nations out of the same Misconceit will raise the Money likewise ; and so deprive you of your end : but to this reason it may be answered, That we ought not to raise our Moneys above our Neighbours, but only to a parity with them, and then if they be obstinate to out raise us, we must rather undergo the Prejudice of a continual raising to a parity, thereby to keep our own, than to suffer other Nations by imparity to rob us of what we have :* so as this Argument in effect, doth resort to that, which was formerly disputed, whether truly and constantly more Gold and Silver be brought in by the raising of Money.

The two Arguments that follow against the raising of Money will both receive one clear answer.

The First, *That in raising of Money you raise the King of Spain's Commodities, and consequently enrich him.*

The Second, *That by raising of Money, you have less Silver and Gold out of Spain in Intrinsical value for your Commodities*, the answer thereunto is very plain and clear, which is this, *That if the Position formerly laid down be true, which is, That as the value of Money is raised, so the price of Commodities riseth with it, Then it follows that neither the King of Spain shall be enriched by the raising of Money, because the Commodities for which he parts with his Money unto us, shall rise likewise in price, nor shall we receive less of his Money in Intrinsical value for our Commodities, because the Extrinsical value is raised, that our Commodities will rise likewise so much the more in Extrinsical value.*

To the last Argument, *of the Confusion which the raising of Money doth bring both by the stopp of Commerce at the present, and the fractions of Reckonings, it is answered, That no alteration in this Subject of Money is without Inconvenience ; But if the position be true, that raising of Money is necessary to preserve that which we have, and to bring in more ;* then are those petty Inconveniences little considerable: and thus I have examined as strictly as I can the Reasons alledged on both sides for the raising and not raising of Moneys; but leave the Reader to his own Conclusion.

I do now come to the *Remedies*, that by curious search I could ever learn to have been propounded either in this Estate or any forreign Estates, for the Inconveniences that may grow either by raising of Money, or not raising, or both of them, which I do mean likewise to examine, and shew as near as I can, the Difficulties that may grow in settling of the several Remedies propounded, and the evil Consequences that might grow of them, if they were settled, and that so the Reader may more clearly judge which is the best: for which purpose I intend to begin with the Plainest and most easie, to the end that the more intricate may afterwards be better comprehended.

## CHAP. XVII.

Of Contracting with forrein Nations by Ambassadors to keep their Moneys at a certain standard.

**A**MONGST all the *Remedies* propounded against the Alterations of Moneys there is none more specious than this, nor more frequent in mention, both in provisionall Edicts, which are made for the Reformation of Moneys, and in Considerations held for the purpose, for it is said to advance it: *That if we contract with other Nations for a certain and stable standard of Moneys which may be equal, than we shall avoid all the Inconveniencies that do grow by the raising of Moneys, because we shall never raise them; and we shall avoid all the Inconveniencies that do grow by the not raising of Moneys, because other Nations shall not raise theirs.* Besides for this Remedy there is alledged *the example of former Ages, wherein it appears that in many Treaties with forrein Nations our Kings did contract for the mutual standard of their Moneys.*

But however the Propositions be specious and frequent, yet, of all other Remedies, if it be thoroughly examined, it will appear the most difficult, or rather impossible, to be effected; and if it were effected, it would turn to no use, for thus stands the state of this business, Almost all the Silver which is now drawn out of the Earth, cometh from the *West Indies*, all which intirely aboardeth first in *Spain*, whence it is dispersed into other Countries *Eastward*; which do draw it unto them by setting an higher price upon it: for, as if there were no Cloth in all the World but in *England*, no other Country could have Cloth except they did pay dearer for it than in *England*; and by so much dearer by how much it were more remote from *England*, because to the original price, there must of necessitie be added an increase in regard of the time, the charge, and hazard of transporting it: so fares it with

Silver, that all Countries which will draw from *Spain*, do necessarily set a greater price upon it, by how much they are more remote from thence, and this is the Reason why the spear of *Silver* seemeth to roll from the *West* to the *East*, until it come unto him, where it seemeth to fall into a Gulph. But of *Gold* it is not so, because that comes in as great abundance from the *East* as from the *West*.

Now then it were a great Prejudice for *England* and *France* to contract with *Spain* for a certain standard of Silver, except they could likewise contract for the same standard with the *Low-Countries*, and *Italy*, who draw part of their Silver from them, as they draw theirs from *Spain*; for otherwise, they should give a stop to the coming in of their Silver, and should leave the issue of it open. Nor would *Turkey* contract, unless they could also contract with *Persia* for the same, where *Silver* is yet higher than in *Turkey*, and so forward into *China*; neither would the *Low-Country* men contract, except they could contract for the same with the *Hanse Towns*, where Silver is higher than in the *Low Countries*; neither would the *Hanse Towns* contract, except they could contract for the same with *Prussia* and *Poland*; neither would they of *Poland* contract, except they could contract with *Muscovie*; neither would *Muscovie* contract, except they could contract with *Persia*; and so forward in all such places Silver is still at an higher and higher rate.

But suppose it was possible to draw all those Countries to a certain contract, what would be the use of it? I did in a former Chapter observe that most Countries, and particularly *France* and the *Low Countries* do seldome or never raise their Moneys: But when People by Custom and general Use have raised the Money before hand, beyond the Publick Declaration, and the State is forced to follow the People whom in this Case they do not master, to

what end is it then to contract with those Nations for that which is not in their Power to observe? And that which is alledged for the course of contracting, with forrein Nations, out of the example of former times, doth clearly convince the vanity of this proposition, for it is manifest, as I have shewed in the former Chapters that notwithstanding these Contracts, the Money was continually from time to time raised.

### CHAP. XVIII.

#### Of the Ordaining of solid Payments.

**S**OLID payments are meant where Contracts are made for payment of so many solid *species* of Money, or of so many double *Pistoles*, or so many *French-Crowns*, or so many *English Angels*, or *Sovereigns* or *Shillings*, and therefore termed solid payments, because they are restrained to those solid *species* which are contracted for, and do never alter in payment although the value of the *species* should alter; as however the value of *Angels* or *Sovereigns* which were coined for ten shillings, be raised to eleven shillings; yet he which hath contracted to pay so many *Angels* or *Sovereigns* shall pay never awhit the less in number, because their value is raised, and so in the other *species* of *French Crowns* and *Pistoles*: But he that made a contract when *Angels* and *Sovereigns* were valued at ten shillings, to be paid, at such a day to come, one hundred pounds, before which day the value of *Angels* or *Sovereigns* was raised to eleven shillings; whereas he should be paid at the time of his contract for one *hundred pounds* sterling, *two hundred Angels* or *Sovereigns*, he shall now be paid but one hundred fourscore and one *Angels* or *Sovereigns* and nine shillings, because the sum of a pound sterling is not restrained to any solid *species*, but is rather imaginary and abstracted from the matter

guided according to the uncertain valuation of the *species* of Money, wherein the payment is made.

This Proposition of ordaining all contracts for payments to be restrained to solid *species* of Money, hath bin often agitated in *France*, as a sovereign Remedy against the main inconveniences which do arise in this subject of Money, for the discussing of the truth and efficacie of which proposition, it will be necessarie to relate the success thereof in that Kingdom, in the years 1575 and 1576.

The people in *France*, contrary to the King's Ordinance, and in despite of all Remedies which could be thought of to prevent it, had raised both the Gold and Silver so excessively, as a *French Crown* in Gold was valued at *seven livres* and an half, and at *eight livres*, a *Livre* in *France* being the tenth part of a *pound* sterling, and is an abstracted sum consisting of twenty *sols*, as our *pound* sterling doth consist of twenty shillings, there being no certain *species* of Money called a *Livre*, and according to the value of Gold, their Silver likewise was overvalued, and the *species* of forrein Coins both of Gold and Silver were current likewise at the like values in proportion; by means whereof it is hardly credible what quantities of Gold and Silver, both of Forrein and Domestick Coins that Countrie did then abound with. But their *Base money* which was not raised in proportion to the Gold and Silver, and did really contain in *Intrinsical* value much more than the Gold and Silver Coins, in proportion to the value at which they were current, was for the most part either transported or secretly melted down to extract the Silver thereout.

And if this had been all the Inconvenience, they would never have complained; but in consequence of this, the prices of all things did rise so excessively, that all such who lived upon Pensions, or Wages, or Fees, or antient Rents did manifestly see themselves unable to subsist: but above all, the King was most heavily prejudiced, so

as it was like to grow to some great Confusion in that State.

Hereupon in the year 1577, there was a new Ordinance made, treated and published with the greatest deliberation and solemnity that ever any Edict was of this kind in *France*. And first the *French Crown*, weighing 2 *deniers* and 15 *grains*, after the *French* weight, and 23 Carrats fine, from eight *livres* was reduced to the value of sixty *Sols*, which is equal to three *livres*; and all the pieces of Silver of *French* coins, were reduced to a value answerable to that, the *sols* likewise, and other *base Money* coined proportionable thereunto, and to the end they might never be again raised by the People to an higher value.

First, All forreign coins both Gold and Silver, except *Pistollets* and *Doublons* of *Spain* were upon great penalties forbidden to be brought in otherwise then as *Bullion*, and made incurrent. Then there were very severe Prohibitions made that no man should afterwards make Contracts of payment in *livres* or any other abstracted sums, but only in the solid *species* of Crowns: And to the end that payment might be made as well in *Silver* as in *Gold*, there were in Silver coined *quarter-Crowns*, and half *quarter-Crowns*, and the other *species* of Silver already extant were valued proportionable to them, only sixty *sols* were made equal to a *Crown*, which held no proportion with a *Crown* either in name or in *intrinsical* value, by reason, that in the *sols* and other *base Money*, the Copper with which they are allayed is valued, and there is a much greater charge laid on the coinage of them than of other Moneys: yet notwithstanding it is very strange, how well this Edict did keep the people of *France* in order for three or four and twenty years, so as in all that time, the value of the Gold nor Silver was never raised.

But by degrees they did find that the Kingdom grew drained of that great quantity of Gold and Silver with which it formerly abounded, and their Commerce and

Trade did visibly decay; they found themselves full of forreйн Manufactures, but their own Manufactures had ill vent, and at length the people, notwithstanding the Prohibition, began to take Forreйн coins as current, and received both them and their coins, at a higher value than the King's Edict did admit, so as in the year 1602 their complaint grew as loud and as sharp as in the year 1577, though of a cleer contrary condition, and there grew new consultations and enquiries into the Remedies of these Inconveniencies.

Many who were very much taken with the former Edict of 1577, did advise that the same Edict should be more rigidly maintained, and that all forreйн coins should be absolutely banished, and that the former Edict might be now reformed in that only point, which was deficient (*viz.*) *That the Sols might either be coined of purer Silver, or if they did remain of the former Allay, that the King would so dispose of the charge of the Allay and coinage as they might answer in their Intrinsical value to the Gold and the Silver; and that for the remedy of the Penury of Money, strict sumptuary Laws might be put in practise against Forreйн Manufactures, and superfluous Commodities.*

But against this it was objected, *That now they found by experience the effect of the former Edict of 1577, and this addition of sumptuary Laws would give little help, because the licence of the times and difficulties in the thing it self were such as they would never be put in execution.*

In Conclusion a new Edict was set forth in *Anno* 1602. by which the Contracts in the solid *species* in Crowns were abolished and the Contracts in *Livres* again authorised. The Crown in Gold was valued at three *Livres* and four *sols*, and all forreйн coins were made current in a proportionable rate: and upon it ensued that the people did every day raise the price of all Gold both forreйн and domestick higher and higher by degrees, so as in the year 1614, the King by his Edict was enforced to make good

the raising of the people, and to set a value upon the *French Crown*, of 3 *Livres* and 15 *sols*, which is seven shillings and six pence sterling, and yet still the people raised it higher, and all other Gold in proportion, which hath yet this further Inconvenience with it, That being raised by degrees, they cannot raise the Silver together with it, so as in time it will breed so great a Disproportion between the Silver and the Gold as they will have little Silver left; and that such as through the exceeding lightness cannot with profit be made away.

I shall not now need to speak any more of the Inconveniences which may grow by ordaining of solid payments because they have been sufficiently expressed in the relation of these proceedings in *France*. But I will only add this, that there is no true soliditie in payments, but to contract for so much in weight and so much in fineness, for if you should ordain all payments to be made in such or such *species* of Money, it is true that the raising of those *species* of Money could breed no alteration in your payments: but suppose the Prince should coin these *species*, either baser in Allay or lighter in weight, then should your payment be subject to the same alteration as if you had contracted for abstracted sums.

## CHAP. XIX.

### Of equalizing the Exchange.

**T**HE Author of *Lex Mercatorie* doth hold, That in those Countries where great Banks are kept, the Bankers do by their Arts and Subtilties by the inequality of the Exchange, draw away the Gold and Silver out of other Countries: as for Example; In *Holland*, suppose a man were by Exchange to make over 100 pound sterling thither out of *England*, The Exchange, saith he, is such

when it is at most advantage for *England*, by the practise and subtilties of the *Banker*, as you shall receive for your hundred pound there, less in *intrinsic* value than you gave; and if you make over a hundred pound out of *Holland* into *England* by Exchange you shall receive more in *Intrinsic* value than you gave. And if this Position absolutely be true, as that the contrary doth rarely or seldom happen, it necessarily follows, That it is more advantage to carry over your Money thither in *specie*, than to make it over by exchange, and it is more advantage to make over your Money thence by exchange than to bring it over in *specie*.

But (saith he) if it be effectually ordained, That no man shall give his Money here, to receive less in *intrinsic* value there by Exchange; and that no man shall give his Money there, to receive more in *intrinsic* value here by Exchange: it is plain, That no man shall have his Advantage to carry his Money thither in *specie*, nor no man shall have his Disadvantage to bring his Money thence in *specie*: and if the same course be observed in all places and at all times, let other Nations use what they please to raise or abase the values of their Money, they shall never prejudice the Kingdom by it.

I have abstracted this Proportion in the plainest manner I could, and purposely omitted to name the sums of the Exchange, to avoid all Question about more or less, and all obscurity: and certainly it carrieth with it a great appearance of Reason; neither do I find any strength in that Objection which is most pressed against it, That this equality cannot be made with other countries, by Reason that a great part of the Payments is made in *Base money*; for, if *Base money* be so current, as for it you may have so much purer Money as will answer the *intrinsic* value required for the Sum to be paid by Exchange, that Objection will fall: if it be not so current, you may except against the Payment.

But yet this Proposition, if it be narrowly examined will be found subject to great Exceptions.

And *first*, The *Difficulty*, I may say almost, the *Impossibility* of putting it in Execution is apparent, for although the *intrinsic* value be the principal Rule by which Exchanges are squared, yet there are many other Circumstances which do vary and alter the Exchange, and this is for a main one; That when there is much Money to be returned to one place by an Accident unlookt for, you shall (not) find Takers in Proportion, except what they make by the price of Exchange do invite them: if then you will force men alwayes to give and take by Exchange at one rate, when through accident there shall want Takers, you will force the Giver to supply his Necessity, to send his Money in *specie*, and so that which is propounded for a Remedy of Exportation shall turn to a greater Exportation.

But suppose this *Difficulty* could be overcome, yet would it not suffice to hinder Exportation; for, if in other Countries, they should value your Money higher than their own, as in this Discourse there are formerly Instances set down, of *English* Money higher valued than their own, in *France*, in the *Low-Countries*, and at *Francford* Mart: he then which at these times would have made over Money by Exchange into those Parts, by this Proposition, should have had but the *intrinsic* value in Money of these Countries; but he that had carried his Money over in *specie*, would have had more than the *intrinsic* value.

*Lastly*, It is to be considered, That all Countries that do raise little or no Materials within themselves, (which is our Case in *England*) must not be so careful to hinder Exportation of the Materials, as to provide for Importation for them; What Fruit then shall we receive by this Equality of Exchange, (admitting that it might be made, and that it would hinder the Exportation) if it should be

recompenced by the same Degree of Impediment, which it would give to the Importation, which would necessarily follow upon it; as for Instance, If the Equality of Exchange will give impediment to transport *Silver* out of *England* into *Holland*, will not the same equality of Exchange give the same degree of Impediment to import *Silver* out of *Spain* into *England*? Certainly in all appearance it must.

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## CHAP. XX.

*Of Reducing Moneys to the Lowness of Ancient Values.*

SOME are of Opinion, that the best course to remedy all Inconveniencies in Matters of Money, were to reduce it to the ancient Value :

As for example, A pound weight of Silver of the sterling standard to make but twenty shillings in Silver; and a pound weight of crown Gold to make 12*l.* sterling; and so Angel-Gold to be coined in Proportion, for (say they,) since that was the *first* and *original* settlement of the sterling standard, and that by the raisings of other Nations whom we thought it necessary to follow, we are grown to that excessive diminution of the Intrinsical value of our Money as is manifest, and that the Mischiefs do so threaten us, by the daily raising of our Neighbours, as at length (to bring on) inevitable Confusion; it will be best to reform the Mischief before it be grown to extremity; and the best Reformation will be to reduce it to the first and original settlement: The Commodities whereof are many:

First, The prices of things will be reduced to some antient moderation, then those who live upon antient Rents, and Fees, and Rights, and Tenures of their Lands and Offices, who have received extream injustice by the diminution of the Intrinsical value of Money, shall by

this Reduction be recompenced in justice again. But above all, the King, whose Revenue is only publick, shall receive a great and a just enlargement therein: This Diminution of the intrinsical value of Money being not the least cause of the visible wants wherewith the Crown is this day oppressed, and this Reduction being so great and important as it is, all other Nations, and all Merchants in their exchanges, must of necessity come to a new valuation of their Moneys in comparison of ours: and that cannot be, but by a true calculation of the intrinsical value of either of them, by which means if we do now sustain any wrong by the reputed valuation of our Moneys, or exchange of them, we shall then receive right. And *England* being a Countrie able to send out more Commodities than it hath need to receive, we shall of necessity return the overplus in *Bullion*.

But to examine the solid Truth of these Allegations, it will be necessary to consider by what means this Reduction may be effected.

First, Therefore if you will reduce Moneys to the antient values, either you must do it by several degrees, (this being the way by which the mischief grew) or you must do it all at once.

As for example of a Reduction by degrees, Silver is now coined at five shillings and two pence an ounce, and Crown Gold at three pound eight shillings and four pence the ounce; begin then, first to reduce by coining Silver at fourteen groats the Ounce, and Crown Gold at three pound one shilling and six pence the Ounce; and when it is thus settled, then some time after reduce them both, yet to a lower price, and so until you come to the Original settlement. But is it not then manifest that if these coins be so much heavier than the former, as this Proportion doth make them, and yet go at the same price as the other did, yet as fast as they are coined, they will be melted or transported for advantage?

Besides our Merchants will (not) bring this Silver and Gold unto you to so great a loss: on the other side, if you make all the old Money uncurrent, and you do make it so many times uncurrent as you do reduce it towards the antient values, by degrees the confusions will be so great as the Kingdom cannot bear them, and the continual new coining of your Money will consume all the value of your Money in that charge: there is then no other way left but to leave the old Money still current, but abased so much in price as it is worse than the new Money in *intrinsical* value. But this is hardly possible, considering that the fractions in the old Money will be so confused as no man shall know how to pay or receive it; besides all men of what condition soever that are to pay Money, in what nature soever, shall pay ten in the Hundred more than they should otherwise have done.

But suppose this Inconvenience might be sufferable for once, yet when they must return again, as often as by degrees you do reduce your Money towards the antient values, I do see no possibility to conquer them; it is then best to consider what will follow of it, if this Reduction to the antient values be made all at once, which is thus propounded.

That new Money should be coined at twenty pence an ounce, Silver; and that the old Money should be still left current at the third part of the value for which now it goeth, as six pence to be current for two pence, and twelve pence for a groat, so as all Fractions should be avoided: and the Gold should be reduced to a like Proportion, and that all contracts and payments, from such a day to come, should be made and paid in new Money or in old Money, valuing it only at the third part of the new Money; But if the Proposition were simply thus, it were insupportable, for then he that sits now at a rent of 10*l.* a year, and is hardly able to pay it should in effect, after the day when the new Money is to be current, pay thirty pounds a year;

and he that borrowed ten pounds before that day, after that day shall pay thirty, and so it would be of all other payments. And it is no satisfaction to say, That would be no Injustice, because he that pays Money, either for Debt or Rent, or any other waies, must receive it from others, be it either in Debt, Rent, or for the price of any thing to be sold, and so he shall pay no more in Proportion than he shall receive: for if it be true, which is the mainest Benefit propounded by this Reduction, that as the price of Money shall be abased so the price of all things will abate in Proportion, then he that is to raise his payments out of the price of other things shall raise no more in *intrinsic* value than he should have done before, yet he shall pay in *intrinsic* value thrice as much as he did before.

To solve this Objection, there are two ways propounded, but either of them have their Inconveniences;

The *first* is, that this payment in new Money shall only extend to future Contracts, and that all former Contracts shall either be paid in old Money or in new Money valued at three times the old Money: But if you admit of this, you shall by this Reduction only raise a great rumor and Confusion among the People, and all the Benefits propounded are quite blown away.

Besides the Injustice, as it was very apparent to all that were to pay Money in the former way, so it is as apparent in this way to all that are to receive Money, for that they shall receive in *extrinsic* value but two pence for six pence, and one shilling for 3 shillings, but above all others, the King would be most prejudiced

The *second* way of solving the former Objection is this, That all payments, for the future, should be made in new Money or in old, valuing the old a third part, and that in like manner all antient Contracts, Rents, and Rights reserved should be acquitted in new Money, or in old Money valued at the third part of the new, and that this

word of antient Contracts and Rights, should be defined from such a time as since which the prices of things have encreased, as the value of Money is by this Reduction to be abated ; As for Example,

Since the year of the eighteenth of *Henry* the Eighth, when he began to coin *Base money*, since which time generally the price of things is trebled at the least, in some more, in some less. And that all Contracts and payments reserved, since the eighteenth year of *Henry* the Eighth, until the day when the new Money is made current, should be acquitted in old Money, or in new Money valued three times as much as the old : By this means the Injustice of the former ways seemeth to be equally parted, in that some Receivers by this way should gain and some Receivers should loose, and some Payers should gain and some should loose.

But this Proposition brings with it a new Inconvenience, which is, That this time of the eighteenth of *Henry* the Eighth, being so antient, it would breed many Controversies, as to what payments were contracted for or reserved before that time or not. But suppose that this Reduction were effected, and that our Moneys were both by reputed valuation and by exchange compared with Forrein Moneys, according to their true *intrinsical* value, yet do I not see that this Reformation, for all this, would be stable and permanent ; for, if afterwards other Nations shall by degrees again diminish the *Intrinsical* value of their Moneys, either we must resolve to stand firm to this Reduction, and so to take the hazard of all losses and Inconveniences which the not raising of our Moneys when our Neighbours raise theirs do bring with it ; or if we shall raise again as they shall raise theirs, then all the benefit of this troublesom Reduction will be, That we shall yet be three hundred years longer ere we do grow to so great a diminution in the *Intrinsical* value of our Moneys, as we do at this present undergo.

## CHAP. XXI.

Of raising our Moneys according to the raising of our Neighbours.

**O**THERS do propound a clean contrary course to this Reduction of the Moneys to the antient values; For they would have us to observe precisely the raising of the price of Money by our Neighbours, and if not to precede them, at the least to follow them immediately. And for this purpose they insist upon two main Arguments. The one drawn from Example, the other from Reason: for say they, If we do observe those States, which do soonest and most raise their Money, we shall find that they do most abound with Money; and that Trades and Manufactures do most flourish there.

As for Example, the *United Provinces*, and the *Arch-Dukes Country*, and the *Hanns Towns*; and they do confirm their instance by this reason, *Forrein Nations when they raise their Moneys, do thereby make them of less Intrinsic value, than they are reputed.*

As for Example, Three pounds two shillings sterling, is reputed equal with five pounds six shillings *Flemish*; and peradventure when the pound sterling was first cut into 62*s.* they were equal in *intrinsic* value, but now by the raising of Moneys, this five pounds six shillings *Flemish*, say they, contains in *intrinsic* value no more than two pounds sixteen shillings.

And again, say they, The *Ryall* of eight and the *Rix Dollar* are both of them reputed equal to five shillings sterling, but hold in *intrinsic* value less by ten in the hundred. Hence, (say they,) it follows, That he that bestoweth here three pounds two shillings in *English Cloth*, and sells it beyond Sea for five pounds six shillings *Flemish*, or for twelve *Ryalls* of eight, or twelve *Rix-*

*Dollars*, with two shillings, maketh his accompt that he hath sold it as dear as he bought it, and whatsoever he can get more is gain towards his hazard, his time, and his charge; and by this means he doth undervalue the *English* Commodity to the loss of the Realm, six shillings in three pound two shillings: But on the other side, if he bestow his five pound six shillings *Flemish*, or his twelve *Ryalls* of eight, or *Rix-Dollars*, and two shillings in Forrein Commodities, he makes his Accompt that he sells them not here for as much as they cost him, except he have for them three pound two shillings sterling, by which he overvalues to us the forrein Commodities by six shillings in three pound two shillings, by which means the Realm in general is impoverished, but the Merchant in his particular saves himself, for what is lost to him by the undervalue of the *English* Commodities is again made good unto him by the over-value of the forrein Commodities. And hence it follows that our Money wasts, our Manufactures decay, and their Money and Manufactures do increase.

As for the Objections made against raising of Moneys; they say, They are not considerable in comparison of the benefits, for so as Trade and Manufactures may flourish and Money abound, what imports it though the price of things do rise, when as every man as he pays more, so he shall receive more: as for the King's loss, he shall be otherwise recompenced by the Riches of the Subjects.

But to come to the Examination of this Proposition and the Reasons made for it.

First, these valuations laid down of our Money in comparison with *Flemish* Money and *Ryalls* and *Dollars*, for a foundation of this Proposition is very uncertain; for as it is true, that as I have heard in publick conference upon these occasions, divers Merchants of great worth and experience to affirm these valuations, so I have heard others of as great worth and experience to deny them,

affirming that they knew none other valuation of our Money with forrein, but according to the Intrinsical value of either of them. And by the last Placcard of the *Low-Countries*, the *English* shilling is made current for one shilling nine pence *Flemish*, by which accompt three pound two shillings *English* will make five pound eight shillings and six pence *Flemish*.

But admitting the valuations as they are set down in the Proposition, yet it will appear, but a meer *Sophism*; for the truth is, as it is set down in a former Chapter, That Silver is higher valued in *France* and *England*, than in *Spain*, and in the *Low-Countries* than in either of them; and in the *Hanns Towns* than in the *Low Countries*; and so still higher, the further *Eastward*: But of Gold it is not so: and upon an exact computation it will be found, That Gold is higher valued in *England* than in the *Low-Countries*, and that a pound of fine Gold reduced into the *Riders* of the *Low-Countries*, makes but forty five *Guilders*, and seven *Stivers*, and allowing ten *Stivers* and a half for twelve pence *English*, as it is made current by the last Placcard, there the said sum amounts in sterling Money but to forty three pound thirteen shillings and a penny; but a pound of Gold fine makes in twenty two shilling pieces, forty four pound, eight shillings four pence sterling, which reduced into *Guilders* after the former accompt makes 446 and a half, so as the pound in fine Gold is valued in *Jacobus* pieces, at 8 *Guilders* two *Stivers* and one half more than in *Riders*, and in English Money is valued at fifteen shillings three pence more in *Jacobus's* than in *Riders*; so then it follows, that if *England* do loose any thing in the true price of her Commodities because Silver is higher valued in the *Low-Countries* than in *England*, *England* gains again in the price of her Commodities, because Gold is higher valued in *England* than in the *Low-Countries*. Besides all which none of the Objections made against this Proposition are answered,

but only elevated, and it is manifest that all those who are to receive Money shall be continually oppressed with this continual raising of Money, and if we shall still *vie* one upon another who shall raise highest, in the End the Matter must necessarily come to a Confusion.

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## CHAP. XXII.

Of introducing two different *Species* of Money.

**T**HE Difficulties and Debate of the former Proposition have produced this, set down in the Title of this Chapter: For if to let our Money stand still in the same Condition, when our Neighbours do raise theirs, be a means to drain away our own Money from us, and to divert that increase of Stock which otherwise should come unto us, and consequently occasion the decay of our own Trades and Manufactures, and the increase of Forrein, as in the former Propositions hath been disputed, Then it were good to raise our Moneys when our Neighbours raise theirs. But if this raising of our Moneys do introduce an unjust Oppression to all those, who do live upon the Rents of their Lands, upon Pensions, upon Fees, upon Wages, or otherwise upon any other Reward of their Industry, if it most of all disables the King, and in the end doth threaten an extream Confusion and Disorder, then is this good of Raising so allayed with the evil that followeth it, that we were as good if not better to be without it: From these Considerations hath this Proposition risen, by which, the Authors thereof do presume, that we may both raise our Moneys as we find occasion and yet not raise; though they seem contradictory: and we receive all the Benefits, which the raising of Money doth bring with it, and yet avoid all the Inconveniences which are alledged to follow it. Now the Propositions

which have been made in this kind, both here and in other parts are very many, and differing one from another in their Proportions, and in some other subtile and by-considerations, which if they should be set down in particular, would much perplex the Subject. I will therefore by supposition set down a Proposition in a plain and easie Proportion for the more ready apprehension of the Reader.

As for Example, Suppose the King should coin new twenty shilling pieces, which should hold in *intrinsical* value but eighteen shillings and four pence in Proportion to the present Gold; and new shillings, which should hold but eleven pence in Proportion to the shillings of the present standard, and then it should be ordain'd, that all former Contracts already past, should be acquitted in old Money, or else in new Money, valuing every 20s. but at 18s. 4d. and so in Proportion of lesser sums; but that all new contracts should be paid afterwards in new Money, or else in old, valuing every 18s. 4d. of the old Money at 20s. of the new. By this means, say the Authors of this proposition, we shall bring back our own Money and drain away the Money of our Neighbours, and Trades and Manufactures shall flourish in consequence; yet our Moneys are raised, and yet no man shall receive any injustice by it, for both the King and all other Lords of Lands and antient Rents, and all such who have lent Money or contracted upon former Wages, shall be paid in Money formerly current, or else in new proportionable to the old. And all those which are to pay Money, either out of their own Industry or Labours, or out of the fruits of the earth, or by any other means, when they do see that they must contract for new Money, apparently, according to the Proportion set down, worse than the old, they will help themselves by raising their price in Proportion unto it. There may likewise be alledged Examples for this Proposition, as in *Ireland* where sterling Money

and *Irish Money* are both current, the one a fourth worse than the other without any Inconvenience. And it seemeth that anciently before the time of *Edward* the first in *England*, there were Moneys current of several standards; for although there be a few Records left of Mint matters, more antient than *Edward* the Third, yet *Anno sexto Reg. Johannis membrana septima Dorso*, certain old Money of baser standard was made current; But so, as no *Jew* or Merchant stranger might buy Merchandize, or pay debts with it, or any thing else, (but only *victum et vestitum* with that old Money,) but *in grossa et forti Moneta*. And in *France*, until the time of *Philip le Bell* (who was contemporant with *Edward* the Second) it seemeth that there were used several *species* of Money, And Edicts were made what Contracts should be acquitted in one *species* and what in another.

But I will come now, as in the former, to the examination of this Proposition. First, the extreme Confusion is to be considered which it will bring among the People by raising Questions what is to be paid in old Money and what is to be paid in new Money.

As for Example, a man who lent Money before the time appointed for the currency of this Money, after the day, receiveth interest for it, and so lets it run on, Whether shall this be interpreted an old contract or a new? and divers other Questions of like nature will arise. But suppose that such Prudence were used before hand as all such Questions might be prevented, yet certainly the intricacie of the accounts between the old Money and the new, by Reason of the confused Fractions which are in it, would be a great molestation to the People: But there lurketh a much greater Inconvenience which would not be discovered but by length of time; which is when you have thus raised the price of your Money, when other Nations shall raise theirs again beyond your new Money, you must then be enforced to make a second new Money

of less *intrinsic* value than the first, and then again, all Contracts between the first and the second new Money, are to be acquitted in the first new Money, or in the second new Money, valued in Proportion to the first, and so in consequence of time, a third new Money would be coined, and a fourth, and a fifth, and so forward; that by degrees both the multiplicity of the Moneys, and the variety of the times of the contracts would pass all humane comprehension.

As for Examples alledged, they make more against the Proposition than for it; for I doubt not, but in the time of King *John*, and afore and after that, there were great Varieties and Confusions in the Moneys current, and the Histories of those Times are full of Complaints upon that Subject. And therefore they do most highly magnify the Wisdom of King *Edward* the First, who settled a uniformity in that Subject, by introducing one certain *species* of sterling Coin.

And for the Example of *France*, the Histories of that Country do not only justify that there were great Confusions in this Subject in those times, but by great Insurrections of the People and Rebellions upon that occasion, insomuch, as the reputed Authors of those Inventions were sacrificed to appease the popular Rage.

## CHAP. XXIII.

### *Of Coining of Moneys without Distinction of Weights.*

**T**HE Proposition, intended under this Title, is this, That the Money, hereafter, both of Gold and Silver should be coined of the same fineness, that the Silver and crown-Gold now are, but that there should be coined no pieces of a certain weight either of Gold or Silver, but

that the Allay being certain, the weight should remain uncertain; that all Money now current should be valued by a certain weight.

As for Example, That every ounce weight of Silver should be valued at 5s. and every ounce weight of Gold at twelve times as much, or thirteen times so much, or such a Proportion as should be thought most equal; and that all former Contracts should be acquitted in weight, by reducing every 100*l.* sterling, into 400 ounces of Silver, or a proportionable weight of Gold, but that all future Contracts should be directly made in weight, as in pounds, ounces, and the Sections of the ounce, either in Silver or proportionable weight in Gold: That there should be only coined a certain Proportion of small Moneys in Silver, not in value above a penny, or two pence sterling, of a certain weight for the accommodation of small ordinary payments. But that all the main mass of Money, both of Silver and Gold, should have no certain weight imposed on it, but should be current according to the weight it had, as it should fall out. The Authors of this Proposition maintain.

*That the first Institution of Money was in this manner. That this Addition of certainty of weight to the Allay, by making the stamp to serve as a publick Testimony that the piece so stamped or coined is not only of such a fineness but of such weight also, have given occasion to all the Inconveniences that have since grown in this Subject of Money, and that there is no other way to reform these Inconveniences stably and permanently but by reducing the Money to this original Institution.*

And therefore they say, *That the imposing of certain weight to the piece by the stamp hath given the Opportunity to the Kings and Common-wealths to help themselves in their necessities, diminishing the Intrinsical value, and marking the piece of such a weight, when as really it weigheth not so much; and thus much may be observed in*

*the first part of this Discourse of the Historie of the Moneys of the Grecians and the Romans and other modern States.*

They say likewise, *That this diminution of the intrinsical value by subtracting from the true weight of which the several pieces of Money were first marked, hath introduced that practice of draining of Money from other Nations, by raising the price of it, which is the Mischief now grown into this Subject.*

They say, *That it hath given occasion to the culling of the heavier Money from the lighter, which is one of the greatest Instruments of Exportation, that it hath also given the occasion of washing, scaling, and clipping of Money, mischiefs that are now grown very frequent.*

Lastly, *It hath given occasion by the use and wearing of the old Money to raise the price of the new and weighty Money in the Estimation of the People, and consequently to melt the old.*

But although it should be acknowledged that these Inconveniences have been introduced by these forms of Coinage now in use, yet it remains to be considered how they would be reformed by this new form of Coining. And first it is true, if the form were used, it were not possible for any King or State to make any advantage either by the raising of the price of Money or diminishing the weight: neither could they indeed make any Advantage by addition of Alloy, if the Proposition be truly observed. As for the raising of Money by other Nations, It is plain that the Observation of this Proposition, here in *England*, would not hinder them to raise still, as now they do; but then it is to be considered, whether their raising would turn to our Disadvantage as now it doth.

And first, if other Nations raise their Money, they can neither by that raising make their Moneys valuable to us, nor make our Money more valuable to them; when as

before their raising or after their raising, they can give it no other value than by weight, because the pieces are uncertain.

But it may be objected, *That when our Neighbours raise their Money, then will our Money (being all by weight) go further to be coined into theirs, than it would have done before and consequently for that profit will be transported until the price of their commodities do grow up unto their Money.*

To which it may be answered, That they cannot set an higher price upon the pieces of our Money as now they use to do, because the piece hath no certain weight, then they cannot cull out the pieces as (now they do) which are over-weight, and so by converting them into their own Money, make benefit of them, so as there is no way left unto them to make profit of our Money when it is transported, but to deliver it into the Mint to be here coined into their Money; in which case the Transporter must of necessity loose all the charge of the coinage here, together with the Kings Tribute, and he must also loose the like charge in the place where he coins it a-new. Both which put together would make so great a Proportion, as no raising for the drawing of Silver or Gold, into any State at one time hath ever equalled it.

But yet this Scruple remains unsatisfied, That at least the *Bullion*, which otherwise would have come unto you, will be in the mean time diverted until the price of Commodities be grown up to the value of their Money as it is raised. But it is manifest, that all other mischiefs set down before would be taken away by this Proposition, as *culling, washing, scaling and clipping* of Money, for that no benefit could possibly be made by them, and that equality of Exchange formerly propounded would by this means be brought the nearest to perfection of any other; for that the Merchant, first shall understand the true value of his own Money, and cannot make his account of

Exchange in a forrein place, but by comparing their Moneys in true weight and fineness with his own ; so as he cannot be deceived either by a false reputed value of his own Money, or of the Money which he is to receive by Exchange, and therefore will not make his Exchange to loss, except he be induced thereunto by some other circumstances which have no relation to the Subject of Money.

But having thus far debated of the Commodities and Benefits of this Proposition and prevention of former Inconveniences ; It now remains to be inquired what new Inconveniences this Proposition would bring with it.

And first, *The alteration would be very strange, and with great difficulty would be received by the People in a matter that is of most general and continual use of all others, in stead of accounting by a pound sterling, angels, shillings, and groats, to come now to accompt by Pound weights, Marks, Ounces, Scruples, and Drachms ; to which the only answer to be made is,*

That although the Trouble and Difficultie would be very great, yet being once settled, it would be settled for ever, whereas now the Trouble and Inconvenience which the People endure in this matter of Money is often renewed, but never amended.

A second Objection is, *The Extreame molestation which the People should receive in the practice of it, when as every man should be bound to carry scales in his pocket (as they say they do in China) and upon every little payment be bound to weigh their Money.*

To which it may be answered, That theré have been antiently Proclamations in *England*, and very lately in *France*, to avoid the frequency of *washing, clipping and scaling*, to oblige the People to weigh their pieces of Silver as well as of *Gold*, but for the Silver, the People could never be brought unto it ; whereas by this Proposition, of Necessity, every man that receives Money must be tied to

weigh the Silver as well as the Gold, and all these Inconveniences of *scaling, clipping, washing, culling, and wearing*, would be avoided with a small part of that trouble to the People, which the weighing of the several pieces of Silver would put them unto, partly because the least and most ordinary payments would be accommodated by the small pieces coined of a certain weight, and partly because the trouble of smaller payments would be recompenced by the ease of the greater; for by this course a thousand pounds will be as soon weighed as twenty shillings can now be reckoned.

A third Objection may be made against it, *That by this Proposition Princes and States would be deprived of the means to make secret benefit of their Moneys, which hath been continually practised, and especially in times of eminent necessity, even to the preservation of Kingdomes.*

To this is answered, That the Objection though it be true is yet of no weight, because that profit so made, is first made unjustly, and by the breach of publick Faith, and then it is but a false seeming profit, and always mischievous to the People, and really not good for the receivers of it. And (as it was formerly touched) it may be observed, That after the decay of the *Roman Empire*, the Reglements of the Mint of that great Monarchy being lost, through the Inundations of barbarous People (as many other excellent Institutions were) the *Jews* (who by God's Curse were dispers'd into all Nations, and being suffered to acquire no natural possessions, betook themselves to artificial possessions; especially gave themselves to the Study of the nature of this matter of Money as their *Patrimony*) in most Countries were employed in the affairs of the Mint: and to them succeeded the *Italians*, as it may be observed here in *England*, where for some Ages, after the expulsion of the *Jews*, there were no Masters of the Mint but *Italians* of *Lucca* or *Genoa*: Now these People being subtil Masters of their Art, and

having no natural affection to these Countries where they were imployed, but aiming only to keep their own Mills grinding, did by projects of colourable profit, abuse those States where they were trusted, and keep them in continual alteration of their Coin, which always in the end turned to diminution of the *intrinsic* value; and therefore, finally this Proposition seemeth to me most strange and remote from common apprehension of all the rest; but, being duly weighed, the least Inconvenient and most likely to produce good effect of any of the others. And thus I have set down all the Remedies, that by enquiry I could learn, to have bin propounded either in *England*, or in other parts for the Inconveniencies grown into this Subject of Money, wherein all the particular Projects that have been offered are not to be found, because several men have made the same projects, varied only in form, or in some by-circumstances, yet I do believe, that hardly (one) can be quoted, whereof the ground and essence is not here set down and debated.

And, if the Reader, that with attention and care shall have made his way through this intricate Discourse, shall in the end complain that after all his pains, he finds himself as little resolved what is fit to be done in this subject as before, considering the variety and contrariety of the Consideration incident unto it, I must appeal whether I did not from the beginning profess to set down nothing but problematically, and that my Scope was not to render the Reader able to find out the fittest course to govern this matter of Money and Coin, but able to judge of what should be propounded by others: a point of so great Importance, that for want of that ability the wisest States and the greatest Councils of Christendom, for many Ages, have been abused by misterious names, and perplexed subtilties of *Mint-men*, *Gold Smiths*, and *Exchangers*; who, as they had the whole knowledge of this subject in themselves, so they had their several Interests, and I

conceive that I have performed all the points that I have undertaken in this Discourse; save one, which is that speaking of the several means of raising of Money, I said that the Occasions thereof had been two,

The one for the drawing of Money from the neighbouring Countries, or preserving of their own.

The other, when the States without any such pretence, but forced only by the violence of Necessity to raise means of Subsistence for themselves, have doubled and trebled, nay sometimes sextupled the values of their Moneys, of which I promised to speak further: and for this purpose, I intend to set down,—

The History of the most memorable Raisings that have been in this kind, both in our Age and heretofore, of what nature they were, and how these States did draw their Benefit and Subsistence out of them.

Secondly, What other Extremities and Confusions, those Raisings did draw upon the said States, and the People thereof.

Thirdly, What Remedies these States have applied to reduce and settle those Extremities and Confusions whereinto they were fallen, in which History I shall come to touch some Examples very modern, as that which of late years was made by the Emperour which now reigns, especially in the higher parts of *Germany*, a raising so high and excessive as it equals any of the antient Examples, even of those mentioned by *Pliny*, to be practised by the *Romans* in their great extremities in the *Punick Wars*, whether you respect the *excess* of the Multiplication, or the *Strangeness* of the effects which it produced; the most famous Occasions, which I purpose to examine were,

First, Those Raisings, mentioned by *Pliny* to be, by the *Romans* in the first *Punick Wars*, which was to make every piece of Coin current at six times the value of what it was before, since which time, although there were

sundry raisings made by the *Romans*, yet none of them was neer this Proportion.

In the Kingdom of *France*, I cannot find any extraordinary raisings made of the Money, until the time of *Phillip le Bell* and *Charles le Bell*, and then the Kings of *France*, did raise an ordinary tribute by coining Moneys of a *base value*, and when they were dispersed in the Peoples hands, suddenly calling them back again, and making them uncurrent, by which they got extreemly both by the coinage and recalling them; for that none might exchange or melt these Moneys so recalled, but the Officers appointed by the King, which was a *Gain* of a most unjust and grievous condition that ever was practised in any Kingdom, and did accordingly produce great Tumults and Seditions there; yet this practice did remain until the time of CHARLES *the fifth*, otherwise called the *wise*, whereof (besides the Records of the Mint in that Kingdom which do shew the perpetual alterations of the Moneys in these times) I do remember two memorable Evidences out of Histories, of which one is,

That at what time the State of *France*, during the desolation of that Countrey by the *English Wars*, did grant unto the King the *Gabel* of Salt, and the *Impost* upon Wine, they did particularly Covenant, That for such a space the King should not alter the standards of his Coin.

One other is, that *Hollingshead* in his Chronicle making mention of a voyage made by the black Prince from *Burdeaux* into *Languedock* doth cite the Letter of one Sir *John Wingfield*, a principal Servant to the Prince, wherein he saith, That the Countries and good Towns, which were wasted at this Journey, found to the King of *France* every year more to the maintenance of his War than half his Realm besides, except the Exchanges of his Money which he maketh every year, and his Customes of *Poitou*. But the standard of his Moneys was stably kept from *Charles* the Fifths time till the first year of *Charles*

the Seventh, at which time the *English* being in possession of the greatest part of *France*, *Charles* the Seventh having no other means to maintain the Wars, did from the year one thousand four hundred seventeen, to the year one thousand four hundred twenty three, raise the Silver by several degrees from eight *livres* nine *sols* the mark to 360 *livres* the mark, so as the Money was raised in six years above forty times the value of what it was before; of all which neither our Chronicles nor those of *France* do make but a slender mention, in respect of what they speak of the *Pucelle d'Orleans*: And yet the Truth of it is evident by the Records of the Mint: and all those who have written of the affairs of the Mint, in that Kingdom, do unanimously agree that this was the Principal mean by which he expelled the *English* out of *France*: and that which is as strange as all the rest, is, that at one instant the Money was reduced again to seven *livres*, ten *sols* the mark; and from that time there have not been any raisings of Money in *France* of this nature, although the Moneys there have been continually raised ever since, either to follow the People, who did first raise their Moneys by their estimation, or to follow the raisings of other Nations, or to raise above other Nations, to draw their Money into that Kingdom.

In *England* there is but one Example of raising in this kind, which was begun in the eighteenth year of *Henry* the Eighth, and continued in divers Princes Reigns after, and was not absolutely reduced, until the fourteenth year of Queen *Elizabeth*; and this raising, although it were far short in Proportion to those formerly recited, it was much more inexcusable than they were, for that this Action though it be never justifiable, yet in a case of extream and unresistable Necessitie, it may be excused, which was not the case of *Henry* the Eight, for although he wanted Money, yet there were much more justifiable

ways to supply it; and it was not employed to avoid his own ruin, but in ambitious Enterprises.

The next in time was that raising Money by the overmixture of allay made in *Ireland*, in the three and fortieth year of Queen *Elizabeth's* Reign, which although it were not excessive in Proportion, and lasted but a small time, yet had very many memorable Circumstances to be observed in it.

The last which I will mention is that which was made by the Emperor (which now lives) in the year        who being reduced within the Walls of *Vienna*, and having almost nothing else left him, but the Soverain title of the Empire, did by coining of the lesser and baser kind of Money five times baser than formerly it was, extend five times further in use, for the present, than otherwise he could have done, all those Moneys which he drew by way of assistance from the King of *Spain*, or from the *Pope*, or from other Princes of *Italy*; and besides, having a part of the profit of the Mint in divers other parts of *Germany*, he did exceedingly support his Affairs at the present by that means; and it was a principal occasion by which he prevailed against the King of *Bohemia*, who although for his part also, he raised his Moneys three times in value to what they were before (yet as he was always a strict observer of the contributions of the Empire) he coined no other small Moneys, but those of his own stamp, and they were only current within his own Countries.

Now all these several Raisings which I have mentioned, were not all by one way, but indeed they were by all ways differing from one another; and as the Ways of making profit by the Raising did differ, so the Inconveniences which follow did differ likewise, and as the Inconveniences did differ, so the ways of Reduction did differ also, all which will require a long and curious Disquisition but I do leave it to a second breathing.

## Lord Coke's Account of Coin and Coining.

COIN in 6 *E.* 1. was but 20*d.* the ounce, but now it is above thrice so much: *Stat. de Glocestr. c. 8*  
*Co. 2. Instit. f. 311.*

The pound of Gold and Silver containeth 12 ounces: 12 graines of fine Gold make a Carrat. 24 Carrats of fine Gold make an ounce, 12 ounces make a Pound of fine Gold of the touch of *Paris*: but by the Statute of 18 *Eliz.* cap. 15. 22 Carrats fine make an ounce.

*Co. 2. Instit. 575.*

*Polidore Virgil* f. 304. &c. saith, That Sterling Money comes *ab effigie Sturni* (Anglice *Starling*) *aviculae in altera parte nummi impressa, &c. vel quod nummum haberet notum stellae, quod Angli Star vocant*: Of this Opinon is *Linwood* the Civilian. tit. *De Testamentis. cap. Item. quia verbo centum solid.*

*Vid. 37 E. 3*  
*cap. 7.*

*Co. 2. Instit. 575.*

Mr. *Skene* takes it to come from *Scotland*, from a place called *Striveling* alias *Sterling*.

*Co. 2. Instit. 575.*

But the *Esterling* or *Sterling* penny took its name from the workmen, who were *Esterlings*, that both coined it, and gave it the Allay. *Hoveden parte poster. Annalium, fol. 377 b. vet. Mag. Charta 167.* The *Esterling* penny was first coined in *Hen.* the II. time: and 20*d.* of Silver made the ounce. *Dyer 7 Eliz.* f. 82, 83. and 12 ounces made a pound of fine Silver, and 11 ounces fine Silver, and an ounce of Allay maketh a pound weight of sterling Silver, intended within the Act.

*Daves Rep. f.*  
*23. 24.*

*Co. 2. Instit. 575.*

By 18 *Eliz.* cap. 15. plate of Silver ought to be of the fineness of xi ounces 2*d.* weight.

*Co. 2. Instit. 575.*

Allay is the mixture of Baser Mettal than Silver or Gold, called in our Books, *False Mettal*, 9 *H.* 5 *Stat.* 2 cap. 4. & 6. 3 *H.* 7. 10. a. b.

*Co. 2. Instit. 575.*

No more Allay must be put into Money than is limited in the Indentures between the King and the Moniers, upon Pain of Treason. *Britton. f. 10 b. Fleta lib. i. cap. 22.*

*Co. 2. Instit. 575.*

*FINIS.*



A  
S P E E C H

MADE BY

Sir *Robert Cotton*, K<sup>t</sup>. and Baron<sup>t</sup>.

BEFORE THE

L O R D S

*Of HIS MAJESTY'S most Honourable*

P R I V Y C O U N C I L ,

*At the COUNCIL-TABLE :*

Being thither called to deliver his Opinion.

*Touching the*

Alteration of Coin.

*Sept. 2. Annoque Regni Regis CAROLI I. (1626.)*

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L O N D O N :

Printed in the Year 1651.



\* \* \* There is some uncertainty in regard to the author of this remarkable Speech and the time when it was delivered. It was first published in 1641, as the Speech of Sir Thomas Roe, at the Council Table in 1640; and again in 1651 in *Cottoni Posthuma*, as the Speech of Sir Robert Cotton, before the Privy Council in 1626. In the former case a proposal was made to relieve the urgent necessities of the King by adding enormously to the alloy in the Silver Coins to be issued to the army. There is, however, nothing in the Speech that would lead any one to suppose that it had been made at so critical a period, or that it was intended to oppose so violent a measure. And hence, the probability seems to be, that it was really made in 1626, by Sir Robert Cotton in opposition to a project then entertained for raising the nominal value of the pound weight of Silver from 62s. to 70s. 6d. The arguments against the project are stated in the Speech with great brevity and clearness; and are said to have occasioned its abandonment.—(See Ruding on the Coinage, 3rd edition, i., pp. 382, 392, &c.)



## A SPEECH touching the Alteration of Coin.

My LORDS,

SINCE it hath pleased this Honourable Table to command, amongst others, my poor Opinion concerning this weighty Proposition of Money, I most humbly crave pardon, if with that Freedom that becomes my Duty to my good and gracious Master, and my Obedience to your great Command, I deliver it so up.

I cannot (my good Lords) but assuredly conceive, *Honour, Justice, and Profit.* that this intended Project of infeebling the Coin, will trench both into the Honor, the Justice, and the Profit of my Royal Master very far.

All Estates do stand *Magis Famâ quam Vi*, as *Tacitus* *Honour.* saith of *Rome*: And wealth in every Kingdom is one of the essential Marks of their Greatness: And that is best expressed in the Measure and Purity of their Monies. Hence was it, that so long as the *Roman* Empire (a Pattern of best Government) held up their Glory and Greatness, they ever maintained, with little or no Change, the Standard of their Coin. But after the loose times of *Commodus* had led in Need by Excess, and so that Shift of Changing the Standard, the Majesty of that Empire fell by degrees. And as *Vopiscus* saith, the steps by which that State descended, were visibly known most by the gradual Alteration of their Coin; and there is no surer Symptom of a Consumption in State, than the Corruption in Money.

What renown is left to the Posterity of *Edward I.* *Edw. I.* in amending the Standard, both in Purity and Weight

. VI. from that of elder and more barbarous times, must stick as a blemish upon Princes that do the contrary. Thus we see it was with *Henry VI.* who, after he had begun with abating the Measure, he after fell to abasing the Matter; and granted Commissions to *Missenden* and others to practise *Alchemy* to serve his Mint. The extremity of the State in general felt this Aggrievance; besides the Dishonour it laid upon the Person of the King, was not the least Advantage his disloyal Kinsman took to grace himself into the Peoples Favour, to his Sovereign's Ruine.

. VIII. When *Henry VIII.* had gained as much of Power and Glory abroad, of Love and Obedience at home, as ever any; he suffered Shipwreck of all on this Rock.

*Eliz.* When his daughter Q. *Elizabeth* came to the Crown, she was happy in Council to Amend that Error of her Father: For, in a Memorial of the Lord Treasurer *Burleigh's* hand, I find that he and Sir *Tho. Smith* (a grave and learned Man), advising the Queen, that it was the Honour of her Crown, and the true Wealth of herself and People, to reduce the Standard to the ancient Parity and purity of her Great Grandfather King *Edw. IV.* And that it was not the short ends of Wit, nor starting holes of Devices, than can sustain the Expence of a Monarchy, but sound and solid Courses: For so are the words. She followed their Advice, and began to reduce the Monies to their elder goodness, stiling that Work in her first Proclamation *Anno 3. A Famous Act.* The next Year following, having perfected it as it after stood; she tells her People by another *Edict*, that she had conquered now that Monster that had so long devoured them, meaning the Variation of the Standard: And so long as that staid Adviser lived, she never (though often by Projectors importuned) could be drawn to any shift or change in the Rate of her Monies.



suspect, would have taken away the tenth part of every Man's due Debt, or Rent already reserved throughout the Realm, not sparing the King which would have been little less than a Species of that which the *Roman* stories call *Tabulæ novæ*, from whence very often Seditions have sprung: As that of *Marcus Gratidianus* in *Livy*, who pretending in his *Consulship* that the current Mony was wasted by Use, called it in, and altered the Standard; which grew so heavy and grievous to the People, as the Author saith, because no man thereby knew certainly his Wealth, that it caused a Tumult.

*Profit.* In this last part, which is, the Disprofit this infeebling the Coin will bring both to his Majesty and the Common-wealth, I must distinguish the Monies of Gold and Silver, as they are Bullion or Commodities, and as they are Measure: One the extrinsick Quality, which is at the King's pleasure, as all other Measures to name; the other the intrinsick Quantity of pure Mettal, which is in the *Merchant* to value. As there the Measure shall be either lessened or enlarged, so is the quantity of the Commodity that is to be exchanged. If then the King shall cut his Shilling or Pound nominal less than it was before, a less proportion of such Commodities as shall be exchanged for it must be received. It must then of force follow, that all things of necessity, as Victual, Apparel, and the rest, as well as those of Pleasure, must be inhaunced. If then all Men shall receive in their Shillings and Pounds a less proportion of Silver and Gold than they did before this projected Alteration, and pay for what they buy a rate inhaunced, it must cast upon all a double Loss.

What the King will suffer by it in the Rents of his Lands, is demonstrated enough by the Alterations since the 18 of *Edw. III.* when all the Revenue of the Crown came into the Receipt *Pondere & Numero*, after five Groats in the Ounce; which since that time, by

the several Changes of the Standard is cōme to five Shillings, whereby the King hath lost two third parts of his just Revenue.

In his Customs, the Book of Rates being regulated by Pounds and Shillings, his Majesty must lose alike; and so in all and whatsoever Monies that after this he shall receive.

The profit by this Change in Coinage, cannot be much nor manent. In the other the loss lasting, and so large, that it reacheth to little less than yearly to a sixth part of his whole Revenue: for hereby in every pound tale of Gold there is seven Ounces, one penny weight, and 19 Grains loss, which is 25*l.* in account, and in the 100*l.* tale of Silver 59 Ounces, which is 14*l.* 17*s.* more.

And as his Majesty shall undergo all these Losses hereafter in all his Receipts; so shall he no less in many of his Disbursements. The Wages of his Soldiers must be rateably advanced as the Mony is decreased. This *Edward* the *Third* (as appeareth by the account of the Wardrobe and Exchequer) as all the Kings after were enforced to do, as oft as they lessened the Standard of their Monies. The prices of what shall be bought for his Majesties Service, must in like proportion be inhaunced on him. And as his Majesty hath the greatest of Receipts and Issues, so must he of necessity taste the most of Loss by this device.

It will discourage a great proportion of the Trade in *England*, and so impair his Majesties Customs. For that part (being not the least) that payeth upon trust and credit, will be overthrown; for all men being doubtful of diminution hereby of their personal Estates, will call in their Monies already out, and no man will part with that which is by him, upon such apparent Loss as this must bring. What danger may befall the State by such a sudden stand of Trade, I cannot guess.

The Monies of Gold and Silver formerly coined and abroad, being richer than these intended, will be made for the most part hereby Bullion, and so transported; which I conceive to be none of the least inducements that hath drawn so many *Goldsmiths* to side this Project, that they may be thereby Factors for the Strangers, who by the lowness of minting (being but 2*s.* Silver the pound Weight, and 4*s.* for Gold; whereas with us the one is 4*s.* and the other 5*s.*) may make that Profit beyond-sea they cannot here, and so his Majesties Mint unset on work.

And as his Majesty shall lose apparently in the alteration of Monies a 14th in all the Silver, and a 25th part in all the Gold he after shall receive; so shall the Nobility, Gentry, and all other, in all their former settled Rents, Annuities, Pensions, and Loans of Mony. The like will fall upon the Laborers and Workmen in their Statute-Wages: and as their Receipts are lessened hereby; so are their Issues increased, either by improving all prices, or disfurnishing the Market, which must necessarily follow: For if in 5 *Edw.* 6. 3. *Mariæ*, and 4. *Elizabethæ*, it appeareth by the Proclamations, that a Rumor only of an Alteration caused these effects, punishing the Author of such reports with Imprisonment and Pillory; it cannot be doubted but the projecting a Change must be of far more consequence and danger to the State, and would be wished that the Actors and Authors of such disturbances in the Common-wealth, at all times hereafter might undergo a Punishment proportionable.

It cannot be held (I presume) an Advice of best judgment that layeth the Loss upon our selves, and the Gain upon our Enemies: for who is like to be in this time the greater Thriver? Is it not visible, that the Stranger that transporteth over Monies for Bullion, our own *Goldsmiths* that are their Brokers, and the

foreign Hedg-minters of the Netherlands (which terms them well) have a fresh and full Trade by this abatement? And we cannot do the *Spanish King* (our greatest Enemy) so great a Favour as by this, who being the Lord of this Commodity by his *West-Indies*, we shall so advance them to our impoverishing; for it is not in the power of any State to raise the price of their own but the value that their Neighbour Princes acceptance sets upon them.

Experience hath taught us, that the enfeebling of Coin is but a shift for a while, as Drink to one in a Dropsie, to make him swell the more: But the State was never thoroughly cured, as we saw by *Hen.* the Eighth's time and the late Queens, until the Coin was made rich again.

I cannot but then conclude (my Honourable Lords) that if the Proportion of Gold and Silver to each other be wrought to that Parity, by the Advice of Artists, that neither may be too rich for the other, that the Mintage may be reduced to some proportion of Neighbour Parts, and that the Issue of our Native Commodities may be brought to overburthen the entrance of the Foreign, we need not seek any way of shift, but shall again see our Trade to flourish, the Mint (as the Pulse of the Common-wealth) again to beat, and our Materials, by Industry, to be a Mine of Gold and Silver to us, and the Honour, Justice, and Profit of his Majesty, (which we all wish and work for) supported.

*The Answer of the Committees appointed by your Lordships to the Proposition delivered by some Officers of the Mint, for infeebling his Majesties Monies of Gold and Silver.*

September 2. 1626.

*The First Part. The Preamble.*

WE conceive that the Officers of the Mint are bound by Oath to discharge their several Duties in their several places respectively. But we cannot conceive how they should stand tyed by Oath to account to his Majesty and your Honours of the intrinsick value of all Forein Coins, and how they agree with the Standard of the State (before they come to the Mint) for it is impossible and needless: In the one, for that all Forein States do, for the most part, differ from us and our Mony infinitely amongst themselves: In the other, it being the proper care of the Merchants, who are presumed not to purchase that at a dearer rate than they may be allowed for the same in fine Gold and Silver in the Coin of *England*, within the charge of Coinage. And therefore needless.

To induce the necessity of the Proposition, they produce two instances or examples: The one from the *Rix Dollar*, and the other from the *Royal of Eight*; wherein they have untruly informed your Honours of the price and value in our Monies, and our Trade of both of them. For whereas they say that the *Rix Dollar* weigheth 18. pen. weight and 12 Grains, and to be of the finest; at the pound weight, 10 Ounces, 10*d.* weight doth produce in exchange 5*s.* 2*d.* farthing of Sterling Monies. We do affirm that the same *Dollar* is 18*d.* weight, 18 Grains, and in fineness 10 Ounces 12*d.* weight, equal to 4*s.* 5*d.* ob. of Sterling Monies, and is at this time in *London* at no higher price, which is short

thereof by 13 Grains and a half fine Silver upon every *Dollar*, being 2*d.* Sterling, or thereabout, being the charge of Coinage, with a small recompence to the Goldsmith or Exchanger, to the Profit of *England* 3*s.* 6*d.* per cent.

Whereas they do in their proposition aver unto your Honours, that this *Dollar* runs in account of Trade amongst the Merchants, as 5*s.* 2*d.* ob. *English* Mony: It is most false. For the Merchants and best experienced men protest the contrary, and that it passeth in Exchange according to the intrinsick value only 4*s.* 5*d.* ob. of the Sterling Mony or near thereabouts, and not otherwise.

The second instance is in the *Royal of Eight*, affirming that it weigheth 17 penny weight, 12 Grains; and being but of the fineness of 11 Ounces at the pound weight, doth pass in Exchange at 5*s.* of our Sterling Monies, whereby we lose 6*s.* 7*d.* in every pound weight. But having examined it by the best Artists, we find it to be 11 Ounces 2*d.* weight fine, and in weight 17 pennyweight, 12 Grains, which doth equal 4*s.* 4*d.* ob. of our Sterling Monies, and passeth in *London* at that rate, and not otherwise, though holding more fine Silver by 12 Grains and a half in every *Royal of Eight* which is the charge of Coinage, and a small overplus for the Goldsmiths gain. And whereas they say, that that the said *Royal of Eight* runs in account of Trade at 5*s.* of his Majesties now *English* Mony, the Merchants do all affirm the contrary, and that it passeth only at 4*s.* 4 ob. of the Sterling Monies, and no higher ordinarily.

And it must be strange (my Honourable Lords) to believe that our Neighbours the *Netherlanders*, would give for a pound tale of our Sterling Silver, by what name soever it passeth, a greater quantity of their Monies in the like intrinsick value by Exchange; or

that our Merchants would, knowing, give a greater for a less to them, except by way of usance. But the Deceit is herein only, that they continually varying their Coin, and crying it up at pleasure, may deceive us for a time, in too high a Reputation of pure Silver in it, upon trust, than there is unto a Tryal; and this, by no Alteration of our Coin, unless we should daily, as they, make his Majesties Standard uncertain, can be prevented, which being the measure of Lands, Rents, and Commerce amongst our selves at home, would render all uncertain, and so of necessity destroy the use of Mony, and turn all to permutation of such things as were not subject to will or change.

And as they have mistaken the Ground of their Proposition; so have they upon a specious shew of some momentary and small Benefit to his Majesty, reared up a vast and constant Loss unto his Highness by this design, if once effected. For, as his Majesty hath the largest proportion of any both in the entrances and issues; so should he by so enfeebling of his Coin, become the greatest loser.

There needs no other instance than those degrees of diminution from the 18 of *Edward III.* to this day; at which time the Revenue of the Crown was paid after five Groats the Ounce (which is now five Shillings) which hath lost his Majesty two Thirds of all his Revenue; and no less hath all the Nobility, Gentry, and other his Majesties Landed Subjects in proportion suffered. But since, to our great Comfort, we heard your Honours the last day to lay a worthy blame upon the *Mint-Masters*, for that intended diminution of the Gold Coin done by them without full Warrant, by which we rest discharged of that Fear: We will (according to our Duties and your Honours command) deliver humbly our Opinion concerning the reduction of the

Silver Mony now current to be proportionably equivalent to the Gold.

The *English* sterling Standard, which was no little Honour to *Edward* the first, that settled it from an inconstant motion, and laid it a ground, that all the States of *Europe* after complied to bring in their account, which was of Silver as eleven to one of Gold, the Kings of *England* for the most part since have constantly continued the same proportion: and *Spain*, since *Ferdinand*, who took from hence his Pattern, have held and hold unchangeably the same unto this day: but since with us, a late improvement of Gold hath broke that Rule, and cast a difference in our Silver of six Shillings in the pound weight; we cannot but with all humility present our Fear, that the framing, at this time, of an equality, except it were by reducing the Gold to the Silver, is not so safe and profitable as is proposed by those of the Mint.

For whereas they pretend this, Our richness of our Silver will carry out what now remaineth: We conceive (under favour) it will have no such effect, but clean contrary. For all the current Silver now abroad hath been so culled by some Goldsmiths and others, the same either turned into Bullion, and so transported, that that which now remaineth will hardly produce 3*l.* 5*s.* in the pound weight one with another; and so not likely for so little profit as now it giveth, to be transported. But if the Pound sterling should be as they desire, cut into 70*s.* 6*d.* it must of necessity follow, that the new Mony will convert the old Mony (now current) into Bullion; and so afford a Trade afresh for some ill Patriot Goldsmiths, and others, who formerly have more endamaged the State by Culling, than any others by Clipping; the one but trading in Pounds, the other in Thousands; and therefore worthy of a greater Punishment. And we cannot but have just cause (my

Lords) to fear that these bad Members have been no idle Instruments, for their private Benefit, to the publick Detriment of this new Project, so much tending to enfeebling the Sterling Standard.

We further (under your Lordships favours) conceive that the raising the Silver to the Gold, will upon some sudden occasion beyond Sea transport our Gold, and leave the State in scarcity of that, as now of Silver.

And to that Objection of the Proposers, That there is no Silver brought of late into the Mint: The Causes we conceive to be (besides the unusual quantities of late brought into the Mint in Gold) one the overballansing of late Trade, the other the charge of Coinage. For the first, it cannot be but the late Infection of this City was a lett of Exportation of our best Commodity, Cloth, made by that suspected in every place. To this may be added the vast Sums of Mony which the necessary Occasions of War called from his Majesty to the parts beyond the Seas, when we had least of Commodities to make even the ballance there. And lastly, Dearth and scarcity of Corn, which in time of Plenty we ever found the best Exchange to bring in Silver. And therefore, since by God's great favour the Plague is ended, and general Trade thereby restored, and more of Plenty this year than hath been formerly these many years of Corn, we doubt not but if the Ports of *Spain* were now as free as they were of late, there would not prove hereafter any Cause to complain of the want of Bullion in the State.

The second Cause, that the Mint remains unfurnished, will be the charge of Coinage, raised in price so far above all other places, constraining each man to carry his Bullion where he may receive by Coinage the less of loss. And therefore if it may please his Majesty to reduce the prices here to the Rates of other of our

Neighbour Countries, there will be no doubt but the Mint will beat as heretofore.

QUESTIONS *to be proposed to the Merchants, Mint Masters, and Goldsmiths concerning the Alteration of the Silver-Monies.*

1 **W**HETHER the English Monies now current are not as dear as the Forrein of the Dollar and Real of 8. in the intrinsick Value in the usual Exchanges now made by the Merchants beyond Seas.

2. Whether this advancing will not cause all the Silver Bullion, that might be transported in Mass or Forrein Coin, to be minted with the King's Stamp beyond Sea, and so transported, and his Mint thereby set less on work than now?

3. Whether the advancing the Silver Coin in *England* will not cause a transportation of most of that that is now current to be minted in the *Netherlands*, and from them brought back again, whereby his Majesties Mint will fail by the exported benefit?

4. Whether the advancing the Silver Coin, if it produce the former Effects, will not cause the Markets to be unfurnished of present Coin to drive the Exchange, when most of the old will be used in Bullion?

5. Whether the higher we raise the Coin at home, we make not thereby our Commodities beyond Sea the cheaper?

6. Whether the greatest Profit by this inhauncing, will not grow to the ill Members of the State, that have formerly culled the weightiest Pieces and sold them to the Stranger-Merchants to be transported?

*Certain General RULES collected concerning Money  
and Bullion out of the late Consultation at Court.*

**G**OLD and Silver have a two-fold Estimation: In the extrinsick, as they are Monies, they are the Princes Measures given to his People, and this is a Prerogative of Kings: in the intrinsick, they are Commodities, valuing each other according to the plenty or scarcity; and so all other Commodities by them; and that is the sole power of Trade.

The Measures in a Kingdom ought to be constant: It is the Justice and Honour of the King; for if they be altered, all Men at that instant are deceived in their precedent Contracts, either for Lands or Mony, and the King most of all; for no Man knoweth then, either what he hath or what he oweth.

1573.

This made the L. Treasurer *Burleigh* in 1573. when some Projectors had set on foot a matter of this nature, to tell them that they were worthy to suffer Death for attempting to put so great a Dishonour on the Queen, and Detriment and Discontent upon the People. For, to alter this publick Measure, is to leave all the Markets of the Kingdom unfurnished; and what will be the Mischief, the Proclamations of 5 *Edw. VI.* 3 *Mariæ*, and 4 *Eliz.* will manifest; when but a rumor of the like produced that Effect to far, that besides the Faith of the Princes to the contrary delivered in their Edicts, they were inforc'd to cause the Magistrates in every Shire respectively to constrain the people to furnish the Markets to prevent a Mutiny.

5 *Edw. VI.*  
3 *Mariæ.*  
4 *Eliz.*

To make this Measure then, at this time short, is to raise all Prizes, or to turn the Mony or Measure now currant into disuse or Bullion: For who will part with any, when it is richer by seven in the Hundred in the

Mass, than the new Monies, and yet of no more value in the Market?

Hence of necessity it must follow, that there will not in a long time be sufficient minted of the new to drive the Exchange of the Kingdom, and so all Trade at one instant at a stand; and in the mean time the Markets unfurnished: Which how it may concern the quiet of the State, is worthy care. And thus far as Money is a Measure.

Now, as it is a Commodity, it is respected and valued by the intrinsick quality. And first the one Metal to the other.

All Commodities are prized by plenty or scarcity, by dearness or cheapness, the one by the other: if then we desire our Silver to buy Gold, as it of late hath done, we must let it be the cheaper, and less in proportion valued, and so contrary: For one equivalent proportion in both will bring in neither. We see the proof thereof by the unusual quantity of Gold brought lately to the Mint by reason of the Price; for we rate it above all other Countries, and Gold may be bought too dear. To furnish then this way the Mint with both, is altogether impossible.

And at this time it was apparently proved, both by the best Artists and Merchants most acquainted with the Exchange, in both the Examples of the Mint-masters in the *Rix-dollar* and *Real* of 8, that Silver here is of equal value, and Gold above, with the forein Parts in the intrinsick; and that the fallacy presented to the Lords by the Mint-masters, is only in the nomination or extrinsick quality.

But if we desire both, it is not raising of the Value that doth it, but the ballansing of Trade; for buy we in more than we sell of other Commodities, be the Money never so high prized, we must part with it to

make the disproportion even : If we sell more than we buy, the contrary will follow.

And this is plain in *Spain's* Necessities : For should that King advance to a double rate his *Real* of 8. yet needing, by reason of the barrenness of his Country, more of forein Wares than he can contervail by exchange with his own, he must part with his Money, and gaineth no more by inhauncing his Coin, but that he payeth a higher price for the Commodities he buyeth, if his Work of raising be his own. But if we shall make improvement of Gold and Silver, being the staple Commodity of his State, we then advancing the price of his, abase to him our own Commodities.

To shape this Kingdom to the fashion of the *Netherlanders*, were to frame a Royal *Monarch* by a Society of Merchants. Their country is a continual Fair, and so the Price of Money must rise and fall to fit their Occasions. We see this by raising the Exchange at *Frankfort* and other places at the usual times of their *Marts*.

The frequent and daily change in the low Countries of their Monies, is no such injustice to any there, as it would be here. For being all either Mechanicks or Merchants, they can rate accordingly their Labours or their Wares, whether it be Coin or other Merchandise, to the present condition of their own mony in Exchange.

And our English Merchants, to whose Profession it properly belongs, do so according to the just intrinsick value of their Forein Coin, in all barter of Commodities or Exchange except at Usance ; which we, that are ruled and tyed by the extrinsick measure of Monies, in all our constant Reckonings and annual Bargains at home, cannot do.

And for us then to raise our Coin at this time to

equal their Proportions, were but to render ourselves to a perpetual uncertainty: For they will raise upon us daily then again; which if we of course should follow, else receive no Profit by this present Change, we then destroy the Policy, Justice, Honour and Tranquillity of our State at home for ever.

*FINIS.*



A D V I C E

OF HIS MAJESTY'S

Council of Trade,

CONCERNING

*The Exportation of Gold and Silver,*

IN

FOREIGN COINS & BULLION.

Concluded 11th December, 1660.



*Advice of his Majesty's Council of Trade, concerning the  
Exportation of Gold and Silver in Foreign Coins and  
Bullion.*

(Concluded December 11. 1660.)

TO THE KING'S MOST EXCELLENT MAJESTY.

The opinion and humble advice of your Majesty's Council of Trade concerning the free Exportation of Gold and Silver in foreign Coins and Bullion.

MAY IT PLEASE YOUR MAJESTY,

The balance of trade (by which we understand the proportion that the commodities exported have in value to the commodities imported) being the sole or principal cause of the Exportation or Importation of Bullion :

If, upon the balance, money is to be exported, the strictest of laws (as by the experience of all ages appeareth) cannot stop it.

But if, upon the balance, money is to be imported, that same law that could not, in the other case, prevent the carrying of it out, hinders, in this, the bringing of it in; for the merchant will rather send his money to Livorne, Amsterdam, &c., (where he may remove it at pleasure) than bring it hither; whence he cannot export it in pursuance of any advantage in trade, without hazarding the loss of it.

However, it evidently gives a greater interruption to the English Merchant, and keeping foreigners (upon the same account) from lodging their money here (as otherwise they would) this being a place so much more convenient than Amsterdam, does consequently lose the great benefit that would arise to your Majesty in your mint and

revenue, to the nobility and gentry in their estates, and to the merchant in his trade, by the plenty of Gold and Silver in your Majesty's dominions.

And though the prerogative your Majesty's royal predecessors anciently had and exercised of the whole change, exchange, and rechange of Money, Bullion, &c., (which must needs have been invaded, if any other had had the liberty of exporting Gold and Silver) was in those days a sufficient and principal (if not the only reason) for making the several statutes against the Exportation of Money, &c., without the King's licence; yet, that reason now ceasing, we most humbly propose to your Majesty, as our opinion, and advise (upon the weight of those other preceding reasons, of which your Majesty, by the annexed paper, may receive more full satisfaction) that your Majesty would be graciously pleased, for the better advancing of trade, (and for the general good of your Majesty's subjects) to dispense with the present penalties upon the Exportation of Gold and Silver in foreign Coin or Bullion for some certain time, and by such public act, as (being without any trouble or charge to traders) may give both encouragement and assurance, unto merchant-strangers, as well as natives, in the importing of Gold and Silver, unless upon public notice, given a year before, your Majesty shall think fit to recall the same.

All which we most humbly submit unto your Majesty's most gracious will and pleasure.

*Reasons and arguments for the Free Exportation of Gold and Silver in Foreign Coin and Bullion.*

The council of trade appointed by your Majesty, having taken into consideration the tenth article of the instructions given unto them by your Majesty, ordering to advise how Bullion may be best drawn into these kingdoms; and having had many days' examination and

debate, of and upon the several ancient laws, forbidding the Exportation of all manner of Gold and Silver in Coins, Bullion, Plate, &c.: After comparing the present course of trade, with that of those ages wherein those statutes were made, and observing the inconveniences growing upon these kingdoms through such prohibitions, and the advantage which other princes and nations make by letting the Exportation thereof free; have drawn up their sense and apprehension upon the whole matter, which they humbly offer to your Majesty as followeth:—

And first, It hath been observed, out of these and other statutes, that all Money and Bullion, once imported, was to be put into the hands of the King's exchangers, which course is now antiquated. That some of those statutes seem more to intend religious persons, and clerks, than merchants; and all imply, or particularly except, some cases wherein, by the King's licence, Money and Bullion might be Exported, without being in danger of the forfeitures in those laws. And therefore, finding these dispensations to be your Majesty's prerogative, preserved entire to the Crown, through so many of your royal progenitors, we have not thought fit to touch any further upon this matter, as being humbly confident that your Majesty's subjects shall (upon all occasions) be indulged the like, if not more ready relief, and accommodation for their trade, from your Majesty's royal grace and bounty: only, because the observation was obvious, that, perhaps, all former Parliaments purposely left this door open to the people by the grace of the King, to be relieved by these dispensations as foreseeing how difficult, if not impossible, or how inconvenient, at least, it might be in future times, altogether to restrain the Exportation of Money and Bullion, we could not omit the same in this place.

And secondly, Supposing that it were of absolute necessity to restrain all Money and Bullion, once imported, to be kept within the kingdom. It then came under  
5 consideration,

consideration, whether either the laws hitherto made in that behalf are, or that it be possible to make a law, adequate to prevent the exportation thereof.

And here we were convinced, by experience, that the laws of this kingdom (hitherto made) have been of no effect to the end thereby designed; and looking abroad, as there are no where more strict and severe laws against the Exportation of Coin and Bullion than in Spain and France, we found all to be to as little purpose.

We then, thirdly, enquired, What loadstone attracted this Metal by force of nature to itself, against all human providence or prevention? and soon found, that it was alone the present course of trade and traffic throughout the world, and quite altered from that in former ages when those statutes were made, which hath converted all action into the Commodities which the earth and sea produce, is in continual circumrotation, embraceth all things, and hath enforced at last money (which in former times was only used as the measure to value all Commodities by) to become now itself to a Commodity, subject to rising and falling in price and value as any other merchandize, and to be the only employment of thousands of merchants that deal in nothing else; yet it cannot be denied, that the surest way to bring in money, and to keep it (were there no laws of restraint at all) were to be more sellers than buyers, and to make up such a balance of trade of this kingdom, as it might be judged whether the produce of native goods did exceed the consumption of the foreign; for then the overplus would be found in Money, and remain in the land.

But this point we found would require a vast expense of time, both in council and action, both at home and abroad; and that the result at last would be no more but what experience hath already taught, that Money and Bullion have always forced their way against the several laws; that the trade of the world will not be forced, but

will find or make its own way free to all appearances of profit; and that, although there be a method in trade, yet it is held impossible to describe the same.

For Spain hath the mines of Gold and Silver; yet enjoyeth the least part thereof, and for three parts of the year hath scarce sufficient to serve its own ordinary occasions.

On the other side, neither Venice, Tuscany, Genoa, nor the Netherlands, have any mines at all of their own, nor are at all careful to keep in Money or Bullion, by any restraint of laws; yet they are always masters thereof, and some of them abound therein.

But it is true, that Venice once did fall upon the course taken by Spain, France, and England, to keep Money and Bullion within their country by strict laws; but they soon found they had the less thereof by this restraint, and as soon relinquished the same, and have never since complained of any want.

And therefore, in the fourth place, we discovered that, as it is impossible by any laws to restrain Money and Bullion against the use that traffic finds for the same; so also the adhering to this principle of restraining thereof discourageth, as well all natives as foreigners, to Import any Money or Bullion into those lands, where the Exportation thereof, at their own pleasure, is forbidden them; and that this hath been the cause that even the English that lived in Spain, when they had acquired Money and Bullion there, would not transport it hither, but either lodged it in Genoa, Venice, or Livorne, for the trade of the Mediterranean, as those of Holland do for the trade of the German Ocean.

From whence, fifthly, the many advantages (thereby given away clearly to the stranger from the English) present themselves; for the stranger, knowing we must be furnished in one of those places for our occasions, make us pay dearly for our accommodation; and besides,

to seek the same there, we are often hindered in our voyages outward, put upon double adventures, and oftentimes hindered of our market.

For there are some trades, that in part, or in the whole, cannot be driven, or managed, to any profit or proportion of advantage with our neighbours, but by Exporting Money or Bullion, either together with their merchandizes, or wholly a merchandize or commodity of itself—Wherein are humbly offered these instances:—

To the East Indies—Though some English commodities be vended there, yet no considerable trade can be driven by us, or any others that buy the commodities of the natives, but with Money carried out of Europe. And if we Export 100,000*l.* per annum, that will purchase so much goods as do usually yield in England 300,000*l.*, one-third whereof is paid, as the salary of ships, men's wages, and for customs; and here is one considerable advantage, that redounds, as well to your Majesty's revenue, as to the navigation of this kingdom; then one-third of the said East India commodities is as much as serveth for the consumption of these kingdoms; and that we have at the price it cost in India; the last third, as also the first third, reckoned to freight, mariners' wages, and customs, are both exported to the Mediterranean, Spain, France, the Baltic, and other ports, where the proceed of them serves to purchase foreign commodities for us, and helps so far to balance our trade, as that it occasioneth the importation of at least 100,000*l.* per annum in Bullion, and prevents the Exportation of as much more; which would be wanted to purchase necessary commodities from abroad. Whereas, if we did not follow the East India trade, the Hollanders would drain from us at least 300,000*l.* per annum, for the East India commodities that we must have from them; for so much, at least, the same goods would cost at their hands, which we now bring home ourselves for 100,000*l.*

And all these mischiefs, we avoid, and all their advantages we gain, by the free exportation of 100,000*l.*

For the Norway trade, which gives a large employment to a great number of shipping, and furnisheth us with a very necessary supply of timber and tar ; it cannot be carried on without the liberty of Exporting Money and Bullion, because the kingdom of Norway gives no vent to any of our native commodities, in proportion to the value of what we fetch thence, and therefore Money and Bullion must pay for it ; and should the ships first go to Holland or Hamburg $\ddot{h}$  to fetch the dollars, the very time expended in deviating from their designed ports of lading would make the price of timber twice as much as now it is ; the freight of it being at least two-thirds of the value of it when it is imported.

The trade of Turkey cannot be driven to advantage, but with some part Money, because the consumption of our manufactures in those dominions, is not sufficient to make payment for what we have occasion to bring from thence ; nor can those manufactures be put off, in the most advantageous terms, but by giving some part money with them, in the exchange for the Turkey commodities, which is a trade not to be neglected, because, whereas we now furnish not only our own country with many necessary commodities that are here manufactured, out of the product of that trade, to the great increase of your Majesty's revenue, and employment of the poor, but other nations also ; so that if we left that trade, the Hollanders would presently take it up, and then we must have all this supply from them, to the signal prejudice of our common capitals, and deduction of our manufacture.

And lastly, whereas it hath been objected,

1. That this liberty is the ready way to have no Money at all left in this kingdom, and to set open the

door to the Hollanders, and others, to drain us of all Money and Bullion; we have considered, that when the merchants of this kingdom shall have like freedom here at home to Export Money and Bullion directly hence, for the ports of East India, Norway, and Turkey aforesaid, it will not turn to account for them, or any foreign nation, to Export the same hence to their own country; for then it will cease to be a community of traffic; they will have no advantage over us, to oblige us to seek our Monies that we have occasion for there; and Money, of all commodities, is the worst, if it lies still, and if the penny be not daily turned.

That it is all one mischief to the nobility, gentry, and freeholders of this kingdom, whether the Money or Bullion thereof, be drawn from them by the native or stranger merchant.

Herein also we consider, that this nation hath, of its own growth, manufacture, and product, always enough to oblige the importation of Money and Bullion upon all occasions, beyond any other nation whatsoever in Christendom. That Money and Bullion once imported is like a river, which, overflowing in its passage, doth always leave so much behind, as the neighbouring meadows for a long time after feel the benefit thereof.

And this nation hath had one notable experience, that when the Spaniard was permitted to export two-thirds of the Money he imported, and obliged to no more than one-third to be brought into the King's mint, it commonly happened that the mint got the whole, as the Spaniard found the advantages here, to make better benefit to return the same into Flanders, or in the manufactures, or naturalized commodities of this kingdom.

So that, to wind up all that has been said, the result of the several reasons and arguments herein summed up seemed to be this: That time and experience instruct, and

the present state of traffic throughout the world require, that, for the increase of the stock of Money in these your Majesty's kingdoms, some way of liberty for the Exportation, at least of foreign Coin and Bullion, should be found out, and put in execution; which hath produced the humble advice offered in the preceding paper.

*FINIS.*



SIR WILLIAM PETTY

HIS

Quantulumcunque

CONCERNING

M O N E Y .

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*To the Lord Marquess of Halyfax,*

ANNO 1682.

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LONDON:

Printed for A. and J. CHURCHILL, at the  
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# Sir William Pettys

*Quantulumcunque* concerning Money,  
1682.

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To the Lord Marquess of *Halyfax*.

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**S**UPPOSE that 20*s.* of new mill'd Money doth weigh 4 Ounces *Troy*, according to Custom or Statute. Suppose that 20*s.* of old *Eliz.* and *James's* Money, which ought also to weigh 4 Ounces *Troy*, doth weigh 3 Ounces *Troy*; and very variously between 3 and 4 Ounces, *viz.* none under 3, and none full 4.

Suppose that much of the new mill'd regular Money is carried into the *East-Indies*, but none of the old light and unequal Money.

## QUESTIONS.

Qu. 1. *Whether the old unequal Money ought to be new Coined, and brought to an equality?*

*Answ.* It ought: Because Money made of Gold and Silver is the best Rule of Commerce, and must therefore be equal, or else it is no Rule; and consequently no Money, and but bare Metal which was Money before it was worn and abused into Inequality.

Qu. 2. *At whose Charge?*

*Answ.* At the States Charge, as now it is: Because the Owner was no cause of its Inequality, but the States neglect in (not) preventing and punishing such Abuses, which are remedied by new Coinage.

Qu. 3. *Of what weight and fineness ought the new Shilling to be?*

*Answ.* Of the same with the other present new Money, and which the old was of, when it was new: Because all must be like, all according to the Statute; and all fit to pay ancient Debts, according to what was really lent.

Qu. 4. *Suppose 20s. of old Money may make but 18s. of new, who shall bear the loss of the two shillings?*

*Answ.* Not the States: Because men would clip their own Money: But the owner himself must bear the loss, because he might have refused light and defective Money, or put it away in time; it being sufficient that he shall have new regular beautiful Money for his old unequal Money, at the States Charge, Ounce for Ounce weight.\*

4

Qu. 5.

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\* This is a controverted question, but on the whole we have no difficulty in dissenting from the opinion of Petty. Coins are to be regarded rather as the property of the public than of individuals. They pass freely from hand to hand among all classes; and their weight is diminished by the wear they undergo, and sometimes also (as was especially the case in 1690) by the fraudulent practices of clippers and others. But it would be most unjust to make the present holders of Coins responsible for their wear during the previous twenty or thirty years, or for the depredations practised upon them in the teeth of the law by knaves and swindlers. These are losses which the Coins have incurred in the public service, and they should consequently be borne by the public.

It is true that in carrying out this principle considerable difficulties have sometimes had to be encountered. Previously to the great recoinage of 1696-99, the practice of clipping the Coin was carried to a great height. And it was contended that if a Proclamation were issued, calling in the Coins in circulation by a certain day that they might be exchanged for new Coins of full weight, a corresponding premium would be offered to the clippers to redouble their activity in the interval. And as this was the course adopted on the occasion referred to, the anticipated result was realized to the fullest extent. It is believed, indeed, that the Coins lost as much by clipping between the period when it was announced that they would be called in and exchanged for new Coins, and their exchange for the same, as they had done in the course of the preceding ten or twelve years. (Leake's English Money, 2nd ed. p. 391, &c.)

But

Qu. 5. *After this Reformation of Coin, Will more Silver be carried out of England, suppose into the East-Indies, then before; and to the Damage of England?*

*Answ.* Somewhat more: But none to the Damage of England, *Eo Nomine*; but rather to its Profit: Because the Merchant will be considered for the Manufacture of the new Money; besides the Metal of it, as he only was when he carried out *Spanish Reals*.

Qu. 6. *Whereas the Merchant carries Scarlet and Silver to the Indies, will he not now carry only the new coined Silver?*

*Answ.* The Merchant will buy as much Scarlet as he can for 100 new Shillings, and then consider whether he shall get more Silk in the *Indies* for that Scarlet than for another 100 of the like Shillings: And, according to this Conjecture, he will carry Scarlet or Shillings *in specie*, or part one, part the other, if he be in doubt.

Qu. 7. *But will not England be impoverished by Merchants carrying out the said 100 Shillings?*

*Answ.* No, if he brings home for them as much Silk as will yield above 100 Shillings (perhaps 200 Shillings) in *Spain*, and then bring the same 200 into *England*: Or, if he bring home as much Pepper as an *English* man will

But it is very improbable that a loss of this sort will have to be again made up, inasmuch as milled Coins, which are now exclusively in use, are little susceptible of being clipped. And it may further be observed, that the loss experienced in 1696-99, from the circumstances already mentioned, might have been in great measure obviated had Government taken upon itself the responsibility of the Coinage, and quietly prepared a supply of Coins at the Mint sufficient to enable them at once to call down those in circulation.

The recoinage of 1696-99, notwithstanding the great expense and difficulty with which it was effected, proved on the whole a failure. This, however, was not a consequence of anything immediately connected with the Coinage, but is entirely to be ascribed, as will be afterwards seen, to the over-valuation of Gold as compared with Silver.

give him 200 of the like Shillings for. So the Merchant and *England* shall both Gain by Exporting the 100 Shillings.

Qu. 8. *But if the new Shilling were but  $\frac{3}{4}$ ths of the weight as formerly, then the Merchant would not meddle with them at all, and so secure this fear of impoverishment?*

Ans. The Merchant would Export then, just as before; Only he will give but  $\frac{3}{4}$  so much Pepper, or other *Indian* Goods, for the new retrenched Shilling as he did for the old: And would accept in *India*  $\frac{3}{4}$  as much Pepper as he formerly had for the old: And consequently there would be no difference, but among a few such Fools as take Money by its name, and not by its weight and fineness.

Qu. 9. *If a Shilling was by new Coinage reduced to  $\frac{3}{4}$  of its present weight, should we not thereby have  $\frac{1}{4}$  more of Money than now we have, and consequently be so much the richer?*

Ans. You would indeed have  $\frac{1}{4}$  part more of the new christned Shillings; but not an Ounce more of Silver, nor Money; nor could you get an Ounce more of Forreign Commodities for all your new multiplied Money than before: Nor even of any Domestick Commodities; but perhaps a little at first from the few Fools above mentioned. As for Instance; Suppose you buy a Silver Vessel from a Goldsmith weighing 20 Ounces, at 6s. *per* Ounce, making 6 Pounds or 24 Ounces of Coined Silver; now suppose that the said 6 Pounds were reduced from weighing 24 Ounces to weigh but 18 Ounces upon the new Coinage; but be still called 6 Pound even by the King's Proclamation; Can it be imagined that the Goldsmith will give his Vessel weighing 20 Ounces of wrought for 18 Ounces of unwrought Silver? For the Workmanship of Money is of little value. Now the Absurdity is the same in all other Commodities, though not so demon-

strable as in a Commodity whose Materials are the same with Money.

Qu. 10. *Cannot Authority Command that men should give as much Commodity for the new retrencht Money, as for the old which weighed  $\frac{1}{3}$  part more?*

*Ans.* Then the effect of such Authority would also be to take away  $\frac{1}{3}$  of all mens Goods, which are Commodities beyond Seas, and give the same to Forreigners, who would have them for  $\frac{2}{3}$  of the usual quantity of Silver: And the same Authority would take away from the Creditor  $\frac{1}{3}$  of the Money which was due before the Proclamation.

Qu. 11. *Whereas you suppose retrenching  $\frac{1}{4}$  in the new Coinage; Suppose it was but  $\frac{1}{10}$ , how would the matter be then?*

*Ans.* Just the same: For *Magis et minus non mutant speciem*: But it were better you supposed that one Shilling were to be taken for 10 or 20, then the Absurdity would be it self so visible, as to need no such Demonstration, as is needful in such small matters as Common Sense cannot discern: For if the wealth of the Nation could be decupled by a Proclamation, it were strange that such Proclamations have not long since been made by our Governours.

Qu. 12. *Will not some men, having occasions to buy Commodities in Forreign Parts, carry out all Money, and so not vend or Export our own Commodities at all?*

*Ans.* If some *English* Merchants should be so improvident, yet the Forreign Merchants would buy up such *English* Commodities as they wanted, with Money brought into *England* from their respective Countries, or with such Commodities as *England* likes better than Money. For the vending of *English* Commodities doth not depend upon any other thing, but the use and need which Forreigners have of them. But were it not a folly for an *English* man not to carry Lead into *Turkey*: but go thither with Money, in his Ballast, and so loose the Freight

of the Lead, which he might sell there; And that a Ship should come from *Turkey* with Money, in her Ballast also, to fetch Lead from *England* which might have been carried at first by the *English Ship*? No: The art of a Merchant is to consider all those Matters, so as no Prince's Proclamation concerning the Weight and Denominations of Coins, signifies any thing to Forreigners when they know it, nor to his own Subjects *pro futuro*, what e're Disturbances it may make amongst them *pro præterito*. We say again: it were better for a Prince owing 20*s.* to say he will pay but 15*s.* than disguising his own particular purpose, to say that all Landlords shall henceforth take 15*s.* Rent for 20*s.* due to them by their Tenants Leases; and that he who hath lent a 100*l.* on the *Monday*, (the Proclamation of Retrenchment coming out on *Tuesday*) may be repaid on *Wednesday* with  $\frac{3}{4}$  or 75*l.* of the very Money he lent two days before.

Qu. 13. *Why is not our old worn unequal Money new Coined and equallized?*

*Answ.* There may be many weak Reasons for it; But the only good one which I know, is, that bad and unequal Money may prevent hoarding, whereas weighty, fine and beautiful Money doth encourage it in some few timorous Persons, but not in the Body of Trading Men. Upon the account of Beauty our *Britannia* Half-pence were almost all horded as Medals till they grew common; For if but 100 of those pieces had been Coined, they would for their Work and Rarity have been worth above 5*s.* each, which for their Matter are not worth that Half-penny they pass for: For in them, *Materiam superabat Opus.*

Qu. 14. *Why hath Money been raised, or retrencht, or imbasd by many wise States, and so often?*

*Answ.* When any State doth these things, they are like Bankrupt Merchants, who Compound for their Debts by paying 16*s.* 12*s.* or 10*s.* in the pound; Or forcing their Creditors to take off their Goods at much above the

Market rates. And the same State might as well have paid but  $\frac{3}{4}$  of what they ow'd, as to retrench their Money in General to  $\frac{3}{4}$  of the known weight and fineness. And these practices have been compassed by Bankers and Cashiers, for oblique Considerations, from the Favourites of such Princes and States.

Qu. 15. *It is then the Honour of England that no such Tricks have been practiced, though in the greatest Streights that ever that State hath been in.*

*Answ.* It hath been their Wisdom, and consequently their Honour to keep up a Rule and Measure of Trade amongst themselves, and with all Nations.

Qu. 16. *But is there no Case wherein Money may be justly and honourably raised?*

*Answ.* Yes, in order to Regulation and Equalizing of Species of Coins; As when two Species of one Weight and Fineness are taken at different Rates, then the one may be raised or the other depressed: But this must be rated by the Estimation of the whole World as near as it can be known, and not by any private Nation; and the like may be done between Gold and Silver.

Qu. 17. *What do you think of the rising or falling of the Price of Lands, from this following Instance, viz. A piece of Land was sold 60 Years ago for 1000*l.* that is for a 1000 Jacobusses; and the same Land is now sold for 1000*l.* or 1000 Guineas, and the Guinea is but  $\frac{3}{4}$  the weight of the Jacobus. Is the Land cheaper now than 60 Years ago?*

*Answ.* It looks like a Demonstration that it is: Yet if Gold be not Money, but a Commodity next like to Money, and that Silver be only Money; then we must see whether 1000 *Jacobusses* would then purchase no more Silver than 1000 *Guineas* will do now: For if so, the Land was heretofore and now sold for the same Quantity of Money, though not of Gold; and is neither risen nor fallen by what hath been instanced.

Qu. 18. *What is the difference between retrenching or raising of Money, and imbasing the Metal of the same, as by mixing Copper with Silver ?*

*Answ.* The first is the better of the two, if such Mixture be of no use in other things: For if 20s. which contains 4 Ounces of Silver, should be reduced to 3 Ounces of Silver, it is better than to add one Ounce of Copper to the same, in order to make 4 seeming Ounces as before: For if you come to want the said 3 Ounces of Silver mixt with Copper, you must lose the Copper, upon the Test, and the Charge of Refining also, which will amount to above 4 per Cent.

Qu. 19. *What do you object against small Silver Money; as against Single Pence, Two Pences, &c.?*

*Answ.* That the Coinage of small Pieces would be very chargeable, and the Pieces themselves apt to be lost, and more liable to wearing; for little of our old small Money is now to be seen, and our Groats are worn away to Three half-pence (worth) in Metal.

Qu. 20. *What do you say of Money made wholly of base Metal, such as Farthings, &c.?*

*Answ.* That the want of Materials ought to be made up by the fineness of Coinage, to very near the intrinsic Value; or what is gained by the Want of either, to be part of the King's Revenue.

Qu. 21. *Which is best, Copper or Tin, for this purpose ?*

*Answ.* Copper: Because it is capable of the most imitable and durable Coinage: though the Copper be Forreign, and Tin a Native Commodity. For suppose Copper and Tin of the same Value in *England*; yet if 100 Weight of Tin sent to *Turkey* will fetch home as much Silk as will fetch above 100 of Copper from *Sweden*, in such case the Difference between Native and Forreign is nothing.

Qu. 22. *This Doctrine may extend to a free exportation of Money and Bullion, which is against our Laws: Are our Laws not good ?*

*Answ.* Perhaps they are against the Laws of Nature, and also impracticable: For we see that the Countries which abound with Money and all other Commodities, have followed no such Laws: And contrarywise, that the Countries which have forbid these Exportations under the highest Penalties, are very destitute both of Money and Merchandize.

Qu. 23. *Is not a Country the poorer for having less Money?*

*Answ.* Not always: For as the most thriving Men keep little or no Money by them, but turn and wind it into various Commodities to their great Profit, so may the whole Nation also; which is but many particular Men united.

Qu. 24. *May a Nation, suppose England, have too much Money?*

*Answ.* Yes: As a particular Merchant may have too much Money, I mean coined Money, by him.

Qu. 25. *Is there any way to know how much Money is sufficient for any Nation?*

*Answ.* I think it may pretty well be guessed at; viz. I think that so much Money as will pay half a Years Rent for all the Lands of *England*, and a Quarters Rent of the Houseing, and a Weeks Expence of all the People, and about a Quarter of the Value of all the exported Commodities, is sufficient for that purpose. Now when the States will cause these things to be computed, and the Quantity of their Coins to be known, which the new Coining of their old Money will best do, then it may also be known whether we have too much or too little Money.

Qu. 26. *What Remedy is there if we have too little Money?*

*Answ.* We must erect a Bank, which well computed, doth almost double the Effect of our coined Money: And we have in *England* Materials for a Bank which shall furnish Stock enough to drive the Trade of the whole Commercial World.

Qu. 27. *What if we have too much Coin?*

*Answ.* We may melt down the heaviest, and turn it into the Splendor of Plate, in Vessels or Utensils of Gold and Silver; or send it out, as a Commodity, where the same is wanting or desired: or let it out at Interest, where Interest is high.

Qu. 28. *What is Interest or Use-Money?*

*Answ.* A Reward for forbearing the use of your own Money for a Term of Time agreed upon, whatsoever need your self may have of it in the mean while.

Qu. 29. *What is Exchange?*

*Answ.* Local Interest, or a Reward given for having your Money at such a Place where you most need the use of it.

Qu. 30. *What is the Trade of a Banker?*

*Answ.* Buying and selling of Interest and Exchange: Who is honest only upon the Penalty of losing a beneficial Trade, founded upon a good Opinion of the World, which is called Credit.

Qu. 31. *You were speaking of base Money and Farthings, which are generally below the intrinsick Value, and therefore ought not to be permitted to increase ad infinitum. Is there any way to know how many were enough?*

*Answ.* I think there is: *viz.* Allowing about 12*d.* in Farthings to every Family: So as if there be a Million of Families in *England* (as I think there be) then about 50,000*l.* in Farthings would suffice for Change; and if such Farthings were but  $\frac{1}{4}$ th below the intrinsick Value, the Nation would pay but 10,000*l.* for this Convenience: But if this way of Families be not Limitation enough, you may help it by considering the smallest Piece of Silver Money current in the Nation; which how much lesser it is, by so much lesser may the Number of Farthings be: The use of Farthings being but to make up Payments in Silver, and to adjust Accompts: To which end of adjusting Accompts let me add, that if your old defective Farthings were cryed down to 5 a Penny, you might keep

all Accompts in a way of Decimal Arithmetick, which hath been long desired for the ease and certainty of Accompts.

Qu. 32. *What do you think of our Laws for limiting Interest?*

*Ans.* The same as of limiting the Exportation of Money, and there may be as well Laws for limiting Exchange also: For Interest always carrieth with it an Ensurance *præmium*, which is very casual, besides that of Forbearance: For Instance, in *Ireland* there was a time when Land (the highest security) was sold for 2 Years Purchase: It was then naturally just to take 20, 30, or 40 *per Cent.* Interest; whereas there the Law allows but 10. And since that time, Land being risen to 12 Years Purchase, responsible Men will not give above 8. And insolvent Men will offer *Cent. per Cent.* notwithstanding the Law. Again, suppose a Man hath 100*l.* of Land worth 20 Years Purchase, and another 100*l.* in Houses, worth 12 Years Purchase, and an other 100*l.* in Shipping worth 2 Years Purchase; and another in Horses, worth 6 Months Purchase; Is it not manifest he must have a greater Yearly *præmium* for lending his House than his Land, his Ship than his House, and his Horse than his Ship? For if his Horse be worth 100*l.* he cannot hire him out for less than 10*s. per diem*, whereas the Land will not yield a Groat for the same time; and these Hires are the same with Interest.

*FINIS.*



A  
REPORT  
*Containing an*  
ESSAY  
FOR THE  
AMENDMENT  
OF THE  
Silver Coins.

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LONDON,  
Printed by *Charles Bill*, and the Executrix of  
*Thomas Newcomb*, deceas'd; Printers to the  
Kings most Excellent Majesty. 1695.



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*To the Right Honourable the Lords Commissioners of  
His Majesties Treasury.*

*May it please your Lordships,*

**I**N Obedience to your Lordships Command, I have endeavoured to inform myself of divers Matters which concern the Gold and Silver Moneys, and of the most Practicable Methods for New Coining the latter, and Supplying, in the mean time, sufficient Coins to pay the Kings Taxes and Revenues, and to carry on the Publick Commerce; and I do humbly represent to your Lordships,

That I have made diligent Search into several Records, Books, and Writings, to see what Acts or Things have been formerly done or practised, which might serve for Precedents, or give any Light for the Re-establishment of the Coins that should now go, and have Course as the Lawful Money of the Kingdom.

It is true (as I find in a Book of great Authority, remaining in the Exchequer, called *The Black Book*, written by *Gervase of Tilbury*, in the time of *Henry the Second*) that there were anciently Falsifiers and Clippers of Money; for when King *William the First*, for the better pay of his Warriours, caused the *Firmes*, which till his time, had for the most part been answered in Victuals, to be converted in *Pecuniam Numeratam*, he directed the whole from every County to be Charged on the Sheriff, to be by him brought into the Exche-

quer; adding, That the Sheriff should make the Payment, *ad Scalam hoc est* (as the aforesaid Author expounds it) *solveret preter quamlibet numeratam libram sex denarios*; and the Money afterwards declining, and becoming worse, it was Ordained, That the *Firmes* of Manors should not only be paid *ad Scalam*, but also *ad Pensam*, which latter was the paying as much Money for a Pound *Sterling*, as weighed Twelve Ounces *Troy*; so that Payment of a Pound *de Numero* imported Twenty Shillings, *ad Scalam* imported Twenty Shillings Six Pence, and *ad Pensam* imported so much as weighed Twelve Ounces. And in the time of King *Henry* the Second, when the Bishop of *Salisbury* was Treasurer, who considered, that though the Money did Answer *Numero et Pondere*, it might nevertheless be mixt with Copper or Brass; therefore (*Consilio Regis et ut Regiæ simul et Publicæ Provideretur Utilitati*) a Constitution was made, called the *Trial by Combustion*. The whole Progress whereof, as it was practised in the Exchequer in those Days, is exactly set down in the said Book, and differs little or nothing from the present method of *Assaying* Silver for its Fineness; as plainly appears in that place where the said *Gervase* treats of the Office of the *Miles Argentarius*, and that of the *Fusor*, an Extract whereof is hereunto Annexed.

It appears also that the Crown Rents were many times reserved in *Libris Albis* or *Blanch Firmes*; in which case the Payer was holden *Dealbare Firmam*, that is, His Base Money or Coin worse than Standard was Molten down in the Exchequer, and Reduced to the Fineness of Standard Silver, or (instead thereof) he Paid to the King Twelve Pence to the Pound by way of Addition.

But the most Remarkable Deceits and Corruptions found in Ancient Records to have been committed upon the Coins of the Kingdom, by Offenders, were in the

time of King *Edward* the First, when there was Imported a sort of Light Money made with a Mitre ; another sort of Light Money with Lyons upon it ; a Third sort of Copper Blancht, to Resemble the Money of *England* ; a Fourth sort of Light Money Resembling that of King *Edward* ; a Fifth kind that was Plated : And the Crime of Rounding Money (which I take to be the same with Clipping) was then in Fashion, all which was done out of *England*. And the Merchants to avoid the Search at *Dover* and *Sandwich*, concealed the Parcels in Bails of Cloth, and brought them in by other Ports. *Les queux choses si elles suissent longent so efforts* (says the Book) *elles mettre yent la Monye D'englitere a nient* : And the Chief Remedies then Applied werè,

*First*, To Cry down all Money that was not of *England*, *Ireland* or *Scotland* :

*Secondly*, That such as arrived from beyond Seas, should shew the Money they brought with them to the King's Officers :

*Thirdly*. And not hide it in Fardels, upon Pain of Forfeiture :

*Fourthly*, That the Light Money and the Clipt Money might be Bored through without contradiction :

*Fifthly*, And that the same should be Received and Paid by Weight at a certain Rate ; and that the Persons having such Clipt or Light Money, should bring the same to the King's Changers, who were settled in several great Towns in the Kingdom, to be new Coined. And by what I have read in *Libro Rubeo* (which is in the upper Exchequer) concerning the Changers (who, as well as the Masters of the Mint, had several Offices Erected in divers Parts of the Kingdom ; Namely, at *London*, *Canterbury*, *Bristol*, *Kingston upon Hull*, *Newcastle* and *Exeter*) a Principal Business of these Changers was to Buy in the Silver of the Bad Money ;

*que les Pollards et Crockards et les autres Mauvaises Moneis Contrefaits Soront, abatues*: And there was a Writ then directed to the Sheriffs, to Prohibit the Importation of Clipt or Counterfeit Moneys, and the Use thereof in Merchandizing or Negotiating, under severe Penalties, and Commanding those that had such Money to Bore it through, and to bring it to the King's Change to be new Coined.

And I find by an Indenture in the Third Year of Queen *Elizabeth* (at which time there was Base Moneys that had been Coined by Publick Authority) That it was Ordained that *Fleetwood*, Under Treasurer for the Upper Houses of the Mint in the Tower, should take in by Number and Tale, the Base Moneys therein mentioned, at such Rates or Values as were Appointed by a Proclamation in that behalf; giving Bills to the Parties under his Hand for the Receipt thereof. And the Officers of the Mint were to Melt down and Repay the same in Sterling Moneys, to the Parties or their Deputies, shewing and delivering their Bills, having regard to the time when every Man brought in his Money. And the Base Money Received, and the Sterling Money Repaid where to be Entred in Two Legers; one to be kept by the said Under-Treasurer, and the other by the Tellers. And the Comptroller and Assay-Master were to keep several Books of Refining and Melting the Base Money, to the intent they might be Vouchers to the said Under-Treasurer, who was to Account to the Queen for the whole.

These or such like Provisions might serve well enough in those Times, when there was not much Money, and but little Trade or Occasion for it, and when the *Species* then in being, which one would think consisted Anciently of Pence or Pieces of small Denomination, were not Corrupted or Diminished to that degree as they are at this day.

But considering the present low Condition to which our Moneys are almost generally Reduced, and the necessary Use thereof in daily Occasions, and particularly in the ways of Trade, upon which this Nation depends more at this time than it did formerly; I do not see how the Prudence of our Ancestors (which in many Constitutions relating to the Exchequer and the Mint, appears to have been Transcendent and Admirable, especially in Matters of Charge and Discharge, and preventing Frauds and Abuses upon the Crown) can, without the devising new or additional Means and Methods, be made Applicable to a present Work of new Coining the Silver Moneys, and Supplying Current Coins for the Commerce, and for the Payment of Taxes and Revenues in the mean time.

If therefore the King (to whose Regality the Power of Coining Money, and Determining the Weight, Finess, Denomination and Extrinsick Value thereof doth Solely and Inherently Appertain) shall Judge it necessary to have the old or present *Species* of Silver Coins, or so much thereof as hath been Clipt or otherwise Diminished, to be Melted down and Recoined, I humbly conceive new Means and Methods for doing the same must be Devised. And in Regard Money (which some Lawyers have called *Firmamentum Belli et Ornamentum Pacis*) is most certainly of the greatest Importance to His Majesty, in supplying the Taxes, Revenues and Loans, for Carrying on the War, and Supporting His Royal Estate; as also to His Subjects, with relation not only to their Trade and Commerce, but also to all other ordinary Means of Livelihood: The said Means and Methods for Re-establishing the Coins, and the many weighty things depending thereupon, ought to be well Excogitated, and to be Considered and Adjusted by Persons of the greatest Judgment and Sagacity; and (if I had not been Enjoyed by your Lordships) I

should scarce have Adventured upon a Subject so very Difficult and Curious.

I have Employed my thoughts chiefly upon such Matters as are Reduceable to the following Heads, *viz.*

First, *Concerning the Standard of the Gold and Silver Coins, and the Establishment of a Just and Reasonable Foot for the Course of the same.*

Second, *Concerning the Present State and Condition of the Gold and Silver Coins.*

Third, *Whether it be or be not Absolutely necessary at this Time to Re-establish the same.*

Fourth, *The Proposing of Means that must be Obtained, and the Proper Methods to be used in and for the Amendment of the Silver Monies.*

Fifth, *To Consider what must Supply the Commerce, Pay Taxes, &c., Whilst the Clipt Money is under its New Fabrication.*

As to the Particulars.

First, *Of the Standard.*

This properly brings under Consideration Two matters relating to the Coins; namely, the Degree of Fineness, and the Weight of the Pieces. In treating upon which I shall humbly take leave to observe this Method.

*First,* To explain what is meant by *Sterling* Moneys.

*Secondly,* To set down Historically the Proportions of Fine Gold, and Fine Silver, with the respective Allays, which the Masters or Workers of the Mints have been holden to Observe in the Fabrication of the

Moneys of this Realm, by their respective Indentures which I have found out, Beginning with those in the time of King *Edward* the Third, (the farthest Extant) and Ending with the Indenture of the Mint now in being.

*Thirdly*, To propose the Standard of Fineness, which (in my humble Opinion) ought to be continued for the new Coins, which His Majesty may be pleased to direct at this time, with my Reasons for the same, to be deduced from the Experience of former times, and an Impartial regard to present Circumstances.

*Fourthly*, To set forth how the Value of the Gold and Silver in our *English* Coins hath been Raised from time to time, which considers the Weight and Number of Pieces in a Pound *Troy*.

*Fifthly*, To offer my humble Opinion upon that Subject, in reference as well to the Old Coins now in being and Unclipt, as also to the New Moneys, which may be directed to be made, as aforesaid, together with my Reasons for the same, to be also Grounded upon the Experience of former Times, and a due Consideration of present Circumstances: All or most of which Points being of great Moment, to be well weighed in this Affair, I do humbly pray your Lordships that I may Discuss them severally.

*First*, It is believed by some Authors, (and not without Reason) that in the most Ancient times, when Money was first Coined within this Island, it was made of \* Pure Gold and Silver, like the Moneys now Current in some other Nations, particularly in *Hungary* and *Barbary*, where they have Pieces of Gold called *Ducats* and *Sultanesses*; and in the Kingdom of *Indus-tan*, where they have Pieces of Silver called *Rupees*,

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\* Vide Hales of *Sheriffs Accounts*, p. 5.

which I have seen, and wherein (as I am inform'd) there is little or no Alloy: And that afterwards it being found convenient in the Fabrication of the Moneys, to have a certain Quantity or Proportion of Baser Metal to be mixt with the Pure Gold and Silver, the Word *Sterling* was introduced, and hath ever since been used, to denote the certain Proportion or Degree of Fineness, which ought to be retained in the respective Coins composed of such mixture, as aforesaid. There are some Authors that fancy this Word *Sterling* took its Name from a Castle in *Scotland*, as if it were first Coined there. Some have derived it from a Star or Astracism, which they imagine to have been Impressed thereupon. There are those that fetch it from the Name of an Ancient Indenture or Bond which was taken by the Jews (those old Userers) for Security of their debts, and which was called the *Jews Star*. But others think it comes from the Name of a People called *Easterlings*, as the first Workers of it in *England*. Of which latter Opinion is the Author of a very old Treatise concerning Money, Entred at large in the *Red Book* abovesaid, in the time of King *Edward* the Third. For my own Part, I do not believe the Word *Sterling* (denoting the degree of Fineness or Goodness, as aforesaid) was known in the time of the Conqueror, in regard there is no mention thereof in *Libro Judiciario* or the *Dooms-day Book*, which Valueth every Manor (as it was worth in the times of the Confessor and Conqueror respectively) in Money *ad Numerum*, or *ad Pensam* or *ad Pondus*, but not in *Sterling* Money; and yet the Denomination of *Sterling* was soon after introduced, because the Statute of the Twenty-fifth of *Edward* the Third refers to Ancient *Sterling*, and so do the Old Indentures of the Mint, and the Ancient Entries concerning Money. By reading of which it seems evident to me,

*First*, That a *Sterling* or *Easterling*, in a restrained Sence, signified nothing but a Silver Penny, which at first was about three times as heavy as a Penny is now, and was once called a *Lundress*, because it was to be Coined only at *London*, and not at the Countrey Mints.

*Secondly*, That the Words *Sterling* and *Standard* are Synonymous Terms.

*Thirdly*, That the *Ancient Sterling* of England, mentioned in the said Statute, and the *Standard* and *Allay* of Old *Easterling*, mentioned in the Indenture, *Le 20 jour de May l'an du Regne Edward III. cestassavoir d' Engleterre quarant sisme et de France trent tierce entre le Roy et Bardet de Malepils de Florence*; and the *Old right Standard* of England, which I find in other Indentures of the Mint, are to be understood thus: A Pound Weight *Troy* of Gold was divided into Twenty four Carats, and every Carat into Four Grains of Gold; and a Pound Weight of the *Old Sterling*, or *Right Standard Gold* of England, consisted of Twenty three Carats and Three Grains and an half of Fine Gold, and half a Grain of Allay. Which Allay (as the *Red Book* says) might be Silver or Copper. Again, a Pound Weight *Troy* of Silver, was then (as it has been ever since) divided into Twelve Ounces, every Ounce into Twenty Penny Weight, and every Penny Weight into Twenty four Grains; every Grain of Silver was called a Subtile Grain, Sixty of which were equal to One Grain of Gold, and a Pound Weight of *Old Sterling*, or *Right Standard Silver* of England, consisted then, (as it does now) of Eleven Ounces and Two Penny Weight of Fine Silver, and Eighteen Penny Weight Allay.

*Fourthly*, That *Sterling* Money generally in Judgment of Law, upon the Fines, Covenants, and other Instruments that have had occasion to refer thereunto, hath always imported, and doth still import only such Coins

of Gold or Silver, as have been made by successive Masters and Workers of the Mint, in certain Proportions of Fine Metal, mixt with Allays, according to their respective Indentures or Covenants with the Crown, from time to time, and made Currant by the same Indentures, or by Proclamations or Commands of the Sovereign: Which Proportions of Fineness and Allay, have differed from time to time. And (having thus Expounded what is meant by *Sterling* and *Old Sterling*) those Differences will come properly to be Considered.

*Second*, In the next Place therefore, I am to set down Historically the Proportions of Fine Gold and Fine Silver, with the respective Allays, which the Masters or Workers of the Mint have been holden to observe in the Fabrication of the Moneys, by their respective Indentures: Of which there is one mentioned in the *Red Book*, to bear Date in the Eighteenth Year of King *Edward* the First, who sent for Workmen from beyond Sea, to inform him of the manner of Making and Forging of Money; but not finding any Indenture by which one can judge certainly of the said Proportions, till the Reign of *Edward* the Third; from whose time the several Indentures of the Mint, or most of them, are in the Receipt of the Exchequer, in Custody of your Lordships and the Chamberlains there, and where I have had the Opportunity carefully to Inspect and Examine the same. I shall therefore humbly take leave to begin with these, and Proceed in the Order following.

The Standard for the Gold Coins was the *Old Standard*, or *Sterling* of Twenty three Carats, Three Grains and Half Fine, and Half a Grain Allay. And the Standard for the Silver Coins was the *Old Sterling* of Eleven Ounces Two Penny Weight Fine, and Eighteen Penny Weight Allay.

20 E 3.  
 23.  
 27.  
 30.  
 46.  
 18 R. 2.  
 3 H. 4.  
 9 H. 5.  
 1 H. 6.  
 4.  
 24.  
 49.  
 5 E. 4.  
 11.  
 16.  
 1 R. 3.  
 29 H. 7.

All these imported the same Standard,  
 as above, both for Gold and Silver.

*Ralph Rowlett* and *Martin Bowes*, Masters and <sup>1</sup> H. 8. Workers, Covenanted to make Two sorts of Gold Coins; to wit, Sovereigns, Rials, Angels, *George-Nobles*, and Half-Angels of the said *Old Standard*, and Crowns of the Double Rose, and Half-Crowns to be Twenty two Carats Fine, and Two Carats Allay; and Silver Moneys, to wit, Groats, Half-Groats, Sterlings, Half-pence and Farthings of the *Old Sterling*.

Another Indenture to the same Effect. 23.

The said *Ralph Rowlett* and *Martin Bowes*, Masters <sup>34.</sup> and Workers, Covenanted to make the Sovereigns, Half-Sovereigns, Angels, Angellets, and Quarter-Angels of Twenty three Carats Fine Gold, and One Carat Allay; And Silver Money, to wit, Testoons to go for Twelve Pence; and Groats, Half-Groats, Pence, Half-Pence, and Farthings, to be Ten Ounces Fine, and Two Ounces Allay.

The King was to have out of every Twelve Ounces of <sup>36.</sup> Fine Gold Coined Two Carats, which yielded Fifty

Shillings: And the Silver to be Coined after the Rate of Six Ounces Fine and Six Ounces Allay; *which was a wretched Debasement.*

37 H. 8.

The Gold Coins, called Sovereigns, Half-Sovereigns, Crowns and Half-Crowns, were to be only Twenty Carats Fine, and Four Carats Allay; and the Silver Coins, to wit, Testoons, Groats, Half-Groats, Pence, Half-Pence and Farthings to be Four Ounces Fine, and Eight Ounces Allay, *which was worse.*

1 E. 6.

The same with the last Preceding.

3.

A Commission to make Sovereigns, Half-Sovereigns, Crowns and Half-Crowns of Gold at Twenty two Carats Fine, and Two Carats Allay: And Shillings of Silver of Six Ounces Fine and Six Ounces Allay.

4.

Another to make Sovereigns, Half-Sovereigns, Crowns and Half-Crowns of Gold of the *Old Standard*; Namely, Twenty three Carats Three Grains and an Half Fine, and Half a Grain Allay.

5.

Another to make Shillings of Silver, Three Ounces Fine, and Nine Ounces Allay.

6.

To Coin Sovereigns, Angels and Half-Angels of the *Old Standard*, to wit, Twenty three Carats Three Grains and Half Fine, and another sort of Gold to be Twenty two Carats Fine and Two Carats Allay.

6 E. 6.

To Coin Silver Crowns, Half-Crowns, Shillings, Six Pences, Three Pences, Pence, Half-Pence and Farthings, Eleven Ounces One Penny Weight Fine, and Nineteen Penny Weight Allay.

1 Mar.

To Coin Gold Twenty three Carats, Three Grains and an Half Fine: and Silver Eleven Ounces Fine.

Phil & Mar.

The *Old Standard* for Gold and Silver.

2 Eliz.

To Coin one sort of Gold of the *Old Standard*, and another sort to be only Twenty two Carats Fine, and Two Carats Allay; and Silver Moneys of the *Old Standard.*

3 Eliz.

Two Mints were in the Tower, whereof One to con-

vert the Base Money into *Sterling*, which continued about a Year. And here it may not be improper to Note, that not long after, the Queen in a Publick Edict, told her People, That she had Conquered the Monster which had so long devoured them; meaning the Debasing of the Standard. Vide Cotton  
Speech to  
Cha. I. Ann  
1626.

The *Old Standard* perfectly restored both for Gold and Silver Coins. 19 Eliz.

The same continued. 25.

The same for Gold. 26.

A Commission to make Sovereigns, Half-Sovereigns, Crowns and Half-Crowns of Gold to be Twenty two Carats Fine, and Two Carats Allay. 35.

To make Angel-Gold Twenty three Carats Three Grains and half Fine, the *Old Standard*; and to make Sovereigns, &c. Twenty two Carats Fine, and Two Carats Allay; and to make Crowns, Shillings, &c. of Silver Eleven Ounces and Two Penny Weight Fine, and Eighteen Penny Weight Allay, the *Old Standard*. 43.

To Coin the Unites, Double Crowns, *British Crowns*, &c. of Gold to be Twenty two Carats Fine, and Two Carats Allay, and the *Old Standard* for Silver continued. 2 Jac. I.

To Coin Rose-Rialls, Spur-Rialls, and Angels of the *Old Standard* of Twenty three Carats Three Grains and an half Fine. 3 Jac. I.

To Coin Rialls of the same Standard, and Unites, &c. Twenty two Carats Fine, and Two Carats Allay. 10.

To Coin Rialls and Angels of the *Old Standard* of Twenty three Carats Three Grains and an half Fine, and half a Grain Allay: and to Coin Unites and Crowns Twenty two Carats Fine, and Two Carats Allay; and to Coin the Silver Moneys of the *Old Standard* of Eleven Ounces Two Penny Weight Fine, and Eighteen Penny Weight Allay. 2 Car. I.

To Coin Rialls and Angels of the *Old Standard* of Twelve Carats. 2.

Twenty three Carats, Three Grains and an half Fine, and half a Grain Allay; and to Coin Unites and Crowns Twenty two Carats Fine, and Two Carats Allay; and Silver Moneys of the *Old Standard* of Eleven Ounces Two Peny Weight Fine, and Eighteen Peny Weight Allay.

Ca. 2. To Coin the Pieces (since called Guineas) running for Twenty Shillings, Half-Guineas, &c. Twenty two Carats Fine, and Two Carats Allay; and Silver Moneys of the *Old Standard*.

ac. 2. To Coin Ten Shilling Pieces, Twenty Shilling Pieces, Fourty Shilling Pieces, and Five Pound Pieces, of Gold of Twenty two Carats Fine, and Two Carats Allay; and Silver Moneys of the *Old Standard* of Eleven Ounces Two Peny Weight Fine, and Eighteen Peny Weight Allay.

v. & M. The same Standard for Gold and Silver.

Upon duly considering this History or Relation for so many years past, it may not be improper to Observe to your Lordships thereupon,

*First*, That above Four hundred Years ago, the Standard for the Silver Coins was Eleven Ounces Two Peny Weight Fine, and Eighteen Peny Weight Allay. And so it is at this day by the present Indenture of the Mint, and the same is that which was called the *Old Sterling*, or *Easterling*.

*Secondly*, That the Standard for the Gold Coins Four hundred Years ago, was Twenty three Carats Three Grains and an half Fine, and half a Grain Allay. And at this day the Standard of Gold by the Indenture of the Mint is Twenty two Carats Fine, and Two Carats Allay; the difference of which is only One Carat Three Grains and an half.

*Thirdly*, That the *Old Standard* obtained for the most part of the said Number of Years, and the chief

Deviations from the same were in the Reigns of *Henry* the Eighth, and *Edward* the Sixth.

The which being premised, the Third thing coming under Consideration concerning such new Coins as His Majesty shall think fit to Direct, is my own poor Opinion, which I humbly offer, and (as I conceive) with some clearness, *That the present Standard of Fineness or Purity ought to be continued, namely, of Twenty two Carats Fine, and Two Carats Allay for the Gold; and Eleven Ounces Two Penny Weight Fine, and Eighteen Penny Weight Allay for the Silver, in all the New Coins that shall be now directed.* And my Reasons for the same are as follows,

*First,* Because our Ancestors (whose wisdom we have no cause to distrust) have for many Ages endeavoured to keep up the *Old Sterling*, or to a Standard very near it; which obtained (as evidently appears by the foregoing Narrative) for the greatest part of Four hundred years.

*Secondly,* Although the former Debasements of the Coins by Publick Authority, especially those in the Reigns of King *Henry* the Eighth, and King *Edward* the Sixth, might be projected for the Profit of the Crown; and the Projectors might measure that Profit by the excessive Quantities of Allay that were mixt with the Silver or the Gold: And although this was Enterprized by a Prince who could stretch his Prerogative very far upon his People; and was done in Times when this Nation had very little Commerce, Inland or Foreign, to be injured or prejudiced thereby: Yet Experience presently shewed that the Projectors were mistaken, and that it was absolutely necessary to have the base Moneys reformed; the doing whereof was begun by King *Edward* the Sixth himself, carried on by King *Philip* and Queen *Mary*, and happily finished (though not without great Charge, Vexation and

Trouble, the only Offspring of such Designs) by Queen *Elizabeth*, who (as is noted above) in the Third Year of her Reign, when Money was not plentiful, Erected a Distinct Mint in the Tower, to convert the Base (not Counterfeit Money) into *Sterling*.

*Thirdly*, Because making of Base Moneys will Disgrace this Government in future Generations, the Criticks in every Age being apt to Estimate the Goodness or Badness of Ancient Governments by their Coin, as hath been done, especially in the Case of the *Romans*; and a Temptation of this kind ought not to be left for future Ages, to the prejudice of the Honour of the present King.

*Fourthly*, Although it must be acknowledged, That the putting a greater Alloy into the Coins, so long as they should still retain so much Purity or Fineness as would render them answerable to the Currant Price of Silver in Bullion, would be no real Injury to the Subject: Yet it must be considered, that when the Causes which at present make Silver Scarce and Dear shall cease, Silver it self will fall in its Price. And if in the mean time the Coins shall have been Debased, then after the Retrieving of the Trade and Wealth of the Nation, and the Bringing down of the Price of Silver thereby, the Damage which the Crown will sustain in its Taxes, Revenues, and Loans, and the Loss which the Nobility, Gentry and Commonalty (especially Ecclesiastical Persons) will find thereby, in the payment of their Debts, Rents and Annuities (many of which are so Fixt and Establishd upon previous Reservations or Grants in Fee, or in Tail, or for Lives, or Years certain, or are so payable by Assurances, already perfected, as that it will not be in their powers to alter the same proportionably to the Debasement of the Coin, and the loss or damage, after such Bringing down the Price of Silver, will be proportionable to the excessive Alloy to

be put into the Money) will continue and have duration at least till all such Base Money can be abated: The meer Reforming of which would take up a considerable time, and be a new trouble and difficulty after the Ending of the present War, and after the Re-establishment of the Trade and Wealth of the Kingdom.

*Fifthly*, Our present Standard is well known in the World, the same agreeing with most of the Foreign Mints in *Europe*, and all Foreigners that deal with us, regard the Intrinsick Value more than the Extrinsick Denomination, and Exchange with us accordingly. If Base Mouey should be made, the Intrinsick Value thereof would be uncertain, or might be disputed; and in Disputes of such a Nature, it is more likely that they will gain upon us, than we upon them, and so the Exchange become more to our prejudice than it is at present.

*Sixthly*, The Debasing of Money by Publick Authority is needless and frivolous; for whatsoever Advantages (grounded upon necessity) can be propos'd thereby, will arise more easily, and have better Precedents in Raising the Value of the *Standard*; which is the next Subject to be Discussed: Not doubting but that your Lordships by these, and other Reasons which might be given (if they were not too tedious) will be fully convinc'd, That *the present Standard* of Fineness is to be continued.

The Fourth thing which I have undertaken, in respect of the *Standard*, is to set forth how the Value of the Gold and Silver in the *English Coins* hath been Rais'd from time to time, which considers the Weight and Number of the Pieces in the Pound *Troy*. And because (in case of new making Silver Moneys) the Adjusting and Establishing the *Extrinsick Value or Denomination* thereof, at which the same must have Course, is of the greatest Moment and Consideration

in this Affair, both to the King and all his People; I could not spare my self the trouble of making the following Deduction from the Indentures of the Mint; which being duly meditated upon, will give a good deal of Light and Precedent for the Rates, to which the Value of Gold and Silver in our Coins are to be Raised and Established at this time.

- 28 E. I. An Indented Tryal-piece of the goodness of *Old Sterling* was lodged in the Exchequer, and every Pound Weight *Troy*, of such Silver was to be shorn at Twenty Shillings Three Pence, according to which, the Value of the Silver in the Coin, was One Shilling Eight Pence Farthing an Ounce.

*Memorandum, I find no farther Indentures concerning this Matter from Edward the First, till Edward the Third.*

- 18 E. 3 Every Pound Weight of Gold of the *Old Standard* abovementioned, namely, Twenty three Carats, Three Grains and a Half Fine, and Half a Grain Allay, was to be Coin'd into Fifty Florences, to be Currant at Six Shillings apiece; all which made in Tale Fifteen Pounds, or into a proportionable Number of Half-Florences, or Quarter-Florences: This was by Indenture between the King and *Walter de Dunflower*, Master and Worker.

*Eod. an.* A Pound Weight of Gold of the *Old Standard* abovementioned, was to contain Thirty nine Nobles and an Half, at Six Shillings Eight Pence apiece, amounting in the whole to Thirteen Pounds Three Shillings and Four Pence in Tale, or a proportionable Number of Half-Nobles and Quarter-Nobles: Which was by an Indenture between the King and *Percivall de Perche*.

*Memorandum, By this Indenture the Tryal of the Pix was Established.*

A Pound Weight of Gold of the said *Old Standard*, 20 E. 3. was to make by Tale Fourty Two Nobles at Six Shillings Eight Pence apiece, amounting to Fourteen Pounds, or a proportionable Number of Half-Nobles, and Quarter-Nobles: And a Pound Weight of the *Old Sterling* Silver was to make Twenty-two Shillings Six Pence: And *Percival de Perche* was Master.

The like when *John Donative*, of the Castle of 23. *Florence*, and *Philip John Denier* were Masters and Workers.

Memorandum, *By this Indenture were also Coined Half-pence and Farthings of Silver.*

A Pound Weight of Gold of the *Old Standard* was 27. to make by Tale Fourty five Nobles, amounting to Fifteen Pounds, or a proportionable Number of Half or Quarter Nobles: And a Pound Weight of Silver of the *Old Sterling* to make by Tale Seventy five Grosses (*i. e.* Groats) amounting to Twenty five Shillings, or One hundred and fifty Half-Grosses, going for Two Pence apiece, or Three hundred *Sterlings* going for Pence apiece: And *Henry Brissell* was Master and Worker.

The like, only adding Half Sterlings, of which Six 30 E. 3. hundred in a Pound *Troy*.

The like. 37.

The like: And *Bardet de Malepilys* was Master and 46. Worker.

The like: And *Nicholas Malakin*, a *Florentine*, was 18 R. 2. Master and Worker.

The like: And here Half-pence are called *Mailes*. 3 H. 4.

A Pound Weight of Gold of the said *Old Standard* 9 H. 5. was to make by Tale Fifty Nobles, or One hundred Half Nobles, or Two hundred Quarter Nobles, amounting to Sixteen Pounds, Thirteen Shillings, and Four

Pence in Tale. And a Pound Weight of Silver of the said *Old Standard*, was to make by Tale Ninety Grosses or Groats, or One hundred and eighty Half-Groz, or Three hundred and Sixty Sterlings, or Seven hundred and twenty *Mailes*, or One thousand four hundred and forty Farthings, amounting to Thirty Shillings: And *Bartholomew Goldbeater* was Master and Worker.

1 H. 6.

A Pound Weight of Gold of the said *Old Standard* was Coin'd into Fourty five Rials, going for Ten Shillings apiece, or a proportionable Number of Half-Rials, going for Five Shillings apiece, or Riall-Farthings, going for Two Shillings and Sixpence apiece, or into Sixty Seven Angels and an Half, going for Six Shillings and Eight Pence apiece, or a proportionable Number of Angelets going for Three Shillings and Four Pence apiece: And consequently the Pound *Troy* of Gold was Coined into Twenty two Pounds Ten Shillings by Tale, and a Pound Weight of Silver of the *Old Sterling* was Coined into One hundred and twelve Groats and an half, making in Tale Thirty seven Shillings and Six Pence, or a proportionable Number of Half-Groz, *Sterlings* or Pence, Half-pence or Farthings: And here *Sir Giles Dawbeny* was Master and Worker.

4 H. 6.

Is the same with that of the Ninth of *Henry* the Fifth, lowering the Gold to Sixteen Pounds Thirteen Shillings and Four Pence, and the Silver Moneys to Thirty Shillings: and *Robert Mansfeild* was Master and Worker.

Note, *Here the Value of the Silver as well as the Gold in the Coins was brought down again.*

49.

The same.

24.

A Pound Weight of Gold of the said *Old Standard* was to make by Tale Sixty seven Angels and an Half

at Six Shillings Eight Pence apiece, amounting to Twenty two Pounds Ten Shillings, and a Pound Weight of Silver of the said *Old Sterling* was to make by Tale One hundred and twelve Groats and an Half, amounting to Thirty seven Shillings and Six Pence, or proportionably in the lesser Coins: And Sir *Richard Constable* was Master and Worker.

A Pound Weight of Gold of the said *Old Standard* 4 E. 4. was to make by Tale Twenty Pounds Sixteen Shillings and Eight Pence, and a Pound Weight of Silver, *Old Sterling*, was to make Thirty seven Shillings and Six Pence, as in the last Article: And *William Lord Hastings* was Master and Worker.

A Pound Weight of Gold of the *Old Standard* was 5. to make Fourty five Nobles going for Ten Shillings apiece, or Ninety Half Nobles, or One hundred and Eighty Quarter Nobles, or Sixty seven and an Half of the Pieces impress'd with Angels going for Six Shillings Eight Pence each, and consequently was Coined into Twenty two Pounds Ten Shillings by Tale, and the Silver Moneys were shorn at Thirty seven Shillings and Six Pence the Pound Weight *Troy*. This Indenture was between the King and the Lord *Hastings* His Chamberlain, and Master and Worker and Warden of all his Exchanges and Outchanges in *England* and *Calis*.

The like. 8 E. 4.

The like. 11.

The like. 16.

The like: But *Bartholomew Read* was Master and 22.  
Worker.

The like: And *Robert Brackenbury* was Master and 1 R. 3.  
Worker.

The like: And *Robert Fenrother* and *William Read* H. 7.  
were Masters and Workers.

\* 1 H. 8

A Pound Weight of such Gold to be Coined into Twenty seven Pounds by Tale; to wit, into Twenty four Sovereigns, at Twenty two Shillings and Six Pence apiece, or Fourty eight Rials at Eleven Shillings and Three Pence apiece, or Seventy two Angels at Seven Shillings and Six Pence apiece, or Eighty one *George*-Nobles at Six Shillings and Eight Pence apiece, or One hundred fourty and four Half Angels at Three Shillings and Nine Pence apiece, or One hundred sixty and two Fourty-peny Pieces, at Three Shillings and Four Pence apiece; and a Pound Weight of Gold of the Fineness of Twenty two Carats only, was to be Coined into One hundred Crowns and an Half of the Double Rose, or Two hundred and one Half-Crowns, making by Tale Twenty five Pounds two Shillings and Six Pence; and a Pound Weight of Silver of the *Old Sterling*, was Coined into One hundred and thirty five Groats, or Two hundred and seventy Half-Groats, or Five hundred and fourty *Sterlings* (*i.e.* Pence) or One thousand and eighty Half-pence, or Two thousand one hundred and sixty Farthings; and so every Pound Weight of *Sterling* Silver was Coined into Fourty five Shillings by Tale: And *Ralph Rowlett* and *Martin Bowes* were Masters and Workers.

23 H. 8.

The like.

34 H. 8.

A Pound Weight of Gold of Twenty three Carats Fine, and One Carat Allay, was Coined into Twenty eight Pounds Sixteen Shillings by Tale (by which Indenture there were Coined Sovereigns at Twenty Shillings apiece, Half-Sovereigns at Ten Shillings,

24

Angels

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\* Folkes and Ruding have shown that this date is erroneous, and that the Indenture referred to belongs to the 18th and not to the 1st year of Henry's reign.—Ruding *On the Coinage*, 3rd ed. I. p. 301 and p. 305.

Angels at Eight Shillings, Angelets at Four Shillings, and Quarter Angelets at Two Shillings apiece) and a Pound Weight of Silver of Ten Ounces Fine, and Two Ounces Allay, was Coined into Fourty eight Shillings by Tale, Namely, into Testoons (going for Twelve Pence apiece) Groats, Half-Groats, Pence, Half-Pence and Farthings.

A Pound Weight of Gold of Twenty two Carats Fine, 36 H. 8. and Two Carats Allay, was Coined into Thirty Pounds by Tale; to wit, into Thirty Sovereigns at Twenty Shillings apiece, or Sixty Half-Sovereigns at Ten Shillings apiece; or One hundred and twenty Crowns at Five Shillings apiece, or Two hundred and fourty Half-Crowns: And the King had Two Carats of Fine Gold for Coinage, which yielded him Fifty Shillings. And Silver was Coined by the same Indenture of Six Ounces Fine, and Six Ounces Allay, into Fourty eight Shillings by Tale. This Silver was to be Coined into Testoons, Groats, Half-Groats, Pence, Half-Pence, and Farthings; and the Indenture was between the King and Sir *Martin Bowes*, and others.

A Pound Weight of Gold of Twenty Carats Fine, 37 H. 8. and Four Carats Allay, was Coined into Thirty Pounds by Tale, as in the last; and the King had Four Carats, which yielded him Five Pounds Two Shillings: And a Pound Weight of Silver of Four Ounces Fine, and Eight Ounces Allay was Coined into Fourty eight Shillings by Tale, which raised the Pound Weight of Fine Gold to Thirty six Pounds; and the Pound Weight of Fine Silver to Seven Pounds Four Shillings.

A Pound Weight of Gold of Twenty Carats Fine, 1 E. 6. and Four Carats Allay, was Coined into Thirty Pounds by Tale, out of which the King had a great Profit; and a Pound of Silver of Four Ounces Fine, and Eight Ounces Allay, was Coined into Fourty eight Shillings; after which Rate every Pound of Fine Silver made in

Currant Money Seven Pounds Four Shillings, and the King's Profit on every Pound Weight was Four Pounds Four Shillings: *John York* and others were Masters and Workers of the Mint in *Southwark*.

*Eod. an.*

Another Indenture to the same Effect with *William Tilsworth* at *Canterbury*.

*Eod. an.*

Another Indenture to the same Effect with Sir *Martin Bowes* for the *Tower*.

2. E. 6.

Another Indenture to the same Effect with *George Gale* for the Mint at *York*.

*Eod. an.*

Another Indenture to the same Effect with *John York* for *Southwark*, differing only in the Charge of Coinage.

*Eod. an.*

Another Indenture to the same Effect with *William Tilsworth*, differing only in the Charge of Coinage.

3 E. 6.

A Pound Weight of Gold of Twenty two Carats Fine, and Two Carats Allay, was to be coined into Thirty four Pounds by Tale, into Sovereigns at Twenty Shillings apiece, Half-Sovereigns at Ten Shillings apiece, Crowns at Five Shillings, and Half-Crowns at Two Shillings Six Pence apiece: And a Pound Weight of Silver of Six Ounces Fine, and Six Ounces Allay, was to be Coined into Seventy two Shillings; which Shillings were to go for Twelve Pence apiece by Tale, of which the Merchant, for every Pound Weight of Fine Silver, Received Three Pounds Four Shillings, and the King above Four Pounds Gain, by a Commission to Sir *Edmund Peckham* and others.

4 E. 6.

A Pound Weight of Gold of the *Old Standard*, of Twenty three Carats, and Three Grains and a Half Fine, was Coin'd into Twenty eight Pounds Sixteen Shillings by Tale, to wit, into Sovereigns at Twenty four Shillings a piece, Half-Sovereigns at Twelve Shillings a piece, Angels at Eight Shillings apiece, and Half-Angels at Four Shillings apiece, by a Commission to Sir *Edmund Peckham* and others.

A Pound Weight of Silver of Three Ounces Fine, 5 E. 6. and Nine Ounces Allay, was Coined into Seventy two Shillings at Twelve Pence apiece; And the Merchant Received for every Ounce of Fine Silver which he should bring to the Mint, Ten Shillings of such Money, by which means Twelve Ounces of Fine Silver was exorbitantly Raised to Fourteen Pounds eight Shillings, by a Commission to Sir *Edmund Peckham* and others.

A Pound Weight of Gold, of the *Old Standard* 6 E. 6. aforesaid, was Coined into Thirty six Pounds by Tale, to wit, Twenty four Sovereigns at Thirty Shillings apiece, Seventy two Angels at Ten Shillings apiece, or One hundred fourty four Half-Angels: And a Pound Weight of Crown Gold of Twenty two Carats Fine, and Two Carats Allay, was Coined into Thirty three Pounds by Tale, viz. Thirty three Sovereigns at Twenty Shillings apiece, or Sixty six Half-Sovereigns at Ten Shillings apiece, or One hundred thirty two Crowns, or Two hundred sixty four Half-Crowns: And a Pound Weight of Silver, consisting of Eleven Ounces, One Penny Weight Fine, and Nineteen Penny Weight Allay, was Coined into Three Pounds by Tale, viz. Twelve Crowns, or Twenty four Half-Crowns, or Sixty Shillings, or One hundred twenty Six-pences, or Two hundred fourty Three-pences, or Seven hundred twenty Pence, or One thousand four hundred and fourty Half-Pence, or Two thousand eight hundred and eighty Farthings.

A Pound Weight of Gold, of the *Old Standard*, was 1 M. Coined into Thirty six Pounds; and a Pound Weight of Silver Eleven Ounces Fine, was Coined into Three Pounds by Tale: And *Thomas Egerton* was Master and Worker.

A Pound Weight of Gold, of the *Old Standard*, of 2 Eliz. Twenty three Carats three Grains and an Half Fine, was Coined into Thirty six Pounds by Tale; to wit,

into Twenty four Sovereigns at Thirty Shillings apiece, or Forty eight Rials at Fifteen Shillings apiece, or Seventy two Angels at Ten Shillings apiece, or One hundred fourty and four Half-Angels at Five Shillings apiece: And a Pound Weight of Crown Gold of Twenty two Carats Fine, and Two Carats Allay, was Coined into Thirty three Pounds by Tale (to wit, Thirty three Sovereigns at Twenty Shillings apiece, or Sixty six Half-Sovereigns at Ten Shillings apiece, or One hundred thirty two Crowns at Five Shillings apiece, or Two hundred sixty four Half-Crowns). And a Pound Weight of the *Old Sterling* Silver, to wit, Eleven Ounces Two Peny Weight Fine, and Eighteen Peny Weight Allay, was Coined into Three Pounds by Tale, of Half-Shillings, Groats, Quarter-Shillings, Half-Groats, Three-half-peny Pieces, Pence and Farthings, by Indenture between the Queen, Sir *Thomas Standly* and others.

19 Eliz.

*John Lonison*, Master and Worker, Covenanted to Coin a Pound of Gold of the *Old Standard* into Seventy two Angels at Ten Shillings apiece, One hundred forty four Half-Angels at Five Shillings apiece, or Two hundred eighty eight Quarter-Angels, amounting in Tale to Thirty six Pounds; and a Pound Weight of *Old Sterling* Silver into Half-Shillings, Three-pences, Three-half-peny Pieces, or Three-farthing Pieces, to make Three Pounds by Tale.

25 Eliz.

*Richard Martin* Covenanted to Coin Gold, as in the last; and a Pound of Silver into Sixty Shillings, or into Three Pounds by Tale, in any of the Denominations mentioned in the last Indenture.

26.

A Commission to him to Coin the Pound *Troy* of *Old Standard* Gold into Fourty eight Nobles at Fifteen Shillings apiece, or Twenty four Double Nobles at Thirty Shillings apiece, making Thirty six Pounds.

35.

The same to Coin the Pound Weight of Gold of

Twenty two Carats Fine, and Two Carats Allay into Thirty three Sovereigns, at Twenty Shillings apiece, or Sixty six Half-Sovereigns, or One hundred thirty two Crowns, or Two hundred sixty four Half-Crowns, making Thirty three Pounds by Tale.

The same to Coin the Pound Weight of *Old Standard* Gold into Seventy three Angels at Ten Shillings apiece, or One hundred forty and six Half-Angels, or Two hundred ninety two Quarter Angels, making Thirty six Pounds Ten Shillings in Tale; and the Pound Weight of Gold, of Twenty two Carats Fine, and Two Carats Allay, into Thirty three Sovereigns and an Half, at Twenty Shillings apiece, or Sixty seven Half-Sovereigns, or One hundred thirty four Crowns, or Two hundred sixty eight Half-Crowns, making Thirty three Pounds Ten Shillings in Tale; and the Pound Weight of *Old Standard* Silver into Three Pounds two Shillings by Tale; Namely, into Crowns, Half-Crowns, Shillings, Six-pences, Two-pences, Pence and Half-pence.

Sir *Richard Martyn* Knight, and *Richard Martyn* his Son, Masters and Workers, Covenanted to Coin a Pound Weight of Gold of Twenty two Carats Fine, and Two Carats Allay, into Thirty seven Pounds four Shillings by Tale, *viz.*, into Unites going for Twenty Shillings, Double-Crowns at Ten Shillings, *Britain-Crowns* at Five Shillings, *Thistle-Crowns* at Four Shillings, and Half-Crowns at Two Shillings Six-pence apiece; And a Pound Weight of Silver of the said *Old Standard*, into Sixty two Shillings by Tale; Namely, into Shillings, Six-pences, Two-pences, Pence, Half-pence, Crowns and Half-Crowns.

A Pound Weight of Gold of the *Old Standard* of Twenty three Carats, Three Grains and an Half Fine, was Coined into Fourty Pound Ten Shillings by Tale; to wit, into Rose-Rials at Thirty Shillings apiece,

Spur-Rials at Fifteen Shillings, and Angels at Ten Shillings apiece.

9 Jac. 1.

There was a Proclamation for Raising Gold Two Shillings in every Twenty Shillings.

10

A Pound Weight of the *Old Standard* Gold was to be Coined into Forty four Pounds by Tale; to wit, Rose-Rials, Spur-Rials, and Angels; and a Pound Weight of Gold of Twenty two Carats Fine, was Coined into Forty Pounds Eighteen Shillings and Four Pence; to wit, into Unites at Twenty two Shillings, Double-Crowns at Eleven Shillings, *British-Crowns* at Five Shillings and Six-pence, Thistle-Crowns at Four Shillings and Four Pence Three Farthings, or *Half-British* Crowns at Two Shillings and Nine Pence apiece.

2 Car. 1.

A Pound Weight of Gold, of the *Old Standard* of Twenty three Carats Three Grains and an Half Fine, and Half a Grain Allay, was Coined into Forty four Pounds Ten Shillings by Tale, to wit, into Rose-Rials at Thirty Shillings apiece, Spur-Rials at Fifteen Shillings apiece, or Angels at Ten Shillings apiece; and a Pound Weight of Crown Gold of Twenty two Carats Fine, and Two Carats Allay, into Forty one Pounds by Tale, to wit, into Unites at Twenty Shillings, Double Crowns at Ten Shillings, or *British-Crowns* at Five Shillings apiece; and a Pound of Silver of the *Old Standard* of Eleven Ounces, Two Penny Weight Fine, into Sixty two Shillings by Tale; Namely, into Crowns, Half-Crowns, Shillings, Half-shillings, Two-pences, Pence, and Half-pence, by Indenture between the King and Sir *Robert Harleigh*.

12 C. 2.

The like both for Gold and Silver Moneys, by Indenture between the King and Sir *Ralph Freeman*.

22.

An Indenture between the King and *Henry Slingsby* Master and Worker, to Coin Crown Gold Twenty two Carats Fine, and Two Carats Allay into Forty four

Pounds Ten Shillings by Tale ; to wit, into Pieces to run for Ten Shillings, Twenty Shillings, Fourty Shillings, or Five Pounds apiece ; and a Pound of Silver of the *Old Standard* into Three Pounds Two Shillings by Tale, to wit, into Crowns, Half-Crowns, Shillings, Half-shillings, Groats, Half-sixpences, Half-Groats and Pence.

A Pound Weight of Gold, Twenty two Carats Fine, <sup>1 Jac. 2.</sup> and Two Carats Allay, to be Coined into Fourty four Pounds Ten Shillings by Tale ; and a Pound Weight of Silver of the *Old Standard* into Sixty two Shillings by Tale, just as the preceding Indenture : And *Thomas Neale, Esq.* ; was Master and Worker.

The like.

1 W. & M.

By the careful observing of which Deduction here made, from the Indentures of the Mint for above Four hundred years past (many of which are yet extant, and have been seen and examined by me) it doth evidently appear, That it has been a policy constantly Practised in the Mints of *England* (the like having indeed been done in all Foreign Mints belonging to other Governments) to Raise the Value of the Coin in its Extrinsic Denomination, from time to time, as any Exigence or Occasion required ; and more especially to Encourage the bringing of Bullion into the Realm to be Coined (though sometimes, when the desired End was obtained, the Value has been suffered to fall again.) So that in the whole Number of Years, from the Twenty eighth of *Edward* the First, until this time, by such Variations the Extrinsic Value or Denomination of the Silver is Raised in about a Triple Proportion ; that is to say, In the Reign of the said King *Edward* the First (as is plain by this Narrative) a Pound Weight *Troy* of *Sterling* Silver was shorn at Twenty Shillings and Three Pence, and consequently Two hundred fourty three Pence, or Twenty Shillings and One Fourth of a

Shilling, or One Pound and One Eightieth Part of a Pound by Tale, were then Coin'd, out of the said Pound Weight *Troy*: Whereas at this day, and for about Ninety years past, a Pound Weight *Troy* of like Silver, is and hath been Coin'd into Seven hundred fourty four Pence, or Sixty two Shillings, or Three Pounds, and One tenth of a Pound by Tale, the Pound Weight *Troy* having then and now the same Weight and Fineness. And as to the Gold, I need only to observe from the foregoing Deduction, That in the Eighteenth of *Edward* the First, a Pound Weight Fine, Twenty three Carats, Three Grains and one Half, was Coin'd into Fifteen Pounds by Tale: Whereas at this day a Pound Weight of Gold, of the Fineness only of Twenty two Carats, is Coin'd into Fourty four Pounds Ten Shillings. And this Method of Raising the Extrinsic Value of the Gold and Silver, in the Denominations of the Coins, as it hath been constant almost in the Reign of every King, so no Inconvenience, Disgrace or Mischief (as can be observed) has ever accrued by the doing thereof at any time, when a Just, Necessary or Reasonable Cause gave Occasion thereunto,

The which being Premised, and every Project for Debasing the Money (by the Reason before given) being Rejected as Dangerous, Dishonourable and Needless: It remains that our Nation in its present Exigence, may avail it self, by *Raising* the Value of its Coins, and this may be effected, either by making the respective Pieces called Crowns, Half-Crowns, Shillings, &c., to be lesser in Weight, or by continuing the same Weight or Bigness, which is at present in the Unclipt Moneys, and Ordaining at the same time, that every such Piece shall be Currant at a higher Price in Tale.

But before I proceed to give my Opinion upon this Subject, it seems necessary for me to assert and prove an *Hypothesis*, which is this, namely, *That making the*

*Pieces less, or ordaining the respective Pieces (of the present Weight) to be Currant at a higher Rate, may equally raise the Value of the Silver in our Coins.* The former of these finds many Precedents in the Indentures above recited, but the latter seems more suitable to our present Circumstances, as will afterwards be shewed more at large.

This *Hypothesis* or *Theorem* is easily demonstrated thus, Let it be granted, That a Crown Piece by the *present Standard* contains in *Sterling Silver* (as it really doth) Nineteen Penny Weight, and  $\frac{354838}{1000000}$  parts of a Penny Weight: Or (which is the same thing) Nineteen Penny Weight Eight Grains and an Half, and a very small fractional part more, going at this time for Five Shillings, or Sixty Pence. And let it be supposed (which is practicable, and the thing aimed at) that this very Crown Piece be ordained to pass for Six Shillings and Three Pence, or (which is equal) Seventy five Pence. Then I say by Inverse Proportion, as Seventy five Pence are to Sixty Pence, so Sixty will be to Forty eight Pence, which are equal to Four Shillings. From whence I infer, That if the Extrinsic Value of the Silver now in a Crown were to be Rais'd to Six Shillings and Three Pence (by diminishing the Weight of the Piece according to former Precedents) then such Diminutive Crown must weigh only Four fifths of the said 19.  $\frac{354838}{1000000}$  Penny Weight, that is to say, it must weigh Fifteen Penny Weight, and  $\frac{48838704}{100000000}$  parts of a Penny Weight, and in this case Five Three Pences to be Coin'd in the same Proportion, to compleat the Rais'd Value of Six Shillings and Three Pence, must weigh One fourth part of the Diminutive Crown, as in the Margin. Again (by direct Proportion) if 15.4838704

15.4838704	
3.8709676	
19.3548380	

Penny Weight of *Sterling Silver* is to go or be Currant for Five Shillings, or Sixty Pence, then 19,3548380 Penny Weight of *Sterling Silver* (which is the Quantity

in an Unclipt Crown by the *present Standard*, and equal to the Sum or Aggregate of the other Two Quantities) ought to go and be Currant for Six Shillings and Three Pence, or Seventy five Pence, and consequently will Raise the Extrinsic Value of the Silver, as much as diminishing the Pieces would do; which was to be demonstrated.

And now (having cleared my way) I humbly take leave to offer my Opinion, *That all such Silver Moneys as are after Enumerated of the Lawful Coins of this*

\* *Memorandum*, Moneys Clipt or Unclipt, are afterwards Described by certain Weights.

*Realm of England, which are now in being, and are not at all diminished by Clipping, Rounding, Filing, Washing, or any other Artifice, be Raised by Publick Authority to the foot of Six shillings and Three pence for the Crown, and proportionably for the other Species, namely, the Crown to go for Seventy five pence, the Half-Crown to go for Thirty seven pence and an half-peny, the Shilling for Fifteen pence, and the Half-shilling for Seven pence half-peny, leaving all the other old Unclipt Pieces as the Thirteen pence half-peny, the Nine pence, the Groat, Two pence, &c. which are very few in Number, and much worn, to go upon their present Foot, and to find their Values in pence, and parts of a peny, as they do at this day. And that the New Coins to be made, either of the Clipt Money, as it shall be brought in, or of any other Sterling Silver, be made, in their respective Weights or Bigness, by the present Indenture of the Mint, that is to say, One Piece which may be called the Sceptre, or the Silver-Unite, or by such other Name as His Majesty shall Appoint, and to be exactly of the Weight and Fineness of the present Unclipt Crown Piece, but to run for Seventy five Pence Sterling; of which Pieces so made, there shall be Twelve, and Two fifths of such piece in a Pound Weight Troy; and Three of the said Pieces called Sceptres or Unites, or by such other Name, as aforesaid, together with a Fifteen Peny Piece,*

after mentioned, shall make by Tale One Pound Sterling, or One Pound of Lawful Money of England, in all Accounts and Lawful Payments whatsoever. Another Piece which may be called the Half-Sceptre or Half-Unite, or by such other Name as His Majesty shall Appoint, which shall be equal in Weight and Fineness to a present Unclipt Half-Crown, but to run for Thirty seven Pence and an Half-peny Sterling; of which Pieces last mentioned, there shall be Twenty four, and Four Fifths of such a Piece in a Pound Weight Troy; and Six of the said Pieces called Half-Sceptres or Half-Unites, or by such other Name as His Majesty shall Appoint, together with One Fifteen Peny Piece after-mentioned, shall make by Tale One Pound Sterling, or One Pound of Lawful English Money, in all Accounts and Legal Payments whatsoever. One other Piece which may be called the Testoon, or Fifteen Peny Piece, which shall be equal in Weight and Fineness to a present Unclipt Shilling, but to run for Fifteen Pence Sterling, of which there shall be Sixty two in a Pound Weight Troy, and Sixteen of the said Pieces called Testoons, or Fifteen Peny Pieces, shall make in Tale One Pound Sterling, or One Pound of Lawful English Money; or Ten of these Testoons, together with Two such Grosses or Groats, as are after mentioned, will make a Mark Sterling, or Five of them, and One such Gross or Groat, will make a Noble, which the Law used to call the Hauf Merk, or Eight of them will make the Angel, or Four of them will make the Crown, or Two of them will make the Half-Crown: And they may be proportionably varied, many other ways in all Accounts, Reckonings and Legal Payments whatsoever. One other Piece, which may be called the Half-Testoon, which shall be equal in Weight and Fineness to the Half-shilling by the present Standard, but to run for Seven Pence Half-peny Sterling, of which there shall be One hundred

*twenty four in the Pound Weight Troy ; and Thirty two of the said Pieces to be called Half-Testoons, shall make in Tale One Pound Sterling ; or Twenty of these, with Two of the Grosses or Groats, will make a Mark in Tale ; or Ten of these Half-Testoons, with one Gross, will make a Noble : or Eight of the said Half-Testoons will make a Crown by Tale ; or Five of them with a Half-Groat, will make the Half-Noble, or Three Shillings and Four pence by Tale ; or Four of the said Half-Testoons, will make an Half-Crown ; or Thirty two of them will make Twenty Shillings by Tale ; or Sixteen of them will make Ten Shilling by Tale ; or Eight of them will make Five Shillings by Tale ; and they may many other ways be proportionably varied in all Accounts, Reckonings and Legal Payments whatsoever. One other piece which may be called the Gross or Five-peny piece, to be equal in Weight and Fineness to a Groat by the present Standard, but to run for Five pence Sterling, of which there shall be One hundred eighty six in the pound Weight Troy ; and Fourty eight of the said Grosses or Five-peny pieces, will make in Tale One Pound Sterling ; or a proportionable Number of them in many Cases (too tedious here to enumerate) will answer to the said Denominations of Pounds, Marks, Half-Marks, Quarter-Marks, Angels, Crowns, Half-Crowns, Shillings, and Pence used in Accounts, or in Acts of Parliament, Records, or other Legal Instruments, which are absolutely necessary to be continued. One other piece which may be called the Quarter-Testoon, which shall be equal in Weight and Fineness to a Three peny piece by the present Standard, but to run for Three pence three farthings Sterling, of which there shall be Two hundred fourty eight in a Pound Weight Troy, and Sixty four of these Quarter-Testoons will make in Tale One Pound Sterling, or a proportionable Number of them will answer in a greater Number of Cases to the said Deno-*

*minations used in Accounts, or in the Laws of England. One other Piece which may be called the Half-Groat or Half-Gross, which shall be equal in Weight and Fineness to a Two penny piece by the present Standard, but to run for Two pence half-penny Sterling, of which there shall be Three hundred seventy two in a Pound Weight Troy, and Ninety six of the said Half-Groats will make in Tale One pound Sterling, or a proportionable Number of them will answer, in most Cases, to the said Denominations used in Accounts, or in the Laws of England. And one other Piece which may be called the Prime, which shall be equal in Weight and Fineness to a present Standard penny, but to run for Five farthings, or for One penny, and the fourth part of a penny Sterling, of which there shall be Seven hundred forty and four in a Pound Weight Troy, and One hundred ninety and two of the said Primes will make in Tale One pound Sterling, or a proportionable Number of them (the Combinations whereof are almost infinite) will answer almost in all Cases to the said Denominations used in Accounts, or in the Laws of England. And because it may be convenient to have the Denomination of Shillings continued, let there be added One Piece to be called the Shilling, or Twelve penny Piece, to be equal in Fineness, though not in Weight, to any Standard Money now in being, to run for Twelve pence Sterling, (which will be a Fifth part less in Weight then the present Shilling) of these there shall be Seventy seven and an Half in a Pound Weight Troy, and Twenty of them will make a Pound by Tale, whereby every Pound Weight Troy of the Silver Moneys aforesaid, will be and hold in Number and Tale, and in the Value will be Rais'd from Three pounds Two shillings, to Three pounds Seventeen shillings and Six pence Sterling, by the Pound Troy: And my Reasons for this Opinion are as follows:*

*First*, The Value of the Silver in the Coin ought to be Raised to the Foot of Six Shillings Three Pence in every Crown, because the Price of Standard Silver in Bullion is Risen (from divers necessary and unnecessary Causes, producing at length a great scarcity thereof in *England*) to Six Shillings Five Pence an Ounce: This Reason (which I humbly conceive will appear irrefragable) is grounded chiefly upon a Truth so Apparent, that it may well be compared to an Axiom even in Mathematical Reasoning, to wit, *That whensoever the Extrinsic Value of Silver in the Coin hath been, or shall be less than the price of Silver in Bullion, the Coin hath been, and will be Melted down.* Although the melting down of Coin, for private Lucre, be done in secret (because 'tis Punishable by \*Law) yet no man can doubt but that it has been Practised for a long time past, to such a Degree, upon the Weighty Money, as that in particular, the Crowns and Half-Crowns of *Edward* the Sixth and Queen *Elizabeth* are quite vanished: Those of King *James* the First are become very rare: Those of King *Charles* the First (though the most numerous of all that remain) are in a great measure Reduced, and will appear to be so the more plainly, when they come to be distinguished from the Counterfeits, which are mostly contrived to Resemble these: The Crowns, Half-Crowns, and indeed the lesser Coins of King *Charles* the Second (the far greatest part whereof were Milled Money) in all Payments at the

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\* 9 E. 3. & 17 R. 2. *Prohibited Goldsmiths and others to Melt down small Coins, under Pain of Forfeiture of the Molten Silver.*

14 Car. 2. *Prohibited the Melting any the Silver Moneys, under Pain of Forfeiting the same, and double the Value; if by a Freeman, he is to be Disfranchised; and if not a Freeman, he is to be Imprisoned Six Months.* 6 & 7 W. & M. *makes the Conviction of Melters more Practicable, and inflicts Six Months Imprisonment for the Offence.*

Exchequer, and other Publick Offices, do not, by Estimation, exceed the Proportion of Ten Shillings *per Cent.* or a Two hundredth Part. And if this Wicked Fact of Melting down has been notoriously Committed, at times when there was no great difference between the Value of the Silver in the Coin and that in the Bullion; or when the Goldsmiths and other Artificers could make no other Profit thereby, than the small Overweight, which (by Weighing and Culling the Pieces Coin'd at the Tower) they found to be in some of them, which being Molten, might be carried back to the Mint, and there Re-coin'd at the King's Charge into a greater Number by Tale for their own Use: Then one may easily conclude, That the temptation of Melting down, is grown of late much more prevalent; since, at this day, Standard Silver in Bullion is commonly sold at the said Price of Six Shillings and Five Pence, or for Seventy seven Pence an Ounce. And in regard Twenty Penny Weight (equal to an Ounce) bears the same Proportion to Seventy seven Pence as Nineteen Penny Weight, and  $\frac{354838}{1000000}$  of One Penny Weight (equal to the Standard Silver contained in a Crown Piece) doth to Six Shillings and Two Pence Half-penny; it is most plain, that he that now Melts down (for instance) a Crown Piece, which whilst it retains the Image and Superscription of His Majesty, or either of the late King's runs only for Five Shillings, can immediately sell the Silver of it here for Six Shillings and Two Pence Half-penny, and gain the Sum of Fourteen Pence Half-penny upon every such Melted Piece, by such Sale of the Silver here, or (by reason of the great Loss which this Nation at present suffers in its Foreign Exchange or Remittances) he may make a greater Profit of the same Silver, by Exporting it into Foreign Parts, if he can effect the same, either by Stealth, or by Eluding the late Act of Parliament, Prohibiting such

Exportation. One may also foresee, that continuing the Silver Moneys (either Old or New Coins) upon the present Foot, whilst Bullion is so much dearer, will inevitably produce Consequences pernicious to the whole; in effect it will be nothing else but the furnishing Offenders with a *Species* to Melt down at an extravagant Profit, and encouraging not a necessary, but a violent and exorbitant Exportation of our Silver to the Foreign Parts, for the sake of the Gain only, till we shall have little or none left in the Kingdom. And upon an Impartial Consideration of these Matters, we may be able to make a more mature Judgment upon the Suggestion that has been raised by some Men; Namely, That Raising the Value of our Coin, or Continuing it on the present Foot will be the same thing. If these Gentlemen mean, that Silver in Bullion will always, during this War, be dearer than Silver in Coin, because of the necessity to Export it for the Foreign Expence of the War, and to answer the Ballance of Trade, occasioned by the Interruption of our Navigation, I answer,

*First*, That this Necessity may be diminished; but it cannot in any Sence be Augmented, by Raising the Value of our Coin.

*Secondly*, That supposing the worst, to wit, a further Advance of the Silver in Bullion, yet even in that case, the Offenders before mentioned will not find so much Incouragement or Temptation, when their Profit, whatsoever it be, upon every Raised Crown, must evidently be less by Fourteen Pence Half-peny than it is at present, upon a Crown running in Payment for Five Shillings only.

*Thirdly*, It is hoped that the Exchange to *Holland*, (which by the way has risen a little of late) may by the Success of some good Designs now on Foot (though the War should continue) be kept at a stand, at least

from falling much lower. In which Case I think the Arguments of these Gentlemen will have little or no Weight.

*Fourthly*, There must be a great difference with regard to the Service and Disservice of the Publick, between a necessary Exportation of Bullion or Coin, (perhaps the One may be as well Dispensed with as the other, by Publick Authority, and to a Limited Sum only for the Service of the War) and such an Exportation thereof, as proceeds Originally from the said exorbitant Profit of the Melters, who being Goldsmiths, Refiners, or other Traders, and by this Means, and by the Clippings, getting great Quantities of Molten Silver into their Hands, know well enough (though by Unlawful or Indirect Means) to convey the same beyond Sea, either to buy Gold there, which is afterwards brought hither and Coin'd into Guineas, passing at Thirty Shillings apiece; or to buy Prohibited Goods, as Lace, Lustrings, Muslins, divers *East-India* Goods, or other enumerated Commodities, or for other Purposes, which, though unlawful or needless, do all help or combine, at this time, to Augment and Inhance that Ballance of Trade between us and our Neighbours, very much to our Detriment, as will be shew'd hereafter.

*Fifthly*, These Gentlemen consider only the use of our Coin in *England*, as it hath Relation to Foreign Exchanges or Remittances, whereas it serves principally the Inland Commerce, and supplies many other occasions, which will be advantaged by the Rise and Plenty thereof. And whereas it is apprehended that the proposed Advance of the Silver in the Coin, will produce a proportionable loss in all Rents and Revenues, Publick or Private, settled or ascertained by Antecedent Reservations, Grants or Agreements, and in all Debts now standing out upon Specialty, or without Specialty: I humbly conceive these Apprehensions must entirely

vanish, when it shall be impartially considered, That this Nation is, and hath been for some time past, ingaged in a necessary War, which hath not only caused a great Expence of our Wealth in Foreign Parts of *Europe*, but hath Interrupted the Navigation, which used to Supply us from *East* and *West Indies*, and from other Parts of *Asia*, *Africa* and *America*, with much greater Quantities of Goods than served our own Consumption, and consequently afforded us a large Overplus, which, together with our own Native Product or Manufacture, were Exported to our Neighbour Nations, in Barter or Exchange for the Goods we received of them. That reckoning on the one side the Value of the Naval Stores, Linens, Silks, Salt-Petre, and many other Enumerated Commodities, which we receive from our Neighbours, and adding thereunto our Foreign Expence for the War: And on the other side the Value of so much of our Native Manufactures, or Produce, and the small Overplus of Goods brought from the *East* and *West Indies*, &c. as we have lately Exported, or can Export into our Neighbour Nations of *Europe*, there would appear a great Difference or Excess between the one side and the other of such Account or Reckoning; which Difference or Excess is or may be called the *Ballance of Trade*. That it cannot be conceived how this Ballance, Difference, or Excess hath been or can be answered by us in any thing other than our Coin or Bullion. That to answer this *Ballance of Trade*, there hath been already Exported a great part of our Coins and Bullion, namely, Clippings, which I think must have been equal in Value to at least a Fourth part of our whole *Species* of Silver Moneys, the Molten Silver of a good part of our heavy Coins, part of our heavy Coins themselves, our whole Stock of Foreign Silver; for I am told there is little or none of that to be bought in *England* at this time, and the Molten Silver of a

great deal of our *English* Plate and Vessels, which People have been induced to part with at a good Price. That by this means Silver in Coin or in Mass is actually grown very Scarce in *England*. That every thing having any Value or Worth whatsoever, when it becomes Scarce grows Dear, or (which is the same thing) it Riseth in Price, and consequently it will serve to pay more Debt, or it will buy greater Quantities of other Goods of Value, or in any thing else it will go further than it did before. That Silver in *England* being grown Scarce, as aforesaid, is consequently grown Dearer. That it is Risen in Price from Five Shillings and Two Pence, to Six Shillings and Five Pence an Ounce: And by Daily Experience Ninctcen Peny Weight and Three Tenths of a Peny Weight in *Sterling Silver* (equal to the Weight of a Crown Piece) in *England*, doth, and will Purchase more Coined Money than Fiye Shillings by Tale, (though the latter be delivered *bonâ fide* in Unclipt Shillings, or in a good Bill) and consequently doth and will Purchase and Acquire more Goods or necessaries, or pay more Debts in *England*, or (being delivered here) it fetches more Money in any Foreign Parts by way of Exchange, than Five Shillings by Tale, or the Sixth Part of a Guinea by Tale, or Goods to the Value of Five Shillings in Tale only, do or can Fetch, Purchase or Acquire. That this Advanced Price of the Silver has been growing for some time, and is Originally caused by the Ballance, Excess or Difference above-mentioned, which Naturally and Rationally produces such an effect. And there is no reason to expect that Silver will decline in its Price or Value here, till it be made more plentiful, by turning the *Ballance of Trade* to our Advantage, which seems to be a Work that can be accomplished with Success in times of Peace, or by such a Protection of our Trade, as will render our Exportations as large as they used to be in times of

Peace. That the Raising the Value of the Silver in our Coins to make it equal to Silver in Mass, can in no Sence be understood to be a cause of making Silver Scarce. That there can never be propos'd any just or reasonable Foot upon which the Coins should be Currant, save only the very Price of the Silver thereof, in case it be Molten in the same Place where the Coins are made Currant, or an Extrinsic Denomination very near that Price: It being most evident, That if the Value of the Silver in the Coins should (by any Extrinsic Denomination) be Raised above the Value, or Market Price of the same Silver, reduced to Bullion, the Subject would be proportionably Injured and Defrauded, as they were formerly in the case of the Base Moneys Coin'd by Publick Authority; but if the Value of the Silver in the Coins be less than the Value or Market Price of the same Silver reduced to Bullion, then the Coins are always Melted down for Lucre, as they have been, and are at this day in the Case of the Unclipt Moneys, and as they will certainly be, in Case of any New Coins that shall be made, to be Currant upon the Old Foot of Sixty Pence for the Silver of a Crown Piece; which sufficiently proves, That the *Medium* propos'd is the true Foundation for the Course of our Moneys. That for this purpose we need only to consider the very Price that Silver bears in *England*, where these Coins are to be Currant, although if we will have Relation to Neighbouring Countreys, particularly to *Holland*, we shall find that the Currant Price of an Ounce of Silver there, adding thereunto the Difference of Exchange from *London* to *Amsterdam* or *Roterdam* (which Difference in the Exchange, is but another Effect of the *Ballance of Trade* beforementioned) will still make up the Price of Six Shillings and Five Pence for the Ounce of Silver at *London*. And if this were not so, your Lordships might be sure that

no body would buy Silver at *London* for Six Shillings and Five Pence an Ounce, carry it to *Holland*, and sell it there perhaps for Five Shillings and Five Pence an Ounce, or for so much in their Coins, the Silver whereof is not equal to Five Shillings and Five Pence by our Standard. That it ought not to be Alledged that Silver has no Price; for every Indenture of the Mint (having first Ascertain'd the Extrinsic Denomination of the Currant Coins) has taken care also to Determine the Price or Value of the Silver to the Merchant or Importer, which was to be Answered in those Extrinsic Denominations; and daily Experience shews every Man, in Buying or Selling of Silver, that it has a Price or Value still Reckoned in those Extrinsic Denominations, although at present it much exceeds, as aforesaid, the said Rate of Sixty two Shillings for a Pound *Troy*. That Five Shillings Coin'd upon the Foot hereby proposed, will actually contain more real and Intrinsic Value of Silver by a great deal, than is in the Currant Moneys now commonly Applied to the Payment of the said Rents, Revenues and Debts, upon which the imaginary Loss is Apprehended, and in Reason will and ought to go further to all Intents and Purposes, than Five Shillings in Clipt Moneys, or in the Sixth Part of a Guinea, doth or can go; which will be better understood, when the Mischiefs of these Clipt Moneys and Guineas come to be Explain'd in the Third Chapter. And lastly, That as the Foot or Foundation hereby Proposed, for the Course of the Moneys, will be Just and Reasonable, with regard to the Price of Silver, and more Advantageous to the Receivers thereof, than Payment in Clipt Moneys or Gold at the present Price; so every Person that shall Receive any Money Coin'd or made Currant upon this New Foot, will have the Payment, Issuing and Expenditure thereof at the same Rate. And it is freely submitted to Impartial Judg-

ments, whether the propos'd Advance of Silver in the Coins can infer a Real Loss upon any Persons, other than such as can propose to themselves particularly the Receipt of Moneys in Weighty or Unclipt Pieces only, and the Conversion thereof to an Advantage, which Law or Reason would not allow them.

*Secondly*, The Value of the Silver in the Coin ought to be Raised, to encourage the bringing of Bullion to the Mint to be Coin'd. It is a Matter of Fact well known to your Lordships, and (by the small Number of the Pieces of the present King, or of His Majesty and the Deceas'd Queen) it is perceivable by every body else, that since Bullion hath born a greater Price than Silver in the Coin, there has been none brought to the Mint to be Coin'd, either by Importers or others, unless some small Parcels, that were Seiz'd or sent thither by Publick Authority. And it is utterly against Reason for any Man to think, that any Bullion of Silver will be carried thither voluntarily to be Coin'd, till the Value of Silver Coin'd be Raised, at least as high as the Value of Silver in Bullion. By the propos'd Advance to Six Shillings and Three Pence, the *Sterling* Silver in the Coins will be set at Six Shillings and Five Pence Half-penny *per* Ounce, which will exceed the present Price of *Sterling* in Bullion by One Half-penny *per* Ounce, and give (though by a small Profit) an encouragement to those that have *English* Silver or Plate, and particularly to the Retailers of Wine, Beer, Ale and other Liquors, (whose Tankards and other Vessels are herein after propos'd to be brought in) and generally to all those that have or can have Silver Imported, to carry the same to the Mint to be Coin'd. And this will be agreeable to the Policy that in past Ages (as hath been observed upon the aforesaid Deduction) hath been Practised not only in our Mint, but in the Mints of all Politick Governments, namely,

to Raise the Value of Silver in the Coin, to Promote the Work of the Mint.

*Thirdly*, The Raising the Value of the Silver in the Coin, will increase the whole *Species* in Tale, and thereby make it more commensurate to the general need thereof, for carrying on the Common Traffick and Commerce of the Nation, and to answer the Payments on the numerous Contracts, Securities, and other daily Occasions, requiring a larger Supply of Money for that purpose. This Reason may be further Illustrated, by considering that the want of a sufficient Stock of Money, hath been the chief Cause of Introducing so much Paper Credit (which is at best hazardous, and may be carried too far) and the Setting up of Offices, both in City and Country, for Bartering of Goods or Permutations.

*Fourthly*, The Silver in the Old Unclipt Moneys, and in the New Coins now Propos'd to be made, ought to be Raised (as I have offered) *Equally*, to avoid Confusion and Uncertainty in Payments: For if Pieces, having the same Bigness, should have different Values, it might be difficult for the Common People (especially those not skilled in Arithmetick) to Compute how many of one kind will be equal to the Sum of another; and there might be some Dispute about the Lawful Money of *England*, to be Paid upon Mortgages, Bonds, Contracts, or other Legal Securities referring thereunto.

*Fifthly*, The Foot of Six Shillings and Three Pence for the Crown, here Propos'd, will not only be suitable to the present Rate of Bullion, but it happens to be such a Sum as is Deviseable into a great Number of *Aliquòt* or other Integral Parts, to serve for the lesser Coins before Propos'd, so that none of them will come forth in any Fractional Part of a Farthing, which will obviate much Perplexity amongst the Common People:

And I think there is scarce any other Sum near it that is Devisable in like manner.

*Sixthly*, By this Project, all Computations in Pounds, Shillings, and Pence, used in Accounts; and the Reckonings by Pounds, Marks, Half-Marks, Shillings, and Pence, practised in the Law of *England*, and in the Records, Contracts and other Instruments, relating thereunto, will be Preserved as they ought to be.

*Seventhly*, By this Method, the bringing in of the present Unclipt Coins, to be cut into lesser Pieces, are rendered needless; which *Species* being at present (for the most part) Hoarded, will, upon Raising their Value, come forth, and go a great way towards Supplying the Commerce and other Occasions, whilst the New Money is making. And I think it will be Granted to be utterly impossible, in this time of War, to Re-Coin the Clipt Moneys, if at the same time the Unclipt shall be brought in to be new Cut; or if the Unclipt Pieces should not (by such an Encouragement) be brought forth to Supply the Commerce, Pay Taxes, and serve other Occasions in the mean time.

*Eighthly*, It is difficult to Conceive, how any Design of Amending the Clipt Moneys can be compassed, without Raising the Value of the Silver remaining in them, because of the great Deficiency of the Silver Clipt away; which (upon Re-Coining) must necessarily be Defrayed or Born one way or other.

*Ninthly*, As our Unclipt Moneys, and the New Coins here Propos'd to be made, will, by the former Proposition, retain the *Ancient Sterling*, or *Old Right Standard* of the Mint for Fineness and Purity (the Alteration of which could never be Justified by any Necessity;) so by this Proposition they will both Continue the *Present Standard* of the Mint in the Weight or Bigness of the respective Pieces, without being cut into Less, as they have formerly been (the New Shilling only excepted:)

These Propositions indeed, dealing with nothing but the very Value of the Silver in the Coins, to make it equal to the Currant Price of our own Bullion or Silver in Mass, with a very little Excess, to wit, of an Half-peny in an Ounce, to encourage the Coinage, and to make it bear the like Reason or Proportion to the Price of Foreign Moneys now Currant amongst us: Namely, the *Pillar Dollars*, which go at Seven Shillings and a Penny *per* Ounce, and *Sevil* and *Mexico Dollars* at Seven Shillings *per* Ounce, and to effect an equality in all Pieces, having the same Extrinsick Denomination, and thereby to cure such Mischiefs relating to our Coin, as are not to be Parallel'd in the Records of former Ages: Which Raised Values may be Lowered again by the Wisdom and Authority of Parliament, when the Wealth of the Nation shall (by God's Blessing) be Re-establish't without Trouble or Charge of Re-coining or Cutting the Silver Pieces into other Sizes.

As to the Gold Coins which are now almost wholly Reduced or Converted into the Pieces called *Guineas* and *Half-Guineas*, they were first Coin'd by King *Charles* the Second, not long after the Restauration; and were ordain'd to go at the Rates of Twenty Shillings for the Guinea, and Ten Shillings for the Half-Guinea; but I do not remember that they ever passed at so little, as the Prices which were then set upon them, because our Nation has been always too apt to overvalue its Gold. And at this time the Guinea runs for Thirty Shillings, although the Gold of it (if it were carried to *Spain*, *Italy*, *Barbary*, and some other Places of the World) would not Purchase so much Silver there, as is equal to the Standard of four of our Crowns, or Twenty Shillings. And here it is necessary for me to Observe, That if the Gold had Advanced proportionably with the Silver, then because as Five Shillings (the Standard Value of the Silver in a Crown) is to Six

Shillings and Two Pence Halfpeny, the present Value of the same Silver in Mass, so Twenty Shillings (the Standard Value of the Gold in *Guinea*) is to Twenty four Shillings and Ten Pence; It should follow by Reason that a Guinea at this day should go for about Twenty four Shillings and Ten Pence, but it apparently runs for about Five Shillings more, so that in the time that the Silver in a Crown is Risen about a Fifth part, the Gold in a Guinea is Risen in a much greater proportion, namely, a compleat Third part. Which Advance of Five Shillings in a Guinea (over and above the proportionable Rise which it should have had to make it keep pace with the Silver) is exceedingly detrimental to our Nation at this Day (as will be hereafter shewed more at large.) And seeing it can be attributed to nothing but the present Badness of our Silver Coins, which are so exceedingly Counterfeited, and Clipt, that the Common People will take Guineas almost at any Rate, rather than stand the hazard and vexation of such Silver Moneys as are now Currant amongst them: I am therefore humbly of Opinion, That altering the *present Standard* of our Gold Coins (which prescribes Twenty two Carats Fine, and Two Carats Allay, and that Fourty four Guineas and an Half shall be cut from a Pound Weight of such Gold) would avail nothing. And that the only remedy to fix these Gold Coins upon a right Foot, will be the Re-establishment of the Silver Coins, which (as soon as Atchieved according to these Propositions) will in all likelihood and probability, presently reduce the Guineas to about Twenty five Shillings apiece by the most Natural and Easie way, without fixing any limited Price thereupon by Publick Authority, which (if one were to judge by past Experience) would never be observed, at least for any time.

*A Corollary*: The abovementioned *Ballance of Trade* being (as is before observed) the Original Cause of the

scarcity of Silver in *England*, and of the Loss by the Foreign Exchange or Remittances, he that can propose any proper Expedients, either to lessen that Ballance, or convert it to our Advantage, ought to be well heard. But any Proposal which supposes the *Ballance of Trade* must be Rectified before our Coins be Amended, or a Reasonable Foundation can be fixed for the Course of the same, does but *postpone* the Cure of a Disease which may destroy us before such a Remedy can take effect.

The True and Reasonable Adjustment of that which is called by the *French*, *Pied de Monoye*, and by others Anciently *Pes Monetæ*, was and is of principal consideration in this whole Affair: And therefore I hope your Lordships will excuse me for having been so prolix in the subject of the *Standards*.

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*The Second General Head concerning the present State  
and Condition of the Gold and Silver Coins.*

**I**T cannot be thought improper before the Enterprizing of a Work of so great importance as the Re-establishment of the Moneys, and Determining a New Foot for the Course of the same, to be instructed (with as much certainty as is possible in things of this Nature) in the present State, Plight, or Condition of the Coins of this Realm; wherein one must necessarily consider several Matters of Fact, whereof some can be known or found out, and others can only be estimated or guessed at. I have endeavoured, as much as I could in a little time, to Inform and Satisfie my self in the Particulars following:

*First,* The several Forms or Fashions which have been used in the Fabrication of the Moneys, and which of them have been and are most likely to be most Secure against Clipping and Counterfeiting.

*Secondly,* The Quantities of Silver Coins Clipt and Unclipt, that may be reasonably thought or imagined to remain in the Kingdom at this day.

*Thirdly,* How far the Clipt Picces now in being may be Conjectured to have been diminished in their Weight. And upon Consideration of these Articles, I have endeavoured to Compute the Loss, which (upon Re-coining the Clipt Moneys) must be born either by a Publick Aid, or by Particular Persons, or by both; and to make such other Remarks and Inferences as may be suitable to the present Occasion: In all which, my Sence and Opinion are humbly presented to your Lordships in the manner following.

As to the Particulars; All the Moneys we have now in *England*, both Gold and Silver, are reducible to Two Sorts; the one Stampd with the Hammer, and the other Prest with an Engine, called the *Mill*. The Gold or Silver of the Hammer'd Money is first Cast from the Melting Pot into long Bars, those Bars are cut with Sheers into several square Pieces of exact Weights, for Sovereigns, Angels, Crowns, Half-Crowns, Shillings, &c. Then with the Tongs and Hammer they are forged into a round shape; after which they are Blanched (that is, made White, or refulgent by Nealing or Boiling) and afterwards Stampd or Impressed with an Hammer to make them perfect Money. This Method of making Money with the Hammer (as appears in the said *Red Book*) was practised in the Reign of King *Edward* the First; who (amongst other great Atchievements of his most Prudent Government) left that of Restoring and Establishing good Moneys for the Use of his People, to recommend his Name to subsequent Generations. He sent for Mr. *William de Turnemire*, and his Brother *Peter*, and others from *Marseilles*, and one *Friscobald*, and his companions from *Florence*, and Employed them in the Working this kind of Money, and the Buying and Exchanging of Silver for that purpose, for which he had Thirty Furnaces at *London*, Eight at *Canterbury* (besides Three the Arch-Bishop had there) Twelve at *Bristol*, Twelve at *York*, and more in other great Towns, in all which Places they made the said Hammer'd Money of Silver, supply'd by the Kings Changers Established at the same Places, who (according to certain Rates or Prices prescribed to them) took in the Clipt, Rounded and Counterfeit Moneys to be Re-coined; and Bought Gold and Silver of the Merchants, and others, to be Fabricated into New Money; at the same time Ordaining, *Quod Proclametur per totum Regnum quod nulla fiat tonsura de Nova Moneta sub*

*periculo Vitæ et Membrorum et amissionis omnium Terrarum et Tenementorum, &c.* And this kind of Hammer'd Money continued through all the Reigns of Succeeding Kings and Queens, till about the Year of our Lord 1663. when by several Warrants, and Command of King *Charles* the Second, to wit, by One Warrant Dated the Fifth of *November*, 1662. One Warrant Dated the Eighth of *April*, 1663. And a Third Warrant Dated the Twenty fourth of *December*, 1663. The other sort called *Milled Money* was first Fabricated to be Currant in *England* in this manner: *First*, The Gold or Silver is cast out of the Melting Pot into long flat Bars, which Bars are drawn through a Mill (wrought by a Horse) to produce the just Thickness of Guineas, Half-Guineas, Crowns, Half-Crowns, Shillings, &c. Then with forcible Engines, called *Cutters*, which answer exactly to the respective Sizes or Dimensions of the Money to be made, the Round Pieces are cut out from the Flat Bar, shaped as aforesaid (the Residue whereof, called *Sizel*, is Melted again) and then every Piece is Weighed, and made to agree exactly with the intended Weight, and afterwards carried to other Engines (wrought secretly) which put the Letters upon the Edges of the larger Silver Pieces, and Mark the Edges of the rest with a Graining. The next thing is the Blanching perform'd, as above; and at last, every Piece is brought to the Press, which is called the *Mill* (wrought by the Strength of Men) and there Receives the Impression, which makes it perfect *Milled Money*.

By duly reflecting upon these different Kinds, and Considering that the Principal Offences against the Coins of the Realm, have been, and are either Clipping, Counterfeiting or Melting down, It may be proper to Remark,

*First*, That the Crime of *Clipping* has been Practised

upon the Hammer'd Money in all Ages more or less, but most exorbitantly of late Years; notwithstanding the many Examples of Justice: For that the Offenders make an excessive Profit by doing a thing so easie in it self, that even Women and Children (as well as Men) are capable of the Act of Clipping or Rounding. But this Practice of Clipping has never been Exercis'd upon the Mill'd Money, and I think never can be, because of its Thickness and Edging, although no further Provision against the same should be made by Law.

*Secondly*, That as to *Counterfeiting*, the Hammer'd Money is liable thereunto, because the Tools for Resembling the same, are cheap, and easily made and procured, and the Fabrication thereof may be performed in a little Room, and with less Art; so that Smiths and other Artificers can readily attain thereunto. But the Engines for the Mill'd Money are many and very costly, not easie to be procured. The Makers or Users of such Engines cannot be conceal'd without great difficulty, and the Mill'd Money it self, being of a much Finer Print than the other, requires more Solemnity, Skill, and curious Workmanship in its Fabrication; and when it's finished, shews better the true Colour of the Silver, to distinguish its Genuine from its Counterfeit Pieces: Which latter could never be brought to Perfection. So that Reckoning only since the said Year 1663 (without any regard to the Precedent time) I verily believe for every single Piece of Mill'd Money, that has been Counterfeited, or rather been attempted to be Resembled, there have been more than One thousand of the Hammer'd Moneys not only Counterfeited, but actually Impos'd upon the People, who have been defrauded therewith, and are now likely to suffer greatly thereby.

*Thirdly*, That as to the Crime of *Melting down*, it has plainly affected both the Hammer'd and Mill'd

Moneys in their respective turns very fatally ; insomuch that the Hammer'd Gold Coins which were made in the Reigns of the several Kings and Queens, from *Edward* the First inclusively, till the beginning of the Reign of King *Charles* the Second (which would amount to an incredible sum, if they were all in being) are almost totally vanished, having been Molten (as I suppose) from time to time, either to make Vessels or Utensils, or to Export for Lucre, or to Convert into Gold Coins of more Modern Stamps (in which last Case the same Metal came to be Coin'd over and over again) it being evident that we have now in *England* only the Pieces called *Guineas*, and *Half-Guineas*, or few other of Gold Coins, as is before observed. And I think the like must have been done with all the Hammer'd Silver Moneys that were made before the Reign of Queen *Elizabeth*, a very few only excepted ; although the latter would amount to many Millions, if they were all now in being. As to the coins of that Queen, and her Two immediate Successors (though they make the Bulk of our present Cash) the Number of them must needs have been extreamly diminished by Melting, especially whilst they were weighty, and not much worn. But since the Mill'd Money came into Play, because of its Intrinsick Weight and Worth, I believe the Crime of Melting hath been chiefly practis'd upon that kind, which has apparently reduced it to a small Quantity. Nevertheless, when both kinds come to have the same Weight and Fineness, and to be currant at the same Price, I think the one will not be more liable to this Mischiëf than the other ; and I hope both will be Secured against the same, when the Silver in the Coin will fetch as much as the Silver in the Bullion.

*Secondly, The Quantities of Silver Coins Clipt and Unclipt that may be reasonably thought or imagined to*

*Remain in the Kingdom at this day*, cannot with any certainty be Computed. I know several conjectures have been made thereof, very different, and (as I think) without any Grounds at all, and I confess my self to have none but such as follow.

*First*, To Compute all the Silver Moneys Coin'd in the Three Reigns of Queen *Elizabeth*, *James* the First, and *Charles* the First.

*Secondly*, To Guess how much thereof may have been Molten or Lost.

*Thirdly*, To Subtract the Latter from the Whole. And,

*Fourthly*, To the Difference to add something for the small Remainder, as well of Moneys Coined before the Reign of Queen *Elizabeth*, as of those Coined since the Reign of *Charles* the First.

The Silver Moneys Coin'd in the Reign of Queen *Elizabeth* (as I am inform'd by the Master of the Mint) did Amount to Four Millions Six hundred thousand Pounds : But by a Copy which I took some time since from the *Archives* at *Westminster*, of an Account which was Compiled by Arch-Bishop *Williams*, which I take to be more exact (which *Archives*, with the Choice Collections thereof are since Burnt) all the Silver *Sterling* Moneys Coin'd in the Reign of the said Queen, (excluding some base *Irish* Moneys that were then made) did amount to . . . . .

l.	s.	d.
4632932.	3.	2 $\frac{3}{4}$ .

The Silver Moneys Coin'd in the Reign of King *James* the First (as the Officers of the Mint inform me) cannot be known at their Office, because their Memorials thereof are either Imperfect or Lost: But by the abovesaid Copy I find, That in the first Twelve Years of his Reign there was Coin'd in Silver *Sterling* Moneys, One Million Five hundred fifty eight thousand and Fourteen Pounds, Nine Shillings and Nine Pence; and I find, That in the last Seven years of his Reign, the Silver Moneys Coin'd did amount to One hundred and two thousand Nine hundred and eighty one Pounds Nine Shillings and eight Pence, and then adding 3900*l.* 0*s.* 7*d.* by estimation for the Two or Three intermediate years of the same Reign, the whole of the Silver *Sterling* Money Coin'd by King *James* the First, was . . .

And it appears by an Account from the Officers of the Mint, That there was Coin'd of Silver Moneys in the Reign of King *Charles* the First . . .

*l.*  
1700000.

<i>l.</i>	<i>s.</i>	<i>d.</i>
8776544.	10.	3.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
In all	15109476.	13.	5½

Now considering how far this Sum is to be abated.

*First*, By the want of the Crowns, Half-Crowns, Groats, Quarter-Shillings, Half-Groats, Three-half-peny Pieces, Three-farthing Pieces, and Half-pence of Queen *Elizabeth*, which are wholly sunk.

*Secondly*, By the Diminution of the Number of the Shillings, and Six-pences of the same Queen, many of which may be supposed to be Melted down, Re-coined, or Lost.

*Thirdly*, By the Loss of the Crowns, Groats, Two-Pences, Pence, and Half-Pence of *James* the First, and *Charles* the First, which seem to be quite gone, and by the Melting, Re-coining, or Loss of many (if not most) of the Half-Crowns, Shillings, and Six-Pences of those Two Kings, one can hardly believe there is now in being, of the Coins of the said Three Reigns, above One Third Part, which Amounts to Five Millions Thirty six thousand Four hundred ninety two Pounds: to which if there be added Five hundred Sixty three thousand Five hundred and eight Pounds more, for the Unmelted Silver Coins of *Charles* the Second, *James* the Second, King *William* and Queen *Mary*, and for the small Quantities which remain of those which were made before the Reign of Queen *Elizabeth*; then the whole of the Silver *Sterling* Coins Clipt and Unclipt, Hoarded and Currant now in *England*, will be Computed at Five Millions and Six hundred thousand Pounds. And if it be Granted that Four Millions of this Sum consists of Pieces that are Diminished, some more, some less, by Clipping, then it will follow, that there remains in the Kingdom about One Million, and Six hundred thousand Pounds of Heavy Money, a great part of which is supposed to lie in Hoards, and the rest Currant chiefly in the Counties most remote from *London*.

*Thirdly*, I am to Compute, as well as I can, *How far*

*the Clipt Pieces, now in being, may have been Diminished in their Weight.* In reference to which, your Lordships may be pleased to be Reminded, That when the Earl of *Rochester* was Lord Treasurer, several Good Orders were Established by him for the Exchequer; One of which was, to have all the Bags of Money there Received to be Weighed. And I have Extracted from the Books of One of the Tellers, the Weight of Five hundred seventy two Bags of One hundred Pound each, which were brought to the Receipt promiscuously, in the Months of *May, June* and *July* last. Now, whereas the Weight of One hundred Pounds *Sterling* in Silver Moneys, according to the Standard of the Mint, ought to be Thirty two Pounds, Three Ounces, One Peny Weight, and Twenty two Grains *Troy*, and consequently the said Bags, containing Fifty seven thousand Two hundred Pounds by Tale, ought to have Weighed Two hundred twenty one thousand Four hundred and Eighteen Ounces, Sixteen Peny Weight, and Eight Grains *Troy*: It was found that the said Fifty seven thousand and Two hundred Pounds by Tale (comprizing some Weighty Pieces, though few) Weighed only One hundred and thirteen thousand Seven hundred and Seventy one Ounces and Five Peny Weight *Troy*. So that if all the said sum of Fifty seven thousand and Two hundred Pounds by Tale were good Silver, yet it was Deficient in Weight, One hundred and seven thousand six hundred forty seven Ounces, Eleven Peny Weight and Eight Grains *Troy*; from whence I infer,

*First*, That the Moneys commonly Currant are Diminished near one Half, to wit, in a Proportion something greater than that of Ten to Twenty two.

*Secondly*, That going by the *Medium* of the said Number of Bags, and making but a very small Allowance for the Unclipt Pieces in the said Bags, and for the Difference of Money brought to the Exchequer, and

See the An-  
next Account  
for this.

that which passes amongst the Common People (the former being in most Payments the best of the Clipt Moneys) every one must be convinced, That if all the Clipt Pieces of Silver Moneys in *England* could be weighed together, they would be found Deficient a full Half of their Standard Weight. Again,

*Thirdly*, If all the Pieces in *England* that are more or less Clipt, do Amount by Tale to Four Millions (as is before supposed) then I infer, That by Re-Coining the same upon the Old Foot, it will make but Two Millions, and the Loss would be as much: But by Re-Coining the same upon the Foot of Six Shillings and Three Pence for the present Crown Piece, as is above proposed, the same Quantity of Clipt Money will make Two Millions, and Five hundred Thousand Pounds, and the Loss will be Fifteen hundred thousand Pounds, to be born either by Publick Aid, or by the Particulars interested in the Clipt Moneys, or by both.

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*The Third General Head Discusses this Question, Whether it be or be not absolutely Necessary at this time to Re-establish the Coins.*

**I**T will readily be Granted, That the Melting and New Fabricating the much greater Part of all the Silver Moneys of the Realm (as the Clipt Pieces are) would be a Work very improper to be Enterprized in the heat of an Important and Expensive War; if the doing thereof were not indispensibly necessary, to render effectual the very Ways and Means, which in Parliament may be Resolved upon, in reference to Aids or Supplies for Carrying on of the same War, and to produce a *Species* of Money that may be Useful and Serviceable for the Upholding of the Commerce, and for answering not only of the Publick, but also of all Private Revenues, Rents, Debts, and other Occasions, which concern the very Existence of the great Political Body.

It were enough for me upon this Occasion, to say, That the House of Commons judg'd it necessary to have the Clipt Moneys Re-Coin'd, having Resolved thereupon, after many long and mature Deliberations, in the last Session of Parliament. But the Evils which for some time past have been growing upon us, in respect of the Coins, being at length actually Arrived, and more sensibly Felt, I shall take leave humbly to State the same according to the best of my Understanding, and submit the Judgment thereof to Publick Authority.

*First*, Because such of the Silver Coins as are usually

Currant, or offer'd in Payments, are very Bad and Defective; the Common People (without any visible Reason, other than to avoid the Danger and Vexation of such Moneys) by almost an Unanimous Consent and Agreement, do take Guineas at Thirty Shillings apiece, little more or less, which Raises the Gold here (as hath been observed) to a much higher Price in Proportion than Silver in Bullion now goes at, or than Silver in Coin will go for, when it shall be Raised to the Foot of Six Shillings and Three Pence for the Crown Piece according to this Projection. And this exorbitant Price of Gold here, hath encouraged Foreign Merchants to Import it upon us in great Quantities: And in Return for the same,

They either Export our Silver in Coin or Molten; which lying in a little Room, the Exportation thereof cannot easily be Prevented. Or,

*Secondly*, They Buy our Native Commodities (the Interruption of the Navigation, not allowing us such an Overplus of Goods, brought from our Colonies in *America*, and other Foreign Parts, wherewith *England* in times of Peace could at least Ballance its Trade with its Neighbours.) Or,

*Thirdly*, They draw back the aforesaid Value of their Gold, by Bills of Exchange or Remittances. In every one of these Cases, they make an unreasonable Profit by their Gold, which must needs, in a little time, Exhaust a great part of the Real Stock and Wealth of our Nation; But particularly in the first Case, the Bullion or Coin in Silver that is Exported, is really worth much more than the Gold Imported for it; and the Difference becomes a Dead Loss to *England*, which Labours too much already under the Scarcity of Silver, and will inevitably find it much Scarcer and Dearer than it is, if this Golden Trade continues. In the Second Case, they can Furnish Foreign Markets with

our Native Commodities, which would be carried thither by our own Merchants, who want the aforesaid Profit of the Gold, to enable them to Buy those Goods as Dear, and Sell them as Cheap as the Foreigners can. And in the Third Case, by the great occasion they have for Bills to draw back the Value of their Gold to the Places from whence it came, they have Contributed in a great measure towards Lowering the Exchange to *Low Countries*: which from divers causes (whereof the Importing of Guineas is none of the least) is sunk so very Low, that the Publick loses about Four Shillings in the Pound upon all the Moneys Remitted thither; which Loss Amounts to a great deal in the Charge of the Army. And the Exchange to *Hamburgh* and the *East Countreys* for all Naval Stores, and other Goods, is Lower, and to all Places in the *Mediterranean* (where our Fleet is at present) the Exchange is yet more to our Prejudice. And in regard the aforesaid excessive Advance of the Guinea Pieces, at least a great part thereof, can be Attributed (as has been before observed) to nothing else but the Baseness and Defects of the White Moneys, there is no Prospect of Reducing the Gold to a more moderate or reasonable Price, by any means consistent with the Interest of the Nation, other than the Amendment, and Restoring of the Silver Coins.

*Secondly*, In the present Condition and Circumstances of our Silver Money, this Nation and the Trade and Dealings thereof, are in a great measure Deprived of the Use and Benefit of the whole *Species* now in being, as well the Heavy Pieces as the Light; the former of which (especially since the Parliament in the last Session appear'd desirous of making a Reformation or Amendment) have been for the most part Hoarded by the particular Persons Possessed thereof, in Prospect that the Silver contained in those Weighty Pieces will

be Raised to a Value suitable to the Bullion thereof if Melted, which they may think will turn more to their Profit than Lending at Interest, Purchasing or Trading therewith in the mean time; or at least they may think these Hoarded Moneys (when the Mischiefs of Corrupting and Diminishing their Coins, come to their last Extremity) will particularly stand those Men in stead that have them; however it be, its certain the Weighty Moneys at present do very little appear Abroad, and it is not likely they will soon be brought to Light, without Raising their Value, and Re-Coining the Clipt Moneys; and as for the latter, a great Part thereof, when offered in Payments, is utterly Refused, and will not Pass, and consequently doth not serve to the end or Purpose for which it was made: so that both the one and the other (for the greatest part) are become as it were a Dead Cash in the Kingdom.

*Thirdly*, In Consequence of the Vitiating, Diminishing and Counterfeiting of the Currant Moneys, it is come to pass, That great Contentions do daily arise amongst the King's Subjects, in Fairs, Markets, Shops, and other Places throughout the Kingdom, about the Passing or Refusing of the same, to the disturbance of the Publick Peace; many Bargains, Doings and Dealings are totally prevented and laid aside, which lessens Trade in general; Persons before they conclude in any Bargains, are necessitated first to settle the Price or Value of the very Money they are to Receive for their Goods; and if it be in Guineas at a High Rate, or in Clipt or Bad Moneys, they set the Price of their Goods accordingly, which I think has been One great cause of Raising the Price not only of Merchandizes, but even of Edibles, and other Necessaries for the sustenance of the Common People, to their great Grievance. The Receipt and Collection of the Publick Taxes, Revenues, and Debts (as well as of Private Mens

Incomes) are extremely retarded, to the Damage of His Majesty, and to the Prejudice of a Vigorous Prosecution of the War; so that there were never (at least since I had the Honour to serve the Crown) so many Bonds Given, and lying Unsatisfied at the Custom-Houses, or so vast an Arrear of Excises. And as for the Land Tax, your Lordships know how far 'tis affected with the Bad Moneys, by the many Complaints transmitted daily from the Commissioners, Receivers, and Collectors thereof, and by Comparing the Sum brought into the Exchequer this Year, with the timely Payments of the like Tax in preceding Years. In fine, the Mischiefs of the Bad Money (too many to enumerate) are so sensibly Felt, that (I humbly conceive) they are sufficient to Confute all the Arguments against the Re-coining the same in this time of War, and even the Objections against Raising the Silver in our Coin to the Propos'd Value. Which Arguments and Objections (how Plausible or Weighty soever they have been heretofore) have not at this time sufficient Ground or Reason to Support them, especially when the doing of these things is not Projected for the particular Gain or Profit of the Crown (which formerly Received a Duty of Seigniorage upon Coining or Re-coining of Moneys) but for the Common Good and Utility of the King and his People. But whether all the Evils and Mischiefs before mentioned, and the Increase thereof, which the Nation must undergo, till a Remedy be Applied, do infer, or are tantamount to an absolute Necessity for the present Enterprising the Work aforesaid, must be and is with all Humility submitted to a better Judgment than my own.

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*The Fourth General Head is to propose the Means that must be Obtained, and the proper Methods to be used in and for the Re-establishment of the Silver Coins.*

**I**N Case his Majesty (taking into His Princely Consideration the great Inconveniencies which the Nation Labours under by the badness of the Moneys) shall be pleased to Direct, That all such Silver Coins called Crowns, Half-Crowns, Shillings or Testers, as have been formerly Coin'd in the Royal Mint, or Mints of *England* with the Hammer, and are more or less Diminished by Clipping, Rounding, Filing, or any other Artifice, shall be Melted and Re-Coin'd, my humble Opinion is, That the General Cautions following are to be Observed;

*First*, That the Work ought to be Performed and Finished in as little time as may be, not only to Obviate a further Damage by Clipping in the *interim*, but also that the needful Advantages of the New Money may be the sooner Obtained for the Service of the Nation.

*Secondly*, That the loss, or the greatest part of it ought to be born by the Publick, and not by Particulars, who being very Numerous will be prejudiced against a Reformation for the Publick Benefit, if it is to be Effected at the Cost of particular Men, and who have great hopes of being Indemnified by the Votes Passed in their favour in the last Session of Parliament.

*Thirdly*, This whole Affair must be rendered Easie, and very Intelligible to the Common People, so that they must not be compelled to Travel very far when they part with their Clipt Money, or when they receive back the Value of it in the New Coins; and in the

mean time they must be furnished with a Useful and Transferrable Credit that must take Place in Course of Repayment, as fast as the New Coins can be made.

*Fourthly*, That no room must be left for Jealousie. And therefore all the Clipt Moneys in the several Counties, far or near, are not to be brought entirely to *London*, to be Minted there; which would leave all the Countries very bare, and create great Suspicions till its Return.

*Fifthly*, That as soon as the King's Officers begin to take in the Clipt Moneys, or presently after, the Course for Repaying the Stated Value thereof in New Moneys ought to begin also, and to be Carried on by the New Moneys, which shall be Coin'd from the Silver of the Old, so far as it will Extend; And that an Aid be given in Parliament to Supply the residue, in such time and manner, as that there be no Interruption or Intervals in the Course of Repayment, till such times as the Registers for the Clipt Moneys to be brought in shall be fully satisfied.

According to these General Propositions, and some other Requisites which have Occurred to me, I have employed my Thoughts to Reduce this whole Affair into Practice, and do humbly Offer to your Lordships Consideration the Particulars following, as the Scope and Design of my Report: That is to say,

*First*, That an Aid be granted in Parliament, and strictly Appropriated for or towards the making good of the Loss by the said Clipt Moneys, or so much thereof as shall be thought Reasonable to be Defrayed by the Publick, and the incident Charges which shall be necessary in the Performance of this Service. Which Aid, if it be Commensurate to the whole Loss, will, by Estimation, as above, Amount to Fifteen hundred thousand Pounds; and if it be Resolved that the Publick shall bear but half the Loss, or any other

part of it, then the Aid (in the grant thereof) may be proportioned accordingly. And the said Aid is humbly proposed to be either by a Land Tax of Twelve Pence in the Pound, or by a yearly Sum to be Answered out of the continued Impositions upon Goods imported, or some other certain Fund, to take Effect within a year to come at the farthest.

*Secondly*, That all the New Moneys, whether they be Gold or Silver, shall in the Coining thereof be made in Fineness or Purity, according to the *present Standard*, that is to say, the Gold to be Twenty two Carats Fine and Two Carats Allay: And the Silver Coins to be Eleven Ounces Two Penny Weight Fine, and Eighteen Penny Weight Allay, for the Reasons above given.

*Thirdly*, That every Pound Weight *Troy* of such Gold, shall be cut into Eighty nine Half Guineas, or Fourty four Guineas and an Half, or proportionably for greater Pieces, as the same ought to be by the present Indenture of the Mint; with a Remedy for the Master, of the Sixth Part of a Carat, in Case the Gold be found too strong or too feeble in Weight, or in Fineness, or in both. And that every Pound Weight *Troy*, of the New Silver Moneys, to be made as aforesaid, be cut into such Numbers of Pieces as will correspond in Weight with the Undiminished Crowns, Half-Crowns, Shillings, Six-pences, Groats, Three-pences, Two-pences and Pence, Coin'd by the late Indentures, except the Twelve Penny Pieces, all which may be performed, as is above offered. And that the Master be allowed a Remedy of Two Penny Weight in every Pound Weight *Troy*, of the Silver Moneys, in case they be found too strong or too feeble in Weight, or in Fineness, or in both.

*Fourthly*, That by Authority of Parliament, or by a Royal Proclamation to be Grounded on an Act of Parliament, the Silver Crowns, Half-Crowns, Shillings

and Six-pences of the Lawful Coins of this Realm now in being, and not Diminished by Clipping, Rounding, Filing, Washing, or other Artifice, be Publicly Cried up, and Raised to the Foot of Seventy five Pence for the Crown, and proportionably for the rest, as I have also proposed; and that the other small Pieces of the Old Coins (which are few in number) go as they do at present. And that the New Coins to be called the *Sceptre*, or *Unite*, the *Half-Sceptre*, or *Half-Unite*, the *Testoon* or Fifteen Penny Piece, the *Shilling* or Twelve Penny Piece, the *Half-Testoon*, the *Gross* or Five Penny Piece, *Quarter-Testoon*, the *Half-Gross* and *Prime* be made Currant upon the same Foot, as I have also proposed, *Pag. 61, &c.*

*Fifthly*, That Coin, as well as *English Bullion*, not exceeding a limited Sum yearly, may be Exported for the Service of the present War by His Majesty's Warrant and Command, and not otherwise; which will help to keep down the Price of Silver.

*Sixthly*, That all the New Moneys be made by the Mill and the Press, and not by the Hammer.

*Seventhly*, That all the present Silver Pieces called Crowns, Half-Crowns, Shillings and Six-pences of the Hammer'd kind, which are Diminished by Clipping, Rounding, Filing, Washing, or other Artifice, be Cried down, so as not to be Currant after a Day to be prefix'd. And that no Person whatsoever shall hereafter be obliged to accept in Legal Payment any Money whatsoever that is already Clipt, or may hereafter be Clipt or Diminished; and that no Person shall Tender or Receive any such Money in Payment under some small Penalty, to be made easily Recoverable; the Passing, Selling, or Changing of such Clipt or Diminished Moneys, in Order to the Re-Coining thereof, as is herein after mentioned, only Excepted.

*Eighthly*, That no Crown Piece (of Old Hammer'd

Money) shall be said or alledged to be Clipt or Diminished, or be Refused as such in any Payments whatsoever if it hold Eighteen Penny Weight; and proportionable Weight shall render the Half-Crowns, Shillings and Six-pences of the said Hammer'd kind to be Currant in all Payments; which seems necessary, because of the wearing of the Old Pieces, though they are not Clipt.

*Ninthly*, That besides the Principal Mint within the Tower of *London* (where Six Presses can be wrought at the same time) there be Settled and Established Nine other Mints within *England* and *Wales*, to Work with Two Presses in each, Namely, One at *Newcastle* upon *Tyne*, to serve principally for the Counties of *Durham*, *Northumberland*, *Cumberland*, and *Westmoreland*: One at *York* to serve for the Counties of *York* and *Lancaster*: One at *Nottingham* to serve for the Counties of *Nottingham*, *Lincoln*, *Derby* and *Leicester*: One at *Chester* to serve for *Cheshire*, *Staffordshire*, *Salop*, and *North Wales*: One at *Hereford* to serve for the Counties of *Hereford*, *Gloucester*, *Worcester*, and *South Wales*: One at *Exeter* to serve for *Cornwall*, *Devon*, and *Somerset*: One at *Salisbury* to serve for the Counties of *Wilts*, *Dorset*, and *Hants*: One at *Oxon*, to serve for the Counties of *Oxon*, *Bucks*, *Warwick*, and *Berks*; And One at *Cambridge* to serve for *Norfolk*, *Suffolk*, *Huntingdon*, *Cambridge*, and *Bedfordshire*: and that at *London* will serve for the rest. Nevertheless these several Mints are not intended to be so Restrained but that a Man may carry his Money to any of them that lies most in his way; whereby there may be Coined Weekly (as I am inform'd) about Fifty or Sixty thousand Pounds easily, which will finish the whole Work in much less than a Years time. And that the Dyes, Presses and other Implements may be providing with

as much haste as is possible, so as to be all fit for Use by or before *Christmas* next.

*Tenthly*, That the Warden, Master Worker, Comptroller, and Assay-Master of the Mint do continue at the Tower, and take the immediate Care of the Work there: And that they Substitute Fit and Skilful Persons as their Deputies (such as the King, or the Lord Treasurer, or Commissioners of the Treasury for the time being, shall approve of, and such as must be Answer'd for by their respective Superiors) to Carry on the Works of the said Nine Mints in the Countrey; which Substitutes shall be all Sworn, for the faithful Discharge of their respective Trust; and that the Members of the Corporation of the Moneyers, and other Ministers, Officers, and Servants, be distributed accordingly, and small Private Marks (if thought fit) may be made to distinguish the Money that shall be Coin'd at the respective Mints.

*Eleventhly*, That the Charge of making every Pound Weight *Troy* of Silver Moneys, which at present is One Shilling and Four Pence Half-peny, be made more Reasonable, now so much is to be Coin'd and Re-Coin'd.

*Twelfthly*, That at or near every Town or Place where there shall be a Disinct Mint Established, as aforesaid, there shall be also Settled and Fixt an Office, which shall be, and be called *An Office of the Kings Change*; and the Chief Officer therein (to be Named by His Majesty, or the Lord Treasurer, or Commissioners of the Treasury for the time being) shall be called *The Kings Changer*; and that these Changers shall have Tellers or Substitutes under them. And they, as well as their Substitutes, shall be Sworn for the Due and Just Execution of their respective Trusts, with regard not only to the King, but also to every Person that shall have to do with them in respect of their places.

*Thirteenthly*, The said Officer called *The Changer*, with such Tellers or Substitutes as shall be necessary, shall daily and every Day (*Sundays* only excepted) attend at the Publick Office whereunto he or they shall be Assigned, or at some other Market Town within the Counties of his District; and when he is to attend at such other Market Town, he shall cause the same to be Publickly Notified there, by Affixing a Paper in some open Place in the Market next preceding; and at the said Publick Office, or at such other Market Towns, as aforesaid, the said Changer by himself, or by his Tellers or Substitutes, shall Receive and Take in all such Clipt or Diminished Money as are beforementioned, as any Person or Persons shall bring to him in order to be Re-coin'd; and in Performance of his Office or Duty, he or they shall be holden to Observe the Rules following.

#### R U L E I.

“ **H**E or they shall carefully View and Examine  
 “ by the Sight every Piece or Parcel of the  
 “ said Moneys as shall be so brought in; and if he  
 “ or they shall Observe any Piece or Pieces, which  
 “ shall seem to be so Weighty, as that by the Eighth  
 “ Proposition, the same ought to be Currant upon the  
 “ New Foot (of Six Shillings and Three Pence for  
 “ the Crown) abovementioned, he or they shall forth-  
 “ with cause the Weight thereof to be Tried in the  
 “ Scale; and if he or they do thereby find, that such  
 “ respective Piece or Pieces are of such Weight, as  
 “ that the same ought to be Currant upon the said  
 “ New Foot, without being Melted down, the same  
 “ shall be immediately Marked (with some Impression)  
 “ by a Hammer, and Redelivered to the Bringer  
 “ thereof to be Currant at the Raised Value, intended

“ as aforesaid. The Marking is Design'd chiefly to  
 “ prevent his being troubled with it again at the  
 “ Office.

### R U L E II.

“ **I**F the Changer, or his Teller or Substitute,  
 “ shall suspect any Piece or Pieces of Money,  
 “ brought in as aforesaid (either Alone or in a Sum)  
 “ to be Counterfeit, or to be such money as was not  
 “ Originally Coin'd in the Royal Mint of *England*,  
 “ that then, and in every such Case, he or they shall  
 “ and may cause such Suspicious Piece or Pieces (in  
 “ the Presence of the Bringers) to be Divided by  
 “ Shears for that Purpose to be kept and used in the  
 “ Office. And if upon Dividing the same, it shall  
 “ Appear by the Grain or the Touch, that such Piece  
 “ or Pieces are of the goodness of *Sterling* Silver,  
 “ that then and in every such Case, he or they shall  
 “ retain such Silver (as if it were not divided) in order  
 “ to be Re-coin'd. But if upon such Division, the  
 “ Silver shall appear to be worse than the Goodness of  
 “ *Sterling*, every Piece so divided shall be delivered  
 “ back to the Bringer thereof, who in that case must  
 “ be contented with his own again, in such a Condi-  
 “ tion that it will not serve to Defraud any Body else.

### R U L E III.

“ **A**S to all the said Clipt or Diminished Moneys,  
 “ which shall consist of the Old Crown,  
 “ holding any Weight less than Eighteen Penny  
 “ Weight; the Half Crown holding any Weight less  
 “ than Nine Penny Weight; the Old Shilling holding  
 “ any Weight less than Three Penny Weight, and Six

“ Tenth Parts of a Penny Weight; and the Old Tester  
 “ or Six-pence holding any Weight less than One  
 “ Penny Weight, and Eight Tenth Parts of a Penny  
 “ Weight, which shall be so brought in to be Melted  
 “ down and Re-Coined; whereupon the loss above-  
 “ mentioned is to be Born either by the State or by  
 “ particular Persons, or Both; It is not certain at  
 “ present, how much of the said Loss, by the Resolu-  
 “ tion of the Parliament, shall fall upon the one or  
 “ the other. Nevertheless, for the Explanation of this  
 “ Project, and to shew how far it is practicable, one  
 “ may (as I humbly Conceive) Assume any certain  
 “ Part of this Loss, to be born by the Publick, as  
 “ if it were Resolved. And Considering that One  
 “ hundred Pounds by Tale of all these Clipt or  
 “ Diminished Moneys, if they were in One Heap,  
 “ would not (by the Estimation which I have made  
 “ thereof under the Second General Head) hold above  
 “ Sixteen Pound Weight *Troy*, or thereabouts, one  
 “ with another (which the King’s Subjects dealing  
 “ therein, do also find by daily Experience) I do from  
 “ thence infer, that if the said Sixteen Pounds Weight  
 “ *Troy* (which now Runs for One hundred Pounds by  
 “ Tale) be brought to the Changer, to be by him  
 “ Received at Eight Shillings *per* Ounce; then the  
 “ said Eight Shillings *per* Ounce, when it comes to be  
 “ Paid in the New Money, will Amount to Seventy six  
 “ Pounds and Sixteen Shillings, which will plainly cast  
 “ about Half the Loss upon the State and the rest  
 “ upon the Owner of the Money (who will also find  
 “ some Recompence in the Raised Value of his Unclipt  
 “ Moneys, if he has any such.) Therefore let Eight  
 “ Shillings *per* Ounce in the New Money be the  
 “ Assumed or Stated Price, to be Computed by the  
 “ Changer, for all the real Silver which he shall find  
 “ to be remaining in these Clipt Moneys; which Method

“ of making good part of the Loss to the Subject by  
 “ Allowing him a large Price for every Ounce of the  
 “ real Silver remaining in his Clipt Money, seems  
 “ to me to be much more secure, and to be (in all  
 “ respects) a better way, than by Allowing him a  
 “ Market Price only for the said Silver remaining,  
 “ and Contributing to his Loss in Proportion to the  
 “ Deficiency or Silver Clipt off; because in the latter  
 “ Case it will be in his Power before he brings in his  
 “ Money to Clip it over again, and Reduce it so low,  
 “ as that the deficient Weight (if it were to be made  
 “ good at the Charge of the Publick) might be Twice,  
 “ Thrice, Four times, Five times, &c. as much as the  
 “ real Silver brought in by him would amount to.  
 “ Whereas by this Third Rule, the danger of farther  
 “ Clipping is perfectly obviated, for no Man will Clip  
 “ off Silver to Sell at Six Shillings Five Pence an  
 “ Ounce by the Market Price, when he may carry  
 “ it to the King’s Change, and there Receive Eight  
 “ Shillings *per* Ounce for it.

#### RULE IV.

“ **W**HEREAS the said Clipt Moneys, so to be  
 “ brought in, do retain very different and  
 “ uncertain Weights and Sizes, as they are more or  
 “ less Clipt; and it is evident that a Clipt Crown,  
 “ holding more than Twelve Penny Weight and Twelve  
 “ Grains, will produce more than Five Shillings in  
 “ New Money if it should be Changed by it self at  
 “ Eight Shillings an Ounce; and an Half-Crown  
 “ holding more than Six Penny Weight and Six Grains,  
 “ will (if it were Changed by it self for Eight Shillings  
 “ an Ounce) produce more than Two Shillings and  
 “ an Half in the New Money; and the like may  
 “ be said of the Old Shillings and Six-pences not

“ Clipt to a lower Degree in Proportion. I have Con-  
“ sidered (although the Government would not suffer  
“ in this Case) that Goldsmiths and other Subtil Dealers  
“ in Money, will be very apt (if an effectual Remedy  
“ be not Provided against their Artifices) to Cull out  
“ the Heaviest of their Clipt Pieces, and to get such  
“ into their Hands from their Neighbours, to Change  
“ them at Eight Shillings an Ounce, and thereby  
“ Gain for them more New Moneys in Tale than ever  
“ they Amounted to in their old Denominations. And  
“ in regard One hundred Pounds by Tale of the said  
“ Clipt Moneys, holding in Weight Two hundred and  
“ fifty Ounces *Troy*, when it is Changed at the said  
“ Rate of Eight Shillings an Ounce, will produce One  
“ hundred Pounds in Tale of the said New Moneys;  
“ therefore it is Proposed, That every Person who  
“ brings any Clipt or Diminished Moneys to be  
“ Changed, as aforesaid, shall be obliged to mingle so  
“ many of his lighter Pieces with his heavier Pieces, as  
“ that upon the Draught or Weighing of them toge-  
“ ther, they may not at the said Rate of Eight Shil-  
“ lings an Ounce fetch more of the New Moneys in  
“ Tale than the said Clipt Money was Coined for in  
“ its Old Denominations, that is to say, One hundred  
“ Pounds by Tale of such Clipt Moneys, shall be so  
“ mingled with heavier and lighter Pieces as that it  
“ shall not exceed Two hundred and fifty Ounces in  
“ Weight; and every other Sum of Clipt Money shall  
“ be restrained to the same proportion: This will  
“ effectually prevent the said trick of Culling, and  
“ create little or no Difficulty in Practice, because  
“ amongst all the Clipt Moneys, those which might be  
“ converted to the Advantage above-mentioned are few  
“ in comparison of the rest, and a Sum consisting only  
“ of such Weighty Pieces will not in probability ever  
“ be brought to the Changers by any, but by Crafty

“ or Designing Men. And by this device your Lord-  
 “ ships may be pleased to take notice that there will be  
 “ no need of Weighing every individual Piece, which  
 “ (as I think) would render the Work endless and  
 “ impossible. The Changer, or his Substitute, when  
 “ he shall have carefully Counted and Weighed the  
 “ said Clipt Money (observing the Caution aforesaid)  
 “ shall compute the Value to be paid for the same, at  
 “ the said Rate of Eight Shillings an Ounce, and  
 “ enter into a Leger Book to be kept for this purpose,  
 “ the Day, Month and Year of his Receipt thereof,  
 “ the Name of the Person that brings it, the Sum of  
 “ the Clipt Money told, the exact Weight thereof, and  
 “ the said Value which is to be paid for the same in  
 “ New Moneys in several Columes to be made for  
 “ that purpose, for which Value a Bill or Ticket is to  
 “ be given, as is after-mentioned.

#### RULE V.

“ **T**HE Changer, or his Substitute, shall from time  
 “ to time deliver over the Clipt or Diminished  
 “ Moneys, by him or them received or taken in, as  
 “ aforesaid, to the proper Officer of the respective Mint  
 “ for that District where it was Received, in Order to  
 “ be Re-Coined, taking Receipts for the same, by the  
 “ Weight and Tale of every Quantity so delivered  
 “ over; which Receipts are to be the Vouchers for  
 “ the Account of the Changer, and the same, together  
 “ with his Leger, will serve to Charge the Accounting  
 “ Officer of the Mint.

#### RULE VI.

“ **T**HAT there shall be provided for every Changer  
 “ a Book or Books, in which every Leaf  
 “ shall be divided into Two Columes by a Figure

“ or Cypher to be Printed therein, and shall be  
 “ so drawn with Lines cutting the Cypher at Right  
 “ Angles, as that Six Pair of Bills may be contained  
 “ in every Leaf, and so that every Counter part  
 “ may be separated from its Principal Indent-wise, by  
 “ cutting through the Cypher or Flourish, all which  
 “ Bills shall be numbred in Pairs Arithmetically (1, 2,  
 “ 3, &c.) as far as there shall be occasion, and there  
 “ shall be Printed thereupon the Name of the Place  
 “ (where it is at last to be satisfied) and other Words  
 “ to this Effect :

*No. 1. Nottingham. This Bill Intitles the Bearer to the Sum of to be paid with Interest, after the Rate of Five Pounds per Centum per Annum out of the Fund Settled by Parliament for Satisfaction of the Register for Clipt or Diminished Money kept at the Place aforesaid.*

“ And the said Changer, or his Substitute, upon  
 “ Adjusting (by the Third and Fourth Rules afore-  
 “ said) the Value of which is to be paid in New  
 “ Money for any Parcel of Clipt or Diminished Moneys  
 “ brought in, as aforesaid, shall deliver to the Party  
 “ bringing the same, an Indented Note (to wit, one of  
 “ those of the Extream Columbe) cut out from the said  
 “ Book, and Signed by himself for the said Value, to  
 “ be paid in Course as is hereafter mentioned, taking  
 “ Care that the Sum Expressed in the Note so deli-  
 “ vered be also Written in Words at length in the  
 “ Counterpart remaining in the Book, which Book by  
 “ this means will not only be useful and ready in the  
 “ City or Countrey to Cheque the Principal Bill, if  
 “ there should be occasion for so doing, but will also  
 “ well serve for an Exact Register (without making  
 “ any other) to Guide and Govern the Payment of the  
 “ Principal in the due Course intended, and the just

“ Computation and Payment of the Interest upon every  
 “ such Bill.

#### RULE VII.

“ **T**HAT no such Bill shall be given, or asked for  
 “ any Sum less then Twenty Shillings in Tale  
 “ of the New Money; and if several Pieces be brought  
 “ to the Change for any Sum or Sums smaller than  
 “ Twenty Shillings, several of them may be joynd in  
 “ One Bill, which may be taken in such Name as the  
 “ Owners of the Money shall desire; and if they can-  
 “ not agree, it may be in the Name of the Mayor,  
 “ Bailiff, or other Chief Magistrate of the Place or (if  
 “ there be no Magistrate) in the Name of the Minister  
 “ of the Parish, in Trust for the several Owners of  
 “ such small Sums.

The Seven Rules before going concern the Duty and Office of the Changer only.

*Fourteenthly*, That all the Silver which will arise from the said Clipt or Diminished Moneys, or from the Plate of the Vintners and Victuallers, or that shall be brought to be Coined by the Merchants, or by any other means, shall be Coined into Moneys, according to these Propositions. In the doing whereof the Chief Officers of the Mint, and all their Substitutes, Officers and Servants shall be subject to the same, or the like Constitutions and Orders touching Assaying, Melting, Refining, Trying, Charging, Discharging, or any Matters or Things relating to the Fabrication of these Moneys as are already Established for Moneys made at the Tower of *London*: And that the respective Substitutes shall be Accountable to their respective Superiours, and that the Superiour Officers shall be answerable to the King, as now they are.

*Fifteenthly*, That the aforesaid Bills for the Values of

the Clipt or Diminished Moneys shall be payable to the respective Bearers, who shall shew forth, and bring in the same Bills, whereby the Property thereof will be easily Transferrable without writing; and the Voluntary Acceptance thereof in payment shall be a good Discharge, as if the Payment were made in Money. And the better to Encourage the Currancy of these Bills, it is Proposed, That they bear an Interest after the Rate of Five Pounds *per Centum per Annum* from the Date thereof (which will plainly appear not only in the Bill it self, but in its Counter-part, remaining in the Register Book) until its full Satisfaction. So that it cannot be doubted, but these Bills being Charged upon so good a Fund, in so near a Course, and made Profitable by the Interest, will be preferable to the Bills of any Banks, or Goldsmiths, or private Persons whatsoever, and serve as well (to all intents) as so much Cash, whilst the Clipt Money is Converting into *Sterling* Money; and for the sake of the Interest those that have the Clipt Moneys will bring them in the more speedily.

*Memorandum, As soon as the Bill becomes payable in Course, although the Owner do not fetch his Money, it must be reserved for him, only the Interest must cease from that time.*

*Sixteenthly*, That the time for taking in of the Clipt Moneys be limited to Six Months.

*Seventeenthly*, For Settling and Establishing an ample and Sufficient Fund and Security for the Payment and Satisfaction of the Principal and Interest, to be contained in the aforesaid Bills, in such due Course and Order, as that every Person who parts with his Clipt or Diminished Moneys, may plainly see and be satisfied, That he or his Assigns shall certainly receive the Value thereof; and that the Course of the Payments will Commence in a very little time, and be continued with-

out any Interruption till the whole be compleated (which will very much influence this whole Affair) It is humbly propos'd that it may be Enacted as follows,

1st, " That all the New Moneys which shall be Coin'd  
 " in every distinct Mint of the Silver of the Old Clipt  
 " or Diminish'd Moneys brought into the Office of  
 " Change, to be particularly Assigned to or for the  
 " same Mint, shall be Appropriated to the Payment  
 " of the Bill standing in the Register belonging to  
 " that Office, and shall be applied thereunto *de die*  
 " *in diem*, as fast as the said old Moneys can be  
 " Re-Coin'd. And as the Kings Changer shall be  
 " obliged in the giving out his Numbred Bills, to  
 " observe and have regard to the Day or Time upon  
 " which the Party brings his Clipt or Diminish'd  
 " Money; so in the paying off the said Bills he shall  
 " keep a due course, as they shall be Numbred and  
 " Stand in the Book of the said Register, without  
 " giving an undue Preference, under pain of Forfeiting  
 " double the Value to the Party grieved.

2ndly, " That it shall and may be lawful to or for any  
 " Person or Persons, Bodies Politick or Corporate to  
 " Advance or Lend at the Exchequer, in such Unclipt  
 " Moneys as will be Currant by this Project, any Sum  
 " or Sums of Money not exceeding, Eight hundred  
 " thousand Pounds (which by Estimation will make  
 " good so much of the loss as is to be born by the  
 " State, or Publick, if the Clipt Moneys are taken in  
 " at the said assumed Rate of Eight Shillings an  
 " Ounce) and such Loans will consequently be accepted  
 " in Money at the Raised Value abovementioned. And  
 " the same, together with Interest after the Rate of  
 " Seven Pounds *per Centum per Annum*, may be Charged  
 " upon the aforesaid Aid, in the same manner as Loans  
 " at the Exchequer have usually been Charged upon  
 " other Aids. And that the Weighty Moneys that

“ shall be so Lent, be also Appropriated, and be made  
 “ Auxiliary to the Paying off the said Bills in the  
 “ several Registers thereof, and be Applied, Distributed  
 “ and Transmitted to and amongst the same, by the  
 “ Commissioners of the Treasury, and the Lord Trea-  
 “ surer for the time being, in such Proportions as  
 “ they shall find to agree with the Sum, that shall be  
 “ Due and Owing from time to time upon those Regis-  
 “ ters respectively.

3rdly, “ That any Merchant, or other Person what-  
 “ soever, having, or that shall have any Silver Bullion  
 “ whatsoever, whether it be Foreign Silver, Plate in  
 “ Vessels, the Silver of Counterfeit Moneys, or any  
 “ other kind of Bullion whatsoever, shall have liberty  
 “ to carry the same to any of the said Mints, and  
 “ have it in his own Election, either to have it Coined  
 “ into New Money, upon the New Foot to his own  
 “ use; in which case he must receive his Coin’d  
 “ Money according to the present Course of the Mint;  
 “ or else to declare that he will Lend the Value of it  
 “ at the Exchequer, as part of the said Sum, not  
 “ exceeding Eight hundred thousand Pounds. In  
 “ which Case last mentioned, the Officers of the Mint  
 “ shall Certifie to the Officers of the Exchequer the  
 “ Quantity of *Sterling* Silver, or Silver reduced to *Ster-*  
 “ *ling*, that shall be so delivered to them, and the  
 “ Value thereof, after the Rate of Six Shillings and  
 “ Five Pence Halfpenny an Ounce, and the Officers of  
 “ the Exchequer, upon producing these Certificates  
 “ shall give to the Party Tallies and Orders, Charged  
 “ upon the said Aid, for the Values so Certified, as if  
 “ it were Lent in the said Currant Money at the  
 “ Receipt, in part of the said Sum not exceeding Eight  
 “ hundred thousand Pounds, and for the Interest  
 “ thereof. And in this Case the New Moneys which  
 “ shall proceed from the Bullion so Lent, shall be

“ Appropriated, and be Transmitted, and Distributed  
 “ to and for the satisfaction of the said Registers, in  
 “ the like manner as the other Moneys which shall  
 “ be lent, as aforesaid.

4thly, “ In Case the Silver of the Clipt Moneys, and  
 “ such Loans, as aforesaid, shall not suffice to clear all  
 “ the Registers, then the Remainder must be paid by  
 “ the Overplus Moneys, to be Collected for the Aid  
 “ it self; and in Default thereof (which is not very  
 “ likely) the last Deficiency ought to be paid out of  
 “ the then next Moneys to be Raised by Parliament.

*Eighteenthly*, That the present Coinage Duty may be  
 Applied towards the Charge of the said Mints in general.

*Nineteenthly*, That the Commissioners of the Treasury,  
 or Lord Treasurer for the time being, and such Person  
 as the King shall Appoint to be the Under Treasurer,  
 or Supervisor for this purpose, shall have the Oversight,  
 Rule, Order and Government of this Affair, according  
 to the Laws that shall be Enacted for the same, and  
 shall have power to administer the Oaths, and take  
 sufficient Securities in the Kings Name, from all the  
 Officers belonging to the Change, and such of the  
 Officers of the Mint as ought to give Security, and to  
 require Weekly, or other Accounts from the several  
 Offices, and particularly to cause the general Accounts  
 of the said Changers, and of the Accompting Officers  
 of the Mint, to be Passed in the Exchequer, in such  
 due Form as they ought to be, and to allow such Sala-  
 ries, and Incident Charges as shall be reasonable for  
 the performance of this Service, and also to allow the  
 reasonable wast in the Coinage.

*Twentieth*, That all Persons Concerned may have free  
 Access to the several Legers and Registers before-  
 mentioned; and no Fee or Charge shall be asked or  
 taken of them, for any Matter or Thing which is to be  
 done by any Officer in Execution of this Project.

*Twentyfirst*, That at the first Session of Parliament after *Michaelmas*, 1696, the said Commissioners of the Treasury, or Lord Treasurer for the time being, and the said Under-Treasurer or Supervisor General for this Affair, shall deliver fairly Written to each of the Two Houses of Parliament, a True and Exact Account of all the Clipt or Diminish'd Moneys which shall have been brought in to be Re-coin'd, by the Tale and Weight thereof, appearing in the respective Offices of the Changers; and of all the New Moneys which shall have been Coin'd in the said several Mints, distinguishing those proceeding from the Silver of the Old Moneys from the Coins made of any other Bullion, and shewing particularly the Plate of the Retailers of Wine, Beer, and other Liquors, and the Quantities of Money made thereof; also the Totals of the said Registers for the Values of the Clipt Money, and the Discharging of the same, and how much (if any part) shall then remain Unsatisfied, and the like Account shall be Presented to His Majesty.

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*The Fifth General Head Considers what must Supply the Commerce, Pay Taxes, &c. whilst the Clipt Money is under its New Fabrication.*

**T**HIS Question is to be Answered, by Reminding your Lordships of several Particulars which have already occurred in this Report, with a small Addition, as follows.

*First*, The Weighty Money (both Mill'd and Hammer'd) now Hoarded, will come forth at a Raised Value, which (according to the above Estimation) may make One Million and Six hundred thousand Pounds more or less; besides the Guineas and Half-Guineas, which are but too numerous at their present Rate.

*Secondly*, The Bills for the Clipt Money will be so Profitable and Certain, and have such a quick Course of Payment, as aforesaid, that they will serve as so much Running Cash: and in the coming forth, the Number of them will encrease from day to day; that from First to Last, they will by Estimation amount to above Three Millions.

*Thirdly*, As those Bills are Paid off, the New Moneys Coin'd, with the Silver of the Clipt, will come in their stead, the Fabrication whereof will begin presently, and the Work will be Carried on with as much Expedition as can be made by Ten Mints.

*Fourthly*, Importers of Bullion, and all others that have or can have any Foreign or *English* Silver (even the Silver of Counterfeit Moneys) in their Hands, will have a visible Encouragement to carry the same forthwith to the Mint to be Coin'd.

*Fifthly*, It may be Enacted, That all Persons that

Sell Wine, Strong-waters, Bear, Ale or other Liquors by Retail, shall by a Prefixt Day, bring their Tankards, Cups, Dishes and other Plate to some or one of the Mints, to be Coin'd into New Money, at the Rate of Six Shillings and Five Pence Half-peny an Ounce, under Pain of Forfeiture thereof, and that the New Money proceeding from the same shall be Delivered to them according to the present Course of the Mint.

I have (my Lords) in this difficult Matter Considered and Digested as many things as were possible for me in so short a time; and I cannot forbear (before I end) to Alledge, that if the Coins are to be Amended and Established according to these Propositions (which may be Rectified and Improved by Men of greater Judgment and Skill) I cannot foresee that even whilst the Work is Carrying on, there will Accrue such Publick Disorder, Damage or Distress, as the Nation Labours under before the Work is put in hand.

*All which is most humbly submitted to Your  
Lordships great Wisdom and Judgment.*

12 Septemb.  
1695.

WILLIAM LOWNDES.

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*In quodam libro vocato nigro scripto tempore Regis Henrici Secundi, per Gervasium Tilburiensem, de Necessariis Scaccarii, remanente in Curia Receptæ Scaccarii, inter alia sic continetur.*

Cap. 21. Officium Militis Argentarii & Fusoris.

**P**ORRO Miles Argentarius ab inferiore Scaccario ad superius differt Loculum examinandi Argenti, cujus supra meminimus, quem cum intulerit Signatum Sigillo Vicecomitis, sub omnium oculis effundit in Scaccario *xxiiii*. Solidos quos de Acervo Sumptos prius Signaverit, factaque Commixtione eosdem, ut ponderi respondeant, mittit in unum Vasculum trutinæ libram ponderis, in alterum vero de Denariis quod Oportuit, Quo facto, numerat eosdem ut ex numero constare possit, si legitimi ponderis sint, cujuscunque vero ponderis inventi fuerint, seorsum mittit in Ciffum libram unam, hoc est *xx*. Solidos, ex quibus examen fiat, reliquos vero *xxiiii*. Solidos mittit in Loculum. Item duo Denarii præter libram examinandam dantur Fusori, non de Fisco, sed de parte Vicecomitis, quia in præmium sui laboris.

Tunc eliguntur a Præsidente vel a Thesaurario, si ille absens fuerit, alii duo Vic. ut simul cum Argentario, Necnon et Vicecomite, cujus examen faciendum est, procedant ad Ignem, ubi Fusor ante præmonitus, præparatis Necessariis, eorum præstolatur adventum. Ibi iterum præsentate Fusore et hiis qui a Baronibus missi sunt, diligenter computantur, et Fusori traduntur. Quos ille Suspiciens manu propria numerat, et sic disponit eos in Vasculum ignitorum Cinerum quod in Fornace est.

*Tunc igitur Artis Fusoriæ lege servata, redigit eos in Massam, conflans et emundans Argentum : Cæterum cavendum est ei, ne citra perfectionem subsistat, vel importunis æstuationibus vexet illud atque consumat. Illud propter Regis, hoc propter Vicecomitis Jacturam, set Modis omnibus provideat et quanta procuret industria ut non vexetur, set ad purum tantum excoquatur, hoc autem ipsum providere dicunt hii qui ad idem missi sunt a Majoribus. Facto igitur examine defert illud Argentarius ad Barones, Comitantibus illis, et tunc in omnium Oculis ponderat illud cum libra prædicta ponderis, supplet autem mox quod ignis consumpsit, appositis denariis ejusdem loculi, donec æquilibrer se habeat examen cum pondere. Tunc inscribitur idem examen desuper ducta Creta hiis verbis, Everwicescir, libra arsit tot vel tot denarios, et tunc illud Essaium dicitur. Non enim inscribitur nisi præconcessio quod sic stare debeat. Quod si Vicecomes, cujus est, Calumpniatus fuerit, illud quasi plus justo consumptum fuerit ignis scilicet exæstuatione vel plumbi infusione, vel et Fusor ipse, qualibet Occasione defecisse fateatur examen, iterum numerentur xx. Solidos, qui residui sunt in loculo prædicto, coram Baronibus sicut demonstratum est, et eadem ratione Servata, fiat examen. Hinc igitur constare potest, qua consideratione de acervo magno propositæ pecuniæ xliiii. Solidos seorsum ab initio mittantur in Loculum, apposito Vicecomitis Sigillo. Notandum vero est, quod Fusor duos percipit denarios pro Examine, sicut diximus. Quod si quovis Casu aliud faceret, et si tertio examinaverit, non percipiet quicquam, set contentus erit semel susceptis duobus.*

*Discipulus. Miror a tantis tantam adhiberi diligentiam in unius libræ examinatione, cum nec magnus ex ea quæstus nec multa jactura proveniat.*

*Magist. Non propter hanc tantum fiunt hæc, set propter omnes illas quæ ab eodem Vicecomite sub eodem*

*nomine firme simul cum hac persolvuntur. Quantam enim ab hac libra per ignem purgatorium decidit, tantundem ex singulis aliis libris Noverit Vicecomes de summa sua subtrahendum, ut si centum libras numeratas solverit, et libra examinis iii. denarii exciderint, Non computentur ei nisi nonaginta quinque.*

*A Computation of the Common Weight of a Hundred Pounds by Tale, in Ordinary Silver Money at this Day, taken from a Medium of the Bags, Weighed at the Receipt of Exchequer, in May, June, and July last.*

*Memorandum, The Weight of One hundred Pounds by Tale in Silver Moneys, according to the Standard of the Mint, ought to be Thirty two Pounds Three Ounces, One Penny Weight and Twenty two Grains Troy.*

No. Bags.	What they ought to Weigh.			Weight at the Exchequer.			Deficiency.		
	oz.	dw.	gr.	oz.	dw.	gr.	oz.	dw.	gr.
40	15483	16	16	8095	5	0	7388	11	16
74	28645	1	20	14373	5	0	14271	16	2
133	51483	14	22	27318	0	0	24165	14	2
120	46451	10	0	23496	15	0	22954	15	0
105	40645	1	6	20899	15	0	19745	6	6
100	38709	11	16	19588	5	0	19121	6	16
572	221418	16	08	113771	05	0	107647	11	08

The Medium of the Weight of each Hundred Pounds	} _____	oz. dw. gr.
The Medium of the Deficiency		198 18 00½ fere.
	_____	188 03 21½
		387 01 22

*FINIS.*

**N O T E**

**ON THE**

**RE - C O I N A G E**

**OF**

**1696-99.**



# NOTE

ON THE

## RE-COINAGE OF 1696-99.

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**T**HE proposal of Mr. Lowndes for degrading the Standard of the Currency by Raising the Nominal Value of the Crown, or 5*s.* piece, to 6*s.* 3*d.* (25 per cent.) and so in proportion with other Coins, was chiefly defeated through the vigorous resistance of Mr. Locke. To oppose it that great philosopher published his celebrated tracts on "Raising the Value of Money,"\* in which he examined and refuted the various arguments by which Mr. Lowndes and others had endeavoured to vindicate the policy of such a proceeding. But, though the Old Standard was happily preserved in its integrity, some of the principles that should have been kept in view in settling the basis on which the Currency was henceforth to be placed appear to have been all but wholly overlooked.

The regulations under which Gold and Silver Coins were circulated in England previously to 1663 differed at  
3 different

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\* The first of these tracts, entitled "Some Considerations of the Consequences of the Lowering of Interest and Raising the Value of Money," was published in 1691.

The second tract written in answer to the Report of Mr. Lowndes, and entitled "Further Considerations concerning Raising the Value of Money," appeared in 1695. They make together a pretty considerable volume.

different periods. In that year the Guinea\* was first coined, and its value (though fixed by the Mint regulations at the low rate of 20*s.* in silver) and the values of the other Gold Coins then in circulation, varied according to the fluctuations in the market values of Gold and Silver, the latter being in effect the only legal tender. Gold, however, had, for a lengthened period, been coming more and more into circulation; and, owing to a variety of causes, the principal perhaps being its greater aptitude to serve as Currency, combined with the worn, clipped, and extremely unsatisfactory state of the Silver Coins, it was used in the reign of Charles II. in preference to Silver in all large payments. Previously to the great Re-Coinage of 1696-99, Silver Coins were so much degraded that the Guinea passed current for 28*s.* and 30*s.*

When, therefore, the subject of the Re-Coinage came to be considered, the first questions to be examined were, whether Gold or Silver should be selected as the Standard of the Currency? or whether both metals should be used as Standards?

Both Lowndes and Locke agree in considering Silver as having hitherto been in fact the only Standard of the Currency; and the latter was impressed with a strong (though we believe ill-founded †) conviction of its great superiority in that respect to gold. Such being their opinion, it is plain that the proposal of Lowndes was neither more nor less than a proposal to degrade the Standard to the extent of 25 per cent. And we are under the greatest obligations to Locke and his supporters in Parliament by whom so nefarious a project was successfully opposed.

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But

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\* So called from its being partly coined of gold brought from the coast of Guinea.— Snelling's *Gold Coins*, p. 29.

† See on this subject some conclusive remarks in *Liverpool On Coins*, p. 145.

But Parliament, wholly engrossed by the Re-Coinage of Silver, does not appear to have ever considered what was to be done with Gold. And yet it is plain that if it was intended that Gold Coins should continue in circulation, and be legal tender indifferently with Silver, the future state of the Currency would depend on the Mint valuation of Gold and Silver, or on the rate at which the one was to be received for the other. If this valuation had been made so as to correspond pretty exactly with the real values of the metals then, as little or nothing would have been gained by using the one rather than the other, Coins of both might have continued to circulate together. But it is difficult at any time to make such an accurate adjustment of the values of the two metals; while, supposing it were made, it could not, owing to changes in their real values, be maintained for any considerable period. And whenever a change takes place in their comparative values, it becomes the obvious interest of everybody to use that metal in preference which is over-valued, the other being employed in the arts, or exported to places where it passes at its fair value.

But though sufficiently obvious, and set in a clear light by Mr. Locke, these considerations were completely lost sight of in 1696-99. After the Re-Coinage had been effected, the rates at which Gold and Silver Coins were to be interchanged were not fixed by authority—that is, the rule laid down in the Proclamation of 1663 was not interfered with. But this rule had fallen into desuetude, and after the Re-Coinage the value of the Guinea was estimated by the Public at 21*s.* 6*d.*, and it was readily received at that rate in all payments.\*

It appears, however, from the best attainable information, that this valuation of 21*s.* 6*d.* was really equivalent

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to

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\* Snelling's *Gold Coins*, p. 31.

to a premium of 10*d.* in favour of the Guinea, it being worth only about 20*s.* 8*d.* of the new Coins. And in consequence of this marked, though unintentional preference of Gold, it was used, to the exclusion of silver, in all considerable payments; while the new Coins of the latter, being not only under-valued but in excess, immediately began to be exported.

The growing scarcity of Silver consequent on this exportation being in the end productive of considerable inconvenience, an attempt was made to stop it in 1717, by reducing by Proclamation the value of the Guinea from 21*s.* 6*d.* to 21*s.*, Gold and Silver being respectively made legal tender in that proportion, or in the ratio of 1 lb. of Gold to  $15\frac{2}{3}\frac{8}{8}$  lb. of Silver. But notwithstanding this reduction, which was made pursuant to the advice of Sir Isaac Newton (see post), the Guinea was still over-valued as compared with Silver. This over-valuation was estimated at the time at about 4*d.* in the Guinea, or  $1\frac{1}{3}\frac{8}{8}$  per cent.\* And as the value of Silver compared with Gold continued to increase for most part of last century, it afterwards became considerably greater; a circumstance which rendered it more and more the interest of all parties to pay in Gold rather than in Silver. Hence Gold became in practice, what Silver had formerly been, the sole legal tender; and during the lengthened period from 1717 down to 1816, no Silver Coins of the legal weight and purity would remain in circulation, but were either melted down or exported, the Silver Currency consisting entirely of light worn Coins.

It is evident from these statements that Locke and those who effected the Re-Coinage of 1696-99 should, to be consistent, and prevent the immediate exportation of the new Coins, have reduced the Mint value of the Guinea

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\* *Liverpool On Coin*, pp. 68—85.

to 20s. 8d. or 20s. 6d., or have made it optional merely to take Gold at its market price.\* But it is probably better that they did not. The over-valuation of Gold gave us a Gold Currency which, besides being incomparably more commodious, is, despite the dictum of Locke, in most respects preferable, especially in a country like this, to a Silver Currency.†

Had Lowndes, instead of an excessive reduction of 25 per cent. in the value of the Silver Coins, contented himself with proposing a reduction of 3 or 4 per cent., and his proposal been agreed to, it is probable that Gold would, notwithstanding, have continued to be preferred by the Public, and Silver been used only in small payments; and if so, the system of 1816 would have been to some extent anticipated. But the degradation which he proposed was so very great that, unless the ratio of Gold to Silver had been at the same time very largely raised, or the Gold Coins been called in and their weight proportionally reduced, they would have been entirely banished from circulation. It is quite impracticable, where two sets of Coins are equally legal tender, to degrade the one without at the same time degrading the other, or forcing it abroad.

In the system established in 1816, Silver is received at the Mint at the rate of 5s. 2d. per oz. and issued at the rate of 5s. 6d. per do. the 4d. being retained as a seignorage to defray the expense of Coinage. Silver was then, also, made legal tender to the extent of 40s. only in any one payment. In consequence, it has become a merely subsidiary currency. This system, which was suggested by the first Earl of Liverpool, has answered extremely well.

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\* This latter alternative was proposed by Locke.

† Liverpool *On Coins*, p. 145.



REPRESENTATIONS

OF

*SIR ISAAC NEWTON*

ON THE

SUBJECT of MONEY.

1712-1717.



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REPRESENTATION FIRST

TO THE

Right Honourable the Earl of *Oxford* and Earl of  
*Mortimer*, Lord High Treasurer of *Great Britain*.

*May it please Your Lordship,*

ACCORDING to your Lordship's Order, signified to me by Mr. Secretary *Harley*, in his Letter of *February* 26th last, I have considered the Letter of his Grace the Duke of *Ormond*, Her Majesty's Lieutenant General and General Governor of *Ireland*, sent to your Lordship, together with the Representation sent to his Grace from the Lords of Her Majesty's Most Honourable Privy Council of that Kingdom, mentioning a late Proclamation for making current in that Kingdom some Pieces of Foreign Gold and proposing to make current there, by further Proclamation, several other Pieces of Foreign Gold therein named, to prevent the Counterfeiting thereof: and as to the Value of the Pieces, I humbly represent, that the *Spanish* Pistoles, one with another, as they are brought hither by the Merchant, weigh 103 Grains each at a Medium, and are in Fineness half a Grain worse than Standard, and after the Rate that a Guinea is valued in *England* at 1*l.* 1*s.* 6*d.* are here worth 17*s.* 1*d.* and in *Ireland*, where the Silver Money is raised a Penny in the Shilling, if the Gold be raised in the same Proportion, become worth 18*s.* 6*d.* And in Proportion to the Quadruple Pistole weighs 412 Grains, the Double Pistole 206 Grains, and the Quarter Pistole 25 $\frac{3}{4}$  Grains: But in the Representation the Quadruple Pistoles are said to weigh 408 Grains, the Double Pistole 204 Grains, and

the Quarter Pistoles 25 and an half Grains, whence I gather, that in the former Proclamation the Weight of the Pistole was but 102 Grains, which is a Grain lighter than the just Weight, this Grain, as I conceive, being abated to give a legal Currency to such lighter Pieces as want not above a Grain of their just Weight; and upon this Consideration the Quadruple, Double, and Quarter Pistoles may be put in Weight and Value as is expressed in the Representation; and so may the Double and Quarter Luidores, they being of the same weight, Fineness and Value with the Double and Quarter Pistoles.

The Moydores of *Portugal*, one with another, as they are brought hither by the Merchant, weigh  $165\frac{1}{2}$  Grains at a Medium, and a Quarter of a Grain better than Standard, and in *England* are worth 27s. 8d. Half-penny, and being raised a Penny in the Shilling, become worth 30s. in *Ireland*: In the Representation their Weight is put 168 Grains, which is certainly too much; and thence it comes to pass, that they are therein valued at 1l. 10s. 6d. which is 6d. too much. I have examined the Weight of 30 Parcels of Moydores, containing a Thousand Moydores in each Parcel, and thereby found, that the Moydore, at a Medium, weighs only  $165\frac{1}{2}$  Grains; if in Favour of the lighter Pieces the Fraction be abated, their Weight and Value, in a new Proclamation, may be put as follows. The *Portugal* Piece of Gold, called a Moydore, and weighing 165 Grains, to pass at 1l. 10s. the Half Moydore weighing 82 Grains and an half, at 15s. and the Quarter Moydore, weighing 41 Grains and a Quarter, at 7s. 6d.

Gold is over-valued in *England* in Proportion to Silver, by at least 9d. or 10d. in a Guinea, and this Excess of Value tends to increase the Gold Coins, and diminish the Silver Coins of this Kingdom; and the same will happen in *Ireland* by the like over-valuing of Gold in that Kingdom. But it's convenient that the Coins should bear the same Proportion to one another in both Kingdoms, to

prevent all fraudulent Practices in those that Trade between them, and that the Proportion be ascertained by Proclamation.

*All which is most humbly submitted to your Lordship's great Wisdom.*

*Mint-Office, 3rd March,  
1711-12.*

*Is. Newton.*

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REPRESENTATION SECOND.

TO THE

Right Honourable the Earl of *Oxford* and Earl of *Mortimer*, Lord High Treasurer of *Great Britain*.  
*May it please Your Lordship.*

**I**N Obedience to Your Lordship's Order of Reference signified to me by Mr. *Taylor* in his Letter of *June 16 inst.* I have perused the Representation from the Lords of the Privy Council of *Ireland*, touching a late Order of Council here for giving Currency in that Kingdom by Proclamation to some Foreign Coins, which were omitted in a former Proclamation, a printed Copy of which they have sent, desiring a Clause to be added to the said Order, for making such Allowance for light Pieces as was made in the said Proclamation; and that the Order may comprehend also the foreign Coins mentioned in that Proclamation, because the Original thereof under the Great Seal was destroyed by the late Fire that happened there at the Council-Chamber, so that the Clark of the Council cannot now certify that the printed

Copy agrees with the Original verbatim as the late Act of Parliament requires for the Conviction of Counterfeitors of those Coins. And upon comparing the said Representation with the said late Order of Council and printed Proclamation, I humbly represent, that the Weight of the single Pistole and Luidore, being in the said Proclamation put 4 Penny-weight 8 Grains; the Weight of the Double Pistole and Double Luidore ought in Proportion to be put in a new Proclamation 8 Penny-weight 16 Grains, and that of the Quadruple Pistole, or Double Doubloon, 17 Penny-weight 8 Grains. And that the Moydore of *Portugal* (which as the Merchants bring them hither a little worn, weigh one with another 6 Penny-weight  $21\frac{1}{2}$  Grains, and before wearing may be a Quarter of a Grain heavier or above) may be put in Weight 6 Penny-weight 22 Grains in the same Proclamation, and valued at 30*s.* For in *Ireland*, where an *English* Shilling passes for 13*d.* the Moydore of this Weight is worth 29*s.* 11 $\frac{1}{2}$ *d.* reckoning Gold 22 Carats fine at 4*l.* *per* Ounce, as is usually done, and 30*s.* is a Medium, and the nearest round Number. And a Grain being allowed for Wearing, this Piece will be current till it weighs but 6 Penny-weight 21 Grains, as was stated in the late Order of Council, and after that it will be still current by abating 2*d.* *per* Grain in its Value for what it wants of the Weight of 6 Penny-weight 22 Grains. For the latter Part of the printed Proclamation, concerning the Allowance for light Pieces, and concerning the Scales and Weights for weighing them, I am humbly of Opinion, should be continued in the next Proclamation.

I humbly beg leave to represent further to your Lordship, that the Weights and Values of the Silver Coins in the printed Proclamation would answer better to one another, and to the Coins themselves, if 2*d.* were taken from the Value of the Crusado of *Portugal*, and 18 or 20 Grains added to the Weight of the Dollars, for the

Crusado is reckoned in *Portugal* to be the 10th part of the Moydore in Value, and the Moydore is worth 30*s.* in *Ireland* as above, and yet the Crusado is valued in the Proclamation at 3*s.* 2*d.* It's Weight before Wearing is 11 Penny-weight 4 Grains, and a Crusado of this Weight is worth but 3*s.*

Rix-Dollars, Cross-Dollars, and other Dollars, are in the Proclamation put of the same Weight and Value of the Pieces of Eight and Lewises, and ought to be 18 or 20 Grains heavier to be of the same Value. Rix-Dollars are of several sorts, and before Wearing Weighed about 18 Penny-weight and 6, 8, or 10 Grains, and Cross-Dollars 18 Penny-weight 1 Grain. That they may be worth 4*s.* 9*d.* which is the Value in the Proclamation, they should weigh at least 17 Penny-weight 18 Grains.

I am humbly of Opinion therefore, that the Gold Coins should be of the Weight and Fineness expressed in the Paper hereunto annexed,\* and the Silver ones, as in the printed Proclamation, unless for the Reasons above mentioned, it should be thought fit to take 2*d.* from the Value of the Crusadoes, and add 18 Grains to the Weight of the Dollars.

*All which is humbly submitted to your Lordship's great wisdom.*

*Mint-Office, 23 June,*  
1712.

*Is. Newton.*

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\* A Table of the weight, fineness, and value of different coins was added to this Representation, which it has not been thought necessary to reprint.

## REPRESENTATION THIRD.

TO THE

Right Honourable the *Lords Commissioners* of His Majesty's Revenue.

*May it please your Lordships.*

**I**N Obedience to your Lordships *Order of Reference* of August 12th, that I should lay before your Lordships a State of the Gold and Silver Coins of this Kingdom in Weight and Fineness, and the Value of Gold in Proportion to Silver, with my Observations and Opinion, and what Method may be best for preventing the Melting down of the Silver Coin; I humbly Represent, That a Pound Weight Troy of Gold, 11 Ounces fine, and 1 Ounce Allay, is cut into 44 Guineas and Half, and a Pound Weight of Silver, 11 Ounces, 2 Penny Weight fine, and 18 Penny Weight Allay, is cut into 62 Shillings; and according to this Rate, a Pound Weight of fine Gold is worth 15 Pounds Weight 6 Ounces, 17 Penny Weight and 5 Grains of fine Silver, reckoning a Guinea at 1*l.* 1*s.* 6*d.* in Silver Money. But Silver in Bullion exportable is usually worth 2*d.* or 3*d.* per Ounce more than in Coin. And if at a Medium, such Bullion of Standard Allay be valued at 5*s.* 4*d.* Half-penny per Ounce, a Pound Weight of fine Gold will be worth but 14 Pound Weight 11 Ounces, 12 Penny Weight 9 Grains of fine Silver in Bullion. And at this Rate, a Guinea is worth but so much Silver as would make 20*s.* 8*d.* When Ships are lading for the *East-Indies*, the Demand of Silver for Exportation raises the Price to

5s. 6d. or 5s. 8d. per Ounce, or above: but I consider not those extraordinary Cases.

A *Spanish Pistole* was coined for 32 Reas, or 4 Pieces of Eight Reas, usually called Pieces of Eight, and is of equal Allay, and the 16th Part of the Weight thereof. And a *Doppio Moeda of Portugal* was coined for 10 *Crusadoes* of Silver, and is of equal Allay, and the 16th Part of the Weight thereof; Gold is therefore in *Spain* and *Portugal* of 16 times more Value than Silver of equal Weight and Allay, according to the Standard of those Kingdoms; at which Rate, a Guinea is worth 22s. 1d. *But 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-Fleet, the Premium ceases, or is but small; but as their Silver goes away and becomes scarce, the Premium encreases, and is most commonly about 6 per Cent. which being abated, a Guinea becomes worth about 20s. 9d. in Spain and Portugal.*

In *France* a Pound Weight of fine Gold is reckoned worth 15 Pound Weight of fine Silver; in raising or falling their Money, their King's Edicts have sometimes varied a little from this Proportion, in Excess or Defect; *but the Variations have been so little that I do not here consider them.* By the Edict of *May 1709*, a new Pistole was coined for 4 new *Lewises*, and is of equal Allay, and the 15th Part of the Weight thereof, except the Errors of their Mints. And by the same Edict, fine Gold is valued at 15 times its Weight of fine Silver, and at this Rate a Guinea is worth 20s. 8d. Half-penny. I consider not here the Confusion made in the Monies in *France*, by frequent Edicts to send them to the Mint, and give the King a Tax out of Them; I consider the Value only of Gold and Silver in Proportion to one another.

The Ducats of *Holland* and *Hungary*, and the Empire,

were lately current in *Holland* among the common People in their Markets and ordinary Affairs, at 5 Guilders in Specie, and 5 Stivers, and commonly changed for so much Silver Monies in three Guilder-Pieces, and Guilder Pieces as Guineas are with us for 21s. 6d. *Sterling*; at which Rate a Guinea is worth 20s. 7d. Half-penny.

According to the Rates of Gold to Silver in *Italy, Germany, Poland, Denmark, and Sweden*, a Guinea is worth about 20s. and 7d. 6d. 5d. or 4d. for the Proportion varies a little within the several Governments in those Countries. In *Sweden*, Gold is lowest in Proportion to Silver, and this hath made that Kingdom, which formerly *was content with Copper Money, abound of late with Silver, sent thither (I suspect) for Naval Stores.*

In the End of King *William's* Reign, and the first Year of the late Queen, when *Foreign Coins* abounded in England, *I caused a great many of them to be assayed in the Mint, and found by the Assays, that fine Gold was to fine Silver in Spain, Portugal, France, Holland, Italy, Germany, and the Northern Kingdoms, in the Proportion above mentioned, Errors of the Mints excepted.*

In *China and Japan*, one Pound Weight of fine Gold is worth but 9 or 10 Pounds Weight of fine Silver, and in *East-India* it may be worth 12. And this low Price of Gold in Proportion to Silver, carries away the Silver from all *Europe*.

So then, by the Course of Trade and Exchange, between Nation and Nation in all *Europe*, fine Gold is to fine Silver as 14 $\frac{1}{2}$ , or 15 to one; and a Guinea at the same Rate is worth between 20s. 5d. and 20s. 8d. Half-penny, except in extraordinary Cases, as when a *Plate-Fleet* is just arriv'd in *Spain*, or Ships are lading here for the *East-Indies*, which Cases I do not here consider. And it appears by Experience as well as by Reason, that Silver flows from those Places where its Value is lowest in Proportion to Gold, as from *Spain* to all *Europe*, and from all

*Europe to the East-Indies, China and Japan ; and that Gold is most plentiful in those Places, in which its Value is highest in Proportion to Silver, as in Spain and England.*

It is the Demand for Exportation which hath raised the Price of exportable Silver about 2*d.* or 3*d.* in the Ounce above that of Silver in Coin, and hath thereby created a *Temptation to export or Melt down the Silver Coin, rather than give 2*d.* or 3*d.* more for Foreign Silver ;* and the Demand for Exportation arises from the higher Price of Silver in other Places than in *England*, in Proportion to Gold, that is, from the higher Price of Gold in *England* than in other Places, in Proportion to Silver, and therefore may be diminish'd 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 wou'd 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.* And to compass this last, there seems nothing more requisite, than to take off about 10*d.* or 12*d.* from the Guinea, so that Gold may bear the same Proportion to the Silver Money in *England*, which it ought to do by the *Course of Trade and Exchange in Europe* ; but if only 6*d.* were taken off at present, it would diminish the *Temptation to export or melt down the Silver Coin, and by the Effects, would shew hereafter better than can appear at present, what further Reduction would be most convenient for the Publick.*

- In the last Year of King *William*, the *Dollars of Scotland*, worth about 4*s.* 6*d.* Half-penny were put away in the North of *England* for 5*s.* and at this Price began to flow in upon us : I gave Notice thereof to the *Lords Com-*

*missioners of the Treasury*, and they Ordered the *Collectors of Taxes* to forbear taking them, and thereby put a Stop to the Mischief.

At the same time the *Lewidors of France*, which were worth but 17s. and 3 Farthings a Piece, passed in *England* for 17s. 6d. I gave Notice thereof to the *Lords Commissioners of the Treasury*, and his late Majesty put out a Proclamation, that they should go but at 17s. and thereupon they came to the Mint, and 1400000*l.* were coined out of them; and if the Advantage of 5*d.* 1 Farthing a *Lewidor* sufficed at that Time to bring into *England* so great a Quantity of *French Money*, and the Advantage of 3 Farthings in a *Lewidor* to bring it to the Mint, the Advantage of 9*d.* Half-penny in a Guinea, or above, may have been sufficient to bring the great Quantity of Gold which hath been coined in these last 15 Years without any Foreign Silver.

Some years ago the *Portugal Moydores* were received in the West of *England* at 28s. a Piece; upon Notice from the Mint, that they were worth only about 27s. 7*d.* the *Lords Commissioners of the Treasury* ordered their *Receivers of Taxes* to take them at no more than 27s. 6*d.* Afterwards many Gentlemen in the West sent up to the Treasury a Petition, that the *Receivers* might take them again at 28s. and promised to get Returns for this Money at that Rate, alledging, that when they went at 28s. their Country was full of Gold, which they wanted very much. But the *Commissioners of the Treasury* considering that at 28s. the Nation would lose 5*d.* a Piece, rejected the Petition. And if an Advantage to the Merchant of 5*d.* in 28s. did pour that Money in upon us, much more hath an Advantage to the Merchant of 9*d.* Half-penny in a Guinea or above, been able to bring into the Mint great Quantities of Gold without any Foreign Silver, and may be able to do still, 'till the Cause be removed.

If Things be let alone 'till Silver Money be a little

scarcer, the Gold will fall of it self; for People are already backward to give Silver for Gold, and will in a little Time, refuse to make Payments in Silver without a Premium, as they do in *Spain*; and this Premium will be an Abatement in the Value of the Gold: And so the Question is, Whether Gold shall be lowered by the Government, or let alone 'till it falls of it self, by the Want of Silver Money?

It may be said, That there are great Quantities of Silver in Plate, and if the Plate were coined, there would be no Want of Silver Money: But I reckon that Silver is safer from Exportation in the Form of Plate than in the Form of Money, because of the greater Value of the Silver and Fashion together; and therefore I am not for coining the Plate till the Temptation to export the Silver Money (which is a Profit of 2*d.* or 3*d.* an Ounce) be diminished: For as often as Men are necessitated to send away Money for answering Debts Abroad, there will be a Temptation to send away Silver rather than Gold, because of the Profit, which is almost 4 *per Cent.* And for the same Reason Foreigners will choose to send hither their Gold rather than their Silver.

*All which is most humbly submitted to Your  
Lordships great Wisdom.*

*Mint-Office, Sept.  
21, 1717.*

*Isaac Newton.*

*FINIS.*



# T A B L E S

ILLUSTRATIVE OF THE

Successive Changes in the Standard,

IN THE

WEIGHT OF THE COINS,

AND IN THE

Relative Values of Gold and Silver

IN ENGLAND,

*From the Conquest down to 1717.*



A Table showing the successive Nominal Values of One Pound Weight of Fine Silver and Fine Gold; and the Proportion, true Value, or Number of Pounds Weight of Fine Silver in One Pound Weight of Fine Gold, from 1344 to 1717. N.B. The Pound Weight till 18 Henry VIII. is that of the Tower (11 oz. 5 dwt. Troy), and since that time the Pound Troy. (Snelling's Gold Coins, p. 34.)

Name of the King and Year of his Reign.	Nominal Value of one Pound Weight of Fine Silver, in Pounds Sterling.			Nominal Value of one Pound Weight of Fine Gold in Pounds Sterling.			True Value of one Pound Weight of Fine Gold, or the Proportion of Fine Silver to Fine Gold.		
		£	s. d.		£	s. d.	lbs. oz. dwt. gr.		
18 Edward III... 1344	1 1 <sup>1</sup> / <sub>2</sub>	1	3 11 <sup>1</sup> / <sub>2</sub>	15 1 <sup>1</sup> / <sub>2</sub>	15	1 6 <sup>1</sup> / <sub>2</sub>	12 8 14 7 <sup>1</sup> / <sub>2</sub>		
20 ..... 1346	1 1 <sup>1</sup> / <sub>2</sub>	1	4 3 <sup>1</sup> / <sub>2</sub>	13 1 <sup>1</sup> / <sub>2</sub>	13	4 8 <sup>1</sup> / <sub>2</sub>	11 0 11 2		
27 ..... 1353	1 1 <sup>1</sup> / <sub>2</sub>	1	7 0 <sup>1</sup> / <sub>2</sub>	14 1 <sup>1</sup> / <sub>2</sub>	14	1 5	11 6 16 7		
13 Henry IV... 1412	1 1 <sup>1</sup> / <sub>2</sub>	1	11 10 <sup>1</sup> / <sub>2</sub>	15 1 <sup>1</sup> / <sub>2</sub>	15	1 6 <sup>1</sup> / <sub>2</sub>	11 1 17 22		
4 Edward IV... 1464	2 1 <sup>1</sup> / <sub>2</sub>	1	0 6 <sup>1</sup> / <sub>2</sub>	16 1 <sup>1</sup> / <sub>2</sub>	16	15 0 <sup>1</sup> / <sub>2</sub>	10 3 19 13 <sup>1</sup> / <sub>2</sub>		
18 Henry VIII.. 1527	2 1 <sup>1</sup> / <sub>2</sub>	2	8 8 <sup>1</sup> / <sub>2</sub>	22 1 <sup>1</sup> / <sub>2</sub>	22	17 7 <sup>1</sup> / <sub>2</sub>	11 1 17 22		
34 ..... 1543	2 1 <sup>1</sup> / <sub>2</sub>	2	17 7 <sup>1</sup> / <sub>2</sub>	27 1 <sup>1</sup> / <sub>2</sub>	27	8 2	10 3 19 13 <sup>1</sup> / <sub>2</sub>		
36 ..... 1545	4 1 <sup>1</sup> / <sub>2</sub>	4	16 0	30 1 <sup>1</sup> / <sub>2</sub>	30	1 0 <sup>1</sup> / <sub>2</sub>	10 3 19 13		
37 ..... 1546				32 1 <sup>1</sup> / <sub>2</sub>	32	14 6 <sup>1</sup> / <sub>2</sub>	6 9 16 13		
3 Edward VI... 1549	7 1 <sup>1</sup> / <sub>2</sub>	7	4 0	36	36	0 0	5 0 0 0		
4 ..... 1550				37 1 <sup>1</sup> / <sub>2</sub>	37	1 9 <sup>1</sup> / <sub>2</sub>	5 1 16 8		
5 ..... 1551	14 1 <sup>1</sup> / <sub>2</sub>	14	8 0	34 1 <sup>1</sup> / <sub>2</sub>	34	14 9	4 9 17 22		
6 ..... 1552	3 1 <sup>1</sup> / <sub>2</sub>	3	5 1 <sup>1</sup> / <sub>2</sub>	34 1 <sup>1</sup> / <sub>2</sub>	34	14 9	2 4 18 23		
1 Mary..... 1553	3 1 <sup>1</sup> / <sub>2</sub>	3	5 5	36	36	0 0	11 0 12 0		
2 Elizabeth.... 1560	3 1 <sup>1</sup> / <sub>2</sub>	3	4 10 <sup>1</sup> / <sub>2</sub>	36 1 <sup>1</sup> / <sub>2</sub>	36	3 9 <sup>1</sup> / <sub>2</sub>	11 0 13 19		
43 ..... 1601				36	36	0 0	11 1 4 0		
2 and 3 James I. 1604				36 1 <sup>1</sup> / <sub>2</sub>	36	3 9 <sup>1</sup> / <sub>2</sub>	11 1 17 22		
9 ..... 1612	3 1 <sup>1</sup> / <sub>2</sub>	3	7 0 <sup>1</sup> / <sub>2</sub>	36 1 <sup>1</sup> / <sub>2</sub>	36	10 10 <sup>1</sup> / <sub>2</sub>	10 10 17 3		
15 Charles II.... 1663				36 1 <sup>1</sup> / <sub>2</sub>	36	7 7 <sup>1</sup> / <sub>2</sub>	10 11 7 13		
William & Mary				40 1 <sup>1</sup> / <sub>2</sub>	40	11 7 <sup>1</sup> / <sub>2</sub>	12 1 6 4		
3 George I..... 1717				40 1 <sup>1</sup> / <sub>2</sub>	40	14 2 <sup>1</sup> / <sub>2</sub>	12 1 15 12		
				44 1 <sup>1</sup> / <sub>2</sub>	44	12 9 <sup>1</sup> / <sub>2</sub>	13 3 16 19		
				44 1 <sup>1</sup> / <sub>2</sub>	44	15 7 <sup>1</sup> / <sub>2</sub>	13 4 7 1		
				48 1 <sup>1</sup> / <sub>2</sub>	48	10 10 <sup>1</sup> / <sub>2</sub>	14 5 16 11		
				50 1 <sup>1</sup> / <sub>2</sub>	50	19 5 <sup>1</sup> / <sub>2</sub>	15 2 10 7		
				52 1 <sup>1</sup> / <sub>2</sub>	52	3 8 <sup>1</sup> / <sub>2</sub>	15 6 17 5		
				50 1 <sup>1</sup> / <sub>2</sub>	50	19 5 <sup>1</sup> / <sub>2</sub>	15 2 10 7		

A Table showing the number of Pounds Sterling contained in One Pound Weight, both Tower and Troy, the Quantity of Standard Silver contained in One Pound Sterling, and the Proportion the former Pounds Sterling bear to the present. (Snelling's Silver Coins, p. 51.)

Name of the King and Year of his Reign.	Pounds Sterling in 1 lb. Weight Tower.	Tower Weight of Standard in 1 pound Sterling.	Pounds Sterling in 1 lb Weight Troy.	Troy Weight of Standard in 1 pound Sterling	Proportion of Pounds Sterling.	
	£ s. d.	oz. dwt. gr.	£ s. d.	oz. dwt. gr.		£ s. d.
Conquest . . . . . 1066	1 0 0	12 0 0	1 1 4	11 5 0	$2\frac{1}{2}$	2 18 1 $\frac{1}{2}$
28 Edward I. . . . . 1300	1 0 3	11 17 0 $\frac{3}{4}$	1 1 7 $\frac{3}{4}$	11 2 5 $\frac{1}{2}$	$2\frac{1}{4}$	2 17 5
18 Edward III. . . . . 1344	1 2 2	10 16 13	1 3 7 $\frac{1}{4}$	10 3 0 $\frac{1}{2}$	$2\frac{3}{8}$	2 12 5 $\frac{1}{2}$
20 . . . . . 1346	1 2 6	10 13 8	1 4 0	10 0 0	$2\frac{7}{8}$	2 11 8
27 . . . . . 1353	1 5 0	9 12 0	1 6 8	9 0 0	$2\frac{1}{2}$	2 6 6
13 Henry IV. . . . . 1412	1 10 0	8 0 0	1 12 0	7 10 0	$1\frac{1}{2}$	1 18 9
4 Edward IV. . . . . 1464	1 17 6	6 8 0	2 0 0	6 0 0	$1\frac{1}{6}$	1 11 0
18 Henry VIII. . . . . 1527	2 2 2 $\frac{1}{2}$	5 6 16	2 5 0	5 6 16	$1\frac{1}{2}$	1 7 6 $\frac{1}{2}$
34 . . . . . 1543	2 10 0	4 16 0	2 13 4	4 10 15	$1\frac{1}{3}$	1 3 3
36 . . . . . 1545	4 3 4	2 17 14 $\frac{3}{4}$	4 8 10 $\frac{3}{4}$	2 14 0	$0\frac{2}{3}$	0 13 11 $\frac{1}{2}$
37 . . . . . 1546	6 5 0	1 18 9 $\frac{3}{4}$	6 13 4	1 16 0	$0\frac{2}{3}$	0 9 3 $\frac{1}{2}$
3 Edward VI. . . . . 1549	6 5 0	1 18 9 $\frac{3}{4}$	6 13 4	1 16 0	$0\frac{2}{3}$	0 9 3 $\frac{1}{2}$
5 . . . . . 1551	12 10 0	0 19 4 $\frac{1}{2}$	13 6 8	0 18 0	$0\frac{2}{3}$	0 4 7 $\frac{1}{2}$
6 . . . . . 1552	2 16 5	3 14 7 $\frac{1}{4}$	3 0 3 $\frac{1}{4}$	3 19 15 $\frac{3}{4}$	$1\frac{1}{3}$	1 0 6 $\frac{1}{2}$
1 Mary . . . . . 1553	2 16 8	3 18 23 $\frac{3}{4}$	3 0 6 $\frac{1}{4}$	3 19 6 $\frac{3}{4}$	$1\frac{1}{3}$	1 0 5 $\frac{1}{2}$
Elizabeth. . . . . 1560	2 16 3	3 14 16	3 0 0	4 0 0	$1\frac{1}{3}$	1 0 8
4 . . . . . 1601	2 18 1 $\frac{1}{2}$	3 12 6 $\frac{1}{2}$	3 2 0	3 17 10 $\frac{3}{4}$	1	1 0 0
And ever since . . . . . }						

N. B. The two last columns are the same, the last having the value of the Fraction reduc'd into Shillings and Pence.

N O T E  
ON  
SCOTCH MONEY,

WITH TABLES

*Showing the Successive Changes in the Standard*

IN THE

WEIGHT OF THE COINS,

AND IN THE

Relative Values of Gold and Silver,

*From 1107 to 1707,*

WHEN SCOTLAND CEASED TO HAVE A PECULIAR COINAGE.



# NOTE

ON

## SCOTCH MONEY.

THE English derived their system of coinage from the French, and the Scotch theirs from the English. From 1107 to 1355, the coins of both divisions of the island were of the same size and purity. But, at the last mentioned period, it was attempted to fill up the void occasioned by the remittance of the ransom of David II. to England, by degrading the coins. Till then the money of Scotland had been current in England, upon the same footing as the money of the latter; and the preservation of this equality is assigned by Edward III. as a reason for his degrading the English coins. But this equilibrium was soon afterwards destroyed. In the first year of Robert III. (1390), Scotch coin passed only for half its nominal value in England; and, in 1393, Richard II. of England ordered that its currency as money should entirely cease, and that its value should thenceforth depend on the weight of the genuine metal contained in it. "To close this point at once," says Pinkerton, "the Scottish money, equal in value to the English till 1355, sunk by degrees, reign after reign, owing to succeeding public calamities, and the consequent impoverishment of the kingdom, till, in 1600, it was only a *twelfth* part of the value of English money of the same denomination, and remained at that point till the union of the kingdoms cancelled the Scottish coinage." \*

The annexed tables exhibit the successive degradations of the Scotch Silver and gold coins.

At the Union, in 1707, it was ordered that all the silver coins current in Scotland, foreign as well as domestic, except English coins of full weight, should be brought to the Bank of Scotland, to be taken to the mint to be recoinced. In compliance with this order, there were brought in,

Of foreign silver money (sterling), . . .	£132,080	17	9
Milled Scottish coins, . . . . .	96,856	13	0
Coins struck by hammer, . . . . .	142,180	0	0
English milled coin, . . . . .	40,000	0	0
			0
Total . . . . .	£411,117	10	9

Ruddiman conjectures,\* apparently with considerable probability, that the value of the gold and silver coins not brought in, amounted to about as much more. Much suspicion was entertained of the recoinage. And that large portion of the people who were hostile to the Union, and did not believe in its permanence, brought very little money to the Bank. A few only of the hoarded coins have been preserved, the far greater part having either been melted by the goldsmiths, or exported to other countries.

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\* Introduction to Anderson's "Diplomata," p. 176.

Account of the number of pounds, shillings, and pennies Scotch, which have been coined out of one pound weight of silver at different times; with the degree of purity of such silver or its fineness, from the year 1107 to the year 1601. (From Ruddiman's Introduction to Anderson's "Diplomata.")

A.D.	Anno Regni.	Purity.		Alloy.		Value of money coined out of a lb. of silver.		
		Oz.	Pw.	Oz.	Pw.	L.	s.	D.
From 1107	Alexander I.....	11	2	0	18	1	0	0
	David I.....							
to	William.....							
	Alexander II.....							
	Alexander III.....							
1296	John Baliol.....							
From 1306	} Robert I.....	11	2	0	18	1	1	0
to 1329								
1366	David II.....	38	11	2	0	1	5	0
1377		39	11	2	0	1	9	4
From 1371	} Robert II.....	11	2	0	18	1	9	4
to 1390								
1393	Robert III.....	4	11	2	0	1	12	0
1424	James I.....	19	11	2	0	1	17	6
1451	James II.....	15	11	2	0	3	4	0
1456		20	11	2	0	4	16	0
1475	James III.....	16	11	2	0	7	4	0
1484		24	11	2	0	7	0	0
1488	} James IV.....	1	11	2	0	7	0	0
1489								
1529	James V.....	16	11	0	1	9	12	0
1544	Mary.....	3	11	0	1	9	12	0
1556		14	11	0	1	13	0	0
1565		23	11	0	1	18	0	0
1567	James VI.....	1	11	0	1	18	0	0
1571		5	9	0	3	16	14	0
1576		10	8	0	4	16	14	0
1579		13	11	0	1	22	0	0
1581		15	11	0	1	24	0	0
1597		31	11	0	1	30	0	0
1601		35	11	0	1	36	0	0

Account of the number of pounds, shillings, and pennies Scotch, which have been coined out of one pound weight of gold, with the degree of their purity, and the proportion that the gold bore to the silver. (From Ruddiman's Introduction to Anderson's "Diplomata.")

A.D.	Anno Regni.	Fineness.	Alloy.	Value of the coin coined out of one pound of gold.		Pound of pure gold weighed of pure silver.		
		oz. pw. gr.	oz. pw. gr.	L.	s. d.	lb.	oz. pw. gr.	
1371, etc.	Robert II. . . .	11 18 18	0 1 6	17	12 0	11	1 17 22	
1390, etc.	Robert III. . .	11 18 18	0 1 6	19	4 0	11	1 17 22	
1424	James I. . . 19	11 18 18	0 1 6	22	10 0	11	1 17 22	
1451	James II. . . 15	11 18 18	0 1 6	33	6 0	9	8 4 14	
1456	20	11 18 18	0 1 6	50	0 0	9	8 4 14	
1475	James III. . 16	11 18 18	0 1 6	78	15 0	10	2 0 20	
1484	24	11 18 18	0 1 6	78	15 0	10	5 7 9	
1488	James IV. . . 1	11 18 18	0 1 6	78	15 0	10	5 7 9	
1529	James V. . . 16	11 18 18	0 1 6	108	0 0	10	5 7 9	
1556	Mary . . . . 14	11 0 0	1 0 0	144	0 0	10	5 8 6	
1577	James VI. . 10	11 0 0	1 0 0	240	0 0	10	5 8 6	
1579	13	10 10 0	1 10 0	240	0 0	11	5 2 20	
1597	31	11 0 0	1 0 0	360	0 0	12	0 0 0	
1601	35	11 0 0	1 0 0	432	0 0	12	0 0 0	
1633	Charles I. . . 9	11 0 0	1 0 0	492	0 0	13	2 7 11	

OBSERVATIONS  
ON  
COIN  
IN  
GENERAL.  
WITH SOME  
PROPOSALS  
For REGULATING the  
VALUE OF COIN  
IN  
IRELAND.

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By the AUTHOR of the *List of the* ABSENTEES of  
IRELAND.

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DUBLIN:

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*street.* M DCCXXIX.



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# OBSERVATIONS

ON

*COIN* in GENERAL,

WITH

Some Proposals for Regulating the Value of COIN in  
*IRELAND.*

HAVING in a Treatise lately published, taken Notice of the great and constant Drains of Money out of this Kingdom, for the Support of our *Gentlemen* abroad, and of the Scarcity of Money among us occasioned thereby: I shall now beg Leave to take into Consideration the Inconveniencies we labour under, for want of a due Regulation of our Coin. For 'tis our Misfortune not only to have little Money current among us, but even that Little to consist of such Sorts, as are the most unfit for the Management of our Domestick Dealings. This Evil arises from the Want of a due Proportion in the Values of our several Species: For not only the Value of our Gold in Proportion to Silver, is different from the Proportion observed by all other Countries we deal with, but also the Value of Gold is different in the several Species current among us, no just Regard being had to the intrinsick Value thereof; Gold in a *Moydore* is valued higher than Gold in a *Luidore* or *Pistole*, and Gold in a *Luidore* or *Pistole* higher than in a *Guinea*, and all of them higher in Proportion than Silver in other Countries. The Consequence of these Disproportions has been, that

the greatest Part of all our Silver Species, and of those Gold Species, which are under-rated, have been carried out of the Kingdom, and little left among us but *Moydores*, which are highest valued.

This Disproportion in our Coin has given all those, who traffick in Money, a Temptation to carry out one Species, in Order to bring in another, to their own Advantage indeed, but to the Prejudice of the Kingdom: And as the Demands of our *Absentees* upon us have of late overballanced all our Profit by Trade, there was a Necessity of sending away that Ballance in Specie; which our Remitters and Exchangers did not fail to do in those Sorts of Coin, which they could get or save most by: on this Account it was that our Silver was carried off first, as being the lowest valued, then our Guineas and Luidores, so that at length we are reduced to *Moydores*, the most inconvenient Coin of all others in our present Circumstances: For since we are in great Want of Half-pence and Farthings, are almost stripped of all Sorts of Silver Coin, and have very little of the small Gold Species left among us, it is become very difficult to change *Moydores*, in Order to buy or sell any Commodity: This Want of Change greatly embarrasses the Dealings of poor People, and is a great Obstruction to all Sorts of Business; so that at present we not only labour under a great Scarcity of Money, but even the little we have, is not of half that Use to us, as it would be, if it was divided into small Pieces, which could easily be changed.

The Affair of our Coin is now grown of great Importance to us, and as we every Day are more sensible of the Inconveniencies we suffer for want of a Regulation thereof, it is high Time to think of some Measures which may remove them. Very few Gentlemen have made it their Business, or have had Opportunities of being rightly informed of the Nature of Coin and Exchange, and generally reckon it to be an intricate and abstruse Affair:

And they who make dealing in Money their Profession, are either unable or unwilling to give such Light therein, as may be of Use to those, whose Desire and Intention it is to make just Regulations of our Coin, which are so much wanted for the Ease of the People, and Benefit of Trade.

Having for my own Amusement, and Information, spent some leisure Hours on this Subject, I shall presume to offer my Thoughts to the Publick : judging it may be of some Use to give any Light, how small soever, in a Matter of this Consequence, wherein so many are in the Dark : And as a Subject of this Nature, ought to be treated with all possible Clearness to be of any Service, I shall endeavour to trace it from its first Principles, and put it in as clear a Light as so intricate an Affair will allow of.

In Order to this I shall throw my Thoughts into the following Method. *1st*, I shall lay down certain Principles, Rules and Observations, which as they will be easily understood and assented to, will serve as a Foundation to form a right Judgment in these Matters.

*2dly*, I shall particularly set forth the Inconveniencies we suffer for want of a due Regulation in our Copper, Silver, and Gold Species, and the Causes from whence such Inconveniencies arise.

And *3dly*, I shall mention several Schemes for the Regulation of our Coin, taking Notice of the Advantages and Disadvantages of each, and shall leave it to others to make Choice of such, as they shall judge to be most expedient for us in our present Circumstances.

In treating on the first Head I shall explain the Nature of Coin, and Exchange, shew the Consequences of raising or lowering Money, give several Rules for ascertaining the Values of Coins, with a Table of the Values of foreign Coins in *England*, and *Ireland*, and exhibit some Reports of Sir *Isaac Newton* relating to Coin, with such other

Observations as I shall judge necessary for the right understanding this Matter.\*

*Of COIN.*

FIRST then I am to Observe, that Men in Order to relieve one anothers Wants with Ease and Justice, found it necessary to fix on *one* or *two* Things, and agree, by giving them Values, to make them universal Commodities, which all trading Nations may take as Equivalents, in Exchange for all other Commodities they have to part with.

The Things agreed upon, by the Consent of all Nations, for this Purpose are Gold and Silver, two Metals which are well fitted for this End, by their being beautiful, durable, scarce, not easily counterfeited, of equal Goodness in all Places when free from the Mixture of other Metals, and by their being easily divided into small Pieces of different Sizes and Weights.

All which Qualities taken together, make small Quantities of these Metals of great Value, when compared with other Things; and therefore fit to be chosen as Equivalents to pass in Exchange for them: By this Means Gold and Silver are the Measures of the Value of all other Commodities, which are dear or cheap, as they can be exchanged for greater or lesser Weights of these Metals.

As these Metals are naturally soft, it was found convenient to mix certain Proportions of some baser Metal with them, to give them such a Hardness as may hinder their wearing too fast. And to prevent their being adulterated with too great a Mixture of baser Metals, every Nation took Care to ascertain the Proportion which the baser Metals should bear to the Gold or Silver in their Coins; and to avoid the Trouble of proving every Piece, affixed certain Stamps thereon, as publick Vouchers of  
 6 their

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\* The Representations of Sir Isaac Newton here referred to have been already given; and it has not been thought necessary to reprint the table of coins.

their Fineness and Weight ; and this obtained the Name of *Money* or *Coin*.

The Values of these Metals, as of all other Commodities, are proportional to their Scarcity and Demands for them, or rather to their Scarcity alone, for since they are made Equivalentents for all other Commodities, we may suppose the Demands for them to be everywhere much the same.

All the Uses and Conveniences of Money could not so conveniently be answered by any one Metal alone : But required several Metals of very different Values to make all Payments easy, and without Trouble. For the great Scarcity of Gold, as it made it of great Value, and fit for the Payment of large Sums, so at the same Time rendered it unfit to be divided into Pieces small enough for the Conveniences of low Commerce : and though Silver by Reason of its Plenty, may be parcelled out into Pieces of small Value, yet too great a Weight and Bulk thereof would be required to make large Payments with any tolerable Conveniency. It was therefore found necessary to introduce both those Metals into Coin, especially when Trade increased ; the first to answer large, and the second small Payments ; and also to bring Copper into Coin, for making Payments for Commodities under the Value of the lowest Silver Pieces, and for the more convenient Change of the Coins of the finer Metals.

Gold and Silver being agreed upon, as Equivalentents for all things which Men want from one another : they very well answer this Intention without occasioning any Confusion or Disturbance in Commerce ; nay will be much more convenient than either Metal alone ; provided a just Proportion be preserved in their respective Values. For in Order to constitute a Measure in Commerce, 'tis not necessary to confine that Measure to *one* Thing, or to make that one Thing invariable in its Value ; since several Things may at the same Time, by general Consent, be

equally Measures of the Value of all Commodities, and it may be altogether indifferent which of them are used for that Purpose. And in Fact we find that Gold and Silver, and even Copper in some Places, are equally Measures of the Value of Things, for as much as all Things can be exchanged for them. And there is no other Difference in these Metals considered as Measures, but that a greater Weight of Copper, than of Silver, of Silver than of Gold, is required to equal the Value of one and the same Thing. In like Manner an Inch, Foot and Yard are all Measures of Length, with this Difference only, that more Inches than Feet, and more Feet than Yards, are required to measure the same Length.

Herein I differ from Mr. Lock, who in his *Further Considerations concerning the raising the Value of Money*, pag. 20. of the Octavo Edition, says, *Silver therefore, and Silver alone, is the Measure of Commerce. Two Metals, as Gold and Silver, cannot be the Measure of Commerce both together in any Country; because the Measure of Commerce must be perpetually the same, invariable, and keeping the same Proportion of Value in all its Parts. But so only one Metal does or can do to it self: So Silver is to Silver, and Gold to Gold, an Ounce of Silver is always of equal Value to an Ounce of Silver, and an Ounce of Gold to an Ounce of Gold. But Gold and Silver change their Value one to another.* This Assertion, if I understood him right, carries this Sense with it, that one Metal only, and that Silver, can be the Measure of Commerce, and the same must be perpetually of the same Value.

With Submission to so great an Authority, I think it to be quite otherwise in Fact; for unless we should suppose an extraordinary Interposition of Providence to prevent the Silver current among us from being diminished, or increased, I do not see how it is possible that Silver should continue always of the same Value, since its Value must vary as its Quantity, and Demands for it vary. 'Tis Certain that

by the vast Importation of Silver into *Europe*, since the Discovery of the *West-Indies*, the Value thereof has greatly lessened among us: In the Reign of *Henry* the VII. a Bushel of Wheat was sold in *England* for Sixpence, which then had as much Silver in it, as Nine Pence of our present Money, and the said Bushel now sells for about 4s. 'tis very probable that the Quantity of Corn, raised yearly in those Days, bore the same Proportion to the Number of People then in *England*, that the Quantity of Corn now raised, bears to our present Number; and if so, it follows, since one Ounce of Silver could purchase five times as much Wheat in that Reign as it can at present, that therefore Silver was five times more valuable then, than it is now.

If two Metals cannot be the Measure of Commerce both together, because they may at different Times change their Value one to another; the same Argument will hold good against one Metal, which at different Times may also vary in its Value; for though one Ounce of Silver will always be equal in Weight to another Ounce of Silver, yet it may differ in its Value at different Times, if compared with the Value of other Commodities, for which it is Exchanged.

There is a Change in the Values of these two Metals, as often as there is a Change in their Quantities, and yet this does not hinder them from being Measures of the Values of Things. If there be five or six times as much of these Metals in *Europe* now, as there was 200 Years ago, this Increase of Quantity will lessen their Value, and by Consequence cause more of them to be given for other Commodities, than when they were scarcer. For they are not Measures by their Weights alone, but by their Weights and Scarcities taken together, to which their true Values are proportional. And the not attending to this, was the Cause of Mr. *Lock's* Mistake in his Reasonings on this Subject; which however did not affect his

Argument against Mr. *Lowndes*, which he maintained with great Strength and Clearness.

Gold and Silver, which are pure and without any Mixture of baser Metals, are called *Fine Gold*, and *Fine Silver*.

The Gold and Silver, out of which the Coins of Nations are made, are Mixtures of *Fine Gold* and *Fine Silver* with certain Proportions of baser Metals, called *Allays*; which Mixtures, appointed by Law in each Nation, make the *Standard Gold* and *Standard Silver* of it.

A Pound Weight of the *Standard Gold* of *England* contains 22 Carrats of fine Gold, and two Carrats of Allay, or 11 Parts of fine Gold and one Part of Allay, and is cut into 44 Guineas and an half: And a Pound Weight of *Standard Silver* contains 11 Ounces 2 Penny-weight of fine Silver, and 18 Penny-weight of Allay, and is coined into 62 Shillings.

In estimating the Weight of Gold and Silver Pieces, we make use of the Troy-Pound, and divide it into 12 Ounces, each Ounce into 20 Penny-weight, and each Penny-weight into 24 Grains: And in Assaying Silver, we use the same Division of this Pound: But in Assaying Gold we divide the same Pound into 24 equal Parts, called *Carrats*, and each *Carrat* into 4 equal Parts called *Carrat Grains*, so that a *Carrat* is half an Ounce, or Ten Penny-weight, and a *Carrat-Grain* is Two Penny-weight and a half, or 60 ordinary Grains.

Any one that desires to know the Standards of the Coins of other Countries, may satisfy himself by looking into the Tables of the Assays, Weights and Values of foreign Coins herein published; where in the Column of Assays, he will see the Fineness of several Gold Coins, expressed in Carrats and Carrat-Grains, either Worse or Better than the *English* Standard: For Instance, if he would know the Standard of the *Old Luidore*, he will find in the Table that it is half a Grain in a Pound Weight

worse than our Standard, and to express the same in Numbers, he may make Use of the small Table of Carrats and Carrat-Grains inserted here; for by subtracting .125 (which is half a Carrat-Grain in Decimals) from 22 Carrats (the *English* Standard) there will remain 21.875 Carrats, the Standard of the *Old Luidore*.

It would be a great Advantage to Commerce, if Gold and Silver bore the same Proportion in Value to one another in all Parts of the World; for where this Proportion fails, there will be a Want of a sufficient Quantity of one or other of these Metals to carry on Trade in an easy and convenient Manner: For 'tis observed that these Metals constantly follow the best Market, and consequently every Country will lose all those Coins that are undervalued with Respect to other Countries, and abound with such as are over-rated, which in Time will become the only current Species.

We have a remarkable Instance of this in *Spain*, where Gold is higher valued in Proportion to Silver than it is in other Parts of *Europe*; hence it follows, that *Spain* pays all its Ballances of Trade to other Nations in Silver, rather than Gold; and other Nations make their Payments to *Spain* in Gold, rather than in Silver; nay, will send their Gold thither to purchase Silver. By this Means *Spain*, which furnishes *Europe* with most of its Silver, is frequently overstocked with Gold, and wants a sufficient Quantity of Silver to carry on its Trade with Ease, and when this Scarcity happens, a Præmium of near 6 per Cent is given for Payments in Silver, which Præmium continues till a new Plate-Fleet comes in, and then it ceases, till the flowing away and Scarcity of Silver make it necessary again.

- This may in some Measure account for the sending of great Quantities of Gold at this Time from all Parts of *Europe* to *Spain*; for the great Treasure brought from the *West-Indies* being lately distributed among the Proprietors,

tors, Silver may now be had there for Gold without a Præmium, or rather a Præmium may be expected for Payments in Gold; this Silver being carried to other Countries, will give a Profit of above 6 *per Cent*; for since Gold in *Spain* is of 16 Times more Value than Silver, and but of 15 Times more Value in other Countries, Traffickers in Money will get above 6 *per Cent* by sending Gold to *Spain*, to purchase Silver, and carrying it thence to other Countries where 'tis of more Value: And there may be a farther Profit of about 4 *per Cent*, which may be got from the *East-India* Companies for Silver in Bullion; and therefore 'tis no Wonder that Gold now flows in great Quantities to *Spain*, and that the Value of it has risen of late very considerably among us.

As long as Gold in Proportion to Silver is produced in greater Plenty in *Asia*, *Africa*, and *Brazil*, than in the *Spanish West-Indies* it will follow, that the Value of Gold in Proportion to Silver will be different in those Countries. And farther, these Metals being scarcer in the *East-Indies* than in *Europe*, the Prices of Labour and Manufactures will consequently be lower there than with us, and for this Reason we export very few Manufactures to that Part of the World; but to purchase their Commodities are obliged to send Specie thither: And Silver in Proportion to Gold being higher valued there by above 40 *per Cent* than with us, we yearly export thither Silver in great Quantities: And the Demands of the *East-India* Company's for this Exportation being at certain Times very great, the Price of Silver in Bullion at those Times rises considerably above the Value of Silver in Coin. But when the usual Supplies of Silver from the *West-Indies* are yearly imported into *Europe* without Interruption, we then find little Difference in the Value of Bullion and coined Silver. Whenever there is a Stop put to the coming Home of the Plate-Fleet, the price of Silver in Bullion rises 2, 3, or 4 Pence in an Ounce above Silver in Coin, and the Price of

Gold Bullion to 8, 10, or 14 Pence an Ounce above coined Gold; so that the Exportation of Silver to the *East-Indies* never failing yearly, and the Supply from the *West-Indies* having been of late Years frequently interrupted; 'tis no Wonder that the Value of Bullion is much raised above that of Coin. And when this happens to be the Case we find that no Laws, how severe soever, are sufficient to prevent the melting down our new or heavy Coin, and turning it into Bullion; for where there is a strong Temptation to violate a Law, and the Violation of it can be performed with great Secrecy and Safety, no Penalty can be sufficient to secure the Observation of it.

The Values of Gold and Silver being, as I have observed, proportional to their Weight and Scarcity, it plainly follows, that at one and the same Time, in which we can suppose no Change to be made in the Scarcity, the Value of each will be proportional to its Weight; or to its Quantities of fine Metal, in Case any baser Metal be mixt with it. But as, at different Times, there happens to be a considerable Difference in the Scarcity of these Metals, their Values will become different on this Account, and the same Weight of each, will in Proportion as its Scarcity is increased or lessened, become more or less valuable than it was before, and this is the Market Value, which is the Price that a given Weight can sell for.

The Legal, Nominal, or Mint-Value of Gold and Silver, is the Value put upon it by the Laws of each Country.

It is very probable that when the legal Values were first established, they were the same with the Market Values. The legal Values of the *English* Coins are such, that Silver is worth 5*s.* 2*d.* an Ounce in *England*, and something more than 5*s.* 7*d.* in *Ireland*; and the Market Values of Silver in Bullion in *England* and *Ireland* are at present about 5*s.* 5*d.* and 5*s.* 10*d.* an Ounce.

In former Ages, the *Eastern* Parts of the World sup-

plied the rest with most of their Gold and Silver: And during the Time of the *Roman Empire*, and before, Gold was generally ten or eleven times more valuable, than the same Weight of Silver; and in the *Eastern Countries* the same Proportion very nearly still continues; but the Discovery of the *West-Indies* about 240 Years ago, and the Importation from thence of vast Quantities of Silver, altered that Proportion in these Parts of the World; and made Gold to be about 15 Times the Value of Silver. And the late Discovery of Gold Mines in *Brazil*, and Importations from thence of about a Million of Gold yearly has a little lowered that Proportion; and in Time, in all Probability, will reduce it much lower; especially when we consider that about one Million in Silver is yearly exported from *Europe* to the *East-Indies*, which is much more than we formerly used to do; so that Silver becomes scarcer, and consequently of more Value among us. From hence 'tis evident that no certain Standard or Proportion between Gold and Silver can be settled, or continue long, since it must fluctuate and vary by the Increase or Decrease of either of those Metals.

It is observed, that near equal Values of Gold and Silver are brought yearly from the *West-Indies* to *Europe*, when Trade is free and open; and by Consequence since Gold at a Medium in *Europe* is worth about 15 Times its Weight of Silver, 15 Pounds Weight of Silver are brought from thence for every Pound Weight of Gold: Hence arises the Foundation in Nature for this Proportion; for since all Things are valuable in Proportion to their Scarcities, and the Demands for them; Gold from its being 15 Times as scarce as Silver, in the Mines from whence we have it, ought to be 15 Times as dear, if we suppose the Demands for these Metals to be equal.

This Proportion of Gold to Silver has of late Years been considerably altered by the Trade to the *East-Indies*, which carries thither near a Million yearly in Silver, and

thereby creates a Scarcity of it in *Europe*. And if so much Treasure shall flow for any considerable Time in the same Channel, it may put an End to that Trade: For such large Remittances in Silver, must in Time make this Metal plenty in those Parts, and as its Quantity increases, its Value will lessen: so that by Degrees Silver may come to bear the same Proportion to Gold in the *East-Indies*, as it does in *Europe*, and their Commodities will rise in Proportion.

In *England* the Proportion of the Value of a Pound Weight of Gold to a Pound Weight of Silver at the Mint, is 15.072 to 1. but at present a Pound of Silver in Bullion sells for 66*s.* which Pound in Coin is worth but 62*s.* and by Consequence, the Proportion of Gold in Coin to Silver in Bullion is only 14.159 to 1. This Difference in the Value of Bullion and coined Silver, creates a Temptation to melt down the weighty Coin, prevents Bullion from being coined, and occasions a Scarcity of Silver Money.

This Scarcity will be farther increased by the Wear of Silver Coins, which has lessened their Weights considerably. It has been found here by Trials, that 100*l.* in Six-pences has lost 10*l.* 17*s.* 5*d.* in Shillings 8*l.* 10*s.* in Half Crowns 3*l.* 7*s.* 7*d.* and in Crowns 2*l.* 17*s.* 1*d.* and consequently, that 100*l.* in 25*l.* of each Species has lost 6*l.* 7*s.* Now if we suppose all the Silver Money in *England*, concerned in Trade, to have lost so much of its Weight by wearing, as to be 6 *per Cent.* worse now, than when it was first coined, then if the whole Quantity be five Million, as 'tis reasonable to suppose, the Loss will be 300000*l.* and if we suppose farther the Silver of *England* to be 25 Years old at a Medium, it then has lost about 5*s.* *per Cent.* in a Year; and by Consequence, if it was to wear equally every Year the Silver Coin of *England* would be worn out quite in 400 Years, half worn out in 200 Years, and quarter worn out in 100 Years.

Coins are according to the real Value, when the legal

or nominal Values thereof are equal to the Values of pure Metal in them at Market, or only differ from them by the small Charge of Coinage.

The real or natural Values of Gold and Silver cannot be raised or lowered by the Authority of a Prince, being always governed by their Weights, Scarcities, and Demands for them.

Money may be raised by Law two Ways, either by giving higher Denominations to Coins, without altering their Weights of Gold or Silver; or the same Denominations to less Weights of those Metals. And on the contrary may be lowered, either by giving lower Denominations to the same Pieces, without altering their Weights; or the same Denominations to Pieces containing greater Weights of those Metals.

Nations which Trade with one another, regard only the Quantity of Gold and Silver, they give or take for their respective Commodities: If one Nation should raise or lower its Money, it cannot be imagined, that another Country will on that Account give more Gold or Silver for their Commodities, or take less for their own.

A Change made in the legal Value of Money will cause a proportional Change in the Values of Commodities; for Money is really and truly the Measure of the Values of Commodities, and Equivalent to them by its true and not its legal Value, and by Consequence the Value put upon it by Law will not affect it, considered as an Equivalent or a Measure.

Suppose, for Instance, all the Coins of *Ireland* raised 20 *per Cent.* so that 100 Moydores which now make 150*l.* will make 180*l.* the *Irish* Merchant who pays 100 Moydores for a Parcel of Foreign Goods, must after such Raising still pay the same Number of Moydores for the same Goods, which Moydores now make 180*l.* whereas before they made only 150*l.* and consequently the Price

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of Foreign Goods must rise in the same Proportion that the Coin is raised.

The Value of Goods at home must likewise rise in the same Proportion, because our Merchant who got at a Foreign Market one hundred Moydores for 100 Pieces of Linnen-Cloath, will after such raising of our Coin, still get the same Number of Moydores at the same Market for the same Quantity of Cloath, and consequently can afford the Farmer or Manufacturer the same Number of Moydores which he gave him formerly, which now after the supposed Change are worth 180*l.* and consequently the Price of those Goods will rise at home: For if our Goods did not rise in Proportion with our Coin, Foreigners would not fail to carry them off at 20 *per Cent.* less than their Value, and tho' on such raising of the Coin, our Commodities may not immediately rise in the same Proportion, yet in a very little Time they will not fail to do it.

On the contrary, suppose our Coin lowered 20 *per Cent.* in which Case 100 Moydores will make only 120*l.* The Prices of all Goods in which we Trade with other Nations will fall; for all Goods carry'd to Foreign Markets or bought up there, will still sell for the same Number of Gold and Silver Pieces, as before, and by Consequence their nominal Values will be 20 *per Cent.* less than they were before.

The *Irish* Merchant who pays 100 Moydores for a Parcel of Foreign Goods must still pay the same Number of Moydores for the same Goods, which Moydores after the Reduction make but 120*l.* whereas before they made 150*l.* and therefore the Price of Foreign Goods will be less in the reduced Coin, tho' they cost abroad as much Gold and Silver as before: The Price of all Goods must also fall at home, for a Foreigner, who gives 100 Moydores for 100 Pieces of our Cloath, will still give the same Number of Moydores and no more for the same Goods,

and those Moydores after such Reduction being worth but 120*l.* which before were worth 150*l.* it is evident, the Price of those Goods must fall at home, in Proportion to the lowering of the Money.

Another general Effect of raising the Coin of any Nation is this: all Landlords, Creditors, and others, who by Contract are to receive any certain legal Sums, will by such raising lose in Proportion to the Alteration made. For suppose Money rais'd 20 *per Cent.* so that a Moydore shall pass for 36*s.* 'tis manifest that a Tenant who pays 120*l.* yearly Rent, can after such raising pay the said Rent with 66 Moydores and two thirds of a Moydore, whereas before, it required 80 Moydores to do it; by which, the Landlord who receives it, loses above 13 Moydores or Twenty *per Cent.* and the Tenant gets 20 *per Cent.* because his Goods will advance in Price as the Money is raised, and the Landlord must pay 20*l.* *per Cent.* dearer for all Commodities he has occasion for.

On the contrary, if we suppose the legal Value of Coins to be lowered 20 *per Cent.* so that a Moydore shall pass for 2*s.* we shall find the Effects to be the direct contrary, for the Tenant who now pays his yearly Rent of 120*l.* with 80 Moydores must after such Reduction pay 100 Moydores to discharge the said Rent, and to enable him to procure the 20 Moydores extraordinary, he must part with more of his Commodities to purchase so much more Gold; the Prices of all Things falling in Proportion as Money is lowered: By this Means the Tenant, Debtor, and all Persons who are obliged to pay any certain legal Sums, must lose 20*l.* *per Cent.* and so in Proportion for any other Reduction; and the Landlord or Creditor will gain 20*l.* *per Cent.* more than he ought, and at the same time may buy all Commodities so much the cheaper.

I shall now lay down some Rules for ascertaining the Proportion of the Value of Gold to Silver, and the *English* Values of foreign Coins.

The General Rule for determining the Proportion of the Mint or Market Value of allayed or fine Gold, to allayed or fine Silver, is this.

### RULE I.

*THE Mint or Market Value of a given Weight of allayed or fine Gold, being divided by the Mint or Market Value of the same Weight of allayed or fine Silver, will give the Proportion of the first to the last.*

For Instance. A Pound Weight of Standard Gold is cut into 44 Guineas and a Half, and each Guinea passing for 21s. the legal or Mint Value of the said Pound Weight in *England* is 934.5 Shillings and the Value of a Pound Weight of Standard Silver is 62s. but 934.5 divided by 62, gives 15.072. Therefore the Proportion of the Value of Standard Gold to Standard Silver is 15.072 to 1.

Again. To find the Proportion of the Value of a Pound of Gold in Coin, to a Pound Weight of Silver in Bullion, supposing Silver in Bullion to be worth 66 Shillings a Pound Weight at Market; let 934s. 5 the Value of a Pound of Gold in Coin, be divided by 66, and it will give 14.159. Therefore the Proportion of a Pound of Gold Coin to a Pound Weight of Silver at Market is 14.159 to 1.

And by the same Rule the Proportion of the Value of any Sort of Gold to any Sort of Silver, knowing their Allays, may be found.

The *English* Values of foreign Gold and Silver Coins may be found by these Rules.

### RULE II.

*AS the Weight of pure Gold in the Guinea, is to the Value of the Guinea in England, so is the Weight of pure Gold in any Foreign Coin, to the Value of that Coin in England.*

The Quantity of pure Gold in any Piece is had, by knowing the Weight of the Piece, and the Weight of Allay in a given Weight of the Gold, out of which that Piece is made: for Instance, in the Standard Gold of *England*, a Pound Weight, or 24 Carrats, contains 22 Carrats of fine Gold, and the same Weight of *Portugal* Gold, from the Column of Assays in the Table, being a Quarter of a Carrat Grain, or the .0625 Part of a Carrat, better in a Pound than *English* Gold, will contain 22,0625 Carrats of fine Gold. Then, as 24 is to 22, so is 129.438 Grains, the Weight of the Guinea, to its Weight of fine Gold; and as 24 is to 22.0625, so is 166 Grains the Weight of the Moydore, to its Weight of fine Gold. The Weight of fine Gold in the Guinea will therefore be  $\frac{22 \times 129.438}{24}$ , and the Weight of fine Gold in the Moy-

dore will be  $\frac{22.0625 \times 166}{24}$ , and rejecting the common

Denominator, will be expressed by  $22 \times 129.438$ , and  $22.0625 \times 166$ .

Then as  $22 \times 129.438$  is to 21 Shillings, the Value of the Guinea, so is  $22.0625 \times 166$  to the Value of the Moydore in *England*, which Value is therefore equal to  $\frac{22.0625 \times 166 \times 21}{22 \times 129.438}$ , that is, equal to 27.04 Shillings.

### RULE III.

*AS the Weight of fine Silver in the Shilling, is to its Value in England, so is the Weight of pure Silver in any Foreign Coin, to its Value in England.*

The Quantity of fine Silver in any Piece is had, by knowing the Weight of the Piece and the Weight of  
 20 Allay

Allay in a given Weight of Silver, out of which that Piece is made.

For Instance. In the Standard Silver of *England* a Pound Weight, or 240 Penny-weights, contains 222 Penny-weights of fine Silver, and the same Weight of *Spanish* Silver out of which the *Mexico* Piece of Eight is formed, contains 221 Penny-weights. Then as 240 is to 222, so is 92.9 Grains, the Weight of the Shilling, to its Weight of fine Silver; and as 240 is to 221, so is 418.5 Grains the Weight of the *Mexico* Piece of Eight, to its Weight of pure Silver. The Weights of fine Silver in the

Shillings and *Mexico* Piece will therefore be  $\frac{222 \times 92.9}{240}$

and  $\frac{221 \times 418.5}{240}$  and rejecting the common Denomi-

nator, will be expressed by  $222 \times 92.9$  and  $221 \times 418.5$ .

Then as  $222 \times 92.9$  is to 12 Pence, the Value of the Shilling, so is  $221 \times 418.5$  to the Value of the *Mexico* Piece of Eight in *England*; which Value is therefore

equal to  $\frac{12 \times 221 \times 418.5}{222 \times 92.9}$  that is, equal to 53.82 Pence,

which is near 54 Pence.

When the Weights and Allays of Coins are known, it is easy to determine by these Rules, at what Value they ought to pass in any other Country.

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## EXCHANGE.

**I** SHALL now proceed to consider the Nature of Exchange.

The Intercourse and Dealings between the People of different Nations, having made it necessary to make frequent Payments of Money to one another for the Purchase of Commodities ; the Method of Drawing and Remitting Money by Bills of Exchange was found out, to avoid the Hazard and Trouble of carrying Money from one Country to another.

Exchange is the paying or receiving Money in one Country, to receive or pay it in another, the Remitter is he, who pays Money in one Country, to receive its Value in another ; the Banker or Exchanger is he, who receives the Money in one Country to pay it in another.

When the Remitter is to receive an equal Value, that is, an equal Quantity of Gold or Silver, in the Money of one Country, for what he paid in another, the Exchange is at Par, and he neither gains nor loses by it.

When the Money he is to receive is of less Value, than what he paid, the Exchange is high or above Par, and he loses by it.

And when the Money he is to receive is of greater Value, than the Money he paid, the Exchange is low or under Par, and he gains by it.

The Necessity that trading Nations were under to pay, and receive Money in different Countries, and the Hazard of sending Specie forward and backward, to answer those Demands, made them have Recourse to the Method of discharging their mutual Obligations by Bills of Ex-

change ; for hereby People were mutually served, the one paying his Money to the Person who wanted it at Home, to receive from him the Value thereof abroad, where his Occasions required it. And to make this Affair of Exchange more convenient and easy, some Merchants have made it their Business to have Stocks of Money or Credit in different Countries, to answer the Demands of all People.

By this Means, while the Demands of the People of one Country, are equal to the Demands of those of another Country, these Demands can be mutually answered, without either Country's sending any Money to the other : But when the Demands of one Nation exceed those of another, and cannot be paid by Commodities, then there arises a Necessity of sending out Specie to make good the Ballance ; and this Necessity always raises the Exchange, in Proportion to the Ballance to be paid.

For the better Explanation of the Nature of Exchange, I shall suppose that a Banker of *Ireland*, has 20000*l.* Stock in *Dublin*, and 20000 more in his Correspondent's Hands in *London* ; if the Remittances on both sides are equal, then the Exchange will be at *Par*, or within one *per Cent.* of it, which the Banker always has for his Trouble ; in this Case the Banker's Stock on both sides will still be the same, he and his Correspondent having received on each side as much as they pay'd.

But if the Remittances from *Dublin* to *London* should amount to 20000*l.* and the Remittances from *London* to *Dublin* in the same Time to 10000*l.* then the Banker will have 30000*l.* of his Stock in *Dublin*, and only 10000*l.* in *London* ; and in that Case he will raise the Exchange upon the the Remitters for his Bills, in Regard a greater Number of Buyers always raise the Market. And if the Remittances should still increase in the same Proportion, the Banker will still raise his Exchange higher, and be under the Necessity, when most of his Stock is drawn to

one Side, to send over Specie, that his Correspondent may be enabled to answer his Bills; and for the Charge and Hazard of doing this, the Banker will require 2, 3, or 4 *per Cent.* above his usual Profit; which Profit of Exchange can seldom rise higher, or even continue long at this Height, because in this Case, Gentlemen and Merchants generally choose to send over the Specie themselves, and thereby save all the high Exchange, excepting the Charge of sending it.

Whenever Exchange is at or near *Par*, then none of our Money is exported, because all Remittances are then negotiated cheaper, and with less Trouble by Bills of Exchange; but when Exchange runs high, on Account of great Demands upon us, either to pay for Foreign Commodities, or to maintain our *Gentlemen* Abroad, then Specie must be sent by one Hand or other: And in that Case we find by Experience, that not only Bankers send off Money to their Correspondents to support their Credit, but Merchants, private Gentlemen, and Agents, and perhaps these are the Persons who chiefly carry it off, to avoid the Loss of high Exchange, especially when the Sums to be remitted are large.

And if we have Cause to complain of the Loss of our Money by these Means; 'tis plain, since the Ballances of our Trade with most Countries are in our Favour, that this Loss is wholly owing to the Remittances made to support our *Gentlemen* Abroad.

Exchange runs high against a Country that becomes in Debt to another, and for the same Reason, when One Country has Occasion to buy up at certain Season of the Year great Quantities of the Commodities of another, and for the Purchase thereof must lay out larger Sums of Money than usual at those Times, the Exchange will rise in Disfavour of the Country that buys, and in Favour of that which sells those Commodities.

Thus in *Ireland*, between *June* and *December*, when the

Demands from *England* and other Countries are great for our Linnen, Wooll, Beef, Butter, Tallow, and Hides, which then come to Market, the Exchange falls often to near *Par*, and sometimes below it: which at other Seasons of the Year is commonly above it considerably.

When a Nation is under a Necessity of sending out Specie to pay the Ballances in its Disfavour, the raising of its Coin will not prevent the sending out one Farthing less, for Foreigners will regard only the Quantity of Gold and Silver we pay them, and not any arbitrary Values we give them by Law.

Trading Nations make it their Business to settle the *Par* of their Coins, and in Order to this they Assay their Coins, and by their Assays and Weights know how many Pieces of the Money of one Country, are equal in Value to any certain Number of Pieces of another, and by that Means they fix the *Par* of Exchange among themselves. For Instance 37 *Dutch* Skillings nearly being equal to one Pound *English*, the *Par* between *England* and *Holland* is 37.

The *Par* continues constantly the same between two Nations, until one or other of those Nations alters the Value of their Coin, and then the *Par* changes, and will be adjusted again according to the intrinsick Values of their respective Coins. But this Alteration of the *Par*, has no Effect on Foreign Trade, since Foreigners regard only the real Value or Weight of Gold or Silver in Coin.

The Coins current in *Ireland* being raised above their Value in *England* 8*l.* 6*s.* 8*d.* in *English* Silver, and 11*l.* 2*s.* 2*d.* in *Moydores*. This Difference of their Values is commonly called Exchange. And when Silver was in great Plenty among us, and most Payments were made therein, the *Par* of Exchange was said to be 8*l.* 6*s.* 8*d.* *per Cent*; and for the same Reason, because we have but little Money current at present but *Moydores*, *Par* is now

said to be at 11 *per Cent*, that is, 111*l.* *Irish* is equal to 100*l.* *English* Money.

The Rate of Exchange being the Sum or Præmium given on paying any certain Sum in the Coin of one Country, for receiving an equal intrinsick Value in the Coin of another, the Value of that Præmium above or under *Par*, determines the Rate of Exchange.

The Course of Exchange above or under *Par*, constantly attends the Ballance of Trade, so as to run high in a Country when the Ballance of Trade lies against it; and low, when it is for it.

Exchange is then only a Loss to any Person, when it is above *Par*, and when it is so, is attended with this Effect, that all Persons, who have Occasions to remit Money abroad by Bills of Exchange, will lose so much *per Cent.* as the Exchange is above *Par*; and all Foreign Commodities bought with such Bills, will in the same Proportion be imported the dearer.

**H**AVING premised thus much in General in Relation to Money, which I thought proper to lay down as a Foundation, for the better understanding of any Schemes, which may be proposed for the Regulation of our Coin;

I shall now proceed to consider the second Head. Under which I propose to shew the Inconveniences we suffer on Account of our Coin, and the Cause from whence those Inconveniences arise. And first as to the Copper Money current among us.

'Tis certain that at present we are far from having a sufficient Quantity of Halfpence, which we are very sensible of in all our Domestick Dealings, wherein we labour under great Difficulties for small Change in Copper Money. This Scarcity is a general Complaint all over

the Kingdom, and throws poor People into Distress, disabling them in a great Measure from carrying on their small Dealings with one another; and their Grievance is much heightened by an absolute Want of Farthings, of which we have hardly any left in the Kingdom. There is not a Country in *Europe*, besides our own, but what has a sufficient Quantity of Copper Money current among them to answer all small Payments, whatsoever Want they may otherwise have of Gold and Silver; this Species being so useful, and every where easily procured from the Plenty and cheapness of this Metal.

About Twenty Years ago, we had too great a Stock of Half-pence and Farthings current among us, and suffered our Traders to carry them off in great Quantities to *New-England*, *Pensilvania*, and other Parts of the *West-Indies*, where they passed at a higher Value; this we did not think fit to oppose at the Beginning, when we were too much loaded with them at Home, but then we should have put a Stop to this pernicious Traffick in some reasonable Time, which might have prevented all the Inconveniences we now labour under on that Account; but no Care being then taken to prevent this Export, it did not cease till there was no more Halfpence to be got to send off: And thus we have been reduced to a total Loss of our Farthings, and to a great Scarcity of Halfpence, which has created a Temptation to coin a vile Sort of Halfpence, of little or no intrinsick Value, which could not have been obtruded upon us, or received by us, but for the great Want we lie under of small Change.

And as to the Value of our Halfpence, 'tis certain, we never had any coined in *Ireland* of a sufficient intrinsick Value. All Copper coined in a Nation should have no mōre Value put upon it than what arises from the Value of the Metal and the Charge of Coinage: If a Pound of Copper sells for 18*d.* and the Charge of Coinage amounts to 6*d.* it ought not to be coined into more than 48 Half-

pennies, or 2 Shillings. Giving this Value to the Coins, is the only effectual Remedy to prevent other People coining upon us, because they will not find it turn to any Account to do so. Those who have hitherto obtained Patents for coining Halfpence and Farthings for the Use of this Kingdom, were not obliged to give a sufficient Quantity of Copper in the Pieces, and very rarely complied with the Rules prescribed to them, either as to the Quantity or Quality of the Copper : and they never ceased coining still on, till they glutted the Market, and loaded us so much beyond all our Demands, that great Quantities lay upon their Hands : Some of them entered into Covenants to give Gold or Silver for any Quantities of their Halfpence that should be returned to them : But these Covenants were easily eluded, by the Impossibility of proving that such Halfpence were of their Coinage, and not of the Coinage of others, who did not fail to be privately at the same Work, when a considerable Profit was to arise to them thereby : And sometimes when the Patentees had coined as much as they could dispose of, they disappeared, and left no Body to make good their Engagements to the Publick.

There is no safe and effectual Way to prevent our being incumbered with too great a Quantity of Halfpence, and abused by a vile Sort of them, but by making *Irish* Halfpence bear the same Proportion in their intrinsick Value to *English* Halfpence, as the Gold and Silver of *Ireland* does to that of *England*, *English* Halfpence have such a Quantity of Copper in them, that 'tis not worth any one's While to coin privately any of that Sort.

2d. In like Manner the Inconveniences we labour under for want of a sufficient Quantity of Silver Species, for the common Occasions of buying and selling are extremely great, and universally felt. All Foreign Silver Coins, with which we formerly so much abounded, and also the greatest Part of the *English* Silver have been carried off,

so that we are now reduced to a small Proportion of the latter; what the Quantity thereof still remaining among us may be, cannot easily be ascertained, perhaps it may be 30 or 40000*l.* but whatever the Quantity is, 'tis altogether insufficient for the Management of our Domestick Dealings, and for the making of small Payments with any tolerable Ease; it has been judged by those who have entered into Computations of the Proportion of Gold and Silver Species necessary for carrying on the Inland Commerce of any Country with Ease and Conveniency, that where a Million and a Half is wanted, the Silver should be about one Third, and the Gold two Thirds.

If we suppose the circulating Cash of the Kingdom to be 400,000*l.* and that our Silver makes but 40000*l.* then it will follow that our Silver is but a 10th Part of our present Coin; whereas by the above Rule it ought to be 133333*l.* 6*s.* 8*d.* which is a Third of our whole Species.

If the current Money of *England* amounts to 15 Millions, and 10 Millions thereof be Gold, and 5 Millions Silver; and if the Number of People be 7 Millions, then there are above 40 Shillings for every Head, 13*s.* 4*d.* in Silver, and the rest in Gold. And if the Cash of *Ireland* be 400,000*l.* and but 40000*l.* of it Silver, and the People of *Ireland* be in Number 1800,000, then it will follow, that there is but 4*s.* 5*d.*  $\frac{1}{4}$  for each Head, 5*d.* in Silver, and the rest in Gold; this plainly shews that our present Stock of Money of all Sorts, especially Silver, is altogether insufficient for carrying on that Variety of Business, which must every Day be negotiated among so many People, which Business must of Consequence frequently stand still in some Branches, and move very slowly and heavily in all the rest. And were it not for Bankers Notes, which we have passing in good Plenty, it would be impossible to manage our Domestick Traffic half so well as we do.

This Want of Silver Coin is more sensibly observed in

the *North of Ireland*, where the buying of Linnen-Yarn, and single Pieces of Cloth, requires Payments to be made in Sums, much below the Value of Moydorees which are almost our only current Species of Gold: And the Difficulty to get Change to answer these Payments, throws the Buyers and Sellers into great Streights, and puts either one or other to the Necessity of paying four, or six Pence in the Pound or more, to get Change to answer the Sum agreed for on the Sale: In so much that it has been observed, that in the Space of one Day at a Fair, the same Moydore has been traced, and found to have been changed for Silver 5 or 6 Times, with a Loss of 6 Pence at each Time: This hinders the Sale of our Commodities, is the Occasion of spending many idle Hours, perhaps at Ale-Houses, makes our Linnen come dearer to Foreign Markets, and thereby prevents the Sale of it in so great a Quantity as it might otherwise be disposed of.

'Tis very easy to account for the Loss of our Silver Coin, and to shew from what Cause this arises. Our Silver Coin being valued above  $2\frac{1}{4}$  *per Cent* below our Moydorees, 'tis not to be wondered at, that when ever we were under a Necessity of exporting Specie to answer the Ballance of Trade, or Demands from Abroad, which for some Time past have amounted to great Sums; our Remitters or Exchangers, should always do it in that Species they lost least by: For this Reason our Silver went off first, and continued to be exported in great Quantities, till at last it was not possible to get any Quantity of it to send abroad; and our Traffickers in Money found it for their Advantage, even when there was no Necessity of sending out Specie to answer Demands upon us, to send out Silver which was valued low, to buy up Moydorees abroad, and import them to us at  $2\frac{1}{4}$  *per Cent* Profit; and by making several Returns in the Year, made perhaps 15 *per Cent* Profit by this Traffick in Money. And as the *East-India* Company frequently gave 3*d.* an Ounce for exportable

Silver, above its Value in Coin, which is about 5 *per Cent*, this tempted our People to send all our Foreign Silver to *London*, to take the Benefit of such an advanced Price, and also to melt down all our weighty *English* Silver, and send it off as Bullion, or work it up at Home, when 2 or 3 Pence *per* Ounce extraordinary could thus be got or saved by it.

The *English* Silver current among us, is so much worn by the Quickness of its Circulation, that every Body must lose by melting it down; there is not perhaps any Country in the World, where so small a Quantity of Silver passes so swiftly from one to another, as in *Ireland*, by Reason of our Necessities; and this makes it wear faster than the Coin of any other Nation.

The *English* and *Scotch* Colliers also, as they carried off very little in Exchange for their Coal, but Specie, and that to the Value of 60000 Pounds yearly, they always did it in Silver, when that could be got; and even now when Silver is so scarce, that a Premium of 4 or 6 Pence is given for the Change of a Moydore; they choose to give this Discount, rather than carry off Moydores, which seldom pass for above 1*l.* 6*s.* 6*d.* with them at Home: For all the Reasons above mentioned, we may easily account for the Loss of our Silver, and that it is owing altogether to the Disproportionate Value given to it, in Respect to the Gold Species current among us.

3dly. As to our Gold Species, we find, that Moydores passing for 30*s.* are, as to their intrinsick Worth Valued about 2½ *per Cent* above our Silver, and about 1½ *per Cent* above our Guineas and Luidores; this Over-Value has been the Occasion that we have been deprived of our Silver, and most of all our other Species of Gold Coin, so that we have little left but Moydores, the most inconvenient sort of all others in our present Circumstances, since we have neither a sufficient Quantity of Halfpence, nor of Silver Coin, nor of the small Species of Gold Coins,

to change Moydores with : if we had a due Proportion of Guineas and half-Guineas, Luidores and Pistoles, and half Luidores, and half Pistoles, or even of half and quarter Moydores, they would in some Measure supply the Want of Silver, and make Change easy : But all these being carried off also, we are greatly embarrassed in all our Dealings, and cannot with any tolerable Conveniency buy or sell in our Markets, for want of fit Species to pass in Exchange for Commodities. All this Disturbance in our Affairs is principally owing to the disproportionate Value set upon our several Coins, for not only the Value of Gold to Silver among us is different from the Proportion observed by other Countries we deal with, but also the Value of Gold is different in the several Species thereof current among us, which must needs create a Confusion in our Dealings, and give Foreigners, and our own Cunning People an Opportunity of taking an Advantage of these Disproportions in our Coin, to the great Loss of the Kingdom.

Having thus laid down the Inconveniencies we lie under with Respect to our Coin, and the Causes from whence they arise. I shall now,

**I**N the third Place, mention several Methods and Schemes for the Regulation thereof; and shew the Conveniencies and Inconveniencies of each.

In Order to this we must observe, that the greatest Part of all our Dealings is negotiated with *England* directly, and that the Business we have with other Countries is mostly transacted by the way of *London*; and for this Reason in all Regulations to be made in our Coin, particular Care should be taken, that our Gold and Silver Coins may bear the same Proportion to one another in *Ireland*, as they do in *England*.

If we had all along governed our selves by this Rule, on

settling the Values of our Coins by Proclamation, we should have prevented all the Inconveniencies, we now labour under; and there would have been no Temptation to carry out, or bring in, one Specie more than another; but we should have had a due Mixture and Variety of each, to enable us to make all Payments with great Ease and Exactness.

A just Proportion in the Values of our several Coins, may be settled either by raising the Silver, or lowering all the Gold Coins, or by lowering some of the Gold Coins, and raising others.

But we ought to take Notice, that whether we raise or lower our Coin, whether we make a Hundred Pounds *English* to pass in *Ireland* for 108, 110, 112, or 100*l.* whatever we make the Par to be, such Alteration will have no Manner of Effect upon our Trade with other Countries: For Foreigners in that Case will not sell their Commodities to us, one Farthing the cheaper, or give one Grain of Gold or Silver more for our Goods exported to them: The Values of all Commodities will still be governed by the Quantity of Gold and Silver paid or received for them, without any Regard had to any new Denomination we give to our Coin at Home.

But then such an Alteration of our Coin will have a great Effect on Payments and Contracts to be made good among our selves. For in the Case of raising our Specie, 'tis evident that Tenants, Debtors, and Others, who are under Obligations to pay any certain Legal Sums, will after such raising pay the said Sums in a less Quantity of Gold and Silver, and therefore Landlords and Creditors will be hurt by such a Change. For instance, if 66 Moydors and 20*s.* pay 100*l.* and those were raised and made to pass for 31*s.* each, then 64 Moydors and 16*s.* will discharge the said 100*l.* by which Landlords and Creditors will really receive 3*l.* 4*s.* less than they ought to receive in the Payment of an 100*l.* And on the contrary, if all

our Species be lowered, all Tenants and Debtors after such lowering must pay greater Weights of Gold and Silver, in Order to discharge the said Sum. For Instance, 66 Moydores and 20*s.* now pay 100*l.* but if Moydores were reduc'd to 29*s.* each, then 69 Moydores, wanting one Shilling would be required to answer the said Sum of 100*l.* and the Tenant must part with a greater Quantity of his Commodities, to enable him to purchase so much more Gold as will make it up.

For it must always be remembered, that the Prices of Commodities, will be higher or lower in the altered Coin, as the Coin is raised or lowered; for in the Trade of Nations, or the buying and selling Commodities to one another, People have no Regard to the nominal Values put on the several Species of Coin, but consider only the Weights of pure Gold and pure Silver contained in them. For Instance, if a Crown Piece, which passes in *England* for Five Shillings, and contains near an Ounce of Silver, can now purchase a Bushel of Wheat there, and if the said Crown should be lowered to Four Shillings, it cannot be imagined, that a Foreigner will still give Five Shillings in the reduced Value for the same Bushel, by which he must pay a Fourth Part more than he did before the lowering: And in Case the said Crown should be raised to Six Shillings, the *English* wou'd be great Losers, if they should sell their Bushel of Wheat to a Foreigner for Five Shillings in the advanced Coin; for at that Rate the Foreigner wou'd purchase the same Commodity for a Fifth Part less in Bullion than he did before.

But tho' the Rates of Commodities may not always immediately rise or fall in the same Degree, that Money is raised or lowered, in Time they will not fail to come to the same nominal Values of the Coins. In this Interval indeed the *Cunning* Men will be the first to sell their Goods, on the Reduction of the Coin, and the first to buy on the Raising of it. Of this we had a remarkable In-

stance in the *Mississippi* Times, when the *French* raised their Money to an extravagant Height, but did not advance the Rates of their Goods at first in the same Proportion; for the *Dutch* laid hold of the Opportunity, and by pouring a great deal of *French* Money at that Juncture into *France*, bought up its Commodities about a Third or Fourth Part below their true Value, and thereby were able for some Time to undersell the *French* in their own Goods 20 *per Cent.* in all Foreign Markets.

We find by Experience, that in all Trading Countries the Values of Commodities are always governed by the Rates which Foreigners give for them.

The Value of a Moydore in *England* compared with the Value of Gold in a Guinea at the Mint, is 27*s.* and the Value of a Luidore and Pistole at the Mint of *England* is 16*s.* 9*d.* .32.

The following Table shews, what Number of the several Species therein mentioned make 100*l.* in *England*, and what their Values amount to in *Ireland*, and at the same Time shews the Differences *per Cent.* of those Values.

	l.	l.	s.	d.	
400 Crowns - - -	{ make in <i>Eng- land,</i>	100 { and in <i>Ire- land,</i>	108	6	8
95 Guineas and 5 <i>s.</i>			109	10	6
74 Moydores and 2 <i>s.</i>			111	2	2
119 Pistoles and 3 <i>s.</i> 2 <i>d.</i>			110	5	0

It is to be observed, that Moydores being almost the only current Species of the Kingdom, the *Par* of Exchange, is at present regulated by them, and is about 11 *per Cent.*

In all Schemes for the Regulation of our Coin, these three Things ought to be principally in our View, and carefully observed.

1*st.* That whatever Alteration we make in our Coin,

we should preserve the same Proportion between Gold and Silver in *Ireland* as is observed in *England*, so that it shall be equal, which Sort we send out of or bring into the Kingdom.

2d. That we should so regulate the Value of Foreign Silver, so as to encourage the Importation thereof, to relieve our present Want, without making a Traffick of it.

3d. That we should take great Care to avoid hurting Landlord or Tenant, Creditor or Debtor, as much as possible by such Regulation.

I shall now mention several Schemes for the Regulation of our Coin.

#### FIRST SCHEME.

**T**HE first Scheme, I shall take Notice of is that which is for raising the *English* Crown to 5s. 7d.  $\frac{1}{2}$ , and the other Coins in Proportion.

If the Crown should be thus raised, then to preserve the *English* Proportion between the Crown, and our Gold Species, as near as conveniently we can ;

	<i>l.</i>	<i>s.</i>	<i>d.</i>
The Guinea must be raised to	1	3	8
The Moydore to	1	10	5
And the Pistole and Luidore to	0	18	10 $\frac{1}{2}$

as will appear by the following Table, wherein the *Irish* Values of 100*l.* *English* in each Species so raised are set down.

		<i>l.</i>	<i>s.</i>	<i>d.</i>		
100 <i>l.</i> <i>English</i>	{	in Crowns so raised, make	112	10	0	} in <i>Ire-</i> <i>land.</i>
		in Guineas	112	13	10	
		in Moydores	112	13	0	
		in Pistoles and Luidores	112	9	7	

This Scheme has this to recommend it, that it preserves

a pretty just Proportion in the Values of the several Species; but then by raising all our Species so high, 'tis manifestly injurious to all Landlords, Creditors, and other Persons, who are by Agreement, pay or salary, to receive any certain legal Sums; for in the Discharge of the said Sums, they will receive less Gold and Silver by 2 or 3 *per Cent.* than they would have done before the Raising, and consequently will feel the Loss in the Price of all Commodities, they shall have occasion to buy, which will always rise in Proportion as Money is raised.

As to the Merchants Scheme, which proposed to raise the Crown to 5*s.* 7*d.*  $\frac{1}{2}$ , and the Pistole to 18*s.* 8*d.* and to leave the Guinea and Moydore as they are at present; it is so much out of all due Proportion in every Species, especially between the *English* Gold and Silver, that it would only serve to introduce in another Manner the same Disproportion and Evil, and the same Traffick in Money which we have already suffered by.

This Disproportion appears by the following Table wherein the *Irish* Value of 100*l.* *English* in each Species so raised are set down.

		<i>l.</i>	<i>s.</i>	<i>d.</i>		
100 <i>l.</i> <i>English</i>	{	in Crowns so raised, make	112	10	0	} in <i>Ire-</i> <i>land.</i>
		in Guineas,	109	10	6	
		in Moydores,	111	2	2	
		in Pistoles so raised,	111	4	10	

## SECOND SCHEME.

**T**HE second Scheme, I shall consider, is that, which is for reducing all our Gold Species to the Value of *English* Silver current here, and for raising the *Mexico* Dollar to 5*s.*

In this Case, if Regard be had to the Value of our Gold Coins at the Mint of *England*, mentioned in the Table of Foreign Coins.

	<i>l. s. d.</i>
The Guinea must pass for	1 2 9
The Moydore for	1 9 3
The Pistole and Luidore for	0 18 2

'Tis certain that by this Scheme the due Proportion of the Values of our several Coins are preserved; and it must be acknowledged, that if Ten Years ago, when the Guinea was reduced in *England* from *1l. 1s. 6d.* to *1l. 1s.* we had at the same Time reduced all our Gold Coin in the same Proportion (as in true Policy we ought to have done) we should not have lost our Silver and smaller Species of Gold, and have been reduced as we are at present, to one large Species of Moydores; we should then have continued in the Possession of such a Variety, and equal Mixture of every Kind, as would have answered all our Payments and Dealings with the greatest Ease.

But it may be said, if a Reduction of our Gold would have been an Advantage to us 10 or 12 Years ago, it will be the same now. But I am humbly of Opinion, that the Case is very different now from what it was then, for the following Reasons.

1st. 'Tis well known that 15 Years ago the greatest Part of our current Species was Silver; that it was very difficult to get any large Payments in Gold, and that even Premiums were given then, to get Gold for Silver; that the Gold we then had was mostly Pistoles and Luidores; and that Moydores made the least Part of our Cash.

2d. Our Government in 1712 or 1713, some Time after Moydores began to flow in great Quantities from *Brazil* into *Europe*, settled their Values here by Proclamation at so high a Rate, that they were raised about  $2\frac{1}{2}$  per Cent above Silver, and much higher than any other Gold Species. As we then had a great Quantity of Silver among us, we were glad to get Gold in Liew thereof; our

Trafficers in Money laid hold of this Opportunity, and made great Advantage by sending out first our Silver, and after that our other Species, and importing Moydores in their Stead; and they continued to do this, till no more could be got to send abroad. By this Means Moydores are become almost the only current Cash of the Kingdom, and have been so for some Years. This Over-value of the *Portugal* Gold having thus Spirited away all our other Species, has in Effect, though not originally designed by the Government, been a Raising of our whole Species, since we have hardly any other left among us besides this, which has been highest raised.

3d. We must consider, as our Money has been raised, that in Consequence thereof the Prices of all Commodities and Lands have risen also. We are all very sensible that the Lands of *Ireland* have been generally set very high of late Years, and perhaps higher, with Respect to the Profit to be got by the Tenant than any other Lands in *Europe*, and that Rack-Rents have taken Place, since the Time that Moydores became our common Cash, and therefore may in some Measure be ascribed to the high Value of that Coin.

Now if our Moydores, which are almost our only Species, should be reduced Two and a half *per Cent*, it must be an Injury to all Tenants, who have taken Lands at high Rates, since Moydores have been so common among us, and also to all Debtors, and other Persons, who have of late Years entered into Contracts to pay certain legal Sums, which cannot be answered but by giving two and a half *per Cent* more in Moydores than they do at present: And since the Government has fixed this high Price on Moydores, and that, under that Value, and Presumption of its Continuance, People have entered into Contracts and high Rents; such a Reduction will in Effect fix an additional Rent, on all those, who are to pay any certain legal Sums of Money: And what is

this, but to oblige great Numbers of innocent Persons, who had no Hand in raising the Coin, to pay yearly more than they ought to do to others, without any Appearance of Reason for it.

Besides, such a Reduction must be a manifest Loss to the Kingdom, for if our *Absentees* now draw yearly out of the Kingdom 600,000*l.* at Two and a Half *per Cent* Loss by Exchange; on such a Reduction they will save that Two and Half *per Cent*, and consequently must carry out of the Kingdom yearly 15000*l.* more than they can at present. This is an Indulgence, not due to them, who pay no Part of the Taxes of their Country, and cannot in Reason expect that we should enter into Measures, which may enable them to carry more out of the Kingdom, who carry off vastly too much already

If our People had of themselves raised the Price of their Moydores, without the Governments interposing therein, they must have done it at their own Peril, and could have no Reason to complain, if the Government should think fit at any Time to fix another Value on them: But as all has hitherto been done by publick Authority, the said Authority no doubt will avoid hurting great Numbers of People, without a pressing Necessity for the same, which does not appear in this Case.

Perhaps it may be said, if Moydores are reduced 9*d.* a Piece, that this Loss can affect those only, who have them in their Possession, which will be but a small Loss to the whole Kingdom, and for once only.

But I conceive the Case to be quite otherwise, and that this will be a Loss not only to those, who shall have Moydores in their Possession at the Time of the Reduction, but a constant yearly Loss to all Tenants and others, who are bound to pay any certain legal Sums, for and during the remaining Terms of their Leases and Contracts: for in order to pay the said Sums, they will be obliged to pay more Pieccs, or greater Weights of Gold, which cannot be

done but by parting with more of their Commodities to purchase them.

It may be asked what Effect the Raising or Falling of Money has upon Exchange and Trade. 'Tis evident that on raising the Money of a Country, the *Par* of Exchange will rise, and will fall as Money is lowered. But this changing of the *Par*, as it arises only from a change made in the Nominal Values of equal Weights of Gold and Silver, in the Coins of two Countries, and not from any real Change made in those Weights, so it has no Effect on Trade; which regards only the Weights of Gold and Silver, and not any Nominal Values put upon them; for Commodities will still be bought and sold for the same Quantity of those Metals, notwithstanding a Change made in the Nominal Values of the Money of either Country.

But the raising of Exchange above *Par*, is occasioned by one Nation's becoming in Debt to another, for in this Case Specie must be sent by one Hand or other to pay the Debt or Ballance, and this Necessity raises the Exchange. So that the *Par* of Exchange depends on the Nominal Values of the several Species, and varies with such Values. But the Exchange above or under *Par* depends entirely on the Ballance of Trade, and not on the raising or lowering of Money.

But it may be said, an *Englishman*, who comes into *Ireland* to buy Goods, and takes the Benefit of the high Exchange, will trade to more Advantage by having the Benefit of such Exchange, than an *Irishman* can: But I think they are both in this Respect on an equal Foot: for tho' the *Englishman* on paying 100*l.* in London, can receive 11*l.* in *Dublin*, when Exchange is at 11 *per Cent.* and thereby has an Advantage in buying our Commodities; yet an *Irishman* who lays out 11*l.* here in the same Commodities, and has the Value of them returned to him from Abroad, will, upon the Return thereof into

*Ireland*, have the same Benefit of high Exchange, which the *Englishman* had before.

But if we are not to raise our Silver, or lower our Gold, in the Manner already mentioned: it may be asked, What must be done? since some Regulation of our Coin seems to be absolutely necessary.

It must indeed be owned, that a Regulation is much wanted, and yet 'tis very difficult to make it in such a Manner as could be desired; This Difficulty arises from several causes; first from our Coin's being made up of the Money of several Countries, each of them of different Allays, Weights, and Values. *2d*, From our reckoning our Money by Pounds, Shillings, and Pence, without having any one Species, that answers any of those Denominations. *3d*, From our Coin's being divided into such cross and unequal Parts, that it is almost impossible to make Alterations in their Values, without running into inconvenient Fractions, especially considering we have but few Farthings, and no Denominations under them.

I shall now propose a Scheme, which is a Medium between the other two Schemes, and though not such as I could desire, because of the Difficulties above mentioned, yet, I believe will be found to have much fewer Inconveniencies than the others, and to be attended with these Advantages, *1st*, That a pretty just Proportion in the Values of our Coins is observed therein. *2d*, That neither Landlord nor Tenant, Creditor nor Debtor, is injur'd thereby, or but very inconsiderably. *3d*, That some Encouragement is given to import Foreign Silver without making a Traffick of it.

### THIRD SCHEME.

**I**N this Scheme it is proposed to raise the Crown a Penny, and to settle the Values of the Gold Species as near as may be, to the Proportion of Gold to Silver in

*England.* And the Values of the several Gold and Silver Coins will stand thus.

<i>Pieces.</i>				<i>Values.</i>		
				<i>l.</i>	<i>s.</i>	<i>d.</i>
The Crown	-	-	-	0	5	6
Half-Crown	-	-	-	0	2	9
Shilling	-	-	-	0	1	1 $\frac{1}{2}$
Sixpence	-	-	-	0	0	6 $\frac{1}{2}$
Mexico Piece of Eight	-	-	-	0	5	0
Guinea	{ either	-	-	1	3	0
	{ or	-	-	1	3	2
Moydores	{ either	-	-	1	9	10
	{ or	-	-	1	9	8
Pistole and Luidore	.	-	-	0	18	6

The following Table shews the Difference *per Cent* of the foregoing Values of the several Species.

		<i>l.</i>	<i>s.</i>	<i>d.</i>		
100 <i>l.</i> <i>Eng- lish</i> in	{	Crowns will be	110	0	0	} In <i>Ire- land.</i>
		Mexico Dollars	111	2	2	
		Guineas { at 1 <i>l.</i> 3 <i>s.</i>	109	10	6	
		{ at 1 <i>l.</i> 3 <i>s.</i> 2 <i>d.</i>	110	6	4	
		Moydores { at 1 <i>l.</i> 9 <i>s.</i> 10 <i>d.</i>	110	9	10	
	{ at 1 <i>l.</i> 9 <i>s.</i> 8 <i>d.</i>	109	17	6		
	Pistoles and Luidores	110	5	0		

In this Scheme I have observed the same Proportion between the *English* Silver and all our Gold Species, which is observed in *England*, as far as the Crossness of our Coins will allow of, without giving any Temptation to import and export one Species more than another, except the *Spanish* Silver, which is valued about 1 *per Cent.* higher than the rest, in order to supply our present Want of Silver.

By this Scheme the *Par* of Exchange, or Difference between *English* and *Irish* Money, will be a little above 10 *per Cent.* at a Medium, which is something less than it is at present; and for that Reason Landlords and Credi-

tors will have an Advantage, and Tenants and Debtors a Disadvantage, but the Advantage of the one, and Disadvantage of the other, are small, and hardly worth considering.

Thus all the Ends we propose to ourselves in regulating our Coins, will be answered, which are, to settle a due Proportion of their Values, to avoid hurting any one as much as possible by such Regulation, and to give some Encouragement for importing Foreign Silver.

The greatest Inconveniency of this Scheme is this, that the Shilling is to pass for  $13d.\frac{1}{4}$  and yet we have no Farthings to change it. 'Tis true, we have very few at present, but 'tis hoped we shall not continue long without them. For this Purpose I shall suggest, in what follows, a Way to be immediately supplied with a Stock of them.

Raising the Crown a Penny, cannot hurt any Body, since we have but little Silver among us, and ample Amends is made for that in the Reduction of the Moidore, which is almost our only current Specie.

It may be said, if the *English* Six-pence shall pass but for  $6\frac{1}{2}d.$  there will be a Loss in all those Pieces of half a Farthing. But to this it may be answered, that as every one will pay them, as he receives them, no Body will lose by them: And if two of those Pieces be made to pass for  $13d.\frac{1}{4}$  there can be no Loss but in the single Six-pence. It may be also said, that Five single Shillings will be worth a Farthing more than the Crown; 'tis true this Disproportion happens, but this is the same Inequality we formerly had, when the Crown-Piece passed for Six Shillings, and the Shilling but for  $14d.$  in consequence of which 5 of them made but  $5s. 10d.$  this indeed encouraged the importing of Crown-Pieces, rather than Shillings, into the Kingdom; and if the small Disproportion here taken notice of can have any Effect, it will be bringing in Shillings rather than Crowns, which would be more for our Service.

In the Values here exhibited of our several Coins, I have Regard only to the Standard Value of Gold and Silver at the Mint of *England*, because I think we ought to govern ourselves therein by the same Rule that *England* does: If *England* should think proper at any Time to raise the Silver in Respect of Gold, we ought to follow their Example, but to make no Alteration till then.

But after all that has been said for regulating our Coin, when we consider that almost all our Money is made up of Foreign Coins, of different Weights, Standards, and Values; that Foreign Nations often change the Standard and Weights of their Pieces, and that on these Accounts it must ever be difficult accurately to adjust the Values, which the several Species, great and small, ought to bear to one another; I say, when these Things are duly considered, it will be found that there is no other Way of freeing us from these Inconveniencies, but by having either a Mint established in *Ireland*, or Money of our own coin'd in the Mint of *England*.

All these Difficulties would be effectually removed by Coining several Species of Copper, Silver and Gold Coins, of such Standards, Weights, and Values, compared with the *English*, as shall be thought proper and most convenient for us. Then we should be so happy, as to have Coins, which would pass without weighing, which would be a great Blessing to all our People; Foreign Coins would pass only as Bullion, and we should not then be imposed upon by counterfeit, clipt, or base Money, as we always were, when we had a Multitude of Foreign Coins.

'Tis not to be doubted, but His Most Gracious Majesty, out of his Affection for his Faithful People of *Ireland*, will be pleased to grant them this Favour, which does not in the least interfere with the Interest of any other of his Subjects, since it wholly relates to our selves, and is desired only to remove the many Inconveniencies we suffer in our Domestick Commerce, by the Disproportion of our

Coin: Nay will it be an Advantage to *Great-Britain*, for when we have Coin of our own passing among us, we shall not be tempted to draw out of *England* any of their Species.

In Case it should be thought proper to establish a Mint here, since it must take a considerable Time before we could be furnished with Money from thence, it may, in the mean Time, be adviseable to make some Regulation in the Values of our Coins, either upon the Plan of the last Scheme, or any other that may be thought better; and not to fail to give Encouragement to the Importation of *Spanish* Silver, especially at this Time, when the Effects of the Galleons are distributed, and we may well expect that a good deal of Silver will be imported, if we give it such a Value, as shall encourage People to bring it, and to keep it here; and it will have this good Effect also, that when we shall come to coin Silver Species, we shall then have Silver in the Country to keep the Mint at Work.

I do not see any Apprehensions we need fear of our being over stocked with Silver, I am sure we are in great Want of it at present; and if we shou'd find at any Time too great a Quantity pour in upon us, which is not likely to be our Case, 'tis an easy Matter to stop this Glut, by lowering the Dollar a Penny or Two Pence by Proclamation.

But in Regard we cannot have Half Pence, or Farthings, which we want so much, in any convenient Time from our own Coinage: It may be adviseable to endeavour to get from the Tower of *London* (with his Majesty's Leave) a Supply of 10000*l.* worth of Half Pence and Farthings: The Mint-Masters are now at Work in the Tower, and employ five Presses in coining Half Pence for *England*; and when this Work is over, they may be employed in *coining* Half Pence and Farthings for *Ireland*

at 10 *per Cent.* less Value than *English* Half Pence, and be paid by us for the Copper and Coinage.

Thus without any Loss to *England* and some Gain to the Mint, we might be furnished with a sufficient Quantity of Half Pence and Farthings of more intrinsick Value than any we have hitherto had, and which wou'd of course prevent any new Half Pence of less Value from being coin'd upon us.

If we shou'd be favoured with a Mint here, it wou'd be adviseable to divide the new Silver and Gold Coins, into one, two, and four Pieces, which Division of the Coin is best suited for reckoning, and is observed by most other Nations, and by the *English* in their Gold Coins; for they divide their Silver Coins into one, two, five, and ten Pieces, which are not commensurate with the Pieces of other Coins.

Our Gold Species may be coined into Pieces of 10*s.* 20*s.* and 40*s.* and the Silver into Pieces of 6, 12, 24, and 48 Pence, and will thereby be well fitted for reckoning, and if the Difference between *English* and *Irish* Money be settled at 10 *per Cent.* then 11*s.* *Irish* will be equal to 10*s.* *English.*

As long as Foreign Coins passing among us must be weighed, it would be convenient in that Case, to order that a Penny only should be abated, when half a Grain in Gold is only wanted; whereas now, if a Piece wants the least Thing to make it standing Weight, Two Pence is allowed for it when perhaps there is Three Half Pence more Gold in it than it passes for. This gives our Cunning Men an Opportunity in such Cases to file off Three Half Pence worth of Gold; but if only a Penny was allowed when a half Grain was wanting, no Body could lose more than a Penny with very bad Scales. If it be said, that a half Grain is too small to be handled with Ease, this may be remedied by adding a new Weight of a Grain and a half.

In weighing Silver Coins, it would be proper to have a Weight of Four Grains, and to allow a Half Penny for the Want of it. Whereas at present we have no less Weight than 12 Grains or half a Penny Weight, which is worth Three Half Pence: For want of such a Weight we must at present allow, as much, when a Piece wants only one Grain as when it wants twelve. This gives a Temptation of clipping Foreign Coins, and to take of a Penny or more of their Value, so that the Piece may just turn upon the Scale; and if a Person imported from Abroad Four Quarter Dollars, and each of them wanted a little of Weight, perhaps not a Half Penny or Four Grains in the Whole; then there was abated Six Pence for Want of Weight. And this was likely the Reason that we had formerly but few of the small Foreign Silver Pieces current among us, our Merchants judging it better not to import them at all, or to melt them down, because they were likely to lose considerably by the Manner of weighing them.

*FINIS.*

A N

ESSAY

UPON

MONEY and COINS.



PART I.

The Theories of COMMERCE, MONEY, and  
EXCHANGES.

LONDON,

Printed: Sold by G. HAWKINS, at the *Middle Temple*  
*Gate, Fleet-street.* M.DCC.LVII.



To the Honourable

RICHARD ARUNDELL, *Esq*;

As a testimony of Esteem for his great Worth and Abilities, and as a grateful acknowledgement for many Marks of his Favour and Regard, during a long course of years; this Tract

Is humbly Inscribed and Dedicated, by

His most faithful

and obedient Servant,

THE AUTHOR.



## P R E F A C E.

*THE main part of the following essay, was drawn up many years since for a truly great and good man ; one who, if it had pleased God to have continued his life but a little longer, intended, amidst his other great designs for the good of this country, to have made such regulations in regard to our coins, as probably would have obviated all complaints about them for the future. The chief design of this first part, is to unfold the true nature and theory of money : A subject wherein every one is interested, and that in some measure in proportion to his property ; and yet, a subject it seems, that very few understand ; and concerning which, many, and those too of some note, are under gross mistakes.*

*In order to clear the way, and for the better settling of things upon their first and true principles, it hath been thought necessary to take a general view of wealth and commerce, which is the subject of the first chapter ; and the third, concerning exchanges, is not quite foreign to the main design.*

*Some of the points here touched upon, deserved to have been discussed more at large, if the designed brevity of the whole would have permitted. The author is clear as to the goodness of his intention, and hopes that his ill state of health, while these sheets were printing, will be admitted as an apology for such faults as may have happened in the execution.*

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# PART I.

## *The Theories of* COMMERCE, MONEY, and EXCHANGES.

### CHAPTER I.—*Of the nature and origin of wealth and Commerce.*

#### *I. Of wealth, what, and wherein it consists.*

1. **T**HE earth abounds with an infinite variety of materials, for the comfortable subsistence of human life: Besides the great diversity of food, vegetable and animal, more than sufficient to satiate the most gluttonous appetite; how admirably are wood, stones, metals, &c. adapted to their various uses! What is there left unprovided, and of what kind is that other material that could have added to human conveniency? But amidst this vast profusion of things, the earth spontaneously produces but few that are ready fitted for our use: Some pains and industry are required on our part, without which our condition upon this globe would, perhaps, be the most forlorn and uncomfortable of any of its inhabitants. But of this we have no cause to complain: Labour or bodily exercise, in a certain degree, is not only easy but pleasant to us, conducive to our health, and every way suited to our nature; and we are endued with ample powers for adopting and fitting the materials about us, according to our various exigencies and occasions. Land and labour together are the sources of all wealth; without a competency of land, there would be no subsistence; and

but a very poor and uncomfortable one, without labour. So that *wealth* or *riches* consist either in a propriety in land, or in the products of land and labour.

*In wealthy countries, the value of the labour is much greater than that of the land.*

2. The proportional values of land and product, differ very much in different countries; as the soils are respectively more or less fertile, and the inhabitants more or less industrious, and skilful. Without some kind of tillage, much land will be requisite to maintain a few inhabitants; and a small field of wheat will afford nourishment to more people, than a large forest yielding nothing but acorns and wild fruits. The annual produce of labour in *England*, I imagine, is of much greater value than the rent of the land; but their exact proportion to each other, cannot be easily assigned. It is commonly supposed that a farmer, to be enabled to live comfortably, must make three rents of his land; and when we consider the coarseness of those commodities, that are commonly expended in a farmer's house, in comparison of many others consumed by those of more affluent fortunes; the value of labour to that of land, must be with us greater than that of 2 to 1. Wool wrought into cloth is much advanced in its value; thread may be of above 100 times the value of the flax whereof it was made. The value of the materials in \* watches, and innumerable other things made of metals, is but small in comparison of the value of the workmanship. But we must not pursue this notion too far: The numbers employed about these costly things, may not bear a large proportion to those who are either idle, or occupied about  
10 tillage,

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\* The balance spring in a good watch is worth above a million of times the value of the steel.

tillage, buildings, or other manufactories; where the raw materials are worth near as much, or sometimes more, than the labour bestowed upon them. The *British merchant* computes the value of labour to that of land in *England* to be as 7 to 2\*. He supposes the people of *England* to be 7 millions, and each man at a medium to expend 7 pounds each, which makes the whole annual consumption of *England* 49 millions; 45 millions of which he supposes to be our own product, 4 millions foreign commodities; and the rents of the lands he makes 14 millions.

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II. Values

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\* This shews the great value of arts and industry. But their usefulness doth not terminate in the mere value of their productions; their benign influence extends much farther. By furnishing employment, at the same time, both to the mind and body; they tend to improve the understanding, to humanise mankind, and to preserve them from that brutal barbarism, which is ever the attendant of stupid indolence and inactivity. Each individual, by a laudable industry, striving to benefit himself; the whole community share the fruits, and peace and good order is every where maintained.

But here occurs a difficult question; how to employ usefully all that are fit and able to work, and to maintain comfortably such as cannot help themselves? Our indulgent parent hath so ordered things, that it should not be necessary for all to work: Some compute, that the labour of one-fourth of the people is sufficient to maintain the other three-fourths; that one-fourth, as infants, old people, &c. are quite helpless: that one-fourth live upon their lands; whence one-fourth are left for the learned professions, state offices, and for being merchants, shopkeepers, soldiers, &c. Here then are three parts that are mere consumers; and as a country grows in wealth, the candidates for genteel employments may become more numerous in proportion to the rest, perhaps too much so for the land and labour to maintain: And thus, too many expecting a livelihood without labour, murmurs, complaints of the decay of trade, want of money, &c. will be loud. Amongst the lower class, some professions at times will be naturally overstocked: But if there be want of employments upon the whole, there must be some defect in our police; as the produce of *England* is undoubtedly sufficient, to employ and maintain comfortably, a much greater number of inhabitants.

II. *Values of things, how estimated.*

3. Things in general are valued, not according to their real uses in supplying the necessities of men; but rather in proportion to the land, labour and skill that are requisite to produce them: It is according to this proportion nearly, that things or commodities are exchanged one for another; and it is by the said scale, that the intrinsic values of most things are chiefly estimated. Water is of great use, and yet ordinarily of little or no value; because in most places, water flows spontaneously in such great plenty, as not to be with-held within the limits of private property; but all may have enough, without other expence than that of bringing or conducting it, when the case so requires. On the other hand, diamonds, being very scarce, have upon that account a great value, though they are but of little use. A quicker or slower demand for a particular commodity, will frequently raise or lower its price, though no alteration hath happened in its intrinsic value or prime cost; men being always ready to take the advantage of one another's fancies, whims or necessities; and the proportion of buyers to sellers, or the demand for any particular commodity in respect to its quantity, will always have an influence on the market. The intrinsic value of a particular commodity may be also enhanced, though its quality is debased; as a bushel of musty grain at one season, may be worth much more, than the like quantity of good grain at another.

*Cheapness, how estimated.*

4. Commodities are called bulky or said to be \* cheap, which bear but a small proportion of value to others of  
 12 equal

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\* Things are also said to be cheap or dear, in respect to the prices they bore at some former market.

equal bulk ; and these are natural products, either growing spontaneously, or requiring no great art and labour in their cultivation ; as grain of all sorts, cattle for food or labour, timber and stone for building, fuel, &c. The goodness of Providence having so ordered things, that those main supports of life should abound every where, according to the exigencies of different climates. And of metals, that most useful one, iron, is in our happy clime the cheapest.

*Natural products, &c. subject to a greater variation in their value, than artificial.*

5. The quantity of corn, &c. produced from the same number of acres, and from the same quantity of labour, being sometimes very different, according to the difference of seasons ; grain of all sorts, as also cattle from mortality amongst them, or other casualties, are subject to much greater variations in their values, than artificial products ; and a bushel of corn may be worth twice or thrice as much cloth, at one time as at another. Corn must be had ; and the farmers will endeavour to make as much of their small stock, as when they had a greater plenty ; on the other hand, when the market is full, they must lower their price ; till, after reckoning the value of the land, the labour bestowed in raising a bushel of corn, and in fabricating the thing for which it is exchanged, are on both sides nearly equal. Things of a more limited vent, are subject to vary yet more from their usual price, than corn, as apples, hops, &c.

*Things are the more valued, the farther they are from the place where they were first produced.*

6. Things near the place where they are produced, whether by nature or art, have naturally a less value in proportion to other things, than they have in places more

remote; and this in proportion to the risques of all sorts, and expences of carriage. Silver is naturally cheaper in *Mexico* than in *Spain*, and in *Spain* than in the rest of *Europe*. Things that are rare, or for which there is no great demand, are generally dearer than in the above proportion: For, when there are but few dealers in any commodity, they seldom fail to enhance its price, and that sometimes very exorbitantly. One great mystery of trade, is to keep off new adventurers, by concealing its profits; and whilst that may be done, the gains will be large.

III. *The price of labour, the chief standard that regulates the values of all things.*

7. The values of land and labour do, as it were of themselves, mutually settle or adjust one another; and as all things or commodities, are the products of those two; so their several values are naturally adjusted by them. But as in most productions, *labour* hath the greatest share; the value of labour is to be reckoned the chief standard that regulates the values of all commodities; and more especially as the value of land is, as it were, already allowed for in the value of labour itself.

Men's various necessities and appetites, oblige them to part with their own commodities, at a rate proportionable to the labour and skill that had been bestowed upon those things, which they want in exchange: If they will not comply with the market, their goods will remain on their hands; and if at first, one trade be more profitable than another, skill as well as labour and risques of all sorts, being taken into the account; more men will enter into that business, and in their outvying will undersell one another, till at length the great profit of it is brought down to a *par* with the rest.

*Some estimate of the value of labour.*

8. It may be reasonably allowed, that a labouring man

ought to earn at least, twice as much as will maintain himself in ordinary food and cloathing; that he may be enabled to breed up children, pay rent for a small dwelling, find himself in necessary utensils, &c. So much at least the labourer must be allowed, that the community may be perpetuated: And as the world goes, there is no likelihood that the lowest kind of labourers will be allowed more than a bare subsistence; if they will not be content with that, there will be others ready to step into their places; and less, as above observed, cannot be given them. And hence the quantity of \* land that goes to maintain a labourer, becomes his hire; and this hire again becomes the value of the land; the expences of manuring and tilling it, being also included. There is a difference in the proportion of the value of an acre of land to a given quantity of labour, all over the world; and this ariseth, not only from the different goodness of the land, but also from the different ways of living of the peasants in different places. For, where labour is very cheap, that is, where the labourers live very poorly, land will be also cheap; as the poor, from their numbers, are the principal consumers of the grosser products of the earth. So that every where, I think, the price of land is influenced by the price of labour; that is, by the quality of food and raiment consumed by the labourers; for of some sort, they must have a sufficient quantity: It seems then to be no good policy in the rich to deal too hardly with the poor; besides, that such treatment must needs greatly check arts and industry, discourage matrimony among the lower class, and inspire them with thoughts of quitting their homes, in hopes of bettering their state elsewhere. But the benevolence here hinted at, is to be tempered with dis-

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\* Lands yielding uncommon products, as mines, &c. are not here considered; the uncommonness of them gives an opportunity to the owners of making more than ordinary profit by such products.

cretion: The children of the poor should be brought up and inured, as early as may be, to some useful labour; and be taught with due care, the great principles of religion and morality. But all are not agreed that reading and writing, are qualifications necessary for the obtaining of those ends; some think, that these accomplishments are useful only in higher stations; and that to instruct at a public expence the youth of the lower class in reading, writing, &c. is a kind of intrusion upon the class next above them; that these qualifications, instead of being advantageous to the poor who possess them, serve only to render their state more irksome, and to inspire them with notions subversive of society. There must be labourers; and that most useful class of men should be duly cherished and taken care of: But books and pens will not alleviate the weight of the spade, or at all contribute to dry the sweat off the labourer's brow.

*Charitable contributions necessary.*

9. The price of labour being fixed, so that one labourer can earn about twice as much, or something more, than what will maintain himself; if he has several young children, a sickly wife, an aged and helpless parent, or is himself disabled; he will want, and will have a right to ask, the charitable aid of some of his opulent neighbours: It is therefore almost unavoidable, but that some of the lowest class will be destitute of subsistence, who must or ought to be maintained and taken due care of, by public contributions or establishments\*. If a man be single, he will earn as much as the married man; for no regard to a man's circumstances will be had in the price of his labour;

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and

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\* Great care should be taken that all charitable contributions are duly applied to their proper objects, and are not embezzled or wantonly squandered.

and so the single man may feed and clothe himself better than the other; and if he is frugal, he will save somewhat against he is married, which little savings may enable him to live more comfortably all the rest of his life.

*Mechanics earn more than labourers, &c.*

10. To bring up a child to a trade, there is not only an expence in fitting him out, and during his apprenticeship, but also a risque of his dying before he is out of his time; from which considerations a mechanic is entitled to better wages than a common labourer: And as any given trade is attended with greater risques of any sort, requires more skill, more trust, more expence in setting up, &c. the artificer will be entitled to still better wages. In like manner those professions that require genius, great confidence, a liberal education, &c. have a right to be rewarded proportionably. And thus, the prices of labour and services of different sorts, have a considerable difference founded in the nature of them: But the wages of the lower class, wherein is to be included, as well the common artificers as the husbandmen, seems to be the main and ultimate standard that regulates the values of all commodities: and if those wages be regulated by and paid in bullion, that specific bullion will be the true and real money of the country where it is so applied, notwithstanding what else may pass in greater transactions.

*IV. Of trade or commerce.*

11. By the wise appointment of divine Providence, a mutual intercourse and commerce amongst men, is both conducive and necessary to their well being. Every man stands in need of the aid of others; and every country may reap advantages, by exchanging some of its superfluous products, natural or artificial, for those which it wants of foreign growth.

The first employments that a colony of people, newly settled in an uncultivated country, would naturally fall

upon, would be to clear, till and sow, or plant the ground with seeds and roots proper for their nourishment; and to provide themselves with some kind of dwellings and garments, to shelter and protect them from the inclemencies of the weather: In order to obtain which, they would soon find themselves under the necessity, and feel the comforts, of associating together, and of establishing a certain mode or form of government. For, all the labour and skill of any one man, or of any one family unconnected with others, would scarce be able to procure them the common necessaries of food and cloathing; and much less would they be ever able to furnish themselves with those various conveniences, which we now so plentifully enjoy.

Men are endued with various talents and propensities, which naturally dispose and fit them for different occupations; and are, as above observed, under a necessity of betaking themselves to particular arts and employments, from their inability of otherwise acquiring all the necessaries they want, with ease and comfort\*: This creates a dependance of one man upon another, and naturally unites men into societies. In like manner, as all countries differ more or less, either in the kinds or goodness of their products, natural or artificial; particular men find their advantages, which extend to communities in general, by trading with the remotest nations.

It was the necessities of men that gave birth to the arts, and long experience hath brought many of them to a surprising degree of perfection. The most curious arts now subsisting are the growth of *Europe*, and chiefly of the last and present age; and herein, our own country hath much to boast of †.

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\* The mutual conveniencies accruing to individuals, from their betaking themselves to particular occupations, is perhaps the chief cement that connects them together; the main source of commerce, and of large political communities.

† The name of *NEWTON*, to omit many others of great eminence in

*Usefulness of distinct trades, farther illustrated.*

12. The advantages accruing to mankind from their betaking themselves severally to different occupations, are very great and obvious: For thereby, each becoming expert and skilful in his own particular art; they are enabled to furnish one another with the products of their respective labours, performed in a much better manner, and with much less toil, than any one of them could do of himself\*. And the world now abounds with vastly

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greater

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different kinds of knowledge, will do honour to this nation, whilst men continue civilized, and preserve the sciences among them. We have lately lost a mechanic, whose assistance on many occasions was eagerly courted, even by our vain and rival neighbours; a man well known, and, being known, admired, in all the principal courts, and learned academies of *Europe*. I need not say that I here mean the late GEORGE GRAHAM, whose eminent skill in mechanics, by which he was known to the world, was yet known to his friends to have been but a small part of his merit. We have yet several artists who excel in their respective professions, all that went before them. What Mr. HARRISON hath done about *clocks*, is truly admirable; and *mathematical instruments* were never made so perfect and exact, as they have been and still are by Mr. BIRD: These men stand unrivalled. I have many more very excellent artists in my eye, but I forbear naming any, lest I should do injustice to others who might have an equal share of merit.

Whilst I am celebrating the superior skill of some of our most eminent artists, I am not very wide from my subject: And I wish it was duly considered, by those who ought to consider it, what countenance and encouragement is due to such men; what great benefactors they are to their country, what great reputation and wealth they bring to it, who by their fame and example create emulation in others, and so raise and support a reputation of our artificial products in distant countries.

\* When our great load of taxes, reaching down to the meanest artificer, is considered; it would seem that labour is cheaper in *England* than in other countries; that is, that our artificers are more skilful, and produce more and better goods in a given time, than is usually done elsewhere: For, in comparing the price of labour, the mere consumptions or earnings of the labourers, are not

greater quantities and varieties of artificial products, than could ever have been effected by the utmost efforts of small and unconnected societies. The farmer is the most likely person to be able to subsist of himself; but he would find it very difficult to get even implements for his husbandry, without the aid of the smith and the carpenter; and they again, find it their interest to truck with him for what they want, instead of tilling the ground themselves. In building and furnishing a house, the business becomes still more complex; and more variety of arts are necessary. And should any one undertake to provide a coat only, by going himself through the various operations of shearing the wool, carding, spinning, weaving, tucking, &c. half the labour and toil in his own particular profession, would not only have equipped him with a better garment, but also procured him other necessaries\*. Besides the great incumbrance of tools, that would be requisite for the finishing of most things from the beginning; it would be next to impossible for any one man, either to find time, or to acquire skill sufficient, for the making of all those tools; he would soon find himself at a loss, and under a necessity of seeking the aid of others.

*Usefulness of dealers.*

13. The usefulness of people betaking and confining themselves to particular arts, is very manifest. And from

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hence

alone sufficient; what their labour produces, must also be taken into the account. Without supposing that labour, in effect, is really cheap with us, it would be difficult to account how such large quantities of our artificial products could be vended abroad. But how long this supposed superiority of our workmen, can be able to balance our other disadvantages, deserves seriously to be considered.

\* Agreeable to this is the old *adage*, "Jack-of-all-trades will never be rich." And those smattering geniuses who will be meddling in various arts, rather than employ others in their proper callings, are but poor oconomists, as well as bad neighbours.

hence naturally arise employments for another class of men ; I mean, dealers of all sorts, from the meanest shop-keeper to the merchant : These, without applying themselves to any of the manual arts, are busied in collecting, and afterwards in distributing, the various sorts of products or commodities ; and by their arts and industry, the products of the remotest places are collected, as it were, into grand store-houses ; where every one may be readily supplied, according to his desires.

The dealers, like the artificers, are subdivided into distinct trades, and so, become mutually serviceable to each other. Without this subdivision, commerce would have been strangely embarrassed ; many parts of it must have been totally neglected ; and a monopoly here would have like bad effects, as if men tried themselves to make all the things they wanted.

*Usefulness of commerce farther exemplified.*

14. To exemplify the nature of commerce a little more particularly : Amidst the farmers, which we will suppose are dispersed at convenient distances over the whole country, there will be villages of different sizes, dispersed at yet greater distances. In these villages, besides some farmers, and some poor husbandmen ; there will be most likely a smith, a carpenter, an alehouse-keeper, perhaps a butcher ; if not a shoe-maker, at least a cobbler, a petty grocer, &c. In larger villages, there will be more of these trades, and some others besides : All these have their food of the neighbouring farmers, and are supported by what they earn of them, and of one another. Their overplus, the farmers carry to the adjacent market-towns ; wherein are a greater number, and a greater variety of artificers ; more shops, and better sorts of goods ; more publicans, and better entertainments, than are in the villages. The several shopkeepers here, fetching many or most of their goods from remote places, in large quantities at a time,

can afford to furnish their respective customers at a much cheaper rate, than they could furnish themselves; as they save each of them the trouble, risque, loss of time, and expence of a long journey. These shop-keepers know also, how to procure their goods at the best hand; and they take care to furnish themselves, with whatever is necessary for the consumption of the adjacent country. The farmers, likewise, find it their advantage to dispose of their superfluous cattle, butter, cheese, &c., to drovers and chapmen, that come to meet them at known appointed fairs; and they again, know where to drive and carry, by wholesale, those commodities to a better market.

The trade of large towns, is again branched out into greater varieties; these not only supplying the lesser towns, as they do the villages, but also affording many curiosities, fit only for the gentry and people of affluent fortunes. In like manner, manufacturers and dealers, find it their interest to seek each other: Knowing before-hand where and how to dispose of his goods; the one, is enabled to pursue and cultivate his art, without that loss of time and interruption, to which he would be otherwise liable; and the other, having in his warehouse various sortments of different goods, bought at the best hand from different manufacturers, furnishes not only the petty shop-keepers or chapmen of his neighbourhood, but also many others in remote places, with all the sorts they want; which would have been endless and too expensive for them to have done, by going themselves for their little quantities to the several manufactories, which might be dispersed at great distances.

Thus, as in the manual arts, it is the interest of each dealer, to confine himself within a certain district; and this, likewise, is of mutual advantage to the whole: By this œconomy, each particular trade becomes better understood, better cultivated, and carried on easier and cheaper; the whole community is, as it were, thereby linked together

in one general commerce; and by a daily intercourse and correspondence, a large country becomes in effect as one great city; greater numbers, creating more employments, and contributing to each other's better subsistence: It being a constant observation, that the poorest living is in thin inhabited countries. Indeed, it is trade that makes countries populous, as well as what procures the inhabitants a comfortable subsistence. Again, by the diligence of the merchant, in investigating and dispersing the products of different countries; all nations become, as it were, connected together in a commercial interest; and all enjoy the benefits of the various productions of different climates.

*Of foreign commerce.*

15. In a nation skilful in arts, and abounding in products for the necessaries of life; the due ordering of its own internal trade, must be its greatest concern: But yet foreign commerce is advantageous, in many respects. By the great and almost inexplicable circuit and labyrinth of trade, the peculiar riches of each respective country, are dispersed every where, to the mutual benefit of all mankind; and the whole world becomes, as it were, one community or great trading city; every climate, by the means of commerce, enjoying the peculiar fruits of the rest: By commerce, not only commodities natural and artificial, but the arts themselves are also communicated, improved, and extended; industry promoted, and useful employments found for a greater number of hands. There is perhaps no nation in the world, but what might subsist of itself; most countries abounding with means of sustaining life, suitable to their respective climates; and yet, perhaps, there is no country so fertile, or nation so polite, but what may be greatly benefited by a foreign commerce. In the *West Indies*, where labour is toilsome, a small degree of it suffices to procure plenty of roots for bread;

and a sufficiency of flesh, fish, and fowl, are easily obtained. But the artificial products of *Europe*, are a beneficial exchange for the produce of the cane; and this again is convenient and acceptable to the *Europeans*.

Every nation should have a watchful eye over its foreign commerce; for it might so happen, that a trade which enriches the merchant, might impoverish the public. That trade is most beneficial, which exports those commodities that are least wanted at home, and upon which most labour hath been bestowed; and which brings in return the reverse sort; that is, simple products, either necessary for immediate consumption, in the form they are imported; or as materials to be wrought into commodities, wanted either for home use or exportation. In few words, that trade is best, which tends most to promote industry at home, by finding employment for most hands; and which furnishes the nation with such foreign commodities, as are either useful and necessary for our defence, or more comfortable subsistence. And that trade is the worst, that exports the least of the product of labour; that furnishes materials for manufacturies in other countries, which afterwards might interfere with some of its own; and which brings home unnecessary commodities, either soon perishable, or of a precarious value. But no nation can in all cases chuse for itself: The immediate disadvantages of some trades are to be overlooked, if in the long run and great circle of commerce, they at last turn out to be beneficial. Natural alliances, and natural rivalships, for such there are, and ever will be, betwixt particular nations, are also subjects of great moment to the statesman, though not to the merchant, in the consideration of a beneficial commerce. And to a maritime country, the increase of shipping and of mariners, is an object of great importance.

I am unwarily entered upon a large field; but my view under this head, being only to give a general idea of the

nature and benefit of trade, by sketching out some of the principal lines, I must here proceed no farther: To treat this subject with tolerable accuracy, would be a large, curious and useful undertaking\*.

V. *Of the comparative riches or wealth of nations.*

16. The comparative riches and strength of nations, are not to be reckoned from the extent of their dominions, or simply from their numbers of people; but rather from the fertility and aptness of the soil, for furnishing useful and necessary products; from the industry of the inhabitants, and their skilfulness in arts; and besides all this, from their having a well-modelled, and well-administered government: For a good government is itself a most valuable treasure, a main source of riches, and of all tem-

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\* This would be no less than the taking a general view of the whole political oeconomy of established communities; it would be shewing how the several parts are necessarily connected, mutually dependent on and subservient to each other, and to the whole: Such a work might be of singular use to the statesman, by pointing out to him, what parts are growing too luxuriant, and what parts want further nourishment and countenance; and perhaps, in the whole system of politics, if the whole doth not ultimately terminate there, no part is of that importance as the preserving of a due order in all things at home.

How trades beget and nourish each other, is beautifully described in a book, containing many judicious observations upon that subject, entitled *A plan of the English commerce*, page 20 to 27. The author, after supposing fifty farmers, each with two hundred pounds stock, settled in a kind of circle of a convenient extent in some uninhabited part of *England*, shews how in a little time a town with various trades, would be naturally built and settled in the midst of them; and how these farmers and their families, which he supposes to consist of 350 persons, would bring to them and find maintenance for at least 1000 persons more. The whole detail is too long for this place, and to abridge would be to maim it. This book was printed for *C. Rivington*, in *St. Paul's Church-yard*, anno 1718.

poral blessings. The *Russian* map, takes in a larger extent of country than all *Europe*; and yet that nation till of late, made no great figure upon the stage of the world. I am inclined to think that the territory of *Great Britain*, is more \* valuable, though less extensive, than *France*; and the *English* artists upon the whole, take the lead of all the world. The *French* are much more numerous than we are, and perhaps also more skilful in the arts of war; and their government, for sudden enterprises, is † better framed than ours: But the *English* commonalty are more robust, brave and intrepid when roused; and have from their soil and skill in arts, such great resources and advantages, that if they do but preserve their ‡ constitution entire, maintain a public spirit, with union and concord amongst themselves; they may continue their independency upon other nations, to the latest times. But futurity is not ours: Let us, whilst we are, each in his place, act our parts like men, and all will be well.

The stock of a nation in all sorts of productions, natural and artificial, is to be included in the idea of its riches; and more especially its stock of those things that are necessary for the support of life, and for defence against enemies: For as men are circumstanced, this last also is a necessary ingredient. An industrious and skilful nation, having the land well stocked; the houses well furnished;

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\* Besides having of our own growth, plenty of all sorts of provisions, materials for buildings, apparel, &c. we have also *lead, tin, copper, iron, calamy, coal, culm, allom, copperas, fullers earth*, and sundry other minerals; some of which are in a manner the peculiar growth of this country, and very desirable abroad: But I do not recollect to have heard, that *France* yields any one natural product wanted by us.

† This advantage is, in many other respects, much overbalanced by the milder and more temperate frame of our government.

‡ The freedom of this nation, is the true parent of its grandeur: If ever it becomes enslaved, its august and mighty monarch, will dwindle into an inconsiderable and petty tyrant.

the shops, warehouses, granaries and magazines of all sorts, well filled; may with great propriety be said to be rich: To this estimate, must be also added all the goods in foreign warehouses, that are the property of its merchants. When the riches of a country, are considered under this extensive view; the whole amount of its cash or bullion, cannot make so considerable a part, as people are apt to imagine. We shall consider more particularly hereafter, in what sense, and how far, gold and silver are riches: But we are not to form an idea of the riches of past ages, from the abundance they had of those metals. The *Inca's of Peru* were not the richer, for the immense masses of gold they possessed; and its being so greedily coveted, proved the cause of the loss of their country: Could they have changed their gold into iron, it would have been vastly more serviceable to them; and with it, they might probably have defended their country, against those merciless invaders, that used them so barbarously. We should not yet perhaps, reckon those people so very despicable and poor, because they had but few of the arts amongst them: They were in possession of a goodly country; had plenty of sustenance; of such apparel and buildings, as gave them content: If they had no learning, they yet had good manners, probity, and a regular government; worthy, in many respects, the imitation of the politest *Europeans*. But we, having tasted the sweet fruits of arts, could not part with them, without feeling the utmost reluctance; without being in a high degree sensible of the calamitous distresses of poverty. It is in the product of arts, that riches chiefly consist; and if we reckon by this standard, the present age is probably richer than any of the past; and our own nation is herein, not inferior to any of its neighbours.

*Of sumptuary laws.*

17. The desire of increasing in wealth and riches, is  
27 universal;

universal ; many cry out against luxury, and wish to have it stopped by *sumptuary laws*. But this is a matter of great delicacy, and requires a nice judgment : Such laws, if not well considered, might be productive of effects, contrary to their intention. The curious arts of all sorts, are beneficial to a country ; and the discouraging any of them, will, instead of begetting riches, bring on poverty. If men had contented themselves with bare necessaries, we should have wanted a thousand conveniencies, which we now enjoy ; and many of the talents given to us, would have been quite useless, for want of opportunities of exerting them. The word *luxury* hath usually annexed to it, a kind of opprobrious idea ; but so far as it encourages the arts, whets the inventions of men, and finds employments for more of our own people ; its influence is benign, and beneficial to the whole society. But if luxury, or fashion, tend to discourage the arts and industry at home ; to stock the nation too much with costly trifles from abroad, of no real use ; or with consumable commodities, not really wanted ; thereby transferring the employments from our own poor, to those of other nations ; to nations, it may be, not our friends ; luxury then, degenerates into evil, and should be suppressed in time. Vanity, though it ruins many individuals, is yet perhaps beneficial to the community ; and the ways of indulging it, should not be too much straightened : Prevent its leading to any intemperances, that may affect either the healths, morals, or industry of the people, and no harm will be done.

VI. *Industry the source of wealth, and good order that of industry : Public spirit the great fountain of national grandeur, and happiness.*

18. I shall conclude this chapter, with observing again ; that labour, skill, and industry, are the true sources of wealth ; and the means of distributing it, in a due pro-

portion, among all the members of the body politic. It is not any specific quantity of money, but the due distribution of it, that renders that body healthy and vigorous in all its parts. Idleness is the bane of society; the great source of vice and confusion; the fore-runner of public distress and calamity. Industry produces the contrary effects; and is to be promoted by all possible methods: These are various; they are chiefly good laws, speedily, righteously, and cheaply executed; wise regulations of commerce, as well internal as foreign; good examples; a watchful care in the magistrates, to suppress in the first instances, vice, sloth, and all kinds of immoralities; a due care of the indigent and feeble, that none perish from want, when there is more than sufficient for all; the securing of private property; a due disdain of all chicanery, quibbling and sophistry, more especially, in schools and courts of justice; ability, uprightness and dispatch in public offices; the countenancing of probity, of plain dealing, of arts and sciences; and in all cases, an inviolable maintenance of public faith. These, are some of the ways, to breed and cherish a public spirit, among all ranks of people; without which, no nation can be happy; no community can long subsist.

A nation skilful in arts, abounding in products, untainted in its morals; where public spirit prevails, above local and personal interests; and under a wise and righteous government, duly tempered, so as to be secure itself, and all under it secure; a nation, I say, under these circumstances, must needs within itself, be rich, flourishing and happy. But power, grandeur, and influence abroad, depend chiefly on the numbers of industrious inhabitants at home. A limited number, cannot acquire above a limited degree of wealth, or strength: The way to increase both, is to break down the barricadoes of local enfranchisements; to encourage matrimony among the lower class, by giving some privileges to those who have children;

finding employments for those who are able ; and supplying with necessaries, the helpless and indigent. Moreover, if you please, you may invite hither foreign Protestants ; by giving the privileges of free denisons, to all that are desirous of incorporating themselves under the banner of our laws, and enjoying the benefits of our happy constitution. But some better regulations should be made with regard to our own poor, before strangers can be induced to come among us.

## CHAPTER II.—*Of Money and Coins.*

### I. *Of Barter.*

19. **T**HE first commerce amongst men, was undoubtedly carried on by *barter*, or the exchange of one commodity for another ; and indeed, this is the true and ultimate end of all commerce, whether foreign or domestic. But as men and arts increased, a mere barter of commodities became inconvenient, and insufficient, in abundance of instances. For it must needs frequently happen, that one man would want goods of another, that wanted none at the present, of those goods which he had to give him in exchange ; and therefore to him, these goods would be but of small value ; and it might be a tedious and intricate course, before the goods of the first man could be so often bartered, till at length they became exchanged into that particular commodity, which the second wanted. The same inconvenience would attend private bills, or promissory notes ; for the *note* could not well be discharged, till the man who gave it, met with a customer, that had goods which suited him, to whom the said note had been given. Add to this, that contracts payable in goods were uncertain ; for goods even of the same kind, differ in value. One horse is worth more than

another horse: Wheat off one field, is better than wheat off another. Cows, horses, swine, &c. wheat, barley, oats, &c. might differ greatly in their value; a great disparity also would frequently happen, between artificial things of the same sort, as one workman excelled another. So that in this state of barter, besides the endless difficulties people were under to suit one another; there was no scale, or measure, by which the proportion of value which goods had to one another, could be ascertained\*.

## II. MONEY, *what, and whence it arose.*

20. To avoid the great inconveniencies of mere barter, a material or commodity that should be universally accepted in exchange for all other things, was soon agreed upon; and this is what we call † MONEY. As soon as this

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invention

\* In a state of barter, there can be but little trade, and few artizans. For want of a ready exchange for their goods, people would look little farther than to get food, and some coarse raiment: The landed men would till only so much land, as sufficed their own families; and to procure them those few rude necessaries which the country afforded. Hence, without some kind of money, the arts can make no progress; and without the arts, a country cannot flourish or grow populous. Ignorance and idleness will naturally beget trespasses, incroachments, wars and contentions, ever destructive to the growth of people. Does not this account for what we daily see, even amongst nations reckoned polite? And how important is it, that the rulers of the earth should be more liberally educated?

† The first step from mere barter to the invention of money, was probably by *pledges* or deposits, which the owner was to redeem. And metals being durable, divisible without loss, and easy of carriage; and having from their usefulness a value set upon them, like other things; men coveted to have metals for their pledges, and some one metal preferable to the rest; and this desire becoming universal, that metal, from being used as a mere pledge, soon became money. Suppose this metal was silver: "He who had more goods than he had occasion for, would chuse to barter them for silver, though he had no use for it; because silver would not decay upon

invention became established, men reckoned the value of their goods by money; and the terms *prices*, *buying*, and *selling* came in use; a greater or less quantity of money going to the purchase of all things, in proportion to the respective values which before had been set upon them, as well in respect of that commodity now made money, as of one another.

Thus, MONEY is a STANDARD MEASURE, by which the values of all things, are regulated and ascertained; and is it self, at the same time, the VALUE or EQUIVALENT, by which, goods are exchanged, and in which, contracts are made payable. So that money, is not a pledge, to be afterwards redeemed, but is both an equivalent and a measure; being in all contracts, the very thing usually bargained for, as well as the measure of the bargain: Or, if one thing be bartered for another, the measure of the bargain is usually the quantity of money, which each of the things bartered, are conceived to be worth.

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“his hands, or be of any expence to him in keeping; and with it he could purchase other goods as he had occasion, in whole or in part, at home or abroad; silver being divisible without loss, and of the same value in different places. *Ex.* If *A* had 100 sheep, and desired to exchange them for horses: *B* had 10 horses, which were equal to, or worth the 100 sheep, and was willing to exchange: But *A* not having present occasion for the horses, rather than be at the expence of keeping them, he would barter his sheep with *C*, who had the value to give in silver, with which he could purchase the horses at the time when he had occasion. Or, if *C* had not silver, but was willing to give his bond for the silver, or the horses, payable at the time *A* wanted them: *A* would chuse to take the bond payable in silver, rather than in horses; because silver was certain in quality, and horses differed much. So silver was used as the value in which contracts were made payable.” And thus the transitions from *bartering* to *pledging*, and from *pledges* to *money*, were very natural and obvious.

The above extract is taken from an ingenious piece, tho' not free from some grievous mistakes, of the celebrated Mr. *John Law's*, entitled, *Money and trade considered*, printed at London in 1720.

To illustrate this subject farther, let us suppose *silver* to be that commodity, which was fixed upon as money. Silver had before a known value, from its uses as a metal; and being durable, portable, divisible without loss, and of equal goodness every where, as will be explained hereafter, was found every way convenient for the purpose of money; and having been applied to that use, silver received an additional value to that which it had before, as a mere metal, from the greater demand for it thence arising. As soon as silver was made money, it was used, both as the value in which contracts were made payable, and also as the measure, by which goods were valued; and consequently, of the proportion of value of different goods to one another. Thus, as Mr. *Locke* observes, "the value of lead to wheat, for instance, and of either of them to a certain sort of cloth, is known by the prices of each, or their value in silver or money. As if a yard of cloth be worth or sells for half an ounce of silver, a bushel of wheat for one ounce, and a hundred weight of lead for two ounces; any one presently sees and says, that a bushel of wheat is double the value of a yard of that cloth, and but half the value of an hundred weight of lead." And according to these proportions, any quantity of the above commodities will exchange, either for money, or for one another. So that, as before observed, money is always the standard that \* measures the values

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\* In like manner, money is used as the measure by which goods to be delivered at different places, are valued. *Ex.* If a piece of wine was to be delivered at *London* by *A*, merchant there, to the order of *B*, vintner at *Brecknock*; and the value to be delivered in butter at *Brecknock*, by *B* to the order of *A*. The wine is not to be valued by the quantity of butter it is worth at *London*, nor the butter by the quantity of wine it is worth at *Brecknock*. The way to know what quantity of butter is equal to the wine, is, by the quantity of money each is worth at the places where they are to be delivered: Thus, supposing as before, silver to be money; if the

of commodities; and, most commonly, is also what is given for them, or the equivalent with or for which they are purchased.

*How money differs from other measures, and also from commodities.*

21. In the idea of money, the quality of the material is supposed to be unchangeable, and to be universally or every where the same: And therefore, the material being once fixed or agreed upon; all that is to be included in the idea of money, is the quantity only of that material, as in other standard measures, whether of weight or extension: And the only essential difference betwixt them, is this; that money is not only a measure, but also an equivalent, and as such passes from one to another; whilst other measures, may rest indifferently in the buyer's or seller's, or a third person's hands, it matters not whose they be.

Money also differs from all commodities in this, that, as such, its value is permanent or unalterable; that is, money being the measure of the values of all other things, and that, like all other standard measures, by its quantity only; its own value is to be deemed invariable: And all contracts or engagements, are to be deemed fully discharged and satisfied, by the payment of the specific quantity or sum of money, agreed upon; without having any regard to the value of money, with respect to other things, at the different times of contracting and discharging of debts.

This is a fundamental characteristic of money, without which, it would lose its use as such; nor can money, with

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piece of wine be worth at *London* 20 ounces of silver, and 20 ounces of silver be worth 24 stones of butter at *Brecknock*; then 24 stones is the quantity of butter to be given there, in return for the wine.

any propriety, be considered as being subject to vary in its value, without referring it to something else as a standard; and thereby, departing from its use as money, and making it a mere commodity.

*Of some requisite properties in the material of money.*

22. That money may continue in esteem, and preserve the public estimation, as an equivalent, and a standard measure; it is necessary that it be made of a material or commodity, which is not too common, not too cheap or bulky, not growing spontaneously, or to be found without a valuable consideration in labour or land; not very subject to be consumed with use, or to be spoiled for the want of use, nor subject to expence in keeping. For money, like other things, whatever pains may be taken to shew, or some may think to the contrary; will soon find a value, in proportion to the labour and skill, that are necessary to acquire it; or in a reciprocal proportion to its plenty. Though we reckon by money; yet labour and skill, are the main \* standards, by which, the values of all or most things are ultimately ascertained; and there will require a greater or less bulk of money, to purchase the very same thing, according as there is a greater or less quantity of money in circulation; that is, according as the material of money is cheaper or dearer, or in greater or lesser plenty.

The use of money is very general, as well as antient; and many poor states, that had scarce any arts or traffic amongst them, had yet a sort of money. In some parts of *Africa*, the small shells called by us *couries*, passed as money; and in some other parts of that barbarous continent, *salt*, being very scarce, and therefore much valued, was used as money: In the one place, a certain number of shells; and in the other, a certain measure or weight

of salt; going to the purchase of such and such a commodity. But among trading and polite nations, such common materials or commodities, would not do for money; their money must be such as hath an intrinsic value, and thence, an universal esteem among those they traffic with.

A nation secluded from the rest of the world, might indeed, fall upon various methods of supplying the use of money: And we see that some of our plantations, make a shift without any money, properly so called; using only bits of stamped paper, of no real value. But, wherever that material, which passeth as or instead of money, hath no intrinsic value, arising from its usefulness, scarcity, and necessary expence of labour in procuring it; there, private property will be precarious; and so long as that continues to be the case, it will be next to impossible for such people, to arrive at any great degree of power and splendour\*.

\* There is a very wide and essential difference betwixt money and bills: The one, having an intrinsic value, is in all contracts and dealings, the equivalent, as well as the measure. Bills are nothing but mere promises or obligations of payment: And even public bills, for such only usually pass as money, have only a local credit, being limited to the territories of the state that issued them; and depending merely upon their faith, those that are in private hands are, to say no worse, subject every day to be debased by the creation of more new bills. For bills, whilst they pass as money, partake so far of its nature, that the more, or for a greater sum, there are of them in currency, the less will be the value of any given bill, or a bill for a given sum.

Some of our plantations have severely felt the ill effects of those weak, unjust and destructive measures, of increasing the quantities of bills; whilst the *Philadelphians*, by keeping sacredly to a certain number or sum total of bills, have not only preserved their credit amongst themselves; but even extended it, to some of the neighbouring provinces; where, I am informed, a *Philadelphian* bill will fetch more than one of their own, made for the same or a like sum.

*Metals, the fittest materials of money.*

23. For the purpose of universal commerce, metals seem the fittest materials for a standard measure, or *money*; as *copper, silver, or gold*; they having all the properties above required: They are moreover divisible into minute parts, which parts retain nevertheless an intrinsic value, in proportion to their quantity or weight; because those parts may, without injuring the metal, be again united together in a greater mass. These metals are durable, and also susceptible of any form, mark, or impression; and are convertible from money or coins, into utensils of various kinds; and from these, into money again. These properties are what give money, which is generally made of one or other of the above metals, a real and intrinsic value. There is scarce room to imagine, that money, made of a material good for no other purpose, would long continue in esteem, as such; the usefulness and scarcity of the materials, are both considered in the common estimation of money.

*Base metals not fit materials of money.*

24. Again, it is requisite that that metal which is made money, or the standard measure of commerce, should be either of equal goodness every where, according to its quantity or weight; or, that there should be some certain criterion, by which might be ascertained, the true proportional value of any given mass of that metal, when compared with any other given mass of the same metal. Money cannot be a proper or exact measure of the values of other things, if its own value is questionable; for if it could be doubted, whether my ounce of money, be precisely of the same value with any other person's ounce of money; it would create such a distraction in all kinds of traffic, that would frustrate the very end and design of money.

The *base metals*, as *copper, tin, lead, and iron*; have none of them the above quality, or that precise certainty of value, required in money. For, although the artists employed about them, can soon find that this mass of copper, for instance, is better or worse than that other mass, at least for their particular purposes; yet, there is no method of ascertaining, to any exactness, what is their respective pureness; or what is the specific difference betwixt, or what is the true proportional value of, different masses of that metal in respect of one another. And therefore \* *copper*, is not a fit material for money: And the other base metals, are still more unfit; for the like, and other reasons, that are sufficiently obvious. Their great plenty and cheapness, is a farther objection to the making money of any of the baser metals.

III. *Fine silver and fine gold, of equal goodness every where.*

25. Silver and gold, when pure and unmixed with base metals, are called *fine*, or *fine silver*, and *fine gold*. And these, called the *precious* and *noble metals*, when thus pure, have every where the same characteristics, and in all respects the same qualities, so far as hath hitherto been discovered; that is, an ounce of any fine silver, is exactly of the same intrinsic worth or value, with an ounce of any other fine silver: And the same of fine gold, with respect to fine gold.

But these precious metals are seldom found pure, till they are made so by art for particular purposes; and when they are not pure, the metal commixed with them is called *alloy*. This alloy is reckoned of no value; that is, if to an ounce of fine silver be superadded, suppose, an ounce

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\* Copper coins with us are properly not money, but a kind of *tokens* passing by way of exchange instead of parts of the smallest pieces of silver coin; and as such, very useful in small home traffic.

of copper; this addition of copper, though it increases the mass to double the quantity, yet gives that mass no additional value: So that one ounce of fine silver, is of as \* great value as the two ounces of this mixed mass. And the reason of it is, because these metals cannot be again separated, either without a total loss of the copper, or without more cost than profit. In like manner, not only copper, but silver also, is an alloy to gold; and when they are commixed together, the silver is reckoned of no value, unless it be in such proportion to the gold, as to make it worth the refiner's while to separate them †.

Silver and gold, when alloyed, are said to be of such a fineness, according to the proportion there is of fine silver or fine gold, to the whole mass. Thus, a mass of silver, containing eleven parts of pure or fine silver, and one part of alloy, is said to be  $\frac{1}{12}$  fine; or with us in *England*, eleven ounces fine; because our pound for weighing gold and silver, is subdivided into twelve ounces.

#### IV. *Silver and gold the only proper and fit materials of money.*

26. The degrees of fineness of both silver and gold, are discoverable, by skilful assay-masters, to great exactness; and these metals, being universally of equal goodness,

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according

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\* A certain proportion of copper will even depreciate the value of the silver mixed with it; if this proportion be so great, as to make the silver not fit for common purposes, without refining.

† For the same reason, a proportion even of gold mixed with silver, that is less than a penny weight in a pound Troy, doth not add to the value of the silver, excepting so far as it increases the mass; the gold, in this case, being reckoned only as silver, and not considered as increasing the value of that silver, with which it is mixed. And I am informed, that a penny weight of gold in a pound weight of silver, is the least proportion of gold, that will pay for refining; this being reckoned a profit only, of about one farthing *per* ounce.

according to their purity, they are proper materials of money. And indeed, they have manifestly a peculiar fitness for that purpose, above any other material hitherto known; and accordingly, these metals only are used as such, by all the polite and trading nations of the world.

#### V. Of COINS.

27. As the intrinsic qualities, or degrees of fineness of given masses of silver and gold, are not discoverable without art, trouble and expence; the expediency of coining was soon discovered. The public stamp upon coins, is a voucher and security to every one, that the coins that wear it, are of a certain fineness, and intrinsic value, according to their size or weight: And coins also, being more distributive than bullion, are, upon that account likewise, more convenient for trade, and in the common affairs of life.

#### *Names of coins, and of integral sums of money, taken chiefly from weights.*

28. In antient times, the names of given sums of money, do not seem to have been properly the names of any species of coin, but of different proportions of weight: As the *talent*, *shekle*, *mina*, *drachma*, &c. and in later times, *pound*, *mark*, &c. The mark is now disused by us; but in several of the neighbouring countries, it is still their integer for weighing metals, and is subdivided into eight ounces. And when the art of coining became established, the coins took their names from certain weights, used in the respective countries; to which weights, the coins at first exactly corresponded. The integral sums of money, were also denominated, from integral weights; as the *livre* in *France*, and the *pound* in *England* and *Scotland*: and so many of the coins as made the *sum* of one pound, or a *money* pound, made also exactly a pound in *weight*. At

present, we have only the names *pound* and *penny*, that are common both to money and weights: Antiently a *shilling* was here the name of a given weight; and 240 pennies made the *sum*, as at present, of one pound, and a pound weight. But now, a silver penny is only the  $\frac{1}{31}$  of a penny-weight Troy; which is a little more, than a third of what a penny weighed at the conquest.

*Of our present weights, and divisions of money.*

29. It is thought that the *livre*, or pound weight, of silver, was instituted as the *money integer*, by CHARLEMAGNE: And this he subdivided into *sols*, and *deniers*, which bore exactly the same proportion to the *pound*, as our *shillings* and *pence*, now do, to our *money pound*, or *pound sterling*. I have not met with any distinct account of the *Saxon* weights; but it is very probable, that the weight called the *pound of the Tower of London*, was the old *Saxon pound*. This pound contained  $11\frac{1}{4}$  ounces Troy; and did not very sensibly differ, from 12 ounces of the weight still used in the money affairs of *Germany*; and there known, by the name of *Colonia* weight. The *Tower weight* continued in use at the mint there, from the conquest till the 18th year of the reign of *Henry VIII*; at which time it was laid aside, and the *Troy weight* introduced in its stead. The *Saxon* or *Tower pound weight*, was divided, as our *money pound* now is, into *shillings*, *pennies* and *farthings*; and it seems very probable that antiently, the weights answering to these names and subdivisions, were those in common use.

I was obliged to my late learned friend MARTIN FOLKES, Esq., for this account of the *Saxon* weight, &c. long before he published his curious *Table of English silver coins*, where the same is to be met with: A work which none, who are desirous of having an exact history of our coins, should be without; and from which, as a farther illustration

tion of this subject, I beg leave to make the \* following extract.

*That coins in all or most countries have, at different times, been debased ; but the same denominations still continued.*

30. The antient denominations given to money, in the  
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\* Page 1, 2. The Troy weight, *Pondus Trecense*, from *Troyes* in *Champagne*, is generally supposed to have been introduced here by the *Normans*, but does not seem to have been immediately established. It is most probable that the pound of the *Tower*, or the *monyers pound*, was also the pound in common use before the conquest ; and that it continued to be so for a considerable time after, till the Troy pound, perhaps from its greater weight, got the preference by degrees. It is observable, that in the old statute called *Assisa panis et cerevisie*, 51 *Hen.* III. and which it self refers to "older ordinances made in the time of the king's progenitors," the weights of the several quantities of bread, &c. therein mentioned, are not expressed in Troy but in money weights, that is, in pounds, shillings, pennies, and farthings. "When a quarter of wheat is sold for xii*d.* then wastel breade of a ferthing shall weigh vi*l.* and xvi*s.* Breade cocket of a ferthing of the same corne and bultel, shall weigh more than wastel by ii*s.* Cocket breade made of corne that is of less price, shall weigh more than wastel by v*s.* A simnel of a ferthing shall weigh ii*s.* less than wastel, &c."

Our learned author goes on, and brings several more authorities to shew, that the money or *Tower* weights, known also in *France*, were those antiently used in *England*. But I shall trespass no farther upon him here, than in adding the following extract of a *verdict* relating to the coinage of 30th *October*, 18 *Hen.* VIII. remaining in the Receipt of the Exchequer at *Westminster*, in which are the following words. "And whereas heretofore the merchaunte paid for coynage of every pounce *Towre* of fyne gold, weighing xi oz. quarter *Troye*, iis. vi*d.* Nowe it is determyned by the king's highness, and his said counnelle, that the foresaid pounce *Towre*, shall be no more used and occupied, but al maner of golde and sylver shall be wayed by the pounce *Troye*, which exceedith the pounce *Towre* in weight iii quarters of the oz."

The above citation shews the precise time when the *Tower* or old *Saxon weight*, was laid aside, viz. 30th *Octob.* 1527 ; and that the proportion of the *Tower* pound to the Troy pound, was exactly as 15 to 16.

several countries, have been still continued ; but the coins which made up the sums so denominated, have been since, at different times, greatly debased or diminished in their value.\* And now coins, are so far from being serviceable as weights, which they once were ; that, with us, as well as in the neighbouring countries, the weight of each piece is not readily known ; being very different, from any of the weights in common use.

The original standards of coins, having been once impaired ; and the same names still remaining, after the substance had been diminished, people did not know where to stop ; and they seem to have thought, that coins had their value, some how, from the stamp they bore. And hence, for no better reason can be assigned, sprang those † adulterations of the coins, and the distractions and complaints consequent thereupon, that are to be met with in the histories of most countries.

#### VI. *Standard of monies.*

31. *Coins* being so very convenient, they only, are commonly considered and used, as *money* ; whilst *bullion*, or gold and silver unwrought and unstamped, are reckoned mere commodities. And in all countries, there is established a certain *standard*, both as to fineness and weight,

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\* Our money pound is at present only  $\frac{1}{2}$  of  $\frac{1}{10}$ , or about one-third of what it was at the conquest ; for then it contained  $11\frac{1}{2}$  ounces of our present Troy weight, and now it is  $\frac{2}{3}$  of a Troy pound. By this rule, the readers of Mr. *Lowndes* and of some other authors, may correct the accounts which he gives of our coins. At the accession of King *James I.* to this throne, the *Scotch money pound* was but equal to the  $\frac{1}{2}$  of ours ; and the *French livre* is at present, only about half the value of the *Scotch pound*.

† The *English*, to their great honour, have adulterated their coins less than most of their neighbours. A summary account of these adulterations with us, will be given hereafter.

of the several species of their coins. In *England*, the silver monies are to contain 111 parts of fine silver, and 9 parts alloy; and 62 of those coins called shillings, are to weigh a pound Troy: That is, the pound Troy with us, contains 11 ounces 2 penny-weights of fine silver, and 18 penny-weights of alloy; and of a pound Troy of this standard silver, our money pound called the *pound* \* *sterling*, contains  $\frac{10}{11}$  parts; or the pound sterling is  $= \frac{20}{11}$  of  $\frac{11}{12}$  of a pound Troy of fine silver. And this standard hath continued with us invariably, ever since the 43d year of the reign of Queen *Elizabeth*.

The standard of our present gold coins, is 11 parts of fine gold, and 1 part of alloy; and  $44\frac{1}{2}$  guineas are cut out of a pound Troy; so that a guinea is  $= \frac{1}{44\frac{1}{2}}$  of 11

ounces of fine gold. The fineness of gold is not with us, reckoned by the common weights, but by imaginary ones, called † *carats*: The highest degree of fineness, or pure gold, is called 24 carats; so that our standard is 22 carats of fine gold, and 2 carats of alloy. The carats are subdivided into 4 parts called *grains*, and these again into quarters; so that a *carat grain*, with respect to the com-

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mon

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\* The silver monies of *England*, are now known by the name of *sterling* or *sterling money*: A name supposed to be derived from some *Netherlanders*, who were formerly here employed in coining money, and then called here *Easterlings*.

† Mr. *Roberts*, in his *map of commerce*, page 24, 199, takes notice, that at *Venice* they have a real weight called *carat*; whence we had the name *carat*, and also the weight so called by jewellers; and that the *Venetians* had this weight from the *Indians* or *Moors*. This author says, that 150 *Venetian* carats, make one ounce Troy; so that one carat is equal to  $3\frac{1}{2}$  grains Troy, which is nearly the weight of the carat used by our jewellers. The late learned and curious MARTIN FOLKES, Esq; found by a nice examination when he was at *Venice*, that a *Venetian* carat doth weigh as above, or that 150 of those carats do make pretty exactly one ounce Troy.

mon divisions of a pound Troy, is equivalent to  $2\frac{1}{4}$  penny-weights.

*The standard of money farther explained.*

32. It is carefully to be remembered, that by the *standard of money*, is always meant, the quantity of pure or fine metal contained in a given sum; and not merely the degree of purity or fineness of that metal; but the fineness and gross weight are both included. Thus, the standard of a pound sterling, is 3 oz. 11 dwt.  $14\frac{2}{3}\frac{1}{4}$  grains Troy of fine silver; which is equal to 3 oz. 17 dwt.  $10\frac{2}{3}$  gr. of silver 11 oz. 2 dwt. fine, which is our standard of fineness. The standard of a shilling, is  $73\frac{2}{3}\frac{2}{3}$  grains Troy of fine silver, or  $80\frac{2}{3}\frac{2}{3}$  grains of silver  $\frac{1}{11}\frac{1}{11}$  fine.

The standard of our money, strictly speaking, remains the same, so long as there is the same quantity of pure silver in the respective coins having the old or given denominations; though the coins may be varied, by making them, either of finer silver and lighter, or of coarser silver and heavier. But such deviations from the old method of coining, would be imprudent; as it might create suspicion of some unfair dealings, and would answer no good purpose. On the other hand, the standard may be debased or lowered, either by coining the several species lighter, but of the old fineness; or by retaining the old weights, and making them of coarser silver; or without altering the respective coins, by making a smaller number of them go to the *pound sterling*, which is our *Unit* or money standard. And by debasing the standard, I every where mean, the lessening of the quantity of pure silver in the pound sterling, or in the respective specie which by law is ordained to make up that sum; without regarding the particular manner in or by which, this may be done.

*Why coins and platę have alloy.*

33. As the alloy mixed with silver and gold, is reckoned

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of no value; it may be asked, why any alloy is put into coins, and plate? The reasons are these: 1. It is seldom or ever, that silver or gold, are found pure in the mines; and the trouble of refining to make them so, would be very great and expensive: And 2. a certain proportion of alloy, renders these metals harder, and fitter for the uses to which they are commonly applied. The standard of about  $\frac{11}{12}$  fine, is very convenient: For, if it be much coarser, both silver and gold will lose of their colour, beauty and ductility; and if the standard be much finer; those metals will be too soft for many purposes, and a great expence of refining will be unavoidable.

VII. *There can be but one standard of money.*

34. Hitherto, we have considered both silver and gold, as being either of them a fit material to be made, or used as money. But although there may be good reasons for coining each of them; yet it is very certain, that one only of these metals can be the *money* or *standard measure of commerce*, in any country. For the standard measure must be invariable, and keep the same proportion of value, in all its parts: Such is silver with respect to silver, and gold to gold; that is, an ounce of silver is always worth just an ounce of silver; and two ounces of the one or the other of these metals, is just double the value of one ounce of the same. But silver and gold, with respect to one another, are, like other commodities, variable in their value; according as the plenty of either, may be increased or diminished; and an ounce of gold that is worth a given quantity of silver to-day, may be worth more or less silver, a while hence. And therefore it is impossible, that both these metals can be a standard measure of the values of other things, at the same time; and one of them must be a mere commodity, with respect to the other.

*Silver the money or standard measure of the greatest part, if not of all Europe.*

35. Silver coin is, and time immemorial hath been, the money of account of the greatest part of the world; and in all countries where it is so, *silver* is truly the *standard measure of commerce*; and all other metals, gold as well as lead, are but commodities rateable by silver.

In *England*, accounts are kept or reckoned by the *pound sterling*; which, as hath been before observed, is a certain quantity of fine silver appointed by law for a standard. It is according to this standard, that the public revenues are established; lands are let; salaries, stipends, and wages settled; and universally, all sorts of contracts both public and private, are made and governed by this standard. And altho' it be supposed, that with us, more payments, or of greater value, are made in gold than in silver coins; yet that doth not alter the standard, whilst the accounts are kept in silver; so long, in all our internal dealings at least, the gold can be only a commodity, supposed to be worth so much silver as it passeth for\*: And the case would be the same, although our silver coins should grow yet scarcer.

VIII. *Silver the fittest material, hitherto known for money.*

36. All nations having, for so many ages, made use of silver for the standard measure of the values of other things; that alone, seems to be a sufficient reason for continuing the same standard; and the altering it now, from silver to gold, was the thing it self practicable, would beget great perplexities in all kinds of dealings and accounts. But farther, silver being of a more moderate

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value

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\* This whole matter relating to the standard of our money, shall be farther discussed hereafter.

value than gold, is \* for that reason, better suited for the purpose of money. For the integer and its several parts, should bear an exact and due proportion of value to each other ; and this would be impossible, if they were made of different materials. There must be coins of about the values of shillings, and six-pences ; and it would be better, if we had some that were still smaller : Those sorts of coins are the most frequently wanted ; and there is no doing without them, or some substitutes in their stead. But these substitutes, being made of a different material from the standard money, are not themselves to be reckoned money ; for the using such, would be a deviation from the true use and intent of money ; and would subject the people where they passed, to losses and perplexities. A coin of a shilling, or even of half a crown value, would be too small in gold ; and therefore at present, gold is much too valuable for a standard of money. And it would be a ridiculous and vain attempt, to make a standard integer of gold, whose parts should be silver ; or to make a motly standard, part gold and part silver. These different materials could not long agree in value ; and silver being the most common and useful coin, would soon regain its antient place of a *standard measurer*.

Silver, I think, is less subject to variation in its value than gold. For silver having been distributed in great quantities over all *Europe*, as well in coin as in plate of various sorts ; a sudden influx, or efflux of it, by a quicker or slower production of the mines, doth not so soon affect the whole mass. The wages of day-labour, being also

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\* It is also for the same reason, better suited for the making of various sorts of utensils ; and money, as hath been before observed is intrinsically valuable, because, by melting, the material is convertible into something useful. And it may be questioned, whether coins had preserved their value, and been continued as money, if silver and gold had not been applicable to other purposes.

usually paid in silver, may be another great reason, of a more even and permanent value of this metal. But without laying much stress, upon the greater variations in the value of gold ; which perhaps may be also partly owing, to its being every where in the eyes of the laws a mere commodity ; I think, it is sufficiently evident that silver at present, is a much fitter standard to measure with, than gold.

*Silver a fit standard, though its plenty varies.*

37. It may be here objected, that as the value of silver, like all other commodities, must needs be variable, according as the plenty of it is increased or diminished ; silver cannot be a \* fixed standard, like that of mere extension as a yard or a bushel, for measuring the values of other

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things.

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\* Mr. LOCKE well observes, that that grain which is the most constant and general food of any country, as *wheat* in *England*, and *rice* in *Turkey*, is the most likely thing to keep the same proportion to its vent for a long course of time ; and therefore the fittest thing to reserve a rent in, which is designed to be constantly the same in all future ages ; and the fittest measure whereby to judge of the altered values of things in any long tract of time. For in *England*, and in this part of the world, wheat being the constant and most general food, not altering with the fashion, not growing by chance ; but as the farmers sow more or less of it, which they endeavour to proportion, as near as can be guessed, to the consumption ; it must needs fall out that it keeps the nearest proportion to its consumption (which is more studied and designed in this than other commodities) of any thing, if you take it for seven or twenty years together : Though perhaps the plenty or scarcity of one year, caused by the accidents of the season, may very much vary it from the immediately precedent or following. But wheat, or any other grain, cannot serve instead of money ; because of its bulkiness, and too quick change of its quantity. For had I a bond to pay me 100 bushels of wheat next year, it might be a fourth part loss or gain to me ; too great an inequality, to be ventured in trade : Besides the different goodness of several parcels of wheat in the same year. But money is the best measure of the altered value of things in a few years ; because its vent is the same, and its quantity alters but slowly. *Locke's works*, vol. II. p. 23, 24.

things. It probably cannot; and perhaps silver is now quantity for quantity, of three or four times less value, than it was two or three centuries ago. But yet, silver being durable, well known, esteemed, distributed in considerable quantities over all *Europe*; and its growth, plenty, goodness or intrinsic qualities, not immediately depending upon seasons of weather and other casualties; the alteration of its value hath been, for the most part, gradual; and is not likely hereafter to be very considerable of a sudden, though it may in a long course of time. And therefore, silver is as good a standard measure or money, as the present state of things will admit of; and very fit and useful to be continued as such.

We are at present but little concerned, with what might be the value of silver in former times; and as little, with what may be its value hereafter. The prices of things will naturally conform to the standard, whilst the alterations in it are slow and gradual, and not forced. But, from the nature of things, the proportion of money to goods, is ever subject to some variations; and all that can be done, to prevent the inconveniencies that might thence arise, is to limit contracts within a moderate term of years: For, in contracts, quantity only is to be considered; and no regard can be had to the future value of money, without deviating entirely from its use as such, and rendering all contracts uncertain.

#### IX. *Gold coins should pass as money.*

38. Although silver is the only standard measure of all our contracts; yet gold having every other quality fitting it for money, excepting its being too dear; it may be very fit and useful to coin gold, to ascertain its fineness; and to let these coins pass in lieu of money, at some \*

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\* As there can be but one standard of money, and silver is and ought to be that standard; Mr. *Locke* was, and others are, of the

given rate: For gold coins are very convenient, in large payments. But it should not be said or understood, that a *guinea*, for instance, should be always an equivalent for the same quantity of silver. For as gold, like other commodities, must be ever subject to alter in its value, with respect to silver; the price of this dazzling metal can be no otherwise settled, than *pro tempore*. And in all contracts, the price of gold at the time of payment is only to be considered; and not what price it might bear, at the times when the contracts were made.

#### X. Of *TOKENS*, or *base coins*.

39. Although silver, bulk for bulk, is now about 26 times cheaper than gold; yet silver is too dear to be coined into specie of the lowest denominations of our money. A silver penny is too small for common use; and yet pence, and their halves, and quarters, enter daily into accounts. To supply the want of very small silver coins, a kind of *TOKENS* or substitutes have been instituted; these, are now with us, all made of copper, and of two species only, called *half-pence*, and *farthings*; and these are a legal tender in all sums below six-pence, which now is our smallest current silver coin.

The use of copper coins should be strictly confined within the above limit; and therein they are very convenient: But these base coins should never be thrust upon the public in too great abundance; or be made to pass for more than the value of the copper, and the necessary expence of workmanship; otherwise, they will be counter-

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opinion, that gold coins should be left to find their own value, without having any established legal rates. But this is a matter, I think, of too much importance to be entrusted to private judgment; and, if left at large, might subject the nation in general to great impositions, by a combination of the traders in coins. But of this subject, and also of copper coins, more hereafter.

feited, notwithstanding any laws to the contrary. And to lessen the call for copper coins, it were to be wished that we had in common currency, either silver three-pences, or silver groats, and two-pences.

XI. *Money finds its own value, according to the whole quantity of it in circulation.*

40. The quantities of all commodities are proportioned, as near as may be, according to the demand or vent for them; and their ultimate prices include the prime cost, and the profits taken by the several dealers, thro' whose hands they pass: If the quantity of any commodity exceeds, or falls short of that proportion, its price will fall or rise accordingly; and sometimes, a change of fashion, or humour, may reduce the price of a particular commodity, almost to nothing. The prices of things in general are proportioned sufficiently near, according to the above rule; or, according to their prime cost to the manufacturer, and the progress they make from him to the consumer. But some things, as above observed, are subject to be reduced by caprice much below this standard; whilst others are raised much above it, by the arts and avarice of monopolizers. And although the silver and gold mines, are in few hands; yet, perhaps, there is nothing whose value is so little in the power of men to regulate, or that keeps so even a pace with the quantity sent to the great market of the world, as bullion. For,

Money, exchanging universally for all commodities, the demand for it is without any limits; it is every where coveted, and never out of fashion: And therefore, on the one side, the whole quantity of money, cannot exceed the whole demand; and on the other side, the whole demand must not exceed, or it must rest satisfied with, the whole quantity. For money, is not like food, cloaths, and other things, that must be proportioned to our bodies.

Therefore, as soon as money becomes properly diffused throughout any community; the value of the sum total of it in circulation, will be equal to the whole quantity of commodities in traffic, in that country: For so much money and goods as lie dormant, or are out of currency and traffic, fall not within the present consideration\*. And so far as gold and silver, make the money of the world; so far, the whole quantity of these metals in circulation, may be said to be equal in value to all the commodities of the world, exchangeable by them: And as the total of the one, is to the total of the other; so will any given part of the one, be to a like part or proportion of the other.

And hence, the value of a given quantity or sum of money, in any country, will be less or more, according as the sum total, or the whole quantity of money in currency, is greater or less, in proportion to the whole of the commodities of that country, exchangeable for money: Or, *the value of a given sum of money will be always, pretty exactly, in a reciprocal proportion to the sum total, or the whole quantity in circulation*; that is, the more money there is in currency, the less will be the value of a given sum in proportion to other things; and *vice versâ*. Hence again, it naturally follows, that, *if, in any country, the whole quantity of money in circulation, be either increased, or diminished; the value of a given sum will be accordingly lessened or increased* †; and that in proportion, as the said

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sum

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\* There is always a great part of the property of mankind, lying dormant, or out of traffic: But as things are continually shifting, and those commodities, and those sums of money, which are out of trade to-day, may be in trade to-morrow; the prices of things always fundamentally depend upon the above rule; that is, on the proportion of the total of things to the total of money.

† Thus, if in any country, a given sum *A* be the hundredth part of the total money of that country: If that sum total be doubled, the value of the sum *A* will be thereby reduced to one half, as being now but a two hundredth part of the whole; and had the sum total been reduced to a half, the value of *A* would have been doubled.

*sum becomes thereby, a lesser or a greater part, of the whole stock in currency.*

The above \* proposition, is a very fundamental one as to the property of money; and the doctrine it contains is undoubtedly proved, as far as the nature of the thing will admit of, by universal experience: Nor is there room for any doubt to remain, when it is considered that money, by its very institution, is an exchange for all commodities; and applicable, as money, to no other purpose whatsoever. Money being universally diffused, no one hath the power to command the market, or to settle the prices of things; and every one being desirous to have his share of things, according to his income; all the money, in the long run, will be brought into the great market of the world; and its value, or the prices of things, will naturally be adjusted, notwithstanding any efforts to the contrary, according to the proportions above explained.

By way of farther illustration of this subject: Let us suppose that in a certain district, there is ordinarily consumed a thousand bushels of corn a week; and that, (after their money is duly proportioned for the purchasing of all other necessaries, according to the ways of living of the inhabitants,) the weekly allotment for the purchase of corn, is a thousand ounces of money: The price of a bushel of corn, at an average of the several markets within this district, will be an ounce of money. Let us suppose again, that within the said district, the ordinary †

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consumption

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\* From this proposition, all the following ones in this chapter, naturally flow as corollaries; but on the account of their importance, they are treated and illustrated severally.

† The way of living of the lower class of people, will be naturally best and most comfortable, in the happy regions of liberty; where property is duly diffused; where there is a gradual and an easy transition from rank to rank; without that ghastly and fearful void between peers and peasants, betwixt tyrants and slaves, which is ever the baneful fruit of arbitrary governments.

consumption of a labouring man, or rather of a poor family, is about the value of a bushel of corn a week ; part of which is expended in bread, part in other food, and the remainder is reserved for the purchase of cloaths, fuel, for the payment of rent, &c. Here then, the price of labour will be at the rate of about an ounce of money *per* week ; the lowest kind of labourers having a little less, and the common artificers a little more, than in the said proportion. And hence, labour becomes naturally settled, in a certain proportion to the whole stock of money in circulation ; and this price again becomes, as hath been before observed, a natural standard of the values or prices of most commodities.

XII. *Laws cannot regulate or alter the value of money.*

41. Silver being made money, and thereby becoming, as it were, a commodity universally coveted ; wherein every one deals, and to which every one hath a right, according to his respective share of property : No set of men have it in their power to settle, alter, or in any wise regulate the value of money ; nor can laws do any thing in the case, otherwise than as by their influence, they may increase or diminish, the whole quantity in circulation ; and so affect the value of a given sum, or the prices of things.

The prices of particular commodities are every day subject to change, from natural causes ; and the same may be brought about, by artificial means. But to alter the value of money, would be to alter uniformly and universally, the prices of all commodities ; a thing manifestly out of the reach of laws, and no other way to be accomplished, than by altering the proportion between the sum total of the one, and the sum total of the other ; and this, perhaps, is continually done, though gradually and insensibly, by the common course of things.

It is the business of laws to establish rules for coining; that is, to fix a standard, both as to weight and fineness, for coins having certain denominations; and a standard being fixed, it would be difficult to shew, why it should be afterwards deviated from. For, do what you can; coins, as soon as they are out of the mint, are quite free throughout their whole progress, to find their own value, according to the quantity of pure metal they contain; that is, to purchase as much of any thing, as the market-price will allow. And it seems quite a paralogism to say, which yet I have often heard said, that in any country, money is either too cheap or too dear; or, that its value is in any wise subject to legal restraints or regulations, otherwise than as such regulations might affect the quantity of the whole stock in currency.

*Value of bullion not according to the prime cost at the mines.*

42. The value of bullion doth not, like most other things, keep pace with the prime cost, at the mines. If the mines continue working, so that the quantity of bullion is increased beyond the consumption; altho' the expence to the proprietor of the mine continues the same, or even be increased; yet, if the additional quantity of bullion be thrown as money into circulation, and is not hoarded, or worked up into plate, &c. the value of a given part of this bullion will be diminished; and that in proportion, as it is now a less part of the whole, than it was of the old stock in circulation. The owner of the mine, must either take less profit, or proportion his works more adequately to the consumption of his products.

An increase of any commodity beyond the consumption, will, after the same manner, depreciate the value of a given part; but perhaps in no case so uniformly, as in that of bullion or money.

As the profits from the *American* mines, have, more than probably, been continually decreasing, ever since the time of their first discovery ; it may be wondered, that they have held out so long to yield profit sufficient to tempt the owners to work them. This is to be accounted for, by supposing, what is very natural to suppose, that at first, the profits of these mines, were exorbitantly great : Suppose that the first cargo of bullion, brought from thence into *Europe*, yielded a profit of 100 to 1 : If this cargo was sufficient to double the quantity of bullion before in *Europe*, the profits of the next would be reduced to one half, or as 50 to 1 ; and so on, the value of a given part would be decreased, as the sum total was increased.

But as the navigation to the *East-Indies*, was discovered much about the same time, and a vent was found there for a considerable quantity of bullion; this hath prevented its value from decreasing, in the proportion that the quantity brought into *Europe* hath increased ; and sufficient profits may yet arise from those mines, for a considerable time to come. But, although we should suppose those mines to be inexhaustible ; yet, if no new vent be found for their products, they must in time be left to rest ; that is, as soon as they cease to yield a profit.

### XIII. *Money alters its value by slow degrees.*

43. It is very manifest, that many commodities are subject to considerable variations in their prices, from natural causes ; as dearth, plenty, &c. and the prices of others, may be enhanced or debased by artificial methods, by taxing them, or by a change of fashion, &c. But money being universally coveted, and its vent in no wise depending upon fashion ; its value, in respect of other things, will be, as before observed, in proportion to the whole quantities of the one and the other in the market ; that is, in a reciprocal proportion to the whole quantity of

money in circulation. If one commodity be cried down, another will arise in its stead ; and people will, according to their means, part with their money for such things, and in such proportion too, as they like best, notwithstanding any laws to the contrary. Buyers and sellers must be left free to make their own bargains ; and there are natural causes that regulate the market.

But money is less subject to a sudden rise or fall of its value, than other commodities, and is therefore so far the safest treasure for hoarding ; because its value is greatly affected by settled establishments of revenues, rents, stipends, &c. and it must have time also to penetrate throughout the whole community. Yet nevertheless, an increase or decrease of money will operate as surely, though by slower and more insensible degrees, as an increase or decrease of any commodity.

*Why the effect of an increase of money, is not more sensibly felt.*

44. As there hath been a great quantity of bullion annually imported from *America*, besides what is furnished by the *European* mines ; it may be reasonably concluded, that the quantity of money in *Europe*, hath been increasing for many years ; and the present prices of things in general, compared with what they bore a good while ago, very manifestly shews that it hath increased. But if we take a short space, as a year or two, the effects of the increase of money in that time, are not usually perceptible ; because the superadded quantity, though in its self a large sum, may yet bear but a small proportion to the whole stock, real or imaginary, in circulation ; and it may be in a manner dissipated, before it hath reached to all sorts of commodities. Yet, if there be no obstructions, the effects of an increase or decrease of money, will in time reach to the remotest parts ; though by reason of

their slowness or smallness, those effects may not be sensible.

The natural and frequent alterations in the prices of many commodities, arising from their greater plenty or scarcity, in proportion to the demand for them; take off our attention from the share that belongs to money, and render the effects of an increase or decrease of its quantity, the less conspicuous. But yet these effects, in the long run, will not be the less certain: And we may safely repeat here, what hath been before advanced, *viz.*

*Any given sum or quantity of money, will have its value in a certain proportion, as it is a part of the whole stock or quantity in currency; and any increase or diminution of the whole, will in proportion, lessen or increase the value of any given sum.*

*Why the prices of commodities, have not rose in proportion to the increase of money.*

45. It is next to impossible to ascertain, to any exactness, the proportion between what is the present cash of *Europe*, and what it was two or three centuries ago; for one of the *Indies*, drains away a great part of the superfluous bullion of the other. Nor will the price of any particular commodity, or of even labour it self, which is perhaps the best standard of all, enable us to make a true estimate. For, the improvements of arts, lessen the values or prices of particular commodities; and the improvements of husbandry, in particular, lessen the prices of corn and cattle; and thence again, the price of labour will be lessened.

From all these considerations, it is natural to suppose that the quantities of goods in *Europe*, have increased, since the discovery of the *Indies*, far beyond the people; and therefore, the value of any given commodity hath lessened, in proportion as the sum total or whole stock of

commodities hath been increased. And if all the above circumstances could be accurately ballanced; I make no doubt but it would be found, that the prices of things are agreeable to the rule before laid down; that is, the *value* of any particular commodity, will bear nearly the same proportion to the sum total of commodities, disposed of within a given term; as the said *value* bears to the sum total of money, circulating within that term. The totals on both sides, being always equal, or nearly equal, in value; so that either can purchase the other.

But, without considering the increase of commodities; there may be another cause of preventing the value of money from decreasing, in the same proportion that the quantity of bullion brought to *Europe* is increased. If the annual consumption of bullion in *Europe*, both by the *East-India* trade, and by the conversion of it into plate, be equal to what the *American* mines annually supply; the value of money taken abstractedly, or without referring it to commodities, will remain invariable: But if the said consumption be less, or more, than the said produce of the mines; the whole quantity of money will be accordingly increased, or diminished; and the value of a given part or sum, will be lessened, or increased, in that proportion.

It is the real quantity of coins, or of their substitutes, that affects the value of money. And this, together with the improvements of arts and increase of commodities; is the reason, why things in general have not raised in their prices, in proportion to the supposed increase of bullion in *Europe*, during the last 200 years.

XIV. *A nation having no foreign commerce, will not stand in need of any specific quantity of money.*

46. In a country having no foreign commerce, any quantity of money will, in a manner, be sufficient for all

purposes; and any increase or diminution of the original stock, if it be but gradual and slow, will scarce be attended with any consequences of moment. This, although to many it may seem a paradox, yet clearly follows from what hath been already shewed. But as a farther illustration of this subject:

Let us suppose that many ages ago, a certain nation consisted of half a million of people, and that they had in the whole a million of pounds sterling; and that afterwards the mines or the mint were no farther worked, than to keep the money exactly to the same or the original quantity of a million. We may suppose also, that a regular government, and all the necessary arts, were established amongst them; and likewise that all the money was distributed betwixt them, in due proportion according to their several ranks; so that the hire of a labourer, we will suppose, was ten-pence a day. By degrees, they increase in number one tenth; and with the people, all sorts of commodities, naturally increase in proportion: But the whole quantity of money remaining the same, its value increased also one-tenth; and nine-pence now going as far as ten-pence would before, the wages of a day-labourer is reduced one penny: But this he doth not feel the want of; and he hath as much plenty of all sorts of necessaries now, as he had formerly.

In process of time, and that before they had any foreign commerce, the people are increased to five millions; and the price of labour, which at first was ten-pence, is now reduced to a penny a day. And all this while, there were no complaints of the want of money, though every one's share came to but a tenth part of what his ancestors possessed. On the contrary, by the improvements of the arts they had set out with, and the inventions of many new ones; all ranks of people lived more comfortably, with more ease and affluence than their fore-fathers had done.

By these improvements of the arts, the whole stock of commodities was increased beyond the increase of the people; and each particular commodity bore less than a tenth part of its antient price: More people in proportion could be spared from labour, for particular services and professions; for in many of the arts, one man could perform now, more than two men could formerly. With the increase of the people, the taxes on each individual grew naturally lighter; and yet the government grew daily more powerful and splendid: Altho' rents and all other things, sunk in their nominal values; yet a greater affluence and splendor of living, was every where to be seen. So true it is, that numbers of industrious people, and not money, is what enriches a country.

Had the money increased with the people, that would have made no manner of difference in the values of things with respect to one another; nor would it have been very material, if the original stock of money had decreased upon their hands; the only difference which that would have created, would have been in the nominal prices of things with respect to money. Had the money increased faster than the people, suppose 24 times; the price of labour would have become then 20 shillings a day, and yet the workman would have been no ways benefited by that greatness of wages.

The case above supposed of the quantity of money remaining invariable, whilst the people increased, is the very same in effect, as if we had supposed the number of people to have continued the same, whilst the original stock of money had continually decreased.

*XV. Any sudden fluctuation of money, would be pernicious.*

47. Money as such, though very useful and necessary in all sorts of traffic, yet scarce falls within the idea of

riches\*. Money in its very institution, is professedly of no use, but to measure the value of, and as an exchange for, things that are useful: It is so much coveted, not for its own sake, but for what it will bring; and it is very manifest, that in a regular and well-established community, a greater or less stock of money doth scarce at all affect its wealth and prosperity †. The greatest effect of money is in its fluctuation, and this if it be sudden will be generally pernicious in its consequences.

If money be a flowing in, some branches of trade will be enlivened, and in reality great numbers of individuals will grow richer; as what they pay in taxes, rents, and for ‡ natural products, will be less or of less value than before; till you come to the lowest class, who, though their wages are raised, will yet find little or no advantage by this torrent of money. On the other hand, the government will grow weaker, the nobility, and in general all who live upon estates and established stipends, will become poorer; till by an increase of taxes, advancement of rents, &c. things can be re-established. But before this can be accomplished, many and great alterations will naturally happen: The government being thus weakened and distressed, disorders will inevitably arise; as peace and good order cannot be preserved, unless the strength of the government bears a due proportion to that of the governed:

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\* Money is here considered in the abstract; but as it is reducible into bullion, plate, &c. in that sense it is wealth like other commodities.

† This hath been shewed in the preceding, as to a nation having no foreign commerce; how far such a commerce alters the case, will be considered a little farther on.

‡ It will be some time before this supposed additional money can penetrate through all the branches of trade, and whilst some traders have exorbitant gains, others will grow poorer, because of their additional expence in many articles; however by degrees all dealers will help themselves, and grow rich at the expence of those who are mere consumers.

The nobility must change their fashion of life, and abate of their antient splendor; new debts will be contracted, increased, lands mortgaged; and before the antient owners have a right understanding of the cause of their distresses, many must part with their estates, and give place to new comers.

And this is a natural consequence of a sudden flux of money; \* the enriching of one part of the community, at the expence of the other; a change of manners amongst all ranks, some perhaps for the better, and some for the worse; until, this tide having spent itself, things are again resettled, tho' perhaps in quite a new form.

On the other hand, if the tide of money is a running out; during this ebb, trade will stagnate, some merchants and shopkeepers will break, some manufactures will be laid aside, many hands will be unemployed, and murmurs and complaints will be heard among all sorts of people concerned in trade. These distresses will continue, till by an abatement of taxes, lowering of rents, of wages, of stipends, &c. a due equilibrium among the different ranks of people is again restored; and then, altho' a great part of the money is gone, riches, plenty, and good order, will again abound.

Thus it is manifest, that a sudden fluctuation of money, would be pernicious whilst it lasted, and for some time afterwards; † and that whether the tide be flowing in or going out. But whilst it glides and circulates smoothly and freely, in its natural course and channels, money is

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\* How far this may have been the case of some particular country, I do not here consider. But I think it is manifest enough, that an overflow of money in one place, may be the cause of poverty and distresses in another; and that a government may be declining, whilst duties and customs are increasing.

† The effects of the imaginary increase of money in the year 1720, and of the real increase of factitious money at different periods since, do greatly illustrate and corroborate what hath been here advanced.

not only a harmless but a beneficial thing; it cherishes and invigorates the whole community, and this equally, whether the stream be large or slender.

XVI. *Ballance of trade, what.*

48. The ultimate ballance of trade is reckoned in money; and it is by this scale that the profits of trade are usually computed. But as money in it self is of no farther use, but merely as a kind of instrument for the circulation of products or commodities; a very beneficial commerce may be carried on between different nations, without any of them having any money to receive at the close of their accounts. Not only the mariners navigating the ships, but also the whole train of artificers employed in the various branches of manufactures, bred and nourished by such a commerce, innumerable brokers, &c. gain all of them a comfortable subsistence: Each country is accommodated, with what it wanted of the products of the other; and the \* merchants on all sides increase in wealth, though at last their accounts are even as to money, or yet though one pays a ballance in money to the other.

If bullion be the sole or chief end of commerce; why are ships sent to any other parts, besides *Cadiz* and *Lisbon*? Silver and gold are in a manner, the peculiar commodities of *Spain* and *Portugal*; and in the usual phrase, these nations must pay a ballance upon their trade to all the world. And yet they, as well as the rest of the world, are gainers by trade; they obtain various necessaries and conveniences, which their bullion could not have procured them, whilst they kept it at home; and so long as they

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\* That is, each merchant is a gainer, if his returns, after paying all his expences of the voyage, are worth at home more, or will purchase again a greater quantity of goods than he had exported: This overplus is the merchant's profit, without which he would no longer trade.

keep working the mines, so long probably they will stand in more need of the aid of foreign commerce, than other nations.

A ballance paid in money, doth not necessarily infer a loss by trade: Suppose that last year, *Great Britain* paid a ballance upon the whole of its foreign trade, of a hundred thousand pounds in specie; but that the national stock of necessaries, in naval stores of various sorts, &c. were increased to double that value: By the usual reckoning, we must have lost the last year, an 100,000*l.* by our trade; but by mine, we were gainers by it to the net value of that whole sum. But had the above supposed additional stock of foreign commodities, been in wines, brandies, fine linnens, toys, or even jewels, &c. which were to be all consumed at home, I should readily have joined in the common estimation, of our having been losers by our trade. Gold and silver are valuable commodities, because they are neither perishable, nor over bulky; and because the monies of the world are made of these metals, they retain a more even and permanent value, and are more universally coveted than other things. But the *Spaniards* are an instance, that a nation may be injured, weakened and impoverished, by an over-stock of these metals.

x However, any nation having gained upon the whole of its commerce a ballance in bullion, may be truly said to be a gainer for that time of so much as that bullion amounts to; and if it can keep that bullion as a dead stock, either by turning it into plate or by any other method, so as to prevent its getting into trade as money; it may continue to go on increasing in more bullion, which in this case will be a real increase of wealth. For as bullion hath little or no workmanship bestowed upon it, and is every where after it hath once got from the miner's hands, a kind of dead stock, applied to no use like other commodities; a nation that pays ultimately upon

its trade a ballance in bullion, is a loser of so much of its dead stock; and a loser also, if its exports maintained fewer of its own inhabitants, than its imports did of those of foreign nations. Let an increased stock of bullion get out again into trade, and it will soon turn the ballance the other way.

XVII. *The quantity of money every where, will naturally find a certain level or proportion.*

49. It is a received opinion, at least with many people, that a certain specific quantity of money, is necessary for the carrying on of foreign commerce; and that any nation not abounding in money, will trade to a great disadvantage with the rest of the world: Were this the case, those nations who have most money, should reap most advantage by trade; and *Spain* and *Portugal* ought to carry the prize from all the world. But if this matter be examined, ever so slightly, it will appear in a different light; and it will appear also, that no trading nation can be long in want of money, or be able to keep above a certain quantity of circulating cash, in proportion to its trade. What is hoarded and kept out of the market, either in cash, bullion, plate or furniture of any sort, is out of the present question.

Suppose that the present stock of circulating cash in *England*, was at once reduced to one half, by each person's losing a moiety of his own share. This would strike a great consternation in all, and be matter of real calamity to many; as the prices of things would not at once abate, in proportion to this great loss of money. But those distresses would not last long: The prices of all commodities, and of labour, would fall by degrees; this cheapness would give them a quicker vent in all foreign markets, and all sorts of manufactures would be carried on here brisker than ever; whilst at the same time, and for the same

cause, the consumption of foreign commodities with us would be greatly diminished. By the cheapness of labour, *England* becoming the best market for bullion; that is, bullion fetching more labour and commodities here than in other countries, it would naturally be sent hither preferable to other things; and bullion would not cease flowing in upon us, till it became as cheap, that is, in as great plenty here, in proportion to our traffic, as in other places.

This supposed sudden loss of money would at first, as hath been before illustrated, create many disorders: By the sudden change it would cause in the proportion of property, a damp would be thrown upon manufactures, until the price of labour could be duly reduced; and the nation would be under a great disadvantage, in the purchasing of foreign commodities for ready cash. But these disadvantages would not last long; and whilst things were advancing towards their former state, it is probable that people in general, especially the lower class, who are the most numerous, would abound more in affluence than at any other period. Labour would be more valuable here, in proportion to commodities; because of the great demand for those commodities, in those countries where money was cheaper, and labour dearer; until at length the equilibrium of money was again restored. Had we supposed the loss of money to have been less, as only, for instance, the tenth part; the consequences thereupon, though less perceptible, would have been, upon the whole, the same in a proportionable degree.

Let us suppose our former stock of money to be now completely restored to us, and it would not be long before it returned again: If we think to increase this stock much farther, we shall be disappointed; the causes that brought it to a certain level, will prevent its rising much above that level. Where money is grown into great plenty, whatever be the causes of that over-plenty; labour, and all sorts of manufactures will grow dear, too dear for foreign markets:

And at the same time that the exportation of home-commodities is decreasing, that of bullion for foreign goods will be increasing; till at length the tide of the over-plenty of money hath spent its self; leaving behind it perhaps, too much the marks of profusion, and disorders of various kinds.

In order to illustrate this subject, I have supposed cases that are not likely to happen; the state of things, altho' ever fluctuating, yet change by slow degrees. Riches are comparative things; and one nation's growing or declining in wealth, is to be reckoned either with respect to its former state, or the present state of its neighbours. But the question before us being solely about money, which ever way that is turned, it seems to me evident, that commerce will settle the due proportion of money every where; I mean the proportion in respect to the whole wealth and traffic of any country, and not the proportion between one country and another; for this last will be ever different and ever variable. Every one sees that an increase of his own cash would be an advantage to him, and hence money is universally coveted; but no one sees or considers, that his own peculiar advantage would cease, if every body's cash was increased in the same proportion with his own. Another hath in his eye some beneficial trade, which he could enter into if he had but money\*: It is none of his business to consider, that the trade of the world is limited; that his entering into it, would not extend trade in general. It is the want of vent, and not the want of money,

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that

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\* The common trite saying, "that if a merchant had a larger stock, he could afford to sell cheaper," answers itself: If his stock is but small, he should himself consume less. If a rich galleon was to be divided among a certain number of our merchants, this would enable them indeed to buy dearer and to sell cheaper; but this would be detrimental both to their cotemporaries and successors, and I think, in the long run, to their country in general. For so far as it went, it would enhance the price of commodities at home, and lessen their vent at foreign markets.

that limits trade; and sometimes also the want of able and skilful workmen removes trade from one province or kingdom into another.

All that hath been here advanced, is well illustrated and corroborated, by the course that manufacturies have taken in our own country. They have been first erected in parts that had but little money in common currency; that is, in places where labour, provisions, and all the necessaries of life were cheap: By degrees they enriched those provinces, till at length provisions of all sorts, and consequently labour, became very dear; too dear to sustain, or to be sustained by those manufacturies any longer. This naturally carried them to other places, where money was in less plenty: And this will ever be the case, unless part of the increased stock of money is kept out of the common circulation, and is either hoarded or directed into some new channel; without this, not only trade will move to different provinces of the same country, but it will move also into different countries.

XVIII. *Any artificial methods of increasing tale-money, pernicious.*

50. Any artificial methods of increasing the quantity of tale-money in circulation, beyond its natural bounds, will be attended with pernicious consequences; and this effect is perhaps not the least evil of our great national debt. As the values of all things are measured by money, it is, I think, by this time sufficiently manifest, that their prices will be in a certain proportion to the whole quantity of cash in circulation. If this quantity be greater in proportion to the trade of the nation, than in foreign countries; things manufactured at home will become too dear for foreign markets, as is the case of *Spain* and *Portugal*. As we have no mines, trade will keep, as before observed, real money to a proper level; but yet this level may be exceeded by artificial substitutes, as paper-bills, having no

bullion locked up in their stead, and light coins having less value than what they pass for; and by both these methods the nation is injured; By making all things dearer at home, the public is not only defrauded of so much bullion as these substitutes amount to; that is, to the whole amount of the paper above the bullion locked up in its stead; but it also suffers by the loss of the whole deficiency upon the light coins.

Although this subject hath been in effect illustrated before, yet is it of that importance as to deserve to be farther exemplified. Let us suppose that one tenth of the whole stock of circulating cash in this country, and 'tis not material to our argument what the specific sum amounts to, is some way lost or destroyed: If no artificial substitutes be made to intervene; it has been before shewed, that trade will gradually restore this supposed loss of bullion; as, till this be accomplished, bullion will be dearer or fetch more commodities here, than in other countries.

On the other hand, supposing the sum total of money, real and fictitious, now annually circulating in this country, to be 100 millions; 20 millions of which is in cash, and the rest in paper credit both public and private: If this paper credit be increased, by the creating of more bills, suppose to the amount of ten millions; one of the following will necessarily be the consequence: Either all our commodities will rise ten *per cent.* in their nominal value, which will render them too dear for foreign markets; or, this addition of paper bills will drain away ten millions of our cash, and so impoverish us in reality to that whole amount; or, the effect most likely will be, partly the one, and partly the other; but which ever it is, the nation will be equally endamaged. May this be ever a caution to statesmen, how they listen to projects that must clog our trade, banish our coin, and in the end bring on a general bankruptcy.

Let us suppose again, that the same quantity of tale or nominal money continues, but that the real substance of the current coin is diminished one tenth. So long as the people pay no regard to this diminution, the prices of things will continue the same as before, and the nation will be a loser of this tenth part of its treasure. For, if the currency of the light coins had been stopped; or, which is the same thing, if they had been restrained from passing otherwise than by weight; trade would have furnished the same quantity of tale in heavy money, as there is now of light; as it is manifest that in both cases, the nominal prices of things would be the same; and every one would receive for the same service or commodity, the same number of heavy coins in the one case, as he would of light coins in the other. Foreign exchange may make some difference here; but as the ballance of foreign trade is but small in comparison of fixed establishments at home, the difference upon that account will not be very considerable, till things come towards an extremity.

What hath been said of the national loss by the passing of light coins, will hold the very same, if bills be passed to a greater value than there is bullion in their stead. All private securities also are productive of equal evils, and frequently of more. To close this subject, I would observe here one essential difference there is between bills and light coins. Every one hath a right to call upon the issuer of a bill, to make it good in standard or lawful money. But he that hath light coins in his possession, is liable to bear the whole loss that there may be upon them, he took them in full consideration of a given sum, and if they prove deficient, he hath no body to blame but himself; and he merits the less compassion, as by his unwariness he was a sharer in, and a promoter of, a public evil.

*Hoarding the precious metals, beneficial.*

51. Gold and silver, for many reasons, are the fittest

materials hitherto known for hoarding: They are durable; convertible without damage into any form; of great value in proportion to their bulk; and being the money of the world, they are the readiest exchange for all things, and what most readily and surely command all kinds of services. In the days of prosperity therefore, it would be prudent to lay up a kind of dead stock of the precious metals, against any emergencies that might happen. This stock must be kept out from the circulating cash; for an increase there, would not answer the end; and indeed an overflow of money in circulation, would spend it self, by draining up the sources that produced it. But people in general will not hoard up cash; all like to display their wealth, and to lay out their superfluities in some costly things. There seems then no method so effectual for the securing of a dead stock of treasure, in any country, as the encouraging the use of plate; by making it fashionable, preferable to more brittle or more perishable \* commodities. Plate would be a national resource in case of emergency, and not the less so, because the precious metals had not as yet received the shape of coins. But this dead stock, whilst it remained such, would not be without its use; real wealth is ever accompanied with credit, and the influence of credit is frequently of the greatest moment. He that is ready armed, is less liable to be assailed; and silver and gold are keen and destructive weapons.

### XIX. *Of Banks.*

52. The several banks now subsisting in *Europe*, are of

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\* I have spoke before in favour of the arts, and I would not here be understood to mean, that any of those whereby some of our own people gain a livelihood, should be discouraged; nor yet that those of narrow circumstances, should aim at having plate: But those of affluent fortunes might save themselves the expence of many superfluities, without affecting labour with us; and these savings laid out in plate would be of more benefit to their country, and to their own posterity.

a modern date; but it is not my intention here to meddle either with their histories or particular constitutions. In great trading cities, a public bank that issued no bills without an equivalent in real treasure, whether in cash or bullion it matters not much, must needs, I think, be very convenient; as therein, merchants and others may safely deposit large sums, and thence again draw their money out at such times, and in such small parcels, as may suit with their several occasions. Such a bank may be also of some support to national credit, as the great sums known to be there locked up, would be ready upon an emergency. Bills of undoubted credit, are of great conveniency in large payments, and besides, save the wear of coin. But their extent should be restrained within due bounds: Should they increase much beyond the real stock of bullion that ought to be in their stead, they would prove mischievous two ways; by increasing in effect the quantity of circulating cash beyond its natural level; and by endangering, in a cloudy day, their own credit. But the profits to be made by lending, as I may say, of credit, are temptations too strong to be resisted; and it may be questioned, if any of the banks now subsisting, keep exactly within the above rule, tho' some of them are formed upon the very model here laid down.

*Banks instituted to prevent the abuses from bad coins, and from adulterations in the standards of monies.*

53. The oldest bank now in *Europe*, I think, is that of *Venice*; and the chief, if not all, of the rest, were instituted in the last century, and much upon the same model. The bank of *Amsterdam* was established in 1607; that of *Hamburgh* in 1619, and that of *Nuremburgh* in 1621.\*

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\* See more upon this head, in the *Universal Merchant*, a work containing some judicious observations concerning trade.

It appears, that the main if not the sole design of erecting these banks, was for the fixing a kind of an indelible standard of money; and thereby, to secure merchants and others from losses by bad coins, whether base or light; and from the dire effects of adulterating the standards of monies, either at home, or by the neighbouring states. These banks have answered admirably well the ends of their institution; and it were to be wished, that those ends had been more regarded in the establishment of our own. At the times of establishing the above banks, certain known coins of given weights and fineness, then current at certain rates in the respective places, were fixed upon as a perpetual standard, which from thenceforward were called BANK MONEY. As the current coins became afterwards diminished, either by legal adulterations at the mints, or by wear, or otherwise, a distinction was made between current and bank money, called *AGGIO*; and according to the real difference between these two sorts of money, the *aggio* amounted to more or less *per cent.* These wise establishments contributed greatly, towards stopping those baneful measures of adulterating the standards of money, that had been so frequently and so generally practised, in the dark preceding ages. The genius of trade breathes and requires a certain degree of security and freedom; and banks, such as we have been speaking of, can hardly ever take place under arbitrary governments.

*Complaints of the want of money, whence.*

54. The doctrine that we have been inculcating is so contrary to the common notions, that a want of money is a common cry. All the scramble is for money; few think they have enough, and many complain. This probably will be ever the case, nor would setting the mint to work cure the evil; and perhaps there is no where more want.

than where there is most money. The beggar hath no property, nothing to exchange for money; and if he will not work, none would come to his share, if the common stock was ever so much increased; a greater plenty of money would be so far from being advantageous to him, that he would run the greater risk of starving, as bread and provisions of all sorts would then be so much the dearer. The farmer complains, and thinks that if there was more money in the country, his corn and cattle would fetch a better price: They would fetch more money, but not more of any thing else that he wants; and he would not be at all bettered by this higher price, unless so far as a sudden increase of money might ease him in his rent, by lessening the intrinsic value of the specific sum which he had agreed to pay. The same may be said to the merchant, shop-keeper, &c. while all commodities keep the same proportion of value in respect of one another, no one reaps any advantage by the raising of the price in respect of money, of his particular commodity. The complaints of particular persons arise, not from a deficiency of money or counters in circulation; but from their own want of property, want of skill, address, or opportunity of getting more money; or perhaps only for want of frugality, in spending more than their income or proper share. Anticipation is the grand source of distress and poverty, and is an evil that takes off much from the use of credit.

There is a limit to the vent and consumption of all sorts of commodities. If, from an uncommon prolific season, or because of a great demand at some late market, or from any other cause, as a new course of trade, &c. more of any specific commodity be produced, than what the usual or necessary consumption requires; the price of it will fall, and some will be left on the owner's hands. Things growing out of fashion will frequently undergo the same fate; and in both cases, the manufacturers and dealers in those commodities will be complaining, the

workmen will be turned adrift, and all imputing their losses and disappointments to the want of money in the country. But a greater plenty of money would not mend or better their condition; those who have it, will not be persuaded to purchase more of this or that commodity, than what their own wants, conveniency, or fancy prompt them to; and those who cannot make so much profit in their respective professions as formerly, must either turn themselves some other way, or be content to live more frugally. But all will not be wise in time; emulation in show is a powerful incentive; few can bear the thoughts of retrenching while it is yet time, and many finding themselves upon the decline, will grow desperate and precipitate themselves the faster. In all great towns, bankruptcies will happen, and perhaps no where more frequent than where wealth and money most abound. These evils, if upon the whole they be evils, are what the mines cannot cure, but are rather what have been introduced and fostered by them.

### CHAPTER III.

#### *Of EXCHANGES.*

AS the accounts of particular persons living in remote places, are frequently liquidated and discharged by *bills of exchange*, without the intervention of money; and this being a subject of importance, and not generally understood, excepting by particular merchants, it may not be amiss in this place to give a brief account of the nature and use of exchanges.

#### I. *Bills of exchange, what.*

55. It hath been before observed, that the chief end or  
E 2 77 object

object of commerce betwixt nations, is a mutual exchange of commodities one with another ; and this may be, and frequently is, carried to a great extent without the intervention of money. But nevertheless the accounts are every where kept and stated in money ; and it is almost unavoidable, but that in all great trading towns, there will be merchants, some having bullion owing to them in one place, some in another ; some or other again that are indebted to all those places, or to some other place which is indebted to some one of those ; and so, by a kind of chain, all trading countries become in some sort accompants with each other.

To avoid the charge, trouble and hazard of transporting bullion backwards and forwards, for the supplying of these different occasions ; the method of discharging debts, by *bills of exchange* was introduced. This was an excellent \*  
78 invention ;

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\* This was the greatest security to merchants both as to their persons and effects, and consequently the greatest encouragement to commerce, and the greatest blow to despotism, of any thing that ever was invented. For, by this sort of correspondence, merchants can imperceptibly convey away their effects when and wherever they please ; and this they will never fail doing, if they are in any wise molested or threatened with danger. But at the same time, that this is so beneficial to commerce, and to liberty, both in certain degrees, inestimable blessings ; it weakens the attachments, and, as I may say, the allegiances of tradesmen to their mother-country. And I should not, for many reasons, chuse to have my abode where the chief property and the chief rule was in mercantile hands. For, as an alloy to its very great advantages, there is something selfish, ungenerous and illiberal in the nature and views of trade, that tends to debase and sink the mind below its natural state. Somewhat of this must be allowed to be the natural genius and bent of trade. Labourers or working people of all sorts, are quite excluded out of the present consideration ; and what is here said is not intended as any reflection upon or disparagement to the other ranks of tradesmen : We live happily in a country, where various classes of men by their daily intercourses do, as it were, humanize, and benefit one the other a thousand ways, and correct those errors and notions, which men confined to a particular sphere, are but too apt to fall into.

invention; these bills being as subservient in foreign commerce, as coins are in home traffic; for by shifting of debts and credits from one place to another, they so far answer all the purposes of money. Bills drawn betwixt places in the same country, are called *Inland bills*; as those drawn between different countries, are called *Foreign bills of exchange*.

In all countries there are peculiar laws and customs, relating to this business of exchanges, which merchants and others immediately concerned should be well versed in. It is not my design here to meddle with the practical part of this useful commerce, but to explain its theory or principles as briefly as I can. A part of what I here propose is so very well done to my hands in the \* *British Merchant*, that I cannot do better in this place, than giving the following extract from that useful work.

“ Suppose the tenant in *Wiltshire* is to pay for rent  
“ 100*l.* to his landlord in *London*; and the *woollen-draper*  
“ in *London* is to pay the like sum to his *clothier* in *Wilt-*  
“ *shire*: Both these debts may be paid, without transmit-  
“ ting one farthing from the one place to the other, by  
“ bills of exchange, or by exchanging one debtor for the  
“ other, thus: That is, the tenant may receive his land-  
“ lord’s order to pay 100*l.* to the *clothier* in the country;  
“ and the *woollen-draper* may receive his *clothier’s* order  
“ to pay the like sum to the landlord in town. These two  
“ orders are properly call’d bills of exchange; the debts  
“ are exchanged by them, that is, the *woollen-draper* in  
“ town, instead of the tenant in the country, is become  
“ debtor to the landlord; and the tenant in the country,  
“ instead of the *woollen-draper* in town, is become debtor  
“ to the *clothier*: And when these orders are comply’d  
“ with, the two debts between *London* and the country  
“ are discharged, without sending one shilling in specie  
“ from the one to the other.”

“ In like manner, the warehouse-man in *London* is indebted in 100*l.* for stuffs, to the *weaver* in *Norwich*; and the *linen-drapeer* in *Norwich* is indebted in the like sum to the *Hamborough* merchant in *London*; both these debts may be paid by bills of exchange, or by the exchange of one debtor for the other, by placing one debtor in the other’s stead; that is, the warehouse-man may receive the order of his *weaver*, to pay 100*l.* to the *Hamborough* merchant; and the *linen-drapeer* may receive the order of the *Hamborough* merchant to pay the like sum to the *weaver*. These orders are bills of exchange; the debtor in one place, is changed for the debtor in the other; and thus both debts may be paid, without sending one single shilling in specie from the one city to the other.”

“ If the debts reciprocally due between *London* and *Norwich*, are equal; whether they are 100*l.* or 10,000*l.* they may be all discharged in this manner by bills of exchange, without sending any money in *specie* from the one to the other.”

“ But if the debts due from both places are not equal, then only the same quantity of debts on both sides, can be paid by bills of exchange. The ballance must be sent in money from the city, from whence the greatest sums are due. For example: If by the trade between *London* and *Norwich*, the former owes 10,000*l.* to the latter, and the latter no more than 9000*l.* to the former, it is manifest, that only the debts of 9000*l.* on each side can be discharg’d by bills of exchange; the ballance of 1000*l.* must be sent either from *London* or some other place indebted to *London*, to even the accompt between both the cities.”

“ Let us suppose then, that to send and insure 1000*l.* in specie to *Norwich*, would cost 5*l.* or 10*s.* per Cent. which of the debtors in *London* would be willing to be

“ at this charge? It is natural to believe that every one  
“ will endeavour to shift it off from himself, that every  
“ one will endeavour to pay his money by a bill of ex-  
“ change; it is natural to believe that every one, rather  
“ than stand the cost and hazard of sending 100*l.* in  
“ specie, would pay 100*l.* 5*s.* in *London* for a debtor in  
“ *Norwich*, upon condition that the *Norwich* debtor should  
“ pay 100*l.* for him in that city. By which means the  
“ *Norwich* debtor would pay his debt of 100*l.* in *London*  
“ with less than that sum, while the *London* debtor would  
“ be obliged to give more than that sum for the payment  
“ of 100*l.* in *Norwich*. And if such for years together  
“ were the course of exchange between *London* and *Nor-*  
“ *wich*, there could be no question to which of the two  
“ cities a sum must be sent in specie to pay the ballance;  
“ that city undoubtedly pays the ballance that gives more  
“ than the par, that undoubtedly receives the ballance  
“ that gives less than the par for the bills of exchange.  
“ The course of exchange in this case would sufficiently  
“ decide, that the ballance of trade is on the side of that  
“ city that procures bills of exchange upon the most easy  
“ terms.”

*Foreign exchanges further explained.*

56. The above example taken between two *English* towns, explains the theory of exchanges very distinctly. And from hence it may be easily conceived, how the business of exchange may be carried on between any number of foreign towns. As, suppose that *London* is indebted to *Paris* in a sum of 100,000 ounces; *Paris* in a like sum to *Hamborough*; *Hamborough* in the same sum to *Leghorn*; *Leghorn* to *Amsterdam*; *Amsterdam* in the like sum to *London*. All these several debts may be cancelled and discharged by *bills of exchange*, without the transportation

of one ounce of bullion or one penny of money. For instance, *London* discharges its debt at *Paris*, by a bill drawn upon *Amsterdam*; *Amsterdam* pays this bill by another drawn upon *Leghorn*; *Leghorn* again draws upon *Hamborough*; and lastly, by this rotation the debt from *Paris* to *Hamborough* becomes likewise discharged; and all the above named towns respectively are cleared of all accounts with each other. And the several debts above supposed being equal, the debts of the respective places will be discharged with the exchange at *par*, or without loss or gain to either. But as all the above towns may have mutual accounts, each with all the rest, and with many others; the real practice of exchange branches out into an immense labyrinth, not easily unfolded without much experience and application.

## II. *PAR of exchange, what.*

57. The exchange is said to be at *par* or even, between two places, when a given sum paid in the one, will purchase a bill for the like or a sum of the same intrinsic value, to be received in the other. To avoid all ambiguity, the several accounts in the preceding article were stated in ounces. But as all countries keep and state their accounts in their own money, and most places have peculiar coins of their own; this makes it necessary that merchants, who are citizens of the world in a stricter sense than any other, should know exactly the true proportional values of the monies of all countries in respect of one another; that is, how much fine silver, or fine gold, if the accounts are kept in gold, are contained in the respective standards or monies of the several countries to or with which they traffic. These proportions being known and stated, the monies of the world are thereby in effect reduced

to one common standard ; and it may be readily seen, how much of the money of one country is an equivalent to, or contains an equal quantity of silver with, a given sum in another country.

The equality of silver, expressed by different denominations of coins, constitutes what is usually called the *par of exchange* betwixt any two countries. In stating this *par*, some particular specie or sum of the money in one country, is usually made the *unit* or *integer*, which always remains fixed and unalterable ; and the proportion or equality is expressed in specie of a smaller value of the other country ; and it is in these specie that the price is expressed as the exchange varies : As if the exchange betwixt *London* and *Paris* be reckoned in *pence* and *ecu's*, and a *French ecu* contains as much silver as there is in  $29\frac{1}{4}$  *pence sterling* ; then the *ecu* is the *unit*, and  $29\frac{1}{4}$  is the *par of exchange* betwixt *London* and *Paris*. In the mercantile language of exchange, that country wherein the unit is established, as in the above instance *Paris* in respect of *London*, is said to give the *certain* for the *uncertain* ; as *London* again gives to *Paris* the uncertain for the certain. *London* gives the *certain* for the *uncertain*, that is, the *pound sterling* for their *schillings*, to *Holland*, *Flanders* and *Hamborough* ; and to *France*, *Spain*, *Portugal* and *Italy*, *London* gives an uncertain number of pence, as the exchange governs, for a certain sum in their money.

Those who are not accustomed to this business, are apt to be in doubt whether the exchange rising, for instance, be in our favour or against us. This doubt may be always cleared by this short rule : The higher the exchange between any two countries is, the more it is in favour of that wherein the unit or invariable sum is established ; and the lower, the more in its disfavour. Thus, the higher is the exchange betwixt *London* and *Amsterdam*, the more is it in favour of *London*, as then the more *Dutch schillings* are given for the pound sterling. On the contrary, the

higher is the exchange between *London* and *Paris*, the more is it against *London*, as then the *French ecu* exchanges for a greater number of pence sterling.

III. *The true par of the exchange between different countries, difficult to be ascertained.*

58. Those who have made the proper experiments, find that most of the foreign mints are very inaccurate; and this makes it difficult to ascertain what are the precise values in respect of one another, of the legal monies of different countries; and this is all that is usually aimed at by the calculators of the *par of exchanges*. But this knowledge, if it could be obtained with ever so much precision, would be of very little service to the merchant, as the state of the coins in most places now stands. What the merchant must regard, is, the amount in bullion of what he usually receives in consideration of a given sum of money.

If the ballance due from any country, be usually remitted in coins, and those coins be wore or otherwise diminished below the legal standard; this will make a seeming difference in the true *par*, and the exchange in appearance will be against that country when it is really even.

If in any country, gold be over-rated with respect to silver, this will naturally drain away its silver coin, and gold coins will become most current in large payments; In this case, the merchant will make gold his standard, and rate the exchange accordingly. This will create a difference from the nominal *par* of the exchange, which will be more or less, according as gold is more or less over-rated; and with this cause of over-rating gold, the lightness of the coins both gold and silver will also cooperate, in proportion to the quantities of them exported;

from both which causes the difference between the true and nominal par may be very considerable.

These observations may serve to dispel the gloomy apprehensions which some are apt to entertain, from the course of exchange in general appearing so much against *England*; and they also plainly shew that the course of exchange betwixt different countries, is not so critical and exact a rule for measuring the ballance of trade, as is commonly imagined; since it is hardly possible to ascertain what is the *true par*. But the exportation of bullion, is a certain sign of the exchange being really in favour of that country to which it is sent; and the variations in the exchanges, point also the variations in the ballance of trade; though, in general, the rate of the exchange at a particular time, is scarce sufficient for determining on which side the ballance then turns.

#### IV. *Course of exchange, what.*

59. The price at a certain time and place, of bills of exchange for given sums drawn upon another place, is called the *course of exchange* between those two places at that time; and this is frequently different from the PAR, and more or less than an equivalent in fine silver or fine gold is to be paid in one place, for a given sum to be received in the other. Thus, supposing the par of exchange betwixt *London* and *Paris* to be  $29\frac{1}{4}$  pence sterling for a *French* ecu; it might happen at one time that a bill upon *Paris* might be purchased at *London*, at the rate of 28 pence for an ecu; and that at another time no bill could be had under  $30\frac{1}{2}$  or 31 pence.

As the ballance of accounts between the several trading nations of the world, must be continually varying, and frequently shifting to different sides; so the course of exchange will be ever fluctuating, and it will be more advantageous to make remittances through certain chan-

nels at one time, and by different ways at another. But as it would be difficult for the gross body of merchants to unravel these intricate clues, and to find out and supply each other's wants and conveniences; particular persons apply themselves to this business, and *drawing* and *remitting* by bills of exchange is it self a distinct trade. The *remitter*\* or trader in bills of exchange, must have a real stock or credit in the several places with which he corresponds; for bills, strictly speaking, pay no debts; they only transfer credit from one place to another; and whenever the demand for bills to one place, are greater than the remitters can answer by their credit or stock in other places, they must then transport as much bullion as will satisfy their correspondents. But the principal skill of a remitter consists in finding where and when bullion will fetch most, or where credit or bills are to be had cheapest, and where and when to transfer this credit to most advantage: For bills of exchange being substitutes for bullion, are themselves as much a commodity as bullion, or any thing else; and the dealers in them make their profits in the very same way that other merchants do, by observing the advantages of different markets.

#### V. *Price of bullion, how influenced.*

60. A demand for bills upon a particular place, raises their prices, as in other cases; and when these prices have got up to a certain degree above par, the price of bullion will be also advanced above the standard of the country. For, dearness of bills causes a demand for bullion to be exported, and in proportion of the demand to the stock in

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\* Dealers in bills of exchange are in general terms usually called *remitters*: But with respect to a particular transaction, he who sells a bill, to be paid by his correspondent in another place, is called the *drawer*; and he who buys the said bill, and sends it abroad to have the value received by a fourth person, is called the *remitter*.

the market, the price of bullion will be raised. To take advantages when and wherever they offer, is the object and business of commerce. Again, by transporting of bullion the price of bills will be lowered; that again will gradually lower the price of bullion, until the prices of each are again brought to a par. The price of bills may be reduced below par; but bullion can never be lower than the established standard, the mint being always open to receive it at the standard or mint price.

VI. *National interest, how influenced by the course of exchange.*

61. It seems, upon the first view of the thing, that a country which oweth a ballance to another, must pay a præmium upon all the bills that pass between them. As, supposing that in the accounts betwixt *England* and *Holland*, we owe the *Dutch* an 100,000 ounces; and that they owe us 90,000 ounces; and supposing also that this ballance of 10,000 ounces which we owe to them, brings the exchange against us one *per cent*. It seems, I say, as if we must pay this one *per cent*. not merely upon the ballance of 10,000, but upon the whole 100,000; and on the other hand, that we shall receive short from them one *per cent*. upon the whole 90,000 which they owed us; that is, that we must pay the *Dutch* 101,000, whilst they will discharge their debt to us with 89,100; so that our whole loss, upon the above suppositions, amounts to 1,900. This at first view seems to be the exact state of the case; but upon examining this matter a little closer, I think, it will appear that the loss to *England* by the exchange, is ordinarily no more than what falls upon the ballance of 10,000. Suppose the whole account at *London* to stand betwixt two persons, both *Englishmen*; *B* at *London* oweth *D* at *Amsterdam* an 100,000; *C* another *Dutchman* at *Amsterdam* oweth *A* at *London* 90,000. *B* pays to *A*

91,000 for a bill upon *C* to pay *D* 90,000; by this transaction the 90,000 *Dutch* debt at *London* is quite cleared, and what *B* lost was gained by *A*. If the affair had been transacted at *Amsterdam*, the gain would have fallen to the share of the debtor *C*, and the loss on the creditor *D*; for *C* with 89,100 would have purchased of *D* a bill for 90,000 upon *B*. But although affairs of this kind are always transacted between several persons, yet at last it comes to the same thing; and the whole gains, so far as bills will reach in liquidating the accounts, falls to the creditors on one side of the water, and to the debtors on the other. In the case above supposed, if some of the *Dutch* creditors reside at *London*, or some of the *English* creditors at *Amsterdam*, this will turn the scale to the prejudice of *England*. These observations plainly shew, that any calculations of national profit or loss from the course of exchange, must needs be very precarious. Yet is it almost certain that by these transactions, that country will sustain some loss against which the exchange bears; and there is no other way of bringing the ballance even, but by the exportation of goods or bullion.

VII. *The course of exchange influenced by various causes.*

62. A demand for bills upon a particular place, may proceed from various causes; but these are chiefly reducible to the ballance of trade upon the whole, or between particular places. Bullion, like other commodities, traverses through different climes, and is ever of least value where it most abounds. *Spain* and *Portugal* being the chief sources from whence this commodity is drawn to the rest of *Europe*, it is there cheapest and their chief staple; and hence, in the usual phrase, the ballance of trade and the course of exchange will be every where against them. This is natural, and is no more to their prejudice, than it would be to the *English* to have the ballance against them,

if the money of *Europe* was tin ; as would then be the case, because we have the most considerable mines of that metal. In like manner, and for the same cause, it is natural that the ballance of trade, and with it the course of exchange, between the more southern and the northern parts of *Europe*, should be in favour of the latter ; and this in general is the matter of fact.

The business of exchange between *England* and *Germany*, and the northern countries is chiefly transacted at *London* and *Amsterdam*. The course of exchange then between us and *Holland*, indicates how the state of accounts stands between us and all those countries in general, but not in respect of any one in particular. The ballance of our trade to *Holland* may be greatly in our favour, and yet the exchange to *Amsterdam* be generally against us ; both which are supposed to be matters of fact. Our debt to foreigners operates in the same manner as a ballance of trade against us, to the whole amount of the dividends owing to them ; and the same is true as to all foreign subsidies. If those dividends paid to foreigners contribute to enlarge our manufacturies and exports, our loss is thereby alleviated ; but if they do not, that is, if our commerce remains in *statu quo*, we are losers to their whole amount, and that equally whether their produce is exported in goods or bullion ; if they are sent in goods, they prevent so much bullion from coming to us. This is an affecting consideration, and the sources of this country must be prodigious great to be enabled to sustain so great a burden. But let us not be too secure, and neglect a matter of so much importance.

VIII. *Bullion is not exported till the exchange is at a certain limit from par.*

63. Merchants always prefer bills of exchange, whilst they are to be had at moderate rates, before bullion or

cash, which with them is the same thing; and bullion is never transported from one place to another, till the exchange is at a certain distance from *par*; and this distance is again limited by the expence of transporting bullion, wherein is included, besides the freight, commission and insurance. And hence, the whole fluctuation in the course of exchange is very different between different places. Betwixt *London* and *Paris*, the exchange must vary about  $\frac{3}{4}$  per cent. from *par*, before bullion, at least in any quantity, will be sent from either side. The freight of bullion from *London* to *Calais* is about  $\frac{1}{4}$  per cent. from thence to *Paris* about  $\frac{1}{8}$ , insurance in the whole to *Paris* about  $\frac{3}{8}$ , which make altogether  $\frac{3}{4}$  per cent.; and so much at least the exchange must be against us, before any bullion will be sent from *London* to *Paris*; and it must be as much in our favour, before any bullion will be brought hither from thence. By this reckoning, the exchange betwixt *London* and *Paris* may vary  $1\frac{1}{2}$  per cent. before gold or silver will move towards either side. To *Amsterdam*, the expence of transporting bullion from *London*, is less than to *Paris*; to some other places, this expence is greater, and accordingly the exchange varies less or more between different countries; because, as hath been before observed, the transportation of bullion keeps the course of exchange within a certain limit.

Bills are frequently drawn, and bullion carried, between two places that are even in their accounts, to pay debts in a third place. If the exchange betwixt *Calais* and *Paris* be against *Calais*, and it be at *par* directly between *Calais*, *London* and *Paris*; a merchant at *Calais* will pay his debts at *Paris* by a bill upon *London*: And if the exchange betwixt him and *Paris* and betwixt *London* and *Paris* will permit, our *Calais* merchant will purchase a *London* bill by sending gold thither, instead of sending it directly to *Paris*. It is in finding and taking the

advantages of the several markets, that the mystery of this traffic by exchange doth principally consist.

This short account may suffice to explain the general theory of exchanges; a theory curious in it self, and the practical part is extreamly useful for the purposes of foreign commerce. But to meddle with that, doth not fall within the compass of my design.

*The End of the FIRST PART.*



AN  
E S S A Y  
UPON  
MONEY and COINS.

PART II.

WHEREIN IS SHEWED,

That the ESTABLISHED STANDARD of  
MONEY should not be *violated* or  
*altered*, under any pretence what-  
soever.

LONDON,

Printed: Sold by G. HAWKINS at *Milton's Head*, by  
the *Middle Temple-Gate*, in *Fleet-street*.

M.DCC.LVIII.



TO THE RIGHT HONOURABLE

HENRY BILSON LEGGE,

One of the LORDS of the TREASURY, CHANCELLOR and Under-Treasurer of the EXCHEQUER, and one of the Lords of His MAJESTY'S Most Honourable PRIVY-COUNCIL.

*SIR,*

**T**HE subject of the following sheets, peculiarly requires and deserves the protection of an able and honest patron ; for, important as it is to the public welfare, few men perfectly understand it, and too many have industriously perplexed it, some perhaps, for private views of their own.

The free access which your friendship hath allowed me, hath given me many opportunities of observing the close application you are always ready to give to every subject, in which the interest of your country is concerned ; and of admiring the happy talent you possess of explaining those which are of the most intricate nature, with the greatest clearness, strength, and precision.

Permit me therefore, Sir, to inscribe the following tract to you, as a token of the affection I bear to your private as well as of the respect I pay to your public character.

*I am,  
SIR,  
Your most faithful  
and obedient servant,*

THE AUTHOR.

THE

## P R E F A C E.

**I**N the preceding part of this essay, I have endeavoured to explain the theory and nature of money, in such a manner, as to leave no room for any doubts or difficulties concerning it. But notwithstanding all my care, I do not expect universal approbation : Such are the infinite diversities and warpings of the human mind ; and such are the inadvertencies, perversenesses and prejudices of many, that unanimity in any one point is hardly to be expected. And unfortunately, money is a subject wherein men in general have given themselves the least trouble of enquiry; and yet a subject upon which they think themselves best qualified and best entitled to decide : A subject upon which, more jejune, incoherent and dangerous positions have been held, and more glaring absurdities advanced, than, perhaps, upon any other whatsoever. But truth is mighty ; and to as many as can think freely for themselves, and have considered what I have already laid before them, I hope that what is here offered will appear evident and incontestible.

The design of this second part is a very arduous and important one : It is to defend and preserve every man's right and property ; to preserve unsullied the national faith, honour and credit ; to preserve a reign hitherto distinguished by equal laws and equal administration of justice, from a blot that would remain to all posterity : To vindicate and defend all these, I say, from an assassination in the dark, by a debasement of the long established standard of property. Some of our opponents in this question, no doubt, mean well ; and persist in their errors for want of understanding the subject, and that perhaps too, only from their not having duly considered it. Others, it is to be feared, seek only their own private gain ; in competition with which, it is not to be expected that with such men, either the dishonour or distresses of their country, should have much weight.

Towards the close of the last century, this country swarmed with projectors, who were for debasing the standard of money. These were fully answered, if they would have taken an answer, by the great Mr. LOCKE, as to the point then in debate. The very ill state of our coin at that time, might mislead many well meaning people into wrong notions, as to the means of redressing that great evil, which the nation then labour'd under : But, after what was then said and done, to have the same false doctrine maintained

tained and propagated at this day, is truly matter of astonishment.

Mr. *Locke* seems to have been called to this work, before he had considered the subject at large ; and although he was perfectly right as to the main point then in debate ; yet it must be owned that his tracts upon this subject, though voluminous, if considered as a system of the theory of money, are very deficient and imperfect, if not in some places bordering upon mistakes. It is with much reluctance, but it is with a very honest design, that I say thus much to the disparagement of this truly eminent author : It is to guard the reader against trusting too far to a guide, that would scarce be able to conduct him clear of many obstacles that might fall in his way.

I have endeavoured to supply this defect, to remove all those difficulties which seem to have misled people upon this delicate, complex, and important subject, and to frame the whole structure upon self-evident principles. It should not be here concealed that we have on our side of the question, some of the most distinguished names that this or any other country hath produced : No less than the great Lord BURLEIGH, Lord HALIFAX, Lord SOMMERS, Sir THOMAS ROWE, Mr. LOCKE, Sir ISAAC NEWTON, MARTIN FOLKES, Esq ; &c. Some of these are quoted, in their own words, in the first ensuing chapter ; and it is but fair and equitable,

equitable, that those who will not or cannot think for themselves, should pay a due regard to such venerable and great authorities.

Before I conclude, I ought in justice to acquaint the reader, that this tract was not undertaken from any apprehension, that our government now hath or is likely to have any design of altering our standard; it is rather with a view to the quiet of those in power from the importunities of wrong-headed politicians, as well as to the safety of the whole from the intrigues of wily projectors.

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## PART II.

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### CHAPTER I.

*A summary account of all the alterations that have been made in our standard of money, from the Norman conquest to the present time, with the opinions of some very eminent men upon those kinds of measures.*

**T**HAT the reader may comprehend at one view, the several alterations that have been made in our money standard, ever since the *Norman* conquest; I have inserted the following table, computed to my hand by the late learned MARTIN FOLKES, Esq.; and printed in his curious *Table of English silver coins, &c.* p. 142; to which I have added the proportion which, in our coins, fine gold bore to fine silver, at the respective times therein specified, fine silver being reckoned unity or 1.

1. A TABLE shewing at one view, the several alterations that have been made in the standard and weight of our silver money, from the *Norman* conquest to this time (1758).

Years of the kings reign, and <i>A.D.</i>		Fineness of the silver	Weight of 20 sh. in tale. Troy wt.	Value in present money.	Proportion.	Fine gold to fine silver.
		oz. dwts.	oz. dwts. gr.	£ s. d.		
Conquest	1066	11 2	11* 5	2 18 1½	2.906	} No gold.
28 Edw. I.	1300		11 2 5	2 17 5	2.871	
18 Edw. III.	1344		10 3 0	2 12 5½	2.622	12.583
20 ditto	1346		10	2 11 8	2.583	11.571
27 ditto	1353		9	2 6 6	2.325	11.158
13 Hen. IV.	1412		7 10	1 18 9	1.937	
4 Edw. IV.	1464		6	1 11	1. 55	10.331
18 Hen. VIII.	1527		5 6 16	1 7 6½	1.378	11.267
34 ditto	1543	10	5	1 3 3½	1.163	10.435
36 ditto	1545	6	5	13 11½	0.698	6.818
37 ditto	1546	4	5	9 3½	0.466	5.
3 Edw. VI.	1549	6	3 6 16	9 3½	0.466	5.151
5 ditto	1551	3	3 6 16	4 7½	0.232	2.011
6 ditto	1552	11 1	4	1 0 6½	1.028	11. 05
1 Mary	1553	11	4	1 0 5½	1.024	11. 05
2 Eliz.	1560	11 2	4	1 0 8	1.033	11. 1
43 ditto	1601	11 2	3 17 10	1	1.	10.005

*Observations on the foregoing TABLE.*

2. From the above table, it appears that the standard of money remained unaltered here, for the space of 234 years after the conquest; during which period, a pound in money was also a pound in weight. After the old standard had been once broke upon, it was again and again curtailed; however, they observed some measure, and the old standard of fineness was preserved, till the 34 *Hen. VIII.* This king afterwards reduced the standard to less

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than

\* *N. B.* The *Saxon* or *Tower* pound, which was then the common weight, and continued to be the money weight till the 18th year of *Henry VIII.* was but 11 oz. 5 dwt. troy, so that 20 shillings in tale was then exactly a pound in weight.

than one third of what it had been for 63 years, before he began to tamper with it; and in the fifth year of the reign of his son young king *Edward*, the money standard was reduced to less than one fourth of what it is at present; and they were so extravagant as to raise up silver at the mint to about half the value of gold. What were the immediate effects of those wild measures, historians have not been particular in informing us; but they must needs have been calamitous in a thousand respects: That the evils were very grievous, may be conjectured from the bold step taken the very next year, of increasing at once the standard betwixt four and five times: A measure so extraordinary, that it must have been attended with infinite disorders, if the people in their dealings, during that short dark period of debasing the money, had not endeavoured to have kept to the standard, as it was in the preceding times. Besides the unavoidable evil of hoarding, or transporting of the old coins at under rates, and more especially the gold ones, to the very great loss of the nation; it appears by the following proclamation, that the people either refused to bring their goods to market, or not to sell them but at very high rates.

“ 3. \* In 1550, *Sept.* 22. A proclamation was set forth, by which it was commanded, 1. That no kind of victual, no wax, tallow, candles, nor no such thing should be carried over, except to *Calais*, putting in sureties to go thither. 2. That no man should buy or sell the self-same things again, except broakers, who should not have more than ten quarters of grain at once. 3. That all parties should divide themselves into hundreds, rapes, and wapentakes, to look in their quarters what superfluous corn were in every barn, and appoint

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\* *FOLKES's table of English silver coins*, page 35. We are much obliged to this learned author for the great pains he took in gathering many curious anecdotes relating to this subject.

“ it to be sold at a reasonable price. Also that one of  
 “ them must be in every market to see the corn brought.  
 “ Furthermore, whoever shipped over any thing aforesaid,  
 “ to the parts beyond sea, or *Scotland*, after eight days  
 “ following the publication of the proclamation, should  
 “ forfeit his ship, and the ware therein, half to the lord of  
 “ the franchise, and half to the finder thereof; whose  
 “ bought to sell again after the day aforesaid, should for-  
 “ feit all his goods, farms, and leases, to the use, one half  
 “ of the finder, the other of the king; who so brought not  
 “ in corn to market as he was appointed, should forfeit  
 “ 10*l.* except the purveyors took it up, or it were sold to  
 “ his neighbours.” *King's Journal.*

“ It further appears also, by the king's journal,\* that  
 “ on the 19th of *October*, 1550, prices had been set of all  
 “ kind of grains, butter, cheese, and poultry ware, by a  
 “ proclamation;” and that, on the 20th of the following  
*November*, “ there had been letters sent down to the gen-  
 “ tlemen of every shire, for the observation of the last  
 “ proclamation concerning corn, because there came none  
 “ to the markets, commanding them to punish the offen-  
 “ ders:” But that upon letters written back by the same,  
 “ the second proclamation had been abolished, on the  
 “ 29th of the same month.”

To these authorities collected by this learned gentle-  
 man, I beg leave to add some of his sentiments upon this  
 subject, in his † own words.

“ 4. All ways had before this been tried, and all means  
 “ had been found ineffectual, for the keeping up the value,  
 “ and supporting the currency of the base money:—”  
 “ † It was now found by experience that gold and silver  
 “ had, by the common consent of all people throughout

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\* *Edw.* VI. 1551.

† *FOLKES's table of English silver coins*, p. 35.

‡ *Ibid.* p. 36.

“ the civilized parts of the world, acquired certain real  
“ and proper values : and that in such a nation as this,  
“ not destitute even then of all commerce with strangers,  
“ it was impossible that the arbitrary value set upon pieces  
“ of base metal could, for any considerable time, supply  
“ the want of the silver that used to be contained in the  
“ pieces of the same denominations. Whatever names  
“ were given to those pieces of base metal, or by whatever  
“ authority their imaginary value was supported ; the  
“ people would either not bring their provisions at all to  
“ the markets, to exchange them for such money, or  
“ would there sell them at much higher rates than before :  
“ as the nominal sums they received for their goods, would  
“ not now purchase the same conveniencies elsewhere, as  
“ the same nominal sums of better money had formerly  
“ done. It was therefore judged absolutely necessary to  
“ reform and to amend the coin ; the affair was very  
“ seriously considered, and the work was undertaken and  
“ carried on, with so much diligence and vigour, that  
“ within a few months a reformation of the money was  
“ brought about, truly memorable, and no less remarkable  
“ than the former abuses of it had been : for the new  
“ pieces that were coined before the end of this year 1551,  
“ were of more than four times the value of those of the  
“ same denominations, that had been coined in the former  
“ months of the same.\*”

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5. The

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\* In p. 30, 31, of the above work, are two remarkable passages relating to this subject, extracted out of two sermons preached before the king, by the truly excellent bishop LATIMER, in *March* 1549. In the first he says, “ We have now a pretty little shilling, indeed a very pretty one. I have but one I think in my purse, and the last day I had put it away almost for an old groat, and so I trust some will take them. The fineness of the silver I cannot see : but therein is printed a fine sentence, *Timor Domini fons vitæ vel sapientiæ.*” In the next sermon, he says, “ Thus they burdened me ever with sedition. And wot ye what ? I chanced in my last sermon to

5. The mischiefs occasioned by these base coins could not be fully subdued till queen *Elizabeth's* time; and the conquering of that monster, as she called it, was deemed by that illustrious queen, as one of the most glorious acts of her reign. Queen *Mary* settled the standard at 11 oz. fine, and 60 shillings were cut out of the pound troy. Queen *Elizabeth*, in her second year brought the standard into its antient fineness of 11 oz. 2 dwts. and cut as before, just 60 shillings out of the pound troy. But in the 43rd year of her reign, the standard was debased once more, by cutting the said pound into 62 shillings.

6. The above last alteration remains yet to be regretted, as now none of our coins are aliquot or even parts of our

“speak a merry word of the new shilling, to refresh my auditory, how I was like to put away my new shilling for an old groat. I was therein noted to speak seditiously.—I have now gotten one fellowe more, a companion of sedition, and wot you who is my fellowe? *Esay* the prophet. I spake but of a little prettie shilling, but he speaketh to *Jerusalem* after another sort, and was so bold as to meddle with their coynés. Thou proud, thou haughty city of *Jerusalem: Argentum tuum versum est in scoriam*, thy silver is turned into, what? into testions? *scoriam*, into dross. Ah seditious wretch, what had he to do with the mint? Why should he not have left that matter to some master of policy to reprove? thy silver is dross, it is not fine, it is counterfeit, thy silver is turned; thou hadst good silver. What pertained that unto *Esay*? marry he espied a piece of divinity in that policy, he threatneth them God's vengeance for it. He went to the root of the matter, which was covetousness; he espied two points in it, that either it came of covetousness, which became him to reprove: or else that it tended to the hurt of poore people; for the naughtiness of the silver was the occasion of dearth of all things in the realm. He imputeth it to them as a crime. He may be called a master of sedition indeed. Was not this a seditious fellow; to tell them this even to their faces?” I have cited these passages at large, because they not only shew in the clearest manner, this good bishop's own sentiments of the pernicious consequence of the base money then current, but what most probably was also the common notions and talk at that time.

weights. For about 50 years before, whilst the pound weight troy of silver, was cut into 60 shillings; the money pound being exactly 4 ounces, the crown-piece was one ounce, the shilling 4 dwts. and the penny 8 grains. Had this standard been continued, every one would have readily known, how much silver each piece of money ought to contain; and would naturally have led people to compare coins with weights, which probably would have produced long ago, some of the regulations now so much wanted in regard to money, and which would have saved this nation from great loss and perplexity. It were to be wished also, that our silver and gold coins were of the same fineness one with another; for then their respective values might have been the easier compared. This would now have been the case, if the silver standard of 11 oz. fine had been continued, as it was settled by queen *Mary*. But these things cannot now be remedied, without risking a much greater inconvenience; as it is dangerous to meddle in any wise with the standard of money.

It is no wonder if amidst the various schemes for supplying the necessities of king *Charles I.* that also of debasing the coin should be taken into consideration: But the ministry seem to have been fully convinced of the vanity of such projects, by a speech made at the council table in *July 1640* by Sir *Thomas Rowe*,\* of which I have made the following extract. (See *ante* pp. 125—131.)

8. The above excellent speech is so clear and full to the point, as to need no remarks. It shews that the nature of money, however it came to be so much mistaken since, was formerly well understood; and by a passage in it, and in the † Report of a committee appointed by the

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\* This speech was really made in 1626, by Sir *Robert Cotton*. See *ante* p. 123.

† This Report is printed in the forecited speech of Sir *Robert Cotton*. See *ante* p. 132. We therefore omit the extract from it which Mr. Harris has here inserted.

privy-council to examine into the project of debasing the coin, we learn that the said project came from some officers of the mint, with whom were also joined certain goldsmiths or money-mongers; And to facilitate the scheme, it appears, that these gentlemen did not scruple to make allegations that were false in point of fact. It will be shewed hereafter, why mint-masters have an interest in promoting any alteration in the standard of money: And although nothing that hath been here or elsewhere said, is intended as a reflection upon any persons of the present age, as I do not think that they deserve such a censure; yet it may serve as a standing caution to those in power, not to trust too far to the opinions or glosses of those, who may be interested in deceiving them.

10. *The several ways by which the standard of money might be debased.*

What the standard of money is, hath been already fully \* explained: But to prevent mistakes, I shall here recapitulate the several ways by which this standard may be *debased, lowered, or curtailed*; for all these words here are synonymous, and with these, the phrase *raising the money*, hath also the same signification.

*First*, By altering the denominations of the coins, without making any alteration at the mint, or in the coins themselves; as suppose nine-pence, or as much silver as there is now in nine-pence, should be called a shilling; then a shilling would be called sixteen-pence, and so proportionably of all the other coins; and three crown pieces, or fifteen of our present shillings, would be called a pound sterling, which is our money integer. The same loss would descend down to the penny, and by this reckoning, the real penny must be called  $1\frac{1}{4}$  penny.

Or the alteration may be made at the mint, by either of the following methods.

*Secondly*, By continuing the same names and the same weights to the coins, but making them baser, or with less silver and more alloy.

*Thirdly*, By preserving the same fineness of the metal, but making the coins smaller or lighter.

Lastly, the two last methods, or all the three methods, might be compounded together.

And here it may not be amiss to repeat again, that by debasing the standard of money, I every where mean, the lessening of the quantity of pure silver in our *money integer* or *pound sterling*, or in the respective specie which by law is ordained to make up that sum, without regarding the particular manner, in or by which, this may be done.

Each of the preceding schemes for debasing the standard, have had their abettors. The first of these was Mr. *Lowndes's* plan, and it must be owned that this is by far the least mischievous of them all; for by this means a recoinage is avoided, and all the old coins are continued to be useful under new names: but this is so glaringly foolish at first sight, that our modern projectors do not think it would afford them any countenance.

Those who are for debasing the metal without lessening the weights of the coins, say, that this would preserve the coin from wear: but this is saying either too much, or what is false; for were it true, the argument would bring us down to mere copper: But those who have been curious enough to make the experiment, know, that fine silver and fine gold, are less liable to wear than when alloyed.

The greatest number of the enemies to our standard, are to be ranged under the head of clippers, and perhaps this profitable trade is not quite out of their view; they are for reducing the coins to a less size, without altering

the fineness of the metal; and with a grave air they shamelessly tell us, that this is not altering the standard of money.

## CHAPTER II.

*The established standard of money should not be violated or altered, under any pretence whatsoever.*

**T**HE several citations in the foregoing chapter, are so full and direct to the point before us, that, one would almost think, the whole argument might be safely rested upon them. But notwithstanding all that hath been hitherto said, the subject is still misunderstood by many; and it must be confessed, that some points want to be better explained, than they have as yet been. For the better clearing it of all difficulties, I have in this chapter discussed the whole argument, independently of what hath been said by others; and however that might be deemed to derogate from my own merit, I am the better pleased, the oftner I find myself in the company of those eminent authors already quoted. I have aimed throughout at brevity; but the many attacks I had to encounter with, however frivolous they truly are, have unavoidably drawn this chapter into some length.

*I. Standards of all sorts of measures, necessary; and in the establishment of these, it is indifferent what are the specific quantities or measures taken.*

11. In all regular governments or communities, it is very necessary to have certain *standard measures* established, both as to weight and extension; that so by these, the true proportion between things as to quantity, may be ascertained, and all dealings regulated with ease and certainty; and it is very obvious, that a standard of money

is not less necessary, than the others. Without these standards, most bargains would be vague and indeterminate; and a door would be left open for abuses, mistrusts, endless strifes and controversies.

It would have been of great conveniency in reckonings, if all nations having mutual intercourses and commerce together, had happened to have fixed and agreed upon the same standard measures; but in all other respects, this matter is quite indifferent: Nor can it be said, with any kind of propriety, that the standard measures of any one country, are either better or worse than those of another; those measures being either longer or shorter, heavier or lighter, in one place than they are in another, creating no manner of difference, when their respective quantities and proportions to each other are once known. The *Flemish* ell and the *English* yard, though differing considerably in lengths, are yet as good standard measures, one as the other. In like manner, coins bearing the same names, being made either finer or heavier in one mint than they are in another, create no manner of difference in the case, because these coins are every where rated accordingly. Every nation compares the measures of all other countries with its own standards; and no advantage can ensue, by departing from those already established.

12. This may suffice as a full answer to those, who are for debasing our standard, because say they it is too good. If our crown piece is finer and heavier than a *Spanish* dollar, doth it not proportionably fetch more? or if it doth not, is there not some other cause to be assigned for the disparity, besides the quantity of metal in each? These gentlemen might as well say that our yard is too long, and should be curtailed; and assign as a reason for it, if they please, because our consumption of cloth hath increased, since that standard was made and placed in the exchequer. Or, that our bushel should be lessened, because some past year our crops of grain fell short. Of

a piece with these, when thoroughly sifted, will appear most of the reasons that have been given for debasing the standard of money.

*II. Established standards should be inviolably kept, and more especially that of money.*

13. The standard measures of a country being once established and known, any deviations from these afterwards could answer no good purpose; but, on the contrary, they must needs be attended with mischievous consequences; they would disturb the arithmetic of the country, confound settled ideas, create perplexities in dealings, and subject the ignorant and unwary to frauds and abuses.

But of all standard measures in any country, that of money is the most important, and what should be most sacredly kept, from any violation or alteration whatsoever. The yard, the bushel, the pound, &c. are applied only to particular commodities; and should they be altered, the people would soon learn to accommodate themselves in their bargains to the new measures; and it is but rare, that these have any retrospect to preceding contracts. But money, is not only an universal measure of the values of all things; but is also at the same time, the equivalent as well as the measure, in all contracts, foreign as well as domestic.

The laws have ordained, that coins having certain denominations, well known to every body, should contain certain assigned quantities of pure or fine silver. This makes our standard of money; and the public faith is guaranty, that the mint shall faithfully and strictly adhere to this standard. It is according to this standard, and under this solemn guaranty, that all our establishments are fixed; all our contracts, public and private, foreign and domestic, are made and regulated.

Is it not self-evident then, that no alteration can be made in the standard of money, without an opprobrious breach of the public faith with all the world; without infringement of private property; without falsifying of all precedent contracts; without the risque at least of producing infinite disorders, distrusters and panics amongst ourselves; as all men would become thereby dubious and insecure as to what might farther be done hereafter; without creating suspicions abroad, that there is some canker in the state; without giving such a shock to our credit, as might not afterwards be easily repaired? These wild and unjustifiable measures, have ever been and ever will be considered, as a kind of public declaration of some inward debility and decay; and the discredit occasioned thereby, has ever proved injurious to those who used them. All payments abroad are regulated by the *course of exchange*, and that is founded upon the intrinsic values, and not on the mere names of coins. But having once broke the public faith, and curtailed the settled and long established measure of property; foreigners will make ample allowance for what we may do of this kind hereafter; and however we may cheat and rob one another, they will not only secure themselves, but make an advantage of our discredit, by bringing the exchange against us beyond the *par*. If we think to avert this evil by transporting our coin, our having debased it will avail us nothing.

*Why our laws are not more explicit in specifying the quantities of silver that ought to be contained in given sums of money.*

14. As it is a matter of that very great importance, to keep up inviolably the standard of money; it may be asked, how comes it that our laws are so silent in that respect, as not to declare explicitly what that standard is,

or what quantities of pure silver ought to be contained in given sums of money; but rest satisfied, as it were, with annexing their sanctions to mere names only?

But the case is not so: For, although our statute-books are silent, the indentures of the mint are very express upon this head; and the forming of these indentures, hath been always considered as part of the royal prerogative. But it may be said with truth, that this is a part of the prerogative that never was, and never can be, exerted to the altering of the standard, but with infinite detriment to the crown itself, as well as to the subject. In former times, the coins agreed exactly in quantities with the common weights of the country, and had the same names with them; as pounds, shillings, and pence, were the names of the common weights, as well as those of specific coins and sums of money: At those times, the bare names of coins and of given sums of money, did manifestly specify or define the precise quantity of silver which they ought to contain; and then every one could readily judge for himself, without the assistance of a law-book, and prevent any fraud or imposition. But although, by the strange pranks that were afterwards played in the dark succeeding ages with money, this business is now become somewhat more obscure; yet it is to be understood, that our laws now mean, as well as formerly, that sums of money under certain names, shall contain certain specific quantities of silver; otherwise their sanctions are merely verbal, and in a matter of such great importance, we are left in effect without any security or law at all: But whatever those of the long robe might determine upon the matter, the common sense of mankind hath determined in our favour; and the long respite we have had, of above a century and a half, from any abuses in the standard of our money, hath given us a kind of prescriptive right, at least, to the having of that standard kept unaltered.

There can be no scheme so weak or wicked, but there

will be private men who will have, or fancy they have, an interest in pushing it on; and when that is the case, we have too often seen all considerations of public faith and private justice, sacrificed to the idol of private advantage. But any debasement, however small, of the standard of money, is such an outrage against common sense, as well as common honesty, and such a manifest violation of property; that it may be wondered how men having large possessions, and more especially ministers of state, could ever be brought to concur in measures so pernicious and destructive to themselves, to the public revenues, and to the public faith and credit. But although the ignorance of former times, fell into the snares of wily projectors; it is to be hoped that in this enlightened age, we are secure from being deceived into a scheme, that would be attended with such infinite mischiefs: And indeed in a reign remarkably distinguished by equal laws, and an equal distribution of them; we need no other security against this enormous measure, than the bare shewing the enormity and injustice of it.

III. *The effects of debasing the standard of money more particularly explained, and who they are that would be the principal sufferers by such a scheme.*

15. *Trade requires an indelible standard of money, and will bear no part of the loss by an adulteration of the coins.*

What hath been before \* observed about the invention of what they call *bank-money*, in some of the neighbouring states, shews very plainly, the folly and vanity, to give it no harsher names, of adulterating coins; it shews that trade requires, and will have in effect, an indelible standard of money; it shews that, do what you can, trade will

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\* § 53, Part I.

shift the burden off itself. And as in those places where *bank-money* is established, in contradistinction to the current coin, the *aggio* always rises whenever these coins are debased; so with us, where, (because the standard having continued uniformly the same, almost as long as we have been a trading nation,) no such distinction hath yet obtained; if you alter the standard, the tradesman will accordingly alter his reckoning, and raise the nominal prices of his goods; or perhaps this wild measure would introduce amongst us, that awkward but necessary contrivance of *bank-money*; that is, a distinction in dealings betwixt the old standard and the new; and so this scheme would be defeated, though not without laying hardships on many, and creating general disorders and confusion. Or, if you should suppose that our tradesmen are so shortsighted, and such bad accountants, as not immediately to see that 20, for example, is less than 21, foreign trade will soon open their eyes; they will find that all sorts of commodities will cost, at least, as much as they did before; that is, they will be sold according to the old standard, or for so much more according to the new reckoning, as the standard had been debased. The course of exchanges would immediately set this matter even; the exchange will go yet farther, and take advantage of the discredit, which ever accompanies these awkward and ill-conditioned schemes.

“ But granting all this, say you, all men are not foreign dealers, and those tradesmen who do not buy from abroad, will have no pretence for raising their commodities.”

In answer to this, I say, that all men are in some degree consumers of foreign commodities; and every one that hath the staff in his own hand will defend himself, though he will give no further indulgence to his neighbour, than what the law secures to him. All tradesmen are in some sort connected, and have mutual dealings and dependen-

cies one upon another; and foreign commodities enter deeply into all branches of commerce. The necessary advancement in the nominal prices of so great a part of our commodities, will naturally affect the nominal prices of all the rest; and were there no other reason for it, tradesmen of all sorts would endeavour to keep up to the same proportion, one as the other: And all sorts of goods being thus once nominally raised, it would be difficult afterwards to bring them down to their old nominal prices, though the cause that raised them be removed. But all the stock in hand must be sold at the former price, that is, nominally at a higher, according as the standard hath been debased; and goods even of our own manufacturing could not be replaced, without paying nominally for them more than formerly. For, the farmer finding all sorts of goods he buys in the shops, advanced upon him; he will also, though perhaps not immediately, raise the prices of his corn, butter, cheese, &c. and so the price of labour, and thence the prices of all goods manufactured at home, as well as those bought from abroad, must be nominally raised, at least, proportionably to the debasement of the standard.

Thus, I think, it is in a manner self-evident, that a debasement of money, would be so far from laying any hold on tradesmen, that it would rather turn to their private advantage; and therefore, in this debate, they are properly to be considered as being not very impartial advocates: Yet the unavoidable discredit and convulsions attending such a measure, would prove injurious to trade in general, as well as to the nation many ways. Let us next see who would be mostly affected, and how, by the scheme before us.

*Debasing the standard of money, would prove very injurious to the government.*

16. If the money-standard be curtailed, suppose one

twentieth part, and this by many projectors would be reckoned a moderate alteration; the king from thenceforward, would lose a twentieth part of his whole revenue. "Granted, says our projector; but this will be no loss to the crown, because its disbursements will be also diminished a twentieth part." Not so, say I: It is very evident, and I think absolutely undeniable from what hath been above shewed, that all foreign stores will cost, at the least, as much as they did before, that is, they will cost nominally one twentieth part more; and not only these, but likewise all sorts of goods furnished by our own tradesmen. There will be then a deficiency of, at the least, one twentieth, in a very considerable part of the public disbursements.

How far those who receive salaries and stipends from the crown, might be compelled to submit to this reduction, or how far a reduction would in that case affect the community, I do not take upon me to determine. But whilst many would be crushed by this indiscriminate scheme, it is to be feared too many others would make it a handle for enlarging that dark, gnawing tax upon their country, called by the delusive name of \* perquisites; a tax, as well from its enormous bulk, as from its indirect, occult, and undermining operations, though less perceived, perhaps infinitely more grievous to the public, than the whole list of salaries in the court-calendar.

But admitting that persons in civil offices, might bear to have their salaries or stipends reduced; what would you do with those upon the military establishment, both landmen and seamen? Is not their pay, officers as well as private men, scanty enough already? Or, could the officers quietly submit to this reduction of their pay, and be kept from clamour by good words instead of realities;

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\* By perquisites, I do not here mean known and settled fees.

what would you do with the common soldier and sailor? would you render their state more abject and miserable than it now is, was it in your power? But instead of tamely submitting to these hardships, you would put upon them; would you not run the risque of provoking a general mutiny? And how is all this disorder to be rectified? No otherwise, than by raising nominally all taxes 5 *per cent.* and so raising murmurs, which though groundless, would yet be loud. Try what methods you will to deceive them, every one will see and understand that 19 is less than 20; and your scheme, after creating an universal disturbance throughout the land, will, as to the effect you proposed by it, vanish into smoke.

*Debasing the standard of money would invalidate all preceding contracts; and yet, by its affecting credit, might prove injurious to debtors, and all in distressed circumstances.*

17. As our laws do not directly specify the quantities of silver that ought to be contained in certain coins and sums of money, but annex their sanctions, as it were, to the names only of coins; should our coins be legally debased, all contracts whatsoever now subsisting among us, would be so far vacated or annulled, as this debasement amounted to; every creditor would lose in that proportion of his just right, and every man of property might be greatly injured. before he could have it in his power to right himself. Supposing, as before, the adulteration in the coin to be one twentieth part; the lawyers would stand to it, that 19 shillings, or so much silver as used to be contained in 19 shillings, would be a full discharge for a debt of a pound sterling; and so proportionably of all debts whatsoever.

There are a thousand cases, wherein creditors should show compassion to their distressed debtors, and take such compositions from them, as they are enabled to

make. But to make a kind of an universal composition for debts, without any distinction of cases, is the ready way to the destruction of all credit; and such a law, instead of being advantageous to those whom it would seem to favour, might prove the very means of their utter ruin: Their being disengaged from a part of their debt, would be but a poor consolation in the distresses they would be likely to be thrown into, by their exasperated creditors.

*By debasing the standard of money, the greatest loss would fall upon those who live on their own established properties.*

18. It hath been already shewed, that, should the standard of money be altered, tradesmen of all sorts would help themselves; and they would probably ward off some of the inconveniencies they would otherwise be subject unto, by continuing to reckon in the old money, which it is likely they would call *old sterling*. The deficiency to the government must be made good, by a nominal increase of taxes; otherwise, some of the wheels must stand still. But all men who live upon their own estates, or upon established stipends; that is, all men who are not some how concerned in trade, would have no way of helping themselves, but would be obliged to submit to the whole loss, which the law in this case would throw upon them. At the same time, that taxes, wages, and commodities of all sorts were raised, at least, in proportion to the debasement of the coin; rents, interest of money, &c. would be paid short of the original contracts; that is, they would be paid and legally discharged in the new money. The landlord could not help himself, till the leases were expired; and the monied man would be a loser for ever, as he would be \* defrauded in both his principal and interest.

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\* And yet some have been daring enough to use this very fraud, as an argument for committing it: But of this more hereafter.

Labourers and workmen of all sorts, would at first be defrauded in their wages; but this would not last long; necessity would soon teach them to right themselves; and those that threw them under this necessity, would be answerable for all the tumults and convulsions, which it might occasion.

*Some of the evils above enumerated, might and ought to be provided against; but many of them would remain irremediable, otherwise than by time, the great leveller of all things.*

19. Some of the above evils might indeed, and undoubtedly should, be provided against, by enacting that all preceding contracts, settlements and establishments whatsoever, shall remain good; that is, that they shall be all satisfied according to the old standard. But this would be enacting two laws destructive of one another, at the same time; creating new accounts to no sort of purpose, and involving all classes of people in needless perplexities. And however this last act might repair our honour; I am afraid the two acts together, would not give a very advantageous idea of our wisdom. Whilst we were repairing one breach, and the nations around staring at our folly, there would be a thousand inlets left for abuses; whilst the crafty evaded the laws, and made their advantage of the confusion occasioned by them; the ignorant and unwary would be defrauded and distressed, and many of them utterly ruined: Nor would it be in the power of this healing act to allay, in a long time, the inevitable distrusts, discredit, murmurs and complaints, raised by the other.

*Debasing the standard of money, will occasion culling, and transporting of the old coins at an undervalue.*

20. Trade is quick sighted, and no restraint of law can hinder its pursuit of gain, wherever the game stands fair;

and herein the uncircumcised are just as good marksmen, as the sons of circumcision. In the present case, a temptation will be laid, and accordingly a new trade will be opened, for culling, and transporting all the good old coins, perhaps to purchase others coined abroad in imitation of our new standard. Of the profits made by this new commerce, foreigners will have some share, at our manifest expence: In this respect, trade is very generous, and readily divides some of its spoils on all sides. But you will say, this evil may be prevented by opening the mint, and purchasing there all the old coins at their full value. And so you will save the nation harmless, at the moderate expence of a general recoinage: A wonderful expedient truly! But after the mint hath engrossed all the old coins, and whilst it is coining the new; how will the internal traffic of the country be carried on? And will not the distresses of the people, and the uncertainties you have thrown them into, by your new standard, be an invitation to foreigners to coin and import upon you, even worse coins than you are a making at your own mint. I am weary of the subject; and it would be an endless pursuit to go through all the inconveniencies, that would attend this rueful project of debasing the standard of money.

IV. *Causes of debasing the standard of money, enquired into.*

21. The mischiefs occasioned by debasing the standard of money, being so glaring and so great; it may be asked, how was it possible that such a scheme should be ever entered into, and who could have an interest in bringing it about?

In dark times, weak princes and weak counsellors, for such in this respect they were, might promise themselves mighty advantages from this device: They might think to impose upon the understanding of the subject, and by this

trick lengthen out the ready cash in the exchequer. But they did not, it seems, foresee, that this could be only the sport of a day; that the whole revenue would for the future be defrauded; that the deficiency could not be made good without new imposts, which would create murmurs, discontents, and perhaps insurrections, amongst the people, &c. &c.

But I do not know how to think that these schemes really sprang from court, however the courtiers might be bubbled into them. There were others, whose prospect of gain by such a scheme was much clearer and better founded, and whose influence and credit in these matters, are usually very great; as bankers, scriveners, and all sorts of money-jobbers. For by debasing the standard of money, they were not only enabled to cheat all their creditors; but also furnished with opportunities of making large gains, by taking advantages of the fears and ignorance of the many; buying up the old coins at an undervalue, and culling and transporting or sending into the mint all the heaviest of them.

But nobody had so clear and so great an interest in those mischievous projects, as the mint-masters; and it is to be suspected, that, by their credit and influence, they had the greatest hand in bringing about the several adulterations, that, time after time, have been made in coins: They had an interest in keeping the mint constantly at work; and nothing could perpetuate this gainful trade so effectually, as adulterating the standard of money; this, in effect, reduced all the old coins into mere bullion, and created an absolute necessity of a re-coinage: By virtue of their places, those gentlemen were supposed to be the most competent judges, and the most to be relied upon in those matters. If, besides theirs, the opinions of the money-mongers were asked, supposing they staid to be asked, they would be sure to join with the mint; and the seignorage formerly paid to the crown for coinage, would

be used as a soothing argument for facilitating the project. By way of auxiliaries, there are at all times troops of writers ready to be entertained, and ready to blow and propagate any scheme they are set upon. When we consider these circumstances, need we wonder if in former times, princes and their ministers have been over-reached in this business, to their own very great loss and disgrace?

V. *The various pretences for debasing the standard of money, stated.*

22. I imagine I have, in the preceding, detected the causes of the several adulterations that have been made in our coins; but the real motives for this baneful measure, were cloaked under various pretences; and all that I have ever heard or read in its support, I shall under this head lay down before the reader, and afterwards endeavour to answer all these assertions or pretences, severally.

1. I have often heard it asserted, and that by men who thought themselves very wise and knowing in these matters, that our standard of money was too good, and should be debased. This ridiculous assertion hath been answered\* already; and nothing like an argument can be urged in its support, but what will fall under some one of the following heads.

2. Increasing the coinage, and also increasing the quantity of tale money, by giving the old names to smaller pieces of silver; are both urged as arguments for debasing the standard of money.

3. The keeping our coin from being melted or exported; also the examples of former times and of foreign states; are all brought as arguments for the same purpose.

4. The lightness of our coins from long wear, &c., is

urged as an argument for altering the course of the mint, so as to make the new coins no better than the old in common currency.

5. It is said that debasing the coin, provided it be done gradually, a little at a time, would not be perceived, and therefore no injury to any body.

6. Some confine the standard to the fineness only of the metal; and if that be but preserved, you may clip or diminish the coins as you please.

These are all common-place thread-bare arguments, ready upon all occasions; and founded only upon this supposition, that as good money may be coined at the stamp-office, as at the mint: But our modern projectors have found out new arguments, and, as they think, very formidable ones.

7. Some say that gold is our standard as much as silver; and therefore that no argument can be used as to the one, but will hold equally with respect to the other.

8. Others go yet farther; and say that gold only is our standard; that you may debase silver coins as you please, and treat them as mere tokens, without giving any one a right to complain. This is making short work of it indeed, and with one stroke demolishing our poor old standard: And in support of this it is said, that gold is the standard of merchants; and therefore is, or ought to be, the national standard.

There is an obvious necessity of bringing the rates of gold and silver coins, to a juster proportion to each other, than they bear at present; and as something should be speedily done, it is said in favour of gold.

9. That, as we have greater plenty of gold coins, and of far greater value than we have of silver; should we lower the price of gold, we should undervalue our own treasure; therefore say they curtail the silver standard.

10. Some more modest than the rest, are for debasing some of our coins only, as shillings and six-pences: And

leaving the crowns and half-crowns upon their present footing; they think that would be sufficient to secure them, from the odium of having debased the standard.

*Lastly*, As we are a nation indebted to foreigners; should we lower the price of gold, we should pay our foreign creditors more than we borrowed from them; therefore, we should debase the silver, &c.

This is very artfully put, and hath really in it more of argument, than all the preceding put together. But the whole weight of that argument, lies upon a fraud couched under it; a fraud that could not well be avowed, and yet would be glaring and obvious to all the world.

Before I enter upon the merits of these several pretences, for debasing the standard of our money; I shall endeavour to remove an obstacle out of the way, which, I believe, hath proved a stumbling block to many well meaning people.

VI. *Why coin and bullion of the same metal and fineness, are not always of the same value, or will not exchange in equal quantities one for the other.*

23. Silver and gold with us, are measured by the ounce troy; and the legal rate of an ounce of either of these metals in coin, is called the *mint price*; that is, silver being the standard, and the coinage with us being free; the number of pence that an ounce troy of standard silver is cut into, is called, though perhaps improperly, the mint price of silver; and the number of pounds, shillings and pence, with such a fraction as may happen, that falls to the share of the ounce troy of gold, according to the legal rates of guineas, is called the mint-price of gold. Thus, because 62 shillings are cut out of a pound troy of silver; 62 pence, or 5s. 2d. is said to be the *mint price of silver*: And 44½ guineas being, by the indentures of the mint, cut out of a pound troy of gold, and guineas now passing at

the rate of 21 shillings; this makes the present *mint price of gold* with us, to be 3*l.* 17*s.* 10½*d.* the ounce. In both cases, the fineness is understood to be according to the established standard; *viz.*, the silver to be 11 *oz.* 2 *dwt*s fine, and the gold 11 *oz.* or 22 *car.* fine.

If the importers of bullion into the mint, pay a certain rate for the coinage, as in other countries; the rate which they pay is to be deducted from the mint-price above stated, and the residue is then the mint-price. *Ex. gr.* If the importers of bullion into the mint paid, suppose, two-pence an ounce for coining silver; the mint price of silver bullion, would be then five shillings an ounce; and at this rate it would frequently be in our market, if no other cause interfered.

*Bullion can never be lower, but may frequently be higher, than mint price.*

24. Whether the coinage be free or otherwise, if the mint be always\* ready to make its returns in coin; neither silver nor gold bullion, can fall in our market below mint price; for the mint is always open to receive them both, at those respective rates: But one or both these metals, may be frequently higher than mint price.

1. If the bullion is exportable by law, and the coin is not, without some penalty; this, whenever we want to make any considerable remittances abroad, may somewhat advance the price of bullion; and that in proportion to the demand for, or scarcity of, bullion. But the advanced price of bullion, on account of the mere inexportability of coins, I think, must be very inconsiderable; as coins may be reduced into bullion, at a small risk of discovery, and

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\* This is a necessary condition; for a delay here might oblige the merchant to sell his bullion at an undervalue, to those who could better stay to have it coined.

at a small expence. For, the demand for bullion upon this account, is chiefly in great towns, where the melting-pot is always at work; and it is very easy to conceal the contents, from the knowledge of any servant or by-stander.

2. Although both coins and bullion were legally exportable; yet the market price of bullion, might be frequently above the mint price. For, the remitter might not have by him, or be able readily to procure, a sufficient quantity of\* weighty coins to answer his present purpose; in that case, he will not scruple giving some advanced price for bullion; and he will be reimbursed with profit, by those who want his bills upon that place, to which the bullion is to be sent †: Or, if he himself be the debtor abroad, he may find it cheaper to give an advanced price for bullion, than the purchasing of bills of exchange. But upon the present supposition also, of coin being exportable; the advanced price of bullion cannot be considerable or permanent, unless there be some other cause co-operating.

3. If the coins pass by tale, and are by wear or otherwise become sensibly lighter than their just standard, at their first coming out of the mint; this, when there is a demand for exportation, will naturally raise bullion above mint price. But the difference between coin and bullion upon this account, cannot exceed the average of the whole deficiency upon the coins; and it will fall something short of that average, because the heaviest coins will be first sent abroad; and by being sent, keep down the price of bullion: And when the demand for exportation is satisfied, bullion will again fall to mint-price.

4. If the current coins are heavy, or pass by weight, and the merchants or importers of bullion into the mint,

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pay

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\* For all coins in foreign dominions are mere bullion, and treated as such.

† See more upon this head, in the first part of this Essay, chap. III

pay a certain rate for coinage, as the case is in all other countries; bullion at times, will fall as much below coin, as this rate amounts to; that is, a given quantity of bullion, might be purchased for so much less quantity of coin, as the coinage of that bullion would cost at the mint.

These different causes may concur, to vary a little the price of bullion; and to raise it, sometimes more and sometimes less, above mint-price, as exigencies vary; whilst it can never be lower than that price: But the effects of these causes are only temporary, and never very considerable.

5. The arrival of plate fleets from *America*, and the departure or fitting out of fleets for the *East-Indies*; have, perhaps, greater influence upon the market price of bullion, than all the preceding causes put together: But because those incidents upon the arrival and departure of the said ships, are irregular, and usually of short continuance; no great stress need be laid upon them in this place.

Some of the causes, above enumerated, of the disparity between coin and bullion, occurred to Mr. *Locke*; but, having missed of the principal cause for his purpose, which here comes next to be considered; he brought himself under some embarrassments, by laying a greater stress upon the others, than they were able to support.

VII. *If gold and silver coins are not rated in due proportion to each other, as they are at a medium in the neighbouring countries; that metal in bullion, which is lowest rated, will raise and keep constantly above mint-price, till that cause be removed.*

25. It hath been shewed in the preceding, that coin and bullion will not always exchange in equal quantities one for the other, although we had only one sort of coins, as silver, for instance, in currency; and the case would not

be very different, though we had both silver and gold coins, if the legal rates of these were established in a due proportion, as they are at a medium in the neighbouring countries. For, bullion being a commodity, its price will fluctuate a little, so as sometimes to be above coin; and it hath been shewed that it can never be lower than mint price. But the difference upon the above accounts, can only be at particular times, and then not very considerable.

Silver bullion in England hath been for above half a century past, constantly higher than mint price, excepting only at a very few intervals of a short continuance. This hath been chiefly, and in a manner wholly, owing to gold being higher rated at our mint in proportion to silver, than it is in other countries: For, the causes considered in the preceding, affect equally both gold and silver; and their influence upon both, may be deduced from the share they have had upon gold. For, gold only coming into our mint, the deviations of gold bullion from mint-price, shew, accurately enough, the effects of the several concurring causes before-mentioned, upon the price of bullion both gold and silver; and they shew also, that these effects are but small, and usually of no long continuance.

To illustrate the case before us: Let us suppose that in *England*, gold coins are rated \* five *per cent.* higher in proportion to silver; or if you would rather consider it so, that silver coins are rated so much lower in proportion to gold, than in the neighbouring countries. This supposed disparity of five *per cent.* is three-pence upon a crown-piece, and about a shilling upon a guinea; that is, gold coins with us are rated a shilling in the pound sterling too high; or, which is the same thing, silver coins are rated a shilling in the pound sterling too low, in respect to guineas.

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\* I do not take upon me, in this place, to state how much it is that we over-rate gold; the exact proportion between gold and silver, not affecting the present argument.

But the law reaching only to coins, and bullion being free ; the market will adjust the disproportion which the law had made ; and either, silver bullion will rise above coin, or gold bullion will fall below the rate of guineas ; till, as abovesaid, the legal disproportion between gold and silver is adjusted. But no bullion can fall below the rate of coin, whatever that rate be ; the mint being always ready to exchange coin for bullion, at the legal or mint-price. Therefore the difference, in the present case of silver being lowest rated, will fall entirely upon the silver ; that is, whilst the mint becomes a standard for the price of gold bullion, silver will rise in our market the above supposed difference of five *per cent.* or to about 65 pence the ounce, or to five shillings and three-pence, for as much silver as there is in a crown-piece. For, the merchant will always make that metal his standard, which is highest valued at the mint ; and, in the present case, he will not part with his silver at a less rate in proportion to gold, than it will fetch him in other countries.

Both gold and silver in the eye of commerce, are commodities ; and that equally, whether they be in the shape of coins or bullion ; and the market prices of both with respect to one another, will be nearly the same everywhere, without regarding the mint prices in different places. Gold, as above instanced, being highest rated with us, will be brought here in great plenty ; especially, whilst any heavy silver coins are to be had in exchange for it : But no silver can be brought in here, or worked into plate, till the market price of it hath rose, so as to make it equally profitable to import either silver bullion or gold ; and silver being excluded from our mint, by the higher valuation there of gold, no more silver can stay here, than what is wrought into plate. For, a guinea fetching here as much of any thing, as can be purchased for 21 shillings ; and in *Holland*, suppose, fetching no more than may be purchased with 20 of the same shillings ; a merchant here will not

part with a silver ingot, at a less rate than that of a guinea for 20 shillings : If the refiner or silversmith will not give him at that rate; he will send his ingot to *Holland*, and there purchase with it, either gold, a bill of exchange, or some other commodity, that will fetch him here as much as the money he had asked for the said ingot; all charges being paid, which are pretty nearly equal, for the transportation of both gold and silver.

Trade is too quick-sighted to be over-reached by laws; and gold and silver bullion are too universally known and coveted, to suffer any disparity in respect of one another: The *European* markets are never glutted with either, and they will fetch proportionably every where. Gold then being over-rated at our mint, silver bullion will get up as much above coin, as this over-rate amounts to; and, in like manner, should gold coins be undervalued, gold bullion would rise as silver had done before. These metals have every where a reference one to the other; and without this, the terms higher or lower rated, could have had no place.

VIII. *Difference betwixt money and mere bullion, farther illustrated.*

26. Foreign commerce, as hath been before observed, treats gold and silver as commodities, both alike; and they are subject to fluctuate in their value, not only with respect to one another, but also with respect to all other commodities, according to their greater plenty or scarcity. But nevertheless, in all home establishments and transactions whatsoever, one of these metals is money, or a standard measure of the values of all other things; and this standard cannot be altered, without incurring all the mischiefs before enumerated.

As bullion occurs much more than coin, in the transactions of merchants; some of them have been induced from thence to think, that the price of bullion is what

governs and measures, the values of all other things. But, from what hath been already delivered, it is very manifest, that the price of bullion is governed as well as measured, by coin or the established standard of money; and not suffered to deviate much, from that standard. With merchants indeed, any commodity they deal in, may be said indifferently to be a standard for all the rest, as well as gold or silver; for they consider all things, as they will purchase more or less of each the other, in this place or in that; and coins, which with the rest of the world is money, is with them thrown into the general hotch-potch, and no otherwise distinguished from other commodities, but from the proportion that certain quantities of one or the other, will fetch of the rest; and they join with us rather in language than in idea, as to the use of coins. No wonder then, if these gentlemen treat the standard of money so slightly, and so disdainfully, as some of them do. But although we are all agreed, that gold and silver, like all other things, have their values increased or depreciated, according as they grow scarcer or in greater plenty; and that the coins made of them, do, in this sense, share the same fate with the bullion: Yet coins as such, or as money, escape the fluctuations of markets; and the standard coins, which are the measures of all contracts, are to be considered as having their value remaining permanent and unalterable; the above slow alteration brought about by time in the value of money, being not to be admitted into consideration, in the temporary dealings of men with one another.

Having thus explained, as clearly as I could, the several causes of the different prices of coin and bullion; the essential differences there is between them; and also the effect which the over-rating of gold hath upon silver bullion: Let us now proceed to consider, the several pretences that are urged for debasing the standard of money.

IX. *Coinages should in no wise be forced.*

27. The keeping of the mint perpetually at work, seems to be the main drift of all the common maxims about coins; and the feeding of this office, is professedly urged as one of the reasons, for debasing the standard of money: And it must be owned indeed, that nothing could be more effectual for the compassing of that end. But this is proposing one evil, as a reason for committing another. The evils attending a general re-coinage, which this scheme would inevitably bring about, are many and great; but without entering into a detail of these evils at present; let it here suffice, to examine into the merits of that notion, which is very generally entertained, that coinages are by all means to be encouraged.

In one sense, coining is a neutral, harmless, and indifferent act; for if it be left free, it neither enriches nor impoverishes the nation, one single penny; the coins just pay for the bullion whereof they were made, and the profits to the mint are spent amongst ourselves. But it deserves well to be considered, that coining is nevertheless an act of very great importance: That a very great trust is thereby lodged in the mint; that it requires very great care, and great skill too, in those intrusted, to keep exactly to the standard; that a small deviation from it upon each piece, would soon amount to a large sum; that coins are universal pledges; and that the credit of nations is greatly concerned, in the exactness and faithfulness of their mints. When these things are considered, will it follow that coinages are to be promoted unnecessarily? That coins once faithfully made of their due fineness, are to be melted into the unattested state of bullion, for no other purpose than to be recoined again?

*Purchasing bullion at an advanced rate for coining, a very weak and insignificant measure.*

28. Besides debasing the standard, another expedient

hath been hit upon for feeding the mint ; and that is, the purchasing of bullion at an advanced price for coining, or the giving more *per ounce* for the bullion, than it would be afterwards worth in coin. But although this measure is very harmless, as to any consequence attending it, excepting to those immediately concerned ; yet it cannot be reckoned a very wise one. For, whatever be the cause that prevents bullion from coming into the mint ; whilst that cause subsists, and coining will not remove it, the new coins will be melted into bullion again, and again coined ; and so round in a circle, as long as a *premium* to the importer of bullion into the mint, is continued. And after all this expence, and all the expectation raised from it, no new coins will be to be seen ; the same cause that created a scarcity before, will carry all these away ; and nothing will be left, but the gains that had been made at the mint.

After what hath been said here, and in the preceding ; it might be asked, of what use then is the mint ? To which I answer, that a mint, rightly established, is a very useful, necessary, and important office ; an office, that those at the head of our finances should have due cognizance of, as being answerable to the public, that its operations are faithfully performed. The natural waste and dissipation of coins, require frequent supplies : This, trade naturally and abundantly furnishes ; and this vent for its bullion, when other markets do not invite, is also of very great advantage to trade ; it prevents a stagnation and uncertainty, in a very considerable branch of commerce. No mint can be kept constantly at work, unless coining becomes a kind of manufactory for foreign commerce ; which is not the case here, nor could it be, without very great loss to us, upon our present mint establishment. But the mint, if left free to its own natural course, cannot fail of keeping up the national coins to their due quantity ; what it does more, may be truly said to be labour lost ;

and would prove mischievous, if trade did not step in and sweep away the superfluous coin.

What hath been here said, regards coining in general; without respecting the disparagements, which either silver or gold coins may lie under in particular, at the mint; and it may serve as a full answer to those, who are for promoting coinages, by forced and unnatural methods.

*X. Curtailing the standard will not lengthen out the coin: but, on the contrary, will occasion a greater scarcity in common currency.*

29. Some say, that if the standard of money was curtailed, the quantity of money in tale would be thereby proportionably increased; which they think would be a notable benefit to the country: As if the standard was curtailed a tenth part, we should immediately have a tenth part more money, than we had the moment before. According to this maxim, we have a very short and easy method of becoming rich; for if it holds in any one proportion, as here a tenth part, it will hold in any other; and whilst we are about it, why not take off a good piece, and leave only suppose one hundredth part behind? By this expedient, with one million of the old money, we could not only pay off all our old debts; but have enough left for carrying on the war, at least for a year or two longer; and all this, without raising one penny of taxes upon the subject. A very fine device truly!

I have already \* shewed that all artificial methods of increasing tale-money, are, so far as they extend, pernicious. But the scheme before us, will not reach the end proposed by it: If the method be by calling a shilling, suppose thirteen-pence; although this would be attended with the mischiefs before enumerated; yet, in the common traffic of the country, a shilling, notwithstanding the law,

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\* § 50. Part I.

would be called a shilling still; and fetch and go, just at the same rate as it did before. If you give us new coins debased according to the new standard, this will rather make the matter worse. All things will advance in their nominal prices, at least, proportionably to the debasement made in the standard: This is a point wherein the understandings of men, cannot be imposed upon by mere sounds; so that were all the old coins new minted, they would go not one jot the farther, than they would before this alteration. But, from the alarms, fears, and suspicions, which this woeful project would naturally raise in the minds of the people; many of the coins would be hoarded, and many transported: So that the mint would be left gaping with little to do, and the country distressed for want of coin. All this, I think, upon even a slight view of the case, must needs appear very evident; but I do not wish to see it confirmed, by so pernicious an experiment.

*XI. Debasing the standard, would not prevent coins from being melted, or exported.*

30. There are many well-meaning people, who think it the interest of their country, to keep the national coins from going abroad; and that this end might be accomplished, by debasing the standard of money. I shall not at present enter into the merits of this conceit of keeping our cash at home; nor inquire what influence such a scheme, if it could be effected, would have upon our commerce and credit; but I think that a very slight reflection is sufficient to convince any one, that the means proposed would not answer the end. An adulteration of our coin cannot remove or affect any one of those causes, whatever those may be, that bring foreign demands upon us for money: These demands must be satisfied, to the full weight of fine silver or fine gold. Foreigners will not be

imposed upon by names, or by false measures; if our coins are adulterated, by being made either baser or lighter, they must have more of them; and probably even somewhat more than their due, from the unavoidable discredit attending any debasement of money. Foreign coins are every where treated as mere bullion; and should we debase ours, as much pure silver or pure gold, at least, would be carried abroad in these new coins, as now goeth in those of the present standard. Our own coins indeed, because of the free coinage, are in effect even at home, as much bullion as whilst they were in the mass; and the stamp of itself, is too weak to save them from the melting pot.

If the proportion between gold and silver coins, was brought and kept to a just par; this would prevent either of these coins from being melted or exported, preferable to the other; but it would not lessen the exportation upon the whole, excepting so far as coins made of one of these metals, as silver, for instance, might be sent abroad to purchase gold for coining. This is an evil we have laboured under, and the remedy is obvious, without meddling with the standard of money:

XII. *Foreign states debasing their coins, is not a reason for the debasing of ours.*

31. Some people are so fond of the project of tampering with the standard of money, that any thing will serve them as a plea for that purpose; and, I think, nothing can well be poorer than the following, which yet I have heard urged with some vehemence, *viz.* “that certain foreign states having debased their coins, we should therefore debase ours.” This empty plea, for it cannot be called an argument, hath been spoken to, in the preceding chapter. It might, in truth, as well be said, that we ought to

change our language, as change our standard; the plea here brought for the one, being equally conclusive for the other.

It hath been before \* shewed, that it is out of the power of laws directly, either to augment or diminish the values of coins in general, otherwise than as by their oblique influence, they may increase or diminish the whole quantity of them in circulation. But states may set a higher value upon one sort of coins, in proportion to others, than is done by their neighbours; as we have done by gold coins in respect to silver: The consequence of which, always hath been, and always will be, the draining away of the coins that are undervalued. States may, if they please, go yet farther, and set a higher value upon some specie of coins, than they do upon others made of the same metal; and the consequence will be as before, the draining away of those that are least valued, and leaving them always poorer upon the whole; for the coins that are undervalued, will always go away at some undervalue. But of this more hereafter.

There are, perhaps, no greater instances of human weakness, than the various and contradictory measures that have been pursued, almost all the world over, about coins. And even, in the same country, opposite measures have been taken, without any difference of circumstance to occasion them: But, an opinion it seems prevailed, that, since one method had not the desired effect, the contrary must needs succeed; and this again failing, some new course was again taken, and so on. The effects of all the various tamperings that have been made with coins, have ever proved, and ever will prove, that no alteration can be made in the standard of money, but what will be injurious many ways to those who make it; and it may be pre-

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\* § 41 Part I.

sumed, that no argument can be brought for that wild measure, either from what hath been done here or elsewhere, but what will conclude strongly on the other side of the question.

XIII. *The lightness of our coins, not a reason for altering the standard.*

32. It is well known that a great part of our current coins, what by long wear, and what by fraudulent practices, are become much lighter than the legal standard. Some argue from hence, "that the standard itself should be lessened accordingly; and say, that this would be doing no injury to individuals, if the new coins be made no worse, than the generality of those that are now in common currency."

This is an old plea, and which in any other case but that of money, would appear sufficiently ridiculous to every body: To diminish the standard upon this motive, would be such a vague pursuit as could have no end: and what would, in effect, leave us without any standard. If this argument had been admitted; our standard, and our coins, would ere now have been in a manner annihilated; and in trying to follow after them, the price of a shoulder of mutton would now be reckoned at as many millions, as would pay off the whole national debt in our present coin.

But this scheme, upon the plan proposed, is in fact impracticable: What particular piece or bag of light coins, is to be taken for the new standard? And when this is fixed upon, what is to be done with the other coins, that are either heavier or lighter than these? Are the weighty coins to be clipped, and the light ones to be new minted to the new standard? Who does not see the absurdity and evil consequences of such a scheme? Should the measures in common use, some by wear and some by

fraudulent diminutions, become many of them less than the standards at the exchequer; and it were proposed to diminish those standards accordingly; would not such proposal be manifestly very ridiculous? And are not the cases nearly parallel of money, and other measures? Or, doth not what difference there is, turn entirely on the side of the money standard, as money is both an equivalent and a measure?

*The effects of diminishing coins by law, and what they suffer in private hands, very different. Currency by tale, regards chiefly the standard, or original value at the mint.*

33. The consequences of what the coins suffer in private hands, are widely different from those that would follow their debasement by legal authority. In the one case, every man's right is left unviolated; for he may refuse coins unlawfully diminished, if he pleases; and he hath no body to blame but himself, if he doth not: And as for those coins that are become light by long wear; so long as all sorts of coins, light and heavy, continue indiscriminately to exchange one for the other; the damage from the lightness of coins, doth not, as yet, fall upon individuals. But should the coins be debased by authority, every man's property would be invaded; all sorts of goods would rise, at least, to the new standard; and all the evil consequences before enumerated, would inevitably follow.

It is to be observed, that in the currency of coins by tale, no regard at all is had to their lightness, or deficiencies arising from mere wear; but all pass, as if they were of their due standard or full weight, as they first came out of the mint. All fixed establishments, being really made and governed by the legal standard; have a great influence, especially that of the public revenue, in keeping up the current values of coins towards that standard, notwith-

standing their diminutions by long wear. And although foreign commerce contributes its share, towards bringing the current values of coins, nearer to the real value; yet, as the coins that go abroad, and they only are to be considered in the present argument, bear but a small proportion to those passing in all our internal transactions; their effect in accounting for the lightness of our coins, must needs be very inconsiderable.

The above observations cut off at once all pretences for debasing the standard, from the lightness of the current coins: since that lightness, is in no wise considered, in any of our internal dealings with one another. Currency by tale refers only to the legal standard, as currency by weight doth to the coins themselves; and there is this farther notable difference between them; that by the one, the coins are perpetually kept up to the real standard, or so as to pass only for their real value; whilst by the other, the deficiency upon the coins is so much dead loss to the public; which loss must, sooner or later, reach to individuals, however they may ward it off for the present.

To conclude this head, let us put a case the most favourable possible to our opponents in the present argument: Suppose that all our coins were equally deficient in value, according to their respective current rates, as one twentieth part; and it were to be declared by legal authority, that the coins, as they now stand, are of the due standard. This declaration would cut off one twentieth part of every man's property, though all contracts would continue to be discharged and paid, in the very same coins that they were, before this new declaration. The plea of not having debased the standard, below the value of the actual coins in common currency, would be no justification of this measure; and with respect to the alienation of property, this proceeding would have the very same effect, as if all the current coins were now of their full weight, according to the present standard, and were called in to be diminished

one twentieth part ; whether by clipping, or new minting, would alter not the case.

XIV. *Any infringement of the standard of money, however small, would be proportionably injurious.*

34. There are some who readily allow, that a great debasement of the standard at once, would be very injurious ; “ and yet insist, that if you do it gently, a little at a time, no harm will be done ; they say, such a gentle touch would not be perceived, and therefore none would complain.”

Strange indeed ! You say it would be injurious to debase the standard much at once, and yet that it would be no injury to do the same thing at several times. But strange as this logic may seem to be, it must be owned to be very ingenuous, and to afford perhaps as good an argument for the purpose, as any we have yet met with : It fairly owns, that debasing the standard would be a fraud, and only aims at shewing how you might commit this fraud without being perceived. It would be in vain to argue with these gentlemen upon moral principles ; but here we can answer them upon their own : The law must be promulged, before such a project could be executed ; and by that previous notice, the whole design would be frustrated.

XV. *All the species of coins made of the same metal, should be rated in a just proportion to each other.*

35. There are some who readily agree, that the debasing of all our coins would be attended with evil consequences ; and yet think, that “ these evils might be averted, and the standard sufficiently secured, by the largest specie of our coins only, as crowns and half-crowns ; whilst the lower specie, as six-pences and shillings might be debased ; and the debasing of these they think would be advan-

“ taceous, as it would be a means of preventing their  
 “ exportation, and of keeping them entirely at home for  
 “ our own circulation.”

I shall say nothing here to the notion of keeping our coins from being\* exported; and it hath been shewed† elsewhere, that there cannot be a want of coins for home circulation, unless‡ substitutes be placed in their stead: In that case, indeed, there may be frequently a want of coins for the circulating of the substitutes; and the only effectual way of curing the evil, is by gradually destroying those substitutes. Remove the cause, and the effect will cease. But the notion of having two sorts of coin, one passing for more than it is worth, or at a greater rate than the other, is a most dangerous one; and could it be brought to effect, would not only be injurious according to the proportion of value, which the sum total of these base coins may bear to all the rest; but also be attended with another fatal consequence peculiar to itself; the draining us of all our good specie. The mint at the *Tower*, would soon be eased of its labour of making these bad coins; and not only private hands amongst ourselves, would have a share in this beneficial trade; but foreigners also would not let slip so fair an occasion of minting, and importing upon us these base coins, so long as we had any good ones to give them in exchange. For example, if you were to coin shillings, having in them only nine penny-worth of silver; so long as a crown-piece could be had for five of these base shillings, you might be sure that plenty of them

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\* This notion, which is a very general one, I fancy was first broached and propagated by the bankers; they might think, if the quantity of circulating cash could be increased, it would be brought the faster into their shops, and be suffered to stay there the longer before it was again recalled.

† § 49 & 50. Part I.

‡ Gold, copper, or paper-money, may either jointly or separately, be the means of draining away silver coins.

would be coined, both at *Birmingham* and abroad. This consequence is natural; and every nation ought to guard carefully, that all its several specie of coins, be rated in their due and just proportion; otherwise, those that are highest rated, must needs in time drain and swallow up all the rest.

But it is not probable that such a scheme, if it was attempted, could with us be brought to effect; and yet it might be attended with such perplexities in all dealings and contracts, both home and foreign, as for a long time back we have been free from in this country: It is most likely, that in all future contracts, it would be distinguished in what sort of money the contracts were made, and the bargains regulated accordingly; for it is to be hoped that all preceding contracts, would be left to be satisfied in the old money: Or, the people would take and pass the new coins for their real worth; and in either case, the whole scheme would be frustrated. As supposing the new six-pence should be worth the old groat; the people would either reckon in the different proportions of two and three in all their dealings, according as they contracted in old or new money: Or, to avoid this perplexity, they would call the new six-pence, a groat; and fifteen of them would as currently exchange for a crown-piece, as ten old ones do at present.

XVI. *Silver only, and not gold, is the standard of our money; and not the less so, because gold coins have a fixed rate by law.*

36. It hath been before\* shewed, that there can be but one standard of money; that in these parts of the world, silver is, and time immemorial hath been, the money standard; and that it is the fittest material, hitherto known, for a standard.

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\* § 34, 35, 36, & 37. Part I.

We never heard till lately, a word mentioned of gold being the standard of money: Former projectors saw the absurdity of calling any thing the standard, besides that by which all the accounts of the country were kept, and all contracts measured. But their successors are grown desperate; and such is their fondness for gold, that any thing will serve them as a plea both for debasing silver, and for making gold the standard; at least, they would have it bear a share jointly with silver: And, for this, gold coins having a stated price by law, they think is a sufficient argument. However this fact, at first sight, might mislead some people; yet, it is very certain, that the argument built upon it, is overthrown by the very words of the law itself. Is not a declaration that a guinea shall pass for twenty-one shillings, a plain reference to shillings, as a standard measure of the value of a guinea? But, it cannot be said, on the other side, that a guinea is a measure of the value of shillings; it is impossible that any whole, should be made up of the parts of a material different from itself. The laws, the language of the country, the common consent, and common sense of all men, have unanimously concurred in making silver our only standard. Every body knows that pounds, shillings, and pence, denote certain specific quantities of pure silver; and whilst all contracts whatsoever are measured by these, it would be a strange perversion of language, to call any thing else the standard. My receiving a certain number of guineas, in consideration for a certain sum, or number of pounds sterling, doth not make gold money, or a standard; any more than if I had received to the same value in lead, wheat, cloth, &c., would these commodities have thereby become money. Gold being coined, alters not the case; the coining only ascertains the quantity of metal, contained in the several pieces, at their utterance out of the mint; and we have proper measures at hand, for determining the quantities of other commodities.

There is a necessity of coining gold to ascertain its fineness ; otherwise, it would be a commodity too precarious to be meddled with in common dealings ; a difference of fineness imperceptible to the eye, making a very great one in the real value.

But you will say, that gold coins, excepting the difference of colour, and of some other properties of the metals, have as much the appearance of money as silver coins : Granted ; and so have copper coins too ; and so might pewter ones, &c., but this is nothing to the purpose ; it is not the mint, but the laws, and the universal concurrence of mankind, that make money. You will say again, that the laws oblige me to take gold, as, or instead of money ; whereas, I am at liberty to refuse any other commodity, that may be offered me instead of money. True ; and I have before shewed\* the propriety and conveniency of ordaining that gold coins, should pass at certain rates, *pro tempore*, as or instead of money ? But still, this doth not make gold money : These rates are not to be fixed arbitrarily, but are to be regulated by the price which gold then bears, in respect to silver as a standard ; and these rates are, and always have been, considered as being subject to this rule, and so to be altered again and again, whenever the case may so require. Under this limitation, it is very convenient, that gold coins should pass as or instead of money, but not as being themselves money, or the standard measure of the values of all other things. It is a fundamental characteristic of money, that, as a measure, it continues invariable ; that is, that a payment in the standard coins, of any specific sum or quantity of money agreed upon, is, whenever made, a full discharge of that contract ; without regarding at all, how silver may have varied in its value with respect to commodities in general, by an

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\* § 38. Part I.

increase or decrease of its quantity. But gold coins are to be considered in another view: Payments in them, may not be by quantity for quantity; it is by the rates only, which gold coins bear in respect to silver as a standard, at the time of payment, that contracts are discharged; and not according to the rates, which these coins might have, at the time when the contracts were made. In this view only, gold coins are to be considered; and, in this view, they are upon a footing with any other commodity; though less liable to a sudden and great change in their value, than most other things.

Much of the difficulty upon this subject hath arose, from the not attending to the difference between money and commodity; and again, by confounding with the standard the lightness of the coins passing by tale, and making every coin, as it were, to be itself a standard. But this is bringing into the argument, what the common sense and common practice of men, never thought of. The nature and condition of tale-money hath been already explained;\* and, I think, it is sufficiently manifest, that all contracts and the prices of commodities, are measured by the standard, and not by the intrinsic value of coins, in countries where they pass by tale: Nor, where they both pass promiscuously, is there any difference in regard to payments made either in gold or silver coins; in all cases, the silver standard is alike the measure referred to. I do not here enter into the merits of passing coins by tale; I have only aimed at shewing what it is that constitutes tale-money. But gold coins, although they passed only by weight, would so far partake of the nature of tale-money, as not to have the prices of things, &c. regulated by their rates or intrinsic value; but only, as above observed, by the established silver standard.

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\* § 33. Part II.

XVII. *Gold being made the standard by merchants, doth not make gold to be the national standard.*

37. It hath been before \* observed, that merchants will reckon by that metal which is most common in large payments; all coins are with them, in effect, mere bullion; they have no regard to names, or local institutions; the real quantity of pure silver or pure gold, which they give and take in exchange for other commodities, is what they reckon by. And it is very manifest, by the course of exchange between us and all the world, that gold here is the standard of merchants; and this for them is most profitable, because gold here goes farthest in the purchase of our commodities; but with what loss to the nation, doth not fall within our present consideration.

But the transactions of † merchants, do not make a standard for the rest of the world; and indeed, as hath been before observed, they have in effect no money, as they do not consider it in the same light that others do; coins with them being mere merchandise, as much as cloth, iron, or any other commodity. And therefore no considerations from the practices of merchants, or from the course of exchanges, have absolutely any thing to do in the present debate. In all countries, the business of settling the standard of money, is purely a national concern, which the rest of the world have nothing to with; and merchants, as such, are of no country. If you alter the standard, whatever effect it may have among yourselves, the course of exchange will set the matter even as to the rest of the world. If you lower the price of gold,

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\* § 58. Part I.

† I consider merchants here and elsewhere, solely as foreign dealers, without regarding their private transactions with shop keepers, &c. in the places where they dwell: in this last light, they are upon the the same footing with all other private dealers.

the exchange in appearance will turn proportionably in your favour; if you debase your silver standard, it will go seemingly against you, to the full amount of this debasement: That is, in both cases, the exchange will really set the matter even; and therefore, as above observed, the consideration of exchanges hath nothing to do in the present argument.

The great inland commerce or business of this country, is chiefly carried on, scarce as it is, by silver. Labourers, handy-craftsmen, and manufacturers of all sorts, are paid their day wages in silver: What they receive is palpably, and manifestly their standard; and as labour is the main foundation of all riches, what goes to pay the price of it, will be the real standard of the nation, even though laws were enacted to the contrary. Laws, though they may, and perhaps too often do, perplex, yet they cannot eradicate settled ideas. Workmen of all sorts here, have fixed ideas annexed to shillings; they do not know, perhaps, the precise quantity of silver which they ought to contain; yet they know that there is an old established law, that hath settled this matter: Whilst this law is not abrogated or tampered with, they think themselves safe; they are content with their usual wages, without scrutinizing into the precise quantity of silver in the respective coins; whilst the same laws subsist, they expect these coins will fetch them as much necessaries as usual, and they look no farther. You may raise or lower the price of guineas, as the case may require, without affecting the price of labour; and therefore without affecting the price of any home commodity, in the first instance.

It hath been observed before, and the thing is sufficiently manifest, that the ideas of silver are annexed to pounds and shillings; and no law can transfer those ideas to gold, or to to any thing else. The farmer understands that he hath contracted to pay a certain number of pounds sterling for rent: This rent may be satisfied or discharged

with gold, barley, horses, &c. these commodities respectively, being supposed at the time to be worth so much silver, or so many pounds and shillings, as they reckon for. And what reason is there for fixing the idea of standard, to any one of these commodities, preferably to the rest? The same reasoning may be extended to all other things; for all things may, and often do, answer the purpose of money; but yet this doth not make commodities to be money, nor money a commodity. The rent is equally discharged with gold or barley, according to the respective rates, which certain quantities of these commodities have at the time of payment. Nor does the more uniform and certain quality of the one, make any difference in the present argument; it preserves indeed the price of a given quantity, at a more equable rate; but it is subject nevertheless to have that price altered, as the great market of the world may govern; and for such an alteration, no one can have just cause to complain: But the case is very different with respect to silver.

Thus, I think, it is very manifest that silver, and only silver, is the standard of the country, of all contracts and establishments there, whatever may be the standard at the *Royal Exchange*: And, I think, that it would be impossible at present, to transfer the standard from silver to gold. Enact what laws you please; what measures and pays the price of labour, will be ultimately the real standard of the nation; and gold is at present too dear for the payment of day wages, and for the purchase of small necessaries. Enough hath been said before, to shew the iniquity of altering the standard of money; and, I think, that enough also hath been said, to shew the vanity and folly of such an attempt. But to instance again, only in the case of labour: If shillings be debased, suppose a fifth, or any other given part, either by changing their usual rate of 12 pence, or the  $\frac{1}{5}$  of a pound sterling, or by putting less silver in them; the workman will soon under-

stand, that he must have the part lopped off made good to him, by increasing his nominal wages. This matter is so obvious, that he cannot be imposed upon, and the very attempt of doing it, might be attended with fatal consequences.

XVIII. *Lowering the price of gold would be of no loss to the nation; and the lowering it directly, by lessening its rate per ounce or per guinea, would be of less loss to individuals, than if the same was done indirectly, by debasing the standard, or lessening the quantity of silver in the pound sterling.*

38. It is, in effect, agreed on all sides, that the price of gold should be reduced; but for debasing the standard, or as they call it, raising the value of silver, it is said: "That as our stock is chiefly in gold, should we depreciate or lessen the rates of guineas, it would be undervaluing our own treasure, and bringing a great loss both upon the nation and upon individuals; but, as we have a scarcity of silver coins, the debasing of these would be so little felt, as not to be worth regarding."

We have already met with many pretences for debasing the standard; which, upon examination, appeared sufficiently weak and frivolous: But amongst them all, I think, there is not one quite so vague and ridiculous, as this before us. Let us suppose that the reduction, wanted to be made in the rate of a guinea, is one shilling; for it is nothing to the argument, what the precise quantity really is; and that will come to be considered in another place. You say, that if the rate of a guinea be reduced one shilling, there would be a loss of the one and twentieth part, upon all the guineas in the nation; but that there would be no loss at all upon guineas, if they were ordered to pass for twenty one shillings, having in them no more silver, than there is at present in twenty shillings. Strange, very strange indeed, that there should be such

magic in the word shilling, and in the number twenty-one, as to make the same thing, only calling it by different names, have such different effects! It is scarce necessary to take any farther notice of such a mere jingle of words; but out of tenderness to these young logicians, but more out of regard to those who may be deceived by them, if any such there can be: I shall endeavour to shew, that our scheme is more favourable to them, than their own.

1. It is self-evident, that the nation would not lose one farthing upon all the gold it exported, by a reduction of the mint price of gold. For this reduction, would not in the least debase the intrinsic quality of the gold; and every guinea that went into foreign parts, would fetch there as much afterwards, as it doth at present; unless, perhaps, there is now a trade abroad for purchasing guineas, and re-exporting them to us again; and if there be such a trade, it is much to our disadvantage.

2. Let us suppose, that the reduction is made, by calling twenty of our present shillings, by the name of twenty-one shillings; or, which is the same thing, by a new coinage wherein twenty-one pieces, called shillings, are cut out of the same quantity of silver, as before used to be put into twenty shillings. Here, it is self-evident, that every one will lose a shilling upon a guinea; and that his loss will be in the same proportion, upon all the silver coins which he hath to receive. For, it hath been shewed, that the prices of all things at home, are regulated by the silver standard; and therefore they would soon raise against us, in proportion as that standard had been debased; unless you think, that sounding the words *twenty-one* in their ears, would lull men asleep, and deprive them of their understanding. By this scheme then, the one and twentieth part of all their cash, gold as well as silver, would be taken away from, and irrecoverably lost to, every body; and this loss would fall, not only upon

the present stock in hand, but also upon all that they had to receive for the future, in consideration of any contracts already made.

3. Let us suppose, that the rate of a guinea is, without using any other indirect means, directly reduced to twenty \* shillings. Here then, whilst this property in general is left † unviolated, both now and in future; the only loss any one can sustain, is upon his present stock in hand of guineas, and this loss cannot exceed one shilling upon each. But, it is not improbable, that by the falling of commodities, there might be some abatement of this loss: For, by the concessions of those who abett the contrary measure, they making gold to be the standard of merchants, foreign exchanges will alter in our favour, proportionably to our reduction upon gold; and with the exchanges, it is likely, the prices of all foreign commodities, would in some degree likewise alter, which would also cause an abatement in the prices of our own.

It is difficult to state to any exactness, what influence foreign exchanges or the dealings of merchants, have upon the prices of goods in general; that is, how far our high valuation of gold, and so the mercantile trade, may clash with the legal standard, in measuring the values of contracts and of commodities: I admit, that this may have some effect; but, I think, for the reasons which have been already given, that this effect is very inconsiderable.

But to bring this whole debate, as far as it any way

\* The conceit of a late writer, of reducing the price of guineas by a general recoinage of them into a larger size, and his arguments drawn from the inconveniencies that would thence arise, require no answer.

† It hath been clearly shewed in divers parts of this essay, that the rates of gold coins are, from their very institution, subject to alteration; and the making of this alteration as often as the case may require, is in all respects just, prudent, and necessary.

relates to our present subject, to a short issue: If it be admitted that contracts, and the prices of all things, are governed wholly by the established silver standard; then, it is manifest, that if you alter that standard, the prices of all things will raise, at least, in that proportion: On the other hand, if you insist that gold is the standard; then, I say, that if you lower its price, and that will be equally done by either of the preceding methods, the prices of all things will fall proportionably. But whether gold hath any share jointly with silver, in settling and measuring the prices of things; or, whether gold takes all upon itself; it is as clear as the day, that, according to which method is taken in adjusting the present disproportion between the legal rates of gold and silver, there will follow a difference, at least, in the prices of things in general, to the full amount of that disproportion: And, it is as clear, that our method of reducing them, would be by much the most favourable to the present possessors of guineas, as well as a security to them of their full property for the future; which, by the other method, would be invaded and taken from them, to the whole amount of the reduction or debasement of the standard. But is there need of balancing, so exactly, the immediate profits and loss, between these two different methods, of reducing the price of gold? The one, all the world knows, is fair, equitable, and perfectly agreeable to public faith; whilst the other, would be reproachful, unjust, and a thousand ways injurious, both to the state and to individuals. The case of men as they are mere debtors and creditors, hath been already considered; and so far as they are equally so, it hath nothing to do with the present argument; and we shall have again occasion to speak more to this point a little farther on. In its proper place, the cases of bankers, and public receivers, shall be duly considered.

XIX. *The nation being in debt to foreigners, is not a reason for altering the standard.*

39. I am now come in the last place, to consider a pretence for debasing the standard of money, on which much stress is laid by some persons, *viz.*

“As we are a nation indebted to foreigners, have great plenty of gold coins, and no silver coins but what are much below the standard; should we lower gold, we should undervalue our own treasure, and pay our foreign creditors more than we received from them; and no injustice would be done, should we make gold the standard, and raise the silver.”

In this argument, many different things are artfully blended together, that the main design of cheating our foreign creditors might appear the less conspicuous, and the less shocking. All the above various pretences have already, in effect, been fully answered; but because of the importance of the subject, I shall here speak again to some of these points.

1. If the intention be simply to transfer the standard from silver to gold, why are the silver coins to be altered? Doth not the altering of them, equally alter the size of the standard, commit equally the same injustice with respect to property, whether you call the new standard by the name of gold, or by the name of silver? And hath all the pother made about gold being a standard, any other aim or design, than to deceive us by a mere jingle of words: Or, is it possible, that any can be so hoodwinked as to believe themselves, that gold either is or ever can be the standard, whilst it continues to be so dear, and whilst all men do and continue to reckon by silver?

2. It is a fact too notorious, that we have no silver coins left, but what are wore much below the standard; and that even these are at length grown so scarce, as to call aloud for a speedy supply. But one part of the argument

grafted upon this misfortune, *viz.* "that by lowering directly the price of gold, we should undervalue our own treasure," hath been fully answered in the preceding; and there it hath been also shewed, that the lowering of gold directly or openly, would be easier or less detrimental to individuals, than the doing it, as it were covertly, and clandestinely, by debasing the silver standard; and enough hath been already \* said, to shew the vanity, injustice, and enormity of such a measure. Those also, who would persuade us that in reality and practice, gold is our standard, because with us more payments, or to a much greater value, are made in gold than in silver coins; have been likewise. I think, fully † answered. And I might go yet farther, and insist, that although our silver coins were grown yet scarcer, or were even annihilated; as long as silver continued to be plenty in the rest of the world, and as long as we continued our old method of reckoning in pounds sterling; those old abolished coins would continue still to be our standard; and their substitutes, whether they be gold, copper, or whatever else, would have their value according to that proportion, which given quantities of them bore to the quantity of silver formerly put into those old coins, into whose places they had succeeded. Nothing could be really the standard, but that which all men called the standard; and there could be no other way of estimating the value of the substitute, than by the value of the thing to which it was referred. Settled ideas, annexed to the names of known things, are not to be eradicated, or even altered, whilst the things themselves continue unaltered. If circumstances did so require, which is not the case at present, nor likely to be so in ages yet to come, the standard of money might be transferred, from silver to some other material; but, to make

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\* § 11 to 20. Part II.

† § 36, 37. Part II.

this transfer complete and effectual, it would be necessary to lay aside the old names used in reckonings and accounts, and to substitute new ones in their stead: To transfer the standard of money from one material to another, was the thing itself proper and requisite, is not so easy to be accomplished, as some late projectors seem to imagine. But to proceed.

*Former transactions have no relation to the present value of money.*

40. It hath been before \* shewed, that money is a standard measure by its quantity only, without regarding in the least the fluctuating value of its material with respect to other things. This restriction to quantity only, is essential to the nature and very being of money, as without which it would lose its place as such, and dwindle into mere commodity: How could that be called money, the value or price of which was fluctuating; and at all markets, and in all contracts to be bargained for, like other commodities? But should we admit money to be a commodity; those who would infer from thence, that the standard of money should be debased, are very unlucky in the choice of their argument, for it proves directly against them; as it is notorious that in *Europe*, both gold and silver have been gradually, and, I might say, continually sinking in their value for a long time past, from the continual increase of their quantity: And upon this principle, the standard of money should be enlarged, and not curtailed; and all creditors, both public and private, would have an undoubted right to demand back a greater quantity, than they had lent. But how could the several claims be adjusted, according to the different times of the respective loans? What infinite

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\* § 21. Part I.

contests, distractions, and confusions, must needs follow any departure from the true nature and use of money?

It hath been also abundantly proved, both in this and the preceding part of this essay, that silver only and not gold, is, and time immemorial hath been, the measure of all our contracts: And therefore the inference in the preceding, *viz.* “As we have great plenty of gold coins, “should we lower the price of gold we should undervalue “our own treasure, and pay our foreign creditors more “than we received from them;” this inference, I say, is fallacious, and nothing to the purpose. But before I proceed any farther, I cannot help taking notice of the artifice used, in making the application to our *foreign* creditors *only*: How could this distinction be supported in practice; and if it could, where would be the justice of it, and what would become of the public faith? Was not that faith given, or which is the same thing, understood to be given, to all sorts of creditors indiscriminately, that they should be paid again by the same scale that the loans were measured with? And was this scale anything else than sterling money, or our present silver standard?

That assertion, that lowering the price of gold would be undervaluing our own treasure, hath been before sufficiently \* answered: And almost every part of this whole chapter, is a full answer to the application above made to our public creditors; and indeed, creditors of all sorts would be the greatest of sufferers by a debasement of money, as their losses would be irretrievable and past all redemption. But to speak more particularly to the point before us: Admitting, what is hardly to be admitted, that all our loans have been made in gold coins; and that these coins at the several times of borrowing, were, as at present they manifestly are, over-rated: This over-rating

of gold was undoubtedly prejudicial to us; and this prejudice we shall continue to sustain, till the cause is removed. But this hath nothing to do in the present debate: The scale by which we borrowed, was silver; and it must have been understood, that we engaged to pay by the same scale, whenever the day of payment came. The due proportion of value of gold to silver, or the just rates which gold coins ought then to have, was not considered by either side; nothing was regarded but the current rates, at which on the one side they were given, and on the other taken, in full consideration of certain specific quantities of silver; which silver, was on both sides understood to be, and for ever to continue to be, the true and only measure of the contracts.

Again, our loans were made for present use; and the money, in the same specie, and at the same rates, as we received it; was, soon after the borrowing, dispersed into other channels, for such things, services, and considerations, as were then deemed an equivalent. And by these dispersions, the public escap'd the immediate loss from receiving gold at too high a rate. But in truth, our over-rating gold, is a consideration to be referred wholly elsewhere; and from which, nothing can be fairly drawn that may affect the present argument.

Every true patriot wishes to see our public debt reduced; and grievous as the burden at present is, there is great room to hope, that the time is not far off, when our expences may be lessened, and our debts gradually discharged, in a manner that shall be consistent with the faith, honour and renown of the nation; and of this we need not despair, if the wise, just, and solid maxims of our present administrators, will be imitated and followed by their successors. But whatever may be the fate of future times, and whatever the exigencies of affairs may require; it is to be wished that that aukward, clandestine, and most direful method of cancelling debts, by debasing

the standard of money, will be the last that shall be thought of; as that method would make a havock alike of all property, and create universal panics and distrusts, not easily to be afterwards repaired.

XX. *Of debasing, or raising the nominal values of, coins in general.*

41. We have now gone through the several pretences, that have been urged for debasing the standard of money; and they were chiefly founded upon the disproportion between the rates of gold and silver coins with us, in respect to what they bear at a medium, in the neighbouring countries: But there are some so extravagant, and so lost to all common sense, who not content with debasing the standard coins only, would have us debase both gold and silver at the same time; and they are so precise as to tell us, to a grain, how much per ounce they would debase both the one and the other: But as these grave computists, do not offer us any reasons in support of their notion; mine is, that they be left to themselves to compute on, as they please.

By the proclamations, &c. cited in the preceding chapter, the mischiefs that had been occasioned here by adulterating the coins in some former reigns, appear very manifest. Besides the infinite confusion, distrusts, and panics, created by those measures throughout the realm; they were ineffectual as to the end proposed by them: The people would part neither with their old money, nor their goods, according to the new standard; and having lost their old scale, were forced upon the primitive method of trucking one commodity against another. *France* affords us a more recent instance, of the bad effects of these measures; these are plainly set forth by an ingenious *French* author, in a book entitled, *Political reflections*

*tions upon the finances and commerce of France.*\* This piece enters necessarily too much into a detail of those bad effects, to have any part of it inserted here; it fully answers and confutes, by plain and undeniable matters of fact, another *French* piece, wrote professedly in justification of the adulterations, that had been made at different times in the *French* coins.

But notwithstanding that both experience and the reason of the thing, are so evidently and strongly on our side, against all tamperings with money; yet, is there but little prospect of quite silencing the contrary doctrine. I was not a little surpris'd to see it insinuated, in † a work containing many excellent observations relative to trade, that the prosperity of *France*, was greatly owing to the pranks that had been played with coins, by *Lewis XIV.* I do not know whether I should have taken notice of the above passages, if the same doctrine was not now again revived, and delivered in much plainer terms by *Mr. Postlethwayt*, in his late work entitled, *Britain's commercial interest explained and improved*, vol. II. page 354. I have no doubt of this laborious gentleman's good intention; but as the doctrine insinuated in the passage referred to, is so directly contrary to all that I have been inculcating, it would be unfair not to lay it before the reader, at full length.

“ LABOUR in France is but 3*d.* per day of 14 hours, or  
 “ from five to seven o'clock, in the cheapest countries, and  
 “ about 7*d.* half-penny in the dearest: in manufactures,  
 “ at but half the price as in England. Sailor's wages  
 “ a-board the *French* navy, but from 8*s.* to 12*s.* per  
 “ month; whereas in England, a sailor has 20*s.* per month  
 “ a-board king's ships. Must not this render their com-  
 74 “ modities

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\* This piece is translated into *English*, and was printed for *A. Miller* in the *Strand*, anno 1739.

† *British Merchant*, vol. I. p. 6, 7, 10, 16, 17. Small Edition.

“modities exceeding cheap in comparison to ours at  
“foreign markets?

“AND here it may be observed, that this cheapness of  
“labour, provisions, and commodities, was, at first brought  
“about by the sole artifice of the enhancement of their  
“money from 27 livres, to 50 livres the mark of eight  
“ounces of silver troy-weight; and this has been done  
“since the beginning of the confederate war in 1702.  
“It is true, this caused great convulsions in the kingdom  
“at first, but in the issue, it has been the instrument by  
“which they have sapped the foundations of our trade;  
“and, if a remedy be not applied, this artifice of the  
“French will worm out British manufactures by gentle  
“degrees in every market in the world: and that no less  
“in time of war than peace, by virtue of neutral powers  
“carrying on their trade for them; which they cannot do  
“to such advantage by British commodities, by reason of  
“their greater dearness.

“By this artifice they have rendered their labour so  
“cheap, that they reap a plentiful harvest in every coun-  
“try, *where they pay but the same customs as the English*,  
“whilst the English merchant is obliged to wait for the  
“gleanings of the market, after the Frenchman has  
“finished his sales.

“THE project of the enhancement of money, has given  
“an undue preference in France to money, above land  
“and commodities: but where lies the disadvantage at  
“present, if the gentleman receives but a hundred pound  
“weight of silver for his lands, where he used to receive  
“two hundred pound, if, at the same time, he can purchase  
“as many commodities with a hundred pound, as before  
“the enhancement he could with two? It is certain it  
“would only affect his foreign consumption. By this  
“scheme the French have restrained the bulk of the  
“people to the consumption of their own manufactures,  
“and commodities, and have prodigiously extended their

“ commerce, by underselling all nations. This has enabled  
 “ their islands to send home sugars, indico, &c., so cheap,  
 “ as to rival us in all the European markets, and in the  
 “ Levant: and all this they do, though their manufactures  
 “ pay six times as much in taxes on the necessaries of life  
 “ as they do in England.

“ Durot says, the price of bread, corn, and provisions,  
 “ is no greater now than in 1683; though in this last year  
 “ the mark of silver was but 27 livres,\* and now 50 are  
 “ coined out of it. This circumstance, as observed, has  
 “ rendered their commodities so cheap, that they undersell  
 “ us, and engross all the markets in the world from our  
 “ merchants. It is likewise this enhancement of their  
 “ coin, and the consequent cheapness of their commodities,  
 “ which has enabled our smugglers to carry on such an  
 “ advantageous trade with them. If but 20*l.* 5*s.* were  
 “ now coined out of their mark of silver of eight ounces  
 “ troy weight, which was the case in the year, 1660, the  
 “ French would not be able to sell a gallon of brandy  
 “ under 5*s.* sterling, which now they can sell for 2*s.*; nor  
 “ a pound of tea under 7*s.* 6*d.* sterling, which they now  
 “ sell for 3 shillings; nor a yard of silk damask under  
 “ 12*s.* 6*d.* which they now sell for 5 shillings; nor a yard  
 “ of cloth under 15*s.* which they now sell for 6 shillings,  
 “ abating only in the manufactures, the difference made  
 “ in the price of those manufactures, with regard to the  
 “ raw-materials, which cost both French and English men  
 “ much the same, though the raw silk comes to them  
 “ cheaper from the Turkey-traders; and their wool used  
 “ in their fine woollen stuffs dearer from our smugglers  
 “ than to us.” A little farther on Mr. P. seems to lament  
 “ our case, because, “ Our constitution and public faith will  
 “ not admit us to play such tricks with our money as the  
 “ French have done.”

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“ \* When the mark was at 20 livres about 1660, labour was dearer  
 “ in France than in England.”

The whole of this gloomy tedious tale, is so marvelous and visionary ; that were it not so gravely and circumstantially told, one could scarce have believed the author to be really in earnest. It would be needless here to enter into particulars ; but from the whole, I think, it clearly follows, that if the case was as it is above stated, our condition would be, as Mr. *P.* seems to dread, a most deplorable one indeed. We should be every hour at the mercy of our enemies, as by the simple artifice only of splitting their coins into halves, they might, as by a magic wand, at once double their force against us ; and if that would not be sufficient to crush and utterly destroy us, they need but keep splitting on, till at length their coin be annihilated, and by that simple expedient, obtain that universal dominion, which it is said they have been so long in quest of.

But from their adherence to the same standard of money, for so many years back, it seems that the *French* have quite another notion of this business ; it seems as if they had opened their eyes at last, and seen, from woeful experience, the folly and mischief of debasing the standard of money ; and whatever reception this debasing doctrine may meet with at *London*, it is very probable that at *Paris*, it would be treated with that contempt and indignation, which it so well deserves. Mr. *P.* laments nothing so much as the greatness of day-wages in *England* ; but there seems to be no other natural remedy for this evil, than a general poverty ; and we have politicians, that, could they but once get at the helm, would soon bring this about ; and perhaps the debasing of money would be as effectual for the purpose, as any one scheme that could be thought of. But from the poor, tattered and starved condition in general, of the commonalty of *France*, it seems very evident that there, the lowness of wages, of soldiers pay, &c., is forced and not natural. Despotic power can do this ; can draw to itself what share it pleases of every one's property, and spread misery and despair throughout

the whole extent of its dreary dominion. But may *Britons* for ever keep out the horrid monster; and maintain unblemished, from age to age, that happy constitution, so justly admired and envied by the nations round them.

XXI. *The several species of coins made of the same metal, should be all of the same fineness.*

42. There are some well meaning persons, who allow all the preceding arguments against debasing the standard, their full force; and yet propose the coining of small species of money of a baser alloy than the present standard, but having in them the same quantity of fine silver that the law now directs. This expedient, they think, would be a means of preserving those coins from wear, and from being melted or exported.

As to the wear, it is not clear that this scheme would answer the end: For, as the bulk and weight of the pieces would be both increased, their wear must also proportionably increase; besides, this composition would be more liable to wear than purer metal, as it would be more brittle and less tenacious. But this consideration is too minute, in comparison of the many inconveniences, that might attend any deviation from the common standard. As to the increase of bulk, I do not see any conveniency worthy<sup>d</sup> of such an alteration, that could arise from thence. There was a time, when the largest piece of coin in this country, was no bigger than our present silver three-pence; and they had silver farthings, or the quarters of these: And were our three-penny pieces now current, I do not apprehend there would be any complaints of their want of bulk.

There may be a better and a neater scheme than this is, for preserving coins from the melting-pot; but I do not chuse to enter into that consideration at present. There is an inconvenience in having too great a variety of coins; and without manifest necessity, no alterations

should be made in the course of the mint, lest any suspicions of some unfair dealings should be raised amongst the people.

The base coins here spoke of, would probably be the last that would be exported; as the silver in them, by being commixed with so much copper, would really be lessened in its value; and the public would not only sustain this loss, but it would also lose the whole value of the additional copper. But in the present case, either the people would refuse taking these new coins at the mint rates, and make distinctions between them and other coins, as hath been before observed; or, if they passed current, a door would be immediately opened for false coining. For, when the standard of fineness is much baser than ours is at present, different degrees of deviations from it, are not conspicuous to the eye; and the precise fineness cannot be so well ascertained, even by skilful assay-masters. By this scheme of coining base money, besides furnishing opportunities to counterfeiters amongst ourselves; we should lay a temptation in the way of foreigners, to commit the same frauds.

Mr. RICE VAUGHAN in his discourse \* of *coin and coinage* chap. VI. hath so well handled this subject of base money, that I cannot help making the following extract from this ingenious author. He says, the pretences for making base coins, were these following. (See *ante* pp. 30-35.)

I have now gone through all the arguments, or rather pretences, that I have met with, for debasing the standard of money. The combating of so many vulgar errors and prejudices, as I had to encounter with, was to me a task sufficiently irksome and disagreeable; but if my honest endeavours towards removing those pernicious mistakes,

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\* This was published in the year 1675, and contains many useful observations relative to this subject.

should be attended with success, I shall think my labour well bestowed. The subject certainly deserves the nicest discussion; and in the handling of it, I have been the more particular, as it seems to be a matter of no small moment, that people in general should understand the true nature of money: This would keep them upon their guard against any bad projects that might be offered; and dispose them readily to receive any such regulations about coins, as would be for the public and their own benefit; for in truth, and it were to be wished more people understood it, these two interests are inseparable.

## P O S T S C R I P T.

### OF STANDARD MEASURES.

**T**HE utility and necessity of having standard measures, are very evident; and at the first establishing of these, it is quite indifferent what are the specific quantities assumed: The first round pebble, and the first strait stick that came to hand, would make as good standard measures, the one of a pound, and the other of a yard, suppose, as any that could be fixed upon. But I do not know whether it hath been duly attended to, that all standard measures, whether of weight or extension, must, in the nature of things, be *units*; that is, a standard properly so called, must be one determinate individual thing. The parts and multiples of this standard, wherever made by art, can only be considered as approximations to the truth, or to those parts and multiples, which they are supposed to represent; and these will be more or less accurate, according to the skill and care of the artists employed in making them. Those artificial parts and multiples of the true standard, when made with due care, might be kept in proper places

as standards, for the comparing of others with them. But the true original standard, to which these *artificial* parts and multiples are referred, must be, as above observed, one individual thing, not subject to doubts and scruples, arising from human inaccuracies in the forming of it. Upon this principle, there can be in the exchequer but one standard weight; suppose this to be the *Troy-pound*; then the ounces, and their multiples there to be met with, are to be deemed only as artificial approximations to the just weights, intended by them respectively; and this may be deemed sufficient for all common purposes. A law then should declare explicitly, what piece, or pieces taken conjunctly, of metal now in the exchequer, is the real standard weight of the kingdom. \*No more than this is necessary to make the standard unit we have been speaking of; and if we have no such thing, it is a reproach to this enlightened age.

It is a pity that we have two sorts of weights, *Troy* and *Avoirdupois*; but one of these being made the standard, and I think for many reasons that that should be the *pound troy*; it may be sufficient, after comparing the weights we have of each together, to declare in parts not less than grains, what proportion a pound of the one bears to the other made the standard. The law, by only naming the different parts of each, and declaring the proportions

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which

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\* The standard should be one clean piece of metal, kept under the locks of some of the principal officers of state; and, I think, it should not be accessible to any one, without their personal presence, if not of a certain number of other privy-counsellors. All the use that there need be made of this standard, would be for the adjusting of duplicates or representatives of it, which might be kept in the several offices, as those things called standards are at present. These, being adjusted with due care and exactness, together with their artificial parts and multiples, the law might declare to be sufficiently exact, or near to the true standard, for common use. And to these all persons might have recourse at such proper seasons as the law should direct, upon paying of very moderate fees.

which they severally bear to the whole, will settle their quantities exactly, without leaving or creating those doubts that the inaccuracies of human art are liable to.

In like manner, if a *yard* be our standard of extension ; this should be a clean strait metalline rod, with its ends smooth and of a proper figure ; or that extension laid betwixt two points upon a rod of a greater length. This rod being for conveniency divided as accurately as can be into parts ; the feet and inches there expressed, are to be deemed nevertheless only as artificial approximations to the true standard. The longitudinal standard, as here the *yard*, must be the real and only standard of all other measures, whether superficial or solid. Suppose a *gallon* is our standard measure of capacity ; if we would avoid difficulties and absurdities, the way of making this standard is, by declaring how many cubic inches make a gallon, and not by appointing a certain vessel to be that measure ; but it might be declared with propriety enough, that such a vessel is sufficiently near to the true gallon. It would be a greater absurdity still to say, that such a vessel, as a bushel for instance, shall contain or measure so much, and also weigh so much of any thing. For weights, and measures of extension, are utterly incomparable. But it would be no absurdity to call a certain weight of corn, for instance, by the name of bushel, provided that at the same time all reference to measure be excluded.

These observations about standard weights and measures, may perhaps be deemed foreign to our subject, but they are of consequence, and I could not expect a fitter opportunity of offering them to the public.

*The End of the SECOND PART, and of the WORK.*

R E F L E C T I O N S

ON

C O I N I N G E N E R A L,

ON THE

COINS of GOLD and SILVER in *Great Bri-*  
*tain* in particular ;

ON THOSE

M E T A L S A S M E R C H A N D I Z E,

And also on

P A P E R p a s s i n g a s M O N E Y,

L O N D O N :

Printed for J. WAUGH at the Turk's Head in  
Lombard Street. 1762.



THE BOOKSELLER TO THE READER.

WHEN these *Reflections* were given me, I was directed, whenever published, to print,

*As a Dedication.* } *To the Right Honorable George Grenville, one of His Majesty's most Honorable Privy Council. &c. &c. &c.* are these *Reflections* most humbly inscribed.

*As a Preface.* } *Principles* founded in *Truth* will ever be *just*; therefore any *Rise* or *Fall* in the *Market Price* of *Gold* and *Silver* cannot change such *Principles*.

*And by way of Introduction.* } As at the *Beginning* of a *Reign*, a new *Coinage* may be thought of, it has made me resolve to present these *Reflections* to the *Public*; whose *Weal* and *Prosperity* the Author *ardently* wishes, as doth kind Reader,

Your humble and devoted Servant,

J. W.

December, 1761.





# REFLECTIONS

ON

## COIN in GENERAL, &c.

November 1760.

1. **C**OINS are Pieces of Metal on which an Impression is struck; which Impression is understood by the Legislature to ascertain the *Weight*, and the *intrinsick Value*, or *Worth* of each Piece.

2. The *real Value* of Coins, depends not on a Piece being called a *Guinea*, a *Crown*, a *Shilling*; but the true worth of any particular Piece of Gold or Silver, is what such Piece contains of *fine* or *pure Gold* or *Silver*.

3. Copper being mixed with *Gold* and *Silver* is, generally understood, to render those Metals more durable when circulating in Coins; yet Air and Moisture evidently affect Copper, whether by itself or mixed with other Metal; whereas pure Gold or Silver are much less affected thereby, or corroded.

4. Leaving the Durability to be as it may, certain it is, that *Copper* is mixed in *Gold and Silver Coin*, and called *Alloy*. The quantity of *Copper* so mixed is fixed by the Legislature. When melted with the pure Metal, or added, or extracted to make a lawful Proportion, both *Gold* and *Silver* are brought to what is called *Standard*. This Alloy of Copper is never reckoned of any Value. The *Standard* once fixed, *should be ever invariable*; since any Alteration would be followed by infinite Confusion, which must be hurtful in a State.

5. It is for *publick Convenience*, and for facilitating the bartering between Mankind for their respective Wants, that Coins were invented and made.

For were there no Coins, *Gold* and *Silver* might be made or left pure; and what we now call a *Guinea's-worth* of any thing, might be cut off of *Gold*, and a *Crown's-worth* from *Silver*, and serve, tho' not so commodiously as *Coin*.

6. Hence it is evident that in whatever *Shape*, *Form*, or *Quality*, these Metals are, they are brought to be the most *common Measure* between Man and Man; as serving to barter against, or exchange for, all kinds of Commodities; and consequently are no more than an *universal accepted Merchandize*: for *Gold* or *Silver* in *Bullion* (that is to say in an uncoined Mass) and *Gold* or *Silver* in *Coin*, being of equal *Weight*, *Purity*, and *Fineness*, must be of equal *Value*, the one to the other: for the *Stamp* on either of these Metals (duly proportioned) neither adds to, or takes from, their *intrinsic Value*.

7. The Prices of *Gold* and *Silver* as *Merchandize*, must in all Countries, like other Commodities, *fluctuate* and *vary* according to the *Demand*; and no *Detriment* can arise therefrom, more than from the *Rise* and *Fall* of any other *Merchandize*. But if when coined, a due *Proportion* of these Metals, the one to the other, be not established, the *Disproportion* will be felt and proved, and that Metal wherein the *Excess* in the *Proportion* is allowed, will preferably be made use of, either in *Exportation*, or in *Manufacture*; as is the Case now, in this Kingdom, in regard to *Silver Coin*, and which, in some Measure, is the Occasion of its *Scarcity*.

For so long as 15 *Ounces* and about  $\frac{1}{4}$  of *pure Silver* in *Great-Britain*, are ordained, and deemed to be equal to *one Ounce* of *pure Gold*, whilst in neighbouring States, as *France* and *Holland*, the *Proportion* is fixed only 14 $\frac{1}{4}$  *Ounces* of *pure Silver*, to *one Ounce* of *pure Gold*, it is

very evident, that our Silver when *coined*, will always be the most *acceptable Merchandize* by near *five in the Hundred*, and consequently more liable to be taken away, or melted down, than before it received the Impression at the Mint.

8. 62 *Shillings only* are ordained by Law to be coined from 12 *Ounces of Standard Silver*: now following the Proportion abovementioned of  $15\frac{1}{2}$  to  $14\frac{1}{2}$  (no regard being necessary as to Alloy) 65 *Shillings* should be the Quantity cut out of those 12 *Ounces*.

9. No everlasting invariable Fixation for coining, can be made from a *Medium* of the *Market Price* of Gold and Silver (though that *Medium* with ease might be ascertained) so as to hinder either *coined* Gold or Silver from becoming a *Merchandize*: for whenever the *Price* shall rise *above* that *Medium* so as to give a *Profit*, whatever is *coined* will be made a *Merchandize*. This in the Nature of Things must come from the *general Exchangings, Circulation, and Fluctuation in Trade*, and cannot be hindered; but assuredly the *false Proportions* may be amended by the Legislature, and settled as *the Proportion between Gold and Silver is in other Nations*, so as not to make, as now is the Case, our *coined Silver* a *Merchandize* so much to be preferred to the *same Silver uncoined*.

10. What has been said seems to be self-evident; but the following Calculations made on the present current Price of Silver and Gold may serve to prove, beyond all Doubt, that the Proportion now fixed between Gold and Silver should be altered and fixed as in other Countries.

By Law, 62 Shillings are to be coined out of One Pound, or 12 Ounces of Standard Silver.—This is 62 pence an Ounce. Melt these 62 Shillings, and in a Bar this Pound Weight at *Market*, will fetch 68 pence an ounce, or 68 Shillings. The Difference therefore between coined and uncoined Silver in *Great-Britain is now*  $9\frac{2}{3}$  per Cent.

Out of a Pound of 12 Ounces of Standard Gold 44 Guineas and  $\frac{1}{2}$  are ordained to be coined. This is 3*l.* 17*s.* 10*d.* $\frac{1}{2}$  an Ounce. Now the current *Market Price* of Standard Gold is 3*l.* 19*s.* an Ounce, which makes not quite  $1\frac{1}{2}$  per Cent difference between the coined and uncoined Gold.

11. It may be urged, that should the Legislature fix the Proportion of Silver to Gold as in other Countries, by ordering 65 Shillings instead of 62 to be cut out of a Pound of Standard Silver; yet still would there be  $4\frac{2}{3}$  per Cent difference between coined and uncoined Silver, whereas there is but about  $1\frac{1}{2}$  per Cent difference in Gold.

On this we shall observe that the Course of Trade (not to mention extraordinary Accidents) will make one Metal more in *Request* at one Time than another, and the Legislature in no one particular Country, can bias or prescribe Rules or Laws to influence such *Request*, which ever must depend on the great chain of Things, in which are linked all the Operations of this World. Freedom and protection are alone wanted in Trade: nor does Coin require more, if only a just Proportion in the Metals be settled. The rest, Mankind as their Interest and Understanding prompt them, will ever do.

12. To return to Gold; it is Matter of Surprize, that the Division of the Piece called a Guinea, has not been made smaller than just one half as it now is; that is into *Quarters*, *Thirds*, and *two Thirds*. In *Portugal*, where almost all their Coin is Gold, there are Divisions of the *Moedas*, or 27 Shilling Pieces into Tenths, Eighths, Quarters, and Halves. Of the *Moeda* and *one Third* or 36 Shilling Piece into Eighths, Quarters, and Halves. Hereby *the want of Silver Coin*, might be greatly provided for, and those Pieces, together with the light *Silver Coin*, which *now only* can remain with us, would sufficiently serve the Uses in Circulation.

13. That to the Lightness of the *Silver Coin* now remaining in *Great Britain*, we owe what we have, any Person with Weights and Scales, may prove, as upwards of 70 Shillings coined in the Reign of *King William*, or dextrously counterfeited by false Coiners, will scarce weigh 12 Ounces, or a *Pound Troy*.

14. All the Art of Man can never hinder a constant Exportation and Importation of Gold and Silver, to make up for the divers Calls and Balances that may happen in Trade: for were *Silver* to be coined as above, 65 *Shillings out of a Pound Troy Weight of Standard Silver*, if at *Market*, it would sell for a price that will make it worth while to melt it down or to export it, it must, and will, be made Use of as a *Merchandize*, as it really is, and the same will hold as to *Gold*.

15. That the Welfare of any State depends on its keeping *all* its Gold and Silver, either in Bullion or in Coin, is a very narrow Principle; all the Republicks we know of, wisely think otherwise. It is an utter Impossibility, nor should it ever be aimed at: for *Gold* and *Silver* are as clearly a *Merchandize*, as *Lead* and *Tin*; and consequently should have perfect Freedom and Liberty *coined* and *uncoined*, to go and to come, pass and repass from one Country to another, *in the general Circulation and Fluctuation of Commerce*, which will ever carry a *general Balance* with it: for we should as soon give our *Lead*, our *Tin*, or any other *Product of our Land or Industry*, to those who want them, without an *Equivalent* in some Shape or other, as we should *Gold* or *Silver*; which it would be absurd to imagine ever can be done by *our Nation*, or by *any Nation* upon Earth.

16. From *Spain* and *Portugal* come the greatest Part of Gold and Silver: and the *Spanish Court* very wisely permits the Exportation of it, paying a duty as in *Great Britain* *Lead* and *Tin* do, when exported; whereas heretofore (and as it still continues in *Portugal*) penal Laws were

enacted against the sending it out of the Country. Surely Princes by enacting such Laws, could not think they had it in their Power to decree and establish, that their Subjects or themselves should not give an Equivalent for what was furnished to them!

17. It is not our intention to descend into, or to discuss minutely, particular Notions or Systems, such as "*That Silver, and not Gold should be the Standard-Money or Coin.*"

"*That Copper is an unfit Material for Money.*"

And "*That Paper circulating as, and called artificial Money is detrimental.*"

Yet as these Doctrines seem to proceed from considering *Bullion and Money or Coin* in a different Light to what we apprehend and have laid down, we will observe,

18. That it matters not whether *Silver* or *Gold* be called *Standard-Money*; but it seems *most rational* that the most scarce and precious Metal should be the *Unit* or *Standard*.

19. That as to *Copper*, it is as fit for *Money* or a Counter as *Gold* and *Silver*, provided it be coined of a proper Weight and fineness: and just so much will be useful as will serve to make up *small Parts* in *Exchanges* between Man and Man, and no more.

20. That as to Paper Money it is far from being *detrimental*; on the contrary, it is *highly profitable* as its quick passing between Mankind instead of telling over, or weighing Metal in Coin or Bullion, is a Gain of what is *most precious* in Life, which is *Time*. And we may venture to call it *Assistant* towards an Augmentation of People; inasmuch as those who would be employed in telling and weighing, gain that time for other Purposes. *Gold* and *Silver* in themselves, either in *Bullion* or *Coin* neither serve to clothe or feed Mankind; nor can Paper. The Idea of the too great *Extension of Credit* by the Circulation of *Paper for Money* is evidently as *erroneous*, as

the Doctrine of the Non-exportation of *Gold and Silver* in *Bullion* or *Coin*: for were it not certain, that Paper could command the Equivalent of its agreed-for Value; or the Gold and Silver in Bullion or Coin *exported* be returned in the Course of Trade in some other *Merchandize*; neither *Paper* would be used, or the *Metals* exported. It is the *Produce of the Land*, through the happy situation of this Island, joined to the Industry of its Inhabitants, that those *much adored Metals, Gold and Silver*, have been procured: and so long as the Sea does not overflow the Land, and Industry continues, so long will not those Metals be wanting. And Paper in the general Chain of Credit and Commerce, is as valuable as they are; since the Issuers or Coiners of that Paper have some *Equivalent* to answer for what the Paper is valued at: *nor more* can any *Metal or Coin* do, than finds its *Value*.

Moreover, as incontestable Advantages of Paper, we must add, that the *Charge of coining* or making it, is by no Means *proportionate* to that of *coining* of *Metals*: nor is it subject to *waste* by long Use, or *impaired* by Adulteration, Sweating, Fileing, or other roguish Arts as Coins may.

21. We shall by way of *Note* conclude, by observing, that whenever *Gold, Silver, or Copper-Coin* may be worn too light, the Publick Purse should repair, or restore, what it may have suffered by constant Use; nay, if by the Wisdom and Vigilance of the Legislature, the above-mentioned roguish Arts cannot be hindered, it seems prudent that the Publick should make it good; since the very Creation and Existence of Coin is for the Utility of the Community in General.

G. W.

FINIS.



AN  
INQUIRY

INTO THE

*Value of the Ancient Greek and Roman*

MONEY.

BY MATTHEW RAPER, Esq. F.R.S.

FROM THE

“*Philosophical Transactions*,” Vol. LXI.,

FOR 1771.



# AN INQUIRY

INTO THE

*Value of the Ancient Greek and Roman*

## MONEY.

### INTRODUCTION.

**T**HE first writers, who, after the revival of learning in Europe, made the Greek and Roman money an object of their inquiries, took great pains to collect and explain such passages in antient authors as related to it; but very little to discover its true value. In so much, that some of them have supposed the Roman Aureus to have been heavier than the Greek Philippic\*; and others, that the Denarius was heavier than the Attic Drachm; but most of them agreed in this, that the two last mentioned coins were exactly equal. All which opinions are proved to be erroneous by the coins themselves now in being.

Our learned countryman John Greaves, was, I believe, the first who discovered that the Attic Drachm was heavier than the Denarius†. He seems to have examined a

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greater

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\* See Gronovius, de pecunia vetere, l. ii. c. 8.

† See the dedication of his Discourse of the Roman Foot and Denarius, printed in the year 1647, and reprinted, with other of his works, by Dr. Birch, in 1736. I quote the original edition, which contains 134 pages numbered after the dedication. That of Dr. Birch, begins at p. 181 (excluding the dedication), and ends at p. 356.

greater number of Greek and Roman Coins than any other writer on the subject. His balance turned with the 80th part of a grain \*; and his weights were correctly adjusted to the English standard†, as appears from the comparison the Royal Society of London caused to be made, in the year 1742, of the Troy Ounce with that of Paris, which was found to agree precisely with what Greaves had so long before determined‡.

His care and diligence in weighing the coins, and his fidelity in reporting them, have never been doubted; but he is not always sufficiently explicit; as, where he says he had perused many hundred Denarii Consulares, and found the best of them to amount to 62 grains English §; it is probable he found many such, for there are many of this weight and upwards in that noble repository the British Museum; but when he says in the same paragraph, that, weighing many Attic Tetradrachms, he found the best of them to be 268 grains, he may mean only one, for very few come up to that weight. Nor hath he given a particular description of this heavy Tetradrachm, but seems to think the weight of that coin was in all ages the same, which probably it was not.

He allows that silver is more liable to be oversized at the mint than gold ||; yet he determines the weight of the Attic Drachm from the Tetradrachm to be 67 grains, ¶ though no gold coin, he ever saw, comes up to it by a quarter of a grain in the Drachm \*\*.

He hath likewise made his Denarius above half a grain heavier than any he had perused, to agree with Villalpandus's weight of the Congius ††; which led him to suppose, that

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the

\* Ibid.

† See his Discourse, p. 61.

‡ Philosophical Transactions, No. 465.

§ p. 61.

|| p. 103

¶ p. 66.

\*\* p. 72

†† Compare p. 94 and 120, with p. 61.

the Roman Aureus was just double the weight of the Denarius,\* contrary to the express testimony of Pliny. And he hath not given a clear account of the Consular Aureus.

In the year 1708, John Caspar Eisenschmid, of Strasburg, published his book *de ponderibus & mensuris veterum, &c.* He is an accurate and a faithful writer, but wanted materials. He used Paris weights, which seem to have been correctly sized to that standard. Having seen no Roman gold older than the reign of Tiberius, which was not too imperfect to discover its original weight,† and finding the most perfect Consular Denarii to be very unequally sized, he took a mean from a pretty large heap of such as he thought unexceptionably perfect, rejecting some, which, though apparently so, were very deficient in weight, and thence determined the weight of the Consular Denarius to be  $74\frac{1}{2}$  Paris grains, equal to  $60\frac{1}{8}$  Troy.‡ But, as he hath not told us what number of pieces his large heap contained, nor the weight of the heaviest and lightest of them, his conclusion is not satisfactory.

Having no perfect Greek coins, either gold or silver, except one very ancient Attic Tetradrachm weighing 333 Paris grains, he derived the weight of the Attic Drachm from his Denarius, by a proportion between the Roman Pound and the Attic Talent, mentioned in the 38th book of Livy's History, which happened to agree with the weight of his ancient Tetradrachm, giving a Drachm of  $83\frac{1}{2}$  Paris grains, equal to almost  $68\frac{2}{3}$  Troy.§

Neither he nor Greaves has taken notice of the Roman Scrupular gold coin, nor made such use of the Constantinopolitan Solidus, as might be expected, from the great number now remaining in the most perfect preservation,

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\* p. 103.

‡ p. 33.

† Eisenschmid, p. 34.

§ p. 40 and 42.

servation, though the latter hath given the weights of 29 of them.

Greaves, very justly, observes, that, "gold coins are not subject to be consumed by time and rust, but only *ex intertrimento*; and therefore we may the safelier give credit to them. And because the difference, though but of a grain, is of some consideration in gold, the masters of the mint use to be more circumspect about them: whereas, in silver coins, since it is hardly worth the pains to stand precisely on the excess or defect of a grain, there are few of these so exact, but either exceed or want in the very mint one or two grains, and sometimes more." \*

I found, the heaviest of twenty new guineas, of the year 1768, fresh from the mint, to outweigh the lightest  $1\frac{2}{3}$  grains. The didrachmal gold of Philip and Alexander is about 4 grains heavier than our guinea; and I never found the difference between any two of them, that appeared to be perfect and unworn, amount to two grains. The silver, likewise, of these two Princes is more correctly sized, than any other ancient silver money I have seen.

The Roman Consular Aureus is between 3 and 4 grains lighter than a guinea, and is not so correctly sized as the Greek gold; but much more so than the Denarius, which is so unequal, that the Roman mint-masters seem to have contented themselves, with striking a certain number of pieces out of the pound of silver, with very little regard to their equality. Therefore, as far as the discovery of the weight of the Roman pound depends on their coin, it must be obtained from the gold alone.

Eisenschmid supposes, that gold coins may have lost a sensible part of their original weight, though no appearance of wear can be discovered on them, even with a

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\* Greaves, p. 103

glass.\* On the contrary, I have found guineas of George II, and Ann, whose wear, on the most prominent parts of the head, was visible at the first glance of the naked eye, which were above standard weight; therefore, where no appearance of wear, or other diminution, can be discovered on a coin, I see no reason to suppose it hath lost any sensible part of its original weight.

In the following discourse, I have collected the most authentic evidence I could find, of the weights of the Attic Drachm and the Roman Denarius; part of which I have taken from that very valuable publication of the Pembroke collection of coins. But, valuable as it is, it would have been more satisfactory to the accurate peruser, if the Noble Editor had distinguished the degree of preservation the several coins were in, and given the weights of the most perfect, nearer than to half a grain.

In the year 1759, by the favour of the learned and ingenious Dr. Gowin Knight, Principal Librarian of the British Museum, I weighed a considerable number of the most perfect Greek and Roman coins in that noble Repository.

The scales I used were good workmanship, of the common construction, made by Read; the beam 8 inches, and they turned freely with less than the 20th part of a grain. To avoid any error, I weighed each piece in both pans. My weights were most accurately sized; and, upon comparing the Troy ounce I used, with that in the archives of the Royal Society, in an exquisite balance of my late much esteemed friend, Dr. Henry Pemberton, it was found to be  $\frac{3}{8}$  of a grain heavier, which I have allowed for in the following discourse.

This essay hath received very considerable additions from the inestimable treasury of ancient coins, in the pos-

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\* Eiseusmid, p 34. 35.

session of the learned Matthew Duane, Esq; who most obligingly assisted me in taking the weights of such as were for my purpose. And it was from the coins in this collection only, that I discovered the Egeinean Talent to have been the money standard of Macedon, before Philip changed it for the Attic.

Dr. Hunter, likewise, very politely favoured me with the inspection of his curious cabinet of ancient coins, some of which I shall have occasion to mention in the following discourse; as well as some brought from Greece, by my learned friend James Stuart, Esq; who, it is hoped, will soon favour the Public with the second volume of his *Antiquities of Athens*.

### § 1. *Of the Attic Drachm.*

THE Greek coins were not only money, but weights. Thus their Drachm was both a piece of money, and a weight; their Mina was 100 Drachms as a sum, and the same number as a weight; and their Talent contained 60 Minas, or 6000 Drachms, both by weight and tale.

This way of reckoning 100 Drachms to the Mina, and 60 Minas to the Talent, was common to all Greece; and where the Drachm of one city differed from that of another, their respective Talents differed in the same proportion.\*

Of all the Greek cities and free states, both in Europe and the lesser Asia, Athens was the most famous for the fineness of its silver, and the justness of its weight †: Xenophon tells us, that whithersoever a man

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\* Pollux, L. IX. c. 6. § 86.

† See Aristophanes, *Ranæ* ver. 733. Polybius, in *Excerpt. Leg.* § 28. Δίτωσαν δὲ Αἰτωλοὶ ἀργυρίου μὴ χειρόνους Ἀττικοῦ κ. τ. λ. and § 35. Ἀργυρίου δὲ δότω Ἀντιόχους Ἀττικοῦ Ῥωμαίοις ἀρίστου. κ. τ. λ.

carried Attic silver, he would sell it to advantage.\* And their money deserves our more particular attention, both because we have the most unexceptionable evidence of its standard weight; and what little we know of the money of other Greek cities, is chiefly by comparison with this.

The current coin of Athens, was the silver Drachm, which they divided into 6 Oboles, and struck silver pieces of 1, 2, 3, 4, and 5 Oboles, of half an Obol, and a quarter of an Obol.† Their larger coins above the Drachm were, the Didrachm, the Tridrachm ‡, and the Tetradrachm; which last they call Stater, or the standard.

It does not appear that they coined copper till the 26th year of the Peloponnesian war, when Callias was a second time Archon.§ It was soon after publicly cried down; and the conclusion of the proclamation was to this effect, that, silver is the lawful money of Athens.|| But they seem to have had copper money not long after; for Theophrastus, Demosthenes, and some of the Comic Poets, quoted by Athenæus and Pollux, mention the Chalcus, which was the name of the copper coin.¶ Many pieces of Attic copper are now in being \*\*; and Vitruvius says, they coined copper Oboles, and quarter Oboles.††

\* Xenophon *περὶ προσόδων*. c. 3. *Καὶ οἱ ἀργύρων ἐξάγοντες, καλὴν ἐμπορίαν ἐξάγουσιν ὅπου γὰρ ἂν πωλώσιν αὐτὸ, πανταχοῦ πλείον τοῦ ἀρχαίου λαμβάνουσιν.*

† The piece of 50 gr. in P. II. T. 48. of the Pembroke collection, seems to be a Pentobolon; and the first in that plate a Hemiobolon. Mr. Stuart brought both half and quarter Oboles of silver from Athens.

‡ Pollux, L. IX. c. 6. § 60. There is a half Tridrachm of Alexander in the British Museum.

~ § See the Schol. on ver. 737 of Aristophanis *Ranæ*.

|| Aristoph. *Eccles.* ver. 810 and the following.

¶ Theophrast. *περὶ ἀπόνοιας*, and *περὶ βδελυρίας*. Demosthenes c. Midiam. Athenæus, L. III. c. 32. and elsewhere. Pollux, L. IX. c. 6. § 65.

\*\* Pembroke Coll. P. II. T. 48.

†† Vitruv. L. III. c. 1.

Authors differ in the value of the Chalcus; some say, it was the sixth part of an Obole,\* others the 8th †; Pliny (speaking of it as a weight) the 10th ‡; and Vitruvius, in the place before quoted, says, some called the quarter of an Obole Dichalcon, others Trichalcon. According to Polybius, it seems to have been the 8th part, for he makes a quarter of an Obole equal to half a Roman *As* §; but the Denarius passing for 16 *Asses*, and the Drachm for 6 Oboles, if a quarter of an Obole was equal to half an *As*, the Denarius should be greater than the Drachm, which it never was. Polybius, therefore, gives this for the nearest value of half an *As* in Greek money, as it was if the Obole passed for 8 Chalci; but had it passed for 10, he would have said one 5th of an Obole, which is nearer to the true value of half an *As*; or had it passed for 6, he would have said one sixth, which is still nearer; in either case, he would not have said one fourth, as neither 10 nor 6 admits of that division. But though, when Polybius wrote, the Obole might pass for 8 Chalci, it is not impossible that at different times, or in different places, it may have passed for 6, 10, and 12.

It is a common opinion, that the Athenians coined gold, for which I can find no good authority; and from the best information I have been able to get, there does not appear to be any Attic gold coin now remaining, that was struck while they were a free and flourishing people.

The lexicographers, indeed, tell, us, the *Χρυσούς*  
 10 *Αττικὸς*

\* Suidas, v. Ὀβολός. v. Ταλαντον. and one of the fragments in the appendix to Stephens's Greek Thesaurus, col. 217.

† Pollux L. IX. c. 6. § 65. 67. Suidas v. Τεταρτημόριον. The fragments ascribed to Galen and to Cleopatra in Stephens's Greek Thesaurus, col. 215, 217. That ascribed to Dioscorides says, the third part. These fragments speak of it as a weight, not a coin.

‡ Pliny, Nat. Hist. L. XXI. near the end of the last chapter.

§ Polybius, L. II. p. 103. of Casaubon's edit.

*Αττικὸς* was equal to the Daric,\* and speak of gold mines at Laurium †; but no ancient writer mentions such a coin, and all agree that the mines at Laurium were silver.‡

A passage in the *Frogs* of Aristophanes is, I believe, the only positive proof that can be produced from any ancient author in favour of this opinion. In ver. 732 of that comedy, he mentions a new gold coin. The scholiast on this passage tells us, that in the Archonship of Antigene, the Athenians coined their golden images of Victory; and the author of the treatise *Περὶ ἑρμηνείας*, § 298, praises an orator for the happy choice of his expression, when he proposed this expedient; but he neither mentions the orator's name, nor the time when this happened, nor whether the Athenians followed his advice; though the scholiast's short quotation from Philochorus seems to imply that they did. But if in ver. 732. above mentioned, for *χρυσίου*, we read *χαλκίου*, it will agree better with ver. 737. where the Poet calls this money *πονηρὰ χαλκία*; and the scholiast on these words says, *perhaps the Poet means the copper money of Callias*; and this comedy was acted in his second Archonship, when that copper money was coined.

That they had no gold coin at the beginning of the Peloponnesian war, appears from the account Thucydides gives of the treasure then in the Acropolis, which consisted of silver in coin, and gold and silver bullion §; but he would certainly have mentioned gold in coin, had there been any.

\* Pollux, L. IX. c. 6. § 53. Suidas, v. Γλαύξ. v. Δαρεικός. Harpocratio, v. Δαρεικός.

† Suidas, v. Γλαύξ. Hesychius, v. Λαύρεια.

‡ Thucyd. L. II. § 55. and L. VI. § 91. Xenoph. *περὶ προσόδων*. Strabo L. IX. p. 399, and Pausanias at the beginning of his first book.

§ Thucyd. L. II. § 13.

Therefore the ἀρχαῖον νομίσμα of Aristophanes could not be gold, nor the base καινὸν κρυσίον of equal value with the Daric; whence I conclude, καινὸν χαλκίον to be the true reading; and that it was the copper money above mentioned, which was afterward cried down.

Athenæus tells us that gold was extremely scarce in Greece, even in the time of Philip of Macedon; but that, after the Phœceans had plundered the Pythian temple, it shone forth among the Greeks.\* Philip conquered these Phœceans, and put an end to the holy war, as it was called.

About the time this war broke out, he took the city Crenides, on the borders of Thræe, which he enlarged, and called Philippi, after his own name; and he so improved the gold mines in its district, which before were of small account, that they produced above a thousand talents yearly, and enabled him to coin gold, which he called Philippics.†

What Athenæus says of the scarcity of gold, may be true, if confined to Macedon, and the poorer states of Greece; but must not be extended to Corinth or Athens; for though Thucydides does not specify the quantity of gold that was in the Athenian treasury at the beginning of the Peloponnesian war, it was, probably, not inconsiderable; for the gold about the statue of Minerva weighed 40 talents, which valued (according to Herodotus) at 13 times its weight in silver, will be found to amount to above 120,000 pounds sterling.

There is a gold coin in the British Museum, of elegant workmanship, with the head of Minerva on one side, and the owl and oil bottle on the other, the inscription *AΘE* and under the oil bottle the letters *MH*. It weighs  $109\frac{1}{4}$  Troy grains; but being a little worn, it probably, when

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\* Athenæus, L. VI. p. 231. See Diodorus, L. XVI. p. 527. Stephens's edit.

† Diodorus, L. XVI. p. 514.

new, came up to the just weight of the Roman Imperial Aureus. Whence we may conclude, that, when this piece was struck, the Athenians had reduced their money to the Roman standard, and that their Drachm was then equal to the Denarius. But I cannot find there is any Attic gold now extant, that was coined before Greece became subject to the Romans.

The Persian Daric seems to have been the gold coin best known at Athens in ancient times. This they called Stater,\* probably because it was the standard to which their Drachm was originally adjusted, which the Lexicographers tell us was half its weight.†

Though Greaves says, the Daric is still found in Persia, it is certainly very scarce, and perhaps of doubtful antiquity.

For want, therefore, of the Daric, we must have recourse to the gold of Philip, who took either that coin or the Attic Drachm for his standard; as will appear, when I come to compare his money, and that of his son Alexander, with the Attic silver. This he probably did, with a view to his intended invasion of Asia; for the ancient standard of Macedon was very different from that of Athens, as I shall shew hereafter.

Philip and his son Alexander coined gold of 4, 2, 1, and half an Attic Drachm. Mr. Duane hath a coin of Berenice, the wife of the second Antiochus, weighing a quarter of a Drachm. In the Pembroke collection is a gold medal of Lysimachus, of 8 Drachms; and Mr. Duane hath another of the like weight. But the Daric or χρυσός was didrachmal, and there are more of that species now remaining, than of any other.

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\* Herodotus, L. VII. § 28. and Thucyd. L. VIII. § 28. call it *Στατήρ δαρκικός*.

† Pollux, L. IV. c. 24. Hesychius, v. *Χρυσός*.

In the British Museum are three gold coins of Philip, which have all the sharpness of new money fresh from the mint. The heaviest of them weighs above  $132\frac{3}{4}$  Troy grains. A fourth, in the same collection, hath a hole punched through it; but in other respects, seems as perfect as the rest, and is the heaviest but one, of the four. There is likewise, a double Philippic of Alexander, perfect and unworn, which weighs  $265\frac{5}{16}$  grains.

There are two more of Philip, in this collection, each weighing 132 grains, one of Alexander, of  $132\frac{1}{4}$ , and another of  $131\frac{3}{4}$ ; but these are all a little worn, therefore I shall make no use of them.

Mr. Stuart brought home a Philippic, which, though not so fair in appearance as the best in the British Museum, weighed  $133\frac{7}{16}$  grains.

Out of seven of the most perfect gold coins of Philip and Alexander, in Mr. Duane's collection, four weighed 133 grains each. He hath a most beautiful coin of Alexander of Epirus, brother to Olympias, the mother of Alexander the Great, weighing  $132\frac{1}{4}$  grains; the workmanship is exquisitely fine, and as perfect as when it was first struck.

Greaves tells us, he bought at Alexandria a Philippic of Alexander, which he thought the fairest in the world, weighing exactly  $133\frac{1}{4}$  English grains. But, to bring it up to the standard of his Tetradrachm of 268 grains, he supposes it might want half a grain, either by time, or the mint.\* His mentioning the mint shews, he could not discern any appearance of wear upon it, therefore I suppose it was perfect.

He found two of the same weight in the possession of Sir Simonds D'Ewes.

He bought another at Constantinople, which weighed

14

133 grains

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\* Greaves, p. 72.

133 grains; with which comparing one of Sir John Marsham, he found the latter a grain deficient.

He quotes Snellius for two gold coins, one of Philip, the other of Alexander, each weighing 179 Dutch grains, which, he says, answer to  $134\frac{1}{4}$  English.\* But in this he is mistaken, for they answer to no more than  $132\frac{1}{6}$ .† Snellius, to favour an ill founded hypothesis of his own, supposes they had lost somewhat of their first weight,‡ but does not say they had any such appearance; and as they outweigh the heaviest in the British Museum, it is probable they were perfect.

In the Pembroke collection are two gold coins, one of Philip, weighing 134 grains, the other of Alexander, weighing 266, which, by their weights, should be perfect.

The difference between the heaviest and the lightest of these pieces supposed to be perfect, does not amount to two grains in the Philippic; and a mean, taken from such a number of coins, so equally sized, must be very near their original standard weight.

In the following table, I have not inserted any piece, that I had reason to believe was sensibly deficient of its original weight. Therefore I have omitted Sir John Marsham's coin of 132 grains, which being deficient of the least weight I have found in any perfect piece, it is

15 most

\* P. 71.

† Eisenschmid. p. 16, says, Budelius, who was master of the mint at Cologne, found the money-ounce used in Flanders and the United Provinces, to weigh  $579\frac{1}{2}$  Paris grains (equal to  $475\frac{1}{2}$  Troy) and that Gassendus found it but 577. See also the Memoires of the Royal Academy of Science, for the year 1767. pp. 364, 370. I weighed the Dutch half marc of 4 ounces, from Amsterdam, in an excellent balance, and found it to weigh 3 ounces, 19 p. weight, and 4 grains Troy; which divided by 4, gives 19 p. weight, 19 grains, or 475 Troy grains, for the weight of the Dutch ounce. This ounce contains 640 Dutch grains; and

As 640 to 179, so are 475 to  $132\frac{1}{6}$ , the weight of Snellius's coins.

‡ See Snellius de re nummaria, Vol. IX. of the *Thesaurus Antiquitatum Græcarum*, col. 1583.

most probable it was a little worn. I have likewise omitted three coins in the Pembroke collection, of 132 grains each, for the same reason.

The pieces under the letter M, are from the British Museum; those under D, from Mr. Duane's collection; that marked S, Mr. Stuart's; G, is the mark for those mentioned by Mr. Greave's; Sn. for the two of Snellius; and P, for two from the Pembroke collection. The parts of a grain are given in decimals, for the convenience of adding them.

	Troy grains.
Philip . M.	132,62
	132,23
	132,08
with a hole	132,46
Alexander. .	265,3
Philip . D.	133
	133
Alexander. .	133
	132,5
	132,5
	265,5
Philip . S.	133,7
Alexander G.	133,5
	133,5
	133,5
	133
Philip . Sn.	132,85
Alexander. .	132,85
Philip . P.	134
Alexander .	266
	<hr style="width: 100%; border: 0.5px solid black;"/>
	24)3190,09

Mean Philippic 132,92

As none of these pieces can have increased their original weight, but, on the contrary, some may have lost a small part of it, we may fairly conclude, that the standard weight of the Philippic was not less than 133 Troy grains; but probably somewhat greater.

In the Pembroke collection is a gold coin, or rather

medal, of Lysimachus, weighing 540 grains. Mr. Duane hath another of them, which wants but  $2\frac{1}{2}$  grains of the same weight. This piece should weigh 8 Drachms, and is of great importance on that account, as large weights and measures are more to be depended on, in inquiries of this kind, than smaller. According to this coin the Philippic should weigh 135 grains, and the double Philippic 270: but none have yet been found to come up to these weights. Some few silver Tetradrachms exceed 270 grains, but they are very uncommon, and far the greatest number of such as seem most perfect, fall short of 266. Neither is the ancient silver so correctly sized, as to stand in competition with the gold of Philip and Alexander. Therefore, either the mint-weights of Lysimachus were heavier than the Philippic standard, or his money was less carefully sized: or, lastly, this piece, being intended rather for a medal than a coin, was purposely, over sized.

The silver coins of Philip and Alexander confirm what the lexicographers tell us, that the golden Stater of Philip, weighed two Drachms.

In the British Museum is a Drachm of Philip, weighing  $67\frac{3}{10}$  grains, and another of Alexander of  $66\frac{3}{4}$ , both perfect. In the Pembroke collection is one of Alexander, which weighs 67 grains. These give a didrachm of  $134\frac{3}{4}$ ,  $133\frac{1}{4}$ , and 134 grains.

$267\frac{1}{4}$	Seven perfect tetradrachms of Alex-
$266$	ander, out of a much greater number,
$265\frac{1}{4}$	in Mr. Duane's collection, give a mean
$264\frac{1}{4}$	Didrachm of a little more than $132\frac{1}{4}$
$264\frac{1}{4}$	grains, as in the margin; which answers
$264$	near enough to the gold coins, to prove
$263\frac{1}{4}$	that the Drachm was the common
-----	standard, both for the gold and silver
14) 1855 $\frac{1}{4}$	money.

Mean  $132\frac{1}{2} +$

I shall now shew, that this was the Attic Drachm.

The silver Stater, or Tetradrachm, is the most common Attic coin now remaining, and some of them are in very perfect preservation. They all have the head of Minerva on one side, and an owl on the other, with the inscription *AΘE*. Eisenschmid observes, that they appear, by the workmanship, and other circumstances, to be of different ages.\*

The most ancient are very rude work,† of a small diameter and thick. He had one of them in the most perfect preservation, weighing  $273\frac{1}{2}$  Troy grains; and there is one like it in the British Museum of  $272\frac{2}{10}$  grains.

The second sort is somewhat better work, though rude, and the owl stands in a square; but in other respects is like the former. The eighth and ninth coins P. II. T. 48. of the Pembroke collection, seem to be of this sort. The eighth weighs 266 grains; and by having the weight put to it, and not to either of the other two in the same plate, I suppose it is well preserved, and perhaps perfect. These and the above mentioned have an olive branch coming from the edge to the owl; and both, by the rudeness of the work, should be older than the time of Pericles, under whose administration sculpture flourished at Athens.

The work of a third sort is more elegant, though not highly finished. Its diameter is equal to that of an English half crown. The face of Minerva is beautiful; the owl stands on an oil bottle, and is encompassed by two olive branches, and, besides the inscription *AΘE*, hath some monograms and symbols near the owl.

A fourth sort, of the same size, is generally higher finished; and besides the inscription *AΘE*, hath instead of the monograms, a name or names about the owl,

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\* Eisenschmid. p. 44.

† See Eisenschmid's figure. and c. 7. of P. II. T. 48, of the Pembroke collection.

perhaps of the mint-masters, or, as Mr. Stuart conjectures, of the owners of the mine that produced the silver. These likewise have commonly some symbol near the owl. Some of them have a letter on the belly of the oil bottle, and two letters under it, as it were in an exergue. They seem to be of a later date than the last mentioned; for none that I have seen have the *E* for *H*, or the *O* for  $\Omega$  in the names, though they retain the *E* in *AΘE*; but the long vowels did not come into use at Athens till after the Peloponnesian war, as appears by inscriptions now remaining,\* therefore, these must have been struck after that time; and if any now remain, that were struck during that war, they must be those with monograms.

The Attic money is not so equally sized as the Philippic silver. Mr. Duane hath a Tetradrachm with the letter *K* on the oil bottle, and *ΔΙ* under it, inscribed *ΜΕΝΤΩΡ ΜΟΣΧΙΩΝ*, which weighs  $271\frac{3}{4}$  grains, and another with the same letters on and under the oil bottle, inscribed *ΚΛΕΟΦΑΝΗΣ ΕΠΙΘΕΤΗΣ*, in as perfect preservation, which weighs but 265 grains.

An Attic Tetradrachm in the British Museum, which appears to be but little worn, and not otherwise diminished, weighs but  $247\frac{1}{2}$  grains. We can hardly suppose, that this was struck to the same standard as Eisenschmid's ancient Tetradrachm of above 273 grains. That in the Pembroke collection, of 207 grains, hath probably been filed on the edge.

There are, however, a considerable number of Attic Tetradrachms, that answer in weight to those of Philip and Alexander, as nearly as can be expected, from coins

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\* See Montfaucon's *Palæographia Græca*, p. 135, and the *Marmor Atheniense*, lately published by Mr. Chambers. The Scholiast on ver. 688 of Euripides's *Phœnissæ* dates the introduction of the long vowels into Athens, in the Archonship of Euclides.

so unequally sized. Mr. Stuart brought a very ancient one from Greece, weighing  $265\frac{1}{4}$  grains; Mr. Duane hath one of the like age, which weighs  $265\frac{1}{4}$ ; they are both well preserved, and can have lost very little of their original weight: one, with a monogram and symbol, of  $266\frac{3}{4}$  grains; another, inscribed +ANI of the same weight, two of 265 grains, and one of  $265\frac{1}{4}$ . These answer so nearly to the weights of Alexander's Tetradrachms, that we cannot doubt of the equality of his standard to that of Athens. And the gold Philippics of him and his father are so correctly sized, and so perfect, that the mean Didrachm derived from them, of 133 Troy grains, must be very near its just weight; and its half,  $66\frac{1}{2}$ , that of the Attic Drachm.

§ II. *Of the Egeian and Euboic Talents.*

THE Attic was not the only money-talent used in Greece. Historians and others mention the Egeian and the Euboic Talents. The former weighed 10000 Attic Drachms, but, like other Talents, contained only 6000 of its own; which being so much heavier than the Attic, the Athenians called it *παχέϊαν δραχμὴν*, or the thick drachm.\* This Talent was used at Corinth, as appears by a passage in A. Gellius, where the Corinthian Talent is valued at 10000 Attic drachms †: and as Corinth was a place of great trade, it was probably used in most of the cities of the Peloponnesus.

If the Attic Drachm weighed  $66\frac{1}{2}$  Troy grains, the Egeian should weigh  $110\frac{5}{8}$ ; which, to avoid fractions, and because our Attic Drachm is rather undersized than otherwise, I shall call 111.

There are Macedonian coins, struck before Philip coined  
 20 gold,

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\* See Pollux, L. IX. c. 6. § 86 and 76.

† A. Gellius, L. I. c. 8.

gold, that answer to this standard. One of Philip, in the Pembroke collection, weighs 224 grains. Mr. Duane hath a silver coin, of either the first or second Alexander, which weighs  $447\frac{1}{2}$  grains; three of Philip, of 221 each; another of Philip, of  $223\frac{1}{4}$ ; and a fifth,  $223\frac{3}{4}$ . The mean Drachm from these six coins is  $111\frac{1}{2}$  grains, which comes as near to the Egeian drachm, as can be expected from so small a number of silver coins. Therefore, the Egeian Talent must have been the standard of the Macedonian money, till Philip changed it.

It appears likewise to have been the standard of the Ptolemaic money in Egypt. Mr. Duane hath a gold coin of the Ptolemies, like c. 1. T. III. of the Pembroke collection, weighing nearly  $27\frac{1}{2}$  grains; Mr. Stuart another, weighing  $27\frac{3}{10}$ ; supposing each was a quarter of the Drachm, the former will give it almost 110 grains, the latter  $108\frac{1}{2}$ ; but they are both a little worn. Mr. Duane hath a gold coin of Arsinoë, like c. 3. T. III. of the Pembroke collection, which weighs 430 grains; and Dr. Hunter hath another of the same weight, which give a Drachm of  $107\frac{1}{2}$  grains. Dr. Hunter hath likewise a perfect silver coin of one of the Ptolemies, weighing 221 grains, another of 220, and a third of  $109\frac{1}{4}$ ; but the two last are a little worn. The Ptolemaic gold coins in the Pembroke collection give the Drachm from 107 to 108 grains. As the piece of 221 grains wants but half a grain in the Drachm of the Egeian standard, and that of 107 but four grains, we may fairly conclude that Talent to have been the money standard of the Ptolemies. And not only so, but that it was originally Egyptian. For what should induce Ptolemy, to relinquish the standard established by Alexander, and used all over Asia and the greater part of Greece, but that he found the Egeian Talent established in Egypt, when he possessed himself of that opulent kingdom.

Yet so imperfect are the accounts now remaining, of the

ancient weights, that no writer hath mentioned this Talent, or one like it, as used in Egypt. On the contrary, Pliny tells us, on the authority of Varro, that the Egyptian Talent weighed 80 Roman pounds.\* But this is undoubtedly a false reading, and for *Ægyptium* we should read *Euboicum*; for Pliny is speaking of the riches of Asia, where the Euboïc Talent was used for weighing gold; and we know the weight of that Talent was settled at 80 Roman Pounds, by the treaty between the Romans and Antiochus.

The fragment of weights and measures ascribed to Galen, makes the Egyptian Mina to weigh 16 ounces †; and consequently, the Talent 80 Roman pounds. But this Talent could not be the standard of the Ptolemaic coins.

There is a passage in Pollux which makes the Egyptian Talent contain 1500 Attic Drachms. ‡ But this is an injudicious interpolation in the last edition of that author.

The fragment ascribed to Cleopatra, and one that follows it, mention a Ptolemaic Mina of 18 Ounces, whose Drachm should weigh 75¼ Troy grains; and Cleopatra says, there was an Egyptian Drachm, which weighed but the sixth part of the Attic.

Galen § and the fragment ascribed to Dioscorides say, the Mina of Alexandria weighed 20 Ounces, or 120 Drachms. By Drachms, Galen certainly meant Denarii of 8 in the Ounce; for he tells us, that, in his time, a Drachm was always understood to mean what the Romans call a Denarius. || The Drachm of this Mina should weigh 84 grains.

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Lastly,

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\* Nat. Hist. L. XXXIII. c. 3.

† Stephani Thes Græc. t. IV. col. 25.

‡ L. IX. c. 6. § 86.

§ See the word *Mvā* in the index to Stephens's Greek Thesaurus.

|| Πρόδηλον ὅτι δραχμὴν λέγομεν νῦν ἐν τοῖς τοιούτοις ἅπασιν, ὅπερ Φαρμακίοι δηνάριον ὀνομάζουσιν. Galen L. VIII. De compos. medicam, as quoted by Gronovius, L. II. c. 6. De Pecun. Vet.

Lastly, Festus says, the Alexandrian Talent contained 12000 Denarii.\* If by Denarii he meant Attic Drachms, this Talent should be just double the Attic.

None of these Talents could be the standard of the Ptolemaic money. Though, if Galen's Alexandrian Mina weighed 160 ancient Attic Drachms, its Drachm would weigh  $106\frac{2}{3}$  Troy grains, which comes near to the Ptolemaic standard. But the coins require a greater weight, and the Egeian Mina should weigh  $166\frac{2}{3}$  Attic drachms.

The Euboic Talent certainly came from Asia; for, Herodotus tells us, the Kings of Persia weighed their gold by that Talent.† In the same place he informs us, that the Babylonian Talent weighed 70 Euboic Minas. Pollux says, it weighed 70 Attic Minas.‡ Therefore the Euboic Talent should be equal to the Attic. But Ælian tells us, it weighed 72 Attic Minas;§ and if so, the Euboic Talent should be heavier than the Attic, in the proportion of 72 to 70.

An article in the treaty between the Romans and Eto-lians, recorded by Polybius,|| whereby the latter were to pay a certain number of Euboic Talents, in silver of Attic fineness, seems to favour this inequality of the two Talents: for, had they been equal, there would have been no occasion to specify the quality of the silver by the standard of one country, and its weight by that of another.

But, if the Euboic Talent was the standard used in the commerce between Greece and Asia (as it seems to have been) both countries were concerned to keep it up to its just weight; which was a sufficient reason for the preference given to it by the Romans, on account of its authenticity, whether the Attic Talent was equal to it or not.

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\* Festus, De Verborum Signif. v. TALENTUM.

† Herod. L. III. § 89.

‡ Pollux, L. IX. c. 6. § 86

§ Var. Hist. L. I. c. 23.

|| Polyb. Excerpt. Legat. § 28

And there is a circumstance very strongly in favour of their equality, which is, that if Philip changed the money-standard of his own country, with a view to the invasion of Asia, (as is highly probable), he certainly adopted the standard of the Daric, which was the Euboïc Talent, by which the Kings of Persia weighed their gold. But his money answers to the Attic talent, as I have shewn above.

Pollux no where mentions the Euboïc Talent; and if he took his estimate of the Babylonian Talent from Herodotus, he certainly thought the Euboïc Talent was equal to the Attic.

But the numbers in the account Herodotus hath given of the revenue of Darius, as they now stand, disagree with each other, and must be faulty in more places than one; and as probably in his value of the Babylonian Talent as elsewhere.

He tells us, the King of Persia weighed his silver by the Babylonian Talent; therefore, that must have been reckoned the silver Talent of the empire, and was probably the standard of their silver coin.

Xenophon, in his account of the expedition of Cyrus, says, the Asiatic Siglus was worth  $7\frac{1}{2}$  Attic Oboles.\* This coin seems to have been the Drachm of the Babylonian Talent; and if that Talent weighed 72 Attic Minas, the Siglus was really worth but  $7\frac{1}{2}$  oboles; but the place Xenophon here speaks of was near Babylon, where the Attic money was unknown and consequently undervalued in common currency. This however shews, that, if the Babylonian Talent was the standard for the silver coinage in Persia, its weight probably exceeded 70 Attic Minas.

The same author tells us, that Cyrus paid Silanus the Ambraciot 3000 Darics for ten Talents. Therefore, the Talent of silver was worth 300 Darics. And if 3000

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\* Xenoph. Exped. L. I.

Darics were coined out of the Euboïc Talent of gold, 300 weighed six Euboïc Minas: and supposing the Bâbylonian Talent to weigh 72 such Minas, the price of gold, at that time, was twelve times its weight in silver, as Plato, who was Xenophon's contemporary, tells us it was.\*

By the former of these passages, it appears probable that the Babylonian Talent weighed above 70 Attic Minas; by the latter, that it weighed above 70 Euboïc Minas; and if Pollux took his value of the Babylonian Talent from Herodotus, as the text now stands, and Ælian his value of the same, from a more correct copy of that author, or from some better authority, the Euboïc Talent must have been equal to the Attic.

§ III. *Of the Roman Money.*

PLINY hath given the following historical account of the Roman coinage: "Silver was first coined at Rome in the 485th year of the City, when Q. Ogulnius and C. Fabius were Consuls, five years before the first Punic war. And the denarius was made to pass for ten pounds of copper; the quinarius, for five; and the sesterce, for two and a half. But the weight of the *As* was reduced in the first Punic war, when the republic, being unable to defray its expences, resolved to coin six *Asses* out of the pound; whereby they gained five parts, and paid their debts. The stamp of the *As* was a double-faced Janus on one side, and the prow of a ship on the other: on the triens and quadrans a boat. After this, when they were pressed by Hannibal, Quintus Fabius Maximus being dictator [*about the year 537*], the *As* was reduced to one ounce, and the silver denarius made to pass for 16 *Asses*; the quinarius, for eight; and the sesterce, for four. And the republic gained one half

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\* Plato, in his *Hipparchus*.

“ [upon the copper money]. But in the pay of the army, the soldier always received a *silver* denarius for ten *Asses*. The stamp of the silver money was a chariot and a pair, or a chariot and four horses; whence they were called *Bigati* and *Quadrigati*. The *As* was soon after reduced to half an ounce, by the Papirian Law.—What is now called the Victoriat, was coined by the Clodian Law; before which, it was imported from Illyricum as merchandize: its stamp is a Victory, whence it takes its name. The gold money was coined sixty two years after the silver, and the scruple passed for twenty sesterces, which, as the sesterce was reckoned at that time [2½ *Asses*], made the pound of gold worth nine hundred *silver* denarii\* [of 16 *Asses* each]. It was afterward thought proper to coin forty pieces out of the pound of gold. And our Princes have, by degrees, diminished their weight to 45 in the pound.” †

Thus far Pliny, whose date of the first coinage of silver is confirmed by Livy. ‡

The Denarii now remaining are of various kinds. The most ancient are the *Bigati* and *Quadrigati*, having on one side the head of a woman in a helmet, with the inscription ROMA, and the mark of the Denarius X or X̄, and some few XVI, and a Biga or Quadriga on the other. The next to these in antiquity have the head of Roma, or some other Deity, on one side, and on the

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\* The common reading is sestertios DCCCC, which I shall consider hereafter.

† Plin. Nat. Hist. L. XXXIII. c. 3. In most editions of Pliny before Hardouin, the numbers 40 and 45, are thus written X. XL. M. and X. XLV. M. whence Agricola and Snellius have supposed the M. after the former number, to be a mistake of the transcriber for II. and that after the latter for III. But Hardouin in his note on this passage hath shewn the M. in both places, to be superfluous. In the last clause, I read *minutissimè vero not minutissimè Nero*.

‡ See the epitome of L. XV.

reverse, the name of the mintmaster, or mintmasters, with historical or emblematical figures. Many of these have the X or  $\text{X}$ , which continued to be the mark of the Denarius long after it passed for 16 *Asses*; whence some have concluded that it was reduced again to ten *Asses*, contrary to the express testimony of Vitruvius\*; and Tacitus tells us that the mutinous legions in Pannonia demanded, to have their pay raised from ten *Asses*, to a Denarius. A third sort hath the head of a Consul or a General on one side, with an historical or emblematical reverse. Few, if any, of these have the mark X or  $\text{X}$  upon them. These three sorts are called Consular Denarii, as having been struck during the republican government by Consuls. The Imperial Denarii have commonly the head of the reigning Emperor, with his name and titles on one side, and some emblematical figures on the reverse, with a suitable inscription.

The Romans coined their first gold money by the Scruple, as appears from Pliny's account, which is confirmed by the coins; for he tells us the Scruple passed for twenty Sesterces, and there are gold coins now remaining with the numerals XX, and XXXX, which answer to the weight of one, and two ancient Roman Scruples. These have the head of Mars on one side, with the numeral letters denoting their value, and, on the reverse, an Eagle standing on a Thunderbolt. The latter coins of this scrupular standard are like the Denarii of the age in which they were struck; as was the gold of the different standards that succeeded it.

The Romans did not use the Denarius for a weight, as the Greeks did their Drachm; till the Greek physicians coming to Rome, and finding the two coins nearly equal, prescribed by it, as they had been accustomed to do by the Drachm in their own country. Neither did the Roman Pound depend on the weight of the Denarius, as the Greek

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\* Vitruvius, L. III. c. 1. So likewise Volusius Mæstianus. Taciti Annal. L. 1. § 17. & 26.

Mina did on that of the Drachm; but the weight of the Denarius depended on the Pound.

The antient Roman Pound was divided into 12 Ounces, and the Ounce into 24 scruples.\* And we learn from Celsus and Pliny, that 84 Denarii were coined out of the Pound of silver †; therefore, if we knew the true weight of the Roman Pound, we should thence know that of the Denarius.

There are many antient Roman weights now remaining, from under an Ounce to 100 Pounds ‡; some of them with inscriptions have the appearance of standards.

Lucas Pætus, from an antient weight of 10 Pounds, another of 4 pounds, and a third of 1 pound, inscribed EX. AVC.D.CAS. in letters of silver, besides three smaller of 3, 6, and 9 ounces, all six perfect and agreeing together, determined the antient Pound to contain 11 ounces, 10 scruples, modern Roman weight.§ But where he gives the weight of Vespasian's Congius,|| he makes ten antient Roman Pounds to weigh 9 pounds 6 ounces 10 scr. 10 gr. modern weight. The modern Roman ounce contains, like the antient, 24 scruples, the scruple 24 grains. Therefore, according to this determination, the antient Roman Pound should weigh 11 ounces, 10 scr. 15 $\frac{3}{4}$  gr. modern weight, which is equal to 5012 $\frac{1}{2}$  Troy grains, if the exact weight of the modern Roman ounce be 438 Troy grains, as Greaves reckons it. But Pætus used a steelyard, which is a very fallacious instrument.

Gruter hath exhibited a considerable number of ancient Roman weights.¶ Such of marble, from 1 to 10 pounds,

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as

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\* Varro de Re Rustica, L. I. c. 10. Collumella, L. V. c. 1. and Volusius Mæcianus.

† Celsus de Medicina, L. V. c. 17. Pliny, Nat. Hist. L. XXXIII. c. 9.

‡ See Thes. Antiq. Roman. Vol. XI. col. 1661.

§ Thes. Antiq. Roman. Vol. XI. col. 1619.

|| Ibid. col. 1635.

¶ Gruter's Inscriptions, p. ccxxi.

as were intire, have neither mark nor inscription. His two heaviest weigh 9 pounds 8 ounces each, modern Roman weight, which give an antient Pound of 5081 Troy grains. Such of the rest as are supposed to be intire, make it under 5000. His lesser weights vary considerably. The Triens of Rusticus gives a pound of 5092 Troy grains; his Sextans one of 5246. Among the brass weights are two inscribed AD. AVGVST. TEMP. C.P. One of five Pounds, weighing 5 pounds  $2\frac{1}{2}$  ounces, makes the ancient Pound equal to 5475 Troy grains; the other is a Triens, and weighs 3 ounces, 19 scr. 4 gr. which gives 4992 Troy grains for the Roman Pound.

Fabretti blames Pætus for making the ancient Roman Pound lighter than the modern,\* and produces ten ancient weights to prove the contrary. Three of them are of brass, and by their inscriptions have the appearance of public standards. One, with the mark X, weighs 10 pounds 5 oz. 14 scr. modern Roman weight, which, reduced to Troy grains, give  $5500\frac{1}{2}$  for the antient Pound. Another, marked V, weighs 5 pounds,  $2\frac{1}{2}$  oz. and gives 5475 Troy grains for the antient Pound. A third marked II, weighs 2 pounds, 1 oz. 9 scr. which makes the ancient Pound amount to 5557 Troy grains. His white marble weight hath no other inscription but the mark I, for one pound, and weighs 13 ounces,  $1\frac{1}{2}$  scr. equal to 5721 Troy grains. The rest of his weights are from five ounces to three scruples, and give an ancient Roman Pound from almost 5500 Troy grains to above 5780.

At the end of Eisenschmid's preface, we find two *Asses librales*, one equal to  $5407\frac{1}{2}$  Troy grains, the other to  $5315\frac{5}{8}$ ; and a *Quadrussis* of 21351 Troy grains, which gives a pound of  $5337\frac{3}{4}$ .

According to Fabretti's weights, the ancient Roman

\* Fabretti Inscript. p. 523.

Pound could not weigh less than 5475 Troy grains, which is much greater than can be derived from any other evidences, as I shall shew hereafter. But, as many of the abovementioned weights have the appearance of public standards, I have thought proper, to take more particular notice of them, than writers on this subject have commonly done.

Both Villalpandus and Greaves relied on the Congius of Vespasian for the standard weight of the Roman Pound, not doubting its authenticity, though the note in Gruter says, some have suspected it.\* What foundation they had for such suspicion, does not appear; but it is very difficult, to counterfeit the genuine cracks and corrosions of antiquity, in a vessel of this kind; and Greaves tells us, that while he was in Italy, there was found, among the ruins at Rome, a Semicongius in brass, of the same figure with this of Vespasian, the sides much corroded with rust. This he also measured, and found it to be half of Vespasian's Congius.† But weights are easily counterfeited; and when the remains of antiquity were so eagerly sought after, that artists found it worth their while to counterfeit the ancient coins, others might counterfeit the weights.

The Roman Congius contained ten Pounds weight of wine.‡ Vespasian's standard is of brass; Pætus, Villalpandus, and Greaves, have given drawings of it; and Gruter tells us, the inscription was in letters of silver.

Pætus filled this vessel to the narrow part of the neck with rain water, and weighed it with a steelyard. But this instrument is liable to great errors; therefore his weight, which wants  $5\frac{1}{2}$  modern Roman ounces of what Villalpandus found it, is of small authority.

Villalpandus filled it to the same height with spring

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\* Gruter's Inscriptions, p. ccxxiii .

† Greaves, p. 92, in a note.

‡ Festus de verb. signif. v. PUBLICA PONDERA

water, and found it to contain just ten modern Roman pounds, which are equal to 52560 Troy grains.

Auzout, filling it likewise to the same height with spring water, weighed its contents twice; and the near agreement of its capacity deduced from his weights, with Greaves's measure, by Millet,\* is a proof of their being very near the truth.

Auzout's greater weight was 63024 Paris grains, equal to  $51699\frac{3}{8}$  Troy; his lesser, 62760 Paris grains, equal to  $51482\frac{1}{2}$  Troy.† It is not said, at what time of the year either of these weights was taken; but the heat in summer, and the cold in winter, might have made a much greater difference between them.

The mean between both is  $51591\frac{1}{10}$  Troy grains, which, divided by 10, give  $5159\frac{1}{10}$  such grains for the weight of the ancient Roman Pound.

Fabretti insists, that this vessel ought to have been filled up to the brim‡; but the part above the neck seems to have been designed, either to prevent the liquor from spilling when poured out, or for a security against the diminution of the standard, which such a finishing rendered impracticable.

Several objections have been made to this Pound derived from the Congius, of which the following are the most material.

First, whereas the side of the Quadrantal containing 8 Congii, should be equal to the Roman foot; the side of a cube, containing 8 times this vessel, exceeds the most authentic measures of that foot now remaining. But, as this relation of the two standards to each other was of an ancient date, when all workmanship was probably very rude and inaccurate at Rome, we cannot wonder at such a

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\* See Philosoph. Trans. Vol. LI. p. 790.

† Divers ouvrages de Mathematique & de Physique par Mess. de l'Academie Royale, Paris, 1693, in folio. p. 366. 371.

‡ Fabretti Inscript, p. 527.

disagreement; especially as both the shape of this vessel and the inscription shew it was not adjusted by the foot measure, but by weight.

Secondly, the same bulk of any liquor being found to weigh more in winter than in summer, we cannot determine the precise weight of the Roman Pound from the contents of this vessel, unless we knew the season of the year in which it was originally adjusted.

Thirdly, Villalpandus seems to have made his experiment carefully;\* but his weight exceeds Auzout's lesser weight by above 1000 Troy grains; though both used spring water. Now if two curious persons, who endeavoured to discover the exact weight of the antient Roman Pound, could differ so much in weighing the contents of the same vessel, can it seem improbable, that the Roman officer, to whose department the adjusting this standard might happen to belong, should differ as much from its just weight? But if he happened to be a person of accuracy, he would take care, that the standard of a measure of capacity should not fall short of its ancient dimensions, which is extremely unpopular; and, though he might endeavour to be exact, he would rather chuse to err in excess than defect. Therefore, this vessel is more likely to give too great a Roman Pound, than too small a one.

Fourthly, this vessel was by law to contain ten Pounds weight of wine; which being lighter than water, the weights above-mentioned must be too great. But probably the Romans of that unphilosophical age when this standard was first established were ignorant of this difference; and it might not be generally known, or not attended to, even in Vespasian's time; for Remnius Fannius, who lived long after, treating of the weights of various liquids, supposes the weight of wine to be equal to that of water,

Nam libræ, ut memorañt, bessim sextarius addet,  
Seu puros pendas latices, seu dona Lyæi.

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\* See Greaves, p. 92.

And though he afterward tells us that some wines and some waters are heavier than others, he does not say that water is in general heavier than wine. And even at this day, when the specific gravities of different liquors are so generally known, our books of Pharmacy call a wine pint of any liquor a pound. Therefore it is not improbable that this standard was adjusted by spring water in the reign of Vespasian.

But if it was really adjusted by wine, the difference may be considerable; for, according to Eisenschmid's table of the specific gravities of various liquids,\* that of pump-water is to Burgundy wine in the proportion of 371 to 355; and Auzout's mean weight of 5159 Troy grains diminished in this proportion, gives but  $4936\frac{1}{2}$  such grains for the antient Roman Pound.

All the above circumstances considered, it seems more probable that this standard should give too great a Roman Pound, than too small a one. But as nothing certain can be determined from it, we must have recourse to the coins, especially the gold, which though not so correctly sized as the Greek Philippics, are much more so than the silver Denarii.

Pliny tells us, that when the Romans first coined gold, they made the Scruple pass for 20 Sesterces.

In the tables VI. VII. and X. of the Pembroke collection, we find nine pieces, weighing 17 grains,  $26\frac{1}{2}$ ,  $33\frac{1}{2}$ ,  $51\frac{1}{2}$ , 53, 105, 107 twice,  $107\frac{1}{2}$ .

That this was the scrupular coin mentioned by Pliny appears from the numeral letters XX for 20 Sesterces, on the smallest, and XXX on that of  $33\frac{1}{2}$  grains, which should be its double; and all the rest are multiples of somewhat between 17 and 18 grains, except the second, which is a Scruple and half. What the mark  $\psi$  X on that of  $51\frac{1}{2}$

33

grains

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\* Eisenschmid, p. 174, 175.

grains denotes, I cannot tell. Savot, and Hardouin\* call this figure  $\psi$  a V, and say VX stood for 15; but though the Greeks often placed their numerals from right to left, I cannot find that the Romans ever did.

These nine pieces should contain  $34\frac{1}{2}$  Roman scruples: Their weight amounts to 608 Troy grains, which, divided by  $34\frac{1}{2}$ , give  $17\frac{4}{8}$  for the Scruple; whence the Roman Pound should weigh  $5075\frac{1}{3}$ .

But these pieces are too small, and too few in number, to determine this point. Mr. Duane hath that of one Scruple, in fine preservation, weighing almost  $17\frac{1}{2}$  grains. Mr. de la Nauze hath given the weight of the piece of 3 scruples with the mark  $\psi$  X in the French king's cabinet, which he says is exactly 64 Paris grains,† equal to  $52\frac{1}{2}$  Troy, and gives  $17\frac{1}{2}$  grains for the Scruple.

This scrupular standard seems to have continued till Sulla introduced one which Pliny hath not mentioned, on account, perhaps, of its short duration. It was probably occasioned by the rise of the value of gold; for when the scrupular standard was first established, gold was worth but about ten times its weight in silver, as I shall shew hereafter; but in Sulla's time it was much dearer.

Cicero plainly alludes to this alteration in the coin, when, speaking of his kinsman Marius Gratidianus, he says, *At that time the money was in such a fluctuating state*

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\* Savot. P. III. c. 7. Hardouin's note on Pliny. This piece is 3 Roman Scruples, which valued at 60 Sesterces of  $2\frac{1}{2}$  *Asses* to the Sesterce, was worth 150 *Asses*, or 9 silver Denarii and 6 *Asses*, wanting but 2 *Asses* of  $9\frac{1}{2}$  Denarii. Now in Ptolomy's geographical tables, where the degree is divided *unciatim*, after the Roman manner; this character  $\psi$  stands for one half; therefore being placed before the X (as on the coin) it might denote  $9\frac{1}{2}$ , as I before the X stands for 9. But Mr. Duane hath a gold coin with the same mark, and of the same impression as this, which weighs but  $45\frac{1}{2}$  grains, though it seems to be perfect.

† *Memoires de l'Academie des Inscriptions*, Vol. XXX. p. 359.

*that no man knew what he had* :\* and both he and Pliny relate, that the law Gratidianus made in Sulla's absence from Rome, for the regulation of the coin, was so popular, that statues were erected to him in every street, and incense burnt before them. † The intent of this law seems to have been, to restore the ancient standard in opposition to Sulla; for it so provoked him, that, on his return to Rome, he caused all the statues to be thrown down, ‡ and Gratidianus to be cruelly butchered by the hand of Catiline. §

Three coins in the Pembroke collection bear the name of Sulla, and weigh 166, 167, and 168 grains ||. Bouteroue mentions one of 204 Paris grains ¶, equal to 167½ Troy. If thirty of these were coined out of the Roman Pound, the heaviest of the four pieces gives a Pound of 5040 grains.

The standard of forty in the pound, mentioned by Pliny, seems to have succeeded to this of Sulla, and continued to the establishment of the monarchy under Augustus; for Pliny says, *Principes imminuere pondus*; and the two heaviest pieces I can find of this standard, are, one of Pompey, in whose time it seems to have been introduced, the other of Antony and Octavius, struck after the expiration of the Triumvirate, which differ but the tenth part of a grain in weight. They are both in the British Museum, in fine preservation. The former is like coin 4 Tab. XI. of the Pembroke collection; the latter like coin 11. Tab. XII. But such as bear the name Augustus, which he assumed with the monarchy, are lighter than those of the Triumvirate.

\* Cicero de Officiis, L. III. § 20.

† Cicero, *ibid.* Pliny, Nat. Hist. L. XXXIII. c. 9.

‡ Pliny, L. XXXIV. c. 6.

§ Seneca de Ira, L. III. c. 18.

|| Tab. VIII.

¶ *Recherches curieuses des monnoyes de France.* Paris, 1666. in folio.

Pompey's coin weighs  $128\frac{1}{2}$  Troy grains, the other  $128\frac{3}{4}$ . Mr. Duane hath both these coins in fine preservation, the former weighing  $126\frac{1}{4}$  grains, the latter 127. Those in the Pembroke Collection weigh 125 grains each.

There are besides, in the British Museum, two of 125 grains, like c. 2, and 4 in Tab. IX. of the Pembroke collection; one of  $124\frac{1}{2}$  like coin 3. all very little worn; and a fourth of  $124\frac{2}{7}$  grains, like c. 4. Tab. VII. which seems to be perfect. Dr. Hunter hath two perfect gold coins, one like c. 3. Tab. VIII. weighing  $125\frac{2}{7}$  grains; the other like c. 2. Table IX. which weighs  $125\frac{1}{4}$ .

These ten coins give a mean Aureus of  $126\frac{1}{17}$  grains.

The Pembroke collection contains forty Aurei, from Pompey to the end of the Commonwealth. One of them weighs 127 grains; two  $126\frac{1}{2}$ ; six 126; and the rest from  $125\frac{1}{2}$  to 123; except two of 121, which, being probably somewhat worn, or otherwise diminished, may safely be rejected. The remaining 38 added to the ten above-mentioned, give a mean Aureus of  $125\frac{5}{8}$  grains.

But considering that thirteen of the forty-eight weigh from  $128\frac{1}{2}$  to 126 grains, and that many of the rest are probably somewhat worn, we may fairly take 126 grains for the standard weight of this coin; and the number of pieces under 125 grains, that are vouched for perfect, will not allow it to be greater.

Bouteroue mentions two perfect Aurei of Julius Cæsar, each weighing 152 Paris grains, equal to  $124\frac{1}{16}$  Troy. And Greaves in his first Table hath marked three of Julius for perfect, which weigh  $122\frac{1}{7}$ ,  $123\frac{7}{17}$ , and  $124\frac{1}{4}$  grains.

If the Aureus of forty in the Pound weighed 126 Troy grains, the Roman Pound must weigh 5040.

The weight of this coin was gradually diminished by the Emperors, till in Pliny's time forty-five were struck out of the Pound. He died in the reign of Titus; and the mean Aureus of Greaves's table from Nero to that

Prince, inclusive, is under 112 grains. That of the Pembroke Collection for the same period amounts to 113; but Nero's coins (contrary to Hardouin's reading of Pliny's text) appear to have been heavier than those of Vespasian or Titus.

Snellius, in his book *De re numaria*, hath given the weights of eleven Aurei, from Nero to Commodus, which he says were all as perfect as when they came from the mint. The lightest weighed 149 Dutch grains, the heaviest 153: which answer to  $110\frac{1}{2}$  and  $113\frac{1}{2}$  Troy. The mean taken from all the eleven, is almost 112 Troy grains.

Bouteroue found the Aureus from Nero to Septimius Severus, to weigh from 133 Paris grains to 138; that is, from  $109\frac{1}{10}$  to  $113\frac{1}{4}$  Troy. The mean of these two weights is  $111\frac{3}{10}$  grains.

This standard continued beyond the reign of Septimius Severus; and the Pembroke coins from Nero to that time, give a mean Aureus of almost 112 grains. But we cannot suppose all of them to be perfect. Greaves's tables make it  $113\frac{3}{4}$  for the same period; but four of his pieces of Hadrian and the Antonines weigh from  $117\frac{3}{4}$  to 121 grains; which is an uncommon weight for that age, and might possibly proceed from an alteration of the standard, which did not continue long. Excluding these four, the rest give a mean Aureus of  $112\frac{1}{4}$  grains.

Eisenschmid weighed a great number of such as seemed perfect to the naked eye, and found the best of them to exceed 136 Paris grains, or  $111\frac{5}{8}$  Troy. But, upon examining them with a glass, they all appeared somehow damaged; which, says he, in so heavy a metal, might amount to the loss of a grain or two.\* But the loss of less than a grain is very discernible, without the help of a glass.

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\* Eisenschmid, p. 34.

Upon the whole, if the standard weight of the imperial Aureus of forty-five in the Pound, did not exceed 112 grains, the Roman Pound will weigh 5040 Troy grains, as we found it from the consular Aureus.

Alexander Severus coined pieces of one half and one third of the Aureus, called Semisses, and Tremisses\*; whence the Aureus came to be called Solidus, as being their integer.

Soon after the reign of this prince, the coinage became very irregular, till Constantine entirely new modeled it, by coining 72 Solidi of four Scruples, out of the Pound of gold†, and for the Denarius substituting the Miliarensis, of which I shall give some account hereafter.

Greaves's second table exhibits twenty-nine of these Solidi from Constantine to Heraclius, weighing from  $67\frac{1}{4}$  grains to  $70\frac{3}{4}$ . The mean from the twenty-nine pieces is 69 grains, which, multiplied by 72, gives but 4968 grains for the weight of the Roman Pound. But if the standard weight of this coin amounted to 70 grains, the Pound will weigh 5040, agreeable to what we found it from the Aurei.

The Pembroke Collection contains 57 of these pieces from Constantine to Justinian. Five of them amount to 70 grains, and 29 to 69; the rest are lighter, even to 64 grains. But we do not know what preservation they are in. And unless the standard weight of this coin amounted

\* Lampridius, in Alex. Severo.

† Siquis solidos appendere voluerit, auri cocti VI solidos quaternorum scrupulorum, nostris vultibus figuratos, adpendat pro singulis unciis, XII. pro duabus: eadem ratio servanda & si materiam quis inferat, ut solidos dedisse videatur. Cod. Theod. de Ponderatoribus, § 1. Again, Illud autem cautionis adjicimus, ut quotiescunque certa summa solidorum pro tituli quantitate debetur, & auri massa transmittitur, in LXXII solidos libra feratur accepta. Cod. Justin. L. X Tit. 70. de Susceptoribus, § 5.

to 70 Troy grains, Constantine's Pound must have been somewhat deficient of the ancient standard.

Having thus given as compleat an account of the Roman gold, as I have been able to collect from authors of credit, and my own observation, I shall proceed to examine the evidence we have of the weight of their silver money.

The Consular silver is so unequal, that the Romans must have been very negligent in sizing their pieces. Villalpandus tells us, that weighing many Denarii of the same form, inscription, and apparent magnitude, and so like to each other, that they seem to have been struck, not only in the same age, but even on the same day, he found them to differ in weight, 5, 9, or 10 grains from each other.\*

There is a piece in the Pembroke Collection, Coin 2. P. 3. Tab. 18, with the head of Roma, and X, the mark of the Denarius, on one side, on the other Castor and Pollux, with ROMA in the exergue, which weighs 81 grains. Another with the like impress on each side, and V. the mark of the Quinarius behind the head, which weighs 33 grains. A third in the same page hath the mark XVI. behind the head of Roma, a biga on the reverse, with ROMA in the exergue, which weighs but 54 grains. As these pieces seem to be exhibited chiefly on account of their uncommon weight, we must suppose the lightest to be perfect.

In the British Museum is a coin like the tenth in P. 3. Tab. 2. of the Pembroke Collection, which weighs above 73 grains. Another like the second in P. 3. Tab. 18.

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\* Cum plures Denarios appenderemus ejusdem formæ, inscriptionis, & penè magnitudinis, atque ita similes, ut non solum eodem tempore, sed eodem prorsus die, percussos fuisse conjiceret, tamen eos deprehendimus quinis, novenis, aut denis granis pondere a se invicem distare. Villalp. De apparatu urbis & templi, p. 357. Ten Roman grains are equal to about 7½ Troy.

which weighs  $66\frac{1}{2}$  grains; and a third, which seems perfect in all respects, with the head of Roma and X on one side, on the other a Quadriga with the inscription CN.GE, which weighs but 55 grains.

It is difficult to account for these differences in the weight of the same coin, especially as Pliny seems to have been ignorant of such inequalities; for he tells us of an Eastern King, that wonderfully admired the justice of the Romans in coining all their Denarii of the same weight, though the impresses shewed them to be the money of different Emperors.\* Perhaps the King only admired the invention of coining, which was not known in his country; but Pliny, who tells the story, certainly supposed all the Denarii were of equal weight.

Perhaps the heavy pieces of 73 and 81 grains were struck at the mint for private persons, to give away in presents on Birth-days, and New-years, as was the custom at Rome; and some of them may be modern forgeries: but the light pieces of 54 and 55 grains, must have been owing to the negligence or roguery of the coiners; though some of these too may be counterfeits.

The following Table exhibits the weights of forty-six of the fairest Denarii in the British Museum. Such of them as are marked with two dots, are a little worn, though very little. The Bigati and Quadrigati are distinguished by the letters B. and Q.

Troy grains.		
66,5 :	61,15	
66,1	61,12 :	
64,15 :	61,12	
63,33	61,1 :	Q
63,15 :	61,07 :	B
63,07 :	60,85 :	
63,05	60,75	
62,7	60,5 :	B
40		62,43 : Q

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\* Pliny, Nat. Hist. L. VI. c. 22.

62,43 : Q	60,33 : B
62,27	60,3 : Q
61,95	60,2 : B
61,93 :	60,05
61,8 :	59,95 :
61,8 B	59,15 : B
61,73 :	58,92 : Q
61,73 :	58,85 :
61,55 : Q	58,67 : Q
61,52 Q	58,2 Q
61,5 :	58,15
61,5	57,37 :
61,35	56,87 :
61,33	56,55 Q
61,2	55,0 Q

46)2803,86 Sum total.

60,95 Mean Denarius.

The mean weight of the Denarius from all these pieces is 60,95 Troy grains; therefore, had all of them been perfect, it might have exceeded 61 grains. But the mean from the twenty-one that are so, amounts but to 60,92. Either of them comes very near to what Eisenschmid found it by the like method; though he rejected some pieces for no other reason but because he thought them too light.

But a mean from pieces so unequally sized is not to be relied on. And it may be questioned whether those of above 63 grains ever passed as common coin. Greaves, who had examined many hundred Denarii Consulares, says the best amounted to 62 grains; but had he met with any of 63, or even of  $62\frac{1}{2}$ , it cannot be doubted that he would have mentioned them in support of his Denarius of  $62\frac{3}{4}$  grains from the Congius. Therefore the pieces of 63 grains and upward must be very uncommon, whereas they make above a seventh part of the number in this table.

Hence I conclude, that the mean derived from this table is of very small authority.

But if we take 5040 Troy grains for the weight of the Roman Pound, as determined from the Gold coins; the scruple will weigh  $17\frac{1}{2}$  grains; the Consular Aureus, 126; the Imperial Aureus, 112; and the Solidus, 70: all which are probable weights of the several coins; and the Consular Denarius of 84 in the Pound will weigh just 60 Troy grains

And this must be very near its true standard weight; for were we to add only half a grain to it, the Consular Aureus would exceed 127 grains, which is certainly too great a weight for that coin.

Though Pliny gives no particular account of any alteration in the weight of the Denarius, it was undoubtedly diminished by the Emperors as well as the Aureus, though by what degrees is uncertain; for Galen tells us, that the writers on weights and measures differed in the number of Drachms [*Denarii*] they assigned to the Ounce; most of them making it to contain  $7\frac{1}{2}$ , some but 7, and others 8.\* The later writers make it contain 8 Denarii, of 3 scruples each †

Greaves “found by examining many Imperial Denarii, that from Augustus’s time to Vespasian they continually “almost decreased, till, from being the seventh part of “the Roman Ounce, they came now to be the eighth part: “and therefore 96 were coined out of the Roman Libra, “whereas before, under the Consuls, 84. From Vespasian “to Alex. Severus, as far as he had observed, the Silver “continued at a kind of stay in respect of weight, except- “ing only such coins as upon some extraordinary occasion, “both then, and in the first Emperors time, were stamped, “either in honour of the Prince, or of the Empress and “Augusta familia, or else in memory of some eminent

\* Galen, de med. comp. sec. genera, L. III. c. 3.

† Rhemnius Fannius, Cleopatra, Dioscorides, &c.

“ action. These last most usually were equal to the  
“ Denarii Consulares, and many of them had these cha-  
“ racters EX. S. C, or else S. P. Q. R. Under Severus  
“ and Gordianus, the Denarii began to recover their primi-  
“ tive weight, but most commonly with a notable debase-  
“ ment, and mixture of allay.”\* Eisenschmid hath given  
the like account of the Imperial Denarius, and says he  
found its weight from Nero to Sep. Severus, to be to the  
Consular Denarius in the proportion of 7 to 8.†

Having determined the weight of the ancient Roman  
Pound from the gold coins, to be 5040 Troy grains, it  
seems requisite to say something concerning the heavy  
weights exhibited by Gruter and Fabretti, which are irre-  
concilable to every other evidence.

Those with inscriptions are not older than the reign of  
Augustus; but neither his coins, nor those of his succes-  
sors, will by any means answer to such standards.

Fabretti's mean pound of 5500 Troy grains, exceeds  
Auzout's mean Pound from the Congius by above three  
fourths of the antient Roman Ounce, though that vessel  
is greater than can be derived from the greatest probable  
measure of the antient Roman foot.

The weight of spring-water contained in the cube of  
half that foot (which was the legal measure of the Con-  
gius) is thus determined.

According to Eisenschmid's Table of specific gravities,‡  
a cubic Paris inch of spring-water should weigh 374  
Paris grains in winter, when liquors are heaviest. There-  
fore the cube of half the Paris foot (or 216 cubic Paris  
inches) must weigh 80784 such grains.

The greatest probable measure of the antient Roman  
foot, does not exceed 974 such parts as the Paris foot con-  
tains  $1065\frac{2}{3}$ .§

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\* Greaves, p. 113.

† Eisenschmid, p. 33.

‡ Eisenschmid, p. 175.

§ See the Discourse on the Roman Foot, Phil. Trans. Vol LI

And as the cube of the Paris foot, is to the cube of the Roman foot, so are 80784 Paris grains, to 61725½ such grains, the weight of the spring-water contained in the cube of half the Roman foot.

But 61725½ Paris grains, are equal to 50634 Troy; therefore the Roman Pound, according to this calculation, should weigh 5063½ Troy grains, exceeding that derived from the coins, but by 23½ such grains.

If, on the other hand, we take Fabretti's Pound of 5500 Troy grains (equal to 6704½ Paris) and reckon the weight of a cubic Paris inch of spring-water 374 Paris grains (as before), a Congius of ten such Pounds will require a Roman foot of 1001 such parts as the Paris foot contains 1065½; which exceeds any probable measure of that foot.

Thus these heavy weights neither agree with the Roman money nor with the Congius; which is a circumstance not easily to be accounted for, as the authorities for the larger Pound are indisputable, and we do not know that the Romans used two weights like our Troy and Averdupois.

The Denarius continued to be the current silver money of the Empire, till Constantine substituted the Miliarensis in its stead.

The price of gold had been increasing a considerable time before his reign, which made a new regulation of the money necessary. For this purpose, Constantine divided the Pound of gold into seventy-two solidi,\* which was a more commodious number than either 40 or 45, as it divided the Ounce and half Ounce without a fraction. He likewise altered the weight of the silver coin, and fixed the price of the Pound of gold at 1000 pieces of his new silver, which were thence called Miliarenses.† This he seems

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\* See the Theod. and Justinian Codes quoted in p. 562.

† Glossæ nomicæ, quoted by Gronovius, L. IV. c. 16. de pecunia vetere.

to have done in imitation of the ancient coinage; for when the Aureus of forty in the Pound passed for 25 Denarii, the Pound of gold passed for 1000.

But it was attended with this inconvenience, that his Solidus could not be exchanged for its true value in silver; for 1000 divided by 72 is 13 $\frac{2}{3}$ ; but it passed for 14,\* which was more than it was worth, and made two prices of gold at the same time; one the legal price of 1000 Miliarenses for the Pound; the other, the current price, of 14 for the Solidus. which must have occasioned disputes in the payment of small sums.

To remedy this inconvenience, it was thought proper to alter the weight of the silver money, and having fixt the price of the Pound of silver at five Solidi,† to coin 60 pieces out of it ‡; which retained the name Miliarenses, though the Pound of Gold was worth but 864.

A scholiast on the Basilics tells us, that “One Siliqua [of gold] is worth 12 Folles [of copper], or half a Miliarensis: therefore 12 Siliquas are half a Solidus, for the whole Solidus is worth 12 Miliarenses, or 24 Siliquas.”§ The Roman Pound contained 1728 Siliquas,|| therefore there were 72 of these Solidi in the Pound; and each of them being worth 12 Miliarenses, the Pound of silver, which was valued at 5 Solidi, must have contained 60 Miliarenses.

\* See the preceding note.

† Jubemus ut pro argenti summa quam quis thesauris fuerit illaturis, inferendi auri accipiat facultatem, ita ut pro singulis libris argenti, quinos Solidos inferat. Cod. Theod. De argenti pretio, & Cod. Justin. L. X. Tit. 76.

‡ Cum publica celebrantur officia, sit sportulis nummus argenteus, —nec majorum argenteum nummum fas sit expendere, quam qui formari solet, cum argenti libra una in argenteas sexaginta dividitur. Cod. Theod. De expensis ludorum.

§ Χρῆ γινώσκειν ὅτι τὸ ἐν κεράτιον φύλλεισ εἰσὶ εἴς, ἦτοι μιλιαρησίου τὸ ἥμισυ· τὰ οὖν εἴς κεράτιά ἐστὶ νομίσματος ἥμισυ· τὸ δὲ ἀκέραιον νόμισμα ἔχει μιλιαρῆσια εἴς, ἦτοι κεράτια κδ'. Schol. in L. XXIII. Βασιλικῶν, apud Gronov. L. IV. c. 16. De pecunia vetere.

See Rhemnius Fannius, and others.

How many Miliarenses Constantine coined out of the Pound of silver is no where said; but if the price of Gold was nearly the same in his reign, as when 5 Solidi were worth a Pound of silver, the Pound must have been worth  $14\frac{2}{3}$  Pounds of silver; and 1000 divided by  $14\frac{2}{3}$ , gives  $69\frac{4}{3}$  for the number of Miliarenses coined out of the Pound. Therefore it is probable Constantine's number was either 69 or 70. If the former, each piece should weigh  $73\frac{8}{33}$  Troy grains; if the latter,  $72\frac{3}{10}$ .

Eisenschmid found the larger silver of Constantine to come up to 90 Paris grains, or  $73\frac{83}{100}$  Troy; but the smaller (which should be its half) seldom amounted to 40 Paris grains, or  $32\frac{1}{2}$  Troy; which leaves it uncertain whether 69 or 70 of these Miliarenses were coined out of the Pound. If 69, the proportion of gold to silver was almost  $14\frac{1}{3}$  to 1; if 70,  $14\frac{2}{3}$  to 1.

In the Glossæ nomicæ, quoted by Gronovius and others, we have an attempt to settle the exchange between the two Miliarenses and the Solidus. The Glossographer, giving an account of the different sums called Folles, says, "There is likewise another Follis, consisting of the " smaller silver which was paid to the soldiers, and thence " called Miliarenses, each of which is worth  $1\frac{3}{4}$  Siliquas " [of gold], and the Follis contains 125, which makes 218 " Siliquas and 9 nummi; or 109 of the Miliarenses now " current and 9 nummi; which are worth 9 Solidi, 1 Mili- " arensis, and 9 nummi, and the Purse of 125 pieces of " this lesser silver, was called a Follis."\*

This Gloss appears to come from a different hand from that before quoted, by the absurd etymology here given of the word *Μιλιαρήσιον*; and the author did not understand his subject. For the Miliarensis of 60 in the Pound, was undoubtedly worth 2 Siliquas of gold, and if Constantine's was worth  $1\frac{3}{4}$  when this Glossographer

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\* Glossæ nomicæ apud Gronov. L. IV. c. 16.

wrote, the two coins must have been in the proportion of 8 to 7, and the exchange made in smaller numbers without fractions; for 7 Solidi being worth 84 of the new Miliarenses, would exchange for 96 of Constantine's.

But this Follis of 125 Miliarenses, seems to have been intended for a more correct adjustment of Constantine's silver to his gold than 14 Miliarenses for the Solidus; for it was the true value of 9 Solidi, which, at the rate of 14 for the Solidus, should have exchanged for 126, which was one more than they were worth. And nine was the least number of Solidi that could be exchanged for their true value in Constantine's silver; which this glossographer seems not to have known. For the Roman Pound containing 1728 Siliquas, Constantine's Miliarensis was worth but the thousandth part of them, or  $1\frac{728}{1000}$ , which multiplied by 125 make just 216 Siliquas without a fraction, which were equal to 9 Solidi. Or, supposing the proportion of Gold to silver the same when the new Miliarenses were coined, as when the old ones were, 1000 of the latter and 864 of the former, being each worth a Pound of gold; divide both numbers by 8, and we shall have 125 of the old, worth 108 of the new, which passed for 9 Solidi.

Having mentioned the Follis, I shall endeavour to explain what it was. The word is Latin, and it anciently signified a little bag, or purse; whence it afterward came to be used for a sum of money, and very different sums were called by that name. Thus, the Scholiast on the Basilics mentions a Follis which was worth but the 24th part of the Miliarensis; the Glossæ nomicæ, one of 125 Miliarenses, and another of 250 Denarii (which was the ancient Sestertium); and three different sums, of 8, 4, and 2 pound of gold, were each called a Follis.\*

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\* See the Glossæ nomicæ, quoted by Gronovius near the end of c. 16. of L. IV.

The Glossographer last quoted makes 9 Nummi equal to  $\frac{3}{4}$  of a Siliqua; for  $1\frac{1}{2}$  multiplied by 125, is  $218\frac{3}{4}$ , which he calls 218 Siliquas, and 9 nummi. Therefore 12 nummi were equal to a Siliqua; but the scholiast on the Basilics makes 12 Folles equal to a Siliqua; consequently this Nummus and the scholiast's Follis are the same.

The Scholiast tells us, the Miliarensis was equal to 24 Folles of copper, therefore the Ounce of silver containing 5 Miliarenses of 60 in the pound, was worth 120 such Folles.

The Glossographer, describing a Follis of 250 Denarii, says, it was equal to 312 Pounds, 6 Ounces of copper\*. The Denarius of that age was the eighth part of an Ounce, therefore an ounce of silver must have been worth 120 Ounces of copper.

But according to the Scholiast, the Ounce of silver was worth so many Folles; therefore the Scholiast's Follis was an Ounce of copper. And this Follis being equal to the Glossographer's Nummus, that Nummus was likewise an Ounce of copper.

By a Rescript of Arcadius and Honorius in the Theodosian Code, the treasury was empowered to receive  $\alpha$  Solidus for 25 Pounds of copper,† which sets the price of that metal at the 125th part of its weight in silver. But the same Rescript in Justinian's Code ‡ for XXV *libris æris*, hath XX *libris æris*. Both cannot be right, perhaps neither; and the true reading may be XXIV *libris æris*, agreeable to these commentators.

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\* Φόλλις σταθμός ἐστὶ, λεγόμενος καὶ βαλάντιον ἔλκει δὲ δηνάρια διακόσια πενήκοντα, τούτ' ἐστὶ λίτρας τρεῖς, καὶ οὐγγίας ἕξ, ὡς ἔχοντος ἐκάστου δηναρίου λίτραν ἅ καὶ οὐγγίας γ'. Glossæ nomicæ, apud Gronov. L. IV. c. 16.

† *Æris pretia quæ a provincialibus postulantur, ita excipi volumus, ut pro XXV. libris æris, Solidus a possessore reddatur.* Cod. Theodos. de collatione æris.

‡ Cod. Justin. L. X. Tit. 29.

Eisenschmid found Constantine's copper money to weigh a quarter of a Roman Ounce;\* therefore the Scholiast's Follis, and the Glossographer's Nummus contained four of them, as the ancient Nummus contained four *Asses*; but whereas the Denarius formerly passed for four Nummi, it now passed for 15, and the writers of this age say it passed for 60 *Asses*.†

§ 4. *Of the value of Gold in Greece and Rome.*

Herodotus reckons the value of gold to silver in the proportion of 13 to 1.‡ Plato, who wrote about fifty years after him, says it was 12 times the value of silver §; and Xenophon, Plato's contemporary, relates that Cyrus paid Silanus the Ambraciot 3000 Darics for the ten talents he had promised him ||; which being Babylonian talents, agrees with Plato's estimate, as I have shewn above.

After the conquest of Asia by Alexander, the immense treasures of the Kings of Persia circulating in Asia and Greece, reduced the price of gold to ten times its weight in silver, at which it seems to have continued two hundred years, or more.

The Romans did not coin gold till above a hundred years after the death of Alexander: and Pliny gives the following account of its first coinage. *Aureus nummus post annum LXII percussus est quam argenteus, ita ut scrupulum valeret Sestertiis vicenis: quod effecit in libras, ratione Sestertiorum qui tunc erant, Sestertios DCCCC.*¶ Now if the Scruple was valued at 20 Sesterces, the Pound, instead of being worth 900, must have been worth 5760

\* Eisenschmid, p. 141.

† Hero, Epiphanius, &c.

‡ Herodotus, L. III. § 95.

§ Plato in his Hipparchus.

|| Xenophon in his Expedition of Cyrus, L. I.

¶ Pliny Nat. Hist. L. XXXIII. c. 3.

such Sesterces: but if for *Sestertios* DCCCC, we read *Denarios* DCCCC, the account will be clear and intelligible. The words *ratione Sestertiorum qui tunc erant*, imply that the Sesterce of that age was different from the Sesterce of Pliny's time: but the quarter of the silver Denarius, or Nummus Sestertius of 4 *Asses*, was the same at both times, and we know of no other Sesterce but the ancient one of  $2\frac{1}{2}$  *Asses*. Twenty such Sesterces make 50 *Asses* for the value of the Scruple of gold; which multiplied by 288 (the number of Scruples in the Roman Pound) give 14400 *Asses* for the value of the Pound of Gold. And reckoning 16 *Asses* to the *silver* Denarius (which it passed for at the time of this coinage) 14400 *Asses* make just 900 such Denarii; which is Pliny's number.

That the Romans kept their accounts in copper Sesterces of  $2\frac{1}{2}$  *Asses*, long after the silver Sesterce passed for 4, appears not only from this passage, but from what Pliny says of the pay of the Army, that notwithstanding the *silver* Denarius passed for 16 *Asses*, it was paid to the soldier for 10: which implies that the Quæstor's accounts were kept in copper money, as all the public accounts probably were. Cæsar is said to have doubled the pay of the soldiers,\* and it appears from the account Tacitus gives of the mutiny of the legions in Pannonia,† that at the accession of Tiberius to the empire, their pay was but ten *Asses* a day; and they demanded a Denarius, not upon pretence that the legionary soldiers had ever received so much, but that ten *Asses* were not an equivalent for the dangers and hardships a soldier underwent. Hence 5 *Asses* appear to have been their pay before Cæsar raised it; but if this was their pay on the Quæstor's book, they actually (according to Pliny) received a Quinarus of 8

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*Asses*,

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\* Suetonius in Julio, c. 26.

† Taciti Annal. L. I. § 17.

*Asses*, and Cæsar only nominally doubled it; which is more probable than that their pay at the time he raised it, should be under two-pence three-farthings English a day. Polybius tells us, that in his time the pay of a Roman foot soldier was two Oboles a day; that of a centurion twice as much; and that of a horseman a Drachm (or Denarius).\* This must be understood of what they received, not of their nominal pay on the Quæstor's book. The foot soldier, therefore, was paid at the rate of  $5\frac{1}{2}$  *Asses* a day, which, in a country where a traveller might have his lodging and all necessaries on the road for half an *As*,† would be great pay, had not their cloathing, arms, and tents, been deducted out of it, as they were.‡ But both the public and private riches of the Romans were increasing very fast when Polybius wrote, and the prices of all the necessaries of life must have increased in proportion, therefore it is probable that the soldier's pay was raised to 5 *Asses* on the Quæstor's book, for which they received a Quinari<sup>us</sup>, before Cæsar augmented it.

If the Pound weight of gold was worth 900 Denarii, 84 of which were coined out of the Pound of silver, the value of gold to silver must have been in the proportion of 900 to 84, or as  $10\frac{5}{7}$  to 1. And if this was the value of gold at Rome sixty-two years after their first coinage of silver, it proves that no fewer than 84 Denarii were then coined out of the Pound. Now by an article in the treaty with the Etolians, about eighteen years after this first coinage of gold at Rome, that people were permitted to pay one third of their tribute in gold, at the rate of one Pound of gold for ten of silver.§ Therefore gold was then but ten times the value of silver in Greece; and it could not be

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much

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\* Polybius, L. VI. p. 484 of Casaubon's edition.

† Polybius, L. II. p. 103.

‡ Polybius, L. VI. p. 484. Taciti Annal. L. I. § 17.

§ Polybius, Excerpt. Legat. § 28. Livy L. XXXVIII.

much higher at Rome, where silver was esteemed the more useful metal, as appears by the limitation of the sum to be paid in gold, to one third of the whole; and Pliny observes, that the Romans always required the tribute they imposed on conquered countries should be paid in silver, not in gold;\* therefore it is not probable that gold should bear a much higher price at Rome than elsewhere, as it would, according to this account of its first coinage, if fewer than 84 Denarii were coined out of the Pound of silver.

There is another passage in Pliny relating to the value of gold, which requires correction. Speaking of the Byssine thread, he says, *Quaternis denariis scripula ejus permutata quondam, ut auri, reperio.*† When 96 Denarii were coined out of the Pound, each of them weighed 3 Scruples; therefore 4 Denarii weighed 12 Scruples, which was nearly the value of a Scruple of gold when Pliny wrote. But Pliny knew no such Denarius; for he says, the lawful weight of that coin was the eighty-fourth part of the Pound; besides, he speaks here of former times. Therefore for *Quaternis*, we should read *Ternis*; for 3 Denarii of 84 in the Pound weighed 10‡ Scruples, which was nearly the ancient value of a Scruple of gold.

From a passage in Tacitus, compared with Suetonius, we learn that in Galba's time the Aureus passed for 25 Denarii; the former says—*ut per speciem convivii quoties Galba apud Othonem epularetur, cohorti excubias agenti viritim centum nummos divideret*; which the latter expresses thus, *quoties caena principem exciperet, Aureos excubanti cohorti viritim dividebat.*‡ But 100 Nummi were equal to 25 Denarii; therefore when 40 Aurei were

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coined

\* Pliny, Nat. Hist. L. XXXIII. c. 3.

† L. XIX. c. 1.

‡ Taciti Hist. L. I. § 24. Suetonius in Othone, c. 4. See also Dio Cassius, L. LV.

coined out of the Pound of gold, and 84 Denarii out of the Pound of silver, the Pound of gold passing for 1000 Denarii, was worth  $11\frac{1}{8}$  Pounds of silver.

When the Aureus of 45 in the Pound passed for 25 Denarii of 96 in the Pound, the proportional value of gold to silver was as 375 to 32, or a little under  $11\frac{3}{4}$  to 1.

Suetonius tells us, that Cæsar brought so great a quantity of gold from Gaul, that he sold it throughout Italy and the Provinces for 3000 nummi the Pound.\* 3000 nummi make 750 Denarii; and 750 is to 84, as  $8\frac{1}{4}$  to 1. This was its price as merchandize, when the market was overstocked, and the seller in haste to dispose of his goods; but what effect it had on the coin, we do not know.

By the diminution of the Aureus for above half a century before the reign of Constantine,† the price of gold appears to have been rising, till it came to above 14 times its weight in silver; for five Solidi of 72 in the Pound, being valued at a Pound of silver ‡, the proportion between the two metals was as  $14\frac{2}{7}$  to 1.

§ V. *Of the value of the ancient Greek and Roman money.*

IT does not appear that either the ancient Greeks or Romans allayed their money, but coined the metals as pure as the refiners of those times could make them: for though Pliny mentions two instances of the contrary at Rome,§ the example was not followed, till the later Emperors debased the coin: and his expression, *miscentur æra falsæ monetæ*, shews he thought the practice illegal.

Though the ancients had not the art of refining silver, in so great perfection as it is now practised, yet, as they mixed no base metal with it, and esteemed what they coined to be fine silver, I shall value it as such.

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\* Suetonius in Julio, c. 54.

† See the Pembroke Collection, from Tab. XX. to XXIV.

‡ See Cod. Justinian. L. X. Tit. 76. quoted above.

§ Pliny Nat. Hist. L. XXXIII. c. 3. & c. 9.

Sixty-two English shillings are coined out of 11 ounces 2 p. wt. Troy of fine silver, and 18 p. wt. alloy. Therefore, the Troy grain of fine silver is worth  $\frac{6}{111}$ ths of a Farthing. Hence the Attic Drachm of  $66\frac{1}{4}$  grains will be found worth a little more than Ninepence farthing; the Obolus, a little more than Three half-pence; and the Chalcus, about  $\frac{1}{4}$ th of a Farthing.

But, for the reduction of large sums to English money, the following numbers are more exact.

	£.	s.	d.
The Attic Drachm . . . . .	0 .	0 .	9,286
The Mina . . . . .	3 .	17 .	4,6
The Talent . . . . .	232 .	3 .	0 .

Hence the Mina expressed in Pounds Sterling and decimals of a Pound will be £3.869; the Talent £232.15.

The Romans reckoned by *Asses* before they coined silver, after which they kept their accounts in Sesterces. The word Sestertius is an adjective, and signifies two and a half of any substantive to which it refers. In money matters its substantive is either *As*, or *pondus*; and Sestertius *As*, is two *Asses* and a half; Sestertium *pondus*, two *pondera* and a half, or 250 *Denarii*.\*

When the *Denarius* passed for ten *Asses*, the Sesterce of  $2\frac{1}{4}$  *Asses* was a quarter of it; and the Romans continued to keep their accounts in these Sesterces long after the *Denarius* passed for sixteen *Asses*; till, growing rich, they found it more convenient to reckon by quarters of the *Denarius*, which they called *Nummi*, and used the words *Nummus* and *Sestertius*, indifferently as synonymous terms, and sometimes both together, as *Sestertius nummus*; in which case, the word *Sestertius*, having lost its original signification, was used as a substantive; for *Sestertius nummus* was not two *Nummi* and a half, but a single *Nummus* of four *Asses*.

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\* See Gronovius, De pecunia vetere, L. I. c. 4.

They called any sum under 2000 Sesterces so many Sestertii, in the masculine gender; 2000 Sesterces they called duo or bina Sestertia, in the neuter; so many quarters making 500 Denarii, which was twice the Sestertium; and they said dena, vicena, &c. Sestertia, till the sum amounted to a thousand Sestertia, which was a million of Sesterces. But, to avoid ambiguity, they did not use the neuter Sestertium in the singular number, when the whole sum amounted to no more than 1000 Sesterces, or one Sestertium.

They called a million of Sesterces Decies nummum, or Decies Sestertiûm, for Decies centena millia nummorum, or Sestertiorum (in the masculine gender) omitting centena millia, for the sake of brevity: they likewise called the same sum Decies Sestertium (in the neuter gender), for Decies centies Sestertium, omitting Centies for the reason above-mentioned; or simply Decies, omitting centena millia Sestertiûm, or centies Sestertium; and with the numeral adverbs, Decies, Vicies, Cénties, Millies, and the like, either centena millia, or centies, was always understood.

These were their most usual forms of expression, though for Bina, Dena, Vicena Sestertia, they frequently said, Bina, Dena, Vicena millia nummum\*; and Cicero, in the passage quoted in the margin, hath used Mille Sestertia, for Decies Sestertium. But Gronovius says, that expression is not to be found elsewhere, and supposes it to be a false reading.

If the Consular Denarius contained 60 Troy grains of fine silver, it was worth somewhat more than Eightpence farthing and a half Sterling; and the *As*, of sixteen to the Denarius, a little more than a Halfpeny.

To reduce the ancient Sesterces of  $2\frac{1}{2}$  *Asses*, when the

55

Denarius

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\* Suetonius in Julio, c. 38. Cicero in Verrem, L. I. § 14.

Denarius passed for 16, to pounds Sterling, multiply the given number by 5454, and cut off six figures on the right hand for decimals.

To reduce Nummi Sestertii, or quarters of the Denarius, to pounds sterling; if the given sum be Consular money, multiply by 8727, and cut off six figures on the right hand for decimals; but for Imperial money, diminish the said product by one eighth of itself.

For example, Cicero says, Verres had received *Vicies, ducenta triginta quinque millia, quadringentos decem & septem nummos*, or 2.235.417 Sesterces: this being Consular money, multiply by 8727, and cutting off six figures from the product, £19508.484159, or £19508. 9s. 8d. will be their value in English money.

Again, Suetonius relates, that when Vespasian came to the Empire, he found the treasury so exhausted, that he declared *Quadringenties millies*, or 40.000.000.000 nummi, were wanted to support the Government.\* This was Imperial money, which, multiplied by 8727, and cutting off six figures from the product, gives 349.080.000

One eighth of which 43.635.000

being subtracted, leaves £305.445.000 Pounds Sterling.

But Budæus supposes, that for *Quadringenties millies*, we should read *Quadragies millies*, which reduces it to £30.544.500, and is a much more probable sum.

If the Miliarenses of 60 in the pound were fine silver, and weighed 84 Troy grains, they were worth 46.918918. . Farthings and decimals, or almost 11 pence 3 farthings Sterling; and the Solidus passing for 12 of them, was worth a little more than 11s. 8d. 3f.

The Pound of gold was worth 864 of these Miliarenses amounting to 40537,94 Farthings and decimals, which,

56

divided

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\* Suetonius, in *Vespasiano*, c. 16.

divided by 1000, give 40,538, or above 10 pence and half a farthing for the value of Constantine's Miliarensis in English money.

The Constantinopolitans kept their accounts in Solidi, which are reduced to pounds sterling, by multiplying the given number by 58648, and cutting off five figures on the right hand for decimals.

C O N C L U S I O N .

THE Greeks had no money at the time of the Trojan war; for Homer represents them as trafficking by barter,\* and Priam (an Asiatic) weighs out the ten talents of gold, which he takes to ransom his son's body of Achilles.†

This ponderal Talent was very small, as appears from Homer's description of the Games at the Funeral of Patroclus, where two Talents of gold are proposed as an inferior prize to a mare with foal of a mule. Whence I conclude it was the same that the Dorian Colonies carried to Sicily and Calabria; for Pollux tells us, from Aristotle, that the ancient Talent of the Greeks in Sicily contained 24 Nummi, each of which weighing an Obole and a half, the Talent must have weighed six Attic Drachms, or three Darics; and Pollux elsewhere mentions such a Talent of gold. But the Daric weighed very little more than our Guinea; and if 2 Talents weighed about 6 Guineas, we may reckon the mare with foal worth 12; which was no improbable price, since we learn from a passage in the Clouds of Aristophanes, that, in his time, a running horse cost 12 Minas, or above 46 pounds Sterling.

Therefore, this seems to have been the ancient Greek Talent, before the art of stamping money had introduced the greater Talents from Asia and Egypt.

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\* Iliad H. ver. 472.

† Iliad Ω. ver. 232.

Herodotus tells us, the Lydians were reputed to be the first that coined gold and silver money;\* and the Talent, which the Greeks called Euboïc, certainly came from Asia. Therefore, the Greeks learned the use of money from the Asiatics.

The Romans took their weights and their money, either from the Dorians of Calabria, or from Sicily; for their *Libra*, *Uncia*, and *Nummus*, were all Doric words, their *Denarius* was the Sicilian *Δεκάλιτρον*; and Pollux tells us, from Aristotle, that the Sicilian *Nummus* was a quarter of the Attic Drachm;† and the Romans called a quarter of their *Denarius* by the same name.

The weights I have produced of the Greek and Roman coins, so fully prove the ancient Attic Drachm to have been heavier than the *Denarius*, that it may seem superfluous to quote any authorities in support of their evidence: nor should I do it here, but in order, at the same time, to answer an objection which may be made to the weight I have assigned to the Attic Drachm.

In the treaty between the Romans and Antiochus, recorded by Polybius and Livy,‡ the weight of the Euboïc talent is set at 80 Roman Pounds. The Talent is not, indeed, called Euboïc, in the treaty, which was superfluous when its weight was specified: but both historians, in relating the terms offered by Scipio to Antiochus, on which this treaty was founded, call it so.§ Therefore in Livy's recital of the treaty, for *Argenti probi XII millia Attica talenta*, we should read with Gronovius, *Argenti probi Attici XII millia talenta*.

In § II of this discourse, I have endeavoured to prove that the Euboïc Talent was equal to the Attic; and if so,

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\* Herodot. L. I. § 94.

† See Pollux, L. IX. c. 6. § 80, 81. 87. & L. IV. c. 24. § 175.

‡ Polybius, Excerpt. Leg. § 35. Livy, L. XXXVIII. c. 38.

§ Polyb. Exc. Leg. § 24. Livy, L. XXXVII. c. 45.

it contained 6000 Attic Drachms ; but 80 Roman pounds contained 6720 Denarii; therefore, according to this treaty, the weight of the Attic Drachm must be to that of the Denarius, as 6720 to 6000.

And, even if the Euboic Talent was heavier than the Attic, in the proportion of 72 to 70, the Attic Drachm would still be heavier than the Denarius; for in that case, the Euboic talent should contain 6171 Attic Drachms, and the two coins would be in the proportion of 6720 to 6171.

But an anonymous Greek fragment published by Mont-faucon,\* makes 100 Attic Drachms equal to 112 Denarii; which proportion of the two coins being the same with that of 6000 to 6720, seems to have been taken from this treaty; and if it was, that writer certainly thought the Talent therein mentioned, equal to the Attic.

This proportion, however, does not agree with the weights I have assigned to the two coins; for if the Denarius weighed 60 Troy grains, and the Attic Drachm  $66\frac{1}{2}$ , 6650 Denarii should weigh 6000 Attic Drachms, or a Talent; but this number of Denarii is deficient of 80 Roman Pounds, by just 10 Ounces.

Now, this adjustment of the Talent to Roman Pounds, was probably occasioned by the Greeks attempting to impose light weights upon the Romans, who finding the Talent to exceed 79 Pounds, might take what it wanted of 80 in their own favour, to punish the Greeks for their unfair dealing. Or, the standard the Romans pitched upon for the Euboic Talent might be somewhat overweight; and the Coin of Lysimachus above-mentioned, makes this conjecture not improbable; for that in the possession of Mr. Duane weighs 537,6 Troy grains, which divided by 8 gives a Drachm of 67,2, exactly the weight

59

required

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\* *Analecta Græca*, p. 393. Paris, 1688, in Quarto.

required by this treaty, supposing the Denarius to weigh 60 grains. But the gold coins of Philip and Alexander are so perfect, and so correctly sized, that their authority is indisputable; and if the mean Drachm of  $66\frac{1}{4}$  grains derived from them were somewhat too small, it cannot be increased by above a quarter of a grain.

Therefore, I suppose the great weight given to the Talent by this Treaty, may arise partly from too heavy a standard, and partly from the Romans taking the turn of the scale in their own favour.

After the Romans became the masters of Greece and Asia, the Athenians might find it their interest to lower their Drachm to the weight of the Denarius, long before they were reduced into the form of a Roman Province, by Vespasian. When they did this, and whether they did it gradually, as may seem probable from some Tetradrachms now remaining, is uncertain; but that they did so, sooner or later, cannot be doubted.

Pliny and Scribonius Largus expressly say, the Attic Drachm was equal in weight to the Denarius:\* and A. Gellius, who, having resided long at Athens, could not be ignorant of the value of the current money of that city, says 10000 Drachms were in Roman money, so many Denarii.† And the Attic gold coin above-mentioned, in the British Museum, is a proof of their having reduced their money to the Roman standard.

These are the most authentic testimonies that the two Coins ever were equal; for though all the Greek writers of Roman affairs, call the Denarius, Drachma, it is no proof of their equality; for one being the current coin of Rome, as the other was of Athens, and not very unequal in

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\* Pliny, Nat. Hist. at the end of L. XXI. Scr. Largus, in his Preface.

† A. Gellius, L. I. c. 8. Hoc facit nummi nostratis Denarium decem millia.

value, a Greek might consider the Denarius, as the Drachma of Rome, and translate it by that word, which was familiar to his countrymen; as we call the French Ecû, or the Roman Scudo, a Crown; which hath no more affinity to the French or Italian names, either in sound or signification, than Drachma hath to Denarius.

But the opinion that the ancient Attic Drachm was really equal to the Denarius, hath occasioned much confusion in the writers on this subject. Hence it is, that Rhemnius Fannius hath told us of an Attic Libra, or Mina (for he calls it by both names) of 75 Drachms; for the Roman Pound being reckoned to weigh 75 ancient Attic Drachms, Fannius, supposing them to be equal to so many Denarii, concluded it must be an Attic weight, as it could not, on such a supposition be the Roman Pound.

An anonymous fragment says, *The Attic Mina weighs 12 Ounces, the other 16:*\* the former was the Roman Pound; the latter, the ancient Attic Mina. Which makes it probable, that when the Athenians reduced their money to the Roman standard, they adopted the Roman Weights; and this may have occasioned many mistakes in the later writers.

The great disproportion between the copper and silver money, when the Romans first coined the latter, hath induced many to believe that the first Denarii must have been heavier than the eighty-fourth part of their Pound; thinking it incredible that silver should ever be valued at 840 times its weight of copper. But they can produce no ancient author of credit, in support of this opinion.

On the contrary, Dionysius of Halicarnassus, who made diligent enquiry into the antiquities of Rome, while all, or most of the evidences relating to them were in being, giving an account of the first institution of the Classes by

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\* See the Appendix to Stephens's Greek Thesaurus, col. 219.

Servius Tullius, hath valued what the Romans called *centum millia æris*, or 100000 Pounds weight of copper, no higher than 100 Minas,\* which is at the rate of a Drachm for every 10 Pounds of copper; and this valuation he must have taken from the price of copper when the Romans first coined silver, reckoning the Denarius of that time equal to what it was when he wrote. But had the first Denarius been Didrachmal or Tetradrachmal, so well informed a writer must have known it, and would have valued the copper money accordingly. Neither is it probable that Pliny, who hath given so particular an account of the diminution of the *As*, should omit that of the Denarius.

But it is not impossible that silver might be so scarce at Rome when it was first coined there, as to bear the above-mentioned proportion to copper; and the Romans, not being a trading people, might have no regard to its value elsewhere. It is likewise probable, that, through ignorance and inexperience in money matters, they set too high a value on it at first; which seems to have been the case, by its quick reduction from 840 times its weight in copper, to 140, in less than thirty years; and again to 112 in between twenty and thirty years more; and not very long after to 56, at which price it remained during the continuance of the republican government.

But we are little interested in the weight of the Denarius for the first sixty years after it was coined; and I have shewn that when the Romans began to coin gold, it did not exceed the eighty-fourth part of their Pound.

The learned have differed much concerning the grammatical construction and use of the word *Pondo*; most of them have supposed it to be a neuter indeclinable; but Gronovius hath produced many authorities to shew that it

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\* Compare Dionysius with Livy.

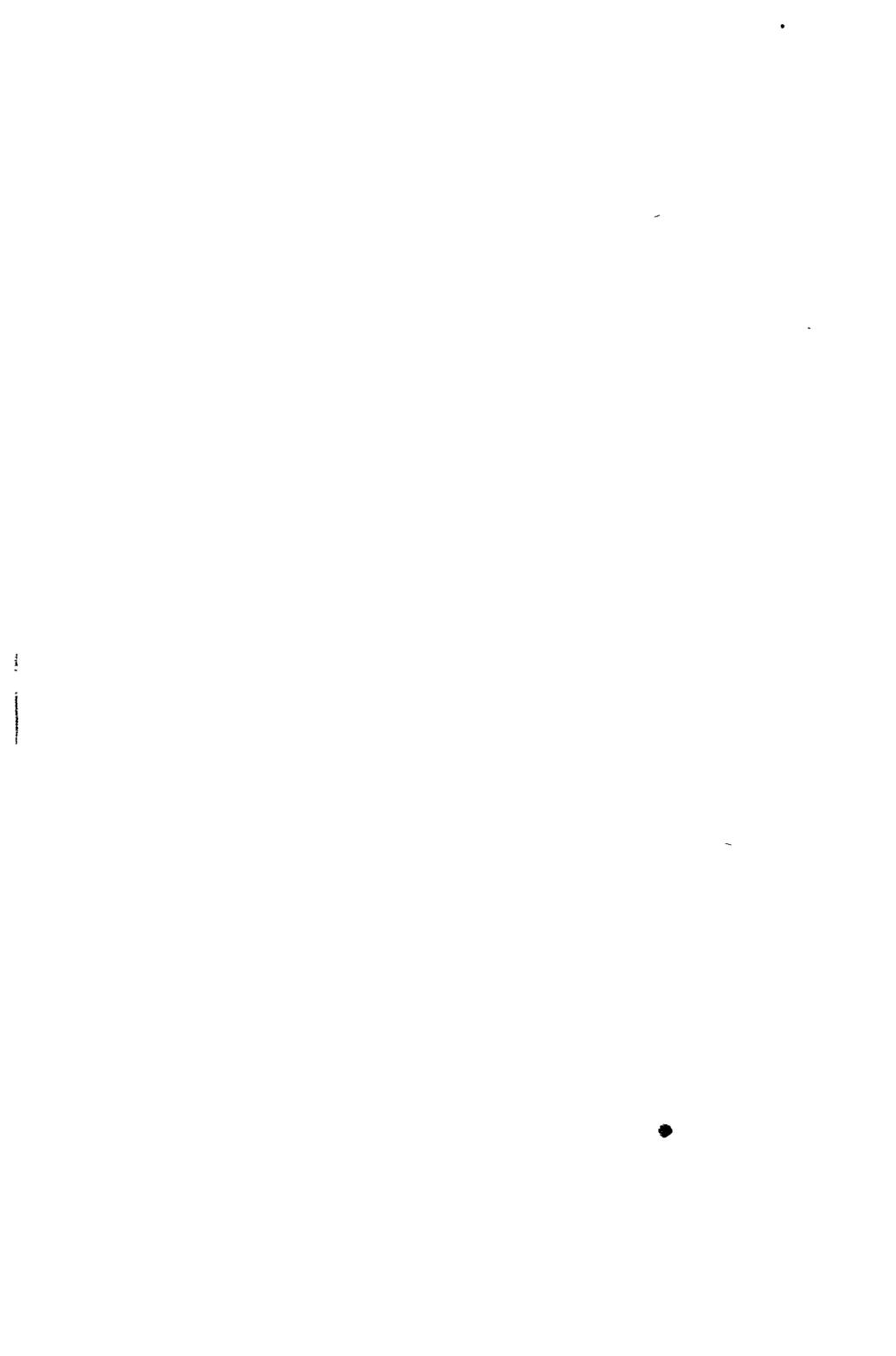
was the old ablative case of *Pondus*, *pondi*, for which they afterwards used *Pondere*. Livy has, *Coronam auream libram pondo*, and the like in many places. Columella, *medicaminis pondo unciam*. Celsus, *pondo denariorum trium*. And Plautus in *Menæchmis*, *Pondo duum nummum*. In all which *pondo* seems to be the ablative case for *pondere*. And Festus tells us, *Centenas pondo dicebant antiqui, referentes ad libras*.\* Thus Livy says, *sex millia pondo*, for, *sex millia librarum pondere*, and *Pondo bina & selibras*, for, *Pondere bina librarum pondera & selibras*. In the former of these passages, Livy seems to have valued the *Libra* at 100 *Denarii*. For relating how Scipio was accused of having received a bribe from Antiochus of *sex millia pondo auri quadringenta octoginta argenti*, he calls it in a round sum *Ducenties quadragies*, or 24,000 *Sestertia*.† Now reckoning 100 *Denarii* to the *Libra*, and the value of gold decuple that of silver, it should amount to 24192 *Sestertia*; whereas reckoning 84 *Denarii* to the *Libra*, it would amount to no more than 20352. And Plutarch in his life of Fabius, translates what Livy calls *Pondo bina & selibras*, by 250 *Drachms*, which is a *Sestertium*.

The learned Budæus, and others after him, have called this sum of 100 *Denarii*, *Libra centenaria*, and *Libra nummaria*; though he confesses he had never found either the word *Libra* or *Pondo* used to signify a sum of money; but always, when applied to gold or silver, a weight of Plate or Bullion; and how the *Libra*, which certainly weighed but 84 *Denarii* when Livy wrote, should be valued at 100, is a paradox I cannot account for.

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\* Gronovius, De pec. vet. L. I. c. 6.

† Livy, L. XXXVIII. § 55.



T A B L E S

SHOWING THE

DENOMINATIONS OF THE PRINCIPAL

GREEK AND ROMAN COINS,

AND THEIR

VALUES IN STERLING MONEY,

Page 1 of 1

# GRECIAN MONEY.

ATTIC COPPER AND SILVER.										£	s.	d.	Farthings			
92																
	Lepton (Λεπτόν) .. .. .												116			
	7	Chalcus (Χαλκοῦς) . . . . .											8125			
	14	2	Dichalcon or Quarter Obol (Δίχαλκον) .. .. .										1625			
	28	4	2	Half Obol (Ἡμισόλιον) .. .. .									325			
	56	8	4	2	OBOL (Ὀβολός) .. .. .							1	25			
	112	16	8	4	2	Diobolus (Διόβολον) .. .. .						3	10			
	168	24	12	6	3	1½	Triobolus (Τριόβολον) .. .. .					4	35			
	224	32	16	8	4	2	1½	Tetrobolus (Τετρόβολον) .. .. .				6	20			
	336	48	24	12	6	3	2	1½	DRACHMA* (Δραχμή) .. .. .			9	30			
	672	96	48	24	12	6	4	3	2	Didrachm (Διδραχμον) .. .. .		1	7	20		
	1344	192	96	48	24	12	8	6	4	2	Tetradrachm (Τετράδραχμον) .. .. .		3	3	00	
	33,600	4800	2400	1200	600	300	200	150	100	50	25	MINA (Μνᾶ) . . . . .		4	1	30
	2,016,000	288,000	144,000	72,000	36,000	18,000	12,000	9000	6000	3000	1500	60	TALENT† (Τάλαντον) 243 15 ..			

Tables of Greek and Roman Money.

\* The Drachma was very nearly equal to the French Franc. † The Aeginetan Talent was equal to £406 5s., and the Euboic to £338 10s. 10d.; the Drachmæ being equal respectively to 1s. 4½d. for the Aeginetan, and 1s. 1½d. + ¼ of a farthing for the Euboic. The Values of Grecian gold money cannot be conveniently reduced to the tabular form.







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