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AN  
ESSAY  
ON THE  
THEORY  
OF  
MONEY.

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( iii )

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T O T H E

Right Honourable LORD NORTH.

M Y L O R D,

**D**ESTITUTE as I am of parliamentary connections, I can neither oppose, nor support your administration; and therefore, have not formed the least expectations from your favour and protection: and the less so, as I am convinced, no English minister can confer an employment upon any man *merely* because he deserves it.

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The

iv DEDICATION.

The good opinion I have of your Lordship's ability and integrity is my only motive for inscribing the following Essay to you, being persuaded, that if it contains any thing useful to the nation, you will adopt and promote it.

I am,

My LORD,

Your Lordship's

Most humble Servant,

THE AUTHOR.

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Page 5.	line 5.	After the word <i>possibly</i> , dele, <i>have</i> .
47.	— 5.	Read <i>Genzis Kan</i> .
56.	— 9.	After <i>informs</i> , r. <i>us</i> .
60.	— 17.	After <i>countries</i> , add, <i>till of late</i> .
127.	— 2.	After the word <i>was</i> , dele, <i>he</i> .
141.	— 4.	After <i>remit</i> , add, <i>it</i> .
Ibid.	— 14.	After <i>by</i> , r. <i>their</i> .
142.	— 3.	After <i>and</i> , add, <i>that</i> .

## P R E F A C E.

THE doctrine of money and circulation has engaged the attention of many celebrated authors; it may therefore seem both unnecessary and presumptuous to write upon this subject. But to me the manner in which this important object has been discussed, does not appear either clear, just or general; infomuch that the soveraign, as well as the subject, are equally ignorant and embarrassed, whenever the political influence of money comes to be considered. Wherefore I propose to point out its various effects upon the

VOL. I.

B

industry

## ii P R E F A C E.

industry, manners, and the different species of governments established among mankind.

However abundant, fertile and rich a country may be, however easy the communication between its different parts, it can nourish only a small number of inhabitants and animals, if they apply to agriculture alone; because content with the mere necessaries of life, their attention will be extended no farther. Hunting, the care of their flocks, and an imperfect, and very limited, agriculture will be their only occupation; and as these require a great extent of ground, mankind will be separated into very small societies, insomuch that scarce a considerable village would, in this hypothesis, be found upon the face of the globe; arts, manufactures and commerce, cannot

## P R E F A C E. iii

cannot without money take place, but in small quantities, and of an imperfect quality. There would be neither sovereign nor subject, because every individual could by his own industry procure wherewith to satisfy his wants, and therefore could have no motive to submit to the will and caprice of another; and the less so, as no one would be so much superior in riches to others, as to be able to purchase their submission, nor any one so poor as to be obliged to sell his liberty in order to procure the necessaries of life. In a soft climate and fruitful soil, the golden age, which the poets have so much vaunted, and an almost perfect equality would reign among mankind; the odious distinctions of master and slave would be banished; age and virtue would be the only

iv P R E F A C E.

titles of honour and respect. In such circumstances, societies would be very limited, because the difficulty of transporting the productions of the earth a great way, would be an insurmountable obstacle to their increase: Rivers, mountains, seas, forests, &c. would hinder them from communicating with each other, and consequently prevent their forming an extensive society. Each small village would form a separate community, intirely unconnected with others, though only a few leagues distant; and the more so, as each finding within themselves wherewith to satisfy their necessities, they could have no motive to seek at a distance any new connections; to which we may add, that man, as well as other animals, are particularly attached to their native soil;  
 sweet

P R E F A C E. v

sweet and alluring habitude ties us to it, like a plant, which force alone can tear from its native bed. In this case, the whole earth would be occupied by small societies establish- ed upon the rivers, and sea coast. The soft and fruitful Asia would be more peopled than the rest of the globe; and the number of its in- habitants would diminish in propor- tion to their proximity to the poles, and to the line, because the fertility of the ground (and consequently the facility of subsisting) depends upon heat and humidity; the extremes of the one and the other are equally pernicious to fecundity, consequently near the line and the poles the in- habitants are few and slothful. Whenever a society becomes numer- ous, the members must separate, and occupy a greater extent of country,  
 and

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and the difficulty, as well as inutility of carrying their productions to their mother society, will force them to form a new, and separate community. Chance and curiosity, no doubt, first introduced the use of money, which by becoming an universal merchandise, and by facilitating the communication between mankind gave birth to all the arts, manufactures, sciences, and forms of government, which we now see and admire in the different parts of the globe.

Some person having, by chance, found a precious stone, or piece of shining metal, and having carried it to his village, excited the curiosity of his neighbours, and their desires to obtain it, among whom, one who enjoyed a superfluity, gave a hen, or some other thing for it; animated

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animated by this recompence, the person who found it, went in search of others, and so by degrees precious stones, or pieces of metal, became an object of desire and search to all.

In proportion as their mass increased, the primitive equality among mankind diminished; industry and chance gave more to some than others; this disproportion produced naturally an inequality of power, some were rich and potent, others poor and weak. This I think the true origin of that inequality and subordination which we see established among mankind; for without the introduction of an Universal Merchandise, riches would consist in numerous flocks alone, which could never give any man a sufficient superiority of power over others,



## viii P R E F A C E.

thers, to buy, or force their submission. In fact we see, that those people, as well ancient as modern, who have not known the use of money, have been separated into very small and wandering societies, without arts, manufactures, sciences, or fixed forms of governments. The community was governed by the advice of the old men, rather than by fixed laws, or any established authority.

Money which I call *Universal Merchandise*, because it can, in all civilized nations, be exchanged for every species of productions, should have the following qualities: 1<sup>st</sup>. It should be rare, and uncommon; that a small quantity of it may serve as an equivalent, to a much greater of any other production; and be easily transported from one country to another.

## P R E F A C E. ix

other. 2<sup>d</sup>, That it should not wear or be easily counterfeited. 3<sup>d</sup>, That it be divisible, in order to facilitate its use, for this reason metals are preferred to precious stones, which cannot be divided into proportionable parts.

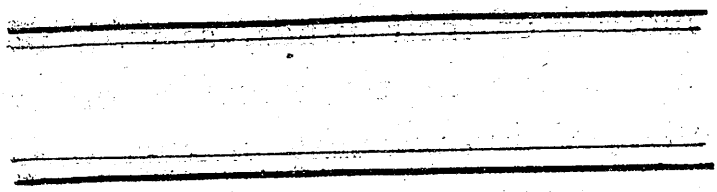
The advantages, which societies derived from the use of money, induced them to augment its course; for which reason they introduced the use of Banks, public notes, &c.

---The necessities of the state, as well as of individuals, gave birth to borrowing and lending, which necessarily introduced the general use of public and private notes; and when their credit is good, are received as an equivalent for real money, and therefore produce the same effect having the same value, where such private and public notes are

x P R E F A C E.

established: I shall call the one and the other by the general name of *Universal merchandize or general circulation.*

In the following Essay I will examine, 1st, The nature of public Banks and point out the advantages and disadvantages of them. 2d, I will treat of circulation; and shew the nature of it and its effects upon national industry: the different species of government, arts, sciences, and morals of a nation. 3d, Of the proportion between the quantity of circulation and the price of provisions, labour, &c. 4th, Of the proportion between metals generally used, from whence the theory of coinage will be deduced. 5th, Of the proportion between the quantity of circulation and that of the taxes.



C H A P T E R. I.

*Of public BANKS.*

A Public bank, is a place of deposit for money, for which notes are issued, or bills, or draughts given, which have the same effect in commerce as money itself: so that the circulation is increased in proportion to the one, and the other; the institution of banks, at least the

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increase of their funds, as with us, was owing to the necessity of the state, which necessity neither ordinary or extraordinary taxes being capable of supplying, loans became necessary and the use of paper was therefore introduced in proportion to such loans. By this means national industry rather increased than diminished; if instead of loans, the state had augmented the taxes in order to raise the sum required, it is evident that industry in general, particularly manufactures and commerce must have greatly suffered as we shall shew hereafter, but by borrowing such sums, the circulation necessary to support national industry being thereby increased, it suffered no detriment.

Banks may be considered under three distinct views. 1st, With regard

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gard to the state, inasmuch as thereby, it is enabled to raise great sums without laying any other tax than what is necessary to pay the interest of such sums. 2d, With regard to national industry: and 3d, With regard to the form of government.

Supposing it was now necessary to raise ten millions extraordinary within the year, I believe it will be admitted, that it would be impossible; no branch of the revenues, excepting the land-tax, will bear any considerable additional duty, at least in any proportion to ten millions which we suppose required; consequently such a sum could not be raised otherwise than by loans, the interest of which might easily be paid out of the sinking fund, or by some additional duty on the articles of luxury and folly.

We

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We cannot better illustrate the truth of our principles, than by supposing, that during the last war, England had no bank and consequently must have raised the supplies within the year; and on the contrary, that France had raised the extraordinary sums required by loans; the first raised during that period above sixty millions extraordinary, of which at least twenty were sent abroad, and France raised and spent abroad a much greater sum; it is generally agreed upon, that the quantity of specie in England does not exceed thirty million, it is therefore evident that we could not have raised sixty million extraordinary and spent twenty abroad, without the entire ruin of the nation. We must therefore have fallen a victim to the power of France, because she, by loans was enabled

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enabled to raise the necessary sums, to carry on the war without any considerable detriment to national industry which we, for want of such loans, could not have possibly have done.

In the war of the succession, Lewis XIV. raised by extraordinary loans, near an hundred and twenty millions sterling, and yet, it was with the utmost difficulty that the monarchy was saved from destruction.

I therefore ask, what would have happened, had he not borrowed that sum, the tenth part of which could not possibly have been raised otherwise than by loans, and consequently by introducing paper circulation?

In the present state of Europe, when banks are generally established,

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ed, it is evident, that such nations as have them not, cannot support a foreign war for any considerable time, nor cultivate their manufactures, agriculture or commerce in any degree comparable with such as have which is proved by the fact itself; Ruffia, Poland, Turkey, Spain, and Portugal prove the truth of this assertion, I am persuaded that the form of their government, and many other circumstances concur to render those nations slothful: but the want of circulation arising from those circumstances, is the immediate cause of it.

Whether it were best, that the use of the paper circulation should be totally abolished or not, is problematic, because it is a question if it is more useful, that nations should have more or less industry, and be content

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content with the common necessaries of life? which would certainly be the case if paper circulation was abolished; for we shall shew in the following chapter, that industry in general, and particularly arts, manufactures, and foreign commerce depend upon the quantity of circulation, consequently as paper makes at least two thirds of it, national industry would diminish in that proportion.

The Dutch, who have scarce any production of their own, carry on a most extensive trade, with their paper circulation only.

Spain has no bank, and the whole circulation is reduced to about 25 millions, of which about three, are raised annually for the use of the state, I do not include in this sum, what she draws from her mines in

D America,

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America which has nothing to do with the national industry. If instead of three millions, ten were to be raised it would be impossible to do it as the circulation is very small: the lower class, which makes nine parts out of ten, can with difficulty pay their *quota* of the three millions, were they obliged to pay above three times that sum, they would be reduced to misery, and the whole national industry would be extinguished.

I doubt therefore, whether in any nation, where there are no banks, it would be possible to increase the taxes, at least in any great degree, without reducing it to poverty and misery, such nations therefore should in my humble opinion, establish banks, in order to increase the national industry even though they did not want

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want any considerable sum, by this means, the state would readily find a resource, whereas in their present situation they are always greatly embarrassed to raise the most considerable supply.

It is true that public debts have several inconveniences, 1st, They increase the taxes and consequently diminish the national industry. 2d, They raise the rate of interest; as to the first the price of merchandise is increased only in proportion to the taxes raised to pay the interest of the debt, and the national industry will be diminished only in that proportion: because the number of people that could, for example, buy ten horses at the rate of 10l. a piece, could not buy them at the rate of 12l. which we suppose to be the price, in consequence of the additional

D 2 tional

tional tax, and so in all other articles, this will necessarily diminish the consumption and consequently the national industry, because nobody will cultivate more than what he can dispose of; this increase in the price of provisions will have a bad effect upon foreign trade, wherein we can no longer oppose our competitors, with whom the price of provisions, labour, &c. is lower than with us.

If, however, the general circulation is not already too great, the loss occasioned by the new tax will be more than compensated by the additional circulation of the capital sums borrowed: because the national industry will increase in that proportion: whereas the price of provisions will increase in proportion to the taxes levied to pay the

the interest of it. But if the general circulation is great, which may be known by the high price of provisions, labour, &c. it follows that the least additional tax will be attended with fatal consequences, particularly if laid on the necessaries of life; it is for this reason that in all great towns we see the number of poor increase so prodigiously; we would therefore propose as a general maxim of finance that the rate of taxes should be in an *inverse ratio* to the consumption of the commodity, because the articles of luxury would raise a considerable revenue by their price, and the great consumption of necessary productions would fully compensate the lowness of the taxes imposed upon them; consequently there should be little or no tax upon the common necessaries

faries of life, and the less so, as the land hath already paid it, and the rates should raise upon each article in proportion, as it is least wanted: we shall in a future chapter explain more fully the doctrine of taxes.

From what we have said it is evident, that no extraordinary sum can be raised in any country without the aid of banks. 2dly, that circulation and industry are greatly increased by the use of paper currency, which is proved by the state of industry in those countries where such banks are not established, as Spain, Portugal, Russia and Turkey, where industry in general, arts and manufactures in particular are extremely limited.

It is objected, that banks increase the number of those who live upon the interest

interest of their money, and consequently that industry decreases in that proportion: to which I answer, That were there no banks, such people would either lend money to foreigners, or be obliged to hoard it up, which would be a loss to the nation. 2d, That their number is small compared to that, of those who are benefited by the circulation of their capital, which is lent out at a higher interest, than they receive for it. So that in fact nothing is lost because it is the same thing to the state, whether the original proprietor or another person employs the money in business; whereas where there are no banks, great sums of money would lay dormant and useless, or be lent abroad.

2d. It is said that the facility of borrowing money, often induces Princes



Princes to undertake expensive wars no way necessary. This proves only that one may apply the resources of a nation to bad purposes, as a prodigal who borrows money to lose it at gaming.

3d. They say it would be better for a Prince to form a treasure, which would supply any extraordinary demand without levying a new tax; to which I answer, That a nation having no paper circulation hath but a very limited industry: so that if the Sovereign would hoard up a considerable sum, in a few years the national industry would be extinguished for want of the necessary funds to nourish and support it. Let us suppose, for example, that Spain had no mines, and that the balance of trade was against her, it is evident, that long since, she

she would have been exhausted, and reduced to the barbarous situation of those nations, who do not know the use of money. If instead of paying such sums to strangers, the king had hoarded them, it would have produced the same effect upon national industry. We must therefore conclude, that nothing can be more prejudicial to any government than to form a treasure.

4th. It is said, that it would be better to raise the sum required by an extraordinary tax within the year. I have already shewn that it is impossible. If with difficulty we can raise what is sufficient to pay the interest of such extraordinary sums, how can we raise an hundred times as much?

A celebrated author, whom I greatly esteem and admire, says, that the

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introduction of banks and paper circulation impoverishes a nation by the extraction of our metals ; of which, England, says he, would have now a much greater quantity had paper circulation never been introduced : to which I answer, that money cannot go out of a kingdom, without receiving an equivalent, which is either consumed at home, or resold with advantage. In the first case, it is evident, we must cease to make use of such commodities, many of which are however absolutely necessary, particularly those we draw from the north for the use of our fleet ; the silks and wool we draw from different parts of the world and for which we pay, partly with our own productions, and partly with ready money ; we must therefore either send out our money, or  
 cease

cease to buy such commodities, however necessary : at least four-fifths of the trade of Europe is carried on by means of paper circulation which enables the nations possessed of them, to export ready money where it is wanted ; which could not be done if such paper circulation did not exist, this is so true that the few nations in Europe who possess paper circulation, carry on more foreign trade than the others, though these last are infinitely superior in the number of inhabitants, the quantity and quality of their productions, insomuch that I will venture to establish as an axiom, *That industry in general, and foreign and active commerce in particular are in proportion to the quantity of paper circulation ; this is verified by the state of Europe.* A  
 E 2 nation

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nation without mines or banks, could not subsist in the neighbourhood of those who have the one or the other. The Dutch do not employ in their commerce the twentieth part of their own productions; it is carried on entirely with ready money or paper. If the use of this last was any way obstructed, it is evident that their ready money would be soon exhausted, and they would become meer carriers. The English and Dutch do not employ the fourth part of their navigation in carrying their own productions, the remainder is employed in transporting those of other countries, either as mere carriers, or as merchants; in the first case their gain is very moderate, but in the other very great; it is evident, that this cannot be done without ready money, and it is

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is equally evident, that so much ready money could not be employed, unless it was in some measure replaced by paper circulation, which supplies its place, till what has been laid out in one country, returns by the sale in another, which requires much time, not unfrequently years. It is with nations as with individuals, the more money a man has the greater will be the extent of his trade: he buys and sells when it is most advantageous, and by his riches, is enabled to give more extensive credit, and for a longer time: whereas a poor man, however industrious, can scarce get a livelihood. What is verified in one individual is equally true of a whole nation. Was it possible for any one nation to produce the quantity and quality of merchandize necessary to  
suit

fuit every other nation, then indeed  
 it might without money trade with  
 them all, but as this is impossible,  
 we must buy from one nation, and  
 sell to another; which cannot be  
 done without money and paper;  
 we buy natural productions, and  
 then work them up to sell again with  
 infinite advantage: we may venture  
 to affirm, that nineteen parts out of  
 twenty of the trade of Europe is  
 carried on with paper, and if this was  
 destroyed, industry would instantly  
 diminish in proportion. In England,  
 for example, not the tenth part of  
 the coin is ever used in circulation:  
 the whole trade is almost carried on  
 with paper, nor can it be otherwise,  
 for the transport of money is an in-  
 vincible obstacle to an extensive  
 trade at home, and more so abroad.  
 The whole trade of Europe, two  
 centuries

centuries ago, was not the tenth part  
 of what it is now, and this dif-  
 ference we conceive, is entirely ow-  
 ing to the establishment of banks;  
 a great part of the Indian trade is  
 carried on with ready money, which  
 would have exhausted the nation long  
 ago if it had not been replaced with  
 paper. Must we therefore renounce  
 this trade, or be ruined? No; what  
 we draw from thence, is either con-  
 sumed at home, and supplies the  
 place of other commodities, or is  
 re-fold with advantage.

With regard to the nation, paper  
 is of much greater use than real mo-  
 ney; it is equally current in trade  
 and is more easily transported: Sup-  
 posing I live in Wales, and want to  
 buy goods in London, it is evident,  
 that it requires much time to send  
 the money, whereas by sending a  
 bill

bill, my business is immediately done; industry will therefore increase in proportion to the facility of procuring an equivalent for it.

As banks are founded on credit, it is evident, that they cannot be established in despotic governments; the fortunes of individuals are too precarious, and attended with too much danger to be produced: from whence we may establish, that the existence and advantages of banks are in proportion to national liberty, for which reason they are not established at all in despotic governments; in monarchies they may be established, but their credit will be less extensive than in republics, and free governments, where they are of singular use and advantage; they promote circulation and industry, equalize the fortunes of individuals, and

and form opulent bodies of citizens, who oppose an invincible barrier to the despotism of kings and their ministers; the more numerous such bodies are, the more secure will be national liberty.

We will therefore conclude, that banks are the only resource a state has when any considerable supply is required; that they promote national industry, and national liberty.

It may be asked, what should be the proportion between the quantity of paper currency, and that of real money? I believe it is impossible to determine it exactly, we shall therefore only point out some rules, which may contribute to form some idea of it: 1st, If the paper currency is generally received without any discount, it shews that credit is good, and that the quantity of pa-

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per currency is not too great. 2d, If you can always realize your notes, it is a sign that there is money enough. 3d, If the price of provisions is not so great as to diminish your exports, or home consumption it proves that the quantity of circulation is not too great. In proportion therefore, as the contrary to what we have here established, happens, we approach to a national bankruptcy, which would be followed by the ruin of all commerce and manufacture: the more industrious a nation is, the more general would be the calamity attending a bankruptcy. Free governments would be overturned, monarchies would suffer less, because circulation and industry are there less extensive; and besides, the army supports government, as it happened in France after

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the death of Lewis XIV. In such a city as London, every thing is to be dreaded from the despair of half a million of people reduced to want bread.

M. Montesquieu will have it, that banks are proper only for a nation that makes commerce of œconomy, and by no means for such as make commerce of luxury. With deference to this great man, I conceive that banks have nothing to do with the nature of the commerce carried on by a nation, their only and immediate effect is to increase circulation and industry, which surely ought to be promoted in every nation without exception. They would be equally useful in monarchies, and in republics, could they be established upon a firm basis. He seems to say, they are not proper for mo-

F 2

narchies

narchies, he should have said, they cannot in monarchies be established upon a solid basis ; because their credit will be always limited and precarious, where every thing depends upon the will of one person : for which reason, I do not believe there is one fund in France, where a man can realize his paper without a considerable discount, particularly in time of war.

C H A P.

C H A P T E R II.

*Of general CIRCULATION.*

**T**HE author, whom we first mentioned in the preceeding chapter, says, he never could comprehend the meaning of the word circulation ; he might as well have said, he did not understand the meaning of the word exchange : for in fact, they both have the same signification. In my opinion, no word can have a more clear or distinct sense, than that of circulation, which we define, *The passage of a piece of money, or current paper from the possession of one person, to that of another.*

From

From this definition it follows, 1st, That a piece of money cannot, speaking of commerce, pass from one person to another without [receiving an equivalent: 2d, Consequently, if it passes successively thro' the hands of twenty different people, it proves evidently, that twenty pieces of industry have been given in exchange for it; the oftener therefore, such a piece of money circulates the greater will be the industry and *vice versa*.

C H A P T E R III.

*Population is in proportion to Circulation.*

**T**HE number of inhabitants will be in proportion to the facility of subsisting: and the facility of subsisting in proportion to that of exchanging one commodity for another: and this finally in proportion to the quantity of circulation either of money or of paper currency.

In order to illustrate the truth of this doctrine, we will suppose a nation destitute of all circulation; in this case we say, that the whole population will consist only of hunters, shepherds and husbandmen, each of which



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which must find within himself, wherewith to subsist by mutually exchanging parts of their flocks and of the productions of the earth, and in order to clothe themselves, each family would contain also shoemakers, tailors, &c. For such classes of people could not in our supposition possibly exist; How, for example, could a shoemaker exchange a pair of shoes so as to procure twenty different things which he may want? How could the farmer dispose of his horse so as to procure the various things necessary for his family? what we have said of these two, may be applied equally to every other case, which evidently proves that all the inhabitants of the earth would be reduced to the several classes above-mentioned. From whence it follows that the number of people now employed

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ployed in the various arts, manufactures, trade and navigation could not exist, consequently we conclude, that the number of inhabitants will, *ceteris paribus*, be in proportion to the quantity of circulation. The history of mankind proves the truth of this conclusion, let us suppose, that London or Paris was instantly deprived of all circulation. I ask, what would be the consequence? I say, that those, who now bring provisions of every kind would cease to do it, because it would be impossible for them to exchange them for the productions of art, these therefore must instantly separate, and become farmers in order to procure their subsistence. It is impossible to form the productions of art, labour, &c. in such proportions as to make them exactly, nor even nearly  
G equivalent

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equivalent to the various articles an individual may want: How would you pay a labourer of any kind? From what we have said, it seems evident, that the population of the antients was no way comparable to ours. The north of Europe, had, a few centuries ago, scarce any circulation, and therefore could nourish only few inhabitants, and these being employed in agriculture, feeding their flocks, &c. occupied necessarily a great extent of country and provided only for their own subsistence, whereas now, by the help of circulation, a prodigious number inhabit towns who are nourished by the farmers. If all those were to leave their respective professions, and become farmers, it is certain they would for the most part perish, for it cannot be supposed, the farmers

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mers would feed them *gratis*, or supply them with the means to cultivate the ground.

The history of mankind proves the truth of our doctrine. Every country in Europe is peopled in proportion to the quantity of circulation. Let us compare England, Holland, and France, with Spain, Portugal, Denmark, Sweden, Russia and Turkey, and we shall find that the population of the first is infinitely superior to that of the last; from whence we may justly conclude that the population is in proportion to the quantity of circulation; consequently that Europe is now much more peopled than formerly, hence it is that Asia has been, and always will be more peopled than most other countries: the fertility of the soil, the softness of the climate, and the quantity

tity of metals enable many people to live in a small space, and population will decrease where these circumstances are wanting; It follows therefore, that Russia, Sweden, Denmark, and Poland, neither have been, nor ever can be peopled in the same degree, as England, Holland and Venice. There are now ten towns for one that was ten centuries ago; we are therefore surpris'd, how so many learned men could imagine that our population declines.

CHAP.

CHAPTER IV.

*The industry of a nation, will be in proportion to the quantity of circulation.*

**I**NDUSTRY in general, and arts, manufactures, commerce, and navigation in particular, will be in an *inverse ratio* to the space, which a given number of men occupy: however rapid and swift the circulation of a piece of money may be, it requires time to pass from one province to another; during this interval, exchanges must be made in nature, which being impossible in a great measure, it is evident, that every individual must remain satisfied with what he possesses, and consequently

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frequently industry must cease, a whole day would not be sufficient for a man to dispose of a horse, cow, &c. in such a manner as to procure the articles he may want. There are daily brought to London provisions to an immense value, the tenth part of which is not taken in productions, nor one exchanged. It follows therefore, that if circulation was to cease, the inhabitants must instantly separate, and disperse; consequently that part of national industry depends intirely on circulation, and agriculture in a great measure, because the farmer cultivates his lands, and feeds his flocks in proportion, as he can dispose of them, and as this will depend upon circulation, it is evident, that every species of industry will be in an *inverse ratio* to the space a given number of  
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of men occupy. Because in this as in mechanics, the celerity of motion will be in that proportion; the more therefore mankind is dispersed, the slower will be circulation, and the less will be their industry. Moreover, it is only by the means of circulation that you can unite in a small space, such quantities of provisions, merchandize, &c. as will maintain, and provide for a great number of people: it is for this reason, that all the arts, manufactures, &c. are inclosed in towns, and are carried to great perfection, whereas they diminish in proportion as mankind is dispersed, infomuch that one may affirm, there would not be upon the face of the earth, one single town of a thousand inhabitants if circulation ceased, in fact this is the case in every country which has no  
money,

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money, as in North-America and the northern provinces of Russia and Sweden, where the inhabitants are dispersed over an immense space, in which there is not one considerable village. In all Siberia there is but one town of any note; and in both the Laplands not one; and in all North-America, excepting the European settlements there are not as many inhabitants as in the single county of York; from what has been said, it follows that extensive empires have, in proportion, less industry than those who are less so; compare Holland, with Russia and Turkey and you will find that the industry of the former though infinitely less populous and extensive, is however much greater than the latter, the more mankind is contracted, the greater will be their wants, and the greater

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greater will be their efforts to satisfy them, which will depend entirely upon circulation and the facility of exchanging their mutual productions; we shall therefore conclude that the industry of a nation is in proportion to the quantity of circulation; however, we must confess that this consequence admits of an exception, which is, that the quantity of industry is limited, because a given number of men can produce or consume but a given quantity of industry; whereas circulation may increase *ad infinitum*. But we think it seldom happens that in any country whatever, industry has been carried to the utmost limits either in quantity or quality, and therefore we must adhere to the principles we have established,

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*viz.*

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*viz.* industry and circulation will increase together.

Having shewn that mankind is industrious in proportion as they are contracted, it follows, that in order to promote arts, manufactures, &c. you must unite them, and facilitate the communication between them. The invention of posts, paper-currency and navigation, have been the real cause, at least the principal, one of European industry, which alone proves, that the antients destitute of these succours, were in this respect, as well as in population infinitely inferior to us. Europe produces now twenty times more corn and cattle than it did ten centuries ago, which, we necessarily suppose, are consumed. Although metals are a principal spring of commerce, paper-currency is much more

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more so because it can with greater facility be transported from one country to another, which in some measure contracts mankind and increases their wants and industry: for this reason the people who are situated upon the sea coasts, lakes and navigable rivers, are more industrious and rich than those who inhabit the mountains and interior provinces of the continent. If Carthage, Athens, and Holland had been situated a hundred miles from the coast, probably they never would have formed a people, much less arrived to that degree of riches and power which justly excites our admiration. The Swiss will never be rich; nor will they ever have arts or manufactures but in a very limited degree, being separated by high and inaccessible mountains,

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the communication between the different people, is interrupted during a great part of the year, each village forms a tribe, and must find within itself wherewith to subsist, or perish, as they can draw no succours from their neighbours, though but a few miles distant: it is for this reason, as we have already observed, that great empires for want of an easy and speedy communication between their different parts, have very little industry: and it will be in vain to attempt to inspire them with a taste for labour, when they can satisfy their wants by hunting, fishing, &c. sloth and poverty will be in proportion to the extent of ground which a people occupy. Look at Spain, Russia and Turkey and you will see an immense country uncultivated; to what purpose  
has

has Russia above twenty millions of subjects, the greatest part of whom are dispersed upon an immense space of sterile and uncultivated land without towns, villages, arts, or manufactures, and here and there only a few miserable cottages, whose possessors can, with difficulty, procure wherewith to subsist, much less superfluities, from which alone government can draw any advantage. While they continue thus dispersed in a miserable country, covered with snow, and deprived of light a great part of the year, it is impossible that the natural productions, or those of art, can nourish a great number of people or animals, which can neither subsist, nor increase, but in proportion to the facility of providing themselves with the necessaries of life. In the northern climates, as well

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well as the near line, the earth is in general sterile. The extremes of heat and cold are equally hurtful to vegetation ; it is in vain therefore to expect industry and an increase of population from people in this situation. That great and immortal Empress of Russia who makes it her glory to promote the happiness and welfare of her subjects, will never succeed in her attempt while they are thus dispersed, and separated from each other ; she must contract them into a narrow space, and fix them upon the coasts of the Caspian and Black seas, and upon the navigable rivers, which will facilitate the communication between them ; from hence their wants will increase, and their industry, in order to satisfy them : all other means to enforce industry will be vain and fruitless

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fruitless ; laws and institutions may, and ought to direct the actions of mankind, but cannot in any degree produce them. It is likewise in vain to expect industry where liberty and property are precarious ; it is upon this principle that the great Empress we have mentioned, and who is justly the object of our respect and admiration, has ordered a code of laws, as the only means to promote arts and industry ; but we humbly presume to assure her Majesty that without civil liberty there can be no industry, Slavery and commerce are incompatible.

C H A P.



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## CHAPTER V.

*Of the absolute force of a nation.*

**W**E have said *The absolute force*, because the relative force of a people, will depend upon their situation, quality of productions, and various other circumstances compared with those of the neighbouring nations. We have already shewn that circulation is in an *inverse ratio* of the space occupied by a given number of people, it is evident, that the force of a people will be in the same proportion because the more they are united the greater will be the quantity of action; this proposition is equally true in the moral and physical world; an army  
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of an hundred thousand men will conquer a nation consisting of millions; all the great conquests particularly those of the Tartars under Ganzis Kan and other leaders were made by a handful of men, compared with the vanquished nations; it is upon this principle that the Tyrians, the Athenians, the Carthaginians and the people of Marseilles among the antients; the English and Dutch among the moderns, have made such extraordinary efforts against the most powerful princes in the world; whereas great and extensive empires have upon every occasion made but a feeble and inconsiderable resistance; the Persians were conquered by thirty thousand men, Russia had like to have shared the same fate when attacked by Charles the Twelfth. Two or three battles

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decide

decide the fate of great empires because the whole force of the state, is centered in the army ; if this is beat the ruin of the empire is inevitable, it is for this reason that the wars undertaken against great kingdoms are generally of short duration, whereas those among the Greeks and Europeans, whose states are less extensive, last several years. The subjects of a great empire are too poor and too much dispersed to be collected for the support of the state when once thrown into confusion. It was with infinite difficulty that the Romans vanquished the Carthaginians, but they only appeared in Asia, and made the conquest of it. It is objected that the poor have in general conquered the rich, I answer that the rich nations of antiquity were commonly occupied

in trade and commerce, which necessarily employed so many of the inhabitants, that few could be disposed of in the defence of their country without exhausting the very source of their power; moreover it is not generally true, nor is it possible that the poor can vanquish the rich, provided these do not occupy an extensive country. The several people of antiquity we have already mentioned prove it; the Athenians and Tyrians defended their country with a vigour not to be found in the history of poorer nations, the Carthaginians when reduced to their walls did the same; and so have in general all the small and rich republics of antiquity. What could a million of barbarians do against France or Germany? Nothing; fifty thousand of our troops would disperse them like sheep. When

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the northern people over-ran the Roman empire, the extent of it was so great that it was not possible to collect such a number of soldiers as were necessary to defend it equally on every part, so that they penetrated wherever they presented themselves; by this means the chain was broke, and the communication between the different provinces of the empire intercepted, so that they could not mutually succour each other; we therefore conclude that the Asiatic and Roman empires were vanquished not because they were too rich, but too extensive. In very great kingdoms, the chief is only rich, and corrupted, the subjects must be miserable; a nation is not rich when the prince has millions, on the contrary, it is so when he has nothing and the subjects a great deal; from  
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the principles we have established, we conclude that extensive empires must continue to make conquests, because the instant they stop they will find it impossible to preserve them: a hundred thousand men will easily add conquest to conquest, and by that means preserve their frontiers, but if they are separated they will be incapable of making any where a solid resistance. The Turks have always been upon the decline, since they have abandoned the projects of conquest. A hundred thousand Russians, if no power interposes will easily put an end to the Ottoman empire; it is likewise upon these principles, as we conceive, that the French always begin their wars by marching into the enemy's country, by which means one considerable army suffices to  
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defend their own, whereas three times the number would not be sufficient, if contracted within their own frontiers.

C H A P.

C H A P T E R VI.

*Liberty is in proportion to the equality, and despotism to the inequality of circulation.*

**A**N extensive circulation will in a short time become unequal, especially in very civilized nations, where in general, hereditary successions, and testaments take place, so that in a little time circulation will be unequally divided, and the more it is so, the fewer will be the number of the rich, and the greater that of the poor. That inequality of riches, necessarily produces an inequality of power. It is from this principle that republics, and free governments degenerate in proportion as they

they grow rich, and are finally overthrown, when the riches and power which should be equally divided between all those who form the legislative authority are concentrated in few persons only. In monarchies an inequality of circulation and power is a necessary consequence of that species of government, because the monarch alone having the power of levying taxes, and of employing such as he pleases in all the different departments, it follows evidently, that none can be either rich or powerful but such as are dependant upon, and connected with the court; hence that abject slavery, intrigue and dissimulation which characterizes that class of men called, Courtiers; as they have no power nor scarce existence but what is derived from the imperial nod. It is plain that in such

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a constitution there is no man, nor body of men, who can, or will oppose the violence and tyranny of the monarch. In despotic governments the inequality of power and riches is extreme; the despot is the sole possessor of every thing, inasmuch that all power and riches are annexed to personal employments which he can give and take away at will, and so reduce in an instant any subject to a non-existence; it is upon this principle, that in such governments there can be no hereditary honours and successions, nor any general laws to secure the person and property of individuals. The existence of the one and the other depend upon the precarious will of the tyrant, whose poisoned breath taints and infects the source of industry, inasmuch that the traces of

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it cannot be distinguished in their extensive and sterile dominions. The progress of human affairs, seem to advance in the following manner, poverty produces industry, from whence riches flow and an inequality of fortunes, which produces despotism; from whence a general poverty ensues never to be over-come: history informs, that the poor republics of antiquity preserved their constitution longer than the others, as well against their fellow citizens as strangers. It was upon these principles, that Lycurgus established a general poverty, and consequently, a general equality among the members of the republic, which preserved it free from interior corruption and from the mighty efforts of powerful enemies for the space of seven hundred years; nor was this famous republic at last over-

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overthrown till the Asiatic gold had corrupted the principles of the constitution. Athens on the contrary, forced by the sterility and smallness of its territories, and invited by its situation on the coast, to trade and navigation, soon became rich, whence followed an inequality of riches, which produced faction and discord, and therefore was continually tore and weakened by these, and at last fell a victim to her enemies. Carthage enjoyed her liberty for a long time, because the spirit of commerce maintained a certain equality and riches between the citizens. At length however this equality ceased and consequently the whole power of the republic was concentrated in a few of the principal families and every thing was governed by the caprice of the prevailing faction, so

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that the principles of the constitution were destroyed, and even, had not the Romans interfered, some ambitious citizen aided by his faction, would have made himself master of the republic; as it happened to Rome, which from the time of Marius ceased to be free. England, being become rich, is continually exposed to factions: its vast circulation has produced a great inequality of fortunes and with it a general corruption of manners. While few are rich, the number of the poor will be extreme, these will necessarily be depraved, those not less so, with every addition of insolence, vice and folly, which their riches enable them to gratify, till at length they are finally equally reduced to poverty, which renders them the proper instruments of tyranny and oppression,

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tion, ready to sacrifice the liberty of their fellow subjects. Had Holland been formed of one single republic, and not of such a complicated confederation, and had her dominions been more extensive, the great quantity of circulation would long since have been concentrated in few persons who would easily have overturned the constitution. Before the discovery of America and the Golden Coast, all the states of Europe were more or less free: armies were very small and could be maintained and kept together, but for a few days only; scarce were they assembled when the want of money obliged the sovereign to disband them; arts and manufactures were almost unknown and consequently agriculture had made little progress. The feudal system prevailed in all the monarchies

monarchies of Europe, the rest of its inhabitants were divided into small republics excepting Venice, Florence, Genoa, and Pisa, whose situation enabled them to carry on, almost the whole commerce of Europe and Asia: scarce did the gold and silver of America appear, when the feudal government began to decline and in a few years totally vanished, so that at present there remain no traces of it, excepting in Russia, Poland and some provinces of Germany whose situation made it impossible for the American gold to penetrate in great quantities, consequently the sovereigns of those countries could not maintain sufficient armies, to oppress their subjects; all the small republics are vanished, and without being a prophet, we may venture to foretell, that in less than a century

ture there will not be above seven or eight sovereignties in all Europe where formerly there were above a thousand; we will therefore conclude that liberty is in proportion to the equality of circulation; for where all are equally rich or equally poor, they must be equally powerful; on the contrary where one only is rich, the rest must be slaves.

It follows, that those people who do not know the use of money must be free, which truth is proved by the history of mankind, and *vice versa*. Asia, fertile in all the productions of the earth, and particularly in precious metals, exhibits the most ancient, and most extensive empires in the world; it is from thence that the arts, sciences, and conquests proceeded. As their circulation and

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consequently industry and population greatly increased, for the reason we have assigned, the inhabitants were obliged to extend themselves in search of new establishments; being confined on the south, and east by the sea, they advanced to the north and west, and forced all those people they found in their progress either to submit or quit their country, being too poor and dispersed to make any resistance; this we think the true cause of those transmigrations which successively overran and desolated Europe, part of Africa, and the western parts of Asia. The history of that country during this period, would be very interesting. The northern people originally poor and dispersed into small tribes, consisting of hunters, and

and pastors, were, in quitting their country, forced to unite and seek out new settlements. Being thus united, they formed several immense bodies, too formidable to be opposed by the poor and dispersed inhabitants; so that in a very short time they over-ran all Europe; at length, the want of money to keep them united, forced them to stop and form colonies, or rather kingdoms, in the conquered countries, whose inhabitants for the most part were reduced to slavery, and attached to the lands. The several chiefs of northern tribes had districts appropriated to them, and their followers, which we think was the origin of the feudal government and of military tenure; we may affirm, that wherever such a constitution has been established, the country has been

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conquered; and that great part of the inhabitants, particularly the nobility, are of foreign extraction; in this species of government, when any enterprize was to be undertaken, it was necessary to consult the several chiefs, without whose concurrence and assistance it could not be executed; as the whole force of the nation was in their hands, nothing could be done without them. Hence the origin of parliaments. As the vanquished nations were divided into large districts among the chiefs and their followers, they were too powerful to be controuled by the prince, whose revenues were very limited, having only his own particular domain to support him. Hence arose those continual wars between the barons; sometimes among themselves, and often

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often against their prince. Hence those civil wars, which for many years desolated Europe, and destroyed every species of industry: at length the introduction of circulation supplied the sovereign with the means to form, and maintain regular armies, and raised a third class of inhabitants, who by their industry had acquired riches and power, and by degrees, formed a barrier against the insolence and tyranny of the nobles, as in England in particular. Hence a more regular and consistent form of government was established. In some countries liberty was fixed upon a permanent foundation, in others the armies were employed to subdue, equally the nobles, and the rest of the subjects; upon this increase of circulation, the feudal government, as well

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as the smaller principalities disappeared in general, and they decline every where, in proportion to the quantity of circulation; for these reasons there were but two empires in America when first discovered; that of Peru, and Mexico, whose rich productions and great quantity of metals, enabled their respective sovereigns to maintain constantly considerable armies, with whom they extended their conquests. The remainder of that immense continent was chiefly inhabited by savages, dispersed in small tribes, occupied in hunting: the only regular governments besides the two above mentioned, were the republic of Tlascala, between Vera Cruz and Mexico; and that of Arauca, between Lima and Quito, whose mountainous situation had enabled them

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them to preserve their liberty against the mighty power of the two empires we have mentioned. From all which we conclude, that whenever circulation becomes very great and unequal, despotism will necessarily follow, whatever may be the climate, because one person may, by a thousand accidents, be possessed of a sufficient quantity of money to maintain armies, and force his fellow citizens to obedience and dependency; and for a contrary reason, where circulation is wanting, it will be impossible for any one person to possess the means sufficient to make himself the master of others. We cannot therefore account for the infatuation of the celebrated Montesquieu, who says, that climate alone is the cause of that difference, which we observe in the manners, customs, and

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and governments of various nations. Our astonishment increases when we see that the direct contrary is in general true, insomuch that the climate can have no other influence but to furnish a greater or lesser facility of subsisting. Circulation alone will, for the reasons we have adduced, form a despotic government under the poles. All Greece was free, so was Italy, Spain, France, England, Germany, and all the northern countries without exception; at present many are subject to the most despotic governments, and the rest much less free than formerly, the climate is the same, whence then comes this change? from circulation, which already has in many countries, and no doubt will, in less than a century, reduce all the rest to servitude.

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If in a democracy, the quantity of circulation is great, and consequently unequal, the principles of the constitution will soon be corrupted. The whole power of the state will be centered in few persons, whereas it should be distributed equally, among all those who partake of the legislative authority. This is the case with Geneva, where industry has produced a great and unequal circulation. The council of twenty-five has usurped the whole authority of the state, and has brought it several times on the brink of destruction: to which the French have greatly contributed by supporting the council against the inhabitants, and had they prevailed, they thought it would be easy according to the maxim of Machiavell  
*---Few are corrupted by few---to*  
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open a communication over the lake of Geneva, into Savoy and Piedmont. Peace is now restored, but cannot last, unless some method be found to establish a general, and equal circulation, it will soon degenerate into an aristocracy and oligarchy, and finally fall a victim to some powerful citizen, or foreign enemy, who will avail himself of their intestine quarrells, and subdue them: This has, and always will be the fate of democracies.

In an aristocracy, where circulation is become unequal, and consequently some few families are grown too powerful, these must be employed in expensive employments in order to reduce them to an equality with their fellow citizens. The Venetians adopt this maxim. The most honourable employments are  
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less lucrative than the others; by which means, a certain equality is preserved, and at the same time the poorer nobles are enabled to support themselves with proper dignity. The Ostracism at Athens, was formed on this same principle; in general, we may establish as a fundamental maxim, in a free government, that a perfect equality should be preserved among the different bodies, who form the legislative power: whenever we deviate from this principle the balance is lost, and the constitution subverted. In every species of government, the good and prudent sovereign will endeavour to promote a general circulation among his subjects, and prevent any of them from growing too powerful, because the

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national industry will depend upon it.

In England and Holland the quantity of circulation is probably too great, which enhances the price of provisions, manufactures, &c. as we shall shew hereafter, and will in time diminish foreign consumption. The Dutch have obviated, in a great measure, the evils which proceed from too great a circulation, and have kept the prices low compared with us. 1, They are very parsimonious. 2, They have accumulated prodigious sums in the bank of Amsterdam, where it lies dormant, as if it did not exist. 3, They lend money to foreigners: and, 4, They export a great quantity of silver into Asia, by which means they are still enabled to carry on their foreign trade

trade at a cheap rate. Our luxury, on the contrary, increases daily as well as our debts and taxes, which necessarily raises the price of labour, and will finally ruin our foreign trade.

Though a great circulation must be attended with these consequences, we think however, that in a poor country the sovereign should introduce paper-currency, though he may not want money, because without a certain circulation, industry must be very limited. But in this case he must never assign the public funds to pay the interest, as many have done, because the creditor will become a monopolist and a tyrant. The prince will be no longer master of his subjects, and in a short time will find himself, without any national fund clear.

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If there is little circulation in a country, the coin must be divided into small parts, in order to facilitate the exchange between the subjects. Nothing can be more prejudicial to commerce in a poor country, than large coins, as the quadruple in Spain, the three pound twelves in Portugal, and the double souveraine in Austria; because they can with difficulty be changed, so that very often a person cannot buy what he stands in need of, for want of smaller pieces.

CHAP.

CHAPTER VII.

*Luxury, corruption of manners and national poverty are in proportion to the inequality of circulation.*

A GREAT inequality of fortunes necessarily implies a national and general poverty. Some few, will have infinitely more than they want, while the remainder can have only what they procure by their industry, and as this is precarious, the least accident, the least interruption in trade, will reduce them to misery. The few who are rich are naturally inclined, by the general principle of self-love and vanity, to distinguish themselves in the enjoyment of every species of super-

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superfluities, while the poor, who has no property but his labour, will endeavour to apply it to the greatest advantage, and consequently prefers the arts of luxury to those of necessity, because the first are much more lucrative than the last. As it is impossible to give employment to every one, many will want bread, the women in particular; some out of necessity, but more from their natural propensity to ease and voluptuousness will give their whole attention to attract the eyes of the rich: hence luxury, corruption of manners, and general poverty, rise gradually from democracies to despotism. It is true, that in the last, fear obliges the great to dissemble, and confine their luxury within doors, but we may be assured, that this constraint,

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straint, so far from diminishing on the contrary increases it. Hence that great number of slaves of all kinds in despotic governments. In public the rich are not to be distinguished from the poor: it is dangerous to excite the curiosity and attention of the despot; safety consists in being apparently confounded with the vulgar: it is for this reason, that the manners and dress of the orientals have been the same without any variation for some thousand years. In monarchies, where a certain degree of liberty prevails, the natural vanity of mankind, will make them exert it in dress, equipages, and exterior shew: hence the variation and changes which we observe in the fashions, it is only by such external



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ternal signs that a man can distinguish himself. The great and sublime is prohibited, they will therefore excell in trifles.

C H A P.

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## C H A P T E R VIII.

*Arts and sciences are in a compound ratio of the quantity of circulation and liberty.*

**A**R T S are the necessary consequence, of luxury and riches, and exactly proportioned to them, as we have already proved; poor nations have never known them but in a limited degree. The sciences require time, application, an easy fortune, and encouragement. Where circulation is great all these circumstances concur to promote them. The rich out of real taste or vanity protect and sometimes support men of letters, and so they become an object of luxury, but

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never the cause of it, as the famous Rousseau will have it. The Spartans and Romans, 'till they became rich with the spoils of Asia, had neither arts nor sciences; nor the Swifs, excepting in the rich cantons. As sciences will depend upon circulation and liberty, it is evident, that in absolute monarchies some branches will be more cultivated than others. The abstract sciences, and works of taste, will arrive to great perfection, their stile will in general be correct and elegant, their compositions exact; but in free monarchies, where individuals enjoy a greater degree of liberty, they will excel not only in the abstract sciences, but in history and eloquence, their compositions will be less correct, but more vigorous; they will be distinguished, rather by the energy

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gy than by the harmony of their diction. The history of literature proves the truth of our principles. The French have no production to be compared with Clarendon, Hume, Robertson, and the debates of our national assemblies.

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CHAP.

C H A P T E R IX.

*The price of any merchandize whatever, is in an inverse ratio of its quantity, that is, the less there is of any commodity brought to market, the dearer it will be, and vice versa.*

**I**F, for example, fifty bushels of wheat only, are brought to market, and there is an absolute call for a hundred, it is evident, the price will increase in that proportion.

Let us suppose, that the whole mass of national productions, whether natural or artificial, be divided into a given number of parts, and likewise that the money and paper-currency be also divided into a given number

number of equal parts, so that one or more of these correspond to one of those. The number of the parts of money, or paper, which are to be given in exchange for any commodity is what we call the *price* of it; from this definition it follows, that by increasing, or diminishing the quantity of the money and paper currency (which I shall hereafter denominate by the general term *circulation*;) or that of the commodities, the *price* or *ratio* between them will vary, in proportion to that increase or diminution, consequently it is impossible to fix it, without prejudicing the buyer or seller.

Though the price of any commodity is in fact in a *compound ratio*, direct as the quantity of circulation, and *inverse* of that of merchandize, yet

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yet it may be simplified, and reduced to the expression we have adopted, because it is the same thing, whether you increase the circulation, or diminish the quantity of merchandize, or that you increase *this*, and diminish *that* ;

For example,

Let the circulation be expressed by  $C$ , and the quantity of merchandize by  $M$ , and the price or proportion between them by  $p$  ; we shall have the following equation,  $\frac{C}{M} = p$ .

Now if  $\frac{C=10}{M=1}$ , we shall have  $p=10$ , that is, ten portions of circulation will correspond to each portion of  $M$ .

If as we have supposed  $C=10$ , is multiplied by ten, we shall have the following equation, *viz.*

$C$

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$\frac{C=10 \times 10}{M} = p \times 10 = 100$ , that is, the price of  $M$  will increase ten times what it was before.

If on the contrary,  $C$  is diminished to the tenth part of what it was, we shall have the following

equation,  $\frac{C=10}{M} = \frac{p}{10} = 1$ , that is,  $M$  will be worth only one part of  $C$ .

We shall have exactly the same equations, if  $M$  be multiplied or divided in the same proportions,  $C$  remaining the same.

Let  $M$  be divided by ten, we shall have  $\frac{C=10}{\frac{M}{10}} = p \times 10 = 10 \times 10 = 100$  :  $p$ , being as we suppose, equal to ten.

Let  $M$ , on the contrary, be multiplied by ten, then, we shall have

$C$

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$\frac{C=10}{M \times 10} = \frac{p}{10} = 1$ . that is, one part only of  $C$  corresponds to  $M$ , whose value is diminished in proportion, as its quantity is increased; consequently the price of  $M$ , will be in an *inverse ratio* of its quantity, compared with that of circulation, we shall therefore include all the variations in the price of  $M$ , in the two following formularies.

Let the proportion between  $M$  and  $C$ , be  $p$ , and let the augmentation or diminution of  $M$ , be called  $y$ ; then we shall have the following equations, *viz.*

$$\frac{C}{M} = p. \quad \frac{C}{M \times y} = \frac{p}{y}. \quad \frac{C}{\frac{M}{y}} = p \times y.$$

Many learned authors have pretended that it is not true, that the price of merchandize has increased in proportion to the increase of circulation,

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because say they, This has increased above twenty times since the discovery of America, whereas the price of merchandize has not increased ten times since that period: to which I answer, that it is very true, but proves nothing at all; they should have shewn, that there is now twenty times more circulation than industry and merchandize, which is by no means the case. If the quantity of circulation has been much increased, that of industry has also; moreover, a prodigious quantity of money has been exported out of Europe, and converted into plate, lace, &c. so that what remains is by no means equal to what has been drawn from America; for which reasons, the price of merchandizes cannot be increased in proportion to the quantity of metals imported

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into Europe, but in proportion to what actually circulates, there, including paper currency. The truth of our principles is demonstrated by experience. In all capital towns the circulation is much greater than in the distant provinces, and for this very reason, every thing is dearer in proportion. The same thing happens, in comparing different nations with each other. In France the quantity of circulation compared to that of England is nearly one half, and we find that the price of provisions, labour, &c. is also in that proportion. In Spain it is nearly the same, and would probably be more so, if for many reasons, their industry did not fall short of what otherwise it would be, which increases the price of labour, provisions, &c.

Having

Having shewn that the price of merchandizes increases in proportion to circulation, it follows that in great towns the price may grow to such a pitch, as to destroy industry, by diminishing our domestic and foreign consumption, and particularly this last, because foreigners, whose circulation is less than ours will be able to undersell us, which is the case between the French and us. The only method to remedy this evil would be, to diminish the taxes upon the articles of general consumption, and by every means prevent the increase of the capital, and procure a more equal and general circulation; scarce any manufactures should be carried on, in or near the capital, but as near as may be to the places where the materials are found, and

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upon navigable rivers or near them. The collectors of the land tax, and other duties, should not remit the money to London but should pay it immediately to the regiments in the counties where they are quartered, and also to the public works at Portsmouth, Plymouth, &c. By this means, the money would remain in the country, and the expence of offices, remitting backwards and forwards, be saved. In France the cities make interest with the ministry to have troops quartered among them, in order to procure a greater circulation. Perhaps some method might be found to regulate the quartering of our troops upon a footing that would make it an advantage instead of a burthen upon the subject.

Among

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Among the numberless evils, which the increase of the capital produces, the most fatal, no doubt, is the decrease of agriculture; arts and manufactures increase in proportion to the number of its inhabitants, which must be supplied from the country, hence the burials surpass the births yearly by some thousands. The prodigious number of servants and horses in and about London, consume every thing within eighty or a hundred miles, which increases the price, as well for the carriage, as because almost every article passes through a variety of hands, before it comes to market. It is said, that the persons now in London are maintained by the distant counties, and therefore consume here what they would consume there; this is true, but for the

reasons

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reasons we have assigned, there is an immense difference between consuming the provisions at London, or on the spot. This evil might be diminished had we a good inland navigation. At present the counties which lay very far from London, cannot possibly send their productions there, and therefore they will cultivate only what is necessary for their consumption, and so, a bad harvest will reduce them to famine. The farmer finds it more his interest to feed cattle than plow his ground, because he can easily transport them wherever he pleases. The great increase of our arts, manufactures and navigation has greatly diminished the population in the country, insomuch that I am persuaded a much less quantity of ground is tilled now than formerly, which  
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is the real reason why corn is grown so dear; and if London goes on increasing as it has done, within these twenty years past, corn will become so dear, that in the end our manufactures will decline, and finally our foreign trade must be ruined. In short I conclude, that we cannot diminish the price but by increasing the quantity of provisions, and diminishing the quantity of circulation, and this can be effected only by separating the people, by far too numerous in London. I know it will be said, that they will separate of course when they can no longer subsist there; it is true, but it will be then too late, and our foreign trade will be ruined before that happens. The number of men-servants and of horses, must be diminished;



diminished; a high tax upon them, and upon wheel-carriages would produce this effect, and furnish a great supply to government, at the expence of vanity and folly.

C H A P.

C H A P T E R X.

*The price of metals compared to each other, is in an inverse ratio of their respective quantities.*

LET us suppose that there are in England fourteen ounces of silver to one of gold. It is plain that this *ratio* of one to fourteen, may, by diminishing or increasing either of the metals, change, and consequently it is impossible to fix exactly the *ratio* between them: however, as in a few years this variation is not very considerable, for the greater facility of commerce it is necessary that the prince should fix the value of the respective coins, and the more so, as it would be impossible

possible for the people in general to prevent impositions, were metals given out by weight only. Moreover, where various metals are current, the prince could not fix the quantity of taxes without settling at the same time the *ratio* between such metals, whether he receives them by weight, or by nominal quantities; if, for example, he orders a certain number of pounds weight of gold to be levied, it is evident he cannot receive it in silver, unless the *ratio* between them is fixed, and *vice versa*. But if there is only one species of metals current, he then could receive it by weight; in this case, however, a coinage would be necessary, in order to ascertain the weight of each piece. Even where a variety of metals are current, perhaps it would be more useful to distinguish each piece

piece by its weight, than by a particular denomination. Whether there is one or more species of metals current in a country, it is impossible to derive any great advantage from them, nor can they have an universal course unless their respective value is determined; consequently coinage has been established in every civilized nation, in order to determine precisely the *ratio* between the respective metals, if however, this *ratio*, established by public authority, is not founded upon the *real proportion* between such metals, it is plain, that the one, or the other will be extracted by foreigners, or melted down by the subject.

Let us suppose, for example, that the quantity of gold in a guinea, is to the quantity of silver in one and

P 2                      twenty

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twenty shillings, as one to fifteen, and that the *ratio* between gold and silver in bullion, is as one to fourteen, it is evident, that the public by coining silver would lose above six *per cent.* besides the expences of the Mint, and so in proportion as the real *ratio* between gold and silver differs from that established by public authority.

If on the contrary, the real *ratio* between gold and silver, in bullion, be as one to sixteen, and that between gold and silver coin, only as one to fifteen, it is plain, that in coining gold the public will lose above six *per cent.* because you buy gold at the rate of sixteen ounces of silver for one of gold; and then, as we have supposed, you give it out in coin, at the rate of fifteen ounces for each ounce of gold: as  
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in the first case, you buy silver at the rate of fourteen ounces for one of gold, and then give it out in coin, at the rate of fifteen ounces according to our supposition. In the first case, all the coined silver would be extracted and melted down, because in the market, as we suppose, a man can have only fourteen ounces of silver for an ounce of gold, whereas by buying the silver coin he can have fifteen. In the second case, the same thing will happen to the gold coin, because in the market he must give sixteen ounces of silver for one of gold; whereas in coin he gives only fifteen. In the first case gold will be over-rated six *per cent.* and in the second, silver in the same proportion nearly. In the first, according to our supposition, as  
fifteen

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fifteen to fourteen, and in the second, as sixteen to fifteen.

From this source arises the adulteration of the coins. In the first case, says a man, I can for fourteen ounces of silver, in bullion, buy one of gold, it is therefore worth my while to melt down the gold and recoin it, because I shall receive fifteen ounces of silver in coin for it, he is at the same time induced to add a few grains more alloy to increase his gain, hence gold coin is oftener adulterated in England, than the silver. In the second case the silver coin will be adulterated, because he can buy sixteen ounces for one of gold in bullion, whereas he gives it out, coined, at the rate of fifteen ounces, as we have supposed.

Hence

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Hence it follows, that if the *ratio* between the respective coins is different from that which there is between the metals in bullion, the one or the other of the species will be melted down, or extracted by foreigners; if, for example, the *ratio* between the gold and silver, is in general in Holland, as one to fourteen; while it is in England, as one to fifteen, it is evident, that the Dutch will get above six *per cent.* in exchanging their gold for our silver, and so in proportion, as silver is dearer with them than with us. This, with the increase of plate, and our exportations to China, is the reason of the great scarcity of silver in England.

It is true that the Dutch give gold in exchange for our silver, which in a little time would augment

ment the price of gold with them, and diminish that of silver, and so put them upon a level with us, and the more so as by bringing their gold to England and drawing our silver out of it, the first would become cheaper, and the other dearer, which I believe is the case, comparing our bullion to theirs: but while the coin is kept up in the same proportion as formerly, it is plain, that the increase of gold, and the decrease of silver only augments the evil; for, in proportion as silver in bullion grows dearer, and gold cheaper, the more of the former will be melted down, and extracted: the principles we have here established may be reduced to the common formularies adopted in the preceding chapters.

Let

Let the silver be expressed by  $S$ , and gold by  $G$ , and let the *ratio* between them, be expressed by  $p$ ; then we shall have, 1,  $\frac{S}{G} = p$ .  
 2,  $\frac{S}{yG} = \frac{p}{y}$ . 3,  $\frac{S}{G} = p$ ; the variation in the gold being expressed by  $y$ .

Let the *ratio* between the gold and silver coin, in England, be expressed by  $\frac{S}{G} = p$ , in Holland by  $r$ , and in France by  $x$ .

It is plain that when  $p$  is + or - than  $r$ , or  $x$ , our gold or silver will be extracted, by one or the other of those two nations, particularly if that difference is considerable.

Q CHAP.

CHAPTER XI.

Of COINAGE.

THE principles we have established in the preceding chapter, lead us naturally to consider the doctrine of coinage; which I shall define,---*The fixing, by public authority, a nominal proportion between the current coin;*---as, for example, that a guinea should be worth one and twenty shillings, and one shilling equal to twelve pence.

I have called it a nominal proportion, because in fact, it seldom is exactly the same as metals in bullion bear to each other; all sovereigns add

add a certain quantity of alloy, in order to defray the expences of the mint; to prevent the coin from wearing too soon; and sometimes to raise an extraordinary revenue. It were to be wished that all princes would agree to fix the same proportion between their respective coins, because it would greatly contribute to facilitate trade between different nations, and prevent the coins being extracted by foreigners, or melted down by the subject. When the quantity of alloy is very considerable, many bad consequences will necessarily follow, particularly adulteration of that species which is debased. During the last war the King of Prussia debased gold and silver coin above fifty *per cent.* which in fact was a momentary resource, raised at the expence of those who

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received such coin directly from the treasury; for the merchants lost nothing; on the contrary, they raised the price of their goods above fifty *per cent.* as he refused to receive his own coin in payments, and continued to coin for some years, he augmented greatly his revenue, but it was at the expence of Saxony and his own country, where the money was spent. His majesty thought it would be more prudent to debase the coin than to raise contributions equal to that sum; it was, however, attended with infinite loss to the people, because all the good coin was extracted, or melted down and debased by the Jews, as well as by his majesty, and it will be many years before those countries can recover themselves. It is said, that the French gain eight *per cent.* by their  
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their silver coinage, I am surpris'd there is any silver left in the kingdom; it cannot be conceived that a man should carry his bullion to the mint, and sell it at a loss of eight *per cent.* when by coining it himself he could get that money without any detriment to the public, and considering the scarcity of silver both in Holland and England, he could sell his bullion there at a much greater price than he can get at home; I am therefore astonish'd our Jews do not buy silver in France, when the profits are so great: possibly the mint pays the silver bullion with gold coin, and that the proportion between these, is such, as to indemnify the loss arising from the sale of silver: in this, and indeed, in every other case, it is impossible to form any opinion, unless  
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we knew the proportion between the gold and silver in coin, and in bullion; whatever the quantity of alloy may be, there will be so much loss to the subject: I would therefore add so much alloy only as is necessary to harden the coin, and the expences defrayed by the government; we have already said, that the doctrine of coinage depends entirely upon the real *ratio* between the metals in bullion; if there was but one species current, and the prince added a very considerable quantity of alloy, we think no man would carry his bullion to the mint, and the nation would in a short time be deprived of all its metal; if on the contrary, there are several species of metals current, then there will arise two cases, 1, Either a proportional quantity of alloy is added to each,  
or,

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or, 2, it is not. In the first case, supposing the alloy to be equal to five *per cent.* it is evident, that the nominal *ratio* will be proportional to the real *ratio*, and both species will be extracted, and sold to those nations, who will give more than what the mint does, because five *per cent.* is a sufficient profit to induce men to run the risk of coining secretly, or sending the metals abroad; it is therefore necessary that the quantity of alloy should be so small, as to prevent it. If on the contrary the quantity of alloy is not proportionally distributed, as, that in the silver coin it should be five *per cent.* and in gold eight; it is clear that the nominal *ratio*, is no longer the same as the real *ratio*, and that the gold coin is over-rated in proportion as eight is to five, or  
three



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three *per cent.* nearly; and the silver under-rated in that proportion, consequently it will be melted down and extracted by foreigners.

Supposing as in England we have three species of metals current, you cannot over-rate one species without diminishing the value of the other two, in the same proportion.

Let the real *ratio* between the current metals be the same as the nominal, that is, a guinea be equal to one and twenty shillings, and one shilling equal to twelve pence. If out of the quantity of the silver now divided into twenty shillings, one and twenty were to be made, it is evident, gold and copper coin, would lose five *per cent.* and that the prince would lose by these, what he gains by the silver. Moreover,  
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he would only gain once in paying out the new silver coin, because he must receive it again at the same value, so that upon the whole, this change in the coin produces great inconveniences, and no real advantage; for the quantity of silver in the mint is never so considerable as to furnish any great sum by debasing it: and if the prince buys silver bullion to new coin it, he must pay for it in gold, by which he will lose, what he may gain by the other. If instead of debasing the silver coin, the quantity now in a shilling be increased one fourth, for example, it is evident, gold and copper coin will gain in that proportion, supposing the nominal *ratio* continues the same. It would seem therefore, that no change should ever be made in the current

R coin,

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coin, and most authors, who have wrote upon this subject are of that opinion. If we attend only as these gentlemen have done to the *ratio*, which coins have to each other, without comparing them with that which metals have in bullion, they are in the right, because it is indifferent what *ratio*, a guinea has to a certain number of shillings. If there was no bullion it would be the same thing, in trade, whether it passes for twenty or thirty shillings; but when coin is compared to bullion, it will appear, that no change can be made in any one species without affecting all the others. Indeed no idea can be formed of coin, otherwise than by considering the proportion it has with bullion: According to the principles

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principles we have established; the increase of silver, for example, will diminish its value, and therefore changes the *ratio* between it and gold in the same manner, as if it were debased by adding a greater quantity of alloy. Let us suppose that the real *ratio* as well as nominal *ratio* between gold and silver be as one to ten, it is evident, that this *ratio* will be changed either by increasing or diminishing the quantity of silver in bullion, or nominally, by ordering a given quantity of gold to be worth more or less than ten times the quantity of silver: in both cases the public would be equally affected, which the authors who have wrote upon this matter do not seem to have understood; they considered only the bad effects of changing the nominal proportion between the  
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respective coins, without reflecting that the real proportion is equally changed by the increase or decrease of one of the species in bullion, and that this change in the real proportion will necessarily affect the public, in the same manner, as if the nominal *ratio* had been changed by debasing one species of the current coin. As the whole doctrine of coinage depends upon fixing the *ratio* between the coins, and comparing it, with that which the metals bear to each other we will illustrate this principle, by the following examples.

Let the *ratio* between the coins be equal to that between the metals in bullion, and be as 1 : 14.

Whatever the quantity of alloy may be, is of no consequence to the public, in receiving the one or the other,

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other, excepting at the mint, where, in selling his gold or silver a man must lose an equivalent to the quantity of alloy; if this is very great, the coin will be adulterated, and no bullion brought to the mint, for the reason we have already adduced, but no advantage or loss, can be made either by the subject or foreigners, in receiving one coin preferable to another, because an ounce of gold in coin, bears the same proportion to a given quantity of silver coin, as these metals have in bullion, and consequently you can buy no more bullion with one species of coin than with another. If this *ratio* of 1 : 14, be changed by an increase of bullion, and become as 1 : 15, and the *ratio* between the coins continues, as 1 : 14; it is evident, that the gold coin is under-rated, and

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and the silver over-rated  $\frac{1}{15}$ , or above six *per cent.* consequently your gold coin will be extracted. The same thing will happen, if you fix the nominal *ratio* between the coins as 1 : 13. The real *ratio* between the metals in bullion continuing the same, the gold coin will be under-rated, and the silver over-rated  $\frac{1}{13}$ , which is near eight *per cent.* consequently in this, as in the preceding case your gold coin will be melted down and extracted by foreigners.

If the real *ratio* between metals in bullion, be as 1 : 14, and you make the nominal *ratio* between the coins, as 1 : 15, it is evident, that that the gold coin is over-rated,  
and

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and the silver under-rated  $\frac{1}{15}$ , consequently the silver coin will be melted down, and extracted. The same thing will happen if the quantity of silver decreases, or that of gold increases, so that the real proportion between them in bullion, is as 1 : 13, while the nominal *ratio* between those metals coined, is as 1 : 14, it is evident, that the gold coin will be over-rated, and the silver under-rated  $\frac{1}{13}$ , consequently the silver coin will be melted and extracted, which is the case in England.

From whence it follows, that the variation which happens either in the bullion or in the coins, produces exactly the same bad consequences to the public, which the  
authors

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authors who have wrote upon this subject did not comprehend, and therefore exclaimed against every alteration in the coin, as if it were the only cause of such evils.

Whenever therefore the difference between the nominal and the real *ratio* is considerable a nation must suffer in that proportion; supposing that by debasing the gold or silver coin, the disproportion became very considerable, would a new coinage be necessary? all the authors say yes; Supposing that the same disproportion arose from the increase of one species of bullion, it would be equally prejudicial to the public, and yet they will not admit of a new coinage; I ask, Why? Let them answer if they can. If, in the first case it is necessary, it is equally so in the second; the evil is the same  
though

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though it proceeds from a different cause, the same remedy must be applied.

We must now examine upon what principle a new coinage must be regulated. As the evil proceeds from a great disproportion between the *ratio* in coins, and that in bullion, no matter whether it arises from debasing the coin, or from the increase or decrease of one species of bullion: it is plain, that the only method to prevent it, is to make the nominal and real *ratios* equal, not only compared to what they bear to each other in your own country, but likewise, to what it is in the neighbouring nations, and as these may differ, a medium must be found; so that it is not worth while for them to melt it down, or extract our coin.

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Having

Having shewn the necessity of changing the nominal *ratio* between our respective coins, and fixing it upon a par with the real *ratio* between the metals in bullion; we must now indicate the methods of doing it, with as little loss and inconveniencies possible to the public.

Let us suppose that the real *ratio* between gold and silver in bullion, compared to that between the gold in a guinea, and the silver in coin, be as one guinea is to twenty shillings, it is evident, that while it passes for one and twenty shillings, it is over-rated five *per cent.* which is a sufficient profit to induce people to melt down the silver, or extract it; to prevent which, we must fix a nominal *ratio* upon a par with the

the real, and reduce the price of the guinea to twenty shillings.

This may be done in three different manners: 1, By an act of parliament, ordering the guinea to be worth only twenty shillings. 2, By a new coinage of silver, and dividing the quantity of silver, now in twenty shillings, so as to make one and twenty, letting the guinea pass as usual for one and twenty shillings. 3, By new coining the gold, and adding five *per cent.* to it. Either of these methods will reduce our nominal *ratio* upon a par with the real *ratio* between the respective metals in bullion, and so prevent the extraction of silver coin.

Which ever method is adopted, it is plain gold coin will lose five *per cent.* which ought to be indem-

nified by the public ; for which purpose a time must be given to the possessors of gold coin to bring it to the mint or bank, where it must be received at the present value. Care must be taken to pay the value in bank notes and silver, otherwise the same coin will be brought in several times successively. During this time the bank must pay as little gold as possible to the public, and when the time is nearly expired, the bank must be indemnified for what gold it has in possession. Six months would be sufficient to call in all the gold coin ; that which falls short in weight, may be received by the weight, or by its nominal value : in this last case the expence to the public will be greater.

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The first method we have proposed, is I think the best, because it saves expence and trouble, and is attended with no other inconvenience but what arises from a change in the denomination people are accustomed to.

The second method is attended with expence, but has the advantage of increasing the circulation of silver coin, which is much wanted in England. If this method is adopted, the old silver coin must be called in, and received at its present value, for a limited time, which being expired, it must be received by weight only. This method has been adopted by the Venetians and Dutch not many years ago, without any sensible detriment to the public, as the quantity of silver is much greater than that of gold,

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gold, a new coinage of the former will be expensive, which however will be amply compensated, by calling in the coins, which have been clipped and want weight, and prevent its being melted, or extracted, until such time as the increase or decrease of that metal changes the real *ratio* between it and gold, so considerably as to require a new coinage of the one or other, which probably may not happen in a century.

If the third method is adopted, and five *per cent.* added to the gold coin, care must be taken to distinguish the new coin by some peculiar mark, otherwise the new guinea lately coined, cannot be distinguished from the new coin, and the public will be imposed upon. The possessors of gold will bring it to the mint, for they can no where else change it with the  
same

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same advantage: in this case it is evident the quantity of gold coin will be diminished five *per cent.* and the silver increased relatively in that proportion, and the value of it absolutely, which will prevent its being extracted. In this last method, no indemnification is required, because it is included in the additional five *per cent.* which we have supposed in the new coinage of gold.

Much more might be said upon this important subject, what we have offered is, however, we think sufficient to prove the necessity of a new coinage, and that it will not be attended with those bad consequences, which Mr. Locke, and other learned men have imagined.

C H A P.



CHAPTER XII.

*Of the Interest of MONEY.*

THE primitive fathers of Christianity, regarded the lending of money, as a capital sin; it must be confessed, that they were little acquainted with the policy and interest of society; for they might with equal reason, have thought it a sin to pay for what we buy, because in fact *interest* is only the price we give for the use of the capital sum, as we do for the rent of a house, lands, &c.

The lending of money is, moreover, one of the greatest promoters of circulation and industry; if a man possessing a sum of money, which

which he cannot himself employ in trade, or otherwise, was he to keep it by him, it would be lost to himself and to society, as much as if it had never been extracted from the mines: whereas by lending it at a moderate interest, he is enabled to live upon that interest, and the borrowers employ it with advantage, by which, national industry is increased: wherefore we conclude, that the lending money at interest, is both just and useful.

We define interest,----*The price which is given by the borrower for the use of a certain sum, for a certain time.*

It follows from this definition, that the interest will be in a *compound ratio*, direct as the number of borrowers; and *inverse* as the number of lenders; that is, the

the greater the number of borrowers, compared with that of the lenders, the higher will be the rate of interest, and *vice versa*. It is plain that the more money is to be lent, and the fewer the borrowers, the lower will be the interest: and the less money to be lent and the more the borrowers, the higher will be the interest; as the quantity of money to be lent will be in proportion to that of circulation, we say that the rate of interest will be in an *inverse ratio* to the quantity of circulation.

Let therefore the lenders be denominated *C*, the borrowers *B*, the common interest *I*, and the variation in the quantity of money to be lent, or circulation *y*; then we shall have the following formularies

laries : 1,  $\frac{B}{C} = I$ . 2,  $\frac{B}{C \times y} = \frac{I}{y}$ .  
 3,  $\frac{B}{y} = I \times y$ ; as *y* is variable, it follows :

COROLLARY 1.

That it is impossible to fix the quantity of interest without prejudicing either the borrower, or the lender, in the same manner as in the buying of any commodity in the market.

COROLLARY 2.

If the interest is low, it proves that the quantity of circulation is great.

COROLLARY 3.

Industry in general, and agriculture in particular, will increase in proportion as interest is low; because those who cannot, by common interest, procure a sufficient fund

fund to live upon, will apply their money to more advantage, in arts, commerce, agriculture, &c.

COROLLARY 4.

When interest is low, the price of lands will increase.

COROLLARY 5.

By diminishing the interest of the public funds, agriculture and manufactures will be promoted.

COROLLARY 6.

When interest is low, it proves that all species of industry is in great perfection; and that they do not want a fund to carry them on, otherwise it would be worth while to borrow at a higher interest.

COROLLARY 7.

As the rate of interest is an *inverse ratio* of the general circulation, and *this*, as we have shewn, is in proportion

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to civil liberty, it follows, that the rate of interest is in that proportion; consequently.

COROLLARY 8.

The rate of interest will always be lower in republics, than in monarchies or despotick governments: and in fact we see it rise gradually from Holland to Turkey, and you may judge of the nature of a government, in a great measure, by the rate of interest.

COROLLARY 9.

From the preceeding consequences we may conclude, that it is highly advantageous to government, to diminish as much as possible the rate of interest of the public debts; because the creditors will be obliged to apply themselves to some species of industry: this will augment its quantity

quantity and consequently diminish the price; if the creditors will not draw out their money, it proves that the quantity of industry is arrived nearly to its height. After the last war the Empress of Germany reduced considerably the rate of interest; which immediately raised the price of every kind of production, lands, &c. which necessarily increased the national industry in that proportion.

CHAP.

CHAPTER XIII.

*Of bills of exchange, and of the balance of trade.*

A BILL of exchange, may be defined,--The nominal transport of a given sum of money from one country to another: which answers the same purpose, as if it was actually sent in specie or bullion.

From this definition it follows, that a bill of exchange necessarily supposes two persons, viz. the drawer, who offers to pay a certain sum of money in a given country, and the person, in whose favour it is drawn, who wants to pay that money in the country proposed, which sum he must send in specie or bullion; if he

he cannot get a bill of exchange: the price of such bills will be in a compound *ratio* direct, as the number of persons who want them, and *inverse* of those who give them; that is, the fewer bills there are, compared to the call for them, the dearer they will be, and consequently the price of such bills; as in every other case will be in an *inverse ratio* of their quantity, or number: which may be exemplified by the following formularies.

Let the number of those who give bills be called *D*, and that of the persons who take or buy them, be denominated by *B*, and let *y* express the increase or decrease of

*D*; then we shall have, 1,  $\frac{B}{D} = 1$ .

2,

2,  $\frac{B}{D \times y} = \frac{1}{y}$ . 3,  $\frac{B}{D} = 1 \times y$ .

In the first case, it is plain, there are as many bills, as persons who want them, as much money to be remitted to Portugal, for example, as to be drawn from thence, consequently the exchange will be at *par*.

In the second case, there are more bills than persons who want them, their price will therefore decrease, and will be below *par*.

In the third case, there are fewer bills than are wanted, their price therefore will increase, and they will be above *par*.

The state of trade between any two nations will be in proportion to the course of exchange. If the course of exchange is generally at *par*, it is plain, that there is as much

U money

money to be remitted into Portugal, for example, as to be drawn from thence ; if on the contrary, they are below *par*, it shews that more money is to be drawn from thence than to be sent thither, consequently the balance will be against Portugal; and finally, if the course of exchange is above *par*, it follows, that less money is to be drawn from thence than to be sent, consequently that the balance will be in favour of Portugal.

As all Europe forms a chain, of which each nation is a link, it is evident that you cannot touch one without affecting all the others more or less : In order to understand the doctrine of exchange you must not only be acquainted with the balance of trade and with the *ratio* between the respective coins of two nations, but

but likewise with the general balance, and with the proportion between the metals of all the trading nations; for example, let us suppose, that the balance between England and Portugal is in favour of the first; that the balance between England and Holland is in favour of the last ; and finally that the balance between Holland and Portugal is in favour of this last : it is evident, that the English cannot pay the balance to Holland, otherwise than by sending it in money or bullion, or by sending bills upon Portugal, because as we suppose the balance being in favour of the Dutch, there will be more persons who want bills for Holland than there are who give them, consequently such bills will be dear in proportion to their scarcity and to

that balance. In the second place the balance between England and Portugal being, as we suppose, in favour of the former, there will be more bills upon Portugal than persons who want them, therefore their price will decrease in that proportion, consequently the English by paying the balance due to the Dutch, with a bill upon Portugal, saves doubly, 1, The extraordinary price he must pay for a bill directly upon Holland. 2, What he must lose by giving a bill directly upon Portugal, and the Dutchman will for the same reason gain equally because the general balance being between England and Holland in his favour, he would lose by drawing upon the former, and being against him as we suppose with Portugal, he will find it

it difficult to procure bills at home for that country, and consequently he must pay dear for them.

As the balance and proportion of metals change continually, it is evident, that the price of bills of exchange will daily vary.

If the course of exchange is generally against a country, that is to say, If the bills drawn from England upon Portugal are cheap, it is a certain mark that the general balance of trade is in favour of England, and *vice versa*; it is for this reason that the bills upon Portugal are below *par*, and those upon Holland above *par*.

From what we have said, the reasons for drawing upon one country preferable to another, will easily occur.

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COROLLARY 1.

It follows, that if upon an average of ten or twelve years, the price of exchange is low in any country with regard to another, the balance of trade must be in favour of the former, unless some particular reasons concur, as with regard to Holland and England; for it being supposed that the former have considerable sums in our funds, the interest of which may be so great that though the balance of trade be in our favour, yet we must be obliged to remit more than that balance comes to, in order to pay the interest, which will necessarily increase the price of bills in that proportion.

C O R-

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COROLLARY 2.

It follows likewise, that if the balance is greatly against us, the price of bills will be so high that we must be obliged to remit in specie or bullion, which would in a short time extract all our metals, unless replaced by a balance in our favour from Spain and Portugal, and that these two nations having a general balance against them, would have been ruined long ago, by remitting their metals to pay it, unless it was replaced by the mines. In case of a war with these powers, a fleet in the gulph of Mexico, and another upon the coast of Brazil, would soon reduce them to the utmost distress.

C O R.



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COROLLARY 3.

Having proved that the price of bills of exchange is in an *inverse ratio* of their number, and this is in proportion to the balance of trade between any two nations, it follows that when the price is high the balance must be against the nation which draws such bills. We are therefore surprized that so many learned men, who have wrote upon this subject should affirm that the high price of bills is not a proof that the balance is in favour of the nation on which the bills are drawn, and that their low price does not prove that the balance is in favour of the nation by whom they are drawn.

It must be observed, we mean only that the course of exchange for

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for a given number of years in time of peace, will determine in whose favour the general balance is: for in time of war, extraordinary sums must be remitted, which have nothing to do with the balance of trade, though they will greatly enhance the value of bills, infomuch that you cannot get them, and must remit the money in specie or bullion; which the Spaniards and Portugueze are always forced to do in time of peace, because the balance of trade is against them.

X

C H A P.

C H A P T E R XIV.

Of T A X E S.

**T**H E celebrated Montesquieu says, that taxes increase in proportion to the liberty of the constitution, and consequently, that they are higher in republics than in monarchies, and despotic governments.

The nature of a government, in our opinion, has nothing to do with the rate of taxes, otherwise than by increasing or diminishing national industry and circulation, by which alone the high or low rates of taxes can be measured: it is not the absolute sum which a man pays, but the proportion *that sum*

*sum* bears to what he possesses, which makes it heavy or easy: though in republics in general, the subject pays more, absolutely speaking, than in monarchies, yet compared with the whole of what they possess, it is much less, as we shall shew hereafter. An Englishman pays *absolutely* more than a Frenchman, but comparatively to his means, not half so much: taxes therefore are high or low, compared to the quantity of circulation, and by no means, directly at least, depend upon the form of government.

C H A P T E R XV.

*Conclusion, and recapitulation of the principles established in the preceding chapters.*

1st. **W**E say, that money and public notes are an universal merchandize, whose value is in an *inverse ratio* of its quantity.

2d, That the price of labour, merchandize, &c. is in a *compound ratio*, direct as the quantity of general circulation, and *inverse* as the quantity of such labour, merchandize, &c.

3d, That metals compared to each other are likewise in an *inverse ratio* of their quantity, consequently their respective value is variable ;  
from

from whence it follows, that when the proportion between gold and silver coin is considerably different from that which these metals have in bullion, the one or the other of the coins will be melted, or extracted. To prevent which, you must establish the *ratio* between the coins, upon a *par* with that between the metals in bullion.

4th, That the interest of money is in an *inverse ratio* of the quantity of circulation : that is, the more money there is to be lent, the lower will be the interest, and *vice versa*.

5th, That the price of bills of exchange is in an *inverse ratio* of their quantity, and that the balance of trade will be in proportion, as the bills of exchange are cheap.

6th,

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6th, That the industry of a nation is in proportion to the quantity of circulation.

7th, That the absolute force of a nation is in a *compound ratio* of the number of people, and of the quantity and quality of their industry.

8th, That the liberty of a nation is in proportion to the equality, and despotism to the inequality of circulation.

9th, That every nation originally poor, is more or less free.

10th, That if there was no money or some equivalent, all the inhabitants of the earth would be free.

These principles enable us to compare the industry, force, price of merchandize, taxes, and circulation of different nations, as will appear

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appear by the following table. Though private circulation by notes of hand and otherwise is no doubt very great, but as it is impossible to ascertain the amount of it, we must imagine that it is in proportion to the general circulation, by which we mean the quantity of money as well as public notes which circulate; it is generally supposed, that in England the first amounts to near thirty millions sterling, and public the debts to one hundred and thirty, so that the general circulation may be computed at one hundred and sixty millions, and it is upon this principle that we compare different nations with each other.

For the better understanding of the following table, we say, That the general industry of a nation is in proportion

proportion to the general circulation, and therefore dividing this by the number of people we shall have the particular industry and quantity of circulation of each individual. As the price of merchandize is likewise in proportion to the quantity of circulation, it follows that the price of any particular merchandize will be in proportion to the particular circulation of each individual.

Taxes are a certain portion of money raised upon the general circulation and are in proportion to that circulation and to the number of people who pay them. In order to know who pays most, divide the general circulation by the quantity of taxes, the different quotients will shew the proportion of taxes between the different nations.

We

We have said that the *absolute* force of a nation is in proportion to the quantity of taxes and the number of inhabitants. I have calculated that force in proportion to the taxes commonly raised, rather than upon the general circulation, because the quality of the national industry, though in proportion to the general circulation, may be such as not to admit of any great increase of taxes, whereas if they bear them for a certain number of years; it proves that industry does not diminish, therefore the force of a nation must be calculated in proportion to the taxes.

We might no doubt have wrote a large volume upon this subject had we chose to enumerate the numberless consequences which may be deduced from the preceeding principles;

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ples; however, what we have said appears, sufficient to demonstrate the truth, and general influence of them. If this essay should meet with the approbation of the public, the author may be induced to treat the subject, in a more general and extensive manner, so as to render it more useful.

Many celebrated authors have wrote upon the subject, yet no one useful consequence can be deduced from their labours, they have lost much of their time in vain and idle inquiries about ancient coins which is equally useless, as if they had wrote upon medals without confronting them with history and chronology, so their inquiries about coin, without examining its influence upon government, industry, arts and sciences is a matter of pure speculation.

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speculation. It is for this reason that the doctrine of money, the most important of any, is now as little understood, as it was a thousand years ago.

The vague definition which they adopted greatly contributed to embarrass the subject: sometimes they call it a merchandize, and sometimes a *sign*.

It is always a merchandize no way different from others, but by the universality of its course and influence; we therefore define it an universal merchandize or general circulation; this definition being admitted, the principles we have established, flow naturally and scarce require a demonstration. No author that I know of has shewn that it is money alone which produces extensive industry, forms and changes

Y 2      continually

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continually the face of human affairs: that money can fix despotism in the poorest countries, and that without it the inhabitants of the rich and fruitful Asia would still be free, and that there would be neither despotism, nor monarchy, nor even a numerous nation upon the whole globe. All travellers affirm that those countries, who have no money, have few inhabitants, and these divided into small tribes of hunters and shepherds, without arts, manufactures, sciences, &c.

There are now in England more cattle of every kind than there was twenty centuries ago in the half of Europe; there is now more industry in France and England than there was then in all Europe, consequently the population of these countries

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countries and of Europe in general is greater than it was formerly. This reason alone weighs more than all the learned arguments produced to prove the contrary.

TABLE

	Population	Circulation	Industry	Price of merchandise	Taxes	Absolute force	Comparison of taxes
England	8,000,000	160,000,000	$\frac{160}{8} = 20$	$\frac{160}{8} = 20$	10,000,000	$8 + 10 = 18$	$\frac{160}{10} = 16 = \frac{1}{16}$
France	16,000,000	150,000,000	$\frac{150}{16} = 9\frac{6}{16}$	$\frac{150}{16} = 9\frac{6}{16}$	18,000,000	$16 + 18 = 34$	$\frac{150}{18} = 8\frac{1}{3} = \frac{1}{8}$
Spain	7,500,000	25,000,000	$\frac{25}{7\frac{1}{2}} = \frac{1}{3}$	$\frac{25}{7\frac{1}{2}} = 3\frac{1}{2}$	3,000,000	$7\frac{1}{2} + 3 = 10\frac{1}{2}$	$\frac{25}{3} = 8\frac{1}{3} = \frac{1}{8}$
Portugal	2,000,000	15,000,000	$\frac{15}{2} = 7\frac{1}{2}$	$\frac{25}{2} = 7\frac{1}{2}$	2,000,000	$2 + 2 = 4$	$\frac{15}{2} = 7\frac{1}{2} = \frac{1}{7\frac{1}{2}}$

nearly.

For

For the explanation of the foregoing table we must observe, that the population of the different nations, is supposed to be nearly as we have marked it. That the circulation in money and public funds are also, what we have set down. That national industry is in proportion to the total circulation, and consequently, proportionable to private and public circulation, but it being impossible to ascertain the first, and persuaded that it is in proportion to the last, we have taken this for a *data* to serve as a basis for our calculation. By dividing the public circulation by the population we shall have the particular circulation and industry of each individual, which will mark the proportion, between them; and this is what we call the price of each part of particular



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particular industry, which must be in proportion to the particular circulation; It follows, that the industry of England in quantity and quality is to that of the other nations, as 20 to  $9\frac{6}{8}$ ,  $3\frac{1}{2}$ ,  $7\frac{1}{2}$ : the price of merchandize, labour, &c. will be in the same proportion, we must however observe, that in the capitals the circulation is nearly equal, and therefore there will be no very great difference in the price of merchandize, labour, &c. but comparing the prices in the different provinces, experience proves that our calculation is just, and that the price of every thing is, in general, in England double to what it is in France, and so in the proportion we have marked in other countries. The taxes of every denomination are likewise nearly what we have put them.

We

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We have said that the absolute force of a nation is in proportion to the number of inhabitants, and the quantity of taxes. England, therefore, is strong compared to other nations in the proportion we have put it in the table; though an Englishman pays more *absolutely*, than the subjects of the other nations, yet *relatively*, not half so much, for he pays only  $\frac{1}{16}$ , whereas the others pay one eighth of what they possess. We therefore conclude, contrary to the opinion of Mr. Montesquieu, that in free governments, the subject pays *relatively* much less than in absolute monarchies, and despotic governments, and that taxes gradually rise in proportion to despotism, because general circulation decreases in

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that

that proportion. A Ducat of Capitation in Turkey is an immense sum for a poor man, who has not perhaps another in the world. Montesquieu was deceived by seeing that in Turkey, and other despotic governments, the taxes and duties were low, compared to what they are in England and Holland; he should have considered, what proportion these taxes and duties bear with the riches of individuals; not what they pay, but what remains after they have paid.

N. B. As Spain draws yearly, directly or indirectly, about three millions from America, independent of national industry; this sum must be added to the three raised by domestic taxes, at least, in time of peace; because in time of war it is precarious,

precarious. The price of provisions, labour, &c. in Spain, will therefore, be  $6\frac{1}{2}$ , and the absolute force  $13\frac{1}{2}$ , and not  $3\frac{1}{2}$ , and  $10\frac{1}{2}$ , as is marked in the table.

The same thing must be said of Portugal, which draws about a million from America, consequently the price of labour and merchandize will be  $8\frac{1}{2}$ , and the absolute force 5.

F I N I S.

